

Project Proposal
For the Promotion of
SHRIMP CULTURE IN SALINE AREAS
AND
UPGRADATION & STRENGTHENING
OF DISTRICT HEALTH CARE
CENTRES
Under
RASHTRIYA KRISHI VIKAS YOJANA
(INFRASTRUCTURE AND ASSETS COMPONENT)

Project Cost : 1098.00 Lakh
(2016-17)

Department of Fisheries, Haryana

**PROJECT PROPOSAL FOR THE
PROMOTION OF SHRIMP CULTURE IN
SALINE AREAS
AND UPGRADATION & STRENGTHENING
OF DISTRICT HEALTH CARE CENTRES
UNDER RASHTRIYA KRISHI VIKAS
YOJANA**

**PROJECT BENEFICIARIES
FARMERS OF HARYANA STATE**

**IMPLEMENTING AGENCY
GOVT. OF HARYANA
FISHERIES DEPARTMENT**

**PROJECT COST
Rs. 1098.00 Lakh
(For The Year 2016-17)**

**SOURCE OF FUNDS
GOVT. OF INDIA (RKVY)**

Abstract costs of the Project for the year 2016-17

Funds required for the infrastructure and inputs for the project proposal for Promotion of Shrimp culture in Saline areas and upgradation & Strengthening of District Health Care Centres under Rashtriya Krishi Vikas Yojana under RKVY scheme.

A. Financial assistance for the creation of infrastructure of saline areas.

Sr. No.		Funds Required in lakhs
1	Project for the development of Fisheries (Shrimp) i.e. <i>Letopenaeus vanaamei</i> in saline water/ soil @Rs.14.05 Lakhs per hectare. Subsidy @50% on excavation of 80 hectare	562.00
	Total subsidy required for infrastructure	562.00

B. Financial assistance for the inputs required for saline areas.

Sr. No.		Funds Required in Lakhs
1	Inputs cost for culture of <i>Letopenaeus vanaamei</i> @Rs. 10.90 Lakhs per hectare. Subsidy @ 50% on recurring expenditure of 80 hectare area	436.00
	Total subsidy required for Inputs	436.00

C. Funds required for the Upgradation and Strengthening of District Health care centres.

Sr. No.		Funds Required in Lakhs
1	Upgradation and Strengthening of District Health care centres.	100.00
	Total	100.00

Grand total of the funds required = A+B+C
= 562+436+100 = 1098.00 Lakh

The procurement of Fish Seed and Feed will be started from February to May depending upon the climatic conditions. In such circumstances the amount will be released in the month of April after checking of quality of feed and seed. Therefore, it is requested that the amount of Rs. 1098.00 Lakhs is required and may be release during 2016-17.

Project Proposal No. 1

1. Title

PROMOTION FOR THE CULTURE OF WHITE SHRIMP (PRAWN) IN SALINE WATER.

2. Introduction

Aquaculture has been identified as the most suitable and potential option for the utilization of these degraded and fragile resources for the cultivation of Finfish and Shellfish. In this regard several experimental trials have been successfully completed by the Central Institute of Fisheries Education at its Rohtak regional centre, developing some of the proven technologies like Tiger-shrimp culture, vannamei culture and Fresh water prawn poly-culture for the utilization of these degraded and saline affected barren lands using ground saline water. The unit cost for one hectare for the culture of Pacific White Shrimp *Letopenaeus vanaamei* is Rs.14.05 lakh Capital Cost and Operational cost is Rs. 10.90 lakh and total cost for one hectare for developing saline water area for Pacific White Shrimp *Letopenaeus vanaamei* is 24.95 lakh per hectare copy of the details is enclosed below.

This Project will be implemented in two phases. In the first phase the expenditure on infrastructure will be incurred and in the second phase the expenditure will be incurred on inputs and operational cost.

Fisheries Department proposes that during the year 2016-17, 80.0 hectare of Pacific White Shrimp *Letopenaeus vanaamei* will be established. Fisheries Department recommends that for this Innovative project, 50% subsidy may be provided on the capital and working costs i.e. Rs. 998.00 lakh.

The infrastructure for the development of White Shrimp *Letopenaeus vanaamei* for the saline water will be created 2016-17 and Seed stocking, culture and Harvesting of the White Shrimp *Letopenaeus vanaamei*

will be carried out during the year 2016-17. There is an estimated 20000 hectare saline soil/ water area available in the Districts Rohtak, Jhajjar, Jind, Sonapat, Mewat, Palwal, Hisar etc. which is of no use for the farmers.

Project Objectives :

- i. Utilization of saline affected/ water logged land for a aquaculture purpose.
- ii. Livelihood generation through fish farming.
- iii. Strategy/ deterrent measure to stop the suicidal trend which is observed significantly in south-eastern districts of Haryana.
- iv. Eradicating malnutrition by enhancing protein rich food.
- v. Multiple uses of fish ponds – for rain water harvesting, assured irrigation for crops and for other economic activities.

4. Feasible Studies on STEEP Factors:

- i. ***Social Acceptance:*** The Project will prove social and farmer friendly as farmers are suffering from water logging problem with zero yield from their agricultural land.
- ii. ***Technological adaptability:*** The Project will be technically viable to use the water logged land of farmers yielding high fish production resulting in farmer's socio-economic upliftment.
- iii. ***Economical viability:*** The Project is economically viable because farmers can get high fish production on their land which is of no use for other agriculture crops.
- iv. ***Environmental Impacts:*** The fish culture under the projects will be eco-friendly and there will be no negative environmental impacts using good quality aquaculture feed and fertilizers and quality fish seed.
- v. ***Political Aspects:*** The Project as per the guidelines of Govt. of India and State Govt. to raise economic condition of the farmers in aquaculture

sectors. Thus adding contribution to GDP as our country is agriculture based. This project will prove a boon among masses heading towards Blue-Revolution.

5. Project Appraisal:

Component

The implementing agency would be the Haryana Fisheries Department and Fish Farmers Development Agency of the respective districts. Following are the component of the projects:-

A. Financial Analysis of Pacific White Shrimp *Letopenaeus vannamei* in 1.00 hectare.

Capital Costs

Sr. No.	Particulars	Quantity	Unit cost (Rs.)	Amount (Rs.)	Depreciation (%)	Depreciation amount (Rs.)
1	Pond construction	1.00 hectare	500000.00	500000.00	5	25000.00
2	Tube Well with 7.5 H.P. Motor	2 No.	100000.00	100000.00	10	10000.00
3	2.0 H.P. Peddle wheel Aerators	10 Nos.	40000.00	400000.00	20	80000.00
4	Generator 35 KV	1 No.	250000.00	250000.00	10	25000.00
5	Bird Net	L.S.		15000.00	50	7500.00
6	Harvesting nets	L.S.		30000.00	25	7500.00
7	Plastic wares	L.S.		10000.00	50	5000.00
8	Electrical items	L.S.		25000.00	25	6250.00
9	PVC pipe line	L.S.		15000.00	25	3750.00
10	Diesel engine 5 H.P.	2 Nos.	25000.00	50000.00	20	10000.00
11	Watchman shed	1 No.	10000.00	10000.00	10	1000.00
				1405000.00		181000.00

The rough cost estimate may vary from site to site and as per H.S.R. Norms.

Working Capital

Sr. No.	Particulars	Quantity	Unit Cost (Rs.)	Amount (Rs.)
1	Pond preparation	L.S.		10000.00
2	Manures & fertilizers	L.S.		5000.00
3	Muriate of Potash	L.S.		20000.00
4	Seed including transport	300000	Rs. 1/Per Seed	300000.00
5	Feed including transport	6.7 Tons	80000.00	536000.00
6	Electricity & fuel	L.S.	134000.00	134000.00
7	Probiotics	L.S.	--	25000.00
8	Manpower	2 Persons	5000.00/ Month/ Head for 5 months	50000.00
9	Miscellaneous	L.S.	10000.00	10000.00
Total				1090000.00

* **Stocking density varies from 3.0 lakh to 6.0 lakh shrimp seed per hectare as per culture practice where the above cost may vary accordingly.**

Fixed Costs

Sr. No.	Particulars	Amount (Rs.)
1	Depreciation	181000.00
2	Operational cost	1090000.00
	Total	1271000.00

Gross Income = Sale of 10000 kg of white shrimp @ Rs. 350.00 per kg = Rs. 3500000.00

Net Profit = Rs. 3500000.00- Rs. 1271000.00 = Rs. 14,99,000.00

Net Profit Ratio=Net Profit X 100/Sales=42.82%

B. Year 2016-17 (Pacific White Shrimp *Letopenaeus vanaamei*)

			Remarks
1	Capital cost :	Rs. 14.05 lakh	(Infrastructure for the development of fisheries for Eighty hectare will be established in the year 2016-17.
2	Working capital :	Rs. 10.90 lakh	
3	Total cost of the project :	Rs. 24.95 lakh	
4	Total cost for 80 hectare :	Rs. 1996.00 lakh	
5	Subsidy on 80 hectare :	Rs. 998.00 lakh	

In this project the expenditure during the year 2016-17 will be as below :-

Sr. No.	Particulars	One unit cost (Rs. in Lakhs)	80 Units Costs for the year 2016-17 (Rs. in Lakhs)
1	Capital cost :	Rs. 14.05	Rs. 1124.00 (Subsidy @ 50% will be provided)
2	Working Capital/ Operational Cost.	Rs. 10.90	Rs. 872.00 (Subsidy @ 50% will be provided)

The project will be implemented in the following districts as per targets given below:-

Sr. No.	Name of Distt.	Unit (in hectare)
1	Jhajjar	15.00
2	Rohtak	20.00
3	Bhiwani	5.00
4	Hisar	15.00
5	Mewat	3.00
6	Fatehabad	2.00
7	Sonepat	10.00
8	Jind	10.00
	Total	80.00

Department also intends that these projects will be guided by the Central Institute of Fisheries Education, Lalhi, Rohtak for the demo purpose and all the technical guidance/ training and works will be under the supervision of this centre.

Project Proposal No. 2

1. *Title*

Proposal for the Upgradation and Strengthening of District Health care centres.

2. *Introduction*

The State of Haryana was carved out of most backward region of erstwhile Punjab in 1966 has now earned a reputation of being one of the most leading prosperous State in the country. In the year 1966-67, only 58 hectare water area was under fish culture by stocking of 1.5 lakh fish seed with a total fish production was 600 tonne fish per hectare per year. There was only 3 Fish Seed Farms. The main activity of the department was restricted to the catching of fish from natural water bodies and there were only 1500 persons engaged in fisheries trade. By the end of 2015-16, 17800.00 hectare ponds area was under fish culture by stocking of 6400.00 lakh fish seed with total production was 121000.00 tonne fish. There are approximately 16000 fish farmers and 27000 persons engaged in fisheries trade. For the year 2016-17 it is targeted to cover 19000 hectare pond water area under culture by stocking of 7600 lakh fish seed and to produce 142800 tonne fish.

Fish seed is the basic input in fish farming. Fish Farmers required quality fish seed from Govt. Fish Seed Farms. Availability of adequate quantity of quality fish seed is prerequisite for the sustainable aquaculture system. The reclamation of water bodies for inland aquaculture and increasing demand of intensification in carp culture require huge quantity of quality fish seed. At present there are 15 Govt. Fish Seed Farms established in the State in which fish seed of 6 species such as Rohu, Mirgal, Catla, Common Carp, Silver Carp and Grass Carp is being supplied to the fish farmers. Presently State is producing

6400 lakh fish seed out of which 1250.00 lakh from 15 Govt. Fish Seed Farm and rest from Private Hatcheries against the demand of more than 6400 lakh fish seed. During the year 2016-17, 1375.00 lakh quality fish seed of Indian Major Carp and Exotic Carp Species will be produced at Govt. Fish Seed Farms. The demand of fish seed will further increase with the implementation of various state and centrally sponsored schemes.

As per guidelines of Rashtriya Krishi Vikas Yojana, Fisheries Department Haryana is submitting a proposal under for the year 2016-17 amounting to Rs. 100.00 lakh for the Upgradation and Strengthening of District Health Care Centres and National Fish Seed Farm, Jyotisar for the testing of soil, water, physio-chemical parameters and latest equipment like Digital Data Logging Multiparameter pH-cum-Conductivity Meter, Electronic Pollution Monitoring meter for Ammonia Nitrate and Electronic Aqua Culture Monitoring Kits will be setup to increase the survival rate from spawn to fry and adult fish which will help in increasing the seed production at fish production in the State. The detail of all District Health Care Centres and National Fish Seed Farm, Jyotisar where equipments and other materials will be supplied as given below :-

Sr. No.	Particulars of the equipments	Districts	Quantity	Rate per equipment (in Rs.)	Remarks
A	Digital Data Logging Multiparameter pH-cum-Conductivity Meter.	District Fisheries Officer-Cum-CEO, FFDA, Karnal, Rohtak, Sonapat, Gurgaon, Narnaul, Faridabad, Hisar, Sirsa, Kurukshetra, Ambala, Jind, Bhiwani, Rewari, Kaithal, Yamunanagar, Panipat, Jhajjar, Fatehabad, District Fisheries Officer, Palwal, Mewat and National Fish Seed Farm, Jyotisar.	21 (1 each)	125000 (each)	A single probe provides pH, conductivity, TDS and Temperature simultaneously. Portable kits include meter, probe, carrying case and all required accessories.
		Total (A)	21	2625000	

B	Electronic Pollution Monitoring meter for Ammonia Nitrate.	District Fisheries Officer-Cum-CEO, FFDA, Rohtak, Jhajjar, Hisar, Sonapat, Bhiwani and National Fish Seed Farm Jyotisar	6 (1 each)	880200 (each)	This equipment measures upto 16 parameters simultaneously. This traces the movement of point and non point source pollutants, monitoring, aquaculture projects for excessive waste concentrations and surveying nutrient levels in natural water bodies.
		Total (B)	6	5281200	
C	Electronic Aqua Culture Monitoring Kit	District Fisheries Officer-Cum-CEO, FFDA, Karnal, Ambala, Gurgaon, Narnaul and Fatehabad.	5 (1 each)	425700 (each)	This mobile kit provides instrument and chemicals for 15 tests critical to affective aquatic live stock management. This instrument have battery option, so that tests can be run immediately without sample preservation and handling. This maintains water quality easily with portable aquaculture laboratory.
		Total (C)	5	2128500	
		G. Total (A+B+C)		10034700	

(Say Rs. 100.00 Lakh)

Background

With the intensification of fish culture programme more inputs are used to increase the productivity in the pond. Mortality rate of more than 75% has been observed in juvenile stages at Govt. Fish Farms and 65% in adult stages in the culture ponds. Efforts are required to reduce the mortality rate of juveniles and adult fish in a phased manner. A comprehensive programme has been chalked out to make Haryana State as fish disease free zone and to arrest decline in fish fauna in the State. The fish juvenile i.e. spawn to fry is reared in small water bodies which undergo many changes such as fluctuation in temperature, light, dissolved oxygen, pollution, micro and macro organisms, population density, excess of nitrogen etc. which adversely affects the survival of juvenile and adult fish due to non-maintenance of optimum physiological conditions and as such the external environment of fish has a great influence on its survival and growth.

Fish being a cold blooded animal prefers optimum Physio-chemical parameters for its survival, growth and reproduction. Change in any kind of environmental conditions raises stress on fish which is a major cause of mortality in the fishes. Hence estimation of various parameters which are detrimental to fish health and cause of mortality is essential.

Objectives of the project:-

- To reduce the mortality rate in juvenile and adult fish.
- To control growth, survival rate and abnormal signs.
- Qualitative plankton analysis to control biological conditions of the pond.
- To cater the need of fish farmers of the State so as to suggest/monitor fish health management measures.

Feasible Studies on STEEP Factors:

- i. *Social Acceptance:*** The Project will prove social and farmer friendly as farmers are suffering from water logging problem with zero yield from their agricultural land.
- ii. *Technological adaptability:*** The Project will be technically viable to use the water logged land of farmers yielding high fish production resulting in farmers socio-economic upliftment.
- iii. *Economical viability:*** The Project is economically viable because farmers can get high fish production on their land which is no use on other agriculture crops.
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- v. *Political Aspects:*** The Project as per the guidelines of Govt. of India and State Govt. to raise economic condition of the farmers in aquaculture sectors. Thus adding contribution to GDP as our country is agriculture based. This project will boon among masses heading towards Blue-Revolution.