

**National Agricultural Innovation Project**  
*(Indian Council of Agricultural Research)*



## **FINAL REPORT**

**National Agricultural Innovation Project**  
*(Indian Council of Agricultural Research)*



### **Title of Sub-project**

**Development of Business Planning and Development (BPD) unit at  
Central Institute of Freshwater Aquaculture, Bhubaneswar**



**Central Institute of Freshwater Aquaculture**  
**Kausalyaganga, Bhubaneswar- 751002**

**2014**



Printed on : June, 2014

Component : Component I

Citation : Barik, N. K. 2014. Final Report of NAIP sub-project 'Business Planning and Development unit of CIFA'. Central Institute of Freshwater Aquaculture, Bhubaneswar, India. 73p.

Copyright : © Indian Council of Agricultural Research (ICAR), New Delhi. All rights reserved.

Disclaimer : The information presented herein is unpublished material of the BPD unit of CIFA. Material in this report would be used only for Educational or other non-commercial purposes. The reproduction and publication of the information for any purpose other than mentioned must be done with prior permission from the publisher.

Published by : Dr. P. Jayasankar,  
Director,  
Central Institute of Freshwater Aquaculture,  
Bhubaneswar,  
Odisha  
Ph: 0674-2465421  
Fax: 0674-2465407  
Email: cifa@ori.nic.in

Edited by : Nagesh Kumar Barik

Compiled by : Satyadeep Pati  
Ambarish Paikaray  
Dillip Kumar Sahoo  
Badri Narayan Sahu  
Satyapriya Mohapatra

Hindi translation :

Other Credits : Photograph: S. Mahali (Technical Officer) and BPD team

Cover page photographs : S. Mahali (Technical Officer)

---

Printed at Maruti Xerox, 75/A, BJB Nagar, Bhubaneswar



## CONTENTS

	<b>No. of pages</b>
Executive Summary/ Key words	iii-iv
<b>Part-I:</b> General Information of Sub-project	1
<b>Part-II:</b> Technical Details	3
1. Introduction	3
2. Overall Sub-project Objectives	3
3. Sub-project Technical Profile	3
4. Baseline Analysis	4
5. Research Achievements	4
6. Innovations	26
7. Process/Product/Technology Developed	28
8. Patents (Filed/Granted)	28
9. Linkages and Collaborations	28
10. Status on Environmental and Social Safeguard Aspects	29
11. Constraints, if any and Remedial Measures Taken	29
12. Publications	29
13. Media Products Developed/Disseminated	30
14. Meetings/Seminars/Trainings/Kisan Mela, etc. organized	30
15. Participation in Conference/ Meetings/Trainings/ Radio talks, etc.	31
16. Foreign Trainings/Visits	32
17. Performance Indicators	32
18. Employment Generation	33
19. Assets Generated	34
20. Awards and Recognitions	36
21. Steps Undertaken for Post NAIP Sustainability	36
22. Possible Future Line of Work	37
23. Personnel	37
24. Governance, Management, Implementation and Coordination	39
<b>Part-III:</b> Budget and its Utilization	40
<b>Part-IV:</b> Declaration	42
<b>Annexure</b>	43



## **Executive Summary**

Pisciculture proved to be the most productive, challenging and remunerative enterprise among agriculture and allied sector. In the recent years, the business in aquaculture has emerged as potential area for large number of the entrepreneurs to take advantage of it. With a mission, to provide the required infrastructural support and environment to entrepreneurs / business men in freshwater aquaculture and promoting incubatees for commercializing technologies developed at Central Institute of Freshwater Aquaculture (CIFA), one Business Planning and Development (BPD) Unit was set up in CIFA in June, 2013 by National Agriculture Innovation Project (NAIP) of Indian Council of Agricultural Research (ICAR), New Delhi.

The sub project has three objectives viz., (a) To promote aqua-business entrepreneurs using aquaculture technologies; (b) To facilitate technology commercialization of technologies developed by CIFA; (c) To enhance human resource skill of entrepreneurs for aquaculture business. The project is in operation at CIFA since June, 2013.

In a short span of time this platform provided opportunity for entrepreneurs to share their ideas and knowledge to the technical community and scientists for successful business enterprises. It encouraged them to take more aggressive role in designing and up-scaling the business while accessing technology of the central institute. Seven entrepreneurs could come up to the stage and signed MoUs with BPD, CIFA for defining new orbit of their business and to move on. BPD is under discussions with another 29 prospective entrepreneurs who are at different stage of discussions and some are an inch away from signing the MoU.

The BPD has developed value added fish products like Rohu and Catla Deboned Fish, Fish Finger, Fish Pickle, Fish Fillet, Fish Biryani, breaded & battered products and Ready to cook products etc. These products were test marketed in the Reliance Fresh, Hotels, Restaurants and Petty Sellers etc. Freshwater fish processing unit has developed and supported development of innovative product- Fish Hydrolysate. The BPD has generated revenue worth of Rs. 9.3 (Rupees Nine lakhs and thirty thousand) through incubation and consultancy services.

BPD provides incubation facilities such as office space, access to information and communication of technologies, advice on management & marketing of products and services, technical, legal, IPR and financial support. A total of around 40 number of clients interacted and provided with the support for business development.

Many New infrastructure and facilities developed viz., Tilapia hatchery, Murrel hatchery, Technology Park, three numbers of Ponds etc. The models of the technologies viz., Magur hatchery, Carp hatchery, Demand fish feeder, Fish Silo etc. are developed for display to the entrepreneurs.



Office facilities of 3000 square feet is created which consist of technology display area, lobby, laboratory, incubate rooms, client consultation room, conference facilities, office space. This is in addition to 2000 square feet of space being used at present for the incubatees and fish processing unit.

Market Assessment for the fish products was done by BPD, CIFA in Bhubaneswar and nearby markets. It also coordinated surveys at Malkangiri, Koraput, Rayagada markets in Odisha and Naihati Seed market of West Bengal. Price Fixation of CIFABROOD<sup>TM</sup> and Immunoboost-C was facilitated by BPD unit after conducting various market surveys.

During this period four number of workshops viz, launching workshop, entrepreneurship meet, Workshop in CIFABROOD, workshop on pre-commercialization of seven technologies was organized while the BPD has participated in the seven numbers of workshop, exhibition etc.

The BPD has undertaken two consultancies i.e. one from RRA- network at the cost of 5.2 lakhs and another one with the Agriculture Promotions and Investment Corporation of Orissa (APICOL) at the cost of 2.0 lakhs.

The BPD has prepared nine fliers, one product catalogue, one leaflets and several posters and banner for business promotion in freshwater aquaculture.

In future, BPD CIFA will upscale this novel beginning to realize the potential of the aqua-business in India.

## Part-I: General Information of Sub-project

1. **Title of the sub-project:** Development of Business Planning and Development (BPD) unit at Central Institute of Freshwater Aquaculture, Bhubaneswar
2. **Sub-project code:** Component-1: BPD
3. **Component:** Component-1
4. **Date of sanction of sub-project:** 20<sup>th</sup> May2013
5. **Date of completion:** 31<sup>st</sup> March 2014
6. **Extension if granted,** from April 2014 to June 2014
7. **Total sanctioned amount for the sub-project:** 1,69,41,000
8. **Total expenditure of the sub-project:** 1,46,56,554
9. **Consortium Leader:** Dr P Jayasankar

(Name of CL, Designation, Organization Address, Phone & Fax, E-mail, Website)

Name	:	<b>P. Jayasankar</b>
Designation	:	Project Leader
Organisation Address	:	Central Institute of Freshwater Aquaculture, Kausalyaganga, Bhubaneswar, Odisha
Email	:	<a href="mailto:pjayasankar@yahoo.com">pjayasankar@yahoo.com</a>
Phone & Fax	:	Phone: 91-674-2465421, 2465446 FAX: 91-674-2465407
Web site	:	<a href="http://www.cifa.in/">www.cifa.in/</a> <a href="http://www.bpdccifa.com">www.bpdccifa.com</a>

### 10. List of consortium partners:

	<b>Name of CPI/ CCPI with designation</b>	<b>Name of organization and address, phone &amp; fax, email</b>	<b>Duration (From-To)</b>	<b>Budget (Lakhs)</b>
<b>CPI</b>	Nagesh Kumar Barik, Principal Investigator, Scientist (Senior Scale)	nageshbarik@hotmail.com	June-2013 to till date	
<b>CCPI1</b>	P. Swain, Co-PI, Principal Scientist & National Fellow	Pswainy2k@rediffmail.com	-do-	
<b>CCPI2</b>	S. Adhikari, Co-PI, Principal Scientist	Sadhikari66@indiatimes.com	-do-	
<b>CCPI 3</b>	P. Routray, Co-PI, Principal	Routray30@yahoo.co.in	-do-	

	Scientist			
<b>CCPI 4</b>	B.C. Mohapatra, Co-PI, Principal Scientist	Bcmohapatra65@yahoo.co.in	-do-	
<b>CCPI 5</b>	K.C. Das, Co-PI, Senior Scientist	Kcdasicar@gmail.com	-do-	
<b>CCPI 6</b>	P. N. Ananth, Co-PI, PC, KVK, Khurda	pnananth37@yahoo.com	-do-	

CPI-Consortia Principal Investigator; CCPI-Consortia Co-Principal Investigator

**11. Statement of budget released and utilization partner-wise ( ` in Lakhs):**

	<b>CPI/ CCPI Name, designation &amp; address)</b>	<b>Total budget sanctioned (Lakhs)</b>	<b>Fund released (up to closing date)</b>	<b>Fund utilized (up to closing date)</b>
	BPD, CIFA	1,69,41,000	1,47,70,662	1,46,56,554
<b>Total</b>				

CPI-Consortia Principal Investigator; CCPI-Consortia Co-Principal Investigator

## **Part-II: Technical Details**

### **1. Introduction**

In the recent times, agriculture sector of the country has diversified more towards horticulture, livestock and aquaculture. The aquaculture sector is responding to the challenge by bringing more technology, species, and products for fish production. The industry and business relating to the aquaculture is growing at faster rate. In this context technology business incubation is a relevant and powerful means of converting innovative research ideas into sound commercial ventures. The central Institute of Freshwater Aquaculture (CIFA) is the leading research institute in generating diverse range of technology applicable across wide range of resources and region. These ideas need to be converted into business for the benefits of farmers, entrepreneurs, businessmen and industry. The proposed Business Planning and Development (BPD) Centre will be a platform for facilitation of the process of creating business from the technology in aquaculture.

### **2. Overall Sub-project Objectives**

The broad objectives of the project are

- To promote aqua-business entrepreneurs using aquaculture technologies
- To facilitate technology commercialization of technologies developed by CIFA
- To enhance human resource skill of entrepreneurs for aquaculture business

### **3. Sub-project Technical Profile**

The deliverables of the BPD units are as below

1st year

- Commercialization of 3 technologies to the SME or business leaders
- Entrepreneurship development of 3 technologies
- 15 SME promoted
- 50 entrepreneurship developed (25 on site and 25 off-site incubate)
- 50 registered business membership
- Revenue generations of 10 lakhs in first year

2nd year, 3rd year and 4th year

- Commercialization of 3 technologies to the SME or business leaders
- Entrepreneurship development of 3 technologies
- 15 SME promoted
- 100 entrepreneurship developed (50 on site and 50 off-site incubate)
- 50 registered business membership
- Revenue generations of 16 lakhs in first year

#### 4. Baseline Analysis

**Not Applicable**

#### 5. Research Achievements with Summary

##### *5.1 Promotion of Incubatee*

Business Planning & Development Unit (BPD) of CIFA proved itself an effective unit for sustainable business development by developing 7 new incubatees on business development of the new technologies.

#### **List of Registered Incubatee of BPD CIFA**

<b>Sl. No</b>	<b>Incubatees</b>	<b>Name of the Incubatee</b>	<b>Product Involved</b>
1	M/s Aisharya Aquaculture Pvt. Ltd. Naihati (WB)	Mr. Avijan Ghosh	CIFABROOD
2	M/s M R Aquatech, BBSR	Mr. Ramesh Das	FRP Technology
3	M/s Smruti Agency, BBSR	Mr. S.K. Behera	Immnoboost-C
4	M/s Prabhakar fish pickle, BBSR	Mr. D. Mallick	Fish Pickle technology
5	M/s Kesar sweet water fish product, Bhubaneswar	Mrs. Pallabi Jena	Fish Processing technology
6	M/s Poonam Fisheries	SurendraBelchandan	Aqua School
7	M/S Gugly Centre for biological Research	Mrs Rajasree Nanda	Fish hydrolysate

**Photo graphs of signing of MoU**

	
<p>MoU with M/S Aisharya Aquaculture</p>	<p>MoU with M/S Poonam Fisheries</p>
	
<p>MoU with M/S MR Aquatech</p>	<p>MoU with M/S Prabhakar Fish Pickle</p>
	
<p>MoU with M/S Smruti Agencies</p>	<p>MoU with M/S Keshar Fish Product</p>

## List of Prospective Incubates

#	Technology	Entrepreneur's Name	Address	Progress details
1	Aqua school	Mukut Ray Choudhury	West Bengal	Two round of discussions
2	Aqua Shop	Sandeep Dhar	Secunderabad	Preliminary discussion
3	Aquaculture farm	Saurava Kumar Biswal	Jagatsinghpur	Preliminary discussion
4	Aqua Tourism	Amalesh Chatterjee	West Bengal	Preliminary discussion and field visit. Final stage of signing of MoU
5	Aquaculture	Mamoon Rauf	Nayagarh	Preliminary discussion
6	Aquaculture farm	U K Swain	Bhubaneswar	Preliminary discussion
7	Aquaculture farm	Subjan Mohammad	Puri	Preliminary discussion
8	Aquaculture farm	Umesh Kumar Bisoi	Cuttack	Preliminary discussion
9	Aquaculture farm	Nirmal Chandra Biswal	Bhubaneswar	Preliminary discussion
10	Aquaculture farm	Pabitra Kumar Parida	Nayagarh	Preliminary discussion
11	Aquaculture farm	Debi Prasad Pattanaik	Kuhudi	Two round of discussions
12	Fish feed	Kailash Ch. Sahu	Gop, Puri	Two round of discussions and visited farm site
13	Aquaculture farm	Manguli Sahu	Gop, Puri	Two round of discussions
14	Aquaculture farm	Prakash Ch.Nayak	Puranpadhan, khurda	Preliminary discussion
15	Aquaculture farm	Mihir Ranjan Sagar	Diptipur, Bargarh	Three round of discussions
16	Aquaculture farm	Navneesh Nalwa	Sumrihi Seeds, Haryana	Two round of discussions and attended training for feed
17	Fish Processing	Himmat Raghunathrao Morey	Himmat Fish Merchant, Maharastra	Preliminary discussion and application for field visit
18	Fish Processing	Amalesh Chatterjee	West Bengal	Two round discussion over and received request letter for support
19	Fish Processing	Manoj	Bhubaneswar	Two round discussion over, product supplied for test marketing
20	Aquaculture farm	Gargi Das	Cuttack	Several discussions and product testing in Pune market
21	Hatchery	Amalesh Chatterjee	West Bengal	Preliminary discussion and field visit. Final stage of signing of MoU
22	Hatchery and Feed	Sandeep Dhar	Agroco Advantage, Hyderabad	Two round of discussions and final stage of one consulting assignment
23	Fish Hatchery	Bijoy Roy	West Bengal	One round of discussion over, Request letter

				received for support
24	Ornamenta Fish and Feed	Sudip Debnath	Prayag Group	Preliminary discussion and visited hatchery and farm
25	Pearl Culture	Prasannaku. Pattanaik	Khordha	Two round of discussions and plan for field visit
26	Products for commercialization	O. P. Lal	Ranchi	Under discussions
27	Soil and Water Quality Testing Kit/ laboratory	Satya Ranjan Swain	Sakhi Gopal, Puri	Two round of discussions
28	Aquaculture farm	Sukanta Kumar Pradhan	Khordha	Preliminary discussion
29	Ruchi Foodline		Bhubaneswar	Two round of discussions and developed product "Fish Biryani" and supplied.

Front page of the MOU is provided in **Annexure-1**.

## ***5.2 Product development***

### **(a) Development of Fish processing products**

Freshwater fish processing unit is developed and supported by BPD, CIFA. The unit developed value added products like Rohu and Catla deboned fish, Fillet, Finger, Nugget, Drumstick, breaded & battered products etc. Freshwater fish pickle was another innovative product designed during the period and these products are developed from Rohu, Catla, Murrel, Tilapia etc fishes



Fish Processing	Fish Nugget
	
Deboned whole fish	Ready to Fry Product

Fish fillet (Tilapia)	Fish finger (Rohu)	Fish finger (Rohu)



**(b) Development of innovative product- fish hydrolysate**

After processing almost 30 % of the product is wasted. Disposal of these products also requires additional infrastructure, cost and time. One innovative idea to mitigate the issue of disposal a product i.e. Fish Hydrolysate is developed from fish waste in BPD. The product is high in various nutrients (N, P, K, Fe, S etc). The product can be applied as foliar spray in fruits/vegetables and can be used in tanks for plankton promoter. This product was tested in OUAT and CIFA lab to find out the nutrient value.

### 5.3 Test marketing of product

Test marketing of the fish products in the Reliance fresh, Hotels, restaurant, etc

	
Reliance fresh fish marketing	Marketing in restaurant
	
Marketing in hotel industry	Master Canteen.Com

- The developed products are being sold in the reliance fresh market on experimental basis. The consumer acceptance and feedback is taken. Most of the consumer liked the quality of the products. They were displayed along with other non-vegetarian fresh & raw products. There is a plan to fix the price of the products through consumer preference and consumer choice.
- Hotel Industries were experimented with the whole fishes of Rohu and Catla. The new dish designed by the chefs in the hotel was “Stuffed Rohu”. This product was of high taste and children could use spoon and fork to consume the item.
- Two products Rohu whole fish and Tilapia drumstick was launched in the Pune market i.e. Dorabji. The response was good and the supplier got repeat purchase order for all the products.

#### ***5.4 Revenue generation***

Revenue generation of BPD was Rs. 9.3 (Rupees Nine lakh thirty thousand only) through incubation services and consultancy.

#### ***5.5 Business Plan development***

- Business plan Development for the entrepreneurs working with commercialized technology like Portable FRP carp hatchery, FRP Magur Hatchery, Immunoboost-C, CIFABROOD™ (A broodstock feed).
- Business Plan for CIFABROOD™ (A broodstock feed) was prepared for five years. The plan developed is for a turnover of 8 crore rupees in those three years.
- Business Plan for seven was prepared in consultation with the entrepreneur. This plan is further developed to make it a bankable proposal to encourage bankers to provide capital support and to access subsidy through APICOL (copy of letter annexed)

#### ***5.6 Client consultation***

- BPD provides incubation facilities such as office space, access to information and communication of technologies, advice on management, marketing, technical, legal, IPR and financial issues.



Dr. Ramoo, Director CSA, Hyderabad

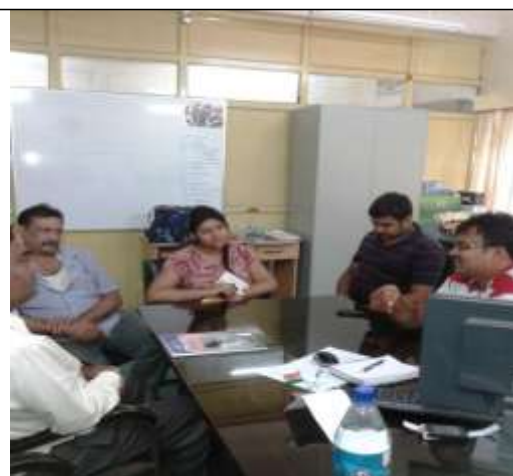


Dr. Basu, Consultant, NAIP





Mr. Ramesh Ch. Das (Odisha)



Mr. Bablu Ghosh (West Bengal)



Dr. Basu with fish hydrolysate



Mr. Himat Raghunath Rao (Maharastra)



Mr. Sudip Debnath (West Bengal)



Mr. Amlesh Chattarjee (West Bengal)



A total of around 40 numbers of clients are interacted and provide with the support for development of the enterprises.

List of the client to which interaction was done is attached as **Annexure -2**.

### ***5.7 Services provided***

BPD Unit, the One-stop-center for technology exposure to the entrepreneurs, is operating with following services provided to the entrepreneurs.

<b>Incubation Services</b>	<b>Technology Services</b>
Seed Venture	Water & Soil Testing
Farm Venture	Training
Innovative Venture	Hatchery Services
Aqua-Tourism Venture	Consultancy Services
Food Processing Venture	Business Planning
Aqua-Input Venture	Fish Processing

### ***5.8 New infrastructure and facilities developed***

BPD unit created well developed facilities for fish processing as unique facilities for entrepreneurs want to work in the ready to cook and ready to eat product



Working table (Fish processing unit)

Deep fridge (Fish processing unit)



Pickle packing (Fish processing unit)


Packaging machine (Fish processing unit)

BPD unit developed facilities for seed production of the emerging fish species

	
<p>Tilapia hatchery (Inside view)</p>	<p>Tilapia hatchery (outside view)</p>
	
<p>Murrel hatchery (Inside view)</p>	<p>Ponds and technology park</p>
	
<p>Technology park (Front view)</p>	<p>Technology park (Inside view)</p>

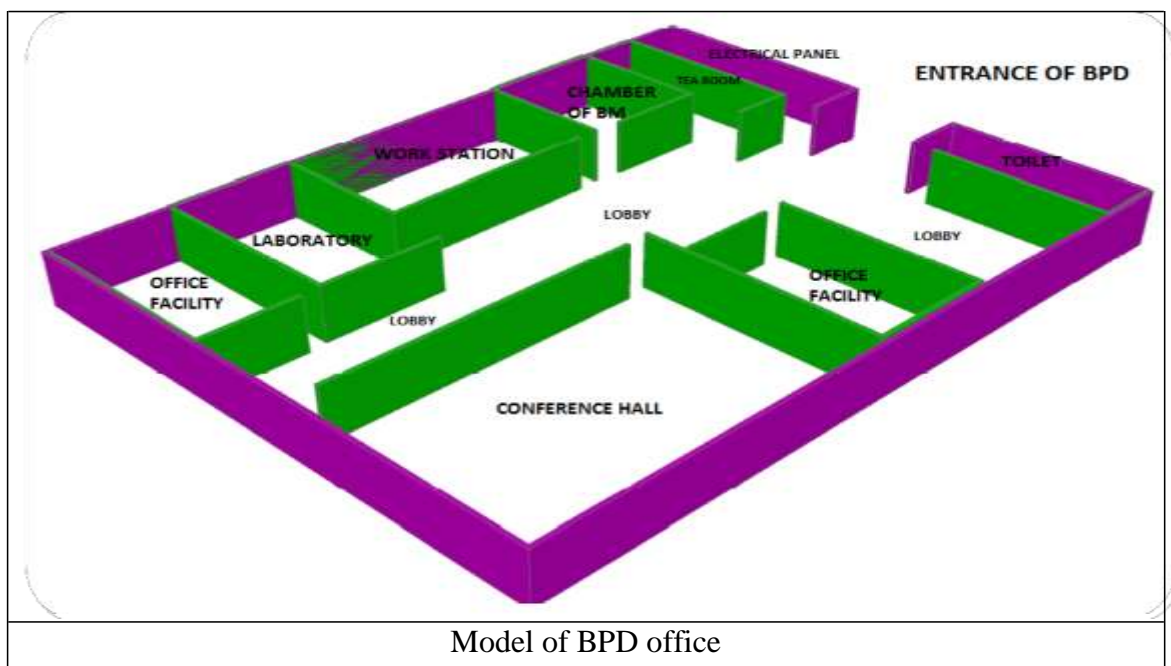


The models of the technology are developed for display to the entrepreneurs

	
Magur hatchery	Carp hatchery
Demand fish feeder	Fish silo

Office facilities of 3000 square feet is created which consist of technology display area, lobby, laboratory, incubate rooms, client consultation room, conference facilities, office space.

	
<p>Present BPD office</p>	<p>Present BPD office</p>
	
<p>BPD office (Inside view)</p>	<p>BPD office (Front view)</p>
	
<p>BPD office (under construction)</p>	<p>BPD office (under construction)</p>



### ***5.9 Market survey***

Market Assessment for the fish products was done by BPD, CIFA in Bhubaneswar and nearby markets. It also coordinated surveys at Malkangiri, Koraput and Rayagada markets for freshwater fish products. Interestingly local product availability in market was lesser than 30% in these market which shows the tremendous potential of freshwater fish culture in local market in the southern part of Odisha. Seed market in Odisha and West Bengal was studied and survey was made. It was clear that the cost of the seed has increases slowly. But the production cost has increased at a higher rate and thus the margin does not cover the cost of production. So many of the producer are forced to divert the seed production units to other ventures.

Feed market was studied in Bhubaneswar and nearby markets. Discussion with competing companies gave varied inputs for development of feed business. The habit of feeding and variety of fish feed are major drawbacks in local producers which is not promoting both the production and consumption of feed in the market. Survey on processed fish products was conducted in Bhubaneswar market to see the need and attitude of consumers towards the products. The products were highly appreciated by consumers and they praised the way products were developed. Consumers were also fascinated by the fresh fish products and breaded & battered which could be stored for more than two quarters.





Dry fish market of Kalimela(Odisha)



Fish market of Jeypore (Odisha)



Local Supplier of Seed (West Bengal)



Fish seed market at Kalimela,(Odisha)



Discussion with Seller in Naihati, (West Bengal)



Farmers producer group (Odisha)

## 5.10 Price Fixation

### a) Price Fixation for CIFABROOD™

Price Fixation of CIFABROOD™ was done by a committee includes seven members of scientist with the chairmanship of Dr. S Nandi and the member secretary of Mr. N K Barik on 6<sup>th</sup> of January 2014 at the office of the Business Planning & Development(BPD) Unit at ATIC building of Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar. The committee recommended that the price of the CIFABROOD™ should be fixed at Rs. 81.00 which is maximum retail price (MRP) for the product and the price is fixed for minimum of one year i.e. up to December 31, 2014 or till the time revision is made and the committee will consider the revision on request from the firm after completion of one year. The institute for a period of one year. BPD-CIFA coordinated the process.



### b) Price Fixation for Immunoboost-C

Price fixation of Immunoboost-C is under process. A detailed discussion with the incubatee M/s Smruti Agency, BBSR was done in the month of March. The price fixation committee as approved by the Director of CIFA gave its preliminary suggestions to the company for finalizing the purchase item and expenditure items.

### 5.11 Success stories in business incubation

#### Success Story of M/s Aisharya Aquaculture (p) Ltd, Naihati, West Bengal

The entrepreneur Mr. Avijan Ghosh shown interest to be an incubatee of BPD Unit of CIFA to produce feed for fish. He registered himself by signing one MoU with CIFA and took the opportunity of producing one ton of fish feed in CIFA's Feed Mill. He has been working in the field of freshwater aquaculture for 35 years (ancestral enterprise). During their business they observed that fish feed is the most important part



Signing of MoU: Avijan with Director, CIFA

for quality fish productions. So they came to BPD Unit of CIFA and approached for

producing quality fish feed for commercial scale. BPD Unit of CIFA has very much delight to offer the technology with the terms and conditions of CIFA. Then one MoU has signed and offered the technology and rights to produce the fish feed in the trade name of

“CIFABROOD™”- A broodstock feed for carps. The product developed by CIFA after 18 years of research. The result of the particular product is quiet extraordinary and market demand rapidly gears up. He is now very happy and getting handsome profit out of the product. Till date he was supported for producing one tonne from CIFA feed mill with proper guidance and also produced about 21 tonnes of product from private feed mill in West Bengal.



Bablu Ghose with CIFABROOD™



## Success Story of M/S. Keshar Sweet Water Fish Products, Bhubaneswar



Signing of MoU: Pallabi with Director, CIFA







Mrs. Pallabi Jena came to know that Business Planning & Development Unit of CIFA is promoting the entrepreneurs in the freshwater aquaculture. She wanted for producing processed frozen fish products like Deboned whole fish, nuggets, fingers, chunks, Tilapia drumstick,

fish fillets and curry cuts etc.

BPD has supported in producing such products in scientific manner and vacuumed packet and launched in Pune (Dorabji) and Reliance Fresh in Bhubaneswar. The customers have appreciated the innovative kind of product in the market and the demand rises like anything. She also contacted to star hotels in Bhubaneswar, Cuttack and Puri and given the products. The demand in Hotel Industry sector has took the products demand for the next. She has achieved her monthly targets very fast and got the profit more than expected.



Display of Products in Workshop organized by BPD, CIFA

		
Fish fillet (Tilapia)	Fish finger (Rohu)	Fish finger (Rohu)
		
Rohu and catla	Murrel	Ready to Fry Product

## Success Story of M/s MR Aquatech, Bhubaneswar:

Most of the fish farmers have now interested for establishing FRP Fish Hatchery as it is portable, compact and can be installed anywhere. Mr. Ramesh Chandra Das one of the incubatee undertook the technology and producing commercially and selling in the market. He is now become a renewed trader all over and getting huge profit out of the FRP Fish Hatchery.

He also producing so many aquaculture related



Signing of MoU: Ramesh with Director, CIFA



Display of Models in Eastern zonal workshop at CRRI, Cuttack

implements in FRP material and expanding his business in a larger unit. He has registered a company in the name of “M/s/ MR Aqua-tech” and very happy in his business. He is now appreciating the BPD Unit of CIFA for his achievements in getting active handholding support from our side. Even though he is producing the FRP hatchery for few years, the BPD has helped in up-scaling the high production. Now his annual turnover is much higher than the previous years.



## Success Story of M/S Smruti Agencies, Bhubaneswar:



Signing of MoU: Surendra with Director, CIFA

The Immunoboost-C is one of the research product of the CIFA useful for increasing immunity of the fish when applied in the water or in the injection form. Mr. S. K. Behera of Smruti Agencies access the technology through commercialization process. Immunoboost-C at the dose of 0.2ml/ kg body weight if injected to brood fish before 15 days of breeding has given spectacular fish production. More over Immunoboost-C upon injection to brood fish at the above dose before winter season enhances

the disease free condition. When it is given to freshwater spawn, fry and fingerlings through bath



treatment during seed transport reduces mortality. M/s. Smruti Agency is being inducted as BPD to develop its business. The BPD has helped in developing business



### Immunoboost-C Product

and getting more profit from this product and appreciating BPD CIFA for the support.

plan, access to market and up-scaling of the product. He also very much satisfied

Display of Immunoboost-Cin Eastern zonal workshop at CRRI, Cuttack

## Success Story of Prabhakar Fish Pickle, Bhubaneswar:

Mr. Duryodhan Mallick has attended our BPD Unit launching Workshop at CIFA campus. He came to know that BPD Unit is supporting in promoting some innovative enterprise in aquaculture sector. He has then contact BPD for producing Fish Pickle. Previously he was not getting the technology for fish pickle preparations. Now with support from BPD Unit, he has produced different type of Fish Pickle like. Rohu



Signing of MoU: Duryodhan with Director, CIFA



Various products of Fish Pickle

Pickle, Carp Pickle, Murrel Pickle, Prawn Pickle etc. These pickles are packed in different denominations sold in the market. The customers are purchasing the products and demand for the next. Now he is commercializing this product and getting huge profit and appreciates BPD for the support.

### 5.12 Support to other divisions

BPD provided support to all divisions of CIFA – APED, Nutrition, Fisheries, Water and Soil Testing dept by providing critical instruments to them.

### 5.13 Consulting assignments

- Revitalising Rainfed Agriculture approached CIFA for supporting technically for the development of freshwater aquaculture in rainfed areas. The Consultancy assignment worth of 5.2 lakh was agreed and MOU was signed in this regard.
- Agricultural Promotion and Investment Corporation of Odisha Ltd (APICOL) requested BPD, CIFA to provide business plan for the seven technical dimensions of freshwater aquaculture. The support from them to CIFA would be Rs 2.0 lakh. The proposal is at the final stage of approval.

#### 5.14 Workshop and meeting organized

S. No.	Details of Meetings/Seminars/ Trainings, etc.	Duration (From-To)	No. of Personnel Trained/ participated	Budget ( )	Organizer (Name & Address)
1	Entrepreneur & Farmer's awareness workshop	26 <sup>th</sup> September 2013	17		BPD, CIFA at RRC Kalyani, WB
2	Farmer Awareness Workshop on CIFA BROOD™	1 <sup>st</sup> November 2013	65		BPD, CIFA at CIFA Auditorium
3	Launching of BPD Unit of CIFA	2 <sup>nd</sup> November	118		BPD, CIFA at CIFA Auditorium
4	Pre-commercialization awareness workshop	23 <sup>rd</sup> December 2013	49		BPD, CIFA at BPD Office at CIFA
5	Meeting on CIFABROOD™ Price Fixation	6 <sup>th</sup> January 2014	19		BPD, CIFA at BPD Office at CIFA

#### 6. Innovations

(Describe about the innovations and their impacts, one page each, please be clear about innovation concept and describe only innovation(s) in brief)

##### a) Development of fish hydrolysate as innovative product

Fish hydrolysate is a fish Based bio fertilizer prepared out of fish waste. It turns fish wastes into growth promoters in plant, fish and animal productivity and reducing environmental pollution. It was produced through cold processing by using equal amount of molasses and fish waste. This retains ingredient of naturally occurring amino acid, fatty acid, vitamins, hormones and enzyme. Fish hydrolysate is highly bioactive for promoting plant, animal and fish growth. Fish hydrolysate has been found to be very effective as an additive to compost. They accelerate the process by feeding soil microbes, while adding essential trace elements and potent biomolecules to the mix. Fish hydrolysate has N:P:K::2:0.5:0.3 and stable at pH 3.5-4.0.

**Dosage:** It can be applied in following doses

Agriculture or Field crops/ Vegetable- 2 0-40 lit/ha for pre planting and fertigation, diluted to 1:10 and applie in moist condition

Nursery soil Preparation-1 0-20 ml/lit applied on soil

Foliar spray-5 -10ml/lit 14-21 day interval, Diluted to 1:3500 andSprayed

Plant nurseries- 5 -10ml/lit 10-21 days interval

Aquaculture Nursery plankton production- 5-10 ml/ lit 7 days interval

Moist feed for fish: 1 litre/ quintal

Pelleted feed-1 litre/ quintal



Fish Hydrolysate in small bottle for supply



Bigger units with spray instrument

## 7. Process/ Product/Technology Developed

(List partner-wise major Process/ Product/Technology developed and their outcome in quantifiable terms)

S. No.	(Process/Product/Technology Developed)	Adoption/ Validation/ Commercialization, etc.	Responsible Partner
1	Tilapia Drumstick	At the test marketing stage	Prospective incubator identified
2	Rohu Butterfly	At the test marketing stage	-do-
3	Fish Nugget	At the test marketing stage	-do-
4	Fish popcorn	At the test marketing stage	-do-
5	Fish Pickle	At the test marketing stage	-do-
6	Fish finger	At the test marketing stage	-do-
7	Fish hydrolysate	At the test marketing stage	-do-

## 8. Patents (Filed/Granted)

S. No.	Title of Patent	Inventor(s) (Name & Address)	Filed/Published/Granted (No./Date)	Responsible Partner
	Nil			

## 9. Linkages and Collaborations

Sl. No.	Linkages developed (Name & Address of Organization)	Date / Period From-To	Responsible Partner
1	Agricultural Promotion and Investment Corporation of Odisha Ltd. (APICOL), BBSR	From September 2013	
2	National Bank for Rural Development (NABARD) , BBSR	From September 2013	
3	State Bank of India (SBI) , BBSR	From October 2013	
4	Uco Bank, BBSR	From October 2013	
5	College of Agriculture (CA), OUAT, BBSR	From September 2013	
6	College of Fisheries, Rangeilunda	From August 2013	
7	Dept. of Fisheries, GoO, BBSR	From September 2013	
8	Krushi Vigyan Kendra (KVK), Khordha	From August 2013	

## 10. Status on Environmental and Social Safeguard Framework

(Please see NAIP website for clarity on the subject)

## 11. Constraints, if any and Remedial Measures Taken

NA

## 12. Publications (As per format of citation in Indian Journal of Agricultural Sciences)

### A. Research papers in peer reviewed journals

S. No.	Authors, Title of the paper, Name of Journal, Year, Vol. & Page No.	NAAS Ratings	Responsible Partner
	NA		

### B. Books/ Book chapters/ Abstracts/ Popular articles, Brochures, etc.

S. No.	Authors, Title of the papers Name of Book/ Seminar/ Proceedings/Journal, Publisher, Year, Page No.	Responsible Partner
1	B.B. Sahu, N.K. Barik, A. Paikaray, B. N.Sahu, S. Pati, S.Mohapatra and P.Jayasankar "Tilapia Drumstick" An Innovative Product for Retail Fish Markets", <i>International Conference on Management of Agribusiness &amp; Entrepreneurship Development, Bhopal, 2013</i> p 61.	
2	B.B. Sahu, N.K. Barik, A. Paikaray, B.N. Sahu, S. Pati, S.Mohapatra and P. Jayasankar "Rohu Butterfly- A Product Aiming to Improve Retail Marketing of Carps", <i>International Conference on Management of Agribusiness &amp; Entrepreneurship Development, Bhopal, 2013</i> p 61.	

### 13. Media Products Developed/Disseminated

#	CD, Bulletins, Brochures, etc. (Year wise)	No. of Copies	Distri bution	Responsib le Partner
1	<u>Leaflet</u> Promoting Entrepreneurship in Fresh water aquaculture, Business Planning and Development Unit CIFA, BBSR.	200		
	<u>Flyers</u>			
2	FRP Carp hatchery	200		
3	CIFABROOD™	200		
4	FRP demand fish feeder	200		
5	CIFA- Fish Hydro lysate (Fish Bio fertilizer)	200		
6	Immunoboost-C	200		
7	FRP Magur hatchery	200		
8	Murrel Culture	200		
9	Jayanti Rohu	200		
10	Shining Barb	200		
11	<u>Product catalogue</u>	100		

### 14. Meetings/Seminars/Trainings/Kisan Mela, etc. organized

Sl. No.	Details of Meetings/Seminars/ Trainings, etc.	Duration (From-To)	No. of Personnel Trained/ participated	Bud get	Organizer (Name & Address)
1	Entrepreneur & Farmer's awareness workshop	26 <sup>th</sup> September 2013	17		BPD, CIFA at RRC Kalyani, WB
2	Farmer Awareness Workshop on CIFA BROOD™	1 <sup>st</sup> November 2013	65		BPD, CIFA at CIFA Auditorium
3	Launching of BPD Unit of CIFA	2 <sup>nd</sup> November	118		BPD, CIFA at CIFA Auditorium
4	Pre-commercialization awareness workshop	23 <sup>rd</sup> December 2013	49		BPD, CIFA at BPD Office at CIFA
5	Meeting on CIFABROOD™ Price Fixation	6 <sup>th</sup> January 2014	19		BPD, CIFA at BPD Office at CIFA

### 15. Participation in Conference/ Meetings/Trainings/ Radio talks, etc.

S. No	Details of Meetings/Seminars/ Trainings/Radio talk, (Name, Address)	Duration (From-To)	Budget (₹)	Participant (Name & Address)
1	Training programme of New BPD at Directorate of Agribusiness Development – Tamil Nadu Agricultural University (TNAU), Coimbatore	June 18-21, 2013.		N. K. Barik
2	Agri-investor meet	18 <sup>th</sup> July, 2013		Dr. P. Jayasankar (Director) Dr. P. N. Ananth
3	Awareness program was organized by the expert of ICRISAT at BPD Unit CIFA	19 <sup>th</sup> & 20 <sup>th</sup> August 2013		N K Barik, S Pati, A Paikray, B Sahu, S Mohapatra
4	Launching Workshop of BPD, CRRRI	21 <sup>st</sup> September 2013		N K Barik, S Pati,
5	Entrepreneur's Investors meet at NIRJAFT, Kolkata (WB)	27 <sup>th</sup> September 2013		N K Barik, S Pati, A Paikray, B Sahu, S Mohapatra
6	Participated and presented CIFA technology in AgIn meeting in New Delhi	19 <sup>th</sup> October 2013		N K Barik, S Pati,
7	Understanding and Planning Fishery Development in Rainfed Agricultural Areas of India' organised by WASSAN, Hyderabad	19 <sup>th</sup> & 20 <sup>th</sup> November 2013		N. K. Barik
8	Participated in the training organized by the Entrepreneurship Development Institute (EDI) at Ahmedabad. The training encouraged BPD team members to understand the various dimensions and strategies to promote entrepreneurship	6 <sup>th</sup> to 10 <sup>th</sup> January 2014		Dr P Ananth
9	Participated in the training programme on IP for entrepreneurs organized by National Academy for Agricultural Research and Management (NAARM)	27 <sup>th</sup> to 31 <sup>st</sup> January 2014		S Pati
10	Final workshop of BPD organised by NAIP, New Delhi	March 7, 2014		N. K. Barik
11	ISBA Conference and training programme of BPD units organized by ICRISAT	24-25, March 2014		N. K. Barik & Two incubatees



### 16. Foreign Trainings/Visits:

S. No.	Name, Designation, Address of the Person	Visit/Training/Seminar its Place, Organization and Duration (From-To)	Dates of Seminar Delivered and Report Submitted on Return	Follow up Action	Total Cost (₹)
	<b>Not Applicable</b>				

### 17. Performance Indicators

#	Indicator	Total No.
1.	No. of technologies commercialised	0 (7 under process)
2.	No. of entrepreneurs incubated/enrolled	8
3.	No. of incubatees graduated	0
4.	No. of entrepreneurs supported/ trained	29
5.	Client servicing (commitment/delivered)	8
6.	Revenue generated for the BPD (₹ lakhs)	9.3
7.	Amount of funding mobilized for incubatees	0*
8.	No. of consultancy assignments undertaken	2
9.	Farmers directly benefitted with value addition	4
10.	No. of local employment generated (direct) through incubatees	35
11.	No. of mergers & acquisitions, joint ventures, tie-ups made	0
12.	BPD surplus fund (₹ lakhs)	
13.	a. Number of applications filed for patent	0
	b. Number of patents granted	0
14.	Number of scientists trained overseas in the frontier areas of science	0
15.	Number of scientists trained overseas in consortium-based subject areas	0
16.	No. of scientists participated in conference/seminar etc. abroad	0
17.	Number of novel tools/protocols/methodologies developed	3 (fish hydrolysate, primary processed product, ready to cook products)

18.	<b>Publications</b>	
	Articles in NAAS rated journals	0
	Articles in other journals	2
	Book(s)	0
	Book chapter(s)	0
	Thesis	0
	Popular article(s) (English)	0
	Newspaper article(s)	13
	Seminar/Symposium/Conference/Workshop Proceedings	2
	Technical bulletin(s)	0
	Manual(s)	1
	CDs/Videos	0
	Popular article(s) in other language	1
	Folder/Leaflet/Handout	10
	Report(s)	0
	Success stories	0

\* (20L is proposed for funding for one incubatee)

#### 18. Employment Generation (man-days/year)

S. No.	Type of Employment Generation	Employment Generation up to End of Sub-project	Responsible Partner
1	Training and hand holding to the incubates staffs	4	M/s Keshar Sweet Water Fish Products, M/s Prabhakar fish pickle, BBSR
2	Marketing and advertisement		
3	Networking and business development		

## 19. Assets Generated

(Details to be given on equipments and works undertaken in the sub-project, costing more than Rs 10,000/- in each case)

### (i) Equipment

S. No.	Name of the Equipment with Manufacturers Name, Model and Sr. No.	Year of Purchase	Quantity (Nos.)	Total cost (in lakhs)	Responsible Partner
1	Tag and tag reader	2014	1	5.50206	
2	Refrigerator	2014	1	0.20351	
3	Deep fridge	2014	1	0.21849	
4	Air conditioner	2014	6	2.46862	
5	Water purifier	2014	1	0.44492	
6	Computer and accessories	2014	3	1.5435	
7	Video conference facilities	2014	1	3.8325	
8	Laptop	2014	2	1.0815	
9	Electronic display	2014	2	3.36	
10	Fax, printer	2014	1	0.21	
11	LCD Projector	2014	2	2.604	
12	Compound microscope	2014	1	3.99974	
13	Redox meter	2014	1	0.11691	
14	pH meter	2014	5	0.9307	
15	EC meter	2014	1	0.25311	
16	Electronic precision weighing balance	2014	1	0.65625	
17	Electronic table top balance	2014	1	0.0735	
18	Centrifuge	2014	1	0.56727	
19	Water analysis kit	2014	1	0.20998	
20	Books	2014		0.99	
21	Office furniture	2014		9.98	
22	Steam boiler	2014	1	4.725	
				43.97156	

**(ii) Works**

<b>S. No.</b>	<b>Particulars of the Work, Name and Address of Agency Awarded the Work</b>	<b>Year of Work Done</b>	<b>Quantity (Nos.)</b>	<b>Total Cost (₹)</b>	<b>Responsible Partner</b>
1	Development of office space for BPD office, M/s Rabinarayan Das, Bhubaneswar	2014	1	20,51,222	
2	Development of Tilapia hatchery (as part of technology park), M/s Paarsuram Biswal, Bhubaneswar	2014	1	14,57,194	
3	Development of technology park (Murrel, anabeas hatchery)	2014	1	23,31,789	
4	Development of 3 nos of ponds, M/s Ramachandra Behera	2014	1	11,54,334	
				69,94,539	

**(iii) Revenue Generated**

(Details may be given on revenue generated in the sub-project viz., sale of seeds, farm produce, products, patents, commercialization, training, etc.)

<b>S. No.</b>	<b>Source of Revenue</b>	<b>Year</b>	<b>Total amount (in lakh Rs`)</b>	<b>Responsible Partner</b>
1	Fund generation through Incubatee MoU	2013-14	2.10	
2	Consulting assignment (RRA-Network)	2013-14	5.20	
3	Consulting assignment (APICOL)	2013-14	2.00	
	Total =		9.30	

#### (iv) Livestock

(Details of livestock procured/produced in the sub-project)

S. No.	Details of Livestock (Breed, etc.)	Year of Procurement/Production	Nos.	Total Cost (₹)	Responsible Partner
	NA				

#### 20. Awards and Recognitions

S. No.	Name, Designation, Address of the Person	Award/ Recognition (with Date)	Institution/ Society Facilitating (Name & Address)	Responsible Partner
1	BPD CIFA	Most promising facility of the year	CIFA, Bhubaneswar	
2	CIFA (Organised by BPD)	2 <sup>nd</sup> best stall 28 Feb, 2014 Eastern Indian Regional Fair	CRRI, Cuttack	
3	BPD, CIFA	Best Division (in CIFA) Award	ICAR	
4	BPD, CIFA	Successful organisation of Krishi Parivartan Yatra	ICAR	

#### 21. Steps Undertaken for Post NAIP Sustainability

For sustainability of the project following steps have taken up

- Complete set up of office and space for BPD Unit and entrepreneurs
- Enrollment of operating team members with proper training and guidance
- Provision of fund generation through encouraging entrepreneurs enroll in BPD and taking up new consulting assignments
- Exploration of additional fund from sources like NFDB, State Dept etc
- Networking with Govt and Pvt Depts. on training and sharing resource persons to enable more entrepreneurs to access the services and more outreach to spread the programme at local level.

## 22. Possible Future Line of Work

- Commercialization of Technologies of the institute to the prospective buyer/entrepreneur
- Signing of MoUs with In-house and outside incubatees for providing technical knowhow and handholding to sustain in the long run.
- Interaction with farmers, business people, prospective entrepreneurs and registered Incubatees for providing essential services to promote business.
- Designing new products of freshwater fishes and launching in the market with backward and forward linkages.
- Networking with Govt. Dept. for developing projects and intervention in Freshwater Aquaculture.
- Supporting each dept. of CIFA for better performing in terms of commercialization and interaction with the entrepreneurs
- Partnering APICOL improve entrepreneurs skill and handholding to design and implement successful business ventures in Freshwater Aquaculture
- Continuing providing consulting services to sustain business efforts of individuals, groups and producers groups in Odisha and outside.
- Promotion of Freshwater Aquaculture to establish successful business models creating examples for new entrants.
- Business Generation of 40.0 L for the institute

## 23. Personnel

(Staff of Lead Centre & Partner-wise, their Name, Designation, Discipline and Duration)

	<b>From – To (DD/MM/YYYY)</b>
<b>Research Management (CL)</b>	
1. P.JAYASANKAR PROJECT LEADER Ph.D.(Fish and Fisheries)	<b>From April 2013 to June 2014</b>
<b>Scientific (CPI, CCPI, others)</b>	
2. NAGESH KUMAR BARIK CPI M.Sc (Ag) Agricultural Economics	<b>From April 2013 to June 2014</b>
3. P. Swain CCPI Ph.D. (Veterinary Microbiology)	<b>From April 2013 to June 2014</b>
4. S. Adhikari CCPI Ph.D. (Soil Science)	<b>From April 2013 to June 2014</b>
5. P. Routray	<b>From April 2013 to June 2014</b>

CCPI Ph.D. (Fish & Fisheries)	
6. B.C. Mohapatra CCPI Ph.D. (Fish & Fisheries)	<b>From April 2013 to June 2014</b>
7. K.C. Das CCPI Ph.D. Fish Nutrition	<b>From April 2013 to June 2014</b>
8. P. N. Ananth CCPI Ph.D.	<b>From April 2013 to June 2014</b>
<b>Technical</b>	
<b>Contractual</b>	
9. Satyadeep Pati Business Manager B.Sc. (Ag), PRM (IRMA)	<b>From 08/08/2013 to 30/06/2014</b>
10. Ambarish Paikaray Research Associate M.Sc.(Ag), MBA	<b>From 12/08/2013 to 30/06/2014</b>
11. Rajesh Kumar Pradhan Research Associate MF Sc.	<b>From 23/07/2013 to 06/09/2013</b>
12. Dillip Kumar Sahoo Research Associate M.Sc (Zoology- Fisheries & Aquaculture), Ph.D.	<b>From 20/12/2013 to 17/06/2014</b>
13. Badri Narayan Sahu Senior Research Fellow M.Sc. (Bio-informatics)	<b>From 09/07/2013 to 30/06/2014</b>
14. Satyapriya Mohapatra Plant Supervisor B. Tech ( Electrical Engineering )	<b>From 08/08/2013 to 30/06/2014</b>
15. Jugeswar Behera Office Assistant MFC (Accounting & Finance)	<b>From 11/07/2013 to 30/06/2014</b>

## 24. Governance, Management, Implementation and Coordination

### A. Composition of the various committees (CIC, CAC, CMU, etc.)

<b>S. No.</b>	<b>Committee Name</b>	<b>Chairman (From-To)</b>	<b>Members (From-To)</b>
1.	CIC		
2.	CAC		
3.	CMU		

### A. List of Meetings organized (CIC, CAC, CMU, etc.)

<b>S. No.</b>	<b>Details of the meeting</b>	<b>Date</b>	<b>Place &amp; Address (Where meeting was organized)</b>
1.	CIC		
2.	CAC		
3.	CMU		



**Part-III: Budget and its Utilization**  
**STATEMENT OF EXPENDITURE (Final)**  
**(Period from 1<sup>st</sup> Jul 2013 to 31<sup>st</sup> Mar 2014)**

(Date of start)                      (Date of completion)

Sanction Letter No. \_ F.No.30(2)/2013/CIFA/BPD/NAIP/O&M

Total Sub-project Cost ` \_169.41 Lakh

Sanctioned/Revised Sub-project cost (if applicable) ` \_\_NA

Date of Commencement of Sub-project: Aug 2013

Duration: From \_20.05.2013\_to \_18.02.2014 (DD/MM/YYYY)

**Funds Received in each year**

I Year ` \_142.93 Lakh

II Year ` \_ 4.78 Lakh

Bank Interest received on fund (if any) ` \_\_\_\_\_

Total amount received ` \_147.7 Lakh

Total expenditure ` \_146.56 Lakh

Expenditure Head-wise: (Detailed as in the separate table below)

Sanctioned Heads	Funds Allocated (*)	Funds Released			Total Expenditure			Balance as on 31.03.14	Utilisation %
		Till 31.03.14	Apr-Jun 2014	Total	Till 31.03.14	Apr-Jun 2014	Total		
<b>A. Recurring Contingencies</b>									
(1) TA	3,00,000	1,50,000		1,50,000	1,39,607	47,710	1,87,317	-37,317	125%
(2) Workshops	5,00,000	2,50,000		2,50,000	362614		3,62,614	-1,12,614	145%
(3) Contractual Services/RA/SRF	20,60,000	10,30,000	4,77,662	15,07,662	11,46,066	6,92,000	18,38,066	-3,30,404	122%
Operational Services	15,00,000	7,50,000		7,50,000	6,98,384	66,182	7,64,566	-14,566	102%
<b>Sub-Total of A (1-4)</b>	<b>43,60,000</b>	<b>21,80,000</b>	<b>4,77,662</b>	<b>26,57,662</b>	<b>23,46,671</b>	<b>8,05,892</b>	<b>31,52,563</b>	<b>-4,94,901</b>	<b>119%</b>
<b>B. HRD Component</b>									
(5) Training	1,00,000	1,00,000		1,00,000	66824		66,824	33,176	67%
(6) Consultancy	5,00,000	2,50,000		2,50,000			0	2,50,000	0%
<b>Sub-Total of B (5-6)</b>	<b>6,00,000</b>	<b>3,50,000</b>		<b>3,50,000</b>	<b>66,824</b>	<b>0</b>	<b>66,824</b>	<b>2,83,176</b>	<b>19%</b>
<b>C. Non-Recurring</b>									
(7) Equipment	30,45,000	30,45,000		30,45,000	28,52,395		28,52,395	1,92,605	94%
(8) Furniture	10,00,000	10,00,000		10,00,000	9,98,233		9,98,233	1,767	100%
(9) Works (new renovation)	70,00,000	70,00,000		70,00,000	69,94,539		69,94,539	5,461	100%
(10) Others (Animals, Books, etc.)	5,00,000	5,00,000		5,00,000	500000		5,00,000	0	100%
<b>Sub-Total of C (7-10)</b>	<b>1,15,45,000</b>	<b>1,15,45,000</b>		<b>1,15,45,000</b>	<b>1,13,45,167</b>	<b>0</b>	<b>1,13,45,167</b>	<b>1,99,833</b>	<b>98%</b>
<b>D. Institutional Charges*</b>	4,36,000	2,18,000		2,18,000		92000	92,000	1,26,000	42%
<b>Grand Total (A+B+C+D)</b>	<b>1,69,41,000</b>	<b>1,42,93,000</b>		<b>1,47,70,662</b>	<b>1,37,58,662</b>	<b>8,97,892</b>	<b>1,46,56,554</b>	<b>1,14,108</b>	<b>99%</b>

\* Institutional charges will be 10% of the recurring contingencies for the Lead Consortium and 5% for Consortia Partners.

Name & Signature of CPI :

Name & Signature of Competent Financial authority:

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature, name and designation of Consortia Leader

## PART-IV: DECLARATION

This is to certify that the final report of the Sub-project has been submitted in full consultation with the consortium partners in accordance with the approved objectives and technical programme and the relevant records, note books; materials are available for the same.

Place: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Consortium Principal Investigator  
(N K Barik)

Signature & Date  
Consortium Co-Principal Investigator  
(Dr P Swain)

Signature & Date  
Consortium Co-Principal Investigator  
(Dr B C Mohapatra)

Signature & Date  
Consortium Co-Principal Investigator  
(Dr S Adhikari)

Signature & Date  
Consortium Co-Principal Investigator  
(Dr K C Das)

Signature & Date  
Consortium Co-Principal Investigator  
(Dr P Routray)

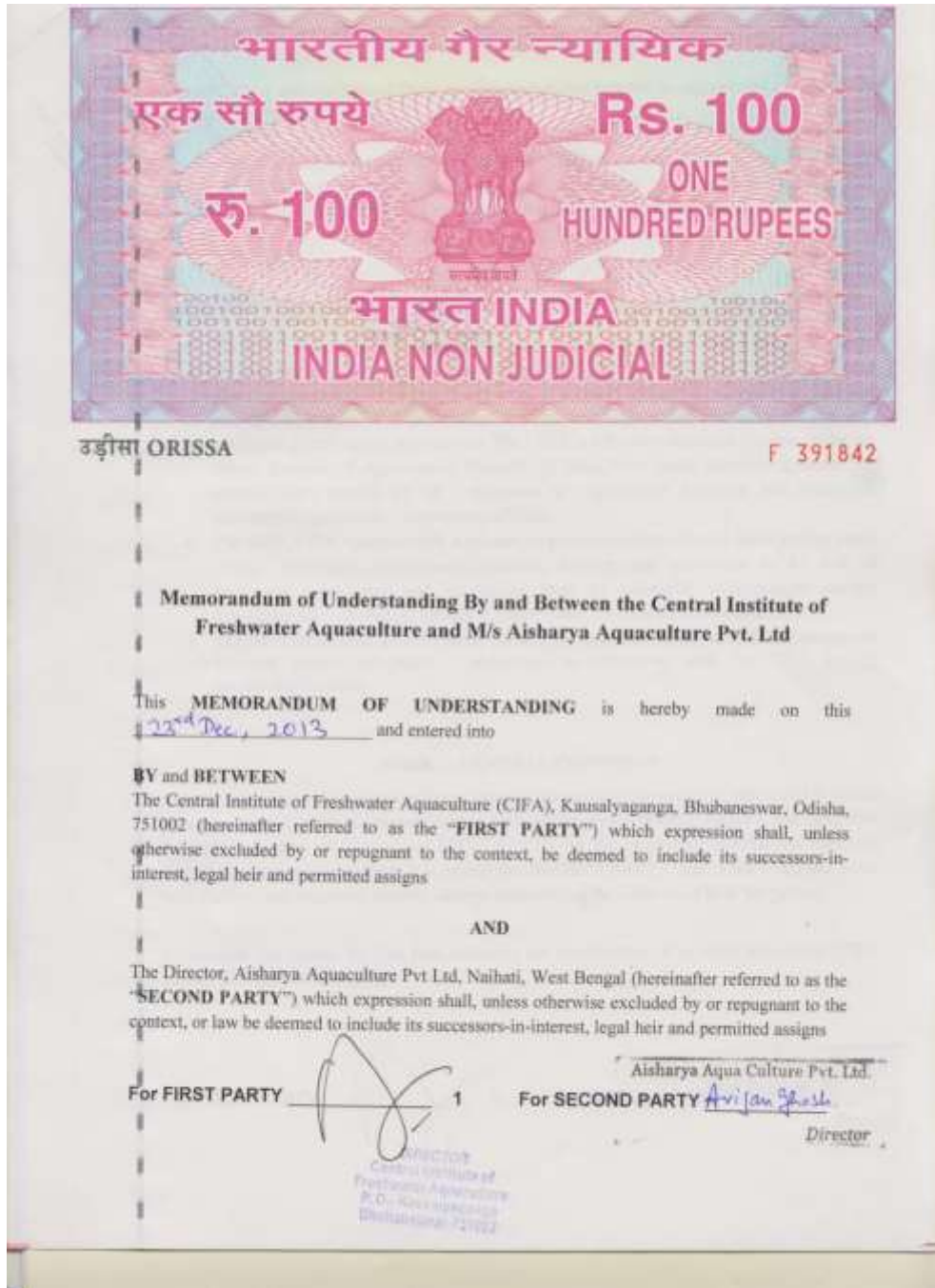
Signature & Date  
Consortium Co-Principal Investigator  
(Dr P N Ananth)

Comments & Signature of Consortium Leader  
(Dr P Jayasankar)

Date:

# Annexure-1

(MoUs different incubates of BPD-CIFA)





उड़ीसा ORISSA

F 391844

### Memorandum of Understanding

THIS DEED OF AGREEMENT is made on this 23<sup>rd</sup> of December, 2013 for one year till 23<sup>rd</sup> of December 2014

BY and BETWEEN

Director, Central Institute of Freshwater Aquaculture (CIFA), Kausalyaganga, Bhubaneswar, Odisha, 751002 (hereinafter referred to as "CIFA") **FIRST PARTY**

BETWEEN

Surendra Belchandan, Poonam Fisheries, VII/PO- Tirga, Durg, Chhatisgarh, 491001 (hereinafter referred to as "POONAM fisheries") **SECOND PARTY**

WHEREAS the first party owns and possesses technological competency on production, management and development of other technologies in case of freshwater aquaculture

AND WHEREAS the Second party is willing to take the resource support for developing a Aquaculture field school for the tribal and people involved in fisheries would be trained on best practices.



उड़ीसा, ORISSA

F 391850

**Memorandum of Understanding By and Between the Central Institute of  
Freshwater Aquaculture and M/s M.R. Aquatech**

This **MEMORANDUM OF UNDERSTANDING** is hereby made on this  
08th January 2014 and entered into

**BY and BETWEEN**

The Central Institute of Freshwater Aquaculture (CIFA), Kausalyaganga, Bhubaneswar, Odisha, 751002 (hereinafter referred to as the "**FIRST PARTY**") which expression shall, unless otherwise excluded by or repugnant to the context, be deemed to include its successors-in-interest, legal heir and permitted assigns

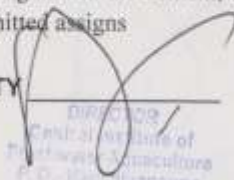
**AND**

The Proprietor, M.R. Aquatech, B-63, Ashoka Market, Bhubaneswar, Odisha, 751009 (hereinafter referred to as the "**SECOND PARTY**") which expression shall, unless otherwise excluded by or repugnant to the context, or law be deemed to include its successors-in-interest, legal heir and permitted assigns

For **FIRST PARTY**

1

For **SECOND PARTY**

  
Director  
Central Institute of  
Freshwater Aquaculture  
P.O. Kausalyaganga  
Bhubaneswar-751002

  
Proprietor





उड़ीसा ORISSA

E 396503

**Memorandum of Agreement By and Between Central Institute of  
Freshwater Aquaculture and Keshar Sweet Water Fish Products Pvt.  
Ltd**

This **MEMORANDUM OF AGREEMENT** is hereby made on this 2nd day of  
November, 2013 and entered into

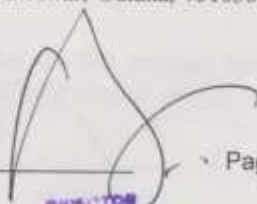
**BY and BETWEEN**

Central Institute of Freshwater Aquaculture (CIFA), Kausalyaganga, Bhubaneswar,  
Odisha, 751002 (hereinafter referred to as "CIFA") which expression shall, unless  
excluded by or repugnant to the context, be deemed to include its successors-in-interest  
and permitted assigns) of the **ONE PART**

**AND**

Proprietor, Keshar Sweet Water Fish Products Pvt Ltd, Plot No 189/190, Barabari,  
Khandagiri, Bhubaneswar, Odisha, 751030 (hereinafter referred to as "**KSWFP**") which

For BPD, CIFA

  
DIRECTOR  
Central Institute of  
Freshwater Aquaculture  
U. U. Kausalyaganga  
Bhubaneswar-751002

Page 1 of 11

For KSWFP *Prasabi Jena*



उड़ीसा ORISSA

F 391846

**Memorandum of Understanding By and Between the Central Institute of  
Freshwater Aquaculture and M/s Smruti Agency**

This **MEMORANDUM OF UNDERSTANDING** is hereby made on this  
28th January, 2014 and entered into

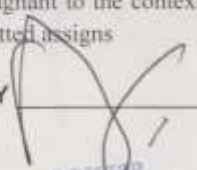
**BY and BETWEEN**

The Central Institute of Freshwater Aquaculture (CIFA), Kausalyaganga, Bhubaneswar, Odisha, 751002 (hereinafter referred to as the "**FIRST PARTY**") which expression shall, unless otherwise excluded by or repugnant to the context, be deemed to include its successors-in-interest, legal heir and permitted assigns

**AND**

The Proprietor, Smruti Agency, Plot No 522, Gada Srirampur, Alarpur, Bhubaneswar (hereinafter referred to as the "**SECOND PARTY**") which expression shall, unless otherwise excluded by or repugnant to the context, or law be deemed to include its successors-in-interest, legal heir and permitted assigns

For **FIRST PARTY**

  
DIRECTOR  
Central Institute of  
Freshwater Aquaculture  
P. O. - Kausalyaganga  
Bhubaneswar-751002

1

For **M/s. SMRUTI AGENCY**  
For **SECOND PARTY** Swarnika Kumar Mishra  
Proprietor





उड़ीसा ORISSA

F 391848

**Memorandum of Understanding By and Between the Central Institute of  
Freshwater Aquaculture and M/s Mallick Fish Seed Hatchery**

This **MEMORANDUM OF UNDERSTANDING** is hereby made on this  
8th January 2014 and entered into

**BY and BETWEEN**

The Central Institute of Freshwater Aquaculture (CIFA), Kausalyaganga, Bhubaneswar, Odisha, 751002 (hereinafter referred to as the "**FIRST PARTY**") which expression shall, unless otherwise excluded by or repugnant to the context, be deemed to include its successors-in-interest, legal heir and permitted assigns

**AND**

The Proprietor, Duryodhan Mallick, S/o Sudarsana Mallick, Puran Sasana, Sisilo, Baliana, Khurda (hereinafter referred to as the "**SECOND PARTY**") which expression shall, unless otherwise excluded by or repugnant to the context, or law be deemed to include its successors-in-interest, legal heir and permitted assigns

For **FIRST PARTY**

1

For **SECOND PARTY** Duryodhan Mallick

Central Institute of  
Freshwater Aquaculture  
P.O. Kausalyaganga  
Bhubaneswar-751002



उड़ीसा ORISSA

F 391851

### Memorandum of Understanding

This **MEMORANDUM OF UNDERSTANDING** is hereby made on this 23<sup>rd</sup> day of December, 2013 and entered into

#### BY and BETWEEN

The Central Institute of Freshwater Aquaculture (CIFA), Kausalyaganga, Bhubaneswar, Odisha, 751002 (hereinafter referred to as the "**FIRST PARTY**"), which expression shall, unless excluded by or repugnant to the context, be deemed to include its successors-in-interest and permitted assign


#### AND

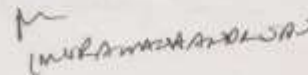
The WASSAN, 12-13-452, Street No- 1, Tarnaka, Secunderabad, Andhra Pradesh, 500048 (hereinafter referred to as the "**SECOND PARTY**") which expression shall, unless excluded by or repugnant to the context, be deemed to include its successors-in-interest and permitted assign

#### WHEREAS:

- 1] The **FIRST PARTY** i.e. the Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar is an Institute falling under the purview of the Indian Council of Agricultural Research (ICAR) under the administrative control of the Department of Agricultural Research and Education, Ministry of Agriculture, Government of India. The Institute is undertaking research, training and extension in freshwater aquaculture. Under its project i.e. the Business Planning and Development various services are provided to entrepreneurs and people involved in aquaculture from agribusiness point of view.




  
DIRECTOR  
Central Institute of  
Freshwater Aquaculture  
P. O. Kausalyaganga  
Bhubaneswar-751002

  
(MURAWAZH AND SA)

## Annexure-2

(Fish Hydrolysate test report)

  
**DEPARTMENT OF SOIL SCIENCE & AGRICULTURAL CHEMISTRY**  
**College of Agriculture**  
Orissa University of Agriculture & Technology, Bhubaneswar – 751 003  
Tel. (0674)2397036 (O); 2392818 (O); 2351226 (R), Mob-99861568595; E-mail: dinabandhu\_jena @uabcc.com

---

Letter No. 1780 / SSAC, Dt. 27/12/2013

From  
Dr. D. Jena  
Professor & Head


To  
BPD Unit, CIFA,  
Kausalyaganja  
Bhubaneswar-751002

Sub: -Analysis report of CIFA-FERT sample.

Sir,  
I am herewith enclosing the analysis report of the CIFA-Fert sample supplied by you.

Sl. No	Total N (%)	Total P (%)	Total K (%)	Fe (ppm)	Mn (ppm)	Cu (ppm)	Zn (ppm)
1	1.51	0.52	0.40	240.5	6.2	3.5	1.8

Kindly pay Rs. 2100/- in shape of cash towards the analysis cost.

Yours faithfully  
  
Professor & Head





केन्द्रीय मीठाजल जीवपालन अनुसंधान संस्थान  
Central Institute of Freshwater Aquaculture  
(भारतीय कृषि अनुसंधान परिषद)

(Indian Council of Agricultural Research)  
बोसालकाप, पुनरेबर-751002



P.O. Kausalyaganga:: Bhubaneswar -751 002

Date: 21/12/13

**Water/Soil Testing Report for Aquaculture**

Name and Address of the Farmer : Mr. B.A. Saha & N.K. Borik

Pond area : C.I.F.A.

Water Depth : \_\_\_\_\_

**WATER QUALITY**

**SOIL CONDITION**

Brabantiner Solution

1. pH
2. Carbon dioxide (CO<sub>2</sub>)
3. Total Alkalinity
4. Total Hardness
5. Phosphate (P<sub>2</sub>O<sub>5</sub>)
6. Ammonia Nitrogen (NH<sub>4</sub>-N)
7. Nitrate Nitrogen (NO<sub>3</sub>-N)
8. Nitrite Nitrogen (NO<sub>2</sub>-N)
9. Conductivity mho/cm
10. Iron
11. Salinity
12. D.O.
13. B.O.D<sub>5</sub> (5 days)

1. pH : 4.25
2. Organic Carbon : 2.2 %
3. Available Nitrogen : 392 mg/100gm soil 70% soluble
4. Available Phosphorus : 10 mg/100gm soil 70% soluble
5. Conductivity : 7.585 m.mho/cm
6. Texture
  - Sand : \_\_\_\_\_ %
  - Salt : \_\_\_\_\_ %
  - Clay : \_\_\_\_\_ %

**Recommendation to apply the following inputs for optimum aquaculture production.**

	<u>Kg/ha</u>	<u>Kg/pond</u>
1. Lime	.....	
2. Urea	.....	kg/pond/15days
3. Single Super Phosphate	.....	kg/pond/15days
4. Raw Cow Dung	.....	kg/pond/15 days
5. Poultry Manure	.....	kg/pond/15 days
6. Azolla	.....	kg/pond/15days
7. Compost	.....	kg/pond/15days
8. Feed	.....	kg/pond/15 days


*[Signature]*

Water & Soil Chemistry Unit  
APE Division

## Annexure-3

(Letters of different Organizations)

*APICOL BPD*

 **APICOL**  
The Agricultural Promotion and  
Investment Corporation of Odisha Ltd.  
(A Wholly owned Corporation of the Government of Odisha)

Ref. No. 1271 /APICOL Dated the 24<sup>th</sup> February, 2014

To  
The Director,  
CIFA, Kaushalyaganga,  
Bhubaneswar-751002. *26/2/2014*

Sub: Preparation of DPR and organizing EDP programme on Food Processing.  
Ref: Letter No. Nil dt.23.01.2014 of Sri Nagesh Barik, PI, BPD (NAIP).

Sir,  
In inviting a reference to your above cited letter and subject therein, we would like to request you to prepare Bankable Project Reports on Commercial Agri-Enterprises such as;

1. Cattle & Poultry/Fish Feed Plant.
2. Commercial Meat, Egg and Fish production.
3. Fingerling production.
4. Fish/Prawn Processing unit.
5. Fresh water Pearl Culture and
6. Integrated Farming

The projects should be techno-commercially viable and be a bankable project with an overall outlay of ₹2.00 lakh.

You are also requested to give detailed proposals for EDPs on Food Processing for next financial year as per the guidelines of NMFP, Govt. of India.

Yours faithfully,  
*[Signature]* *24/02/14*  
**MANAGING DIRECTOR**

Baramunda, Bhubaneswar - 751003, Odisha (India). Tel : 91-674-2561874. (PABX), 2354125 Fax 2354006  
Website : www.apicol.co.in, E-mail : apicol95@yahoo.com / info@apicol.co.in

Nk Mallick / 1520

## MALICK FISH SEED HATCHERY

At: Puranasasan, PO: Sisilo Dist: Khurda-752100, Odisha  
Tel/Mobile: +91-9238570401

Ref.:

Date: 02 Jan, 2014

From:

Mr. Duryodhan Mallick  
At: Puranasasan,  
Dist: Khurda, Odisha

To

The Director,  
Central Institute of Freshwater Aquaculture  
Indian Council of Agricultural Research  
Kausalayaganga, Bhubaneswar-751002, Odisha

Sub: *Application for requesting support for establishing an enterprise in Freshwater Aquaculture Fish pickle.*

Sir,

This is for your kind information that I have been working in Pisciculture since last 10 years in scientific manner with guidance from CIFA. During the Launching Workshop of BPD Unit in CIFA, Bhubaneswar, I came across different products were commercialize through your BPD Unit. I am very much fascinated to work on Freshwater Aquaculture Fish Pickle enterprise, which is a new products in eastern India market as per the database I acquired. So I want to become an incubatee with your Business Planning & Development Unit for the incubation support to fulfill my requirements

Thanking you so much

Faithfully yours,

*Duryodhan Mallick*  
(Duryodhan Mallick)

## Annexure-4

(List of prospective incubatees)

<u>List of Entrepreneurs</u>				
S.No.	Name	Address	Contact No.	Remarks
1.	Kailash Ch. Sahu	Coop. Puri	9938083617	Interested in fish feed prodn
2.	Manguli Sahu	Coop. Puri	-	hatchery & seed prodn
3.	Prakash chandra Nayak	Person Pukhraj, Khurda	8093989504	Fertilizer Production
4.	Miluv R. Sahoo	Dipapri, Btgh.	9437286750 9776722611	Fish feed prodn
5.	Sandeep Jha	Socunderabad	9014422466	BPD, Aquaculture
6.	Prasanna Kumar Pattanayak	Khurda	9237183955	Pearl culture
7.	Debi Prasad Pattanayak IDSO Khurda	Khurda	9777036457	Aquaculture
8.	O. P. Lal.	Ranchi	9431115734	New product for commercialization
9.	Suryakant Mallick.	Purandhar	9239570401	Btgh aquaculture
10.	Suryanarayan Rath	110-122, DEMIDOLA Bhubaneswar	9439141839	S. N. Rath
11.	Mamoon Rauf	Singhpur, Nayagarh	9853811192	Btgh Aquaculture
12.	Suryakant Mallick.	Purandhar - Sigidi Khurda	9239570401	Btgh
13.	Susanta Kumar Nayak	Baripada, Jajpur	9237073446	Ex. Arma Ltd Tech Director
14.	Susant Pradhan	Nayagarh, Khurda	8763444632	Susanta Pradhan
15.	Satyanarayan Swain	Sakti, Bupal	9232183290	Soil scientist
16.	U. K. Swain	77, Satya Nagan Bhubaneswar	9937015805	testing kit for water from pond etc.



<u>S.No</u>	<u>Name</u>	<u>Address</u>	<u>Contact No</u>	<u>Remark</u>
19	Nirmal Chandra Prasad	N. Kaili (219, Boppani)	9337369631	9th grade education work in field Education Development
20	Pabitra Kumar Janda	Chardpur	9439101660	
21	Himmat. R. mohey	Varanasi	9850360031	Phd Program
			9822471792	
22	Pavitra Kumar Pradhan	Nyagah	9850370134	Phd
23	Dikesh Kumar Panda	Nyagah	9937070121	Phd
24	Pradosh Panda	Ranpur	9437772811	Phd
25	Harihara Mishra	Dasepalle	9937170131	Phd
26	Penturanda	Dasepalle	9937180121	Phd
27	Debandra Jaisi	Cuttack	933 3016112	Phd
28	Alex Kumar Behara	Salapuz	9658 8558 8400	
29	Sanyabrata Bahara	Balesore	9438387056	Phd
30	Himanshu Pradhan	Koaput	9437317071	Phd
31	Pranod K. Panda	Banhi	9938131201	Phd
32	Debasish Pattanah	Puri	9961350892	Phd
33	Bikram Keshari Routray	Batasore	88958 27919	Phd
34	Utkal keshari	Raukela	9851050392	Phd
35	Subharanjan Behara	Bhadrak	9937050386	Phd
36	Subirish Sathpatty	Sambalpur	9583532550	Phd
37	Ashish Garg	Sonepur	9582610956	Phd
38	Bined Jena	Jagatsingpur	9861260583	Phd
39	Dhabani Shankar	Cuttack	9938196929	Phd
40	Dulul Majhi	Khorcha		Phd



## Annexure-5

(Best Stall Award Certification from CRRI, Cuttack Agri-Exhibition)



# Annexure-6

(Press & media highlights in different Newspapers)







## मधुर जल अनुसंधान पर कार्यशाला आयोजित



स्मारिका का विमोचन करते अतिथि

भुवनेश्वर : केन्द्रीय मधुर जल अनुसंधान केन्द्र सीफा ने व्यवसायिक योजना और विकास विकास विभाग की ओर से कार्यशाला का आयोजन किया गया।

इसमें सीफा के निदेशक डा.पी. जयशंकर एवं बीपीडी के मुख्य एनके बारिक समेत अनेक विशेषज्ञ उपस्थित थे। इस कार्यशाला में उद्योगपतियों के लिए मधुर जल खेती की दक्षता बढ़ाने पर विशेष बल दिया गया। सीफा के अंतर्गत चलाए जा रहे विभिन्न व्यावसायिक प्रशिक्षण की जानकारी देते हुए अध्यक्ष पी. जयशंकर ने कहा कि विभिन्न अनुसंधान कार्य के उपरान्त सीफा आज राष्ट्रीय स्तर पर एक सम्मानजनक स्थान पर पहुंच चुकी है। स्थानीय उद्यमियों को चाहिए कि वे हमारे अनुसंधान का लाभ उठाते हुए अपने व्यवसायिक लक्ष्य को प्राप्त करें।

## Annexure -7

(Flex Banner/Poster of BPD Unit-CIFA for Exhibitions)



**BUSINESS PLANNING  
& DEVELOPMENT UNIT**

**Central Institute of Freshwater Aquaculture**  
(Indian Council of Agricultural Research)  
Kausalyaganga, Bhubaneswar-751002  
Tel/Fax: 0674-2465616  
Email: bpd.cifa@gmail.com, Web: www.bpdcifa.com



**BUSINESS PLANNING & DEVELOPMENT UNIT**  
**CENTRAL INSTITUTE OF FRESHWATER AQUACULTURE**  
(Indian Council of Agricultural Research)  
Kausalyaganga, Bhubaneswar-751002, Odisha, India  
Phone / Fax: +91-674-2465616  
E-mail: bpd.cifa@gmail.com, www.bpdcifa.com

The Indian Council of Agricultural Research has setup a Business Planning & Development (BPD) unit at CIFA, Bhubaneswar under the National Agricultural Innovation Project (NAIP) funded by World Bank. BPD is considered as an effective and innovative way of fostering growth of sustained business enterprise and is expected to provide services ranging from incubation facilities to technological services.

BPD-CIFA focuses on creating technology-oriented successful business ventures in freshwater aquaculture. Initially BPD-CIFA will concentrate on transfer of technologies available from CIFA and other ICAR institutes to the eligible entrepreneurs. To utilize technologies and to establish a profitable business enterprises, BPD-CIFA will assist in creating entrepreneurship models and handhold the new entrepreneurs to take up their idea for successful business ventures in aquaculture.

**BPD-CIFA SERVICES**

<p><b>INCUBATION SERVICES :</b></p> <ul style="list-style-type: none"> <li>Seed Ventures</li> <li>Farm Ventures</li> <li>Innovative venture</li> <li>Aqua-Tourism venture</li> <li>Food Processing venture</li> <li>Aqua-input venture</li> </ul>	<p><b>TECHNICAL SERVICES :</b></p> <ul style="list-style-type: none"> <li>Water &amp; soil testing</li> <li>Training</li> <li>Hatchery Services</li> <li>Consultancy services</li> <li>Business planning</li> <li>Fish processing &amp; Marketing</li> </ul>
---	--

**Our Mission**  
To promote entrepreneurial spirit among youth through incubation, consultancy, research, training and motivation in the area of freshwater aquaculture and to evolve them as successful entrepreneurs through innovation and knowledge leading to wealth creation and social development.

**Objectives**

- To promote aqua-business entrepreneurs using aquaculture technologies
- To facilitate business in freshwater aquaculture through incubation services
- To provide technological services to the entrepreneurs
- To enhance human resource skill of entrepreneurs for aquaculture business

**THE BPD WORK SPECIFICALLY ON FOLLOWING ACTIVITIES :**

- Promotion of business through commercialization of technology
- Incubation of small and medium enterprises to develop aqua-business
- Skill development of entrepreneurs
- Development of bankable projects and business plan for entrepreneurs
- Consultancy services to the industry, NGOs, etc
- One-stop-center for technology exposure to the entrepreneurs, industry
- Provide technological services like testing, hatcheries, laboratories etc

*Promoting Entrepreneurship in Freshwater Aquaculture*

# Annexure- 8

(Flyers, Leaflets, Product Catalogue etc.)

### CIFABROOD

**Salient features**

- High protein (20%) and highly digestible for any farmed fish
- High content of essential vitamins and minerals
- Higher early production of the young fish (larvae) resulting in better survival
- Suitable for growing and fattening of various species
- Suitable for intensive and semi-intensive systems
- Suitable for all freshwater and brackish water
- No antibiotic or drug used
- Suitable for broiler ponds (up to 1000 fish per pond)
- Reduced fish mortality in broiler ponds for freshwater and brackish water
- No harmful side-effect on fish
- The growth of young fish is faster and better quality

**Other benefits observed from field trials**

- Reduced growth cycle and faster production
- Better survival of young fish
- Better survival of young fish in broiler ponds
- Better survival of young fish in broiler ponds
- Better survival of young fish in broiler ponds
- Better survival of young fish in broiler ponds
- Better survival of young fish in broiler ponds
- Better survival of young fish in broiler ponds

**Environmental opportunity**

- It is a healthy and environmental friendly product for broiler fish farming

**Author:** Dr. P. Srinivasan  
**Address:** Central Institute of Freshwater Aquaculture, West Bengal, India  
**Phone:** 033-26570101  
**Website:** www.cifabrood.com

Page - 4

### FRP Demand Fish Feeder

**Salient features**

- The entire packaging of FRP is reinforced plastic material
- Fishes do not demand and require need for it
- Light in weight, low water absorption, free from corrosion
- Economically fabricated and constructed
- Suitable for ponds that can be used in any kind of rearing facility
- Reduces the fish loss (10-15%)
- Low cost and easy to use

**Technical details**

- **Feeding capacity:** 10-15 kg/day
- **Feeding mechanism:** It works on the principle of water through an automatic valve. The automatic mechanism includes float, float chamber, float chamber, control valve and float chamber. It works on the principle of water through an automatic valve.
- **Feeding mechanism:** It works on the principle of water through an automatic valve. The automatic mechanism includes float, float chamber, float chamber, control valve and float chamber. It works on the principle of water through an automatic valve.

**Author:** Dr. P. Srinivasan  
**Address:** Central Institute of Freshwater Aquaculture, West Bengal, India  
**Phone:** 033-26570101  
**Website:** www.cifabrood.com

Page - 3

### CIFA-FISH Hydrolysate (Fish Meal Fertilizer)

**Salient features**

- Fish hydrolysate is a fish meal fertilizer prepared out of fish waste
- It is one of the oldest and most effective fertilizers. The nutrients fish has been recognized as an essential fertilizer
- It is a natural fertilizer and contains essential nutrients
- It is a natural fertilizer and contains essential nutrients
- It is a natural fertilizer and contains essential nutrients
- It is a natural fertilizer and contains essential nutrients
- It is a natural fertilizer and contains essential nutrients
- It is a natural fertilizer and contains essential nutrients

**Author:** Dr. P. Srinivasan  
**Address:** Central Institute of Freshwater Aquaculture, West Bengal, India  
**Phone:** 033-26570101  
**Website:** www.cifabrood.com

Page - 6

### FRP MAGUR HATCHERY

**Salient Features**

- Made up of FRP reinforced plastic material
- Portable and easy to use
- Can be transported and installed in any location
- High rearing capacity

**Component of FRP Magur Hatchery**

- 1 circular holding pond (2.0 m diameter, 0.80 m depth) with flow through facility
- 4 rectangular rearing ponds (2.0 m diameter, 0.20 m depth)
- 4 rectangular rearing ponds (2.0 m diameter, 0.20 m depth)

**Operation**

- 1 cycle / year (starting from April)
- 1 cycle / year (starting from April)
- 1 cycle / year (starting from April)
- 1 cycle / year (starting from April)
- 1 cycle / year (starting from April)
- 1 cycle / year (starting from April)
- 1 cycle / year (starting from April)
- 1 cycle / year (starting from April)

**Environmental Opportunity**

- It is a green and eco-friendly product

**Author:** Dr. P. Srinivasan  
**Address:** Central Institute of Freshwater Aquaculture, West Bengal, India  
**Phone:** 033-26570101  
**Website:** www.cifabrood.com

Page - 3

### MURREL CULTURE

**Salient features**

- The murrel is a commercially important species of catfishes in India and China
- It is a commercially important species of catfishes in India and China
- It is a commercially important species of catfishes in India and China
- It is a commercially important species of catfishes in India and China
- It is a commercially important species of catfishes in India and China
- It is a commercially important species of catfishes in India and China
- It is a commercially important species of catfishes in India and China
- It is a commercially important species of catfishes in India and China

**Author:** Dr. P. Srinivasan  
**Address:** Central Institute of Freshwater Aquaculture, West Bengal, India  
**Phone:** 033-26570101  
**Website:** www.cifabrood.com

Page - 4

### SHINING BARB

**Salient features**

- It is a variety of barbs, native to the region of the Ganges
- It is a variety of barbs, native to the region of the Ganges
- It is a variety of barbs, native to the region of the Ganges
- It is a variety of barbs, native to the region of the Ganges
- It is a variety of barbs, native to the region of the Ganges
- It is a variety of barbs, native to the region of the Ganges
- It is a variety of barbs, native to the region of the Ganges
- It is a variety of barbs, native to the region of the Ganges

**Author:** Dr. P. Srinivasan  
**Address:** Central Institute of Freshwater Aquaculture, West Bengal, India  
**Phone:** 033-26570101  
**Website:** www.cifabrood.com

Page - 6



**BUSINESS PLANNING & DEVELOPMENT UNIT**

**Business Planning and Development Unit**  
*Supporting Entrepreneurs and Promoting Growth*

**INCUBATION SERVICES :**

- Seed Ventures
- Farm Ventures
- Innovative Ventures
- Aqua-Tourism Ventures
- Food Processing Ventures
- Aqua-Input Ventures

**TECHNICAL SERVICES :**

- Water & Soil Testing
- Training
- Hatchery Services
- Consultancy Services
- Business Planning
- Fish Processing & Marketing

*For Further Details, Please Contact :*

**BUSINESS PLANNING & DEVELOPMENT UNIT**  
**CENTRAL INSTITUTE OF FRESHWATER AQUACULTURE**  
*(Indian Council of Agricultural Research)*  
 Kausalyaganga, Bhubaneswar-751002,  
 ODISHA, INDIA.  
 Phone / Fax: +91-674-2465616  
 E-mail: bpd.cifa@gmail.com  
[www.bpd.cifa.com](http://www.bpd.cifa.com)

**Business Planning and Development Unit**  
 Central Institute of Freshwater Aquaculture  
 Kausalyaganga, Bhubaneswar-751002, Odisha

**PRODUCT CATALOGUE**

**Business Planning & Development Unit**  
 Central Institute of Freshwater Aquaculture  
 Indian Council of Agricultural Research  
 Kausalyaganga, Bhubaneswar - 751 002

Annexure-9  
(BPD-CIFA Web Site)





Annexure – 10

Best Unit Award



## Best Stall Award





JICriSAT  
South-West Himalayas

Dr. Rama Rao  
National Director  
NAIP, ICAR

# Certificate Of Appreciation

This Certificate Of Appreciation is hereby awarded to

Dr. Rama Rao National Director, NAIP, ICAR

for successful conduct of NAIP - ICAR's  
Agri Biz Idol Camp/K. S. Parivartan Yatra/Agri Innovation Conclave  
during May 05-19, 2014 across the country

May 19, 2014 New Delhi

**Dr. Rama Rao**  
National Director, NAIP-ICAR

Dr. Rama Rao  
National Director  
NAIP, ICAR

# Certificate of Appreciation

The Certificate of Appreciation is hereby awarded to

**BPD CIFA**

for successful conduct of NAIP's Agri Biz Idol Camp  
at Anand on May 08, 2014

**Dr. S. Ayyappa**  
Secretary, DARE & Director General, ICAR

May 19, 2014 New Delhi

**Dr. Rama Rao**  
National Director, NAIP, ICAR

# SOE

## ANNEXURE-I

STATEMENT OF GRANTS RECEIVED FROM PIU-NAIP AND EXPENDITURE INCURRED AS IMPLEMENTING CENTRE FROM 1.07.2013. TO 30.09.2013  
IN RESPECT OF COMPONENT-1 :

Institute/ Organisation : Central Institute of Freshwater Aquaculture (CIFA), Kausalyaganga, Bhubaneswar - 751 002

Sl. No.	Name of consortia & Project	Name of the Lead Centre of Consortium	Opening balance as on 1.07.2013	Funds Received from PIU 1.07.13 to 30.9.2013	Total Col. (5+6)	CAPITAL EXPENDITURE										Sub Total (Capital Exp. (Col 8 to 17))
						Works	Land dev. costs including nursery ponds/ tanks etc.	Plant and machinery, including technology costs.	Goods, Equipments etc.	Tools	Furniture/ fixture	Vehicles	Library Books/ Journals/ databases	Computer Hardware & bulk software	Livestock	
7	8	9	10	11	12	13	14	15	16	17	18					
1	Developing Commissioning Operating and Managing on online systems for NetIARS Prelim Examination by ASRB, ICAR.	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
			105000		105000											
	Business Planning and Development Unit		8515500	5772500	14288000											
	Strengthening of digital library and information Management under NARS (e-GRANTH)			929000	929000											
	<b>Sub-Total</b>		<b>8620500</b>	<b>6701500</b>	<b>15322000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

that expenditure of Rs.6,43,060-(Rupees six lakh forty three thousand sixty only) as per the head-wise details above, has actually been incurred during the period from 1.07.2013 to 30.09.2013 under ICAR as a Catalyzing Agent in the Management of Change in the Indian NARS of NAIP after completing all codal formalities and observing the World Bank established procedure/ for the purpose for which grant was released and is well within the overall sanctioned budget of each Sub-Project.





**ANNEXURE-J**

STATEMENT OF GRANTS RECEIVED FROM FIU-NAIP AND EXPENDITURE INCURRED AS IMPLEMENTING CENTRE FROM 1.10.2013 TO 31.12.2013  
RESPECT OF COMPONENT-1

Local Organisation : Central Institute of Freshwater Aquaculture, (CIFA), Kausalyajyanga, Bhubaneswar - 751 002

Name of consortia & Project	Name of the Lead Centre of Consortium	Opening balance as on 1.10.2013	Funds Received from FIU 1.10.13 to 31.12.2013	Total Col. (5+6)	CAPITAL EXPENDITURE										Sub Total (Capital Exp.) Col. 8 to 17)
					Works	Land dev. costs including nursery ponds/tanks etc.	Plant and machinery including technology costs.	Goods, Equipments etc.	Tools	Furniture/ fixture	Vehicles	Library Books/ Journals/ databases	Computer Hardware & bulk software	Livestock	
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Developing Commissioning, Operating and Managing on online systems for NetIARS Prelim Examination by ASRB, ICAR.		98750	2200000	2298750											0
Business Planning and Development Unit		13702072		13702072				20998		11350					32348
Strengthening of digital library and information Management under NARS (e-GRANTH)		878118		878118											0
Leasing & Capacity Building of Component-1, NAIP			2500000	2500000	0										0
<b>Sub-Total</b>		<b>14678940</b>	<b>4700000</b>	<b>19378940</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20998</b>	<b>0</b>	<b>11350</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32348</b>

that expenditure of Rs. 13,67,013/- (Rupees thirteen lakh sixty seven thousand thirteen only) as per the head-wise details above, has actually been incurred during the period from 2.2013 under ICAR as a Catalyzing Agent in the Management of Change in the Indian NARS of NAIP after completing all codal formalities and observing the World Bank established procedural purpose for which grant was released and is well within the overall sanctioned budget of each Sub-Project.

REVENUE EXPENDITURE													Closing Balance as on 31.12.20 Col. (7)-(3)*	
Consultancy, contractual services (both res. & In./Admn.	Workshop/ seminar etc.	Human Capacity		Travel expenses		Hiring of Vehicles	Repair and Maintenance	Other operating and maintenance costs	Institutional Charges	Sub-Total (Rev. Exp.) Col. (19 to 29)	Total Exp. (Col. 18-30)	Amount Refunded during the period		
		India	Abroad	India	Abroad								Wires	Equipments
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
														229
460820	362614	22000		68432					263815	1177781	1210129			1248
115200				31684					10000	156884	156884			72
0														25
<b>576120</b>	<b>362614</b>	<b>22000</b>		<b>0</b>	<b>100116</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>273815</b>	<b>0</b>	<b>1334665</b>	<b>1367013</b>	<b>0</b>	<b>1801</b>

*Sd/-* 3/1/19  
FINANCE & ACCOUNTS OFFICER

**ANNEXURE**

**STATEMENT OF GRANTS RECEIVED FROM PIU-NAIP AND EXPENDITURE INCURRED AS IMPLEMENTING CENTRE FROM 1.04.2014, TO 30.06.2014  
IN RESPECT OF COMPONENT-1 :**

of the Institute/ Organisation : Central Institute of Freshwater Aquaculture,(CIFA), Kausalyaganga, Bhubaneswar - 751 002

Project Code	Name of consortia & Project	Name of the Lead Centre of Consortium	Opening balance as on 1.04.2014	Funds Received from PIU 1.4.2014 to 30.6.2014	Total Col. (5+6)	CAPITAL EXPENDITURE										Sub Total (Capital Exp.)Col. 8 to 17)
						Works	Land dev. costs including nursery ponds/ tanks etc.	Plant and machinery including technology costs.	Goods, Equipments etc.	Tools	Furniture/ fixture	Vehicles	Library Books/ Journals/ databases	Computer Hardware & bulk software	Livestock	
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Developing Commissioning Operating and Managing on online systems for Net/ARS Prelim Examination by ASRB, ICAR.		1562123		1562123											0
	Business Planning and Development Unit		534338	477662	1012000											0
	Strengthening of digital library and information Management under NARS (e-GRANTH)		-28548		-28548											0
	Learning & Capacity Building of Component-1 , NAIP		284768		284768	0										0
	<b>Sub-Total</b>		<b>2352681</b>	<b>477662</b>	<b>2830343</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Certified that expenditure of Rs.8,97,692-(Rupees eight lakh ninety seven thousand eight hundred ninety two only) as per the head-wise details above, has actually been incurred during the period from 2014 to 30.06.2014 under ICAR as a Catalyzing Agent in the Management of Change in the Indian NARS of NAIP after completing all local formalities and observing the World Bank established procedural lines for the purpose for which grant was released and is well within the overall sanctioned budget of each Sub-Project.





~51~

'H~if~1  
~,t<sub>g</sub>!

|

1°

0022

