RFD

Results Framework Document

for

Central Institute of Fisheries Technology
(Indian Council of Agricultural Research)
Cochin

2011-2012

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

- **Development of improved craft and gear materials**
- **Development of selective and eco-friendly fish harvesting systems**
- **Development of technologies for processing, value addition and packaging of fish and fishery products and for utilisation of fishery wastes.**
- **Development of technologies for isolation of bioactive compounds and industrially important products from aquatic sources.**
- **Development and management of quality and safety system for fish and fishery products.**
- **Assessment of microbial seafood safety hazards and bio-prospecting of aquatic microbial resources.**
- **Energy conservation through utilisation of solar energy in fish processing.**
- **Studies on transfer of technology (ToT) and socio-economics in fisheries sector.**

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

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

		Energy conservation in fish processing	Design and development of solar dryers/ instrumentation for solar dryers	No.	6	1	-	-	-	-
		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	2	1	-	-	-
		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	-	-	-
		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	-	-	-
3. Extension , training and consultancy.	35	Extension and HRD programmes for stakeholders in fisheries sector	Skill upgradation programmes conducted.	No. of progra-mmes	5	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 Examination of Seafood	No. of trainees	3	10	8	6	4	0
		Commercialization of products and processes	Products and processes commercialized.	No.	3	2	1	-	-	-
		Consultancy services	Analytical and advisory support to the industry.	No.	6	50	40	30	20	10
			Consultancy services undertaken	No.	3	2	1	-	-	-
4. Mandatory Indicators	11	Timely submission of RFD and Results for 2011-12	On time submission of RFD for 2011-12	Date	2	10.6.11	13.6.11	14.6.11	15.6.11	16.6.11
			On time submission of Results for 2011-12	Date	1	1.5.12	2.5.12	3.5.12	4.5.2012	5.5.12
		Development of Strategic Plan (2011-16)	Strategic Plan for 2011-16) developed.	Date	2	10.12.11	12.12.11	14.12.11	16.12.11	18.12.11
		Identify potential areas of corruption related to organization activity and develop an action plan to mitigate them.	Potential areas of corruption related to organization activity identified and mitigation plan developed.	Date	2	10.12.11	12.12.11	14.12.11	16.12.11	18.12.11
		Implementation of Sevottam	Sevottam compliant system to implement, monitor and review Citizen's Charter created	Date	2	10.12.11	12.12.11	14.12.11	16.12.11	18.12.11
			Sevottam compliant system to redress and monitor public grievances created.	Date	2	10.12.11	12.12.11	14.12.11	16.12.11	18.12.11

SECTION – 3

Trend Values for Success Indicators for Central Institute of Fisheries Technology (ICAR) for the Year 2011 – 2012

Objectives	Actions	Success Indicators	Unit	Actual Value for FY 09/10	Actual Value for FY 10/11	Target Value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
1. Development of improved and responsible fish harvesting systems	Development of responsible fishing gear and accessories.	Responsible fishing gear/accessories designed and developed.	No.			1	2	2
	Identification/development of Improved craft and gear materials	Alternate material for fishing craft and gear identified/ evaluated.	No.			1	2	2
	Development/popularisation of bycatch reduction technologies	Bycatch reduction technologies developed / popularized.	No.			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.			4	5	5
	Development of technologies for fish waste utilisation	Products from fish wastes/ processes for fish waste utilisation developed.	No.			1	2	2
	Identification and development of improved packaging systems and materials.	Improved packaging materials and systems identified / developed	No.			1	1	1
	Energy conservation in fish processing	Design and development of solar dryers/ instrumentation for solar dryers	No.			-	-	1

	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.			1	2	2
	Development / implementation of quality and safety system for fish and fishery products.	Quality and safety system for fish and fishery products, developed / implemented.	No.			1	1	2
	Assessment of microbial seafood safety hazards and bio-prospecting of aquatic microbial resources.	Seafood borne pathogens characterized / Biomolecules prospected from microbial sources.	No.			1	1	1
3. Extension , training and consultancy.	Extension and HRD programmes for stakeholders in fisheries sector	Skill upgradation programmes conducted.	No. of progra-mmes			3	4	4
		Exhibitions participated.	No.			8	8	8
	Advanced training in harvest and post-harvest technologies.	Training in responsible fishing gear	No. of trainees			8	8	8
		Training in post-harvest technology	No. of trainees			15	15	15
		Training in HACCP / Seafood Quality Assurance	No. of trainees			40	40	40
		Training in Modern Analytical Techniques in Biochemistry	No. of trainees			15	15	15
		Training in Laboratory Techniques in Microbiological Examination of Seafood	No. of trainees			8	8	8
	Commercialization of products and processes	Products and processes commercialized.	No.			1	1	1

	Consultancy services	Analytical and advisory support to the industry.	No.			40	50	60
		Consultancy services undertaken	No.			1	2	2
4. Mandatory Indicators	Timely submission of RFD and Results for 2011-12	On time submission of RFD for 2011-12	Date			13.6.11		
		On time submission of Results for 2011-12	Date			2.5.12		
	Development of Strategic Plan (2012-17)	Strategic Plan for 2012-17 developed.	Date			12.12.11		
	Identify potential areas of corruption related to organization activity and develop an action plan to mitigate them.	Potential areas of correction related to organization activity identified and mitigation plan developed.	Date			12.12.11		
	Implementation of Sevottam	Sevottam compliant system to implement, monitor and review Citizen's Charter created	Date			12.12.11		
		Sevottam compliant system to redress and monitor public grievances created.	Date			12.12.11		

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 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 pot-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

1	2	3	4	5	6	7	8	9
Sl. No.	**Outcome /Impact of Responsibility Centre**	**Jointly responsible for influencing this outcome/impact with the following organisations**	**Success indicator**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
	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.		1	1	2	2
			Alternate material for fishing craft and gear identified/ evaluated.		1	1	2	2
			Bycatch reduction technologies developed / popularized.		1	1	1	1
	Improved utilisation and value addition of fish landings, minimization of fishery wastes and energy conservation.	Directorates of Fisheries of State Governments and UTs; Department of Animal Husbandry, Dairying & Fisheries, National Fishery Development Board, Marine Products Export Development Authority, Fish processing industries, seafood processing industries, NGOs, Fishermen Cooperatives.	Fish based products and processes developed.		5	5	5	5
			Products from fish wastes/ processes for fish waste utilisation developed.			2	2	2
			Improved packaging materials and systems identified / developed			2	1	1

			Design and development of solar dryers/ instrumentation for solar dryers			1	-	1
			Bioactive compounds/ industrially important products identified/nutrient profiling done.			1	2	2
			Quality and safety system for fish and fishery products, developed / implemented.			1	1	2
			Seafood borne pathogens characterized / Biomolecules prospected from microbial sources.			1	1	1
	Improved capacity building and skill upgradation among stakeholders.	Directorates of Fisheries of State Governments and UTs; Department of Animal Husbandry, Dairying & Fisheries, National Fishery Development Board, NGOs, Fishermen Cooperatives.	Training in responsible fishing gear			10	10	10
			Training in post-harvest technology.			15	15	15
			Hazard Analysis and Critical Control Points (HACCP) and Seafood Safety Assurance training for stakeholders		35	60	60	60

			Training in modern analytical techniques in biochemistry.			20	20	20
			Training in laboratory techniques in microbiological examination of seafood.			10	10	10
			Number of skill upgradation programmes.		1	4	4	4

Director
Central Institute of Fisheries Technology
CIFT Junction, P.O. Matsyapuri, Cochin-682 029
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