



**Results-Framework Document (RFD)**  
**for**  
**Central Institute of Fisheries Technology**  
**(2013-2014)**

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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 minimize 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*

Sl. No	Objectives	Weight	Actions	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 craft/ gear and accessories	Responsible fishing craft/gear and accessories designed and developed	No.	10	4	3	2	1	0
			Identification/evaluation and standardization of Improved craft and gear materials	Alternate materials for fishing craft and gear identified/ evaluated and standardized	No.	4	3	2	1	0	0
2	Development of post-harvest technologies	40	Development of appropriate post-harvest technologies and packaging systems for total utilization & value addition of fishery resources	Protocols for value addition and packaging systems developed/	No.	17	6	5	4	3	2
			Development of suitable technologies for fish waste utilisation and high value byproducts	Products from fish wastes/ processes for fish waste utilization developed	No.	6	4	3	2	1	0
			Development of indigenous processing machinery	Processing machinery developed	No.	2	3	2	1	0	0
			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.	5	7	6	5	4	3
			Development / implementation of quality and safety system for fish and fishery products	Protocols/concepts/technologies/methods for implementation of quality and safety systems for fish and fishery products	No.	5	8	7	6	5	4
			Assessment of microbial seafood safety hazards and bio-prospecting of aquatic microbial resources	Seafood borne pathogens characterized / Biomolecules prospected from microbial sources/ Protocols/ technologies/ methods for diagnostics/ bio-catalyst production	No.	5	5	4	3	2	1

3.	Transfer of technology and training	35	Extension and HRD programmes for stakeholders in fisheries sector	Training in Harvest and post-harvest technologies & Skill upgradation programmes conducted	No.	15	160	150	140	130	120
				Exhibitions participated	No.	5	20	15	10	8	7
			Consultancy services / Commercialization of products and processes	Analytical and advisory support to the industry	No.	8	1000	800	700	600	500
				Technical guidance / Consultancy services provided	No.	7	10	9	8	7	6
Efficient Functioning of the RFD System	Administrative Reforms	11	Timely submission draft RFD (2013-14) for approval	On-time submission	Date	2	15/05/2013	16/05/2013	17/05/2013	20/05/2013	21/05/2013
			Timely submission of Results for RFD (2012-13)	On-time submission	Date	1	01/05/2013	02/05/2013	05/05/2013	06/05/2013	07/05/2013
	Implement ISO 9001 as per the approved action plan		% Implementation	%	2	100	95	90	85	80	
	Prepare an action plan for Innovation		On-time submission	Date	2	30/07/2013	10/08/2013	20/08/2013	30/08/2013	10/09/2013	
	Improving internal efficiency/ responsiveness / service delivery of Ministry / department		Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	2	100	95	90	85	80
				Independent Audit of Implementation of Public Grievance Redressal System	%	2	100	95	90	85	80

### SECTION – 3

#### Trend Values of the Success Indicators

Sl. No.	Objectives	Actions	Success Indicators	Unit	Actual	Actual	Target	Projected	Projected
					Value for FY 11-12	Value for FY 12-13	Value for FY 13-14	Value for FY 14-15	Value for FY 15-16
1.	Improvisation of responsible fish harvesting systems	Development of responsible fishing craft/ gear and accessories	Responsible fishing craft/gear and accessories designed and developed	No.	7	2	3	3	3
		Identification/evaluation and standardization of Improved craft and gear materials	Alternate materials for fishing craft and gear identified/ evaluated and standardized	No.	3	1	2	2	2
2.	Development of post-harvest technologies	Development of appropriate post-harvest technologies and packaging systems for total utilization & value addition of fishery resources	Protocols for value addition and packaging systems developed/	No.	7	5	5	6	6
		Development of suitable technologies for fish waste utilisation and high value byproducts	Products from fish wastes/ processes for fish waste utilization developed	No.	3	2	3	4	4
		Development of indigenous processing machinery	Processing machinery developed	No.	4	1	2	2	2
		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	6	6	7	8
		Development / implementation of quality and safety system for fish and fishery products	Protocols/concepts/technologies/methods for implementation of quality and safety systems for fish and fishery products	No.	4	2	7	8	8
		Assessment of microbial seafood safety hazards and bio-prospecting of aquatic microbial resources	Seafood borne pathogens characterized / Biomolecules prospected from microbial sources/ Protocols/ technologies/ methods for diagnostics/ bio-catalyst production	No.	5	7	4	5	5

3.	Transfer of technology and training	Extension and HRD programmes for stakeholders in fisheries sector	Training in Harvest and post-harvest technologies & Skill upgradation programmes conducted	No.	498	425	150	150	150
			Exhibitions participated		33	15	15	16	17
		Consultancy services / Commercialization of products and processes	Analytical and advisory support to the industry	No.	712	750	800	810	820
			Technical guidance / Consultancy services provided	No.	12	7	9	10	11
	Efficient Functioning of the RFD System	Timely submission of draft RFD (2013-14) for approval	On-time submission	Date			16/05/2013		
		Timely submission of Results for RFD (2012-13)	On-time submission	Date			02/05/2013		
	Administrative Reforms	Implement ISO 9001 as per the approved action plan	% Implementation	%			95		
		Prepare an action plan for Innovation	On- time submission	Date			10/08/2013		
	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 : ACRONYMS

SI. No	Acronym	Description
1	UTM	Universal Testing Machine
2	HRD	Human Resource Development
3	NFDB	National Fisheries Development Board
4	MPEDA	Marine Product Export Development Authority
5	EIA	Export Inspection Agency
6	UTs	Union Territories
7	NGOs	Non-Governmental Organizations
8	NABL	National Accreditation Board for Testing and Calibration Laboratories
9	IDP	Inter-Departmental Panel

### Section 4 : Description and Definition of Success Indicators and Proposed Measurement Methodology

SI. No	Success Indicators	Descriptions	Definitions	Measurement	General Comments
1.	Responsible fishing craft/gear and accessories designed and developed	Responsible fishing craft /gear and accessories 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 designs developed / fabricated and field tested.	Materials identified, evaluated and standardized and also the prototypes constructed for field operations.	Number	Nil
2.	Alternate materials for fishing craft and gear identified/ evaluated and standardized	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	Materials identified, evaluated and standardized and also the prototypes constructed for field	Number	Nil

		system	operations.		
3.	Protocols for value addition and packaging systems developed/	Value added products and improved packaging materials and systems will be identified / developed, will be measured in terms of number of products/processes developed and packaging materials and systems identified/developed.	Value added products and packaging materials	Number	Nil
4.	Products from fish wastes/ processes for fish waste utilization developed	Products from fish / fish waste / processes for fish water utilization will be measured in terms of number of products/processes developed	Valued added products and processes for fish waste utilization	Number	Nil
5.	Processing machinery developed	design and development of processing machinery / solar dryer and instrumentation system will be measured in terms of number of machinery developed/ dryers/ instrumentation	Design and development of machinery /solar dryer and instrumentation	Number	Nil
6.	Bioactive compounds/ industrially important products identified/nutrient profiling/chemical contaminants done	Bioactive compounds for nutraceuticals or industrial significance	Bio active compounds synthesized	Number	Nil
7.	Protocols/concepts/technologies/methods for implementation of quality and safety systems for fish and fishery products	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.	Quality systems characterized	Number	Nil
8.	Seafood borne pathogens characterized / Biomolecules prospected from microbial sources/ Protocols/ technologies/ methods for diagnostics/ bio-catalyst production	Characterization of pathogens; success indicator will be in terms of number of species from different sources characterized. Characterization of pathogens will be done using standard microbiological and molecular biology procedures and success indicator of bio-prospecting from microbial sources will be in terms of number of	Pathogens characterized	Number	Nil



		bacteria characterized for production of biomolecules.			
9.	Training in Harvest and post-harvest technologies & Skill upgradation programmes conducted	HRD programmes for different stakeholders will be measured in terms of number participations.	Training and awareness programmes	Number	Nil
10.	Exhibitions participated	Participations in exhibitions will be measured in terms of number of participations.	Participations in exhibitions	Number	Nil
11.	Analytical and advisory support to the industry	NABL accredited laboratories for conducting analytical tests and advisory support by conducting IDP visits	Analytical tests carried out	Number	Nil
12.	Technical guidance / Consultancy services provided	Technical guidance and consultancy services	Technical guidance and consultancy services carried out.	Number	Nil

**SECTION – 5 : Specific Performance Requirements from other Departments/ Organizations**

<b>Location</b>	<b>State</b>	<b>Organization Type</b>	<b>Organization Name</b>	<b>Relevant success indicators</b>	<b>What is your requirement from organization</b>	<b>Justification for this requirement</b>	<b>Please quantify your requirements from this organization</b>	<b>What happens if your requirement is not met</b>
Within the country	Maritime states and UTs	State & Cooperatives	Directorate of Fisheries of State Governments and UTs	Responsible fishing craft/gear and accessories designed and developed	Facility for field trials	Field trial testing	As and when required	Technology development process delayed
			Fishermen cooperatives	Alternate materials for fishing craft and gear identified/ evaluated and standardized	Facility for field trials	Field trial testing	As and when required	Technology development process delayed
	All states	State & Private entrepreneurs	Department of dairying & fisheries NFDB MPEDA EIA NGOs Fishermen cooperatives	Protocols for value addition and packaging systems developed/	Testing and Commercialization of the product	Commercialization/ adoption of technologies	As and when required	Technology development process delayed
				Products from fish wastes/ processes for fish waste utilization developed	Testing and Commercialization of the product	Commercialization/ adoption of technologies	As and when required	Technology development process delayed
				Processing machinery developed	Testing and Commercialization of the product	Commercialization/ adoption of technologies	As and when required	Technology development process delayed
				Bioactive compounds/ industrially important products identified/nutrient profiling/chemical contaminants done	Testing and Commercialization of the product	Commercialization/ adoption of technologies	As and when required	Technology development process delayed
	All states	Sea food industry	Department of dairying & fisheries NFDB MPEDA EIA NGOs	Protocols/concepts/technologies/methods for implementation of quality and safety systems for fish and fishery products	Facility for testing of protocols	To demonstrate the quality and safety	As and when required	Standardisation processes delayed
				Seafood borne pathogens characterized / Biomolecules prospected from microbial sources/ Protocols/ technologies/ methods for diagnostics/ bio-catalyst production	Validation and standardization	To demonstrate the quality and safety	As and when required	Standardisation processes delayed

	All states	Central State Private Cooperatives Entrepreneurs	Individuals and organisations	Training in Harvest and post-harvest technologies & Skill upgradation programmes conducted	Request for training	For Capacity building	As and when required	-
				Exhibitions participated	Extension of technologies developed		As and when required	-
				Analytical and advisory support to the industry	Provision of services - clients		As and when required	Revenue generation
				Technical guidance / Consultancy services provided	Provision of services - clients		As and when required	Revenue generation

## SECTION – 6

### Outcome / Impact of activities of the Organization

Sl. No.	Outcome / Impact of the organization	Jointly responsible for influencing this outcome / impact with the following Deptts & Ministries	Success indicators	Unit	2011-12	2012-13	2013-14	2014-15	2015-16
1	Saving in maintenance cost of craft and gear for fishermen	Fisheries department Stake holders	Responsible fishing craft/gear and accessories designed and developed	No.	7	2	3	3	3
2	Additional e employment and income in the fish processing sector	Private Industries	Value added products from fish / fish waste	No.	10	7	8	10	10
3	Trained manpower through HRD programmes	Other organizations	HRD programmes conducted	No.	498	425	150	150	150