

Welcome, JOHAR!

A World Bank-funded loan project has been developed in the Indian state of Jharkhand to enhance and diversify household incomes for targeted beneficiaries through fish culture

Jharkhand is one of India's poorest states. Its poverty rate is the highest in the country after Chhattisgarh's, with 37 per cent of the population below the poverty line. The average rate of decline in poverty in Jharkhand up to 2012 was 0.9 per cent per year—much slower than in the rest of India's rate of 4.8 per cent per year. A female literacy rate of 55 per cent is much lower than the rest of India's rate of 65 per cent. Malnourishment is a serious problem; 47 per cent of the children under five years are stunted, about 42 per cent are underweight and 16 per cent are wasted. More than 70 per cent of women and about 67 per cent of adolescent girls in the state are anaemic. Most households lack basic access to water and sanitation.

Agriculture provides employment to more than 60 per cent of the working population in rural areas; 63 per cent of the farmers have marginal land holding, averaging at 0.52 ha per head.

Agricultural production in Jharkhand can be characterized as poor and marginal. Farmers are unorganised and generally unaware of market opportunities. Most operate at a subsistence level of low surplus and rely on agents in the local markets (*haats*). Most of the marginal and small-scale farmers raise one crop in a year that is rain-fed, leaving them highly vulnerable to climate change. Recent droughts in the state resulted in crop losses of 40 per cent.

It is against this background that the Jharkhand Opportunities for Harnessing Rural Growth (JOHAR) project was launched. 'Johar' is a greeting in the local tribal language. The project comes under the umbrella of the Jharkhand State Livelihood Promotion Society and targets over 200,000 rural households formed into

3,500 farmer producer groups (PGs), based on women's self-help groups (SHGs). The World Bank funds this six-year loan project designed to enhance and diversify household incomes in select farm and non-farm sectors for targeted beneficiaries in the project areas of Jharkhand.

The target households are a sub-set of the SHG households supported by the National Rural Livelihood Programme (NRLP). These women SHG members come predominantly from the Scheduled Caste and Scheduled Tribe households that are either landless or have small land holdings; they are spread across 17 districts and 68 blocks of Jharkhand.

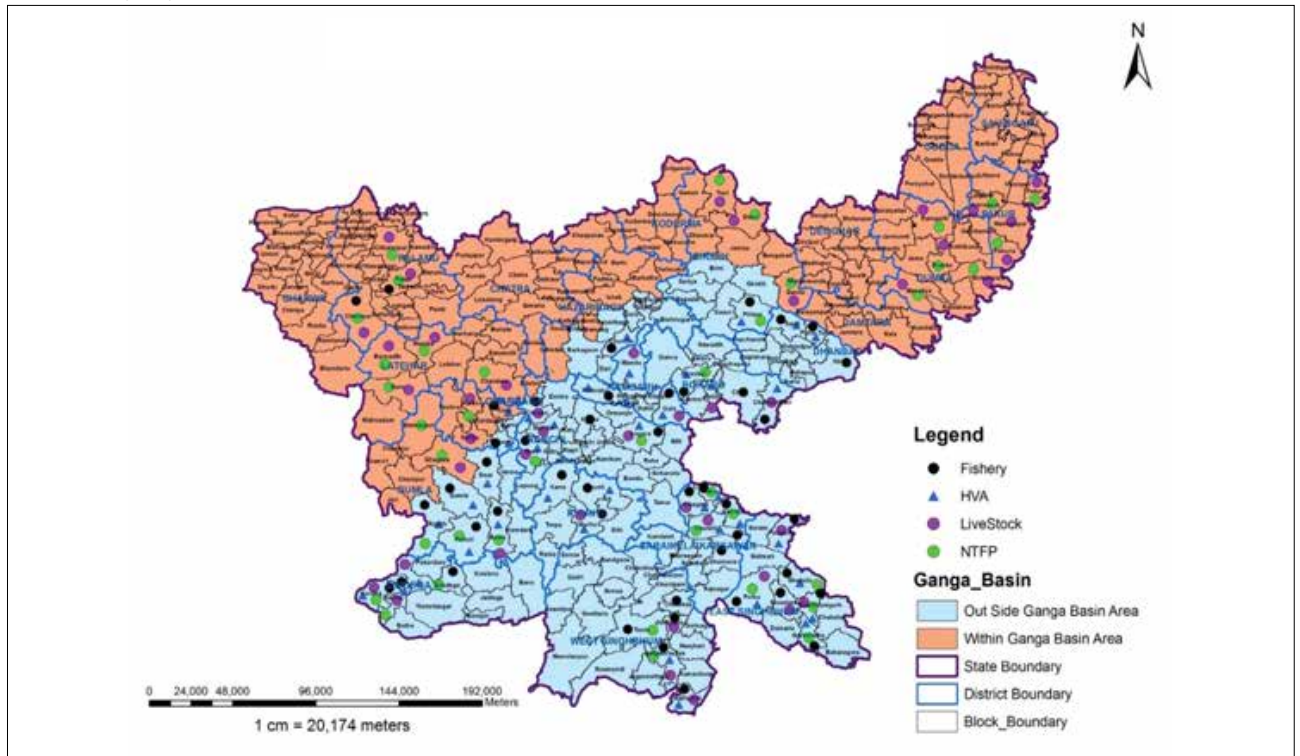
The project aims to help develop climate-resilient agriculture by focusing on year-round cultivation of vegetables, diversifying into new, high-yielding varieties of pulses and oilseeds. The project will also demonstrate resilient technologies for improving productivity and reducing climate risk in paddy cultivation, promote community-based micro-irrigation, and support the PGs to move into value-added sectors like livestock, fisheries and non-timber forest produce.

Water bodies

The fisheries and aquaculture sector in Jharkhand, principally comprising capture fisheries in large water bodies and fish culture, is viable and productive. Despite recurrent droughts, there is a large number of perennial and seasonal water bodies, which are increasing as water conservation programmes construct more small ponds (*dhobhas*) throughout the state. The popular fish species consumed here range from Indian major carp to indigenous species such as the local clarias catfish (*maghur/moghli*) and

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Composite map of revised JOHAR blocks. The 122 blocks in the state were ranked based on a set of criteria that included presence of mature community institutions, intensity of production in selected sub-sectors, proximity to markets, and access to public infrastructure

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climbing perch (*anabas/koi*). The fisheries sector has significant potential in the form of ponds, tanks, reservoirs, farm ponds and rivers. Enhancing fish

- Access infrastructure facilities for collective actions

In the long term, it is expected that the production surplus from the PGs will be marketed through Producer Organizations (POs). These are formal institutions that provide effective agriculture extension services to farmers, develop processes and systems for collection, processing, value addition and marketing.

Fish culture provides considerable opportunities for improving the income and livelihood of the rural poor in Jharkhand. It is especially suitable for risk-averse, low-income households with access to a water body. There is potential for incremental increases in productivity and profitability, which can be made with relatively simple technical improvements. The turnover in fish culture is rapid, with a seasonal crop taking six to seven months for harvest; monthly crops are possible in seed nursing operations. These production systems are suitable for the seasonal tanks typical in the state. With relatively low investment and high returns, fish culture can strengthen

production can generate employment, improve nutrition and reduce poverty. JOHAR is establishing PGs at the village level. These informal groups bring together farmers to deal with mutual objectives like market access issues, in general, and production-related issues, in particular. The PGs undertake, broadly, the following functions:

- Aggregate the produce
- Generate collective demands for inputs and procurement
- Seek better technology services to enhance productivity
- Source finances, and leverage benefits of government schemes

livelihood sources for the rural poor in Jharkhand.

Despite these opportunities, the fisheries sector in the state faces a number of challenges that constrain fishing and fish culture and, in turn, the development of the livelihoods of the rural poor. They include:

- Low fish productivity of seasonal water bodies
- Limited seed supply
- Large number of private tanks remaining unutilised for aquaculture
- Constraints on accessibility to formulated feed and supplemental agri-byproducts as pond feed inputs
- Weak extension support, especially for technology transfer to fish farmers
- Limited marketing channels and expensive harvesting arrangements
- Lack of access to credit for operational inputs to intensify production
- Lack of insurance support
- Risk-averse nature of poorer farmers and inexperience in entrepreneurship
- Need for appropriate pro-poor policy for enhancing access to, and use of, water bodies for fish production

To meet ambitious fishery growth targets and demand, there is a need to greatly increase the number of ponds being brought under culture and improve productivity from intensified culture. This requires a major boost to ongoing programmes to impact a

broader range of potential fish farmers state-wide. The distributed nature of water bodies in the state offers considerable opportunities to increase rural income generation through improved fish production and more effective marketing of fish products in a relatively low-risk manner.

As part of JOHAR, the goal of the fishery sector sub-component is to increase the capacity of smaller-scale producers and empower them to engage in the production and marketing of agricultural commodities to increase household income and improve the resilience of their livelihoods.

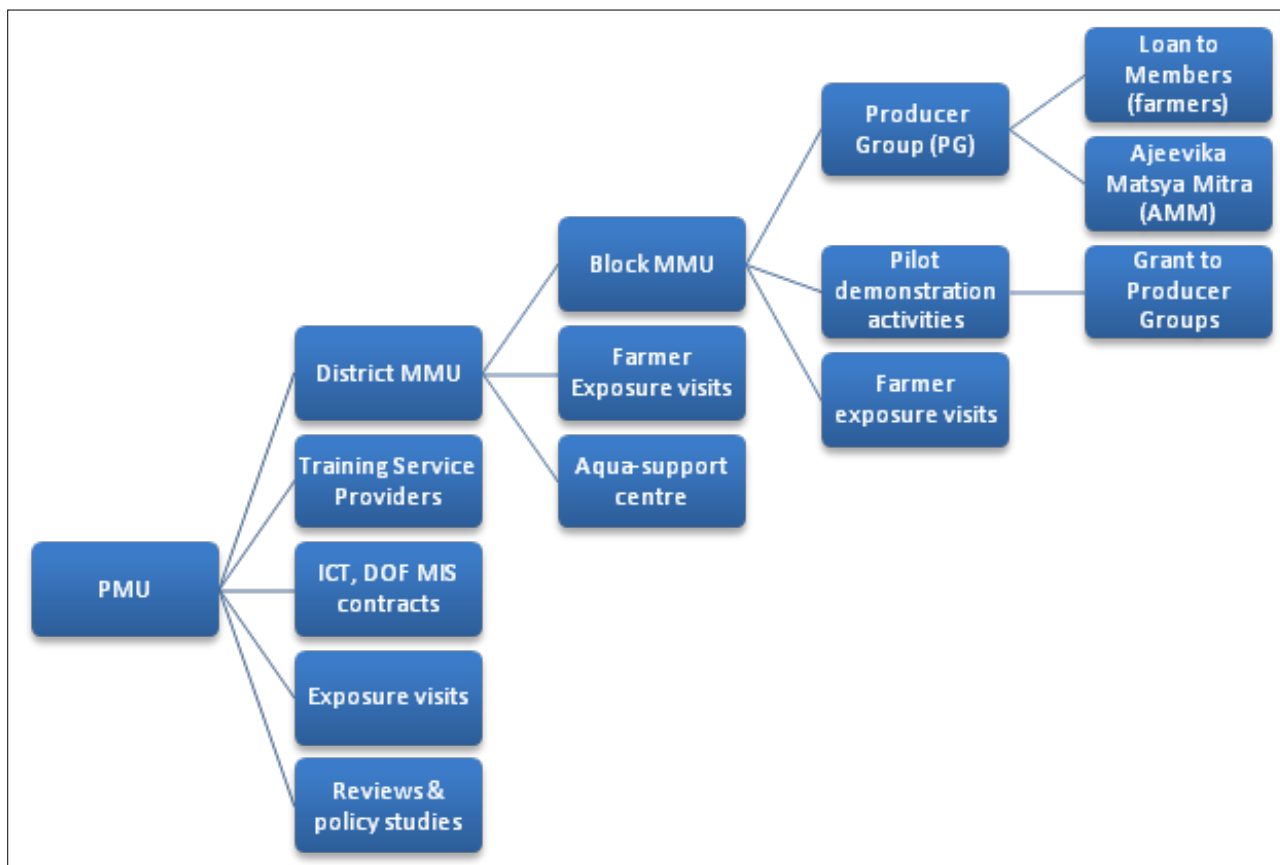
The approach of using PGs linked to savings SHGs as an entry point offers the opportunity to link credit provision to improved production techniques, thereby filling a gap that currently exists in access to rural credit.

The JOHAR objective is, therefore, to promote economic transformation of rural households by enhancing productivity and income generation from fish-production systems. This is sought to be achieved through:

- Strengthening or building robust, sustainable fishery producer groups (Farmer Producer Organisations);
- Introducing improved fish culture techniques and access to credit, which will give incremental increases in production over three crop cycles; and

Particulars	Unit	Unit Cost	Funding arrangement	JOHAR		BEN	
				Per acre	Half acre	Per acre	Half acre
				Pond improvement (pond rehabilitation & maintenance)	acre	1250	BANK (63%), BEN (10%)
Basic pond equipment (Plankton net, pH indicator, Sechhi disc)	farmer	1000	BANK (63%), BEN (10%)	900	900	100	100
Input cost for fish production (Manure, Feed, Seed)	acre	38000	BEN (35%), BANK (45.5%)	24700	12350	13300	6650
Total				26725	13812.5	13525	6812.5
Support for Harvesting & Marketing of produce	PG	20000					

Guidelines for disbursement of fisheries fund in PGs



Operational Structure

- Organising and co-ordinating with markets to improve producers' capacity to market their production so as to ultimately transition towards small and medium enterprises (SMEs).

The fisheries sub-component aims to strengthen the capacity of fish seed producers and bring new ponds and farmers into fish production. State-wide bottlenecks in availability of fish seed are also addressed through improving access to seed, development of farmer-based fry production and strengthening the state's spawn production capacity.

JOHAR targets women SHG members who already have existing ventures, or those who express an interest in starting fishery-related livelihood activities. All the direct beneficiaries of JOHAR are women. The project training and capacity building of women's groups will focus on productivity enhancement, sustainable access to credit, and the use of information communication technology

(ICT) for monitoring, improvement in marketing and overall sector development, including policy reforms. Alongside empowering women's groups to enter or improve fish culture, the sub-component also supports the development of technical advisory capacity and enhanced accessibility to state fishery support programmes at district and block levels through improvement of the state Department of Fisheries (DOF) training curricula.

Among the challenges faced by the women PG members are: acquiring ownership of community ponds; theft; seasonality of water bodies; siting of ponds beyond the homestead; and disputes among the members.

Skill development

Aqua-support centres have been developed in district fisheries offices to impart training and upgrade the skills of the community-level fishery para-professionals ('Ajeevika Matsya Mitra' or AMM). The formation of

PGs also enables access to credit, services, training, knowledge and skill development provided by the DOF, other line departments and NGO partners.

The PGs:

- Enable women's groups to organise to access community water bodies and reservoirs for fish culture;
- Help build capacity to act as fry producing clusters to supply advanced fingerlings;
- Build capacity for stocking private and community ponds for improved fish production;
- Use private water bodies, community water bodies and ponds dug under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA);
- Facilitate training of members in improved fish culture;
- Assist small producers to access seed for stocking and feeds;
- Act as a linkage to the feed supply chain and procurement clusters, eventually ordering from suppliers of agri-byproducts like oil cakes and rice bran from local SMEs; and
- Act as harvesting/marketing groups to take advantage of the increased production from pond and reservoir cage producers.

After one year of intensive organisation, JOHAR has formed 484 PGs, covering 6,000 households, and 3,500 women have been trained in fish culture at the village-level training programme. Increasingly, pen culture in larger water bodies will be explored as a way of enabling SHG women to access water bodies for fish culture. Models for small pond fish culture are also being developed to increase income from seasonal *dhobhas* (ditches) and small water bodies. The long-term target is to create 1,400 PGs covering up to 34,500 households.

The adoption of methods to improve fish production requires access to zero- or low-interest credit to improve fish ponds and procure inputs. The PGs act as the project vehicle for provision of loans to producers to cover the increased costs of the operational inputs required to improve productivity and increase incomes from fish production.

Ultimately, the JOHAR project, once fully implemented, will:

- Ensure that women are involved, for the first time, in fish farming;
- Utilize 30 per cent of the water bodies/*dobhas* now lying derelict;
- Involve landless and marginal farmers in fish farming, using community pond/reservoir pen culture;
- Double incomes;
- Establish an improved skill base amongst target farmers and fisheries para-professionals (AMMs);
- Strengthen the fishery information system of the DOF and JOHAR to provide post-project support to project beneficiaries for their existing schemes and institutional arrangements; and
- Make fish culture—currently an allied secondary agricultural activity of the farmers of Jharkhand—the primary activity as women's PGs become more confident and realise the potential of fish culture. ↴

For more



<https://www.downtoearth.org.in/news/governance/net-profit-52597>

Jharkhand taps its dam reservoirs and ponds to boost fish production as well as livelihood

<https://www.downtoearth.org.in/coverage/orphans-of-the-river-14068>

Orphans of the river