



WBADMIP
Fishery Support Services



Scope of Fishery

- Fisheries activity is an important component of Agriculture Support Service
- State being deficient in fish production (1.64 lakh ton/annum, Source – Hand of Fisheries Statics, 2015-16, Govt. of W.B), has greater scope for expansion of the activity
- Huge water bodies created under the Project may be tapped to its full potential
- Scope for creating sustainable gainful employment of farmers all the year round

Fishery Development Objective

Target Area of Fishery Demonstration for 7 priority districts			
Financial year	Target Area for Fishery Demonstration (ha)	Carp Production Target (q)	Carp Productivity Target (q/ha)
2014-15	6	360	60
2015-16	240	8827	36.78
2016-17	354	11952	33.76
2017-18	389	12495	32.12
Total	989	33634	34

Target 600 Demonstrations in Project village (Ref. World Bank Aide Memoire, 2016)

Fisheries Activities - At a Glance

- **17 different fisheries scheme** introduced under the Project
- Schemes fit into water area of varying size from 0.065 ha to 2 ha and climatic condition
- Culture period **3 month to 9 month**
- Unit cost ranges from **Rs. 24,400.00 to 2,77,500.00/unit area**
- **Spawn to fingerlings**, small Cage fish culture and **deshi magur hatchery** scheme is exclusively for women FIG
- Importance given to culture indigenous fish species especially for biodiversity concern.

Fishery Activities



Review of D.C & Mass Production Programs

Year	No's of FIG formed	No of D.C (Unit)	No of mass production (Unit)	Total Area Covered (Ha)	Total farmers involved	Women farmers	Adoption		Avg. Yield (q/ha)
							No of farmers	Area (Ha)	
2014-15	32	27	0	30.45	615	61	0	0	18.6
2015-16	65	65	33	89.84	1175	136	504	33.6	28.02
2016-17	74	86	66	141.63	2453	139	1216	81.06	32.08
2017-18	332	122	202	298.18	5111	862	2553	172.2	35.8
2018-19	381	252	298	352.8	4671	1580	1518	147.87	37
Total	884	552	599	912.90	14025	2778	5791	434.73	

Adoption by the 41% farmers covered under D.C

Interventions from Project

- Supply of Inputs like Spawn, Fingerlings of different type of fishes, fish feed, Lime, Prophylactics etc
- Cage, Geothermal Sheet
- Training materials, Drag Net, Handi, Basic Water testing materials (pH paper, Plankton Net)
- Training (FFS & Basic), Exposure Visits for fish farmers



Western Zone

Hatcheries of indigenous species, Spawn to Fingerling production involving Self Help Groups, Culture of indigenous fish species like Chitala, Bhetki, Mourala, Fresh water giant Prawn etc.

North Bengal

Culture of grass carp, deshi Magur and common carp in small hapa with poly lining in Darjeeling district. Spawn to fingerlings program IMC fish production.

Southern Zone

Canal fishery, Poly culture of IMC, Monosex tilapia (Monopia) along with fresh water giant prawn; Mass production of IMC

Achievement up to December 2018

Total Expenditure (2014-18) up to March,18 (In INR Crore)	Total Production (Quintals)	Average value of production (In INR Crore)
17.94	26132.03	26.13

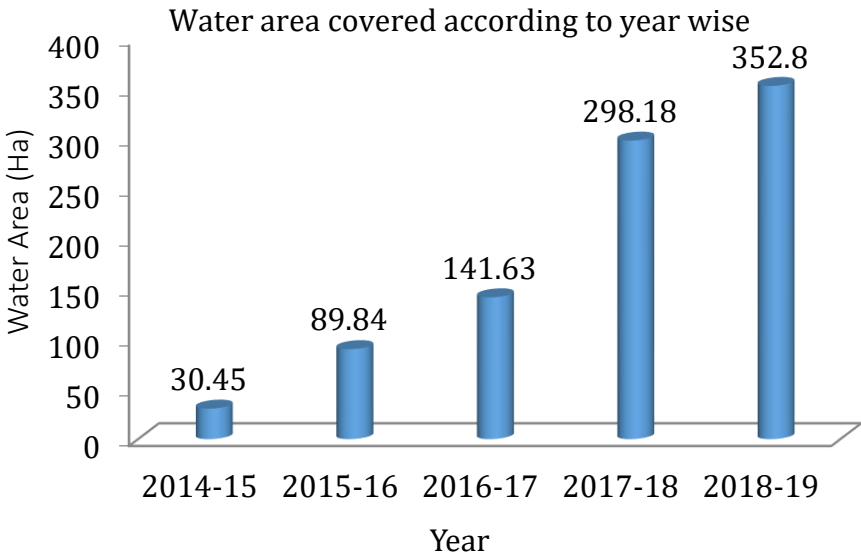
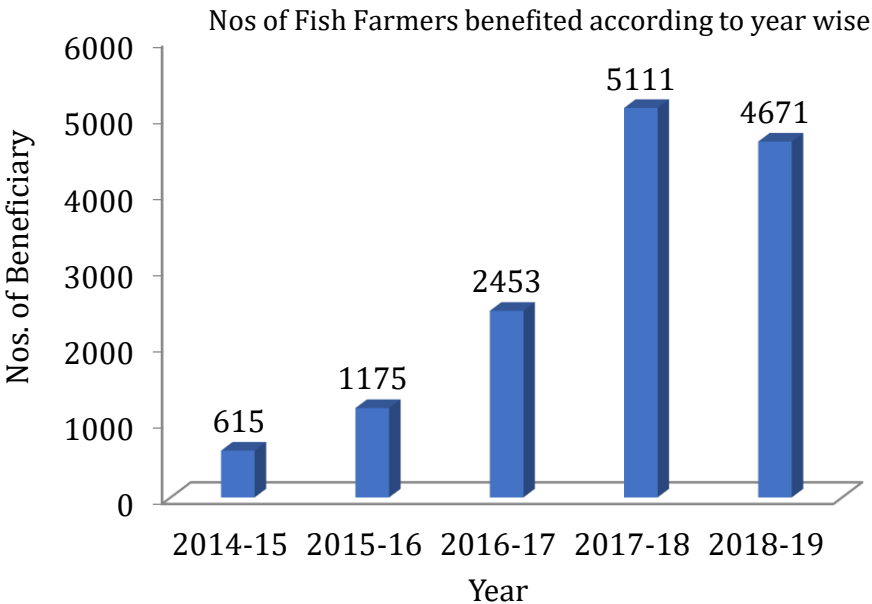
50-60% WUA corpus fund directly comes from Fisheries Interventions

Outputs of the fishery program

Total no of farmers involved-
2014-15 to 2018-19- **14025**

No of Women farmers- **2778 (19.8%)**
No of SC/ST farmers- **2297 (16.3%)**

Total Water Area Covered-
From 2014-18- **912.90 ha**





Project Outcome

Productivity via-a-vis Net Income

Average Productivity (Quintal/Ha)

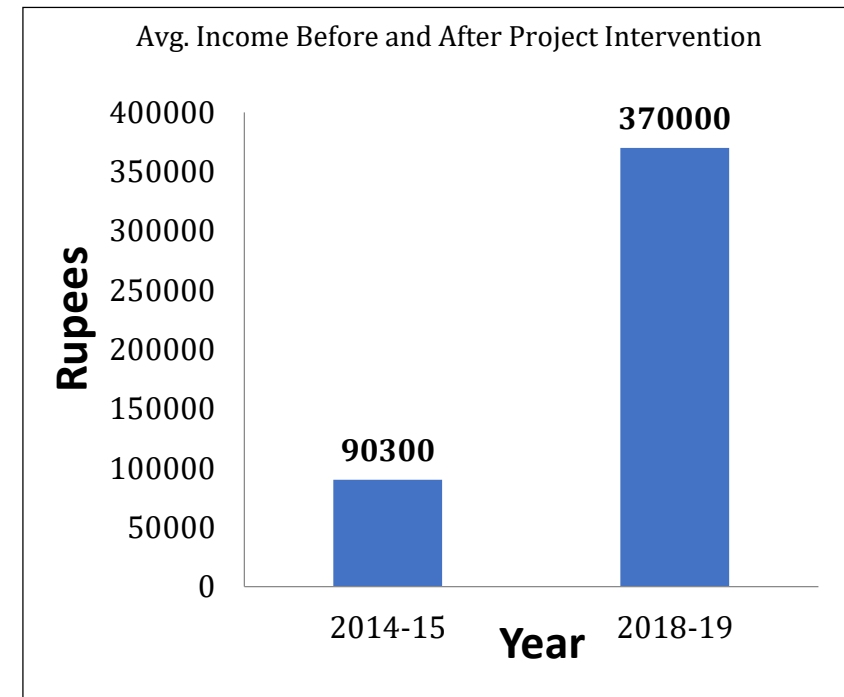
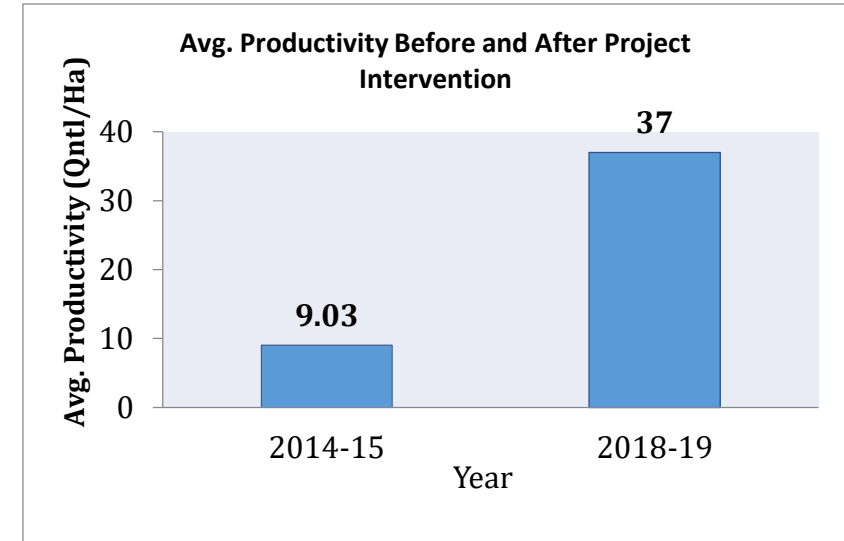
- 2014-15--- **9.03**
- 2018-19--- **37.00**

Average Incremental Income on various scheme-

- 2014-15--- **Rs. 90300.00/Ha**
- 2018-19--- **Rs. 370000.00/Ha**

(409% increase)

(As per **IWMI** impact study report: Average Income increase from INR **26104** to INR **95714/Ha** only from 5 sample Paschimanchal districts i,e 266% increase)





Special Fisheries Activities

1. Spawn to Fingerlings (Carp species)-

- Scarcity of good quality carp fingerlings State-wide
- 253 No FIG, 1212 No women undertook Spawn to Fingerling program.
- Activity duration 3-4 months
- Avg. income per FIG **Rs.1.8 lakh/Unit** in a season
- Pakuritala Swamivivekanadna FIG, Jalpaiguri made profit INR 5.28 Lakhs and contributed INR 1.32 Lakhs to WUA



Special Fishery Activities

2. Polyculture of IMC with Fresh Water Giant Prawn-

- Special program taken for Fresh Water Giant Prawn culture under the Project
- 37.915 Ha of water area targeted in South 24 pgs, Purba Medinipur, Paschim Medinipur in 2019-20
- Av yield 1500 kg/Ha (700 kg scampi & 800 IMC), Av net income **INR 2-2.5 lakh/ha**
- Scope for linkage with export market, bank finance & insurance coverage
- Huge employment potential in these 3 districts

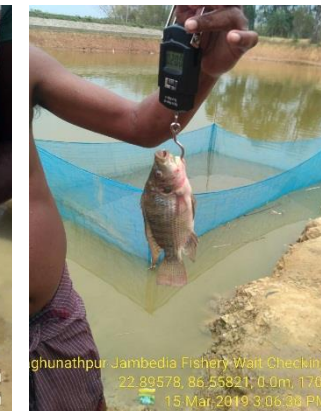


Special Fisheries Activities

3. Cultivation of Monosex Tilapia-

- Culture period 4-5 months in WDS under the Project
- Huge scope in Purulia, Bankura & Paschim Medinipur, South 24 Pgs.
- Targeted total coverage 235 No WDS with area 120 Ha in 2019-20
- Rapid growth
- Avg. yield **50-60 Qntl./Ha**, Avg. net income **Rs. 2 -2.5 lakh/Ha** apart from Agro-Horticulture activity

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Special Fisheries Activities

4. Hatchery for germplasm conservation of Indigenous fish species- (*Deshi magur*, *Singhi*, *Koi*, *Tangra*)

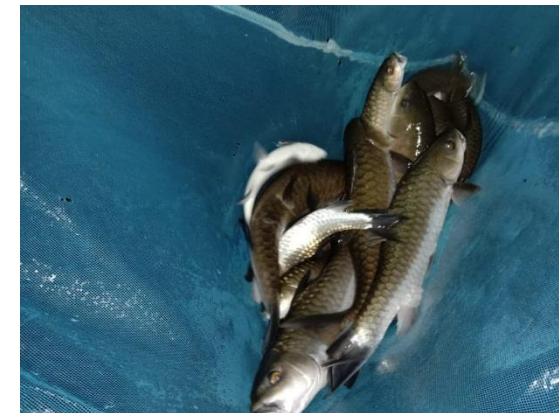
- Huge demand of seed (fingerlings)
- 37 nos of hatcheries set up in 7 district
- 90 nos male 329 nos female farmers
- Avg. fingerlings produced 15,000 nos/ Hatchery for the first year
- Avg. income Rs. 60,000.00 in 3 month
- Huge scope for mass cultivation in small or household water bodies to augment income



Special Fisheries Activities

5. Fishery intervention in Hill area-

- Fisheries intervention in Darjeeling & Kalimpong by Geothermal Sheet
- Hapa size 4 meter X 5 meter X 1.5 meter
- Average production 50 kg/Hapa in 6 month
- Average income INR 7500/Hapa



Special Fisheries Activities in WDS

6. Specially targeted WDS structures for fishery activities in 2019-20

Targeted WDS based Fish culture activity during 2019-20										
Sl. No	District	Monosex Tilapia culture (nos)	IMC with Fresh water giant prawn culture (nos)	Carp Cultue (nos)	Bhetki chital culture (nos)	Magur with IMC culture (nos)	Pabda culture (nos)	Pangus culture (nos)	Magur, Singhi, Koi, Tangra culture (nos)	Murrel culture (nos)
1	Paschim Medinipur & Jhargram	49	54	35	7	48	35	18	33	30
2	South 24 pgs	2	7	30	9		1	3		
3	Purulia	174								
4	Bankura	10		22	1	1	1			
Total		235	61	87	17	49	37	21	33	30

Major Challenges

- Knowledge gap of fishers
- Water bodies having multiownership
- Quality fish seed & quality fish feed in rural areas
- Water scarcity in WDS/CD in Western districts
- Poaching & Poisoning
- Inadequate no of extension workers in districts

Future Plan

- Cultivation of high yielding monosex tilapia, Pangus in all WDS of Paschimanchal districts in cluster form to create **Fisheries Economy Zone**
- Setting up low cost Carps Hatchery for quality seed production
- Setting up more low cost Indigenous fishes Hatcheries to conserve germplasm
- Installation of low cost floating feed mill in every district
- Installation of low cost aerator for every large water bodies



Thank You