Centre for Aquatic Livelihood – Jaljeevika

Annual Report 2016-2017

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Executive Summary

It is widely acknowledged that regionally differentiated interventions befitting natural resource endowment and livelihood status is the need of the hour. Rainfed areas are a highly significant natural resource endowment, which constitute 55% of the net sown area of India and are home to two-thirds of livestock and 40% of human population. What is more is that the livelihoods of those who depend on rainfed areas are often fragile and in need of support. After working closely with communities in rainfed areas in India for more than three years, **Centre for Aquatic Livelihood-Jaljeevika** has demonstrated that fisheries and aquaculture are potentially significant livelihood activities in rural areas, and it is therefore time that promotion of fisheries is one of the major components of the overall programme of organisation.

Encouraging fish production within the rainfed resource requires us to consider: the characteristics of the natural resource endowments with desirable properties that are of value to aquaculture and fisheries; the typology of dominant fish production systems based on key relevant factors like the differences in perennial and seasonal water bodies, technology, tenure, institutions, and management systems.

This report is an assessment of livelihood status of people who can command the resources, those who can secure entitlement to them, and examples of what people (especially women and people who are poor) have succeeded in doing with the resources they have secured. For this the organisations work draws on detailed experiences with thousands of poor people who have already embarked upon one or other aspect of rainfed fisheries.

Three issues auger well for the capacity of fisheries and aquaculture development to contribute to livelihoods in rural areas. These are as:

- The strong market demand for fish
- Its contribution to the local economy
- The potential role for elements of fish production within rural rainfed agriculture-based livelihoods.

We are aiming at to strive for the best possible technologies and support system at rural area for the development of aquatic livelihood system, presently Inland fisheries.

Thank You.

(Neelkanth Mishra)

CEO

Centre for Aquatic Livelihood- Jaljeevika

Introduction

India has 7 million hectares of inland water resources, majorly consisting of reservoirs (3 million hectares), and ponds (2.5 million hectares). However, the productivity of these resources is quite low, meaning huge improvements are possible. These water resources are generally community owned, and it has been seen that most of these community institutions are non-functional. This is largely because of the lack of proper support and guidance to them.

Seasonal water bodies are often more abundant and more available than perennial water bodies. For many years they were not recommended for fish culture, however they can be very much suitable for poor farmers in rainfed landscapes and we have worked with many communities who have had great success with aquaculture in seasonal water bodies. Rainfed seasonal ponds dry up completely during the dry season, making it easy to harvest fish and to control predators and problems. But they should hold water for long enough to be able to produce a crop of fish before the water dries up.

Perennial and seasonal water bodies in rainfed areas are often used by many people in a variety of different ways. Rainfed fish culture may conflict with water used for irrigation, washing or even drinking. Perennial water bodies are often a home to large predators, which will eat fish seed (spawn) and fry, especially if the fish seed purchased for stocking is too small. In addition, perennial water bodies may be difficult and expensive to fish, due to their size or depth.

Rainfed aquaculture requires, and as the report provides, technical understanding around fish species, water and soils, pond design and layout, brood stock collection, transport and maintenance, spawning and fish seed, fry and fingerling and marketable fish production, and integration with other activities.

The research required to ensure rainfed aquaculture has impact going beyond technical issues and should include research regarding resource access, such as access to water bodies, and access to a production enhancing resource base, other ecosystem resources, credit and labour. It is vital to take into account that most commonly the power of poor farmers within relationships with the bank, the Department of Fisheries, or other tank users (who often object e.g. the addition of production enhancing inputs to tank from which they draw water) is minimal.

For this reason***, Centre for Aquatic Livelihood –Jaljeevika*** got registered as legal entity considering the opportunity which exists and potential for fishery based livelihood in rural parts of India.

This organization aims to facilitate a community based fresh water fisheries resource management system, improving current fisheries value chains by incorporating in them components of entrepreneurship and technology.

Problems in Inland Fisheries:

The major bottlenecks in the inland fisheries sector are:

Institution Based:

- Weak governance, and management practices at the fisheries cooperatives.
- Lack of a value chain development approach.

Input based:

- Non availability of quality fish seed, particularly of “fingerling” size to

fisheries cooperatives, at the right time.

- Lack of credit linkages.

Knowledge based:

- Underutilization of existing water resources.
- Limited availability of technical knowledge, training and support to fisheries cooperatives.

These small fish producers are dependent on traders, input suppliers and moneylenders for growing their crops and even for harvesting fishes.

There is clear evidence that producers organised as Producer Organisations (POs) have the capacity to set up successful enterprises, break dependency relations and contribute to socio economic development and food security through sustainable fish production.

This organisational mandate is built on the premise that access to proper technical assistance and an entrepreneurship facilitation support system are enough to enable the producer organizations to go from victims to being the agents of change.

The purpose of organisation is to develop technically and commercially sound fisheries based producer organisations, through a proven and systematic process of incubation and graduation. The program will provide and facilitate, through local service providers and government agencies, whereby an

institutional system is developed to support producers across the entire value chain, keeping in mind the life cycle of producer organizations.

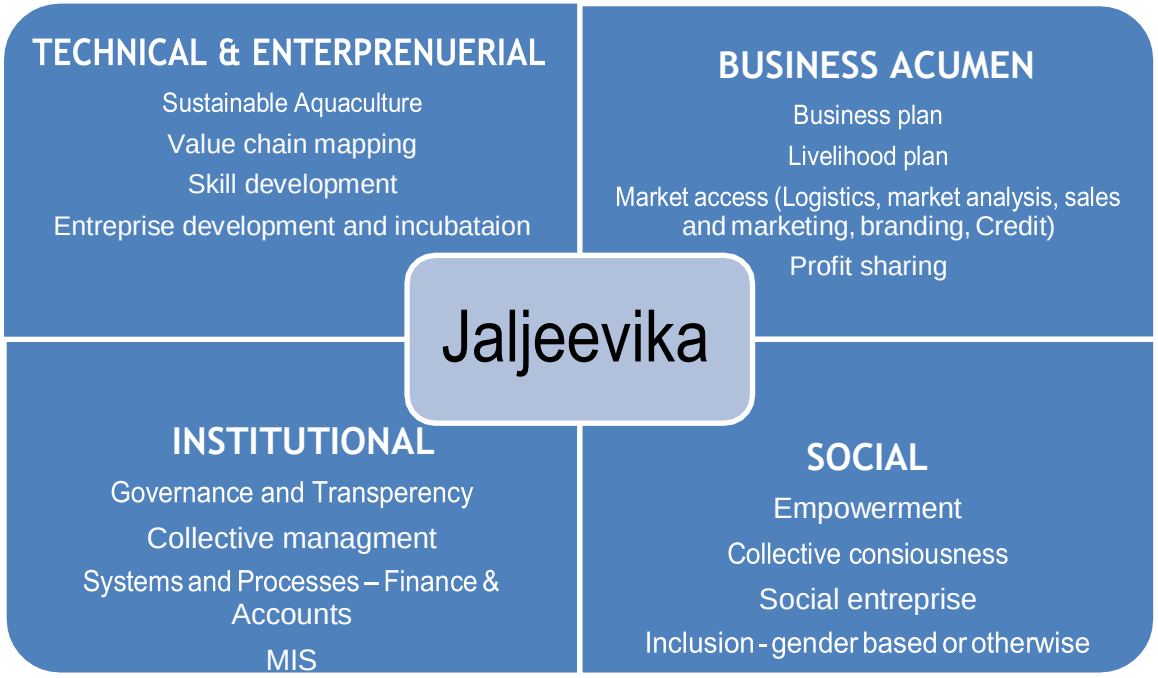
Centre for Aquatic livelihood will demonstrate that an investment in institutional development and entrepreneurship development in fisheries producer organizations is attractive for the private sector and mainstream financial institution.

Reservoir Cage Culture in East Godavari.

Mr. Srinivasan, Assistant Director (Fisheries), Vizaynagram testing water

Mr. Ram Shankar Nayak, IAS, Commissioner Fisheries Andhra Pradesh interacting with Fisheries cooperatives members in Vizag

Our Approach:



CAL Jaljeevika support the producer organisation (PO) to develop their capacity based on the identified needs of the PO. The PO will be solely responsible for the implementation of the mentoring plan and achievement of the pre-agreed results and hence they will have a say in the selection/choice of who they will select to work with e.g. the mentoring organisation/resource person they work with. This will be a key strategy for ensuring that result-based support and financing is done.

Various suitable technologies such as mini hatchery, mini ice making unit, mini fish feed making unit, small processing set up, soil and water testing, net making arrangement, market supply and logistic arrangement etc. will be set up through block level entrepreneurship hub in agreement with local fisheries cooperatives or group of farmers as a business enterprise. The revenue generated from such units will provide remuneration to the hub managers (fisheries professional) beyond project duration. Further, fish seed rearing enterprises will be promoted among farmers with small waterbodies.

Apart from providing value chain services, this incubation cell will also facilitate the setting up of other enterprises like netting, fish processing, ornamental fish rearing etc. with support of regular government schemes.

The rationale for institutionalizing a dedicated organization for promotion of aquatic livelihood through better resource management, institution building, policy advocacy and support in developing value chain around aquatic resources is to support small and marginal farmers who are integral part of rainfed agriculture system.

Major objectives of the organization:

- To promote and support water based livelihood like fisheries, fish processing, Makhana cultivation, water chestnut cultivation and support management of water structures, water bodies, water resource development and watershed program,
- To help in livelihood promotion of rural and urban people, agriculture, livestock, forest produce, horticulture skill promotion,
- To develop and support women group, youth group, farmers group for value addition , enterprise development and value chain promotion of rural produces.
- To conduct research, study, documentation, educational program, awareness program, assignments as well as provide consultancy services, in the field of fisheries,
- To advise on water and livelihood management and to function as a manager or facilitator.
- To promote, support, help producer organizations, self-help groups, farmer's groups and other NGOs involved in similar activities.

Organisation has made intervention to fulfil its objectives through following broad area:

1. Research and Study:

Jaljeevika had developed partnership with premier management institute "Indian School of Business, ISB Hyderabad" to do baseline analysis of rural livelihood and available natural resources in Bankura district of West Bengal. The analysis of this study will be presented towards national level Revitalizing Rainfed Agriculture network and all the resource component will be put on rainfed area mapping site developed by ResRA.

More than 25 villages were identified for doing this baseline study. Two interns were placed in Bankura field area to analyses potential of water based livelihood in Bankura. Jaljeevika has also done analysis of Inland fisheries potential in Vidarbha region of Maharashtra for promotion of rural livelihood among fishing communities. This analysis is presented to District fishery department of Gondia, Yavetmal and Gadchirouli district. Based on recommendation of study report, Maharashtra State Rural Livelihood Mission (UMED) is taking up fishery development plan in above mentioned districts.

We also did potential assessment of fishery based activities in Sindhudurg district. The report is submitted to department of Planning and Rural development, Maharashtra. Furthermore, that recommendation is taken up by Government of Maharashtra to initiate fishery based intervention in District.

2. Capacity building and training:

Centre for Aquatic Livelihood- Jaljeevika organized exposure visit for Six fishery cooperatives and Government staff from Andhra Pradesh in Dembe Dam, Pune. We organized exposure cum training for nearly sixty participants form Andhra Pradesh to learn cage based fishery, cooperative management

system, and use of small technologies to improve fisheries value chain. As process of these activities, all six cooperatives from Andhra Pradesh developed their annual action plan that is submitted to department for providing all support.

Training on small scale fishery is provided to the entire selected community resource person from Gondia, Gadchirouli and Yavetmal district on best management practices related to fishery.

Capacity building of Fishery cooperatives and women's SHG is one of the important areas of intervention. We are engaged with women SHG and fishery cooperatives in six reservoirs of Andhra Pradesh and Dembe dam in Pune. As part of process, now cooperatives started maintaining their records and all books related to production and benefits to members.

Developing competent human resources is one of the important aspects of rural development programs. We have organized training on data collection and research methodologies for rural youth from Bankura (West Bengal) to compile socio economic related information and data collection methodologies. Further all six trained youth got engaged in data collection and developed case study on water related theme in Bankura.

3. Resource materials and manuals:

Centre for Aquatic Livelihood-Jaljeevika has developed several resource materials and manual for training and imparting knowledge to society members. We have developed manual on value chain models in Inland fishery, folder on small scale fishery, folder on Happa based breeding of common carp variety

of fishes and cooperative management manuals. In coming days, these manuals will be published in Marathi and other local languages for wider circulation among fish farmers.

Jaljeevika has also developed an online cage fishery management system to monitor progress of fishery program at each reservoir so as to link them with market. This is one of the innovative software based system developed by Jaljeevika to help all cage based fishery program in India. This system will be handed over to fishery department for further scaling up in India.

Jaljeevika has developed a model to show case benefit of cage fishery and how to maintain it. Recently we have exhibited the module developed in national level program Matyasamela, organized at Mangalore Fishery College. This model was exhibited by women SHG members from our project area and it is praised by eminent scientists as well as Vice chancellor of University.

We have also developed a video film on status of fisherwomen cooperatives in Bihar and their management system to improve livelihood opportunities of women members engaged as fish vendor in local market.

4. Program management and system designing:

Centre for Aquatic Livelihood- Jaljeevika is engaged in developing large scale governments program related to fishery sector development. We are closely associated with Maharashtra State Rural Livelihood Mission (UMED) program

The activities undertaken since inception:

1. Study on potential of Inland fisheries in Vidarbha region of Maharashtra:

Study on potential of Inland fisheries in Vidarbha region was done after making visits to Gadchirouli, Gondia and Yavetmal district during April 2015- October 2015. Further secondary information of fish production in Maharashtra is also compiled and analyzed to supplement the field level finding. It is estimated that Vidarbha region accounts more than 40% of inland waterbodies of Maharashtra with nearly 25% of state level production. If proper planning for each pond location is made, fishery productivity can be enhanced to double than present productivity. That will generate employment and village economy for more than 25000 rural households.

Finding of Study:

Regions	Sum of Waterbodies
Eastern Vidarbha	19916
Khandesh	1533
Konkan	896
Marathwara	5870
Western Maharashtra	2327
Western Vidarbha	2442
Grand Total	**32984**

It is evident that Nagpur region (consisting of Eastern Vidarbha) consist of more than 60% of waterbodies. That implies the existing opportunities to intervene in fishery based livelihood in Eastern Vidarbha region.

Regions	Sum of Area Hec.
Eastern Vidarbha	61514
Khandesh	56198
Konkan	20792
Marathwara	103107
Western Maharashtra	97183
Western Vidarbha	77566
Grand Total	**416360**

Admin regions	Sum of Area Hec.
Amravati	57659
Aurangabad	103107
Konkan	20792
Nagpur	81421
Nasik	67473
Pune	85908
Grand Total	**416360**

Nagpur region consists of nearly 20% of total water area available, out of that Eastern Vidarbha only consist of nearly 15% states water area. By numbers of waterbodies this region covers 60%, but area wise it has 20% of share. That means most of the waterbodies in this region is small and traditional waterbodies with average of 3-4 hectare. Whereas, Aurangabad has 15% of total numbers but area wise consist of 25%. That means that region has mostly large water acreage per waterbodies. Similarly, Amravati region shows the existence of dam and reservoir in its geographic coverage area.

Production Related Table:

There is a lot of scope to improve productivity in eastern Vidarbha region. Present data shows, productivity is 0.7 MT/Hectare. It is very less than the national average. With sustained effort, it can be brought up to 3 MT/hectare. That will boost not only rural economy but also ensure nutritional security of rural household. Until production is brought at respectable level, entrepreneurship related to fishery sector will not flourish. And to get that level, value chain model will facilitate in bring all stakeholders to develop the sector. This analysis could be further substantiating with block level production analysis of Gondia district.

No. of cooperative and members related:

Region	Sum of Fishery area Hec	Sum of Coops No.	Sum of Members	Sum of Prod MT	Sum of Earning Lakh
Eastern Vidarbha	56193	509	51623	37647	15200
Khandesh	47029	276	23009	11647	2741.25
Konkan	14740	118	4609	4016	1390.49
Marathwara	83536	704	28318	28126	8085.6
Western Maharashtra	85206	486	24565	32827	9539.07
Western Vidarbha	69298	756	37209	32662	10432.28
Grand Total	**356002**	**2849**	**169333**	**146925**	**47388.69**

District wise such analysis is being developed to substantiate our assumption in institutional development approach to establish value chain model in Maharashtra.

Basic secondary data:

Fisheries related data of Year 2011-12 is gathered for entire districts of Maharashtra from fisheries department. A basic observation of Entire Maharashtra and Eastern Vidarbha region presents scope of intervention in identified districts in Maharastra State Rural Livelihood Mission (UMED program).

Recommendation of study report:

Fishery department has great opportunity to explore fishery based initiative in Vidarbha area for following reason:

1. Abundant water resources (River, reservoir, ponds, small waterbodies, farm pond etc.) and traditional fishing community, culture of fish eating.
2. Existing traditional as well as collective user groups (fishery cooperative, fish farmers group, SHG etc.).
3. Due to vicinity of forest, productivity of waterbodies is high (doesn't require much additional feeding system).
4. Existing fish market from village haat to city level.
5. Supporting facilitating agency like KVK, ATMA, ITDA and fishery department.
6. Availability of technically capable resources (Agriculture university in Gadchirouli and Fishery institute in Nagpur).
7. Opportunity to develop institutional value chain in diverse eco system (e.g. riverine fishery in Ahery, fishery cooperative in Ahery and Moregaon area, reservoir fishery cooperative in Babhulgaon, small waterbodies for fishery/fish seed rearing in Ettapally, ponds under forest /access through FRA in Moregaon and Zariazamani etc.).

Empowering process:

1. Regular meeting with cooperatives:

First cooperative meeting was organized in Anantapur on 16-17 November 2015. It was an attempt to understand management system as well as community's preparedness to manage cage system by themselves. Based on the learning during meeting, regular interactive session on aspect related to cooperative as institution, collective decision making system was devised.

Later on similar meetings were organized with cooperatives in Vizag, Srikakulam, Vizaynagram, East and West Godavari. During last one month, it has been observed that such meetings is bringing lots of changes within cooperatives to understand entire concept of project as well as related to their preparedness for initiating other livelihood interventions.

Now, cooperative members and non-members (women from fishing community) have started demanding for livelihood intervention such as seed rearing, market linkages, training programs etc.

This fact is evident from last meeting of fishery cooperative at PABR dam (on 16th March 2016) that lasted till 11 PM in night. We expect that by the end of this year a proper democratic governance and management system will get established in most of the project locations.

2. Demonstration of seed production (Common carp):

Demonstration of Common carp seed rearing using Happa system was organized for women from fishing community on PABR seed rearing farm unit. Nearly 15 women attended this training program on how to identify male –female fishes, sorting and conditioning of fishes in Happa as a natural seed production unit. Two set of Happa

were erected in a cemented tank. After one day women members saw how eggs are collected and spawns are collected for rearing.

This was an eye opening exercise for women group members to understand how seed is produced and reared for stocking. Nearly all women said first time they saw this process and they would like to do it during coming monsoon period by them as a supplementary livelihood activity.

A small folder is also prepared on CC seed production system that will be distributed to all cooperative members after translation in Telugu. A small process video is also made that will be soon released for all cooperatives to watch and understand such process.

3. Exposure trip for cooperative members and Govt Officer:

An exposure visit was organized for community members and Department officers from Anantapur and Vizag district during Feb. 18-20 2016 to understand best management practices followed by fishery cooperative in Dembe dam, Pune. During this visit, participants were exposed to many good practices and learnt from experience of Dembe fishery cooperatives, such as:

- Use of local materials like wood plant, bamboo etc. to make low cost cages.
- Saw different models of cages like China model, Thailand model, Model developed by CIFE and IIT Mumbai etc.
- Use of cages for other purpose like as a brood bank, fingerlings rearing, producing ornamental fishes in cages.
- Cage cleaning and feed management system.
- Preparing feed from low cost and local produces.
- Net repairing and net making by women to reduce cost.
- Mini hatchery for seed production and stocking reservoir.

- Record keeping system.
- Rules and regulation for better governance of reservoir fishery and marketing system.

At the end of visit, both cooperatives group presented their learning and what changes they will bring after the visit. It was evident that all participants expressed their view on how women are taking part in fishery based activities but their contribution is hidden. It was a good experience to observe that most of the cooperatives members acknowledged importance of rules and regulation in establishing a better production system.

After exposure trip, both cooperative organized a mass meeting to share learning from exposure trip and started regular planning and sharing meeting within their cooperative. During February to April, we also organized similar exposure trip for other cooperatives from Vizaynagram, Srikakulam, East Godavari and West Godavari.

4. Introducing cage related recording system:

Seed stocking per cage wise was advised to each cooperative. Accordingly feeding, cage cleaning, mortality etc. related record is maintained at project location by cooperative as well as MPEA. We are in process to set up regular update mechanism to all stakeholders that such practices are maintained.

Once in 15 days' growth of seed stocked is also measured to understand growth of fishes stocked. It will help in providing any advisory in case of growth is less than anticipated. Further such management practices will help in linking with prospective market and also to develop harvesting schedule with cooperatives.

5. Use of social media and IT tools:

Project team has started using social media tools like **WhatsApp** to share daily progress report. At present it is a closed group involving project team members, Cooperative leaders, MPEA, district fishery department officials and Joint Director.

In coming days, a dedicated website will be launched to provide all project related information's, manuals, produced materials, extension materials etc. In a way the website will be a learning sharing platform for project team and cooperatives.

6. Linkages with other Government research institutions:

Project team members visited some of the important fishery related institutes and organizations to assess potential of associating for this project. Team had visited CIFT, CIFA, CIFE, SIFT, and Godavari Mahila Samakhya.

A preliminary discussion is initiated with CIFT for providing processing related training to youth and women and initiate process of entrepreneurship development in the project area. Similarly, one brief discussion has taken place with Dean, Fishery College, Nellore for providing training to women members and engage with interns at each cage locations.

Women group members (MMG) have lots of potential to engage in entire value chain to enhance their livelihood opportunity. Now a days various mini processing set up has been developed by ICAR institutes that can help in engaging with markets to ensure women's power in market.

There could be various possible intervention with MMG to engage them in fishery value chain and enhance livelihood opportunity in collaboration with regular program of fishery department, NFDB, Tribal Development Agency, NABARD and other related agency like Streenidhi (for access to credit). A complete livelihood plan will be generated for each cooperative as final output of baseline survey.

7. Research and baseline in Bankura district (West Bengal):

Baseline analysis of water resources and water based livelihood intervention was done with support of Indian Business School (Hyderabad) and PRADAN (National level NGO) in Bankura district of West Bengal. Nearly eight local youths were trained into data collection and social research methodology. The local team collected all natural resources and socio economic related data from the rural parts of Bankura. Based on the data analysis a proper report is generated and provided to district rural development department for proper implementation of CFT program and land based activity under MGNREGA program.

8. Developing IT based advisory services and program management application for Tilapia fishery in Cages:

Centre for Aquatic Livelihood- Jaljeevika has developed one IT based solution to monitor cage based Tilapia fish farming and also to provide advisory to the farmers on feeding and other management practices. Chennai based international IT firm “Orsay International Private Limited” has provided technical support to develop the system and maintain database created for the fishery cooperatives. Framers will get monitoring report of cages on feeding system, cage cleaning, mortality, fish size growth and seed stocking. Apart from this, performance of fishery cooperatives and regular meeting conducted with groups will be also monitored on this online platform.

At present, this IT based system will be tested in six cooperatives of Andhra Pradesh, later with modification in content it will be scaled up in all cage fishery programs in India. This is one of the first of its kind of online system developed to provide help to the fish farmers. Apart from this online system, we are monitoring all program using social networking platform “WhatsApp”. All the senior government officials and fishery cooperative leaders are part of this online group to discuss program follow up on day to day basis.

9. Developed manual on Happa based breeding of common carp variety of fishes for rural livelihood generation:

We conducted a low cost Happa based fish seed rearing training program for 10 women in Anantapur district of Andhra Pradesh in month of January 2016. First time, all those fisherwomen came to learn about seed breeding process. As part of training process, nearly one lakh seed was developed for rearing into local ponds. It is expected that with 40% of seed survival rate, farmers will be able to get at least 40000 numbers of fishes up to 500 grams by next six months.

It is agreed that, this year onwards these women group will conduct seed rearing as economic enterprise. The entire breeding process is documented and a technical manual is developed for the fish farmers. This manual will be translated into Telugu and Marathi for further dissemination among farmers.

10. Prepared manual on Inland fishery value chain development for supporting entrepreneurs from rural area:

Resource guide on fishery value chain related interventions is developed for district team and CFM so that they can establish different enterprise related to fishery value chain. And one short manual on seed development for common carp is also developed by team members. Several other documents are also under process of completion like complete manual on Inland fishery related process during every month, a calendar of activity. Freshwater aquaculture has also improved economies of many areas by providing new job opportunities. The fish produced there is mostly used by industries for processing which is then made available as canned food item. Due to stagnation in wild fish harvesting, many fishermen have moved to aquaculture farming and are earning more than before. Besides social benefits, aquaculture also has many environmental befits as well.

11. Attended National Matyasamela (Mangalore Fishery College) with SHG women from fishing community:

Centre for Aquatic Livelihood had sponsored women self-help group and a fishery cooperative to visit Mangalore national fishery mela in month of March 2016. Six members from Dembe fisherman cooperatives attended this event in Mangalore and show cased model of cage fishery program. Nearly 3000 visitors have visited women cooperatives demonstration. Many senior scientist and national level experts from National fishery development board made encouraging remark to the SHG groups. Use of cage for ornamental fishery was liked by many of the technical experts during this event.

12. Developed communication materials (Video on fisherwomen's cooperatives in Bihar):

Centre for Aquatic Livelihood- Jaljeevika has developed one video on status of women fish farming cooperatives in Bihar. This video captures real case study of women cooperative from Madhubani district (Bihar) and suggested grassroots action for the scaling up of similar effort in many other parts of Bihar and Northern states. This video was shown into village meeting of women cooperative as well as many national level platforms. The making of this video provided opportunity to understand social dimensions involved in fishery based activity.

13. Water purification system for Katkari Tribals:

Centre for Aquatic Livelihood- Jaljeevika donated water purifying cum cooling system for the members of Dembe fishery cooperative society. There are more than 50 Katkari tribal families staying next to training hall and such water purifying cum cooling system has improved access to clean and safe drinking water for the tribal community from Katkari society.

It has been reported that every day more than 50 families and nearly same numbers of trainee are taking benefit of clean water system on Dembe dam site.

Dembe fisherman cooperative society organizes large gathering and meeting with more than 80-90 participants on every week. The water cooling system is used by women and other cooperatives members during summer heat.

14. E- Newsletters:

Centre for Aquatic Livelihood- Jaljeevika has started online newsletter on fishery based activities from all the states of India. This newsletter captures report from Fishery sector, Training and other events going on in fishery sector and also compiles fishery related reports/ articles from regular newspaper.

This is a monthly newsletter and is sent online to all subscriber. In a way we are making effort to compile what's happening in fishery sector and how private sector as well as fishery cooperatives is making progress in changing economy. This is an electronic repository fishery sectors effort in enhancing livelihood opportunities for women, tribal and young entrepreneurs.

Grant and support agency:

1. Indian School of Business, Hyderabad for carrying research based activities
2. Tata education and Development Trust
3. Maharastra State Rural Livelihood mission (umed), For support in Vidarbha Inland fishery program
4. Bhavishya Bharat, Hyderabad for Developing strategic planning and advisory support