



Results - Framework Document (RFD) for

Central Institute of Brackishwater Aquaculture (2012-2013)

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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 of brackishwater aquaculture systems
2. Transfer of brackishwater aquaculture technologies

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

Objectives	Weight (%)	Actions	Success Indicators	Unit	Weight (%)	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Enhancing production and productivity of brackishwater aquaculture systems	65	Develop/refine seed production protocols for fin fishes and crustaceans	Seed production trials	No.	6	12	9	6	3	1
			Breeding trials	No.	6	12	9	6	3	1
		Develop/refine grow-out culture protocols for fin fishes and crustaceans	Grow out testing trials	No.	7	5	4	3	2	1
			Environmental and nutritional evaluations/interventions	No.	7	3	2	1	0	0
		Environmental and nutritional evaluations/interventions	Nutritional evaluations/interventions	No.	7	6	5	4	3	2
			Monitor disease incidence and develop disease management tools	Disease investigations undertaken	No.	6	15	12	10	8
		New/ refined prophylactic & diagnostics protocols; therapeutics & detection of causative factors for transmission and virulence of fish diseases		No.	6	3	2	1	0	0
		Prospecting aquatic genetic resources for promoting 'high growth and high health' in fin fishes and crustaceans	Families genotyped/ challenge tests conducted	No.	7	13	11	9	7	5
			Bioactive compounds/ novel microbes	No	1	2	1	0	0	0
		Extend support to farmers and conduct policy/ socio-economic/ gender analyses for effective transfer of technology	Reports on socio-economic studies	No	7	15	12	9	6	3
			Impact assessment of brackishwater aquaculture	No	5	3	2	1	0	0

Objectives	Weight (%)	Actions	Success Indicators	Unit	Weight (%)	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Transfer of brackishwater aquaculture technologies	23%	Make quality inputs and technology available to farmers and entrepreneurs	Stakeholder interactions, trainings, technical advisories & extension materials	No.	10	20	16	12	8	4
			Finfish/ crustacean seed (lakhs)	No.	10	20	16	14	12	10
			Technologies developed/ demonstrated/commercialized/ Patents	No.	3	2	1	0	0	0
3.Effective functioning of the RFD system	12%	Timely submission of RFD for 2012-13	On-time submission	Date	2	23March 2012	26March 2012	27March 2012	28March 2012	29March 2012
		Timely submission of results for 2012-13	On-time submission	Date	1	1 May 2013	2 May 2013	3 May 2013	6 May 2013	7 May 2013
4.Administrative reforms		Implement ISO 9001	Prepare ISO 9001 action plan	Date	1	4June 2012	5June 2012	6June 2012	7June 2012	8June 2012
			Implementation of ISO 9001 action plan	Date	2	25 March 2013	26March 2013	27March 2013	28March 2013	29March 2013
5.Improving internal efficiency /responsiveness/ service delivery of Ministry/ Department		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	2	100	95	90	85	80
		Implementation of sevottam	Independent Audit of Implementation of Citizen's Charter	%	2	100	95	90	85	80
			Independent Audit of implementation of public grievances redressal system	%	2	100	95	90	85	80

Section: 3 Trend values of success indicators

Objective	Actions	Success Indicator	Unit	Actual Value for Jan – March 2011	Actual Value for FY 11/12	Target Value for FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
1. Enhancing production and productivity of brackishwater aquaculture systems	Develop/refine seed production protocols for fin fishes and crustaceans	Seed production trials	No.	5	23	9	10	10
		Breeding trials	No.	4	20	9	10	10
	Develop/refine grow-out culture protocols for fin fishes and crustaceans	Grow out testing trials	No.	4	12	4	5	5
	Environmental and nutritional evaluations/interventions	Environmental evaluations/ interventions	No.	3	7	2	3	3
		Nutritional evaluations/interventions	No.	2	17	5	6	6
	Monitor disease incidence and develop disease management tools	Disease investigation surveys	No.	4	17	12	13	13
		New/ refined prophylactic & diagnostics protocols; therapeutics & detection of causative factors for transmission and virulence of fish diseases	No.	2	10	2	3	3
	Prospecting aquatic genetic resources for promoting 'high growth and high health' in fin fishes and crustaceans	Families genotyped/ challenge tests conducted	No.	6	30	11	4	4
		Bioactive compounds/ novel microbes		0	0	1	0	1
	Extend support to farmers and conduct policy/ socio-economic/ gender analyses for effective transfer of technology	Reports on scio-economic studies	No.	2	19	12	13	14
		Impact assessment of brackishwater aquaculture	No.	3	8	2	3	3
	2. Transfer of brackish water	Make quality inputs and	Stakeholder interactions,	No.	6	34	16	18

Objective	Actions	Success Indicator	Unit	Actual Value for Jan – March 2011	Actual Value for FY 11/12	Target Value for FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15	
aquaculture technologies	technology available to farmers and entrepreneurs	trainings, technical advisories & extension materials							
		Finfish/ crustacean seed (lakhs)	No.	4	30.92	16	20	20	
		Technologies developed/ demonstrated/commercialized/ Patents	No.	2	3	1	2	2	
Efficient Functioning of the RFD System	Timely submission of RFD for 2012-13	On-time submission	Date	-	-	March 26, 2012	-	-	
	Timely submission of results for 2012-13	On-time submission	Date	-	-	May 2, 2013	-	-	
Administrative Reforms	Implement ISO 9001	Prepare ISO 9001 action plan	Date	-	-	June 5, 2012	-	-	
		Implementation of ISO 9001 action plan	Date	-	-	March 26, 2013	-	-	
Improving internal efficiency /responsiveness/ service delivery of Ministry/ Department	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	-	-	95	-	-	
		Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter.	%	-	-	95	-	-
		Implementation of Sevottam	Independent Audit of implementation of public grievances redressal system	%	-	-	95	-	-

Section: 4

Description and definition of success indicators and proposed measurement methodology

1. Enhancing production and productivity of brackishwater aquaculture systems

Seed production trials and breeding trials conducted for candidate aquaculture species (Asian seabass, tiger shrimp, grey mullet, pearl spot, banana shrimp, milk fish, cobia, ornamental fish etc) for development and refinement of seed production protocols will be monitored in numbers. This activity is essential for refinement/ verification and validation of hatchery technology.

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

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

Disease investigation 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.

Genetic units/mechanisms will be in terms of number of families produced or challenged or genotyped; extraction of bioactive compounds; screening geographic locations for novel microbes.

Extension materials and field study reports generated, Self Help Groups (SHG) adopted, technical advisories generated, services rendered to line departments, districts covered for studying impact of brackishwater aquaculture on mangroves & surrounding environment and impact of climate change/ natural calamities on aquaculture will be measured in numbers.

2. Transfer of brackish water aquaculture technologies:

Quantum of seed produced for aquaculture species will be evaluated in terms of 'number of seeds in lakhs'. Technologies developed, demonstrated/commercialized; patents; Public Private Partnerships (PPP) developed will also be enumerated in numbers. Training and interactions will be measured in numbers of training programmes/ farmers meets/ stakeholder meets/ workshops, symposia/ exhibitions or as number of trainees.

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

1. 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 BioTechnology (DBT) and Department of Science and Technology (DST) are necessary to make the project units accomplish the physical and financial targets as envisaged as many of the action plans proposed involve external funds also.
2. 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)'s 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 farmers' fields.
4. State Fisheries Departments' need 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**

Sl. No	Outcome/ Impact of organization	Jointly responsible for influencing this outcome/impact with the following organization (s)/ ministries	Success indicator	2010-11	2011-12	2012-13	2013-14	2014-15
1.	Increase in productivity of shrimp farming through adoption of better management practices	MPEDA/ State Department of Fisheries/NFDB	kg per ha	940	945	950	955	960
2.	Cost effective shrimp farming through low cost feeds/ inputs	CIBA feed formulation produced and sold under PPP mode	Estimates of reduction in production cost to farmers (Rs.Lakhs)	90	100	110	120	120
3.	Human Resource Development	State Department of Fisheries, KVKs and Private sector	No of trainees	600	400	400	400	400