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Results - Framework Document 2011-12

(FOR THE PERIOD APRIL 1, 2011 to MARCH 31, 2012)

Central Institute of Brackishwater Aquaculture

Fisheries Division
Indian Council of Agricultural Research
Department of Agricultural Research & Education

Central Institute of Brackishwater Aquaculture
Results - Framework Document 2011-12)

Section 1
Vision, Mission, Objectives and Functions

Vision

Environmentally sustainable, economically viable and socially acceptable brackishwater aquaculture, that increases the earnings of small scale fish farmers and provides quality produce to meet the diversified requirements of the consumers.

Mission

Further science to develop cost-effective technologies and facilitate growth of brackishwater aquaculture in an environmentally sustainable and socially acceptable manner.

Objectives

1. Enhancing production and productivity in brackishwater aquaculture sector
2. Transfer brackishwater aquaculture technologies to end users

Functions

1. To develop economically viable and environmentally sustainable culture technologies for finfish and shellfish in brackishwater systems in different agro-ecological regions.
2. To meet emerging requirements of brackishwater aquaculture, carry out basic and strategic research.
3. To evaluate economically important brackishwater biological resources for their commercial utilization.
4. To provide policy and planning support for socio-economic development, through environmentally sustainable brackishwater aquaculture.
5. To undertake human resources development and transfer of technology programmes through training and extension and to provide consultancy service.

Section:2 *Inter se* priorities among key objectives, success indicators and targets

Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight %	Actions	Success Indicator	Unit	Weight %	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
1. Enhancing production and productivity in brackishwater aquaculture sector	65%	Develop/refine seed production protocols for fin fishes and crustaceans	Seed production cycles	No.	5	12	9	6	3	1
			Breeding cycles	No.	5	12	9	6	3	1
		Develop/refine grow-out culture protocols for fin fishes and crustaceans	On-station/ on-farm grow out testing cycles	No.	8	12	9	6	3	1
		Design and test environmental and nutritional interventions	Environment and nutrition yard evaluations/ interventions	No.	6	7	6	5	4	1
			Dietary interventions for shellfish and finfish species under high and low saline regimes	No.	6	7	6	5	4	1
		Monitor disease incidence and develop disease management tools	Disease surveillance surveys	No.	5	15	12	10	8	6
			New/ refined prophylactic & diagnostics protocols; therapeutics & detection of causative factors for transmission and virulence of fish diseases	No.	5	6	5	4	3	2
		Explore aquatic genetic resources for promoting 'high growth and high health' in fin fishes and crustaceans	Genotyping of families/ challenge tests/ bio-active compounds/ novel microbes	No.	5	14	12	9	6	4
		Extend support to farmers and conduct policy/ socio-economic/ gender analyses for effective	Stakeholder interactions, trainings, technical advisories & extension materials.	No.	10	14	12	9	6	4

Objective	Weight %	Actions	Success Indicator	Unit	Weight %	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		transfer of technology	Field study reports on socio economic issues/ adoption of SHGs.	No	5	7	6	5	4	2
			Impact assessment of brackishwater aquaculture on mangroves & climate change/ natural calamities on aquaculture (districts)	No	5	8	6	4	2	1
2. Transfer of brackish water aquaculture Technologies to end users	24%	Make quality inputs and technology available to farmers and entrepreneurs	Finfish/ crustacean seed (lakhs)	No.	10	20	16	14	12	10
			Technologies developed/ demonstrated; Products and technologies commercialization; Patents & PPP linkages	No.	14	3	2	1	0	0
3. Efficient functioning of RFD system	11%	Timely submission of draft for approval	On-time submission	Date	2	31/3/2011	1/4/2011	2/4/2011	3/4/2011	4/4/2011
		Timely submission of results	On-time submission	Date	3	25/3/12	27/3/12	28/3/12	20/3/12	31/3/12
		Identify potential areas of corruption related to organization activities and develop an action plan to mitigate them	Finalize an action plan to mitigate potential areas of corruption	Date	2	Dec.10, 2011	Dec.10,2011	-	-	-
		Implementation of Sevottam	Create a Sevottam compliant system to implement, monitor and review Citizen's Charter	Date	2	Dec.10, 2011	Dec.10, 2011	-	-	-
			Create a Sevottam complaint system to redress and monitor public grievances	Date	2	Dec.10, 2011	Dec.10, 2011	-	-	-

Section: 3 Trend values of success indicators

Objective	Actions	Success Indicator	Unit	Actual Value for FY 09/10	Actual Value for Jan - March' 11	Target Value for FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
1 .Enhancing production and productivity in brackishwater aquaculture sector	Develop/refine seed production protocols for fin fishes and crustaceans	Seed production cycles	No.	10	5	12	14	14
		Breeding cycles	No.	10	4	12	12	12
	Develop/refine grow-out culture protocols for fin fishes and crustaceans	On-station/ on-farm grow out testing cycles	No.	11	4	12	14	14
	Design and test environmental and nutritional interventions	Environment and nutrition yard evaluations/ interventions	No.	6	3	7	8	8
		Dietary interventions for shellfish and finfish species under high and low saline regimes	No.	6	2	7	8	8
	Monitor disease incidence and develop disease management tools	Disease surveillance surveys	No.	11	4	15	15	15
		New/ refined prophylactic & diagnostics protocols; therapeutics & detection of causative factors for transmission and virulence of fish diseases	No.	3	2	6	6	6
	Explore aquatic genetic resources for promoting 'high growth and high health' in fin fishes and crustaceans	Genotyping of families/ challenge tests/ bio-active compounds/ novel microbes	No.	13	6	14	15	15

Objective	Actions	Success Indicator	Unit	Actual Value for FY 09/10	Actual Value for Jan - March' 11	Target Value for FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
	Extend support to farmers and conduct policy/ socio-economic/ gender analyses for effective transfer of technology	Stakeholder interactions, trainings, technical advisories & extension materials.	No.	13	6	14	15	15
		Field study reports on socio economic issues/ adoption of SHGs.	No.	6	2	7	8	8
		Impact assessment of brackishwater aquaculture on mangroves & climate change/ natural calamities on aquaculture (districts)	No.	6	3	8	8	8
2. Transfer of brackish water aquaculture Technologies to end users	Make quality inputs and technology available to farmers and entrepreneurs	Finfish/ crustacean seed (lakhs)	No.	18	4	20	20	20
		Technologies developed/ demonstrated	No.	2	2	3	3	3
3. Efficient functioning of RFD system	Timely submission of draft for approval	Products and technologies commercialization; Patents & PPP linkages	Date	-	16/3/11	31/3/11	31/3/12	31/3/13
	Timely submission of results	On-time submission	Date	-	23/3/11	24/3/12	24/3/13	24/3/14
	Identify potential areas of corruption related to organization activities and develop an action plan to mitigate them	Finalize an action plan to mitigate potential areas of corruption	Date	-	Dec.10, 2011	Dec.10, 2012	Dec.10, 2013	Dec.10, 2014
	Implementation of Sevottam	Create a Sevottam compliant system to implement, monitor and review Citizen's Charter	Date	-	Dec.10, 2011	Dec.10, 2012	Dec.10, 2013	Dec.10, 2014
		Create a Sevottam complaint system to redress and monitor public grievances	Date	-	Dec.10, 2011	Dec.10, 2012	Dec.10, 2013	2011 2014

Section: 4

Description and definition of success indicators and proposed measurement methodology

1. **Develop/refine seed production protocols for fin fishes and crustaceans**

   Seed production cycles for seabass, pearl spot, banana shrimp and tiger shrimp and breeding cycles for grey mullet, milk fish, cobia, and ornamental fish for development and refinement of seed production protocols will be in number. This activity is essential for refinement/ verification and validation of hatchery technology.

2. **Develop/refine grow-out culture protocols for fin fishes and crustaceans**

   On-station/ on-farm demonstrations for seabass, grey mullet, pearl spot, banana shrimp and low cost low input tiger shrimp will be monitored in numbers. This activity is essential for field verification of new/refined grow out culture techniques developed.

3. **Design and test environmental and nutritional interventions**

   Environment and nutrition yard evaluations/interventions on bioremediation, nutrient budgeting, green water technology, and discharge water treatment systems will be monitored in numbers. Dietary interventions in high and low saline regimes for shrimp, grey mullet, seabass & pearl spot will be in numbers.

4. **Monitor disease incidence and develop disease management tools**

   Disease surveillance surveys; hatchery & pond units surveyed/ monitored for disease will be number of actual farms and pond units. Refinement of protocols of diagnostics, prophylactics and therapeutics; Identification of factors responsible for transmission and virulence of pathogens and effective disease management measures will be measured in numbers.

5. **Explore aquatic genetic resources for promoting 'high growth and high health' in fin fishes and crustaceans**

   Genetic units/mechanisms will be in terms of numbers for production of families; challenge of families; genotyping of families of shrimp; extraction of bioactive compounds; screening geographic locations for novel microbes.

6. **Extend support to farmers and conduct policy/ socio-economic/ gender analyses for effective transfer of technology**

   Training and interactions will be measured in numbers of training programmes/ farmers meets/ stakeholder meets/ workshops, symposia/ exhibitions and extension materials and field study reports generated and Self Help Groups (SHG) adopted and technical advisories generated and services rendered to line departments. Districts covered for studying impact of brackishwater aquaculture on mangroves & impact of climate change/ natural calamities on aquaculture will be measured in numbers.

7. **Make quality inputs and technology available to farmers and entrepreneurs**

   Quantum of seed produced for seabass, pearl spot and banana shrimp will be evaluated in terms of ónumber of seeds in lakhsô Technologies developed, demonstrated / products and technologies commercialized; patents; Public Private Partnerships (PPP) developed will also be enumerated in numbers.

8. **Timely submission of Results Framework Document (RFD) draft for approval and timely submission of results**

   Efficient functioning of RFD system will be measured for submission of RFD and results based on target dates set by DARE.

Section: 5
Specific performance requirements from other departments that are critical for delivering agreed results

1. For the action plan one, developing and refining seed production protocols with Central Institute of Brackishwater Aquaculture (CIBA) facilities, timely approvals and release of funds from project funding agencies like National Fisheries Development Board (NFDB), National Bank for Agricultural and Rural Development (NABARD), Department of Bio Technology (DBT) and Department of Science and Technology (DST) are necessary. This support will make the project units to complete the physical and financial targets as envisaged as many of the action plans proposed involve external funds also.
2. For the action plans (2, 3 and 4) on development and refinement of technologies for fish culture, environmental and nutritional interventions and disease management to result in desirable outcomes of increased yields at farmers fields and lead to other positive socio economic impacts, constructive policy support for brackishwater aquaculture enterprise is required from Ministry of Agriculture, Ministry of Environment and Forests and State Pollution Control Boards.
3. Commercial Banks should actively lend to sector and National Bank for Agricultural and Rural Development (NABARD) should enhance the ground level credit flow to aquaculture to make the research efforts on new aquaculture crops and technology refinements to reach the sector. Since most of the National Fisheries Development Board (NFDB)ôs subsidies can benefit only farmers who are able to avail bank loans, credit flow from commercial bank is to be ensured for new aquaculture crops and technologies to reach farmersôfields.
4. State Fisheries Departmentsôneed to give required extension support and should take active part in mass contact programmes organized by CIBA.
5. Coastal Aquaculture Authority /National Fisheries Development Board/ Marine Product Export Development Authority / State Department of Fisheries should proactively make their staff to participate in CIBA stakeholder interactions and training programmes.

Section 6:
Outcome / Impact of activities of organization/ministry

Sl.No	Outcome/ Impact of organization/ RCs	Jointly responsible for influencing this outcome/impact with the following organization (s)/ ministries	Success indicator	2009-10	2010-11	2011-12	2012-13	2013-14
1.	Increase in productivity of shrimp farming through adoption of better management practices	MPEDA/ State Department of Fisheries/NFDB	kg per ha	240	50	50	50	50
2.	Introduction of new/alternate aqua crop *L.vannamei*	CAA, Ministry of Agriculture/ MPEDA, Commerce Ministry	Area in ha	0	2000	3000	4000	5000
3.	Cost effective shrimp farming through low cost feeds/ inputs	CIBA formulation sold as 'Bismi feeds' under PPP.	Low cost feed sold in tonnes	950	1800	2000	2200	2500
4.	Human Resource Development	State Department of Fisheries, KVKs and Private sector	No of trainees	300	600	400	400	400

Signed

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