



**Results-Framework Document (RFD)**  
**for**  
**Central Institute of Fisheries Technology**  
**(2014-2015)**

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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.
- Advance 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**

S. No.	Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target / Criteria Value				
							Excellent	Very Good	Good	Fair	Poor
							100	90	80	70	60
1	Improvisation of responsible fish harvesting systems	15	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.	5	4	3	2	1	0
2	Development of post-harvest technologies	39	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.	16	7	6	5	4	3
			Development of suitable technologies for fish waste utilisation and high value byproducts	Products from fish wastes/processes for fish waste utilization developed	No.	6	5	4	3	2	1
			Development of indigenous processing machinery	Processing machinery- designed/ developed	No.	2	4	3	2	1	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	8	7	6	5	4

			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	10	8	6	4	2
			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	6	5	4	3	2
3	Transfer of technology and training	26	Extension and HRD programmes for stakeholders in fisheries sector	Training in harvest and post-harvest technologies & skill upgradation programmes conducted	No.	8	156	130	104	78	52
				Exhibitions participated	No.	5	19	16	13	10	7
			Consultancy services/ commercialization of products and processes	Analytical and advisory support to the industry	No.	8	970	810	650	490	330
				Technical guidance/ consultancy services provided	No.	5	12	10	8	6	4
Publication/Documentation	5	Publication of the research articles in the journals having the NAAS rating of 6.0 and above	Research articles published	No.	3	42	35	28	21	14	
		Timely publication of the Institute Annual Report (2013-2014)	Annual Report published	Date	2	30.06.2014	02.07.2014	04.07.2014	07.07.2014	09.07.2014	

Fiscal resource management	2	Utilization of released plan fund	Plan fund utilized	%	2	98	96	94	92	90
Efficient Functioning of the RFD System	3	Timely submission of Draft RFD for 2014-2015 for Approval	On-time submission	Date	2	May 15 2014	May 16 2014	May 19 2014	May 20 2014	May 21 2014
		Timely submission of Results for 2013-2014	On-time submission	Date	1	May 1 2014	May 2 2014	May 5 2014	May 6 2014	May 7 2014
Enhanced Transparency / Improved Service delivery of Ministry/Department	3	Rating from Independent Audit of implementation of Citizens' / Clients' Charter (CCC)	Degree of implementation of commitments in CCC	%	2	100	95	90	85	80
		Independent Audit of implementation of Grievance Redress Management (GRM) system	Degree of success in implementing GRM	%	1	100	95	90	85	80
Administrative Reforms	7	Update organizational strategy to align with revised priorities	Date	Date	2	Nov.1 2014	Nov.2 2014	Nov.3 2014	Nov.4 2014	Nov.5 2014
		Implementation of agreed milestones of approved Mitigating Strategies for Reduction of potential risk of corruption (MSC)	% of implementation	%	1	100	90	80	70	60
		Implementation of agreed milestones for ISO 9001	% of implementation	%	2	100	95	90	85	80
		Implementation of milestones of approved Innovation Action Plans (IAPs)	% of implementation	%	2	100	90	80	70	60

### Section – 3: Trend Values of the Success Indicators

Sl. No.	Objectives	Actions	Success Indicators	Unit	Actual Value for 2012-13	Actual Value for 2013-14	Target Value for 2014-15	Projected Value for 2015-16	Projected Value for 2016-17
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.	2	4	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.	1	3	3	3	3
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.	5	7	6	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.	2	6	4	4	4
		Development of indigenous processing machinery	Processing machinery developed	No.	1	3	3	3	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.	6	7	7	7	7
		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.	2	9	8	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.	7	5	5	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. of training programmes	131 (425 no. of trainees)	158	130	130	130
			Exhibitions participated		15	22	16	16	16

		Consultancy services /commercialization of products and processes	Analytical and advisory support to the industry	No.	750	1084	810	810	810
			Technical guidance /consultancy services provided	No.	7	11	10	10	10
Publication/Documentation		Publication of the research articles in the journals having the NAAS rating of 6.0 and above	Research articles published	No.	13	33	35	37	39
		Timely publication of the Institute Annual Report (2013-2014)	Annual Report published	Date	-	-	02 July 2014	-	-
Fiscal resource management		Utilization of released plan fund	Plan fund utilized	%	100	100	96	97	98
Efficient Functioning of the RFD System		Timely submission of Draft RFD for 2014-2015 for Approval	On-time submission	Date	-	-	May 16 2014	-	-
		Timely submission of Results for 2013-2014	On-time submission	Date	-	-	May 2 2014	-	-
Enhanced Transparency / Improved Service delivery of Ministry/Department		Rating from Independent Audit of implementation of Citizens' / Clients' Charter (CCC)	Degree of implementation of commitments in CCC	%	-	-	95	-	-
		Independent Audit of implementation of Grievance Redress Management (GRM) system	Degree of success in implementing GRM	%	-	-	95	-	-
Administrative Reforms		Update organizational strategy to align with revised priorities	Date	Date	-	-	Nov.2 2014	-	-
		Implementation of agreed milestones of approved Mitigating Strategies for Reduction of potential risk of corruption (MSC)	% of implementation	%	-	-	90	-	-
		Implementation of agreed milestones for ISO 9001	% of implementation	%	-	-	95	-	-
		Implementation of milestones of approved Innovation Action Plans (IAPs)	% of implementation	%	-	-	90	-	-

#### Section 4 (a): Acronyms

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

#### Section 4 (b): Description and definition of success indicators and proposed measurement methodology

Sl. 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 system	Materials identified, evaluated and standardized and also the prototypes constructed for field operations.	Number	Nil
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 – designed/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 bacteria characterized for production of biomolecules.	Pathogens characterized	Number	Nil
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 that are critical for delivering agreed results**

<b>Location Type</b>	<b>State</b>	<b>Organization Type</b>	<b>Organization Name</b>	<b>Relevant Success Indicators</b>	<b>What is your requirement from this 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 Fishermen cooperatives	Responsible fishing craft/gear and accessories designed and developed	Facility for field trials	Field trial testing	As and when required	Technology development process delayed
Within the country	Maritime states and UTs	State & Cooperatives	Directorate of Fisheries of State Governments and UTs 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
Within the country	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
Within the country	All states State & Private entrepreneurs Department of dairying & fisheries	NFDB MPEDA EIA	NGOs Fishermen cooperatives	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
Within the country	All states State & Private entrepreneurs Department of dairying & fisheries	NFDB MPEDA EIA	NGOs Fishermen cooperatives	Processing machinery – designed/developed	Testing and commercialization of the product	Commercialization/ adoption of technologies	As and when required	Technology development process delayed
Within the country	All states State & Private entrepreneurs Department of dairying & fisheries	NFDB MPEDA EIA	NGOs Fishermen cooperatives	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

Within the country	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
Within the country	All states	Sea food industry	Department of dairying & fisheries NFDB MPEDA EIA NGOs	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
Within the country	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	Target will not be achieved
Within the country	All states	Central State Private Cooperatives Entrepreneurs	Individuals and organisations	Exhibitions participated	Extension of technologies developed	Extension of technologies developed	As and when required	Target will not be achieved
Within the country	All states	Central State Private Cooperatives Entrepreneurs	Individuals and organisations	Analytical and advisory support to the industry	Provision of services - clients	Provision of services - clients	As and when required	Revenue generation
	All states	Central State Private Cooperatives Entrepreneurs	Individuals and organisations	Technical guidance /consultancy services provided	Provision of services - clients	Provision of services - clients	As and when required	Revenue generation

**Section 6: Outcome / Impact of activities of Department / Ministry**

Sl. No.	Outcome / Impact	Jointly responsible for influencing this outcome / impact with the following organization(s) / departments / ministry(s)	Success indicator(s)	Unit	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
1	Saving in maintenance cost of craft and gear for fishermen	Fisheries department Stakeholders	Responsible fishing craft/gear and accessories designed and developed	No.	2	3	3	3	3
2	Additional employment and income in the fish processing sector	Private industries	Value added products from fish / fish waste	No.	7	8	10	10	10
3	Trained manpower through HRD programmes	Other organizations	HRD programmes conducted	No.	131	158	130	130	130