

NIFPHATT

Results – Framework Document  
for National Institute of Fisheries  
Post Harvest Technology and  
Training, Kochi

[RFD - NIFPHATT]

[Summary of the targets NIFPHATT expects to achieve during the  
financial year and the action plan to meet them]

[2012-2013]



# R F D

## Results Framework Document

for

(Department of Animal Husbandry, Dairying & Fisheries)

National Institute of Fisheries Post Harvest  
Technology and Training (NIFPHATT)  
Kochi

(2012-2013)

## Section 1: Vision, Mission, Objectives and Functions

### Vision

NIFPHATT envisages the best post harvest fish utilization and consumption with the least post harvest losses and delivery of the best quality fish and fish products in all the states of India through the proactive participation and partnership of NIFPHATT with all the states fisheries departments of the country. Active, persuasive and sustained interaction with State Governments, Local Self Governments (Panchayati Raj Institutions) and local social institutions will be pursued for increasing value added fish processing and consumption.

### Mission

Post harvest technology upgradation through adaptive research to suit the ever increasing and fast changing consumer needs by developing new processes, products and packaging on pilot scale. Dissemination of the upgraded technology is achieved through consultancy, training, popularization of products and consumer response surveys.

### Objectives

- 1 Value added product development by way of process and product diversification from all varieties of fish including low value, unconventional species and seasonally abundant fishes
- 2 Popularisation and test marketing of value added products from fish varieties including low value, unconventional species and seasonally abundant fishes.
3. Imparting training in the field of post harvest technology, refrigeration technology, quality control and value added products to students through on the job training.
4. Post harvest technology upgradation and its transfer to beneficiaries such as rural fishermen community, small scale industries, export processing houses, through job work and training
5. Extension of the activities through popularization and test marketing of value added products to new areas with added attention to rural areas and enthusing entrepreneurs to enter into sea food processing industry, providing consultancy services and training for rural development programmes.

## Section 1: Vision, Mission, Objectives and Functions

### Functions

- 1 Value added product development by way of process and product diversification from all varieties of fish in all the lines of preservations like canned products, frozen, battered and breaded, dried and smoked, retortable pouch packed products, pickled products etc.
- 2 Procurement of raw materials from different sources like fish catches from training and survey vessels of sister organizations, fishermen cooperative societies, fish and mussel farming societies etc.
- 3 Popularisation and test marketing of value added products of all fish varieties including low value , unconventional and seasonally abundant fishes through our own stalls, mobile marketing units in the rural areas, dealers all over the India and market surveys.
- 4 Imparting training (both regular and need based) in the field of post harvest technology, refrigeration technology, quality control and value added products. The training programmes include On the Job training to college and university students, fisherwomen self help groups, VHSE apprenticeship, VHSE students and other miscellaneous.
- 5 Providing consultancy services to the processing industry in setting up of fishery post harvest technology infrastructures like small scale fish processing and handling units, seafood kitchen, refrigeration plants, cold rooms, setting up of modern fish markets in rural areas
- 6 Rural and gender development programme in skill upgradation and dissemination of rural appropriate technology in sea food processing for fisherwomen , self help groups from fishermen community etc.
- 7 R & D efforts in association with other institutional interfaces (NFDB, MPEDA, State Fisheries Departments especially Kerala and Andhra Pradesh and ICAR Institutes).
- 8 Extension of the activities.
- 9 Contributing to standard fixing process for fish and fishery products at National and international level.

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

| Objective  | Weight | Action   | Success Indicator       | Unit   | Weight | Target / Criteria Value |         |       |       |       |
|--|--------|--|-------------------------|--------|--------|-------------------------|---------|-------|-------|-------|
|  |        |  |                         |        |        | Excellent               | VeryGoo | Good  | Fair  | Poor  |
|  |        |  |                         |        |        | 100%                    | 90%     | 80%   | 70%   | 60%   |
| 1 Value added product development by way of process and product diversification from all varieties of fish including low value, unconventional species and seasonally abundant fishes      | 35     | Fish processed   | Qty processed           | Ton    | 20     | 150                     | 135     | 120   | 105   | 90    |
|  |        | Fish products developed  | Qty produced            | Ton    | 10     | 100                     | 90      | 80    | 70    | 60    |
|  |        | Cans produced  | No. of cans             | Nos.   | 5      | 50000                   | 45000   | 40000 | 35000 | 30000 |
| 2 Popularisation and test marketing of value added products from fish varieties including low value, unconventional species and seasonally abundant fishes.                                | 30     | Products marketed  | Qty marketed            | Ton    | 9      | 100                     | 90      | 80    | 70    | 60    |
|  |        | Revenue realized through sale of fish  | Revenue realized        | ₹ lacs | 14     | 50                      | 45      | 40    | 35    | 30    |
|  |        | Total revenue from all sources inclusive of fish sales, training and misc.               | Revenue realized        | ₹ lacs | 7      | 60                      | 9       | 8     | 7     | 6     |
| 3. Imparting training in the field of post harvest technology, refrigeration technology, quality control and value added products to students through on the job training                  | 18     | On the Job training for University and VHSE students, apprenticeship & overseas training | No. of trainees trained | No.    | 8      | 250                     | 225     | 200   | 175   | 150   |
|  |        |  | No. of trainee days     | No.    | 10     | 7200                    | 6480    | 5760  | 5040  | 4320  |
| 4 Post harvest technology upgradation and its transfer to beneficiaries such as rural fishermen community, small scale industries, export processing houses, through job work and training | 12     | Training for Fisherwomen SHGs , Departments & NFDB sponsored programmes and other misc.  | No. of trainees trained | No.    | 7      | 200                     | 180     | 160   | 140   | 120   |
|  |        |  | No. of trainee days     | No.    | 5      | 800                     | 720     | 640   | 560   | 480   |

## Section 2: Inter se Priorities among Key Objectives, Success indicators and Targets

| Objective  | Weight | Action  | Success Indicator  | Unit | Weight | Target / Criteria Value |          |      |      |      |
|--|--------|---|--|------|--------|-------------------------|----------|------|------|------|
|  |        |   |  |      |        | Excellent               | VeryGood | Good | Fair | Poor |
|  |        |   |  |      |        | 100%                    | 90%      | 80%  | 70%  | 60%  |
| 5. Extension of the activities through popularization and test marketing of value added products to new areas with added attention to rural areas and enthusing entrepreneurs to enter into sea food processing industry, providing consultancy services and training for rural development programmes | 5      | Consultancy , R & D, Participation in national and international level committees, Fairs, surveys, etc. | No. of consultancy services, R& D works and participation in national and international committees, fairs, surveys, etc. | No.  | 5      | 10                      | 9        | 8    | 7    | 6    |

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

| Objective   | Action   | Success Indicator       | Unit   | Actual Value for FY 09/10 | Actual Value for FY 10/11 | Target Value for FY 11/12 | Projected Value for FY 12/13 | Projected Value for FY 13/14 |
|---|--|-------------------------|--------|---------------------------|---------------------------|---------------------------|------------------------------|------------------------------|
| 1 Value added product development by way of process and product diversification from all varieties of fish including low value, unconventional species and seasonally abundant fishes                             | Processing of fish   | Qty processed           | Ton    | 146.20                    | 205.85*                   | 150                       | 150                          | 150                          |
|   | Development of fish products   | Qty produced            | Ton    | 90.18                     | 126.81                    | 100                       | 100                          | 100                          |
|   | Production of cans   | No. of cans             | Nos.   | 32000                     | 35256                     | 50000                     | 50000                        | 50000                        |
| 2 Popularisation and test marketing of value added products from fish varieties including low value, unconventional species and seasonally abundant fishes.   | Marketing of fish Products   | Qty marketed            | Ton    | 103.27                    | 149.46                    | 100                       | 100                          | 100                          |
|   | Revenue Realization through sale of fish   | Revenue realized        | ₹ lacs | 57.68                     | 84.48                     | 50                        | 50                           | 50                           |
|   | Total Revenue Realization from all sources inclusive of fish sales, training and         | Revenue realized        | ₹ lacs | 102.09                    | 119.48                    | 60                        | 60                           | 60                           |
| 3. Imparting training in the field of post harvest technology, refrigeration technology, quality control and value added products to students through on the job training to students through on the job training |  | No. of trainees trained | Nos.   | 450                       | 388                       | 250                       | 250                          | 250                          |
|   | On the Job training for University and VHSE students, apprenticeship & overseas training | No. of trainee days     | Nos.   | 7399                      | 7087                      | 7200                      | 7200                         | 7200                         |

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

| Objective  | Action   | Success Indicator  | Unit | Actual Value for FY 09/10 | Actual Value for FY 10/11   | Target Value for FY 11/12 | Projected Value for FY 12/13 | Projected Value for FY 13/14 |
|--|--|--|------|---------------------------|---|---------------------------|------------------------------|------------------------------|
| 4 Post harvest technology upgradation and its transfer to beneficiaries such as rural fishermen community, small scale industries, export processing houses, through job work and training   | Training for Fisherwomen SHGs, Departments & NFDB sponsored programmes and other misc.                           | No. of trainees trained  | No.  | 382                       | 448   | 200                       | 200                          | 200                          |
|  |  | No. of trainee days  | No.  | 1872                      | 1937  | 800                       | 800                          | 800                          |
| 5. Extension of the activities through popularization and test marketing of value added products to new areas with added attention to rural areas and enthusing entrepreneurs to enter into sea food processing industry, providing consultancy services and training for rural development programmes | Conducting Consultancy, R & D work, participation in national and international committees, Fairs, surveys, etc. | No. of consultancy services, R& D works and participation in national and international committees, fairs, surveys, etc. | No.  | 9                         | 15<br>Exhibition – 7<br>National & international committee – 7<br>Consultancy – 1 | 10                        | 10                           | 10                           |

\* Inclusive of job work .



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

The importance of fish as a health food is now well known to everyone. Hence there is an increasing trend in fish consumption. Fish offers the best quality and cheap animal protein ensuring nutritional security. In India this sector has a significant role in coastal rural development, employment generation, foreign exchange earnings and thus stimulate and strengthen the economic growth of the Nation. There is not much significant growth in the fish production compared to the growth in the number of fish eaters. Hence maximum utilization of the available fish landings, reduction of wastage, utilization of un-conventional varieties and development of more value added products have become the need of the hour. This Institute plays an important role in this sector.

The history of this institute goes back to October 1952 when Indo Norwegian Project was established at Quilon in Kerala for fisheries and fishermen community development. The HQ was shifted to Kochi in 1961 expanding the activities by acquiring a fleet of modern fishing and research vessels. In order to cater to the needs of the east coast of India a unit was established in 1989 in Visakhapatnam. In the year 2005 Govt. of India streamlined the activities of this institute giving more focus on the post harvest and fish handling sector with the above mentioned objectives.

| Sl. No. | Success Indicator                                  | Descriptions/Definitions   |
|---------|--|--|
| 1.      | Processing of fish – <b>Qty. processed</b>         | One of the main objectives of this institute is the utilization and development of value added products from low value, unconventional and seasonally abundant fish resources. For this purpose the institute procures raw fish from the catches of training and survey of vessels of sister organizations, fishermen cooperative societies and fish farmers societies. The quantity of fish procured and processed at a given point of time acts as its success indicator |
| 2.      | Development of fish products – <b>Qty produced</b> | Process and product diversification from the low value, unconventional and seasonally abundant fishes is another major objective. A variety of value added products in different lines of preservation like frozen, canned, dried, smoked, pickled, battered and breaded, retortable pouch packed etc. are developed.  |
| 3       | Production of cans – No. cans produced             | Thermal processing is one of the most modern methods of preservation of food. Canned fish has got much advantages over other conventional fishery products on storage, convenience, transportation, consumption etc. One of the main activities of this institute is canning. There are different varieties of canned fish, different pack weights and media. Hence number of cans produced is taken as the success indicator.   |
| 4.      | Marketing of fish Products - <b>Qty marketed</b>   | Popularization and test marketing of value added products from fish varieties including low value, unconventional species and seasonally abundant fishes is another activity. Test marketing is conducted through own stalls, mobile marketing trips to rural areas, dealer networks all over India, Fairs & Exhibitions, market surveys etc.  |

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

|     |  |  |
|-----|--|--|
| 5.  | Revenue Realization through sale of fish - <b>Revenue realized (₹ in lacs)</b>   | This institute even though not a commercial organization is expected to realize the actual direct inputs and a portion of the indirect inputs through the cost of the fishery products offered for test marketing. This forms major portion of the total revenue realized of this institute.   |
| 6.  | Total Revenue Realization from all sources inclusive of fish sales, training and misc.- <b>Revenue realized (₹ in lacs)</b>          | In addition to the revenue realized through the test marketing of fishery products there are other sources like fees collected from trainees and other miscellaneous revenue such as vessel berthing fees, rent collected from guest rooms, sale of unserviceable articles, sale of ice, consultancy fees etc.   |
| 7.  | On the Job training for University and VHSE students, apprenticeship & overseas training - <b>No. of trainees trained</b>            | Students from vocational higher secondary to post graduate level of various colleges and universities all over India get trained in the field of post harvest technology, refrigeration technology, quality control and value added products through on the job training programmes.<br><br>In addition, several other need based training programmes are conducted to disseminate the rural appropriate technology in the fisheries post harvest sector to fisherwomen self help groups, candidates sponsored by state fisheries departments and NFDB.<br><br>No. of trainees trained indicates the total number of participants attended the training programme. Number of trainee days represents the number of trainees multiplied by the period of training |
| 8.  | On the Job training for University and VHSE students, apprenticeship & overseas training - <b>No. of trainee days</b>                |  |
| 9.  | Training for Fisherwomen SHGs , Departments & NFDB sponsored programmes and other misc. – <b>No. of trainees trained</b>             |  |
| 10. | Training for Fisherwomen SHGs , State Fisheries Departments & NFDB sponsored programmes and other misc. – <b>No. of trainee days</b> |  |
| 11  | No. of consultancy services, R& D works and participation in national and international committees, fairs, surveys, etc.             | This institute serves as an expert member of consultative committees related to fish processing and other allied subjects. Active participation in the trade fairs and exhibitions, test marketing surveys are some of the tools of extension activities   |

## Section : 5

### Specific Performance Requirements from other Departments

1. The key objectives of this institute relates to product development and imparting training in the field of fisheries post harvest technology. For this the primary requirement is the availability of raw material i.e. fish. Fish landings from sister organizations solely depends on their voyage programmes and schedules.
2. Procurement of fish through fishermen cooperative societies is highly dependent on fishing seasons, price, demand, other market forces etc.
3. Fishery products developed out of raw material procured at a higher price becomes non competitive in the selling market.
4. Training programmes related to rural and gender development are usually sponsored by respective state fisheries departments, NFDB or other government agencies hence subjected to the vagaries of fund availability, budget provisions, policies etc. of such organizations.
5. Many colleges try for a particular time slot for on the job training (OJT) programme for their students. In such cases some of them get excluded.
6. The Cadre Review Committee has recommended creation of one Group 'A' and five Group 'C' posts in NIFPHATT. Training is one of the vital objective and function of this institute but having no separate and dedicated faculty members and a Librarian. In order to fulfill the envisaged objectives it is required that all these posts have to be filled up.
7. All the activities and budgetary allocations of this institute are controlled, regulated, guided and supported by the Administrative Ministry.
8. In certain cases the interface with ICAR institutes, State Fisheries Departments especially Kerala and Andhra Pradesh, NFDB, MPEDA and Fishermen Cooperative Societies play an important role.

## Section 6: Outcomes/Impact of activities of Department/Responsibility Centre (RC)

| Sl. No. | Outcome/Impact of activities   | Jointly responsible for influencing this outcome/impact with the following Departments /Ministries | Success Indicator       | FY 2009-10-   | FY 2010-11    | FY 2011-12 | FY 2012-13 | FY 2013-2014 |
|---------|--|--|-------------------------|---------------|---------------|------------|------------|--------------|
| 1       | Value added product development by way of process and product diversification from all varieties of fish including low value, unconventional species and seasonally abundant fishes                            | Processing of fish   | Qty processed           | 146.20        | 205.85*       | 150        | 150        | 150          |
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|         |  | Revenue Realization through sale of fish   | Revenue realized        | 57.68         | 84.48         | 50         | 50         | 50           |
|         |  | Total Revenue Realization from all sources inclusive of fish                                       | <b>Revenue realized</b> | <b>102.09</b> | <b>119.48</b> | <b>60</b>  | <b>60</b>  | <b>60</b>    |
| 3       | Imparting training in the field of post harvest technology, refrigeration technology, quality control and value added products to students through on the job training to students through on the job training | On the Job training for University and VHSE students, apprenticeship & overseas training           | No. of trainees trained | 450           | 388           | 250        | 250        | 250          |
|         |  |  | No. of trainee days     | 7399          | 7087          | 7200       | 7200       | 7200         |

\* Inclusive of job work

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| 4       | Post harvest technology upgradation and its transfer to beneficiaries such as rural fishermen community, small scale industries, export processing houses, through job work and training  | Training for Fisherwomen SHGs , Departments & NFDB sponsored programmes and other misc.                           | No. of trainees trained  | 382         | 448   | 200        | 200        | 200          |
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## **Abbreviations used**

1. Qty - Quantity
2. Misc. - Miscellaneous
3. VHSE - Vocational Higher Secondary Education
4. AV - Actual Value
5. PV - Projected Value
6. TV - Target Value
7. No. - Number
8. R &D - Research and Development
9. SHG - Self Help Group
10. NFDB - National Fisheries Development Board
11. FY - For the Year
12. HQ - Headquarter
13. OJT - On the Job Training
14. ICAR - Indian Council of Agriculture Research
15. MPEDA - Marine Products Export Development Authority