



**Results-Framework Document (RFD)**  
**for**  
**Central Institute of Fisheries Technology**  
**(2012-2013)**

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## SECTION 1: VISION, MISSION, OBJECTIVES AND FUNCTIONS

### VISION

To facilitate sustainable harvesting and total utilization of fishery resources through innovations in harvest and post harvest technologies.

### MISSION

Ensure responsible harvesting of fishery resources through eco-friendly, energy efficient and economical means; ensure total utilization of the harvested fish through appropriate processing, value addition, packaging and waste utilization; ensure food safety and nutritional security to the consumer and minimise carbon and water footprint per unit volume; and to ensure equitable benefits to the stakeholders, across the value chain.

### OBJECTIVES

- Improvisation of responsible fish harvesting systems
- Development of post-harvest technologies.
- Transfer of technology and training

### FUNCTIONS

- To conduct basic, strategic and applied research in fishing and fish processing.
- To develop designs for fuel efficient fishing vessels and fishing gear for responsible fishing.
- To develop technologies for commercial isolation of bioactive compounds and industrially important products from aquatic sources.
- To design innovative implements and machineries for fishing and fish processing and pilot plant for facilitating commercialization of technologies developed.
- To do advanced research in seafood safety and quality.
- To provide training and consultancy services in fishing and fish processing.

## SECTION - 2

### *Inter se Priorities among Key Objectives, Success Indicators and Targets*

Objectives	Weight	Action	Success Indicators	Unit	Weight	Target / Criteria Values				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
1. Improvisation of responsible fish harvesting systems	14	Development of responsible fishing gear and accessories	Responsible fishing gear/accessories designed and developed	No.	6	2	1	0	0	0
		Identification/development of Improved craft and gear materials	Alternate material for fishing craft and gear identified/ evaluated	No.	6	2	1	0	0	0
		Development/popularization of bycatch reduction technologies	Bycatch reduction technologies developed / popularized	No.	2	2	1	0	0	0
		Development of technologies for fish processing and value addition	Fish based products and processes developed	No.	7	5	4	3	2	1
2. Development of post-harvest technologies	40	Development of technologies for fish waste utilisation	Products from fish wastes/ processes for fish waste utilization developed	No.	6	2	1	0	0	0
		Identification and development of improved packaging systems and materials	Improved packaging materials and systems identified / developed	No.	6	2	1	0	0	0
		Development of indigenous processing machinery	Processing machinery developed	No.	6	2	1	0	0	0
		Development of technologies for isolation of bioactive compounds and industrially important products from	Bioactive compounds/ industrially important products	No.	3	2	1	0	0	0

3. Transfer of technology and training	34	aquatic sources and nutrient profiling of fishes	identified/nutrient profiling/chemical contaminants done	No.	2	2	1	0	0	0
		Development/ implementation of quality and safety system for fish and fishery products	Quality and safety system for fish and fishery products, developed / implemented	No.	5	2	1	0	0	0
		Assessment of microbial seafood safety hazards and bio-prospecting of aquatic microbial resources	Seafood borne pathogens characterized / Biomolecules prospected from microbial sources	No.	5	2	1	0	0	0
		Extension and HRD programmes for stakeholders in fisheries sector	Skill upgradation programmes conducted	No.	4	4	3	2	1	0
			Exhibitions participated	No.	3	10	8	6	4	2
		Advanced training in harvest and post-harvest technologies	Training in responsible fishing gear	No. of trainees	2	10	8	6	4	2
			Training in post-harvest technology	No. of trainees	3	20	15	10	5	0
			Training in HACCP / Seafood Quality Assurance	No. of trainees	4	60	40	20	10	0
			Training in Modern Analytical Techniques in Biochemistry	No. of trainees	3	20	15	10	5	0
			Training in Laboratory Techniques in Microbiological	No. of trainees	3	10	8	6	4	0



## SECTION – 3

### Trend Values of the Success Indicators

Objectives	Action	Success Indicators	Unit	Actual Value for FY 10-11	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. Improvisation of responsible fish harvesting systems	Development of responsible fishing gear and accessories	Responsible fishing gear/accessories designed and developed	No.		4	1	1	1
	Identification/development of Improved craft and gear materials	Alternate material for fishing craft and gear identified/evaluated	No.		3	1	1	1
	Development/popularization of bycatch reduction technologies	Bycatch reduction technologies developed / popularized	No.		3	1	1	1
2. Development of post-harvest technologies	Development of technologies for fish processing and value addition	Fish based products and processes developed	No.		7	4	5	6
	Development of technologies for fish waste utilisation	Products from fish wastes/ processes for fish waste utilization developed	No.		3	1	2	3
	Identification and development of improved packaging systems and materials	Improved packaging materials and systems identified / developed	No.		3	1	2	3
	Development of indigenous processing machinery	Processing machinery developed	No.		4	1	2	3
	Development of technologies for isolation of bioactive compounds and industrially important products from aquatic sources and nutrient profiling of fishes	Bioactive compounds/ industrially important products identified/nutrient profiling/chemical contaminants done	No.		27	1	2	3
		Nutrient profiling	No.			1	2	3
	Development / implementation of quality and safety system for fish	Quality and safety system for fish and fishery products,	No.		4	1	2	3



		Implementation of ISO 9001 action plan	Date			26 March, 2013		
	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%			95		
Improving internal efficiency /responsiveness/ service delivery of Ministry/ Department	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%			95		
		Independent Audit of Implementation of Public Grievance Redressal System	%			95		



## SECTION – 4

### Description and Definition of Success Indicators and Proposed Measurement Methodology

#### **Objective 1**

Responsible fishing gear and accessories which are necessary for sustainable harvesting of fishery resources will be designed and developed through comparative fishing experiments based on fish behaviour and distribution and measurement will be in terms of number of successful trawl designs developed / fabricated. Comparative evaluation of alternate material for craft and gear will be done using Universal Testing Machine (UTM) and accelerated weather testing equipment; corrosion evaluation will be done using salt spray chamber and corrosion measurement system; the success indicator will be the number of materials /metal matrix composites (MMCs) identified. The suitability of alternate material for craft would be evaluated through field experiments using prototype and measurement will be in terms of number of prototypes constructed for field operation. Bycatch reduction technologies developed and popularized, in order to reduce the quantity of bycatch and discards during fishing operations; success indicators will be in terms of number of bycatch reduction technologies developed / popularized.

#### **Objective 2**

Success indicators for fish based products and processes, products from fish wastes/ processes for fish waste utilisation, improved packaging materials and systems identified / developed, will be measured in terms of number of products/processes developed and packaging materials and systems identified/developed. Success indicator for design and development of solar dryer and instrumentation system will be measured in terms of number of dryers/instrumentation systems developed. Bioactive compounds will be measured in terms of number of compounds nutraceutical or industrial significance identified and characterized. Quality and safety system for fish and fishery products will be measured in terms of number of systems developed or implemented for seafood quality and safety. Characterization of pathogens will be done using standard microbiological and molecular biology procedures and success indicator will be in terms of number of species from different sources characterized. Success indicator of bioprospecting from microbial sources will be in terms of number of bacteria characterized for production of biomolecules.

#### **Objective 3**

HRD programmes for stakeholders will be measured in terms of number awareness programmes conducted; participations in exhibitions will be measured in terms of number of participations. Advanced training in harvest and post-harvest technologies will be evaluated in terms of number of stakeholders successfully trained.

## **SECTION – 5**

### **Specific Performance Requirements from other Departments/ Organizations**

CIFT is having close linkages with other fisheries institutes of Department of Animal Husbandry, Dairying & Fisheries and state fisheries departments, National Fisheries Development Board, CSIR Institutes, Department of Science and Technology, Department of Biotechnology, Marine Products Export Development Authority (MPEDA), Export Inspection Agency (EIA), Bureau of Indian Standards (BIS) and research organizations of Ministry of Earth Sciences and Ministry of Environment and Forests and their cooperation and inputs would be required, in addition to timely and sensitive fiscal and administrative support from the Council, for meeting the set objectives and targets under Section-2. Technology adoption would depend up on the proactive role of the Fisheries Departments of the States and UTs and developmental agencies.

**SECTION – 6**

**Outcome / Impact of Activities of Organization**

Sl. No.	Outcome /Impact of Responsibility Centre	Jointly responsible for influencing this outcome/impact with the following organisations	Success Indicators	Unit	2010-11	2011-12	2012-13	2013-14	2014-15
1	Improved sustainable capture fish production	Directorates of Fisheries of State Governments and UTs; Department of Animal Husbandry, Dairying & Fisheries, National Fishery Development Board, Marine Products Export Development Authority, NGOs, Fishermen Cooperatives	Responsible fishing gear/accessories designed and developed Alternate material for fishing craft and gear identified/evaluated Bycatch reduction technologies developed / popularized Fish based products and processes developed Products from fish wastes/ processes for fish waste utilization developed Improved packaging materials and systems identified / developed Design and development of solar dryers/ instrumentation for solar dryers	No.  No.  No.  No.  No.		4 3 3 7 3 3 4	1 1 1 4 1 1 1	1 1 1 5 2 2 2	1 1 1 6 3 3 3
2	Improved utilisation and value addition of fish landings, minimization of fishery wastes and energy conservation.		Bioactive compounds/ industrially important products identified/nutrient profiling/chemical contaminants done	No.		27	1	2	3

