



Results-Framework Document (RFD)

for

Central Institute of Fisheries Education

(2012 – 2013)

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Section 1:

Vision, Mission, Objectives and Functions

Vision

To be a world class organisation providing leadership in fisheries education and research

Mission

To achieve academic and research excellence by creating state-of-the-art infrastructure and globally competitive faculty.

Objectives

- a) To conduct academic programs for HRD and Capacity Building in fisheries
- b) To conduct basic and strategic research in emerging areas of fisheries science
- c) To conduct Training Programs in fisheries

Functions

- To attend to matters relating to all aspects of higher fisheries education, research and training
- To participate in national and international collaborations
- To participate in national and international conferences, associations and other bodies dealing with fisheries research and education
- To identify researchable issues, planning strategies and action plans to realize the vision and mandate of the institute.

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%
To conduct academic programs for HRD and capacity building in fisheries	34	HRD in specialized disciplines	No. of students passed	Number	30	80	75	70	65	60
		Capacity building	Training of staff for capacity building	Number	4	15	12	10	8	6
To conduct basic and strategic research in emerging areas of fisheries science	34	Urban aquaculture	Water budgeting for breeding of IMC	Number in lakhs	3	50	45	40	35	30
		Non-food aquaculture	Breeding of stock of high value ornamental fish	Number in lakhs	3	2.0	1.8	1.6	1.4	1.2
		Transgenic zebrafish for aquatic heavy metal pollution monitoring	Transgenic zebrafish broad spectrum biosensor responsive to heavy metals (Hg, Cd and Zn)	Date	3	1/2/2013	1/3/2013	15/3/2013	31/3/2013	-
		Vaccine development for nodavirus	Development of polymer based vaccine against nodavirus in <i>M. rosenbergii</i>	Number	3	2	1	0	0	0

		Bio diversity conservation and management	Taxonomy and biodiversity of aquatic resources	Number of reservoirs	3	5	4	3	2	1
			Stock assessment employing statistical models and molecular tools	Number of stocks	3	3	2	1	-	-
		Management of aquatic resources	Assessment of PAH pollution in coastal Mumbai	Date	4	1/3/2013	8/3/2013	15/3/2013	31/3/2013	-
		Physiological and nutritional interventions for enhancement of growth and reproductive performances in fish	To delineate physiological responses of stress in fish and its mitigation through application of nutraceuticals	Number of nutraceuticals	3	3	2	1	0	0
			Developing feeding strategy for improving nutrient utilization and growth	Number of fish	3	2	1	0	0	0
		Development of value added products	Development of ready-to-eat Bombay duck strips and preparation of <i>Pangasius</i> mince based functional restructured product	Number	3	2	1	0	0	0
		Developing rapid methods for identification of seafood pathogens, toxins and spoilage organisms	PCR characterisation of toxigenic <i>E coli</i> in seafood	Date	3	1/3/2013	8/3/2013	15/3/2013	31/3/2013	-

To conduct training programs in fisheries	20	Training and skill up-gradation	Number of persons trained	Number	20	500	450	400	350	300
Efficient Functioning of the RFD System	12	Timely submission of RFD for 2012-13	On-time submission	Date	2	Mar. 23 2012	Mar. 26, 2012	Mar. 27, 2012	Mar.28,2012	Mar.29, 2012
		Timely submission of Results for 2012-13	On-time submission	Date	1	May 1, 2013	May 2, 2013	May 3, 2013	May 6, 2013	May 7, 2013
Administrative Reforms		Implement ISO 9001	Prepare ISO 9001 action plan	Date	1	June 4, 2012	June 5, 2012	June 6, 2012	June 7, 2012	June 8, 2012
			Implementation of ISO 9001 action plan	Date	2	Mar. 25 2013	Mar. 26, 2013	Mar. 27, 2013	Mar.28,2013	Mar. 29, 2013
		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	2	100	95	90	85	80
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 redressed system	%	2	100	95	90	85	80

Section 3 – Trend Values of the Success Indicators

Objectives	Actions	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
To conduct academic programs for HRD and capacity building in fisheries	HRD in specialized disciplines	No. of students passed	Number	70	75	75	80	80
	Capacity building	Faculty trained for capacity building	Number	14	21	12	15	15
To conduct basic and strategic research in emerging areas of fisheries science	Urban aquaculture	Water budgeting for breeding of IMC	Number in lakhs	-	-	45	46	48
	Non-food aquaculture	Breeding of stock of high value ornamental fish	Number in lakhs	-	-	1.8	2.0	2.2
	Transgenic zebrafish for aquatic heavy metal pollution monitoring	Transgenic zebrafish broad spectrum biosensor responsive to heavy metals (Hg, Cd and Zn)	Date	-	1/3/2012	1/3/2013	1/3/14	-
	Vaccine development for nodavirus	Development of polymer based vaccine against nodavirus in <i>M. Rosenbergii</i>	Number	0	1	1	1	-
	Bio diversity conservation and management	Taxonomy and biodiversity of aquatic resources	Number	-	-	4	4	4

		Stock assessment and identification of stock employing statistical models and molecular tools	Number	-	-	2	2	2
	Management of aquatic resources	Assessment of PAH pollution in coastal Mumbai	Date	-	1/3/2012	8/3/13	1/3/14	1/3/15
	Physiological and nutritional interventions for enhancement of growth and reproductive performances in fish	To delineate physiological responses of stress in fish and its mitigation through application of nutraceuticals	Number of nutraceuticals	-	-	2	2	2
		Developing feeding strategy for improving nutrient utilization and growth	Number of fish	0	0	1	1	1
	Development of value added products	Development of ready-to-eat Bombay duck strips and preparation of <i>Pangasius</i> mince based functional restructured product	Number	-	-	1	1	1
	Developing rapid methods for identification of seafood pathogens, toxins and spoilage organisms	PCR characterization of toxigenic <i>E. Coli</i> in sea food	Date	-	-	8/3/13	1/3/14	1/3/15
To conduct training programs in fisheries	Training and skill up-gradation	Number of persons trained	Number	700	500	450	500	600

Efficient Functioning of the RFD System	Timely submission of RFD for 2012-13	On-time submission	Date			Mar. 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		
	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

Objective1. Creation of skilled and adequately trained human resources is of prime importance to tap the fisheries resources for augmenting production of animal protein, employment, income generation, foreign exchange earnings and meeting nutritional security. The success indicators of the objective will be number of students passed and faculty trained for capacity building.

Objective 2. For rational utilization of resources and subsequent enhancement of productivity in the context of scarce resources, there is need to conduct basic and strategic research in emerging areas of fisheries science. The success indicators assigned for this objective are Nano-particles developed, number of algal species screened, product development from low cost fish, number of technologies demonstrated etc.

Success Indicator	Description
Number of students passed	The academic programs are held for eleven disciplines and the students are examined through quiz, mid-term, final theory and practical examinations throughout the semester following a schedule. These examinations consist of both objective and subjective type of questions which are set by both internal and external examiners. The students undergo one year research work for Masters' program while Doctoral program students undertake two years' research work before submitting their dissertations/theses. These are evaluated through external examiners before accepting for awarding their degrees
Faculty trained for capacity building	The faculty in various state agricultural universities need regular upgradation of their knowledge and skill. Advanced faculty training programs are organised with right mix of theoretical as well as practical classes which are delivered by the subject matter experts
Urban aquaculture	Water budgeting, water requirement of jar hatchery for breeding of IMC will be done
Ornamental fish culture	Breeding of high value ornamental fish will be done
Transgenic zebrafish for aquatic heavy metal pollution monitoring	Transgenic zebrafish broad spectrum biosensor responsive to heavy metals (Mercury, Cadmium and Zinc) will be developed
Vaccine development for nodavirus	Development of polymer based nano vaccine against nodavirus in <i>Macrobrachium rosenbergii</i>
Taxonomy and biodiversity of aquatic resources	Taxonomic study of marine algal and marine fish taxa will be carried out based on morphological and molecular tools and taxonomic. Fish biodiversity of one ecosystem and one reservoir will be studied
Stock assessment and identification of stock employing statistical models and molecular tools	Stock assessment of two marine catfish will be carried out. Stock identification of one marine fish will be done
To delineate physiological responses of stress in fish and its mitigation through application of nutraceuticals	Three nutraceuticals namely, Propolis, Fucoidan and Vitamin C / Vitamin E will be used to delineate physiological responses of stress.
Developing feeding strategy for improving nutrient utilization and	Feeding strategies for two fishes, <i>Labeo rohita</i> and <i>Pangasianodon hypophthalmus</i> will be developed

growth	
Assessment of PAH pollution in coastal Mumbai	Polyaromatic hydrocarbons (PAH) from environmental and biological samples will be extracted and analysed by Gas Chromatography
Development of value added products	Diversification and value addition of two fish products namely Ready-to-eat Bombay duck strips and <i>Pangasius</i> mince based functional restructured product will be developed
Developing rapid methods for identification of seafood pathogens, toxins and spoilage organisms	PCR characterisation of toxigenic <i>E coli</i> in seafood

Objective 3. There is a strong requirement for need based demand driven training programs which are participated by various stakeholders like farmers, fishers, policy makers and implementing agencies. These personnel will be trained and their skills will be upgraded.

Section 5: Specific Performance Requirements from other Departments

- 1.** Support of other departments like Department of Biotechnology, Department of Science and Technology, Ministry of Earth Science, NFDB, Department of Atomic Energy etc through timely approval and allocation and release of funds.
- 2.** Timely deputation of candidates from various organisations including state fisheries departments.

**Section 6:
Outcome/Impact of Activities of Organisation**

S No	Outcome/Impact of Activities of Organisation	Jointly responsible for influencing this outcome/impact with the following organizations/ depts./ministries	Success Indicators	Unit	2010 - 2011	2011 - 2012	2012 - 2013	2013- 2014	2014- 2015
1	Availability of qualified human resource ready to take up challenges in the area of fisheries and aquaculture	State Fisheries, NAIP, DST, Ministry of Earth Sciences, DBT, NFDB etc.	Utilization of HRD generated in many developmental fisheries sectors	Number	70	97	75	80	80
2	Knowledge and skill of the stakeholders will be improved and it leads to adoption of the technologies.		Enhanced skill development and job opportunities in fisheries sector	Number	400	425	450	500	500
3	Research and technology development as well as consultancy services will lead to enhanced production and productivity		Number of technologies developed/demonstration	Number	2	2	2	2	2