**Baseline study for Fisheries Development in Telangana State**

**Schedule for Tanks**

District: -------------- Mandal:--------

Name of Tank: ………………… No. of villages\* : --------------; (\*List of villages enclose)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Geo code** |  | **Res code** |  | **Resource type** | **DOF/GP** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Latitude** |  | **Longitude** |  |  |  |

* **Field survey team**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name** | **Signature** | **Place** | **Date\*** |
| **Enumerator** |  |  |  |  |
| **Team Leader** |  |  |  |  |
| **Expert** |  |  |  |  |

*\*Enumerator to record the date of collection of the data and team leader / expert to indicate the date of checking / validation of the questionnaire*

**A1: Resource Utilization and Activities (1.0)**

**1.1 Type of water bodies under Govt. ownership**:

1.1.1 DOF/ GP tanks

1.1.2 Others smaller bodies under common property regime:

Water storage tanks/ Farm ponds/ nala bunds/ check dam/ quarry tanks/ coal pits/ NHM tanks/ MNERGA tanks/ Mission Kaktiya water bodies/ NMPS tanks/ others ------------------------

1.1.3Seasonality: short seasonal (<6 months) /long seasonal (6-9 months) /perennial (throughout the year)

* + 1. If seasonal and long seasonal specify number of months of water holding: -------------------------

1.1.5 Type of tanks/ other small water bodies: earthen ponds/ tanks /lined tanks/ others (specify)

1.1.6 Year of commissioning fisheries & related activities----------

**1.2 Pre stocking management practices**

**1.2.1 Culture based Fisheries**

* Screening of spill way, canals, inlet / outlets
* Weed removal
* Any othermeasures (specify)
  + 1. **Traditional/ extensive fish culture: ................................**

**1.2.3 Extensive to modified extensive fish culture:.................................**

1***.****2.1. in large perennial tanks 1.2.2 with no/less usage of production enhancing inputs in short /long seasonal tanks*

*1.2.3 With limited/moderate use of production enhancing inputs in long seasonal tanks and other small water bodies.*

**1.3 Fish seed stocking**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Fish species stocked\*** | **No. stocked**  **(Stocking Density/ha)** | **Seed size at stocking**  **(mm/cm)** | **Remarks**  **No. of times stocked**  **Once/twice/multiple times** |
| I | Catla |  |  |  |
| II | Rohu |  |  |  |
| III | Mrigal |  |  |  |
| IV | Common carp |  |  |  |
| V | others |  |  |  |

**\* IMC- Catla,rohu, mrigal, calbasu, Others indigenous fish spp., Exotic fish species : Silver carp, grass carp, common carp, Others if any**

**1.4 Use of production enhancing inputs under farming systems** (2.1.2 & 2.1.3)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Type of input (Lime, Manures & feed)** | **Quantity** | **Frequency of application** | **Total quantity**  **(Cost/ kg/ton)** | **Total Expenditure on inputs (Rs.)** |
|  |  |  |  |  |  |

**A2: Operational aspects (2.0)**

**2.1 Who takes care of routine management of farming systems?**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (i) | FCS Managed |  | (ii) | Elected/Nominated fishermen group |  | (iii) | Fishermen |  |

**In case of item ii and iii what is the arrangement between FCS and group/fisher**

Produce sharing/ profit sharing/ others (specify): ------------------

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Farming systems** | **Hired Labour man days** | | **No. of family labour used** | **Total man days** |
| **Maintenance operations** | **Watch and ward** |
|  | Culture based Fisheries |  |  |  |  |

**2.1.1 Details of Fishermen/FCS/Others actually operating the Tanks**

|  |  |
| --- | --- |
| **No. of Fishermen involved in fishing** | **Remarks** |
| * Active members : |  |
| * Passive/ sporadic |  |
| * Non members: |  |

**2.2 Crafts and Gears employed**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Details of craft/ gears** | **No.** | **Size/specifications**  **(mesh bar size etc)** | | **Remarks : (material used- wooden/ FRP/mono filament nylon/ etc)** |
| * **Boat type** |  | | | |
| Thermocole theppam |  | |  |  |
| Others |  | |  |  |
| * **Nets used** |  | | | |
| Gill nets |  | |  |  |
| Drag nets / shore seines |  | |  |  |
| Cast nets |  | |  |  |
| Traps Others |  | |  |  |

* 1. **Culture based Fisheries**

|  |  |
| --- | --- |
| 2.3.1 | Duration of fishing/day----------hrs |
| 2.3.2 | Quantity of net /boat used -------- |
| 2.3.3 | No. of fishing days season wise: Summer (Feb-May)------------; Rainy days(June-Sept.)---------Winter (Oct- Jan.)------------, |

* 1. **Traditional/ extensive fish culture**

|  |  |
| --- | --- |
| 2.4.1 | Single or multiple harvest by repeated drag netting |

* 1. **Extensive to modified extensive fish culture**

|  |  |
| --- | --- |
| 2.5.1 | Single harvest |

**2.6 Species composition in harvest**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Fish species/ categories** | **Quantity in Kgs** | **Fish size structure**  **Av. Size** | **% composition** | **Species wise price/kg** | **Remarks**  **Fish catch data recording, etc.** |
| 1. Commercial carps |  |  |  |  |  |
| 1. Local Catfish & others |  |  |  |  |  |
| 1. Local small indigenous fishes |  |  |  |  |  |
| 1. Prawn |  |  |  |  |  |
| 1. Exotic spp. |  |  |  |  |  |
| 1. Others |  |  |  |  |  |

**A3: Production and Productivity (3.0)**

**3.1 Productivityunder each system**

|  |  |  |
| --- | --- | --- |
|  | **Type of culture** | **Kg per hectare** |
| 3.1.1 | Culture based capture Fisheries |  |
| 3.1.2 | Traditional/ extensive fish culture |  |
| 3.1.3 | Extensive to modified extensive fish culture |  |

**3.2 Production per year**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Fish/Prawn** | **Year I** | | | **Year II** | | | **Year III** | | |
| **Area (ha)** | **Prodn. (t)** | **Value (Rs)** | **Area (ha)** | **Prodn. (t)** | **Value (Rs)** | **Area (ha)** | **Prodn. (t)** | **Value (Rs** |
| 1. Commercial carps |  |  |  |  |  |  |  |  |  |
| 1. Local Catfish & others |  |  |  |  |  |  |  |  |  |
| 1. Local small indigenous fishes |  |  |  |  |  |  |  |  |  |
| 1. Prawn |  |  |  |  |  |  |  |  |  |
| 1. Exotic spp. |  |  |  |  |  |  |  |  |  |
| 1. Others |  |  |  |  |  |  |  |  |  |

**3.3 Cost incurred for fishing / harvest**

|  |  |  |
| --- | --- | --- |
|  | **Type of culture** | **Rs. per annum** |
| 3.3.1 | Culture based capture Fisheries |  |
| 3.3.2 | Traditional/ extensive fish culture |  |
| 3.3.3 | Extensive to modified extensive fish culture |  |

**3.4 Labour usage per year**

|  |  |  |
| --- | --- | --- |
| 3.4.1 | Family labour ( mandays/ year): |  |
| 3.4.2 | Hired labour ( mandays/ year) |  |
| 3.4.3 | Wage rate (in Rs/day) |  |
| 3.4.4 | Other Misc. expenditure: Rs. |  |

**3.5 Economics of fish culture**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Cost components** | **system 1** | **system 2** | **system 3** | **Remarks** |
| 3.5.1 | Lease rent |  |  |  |  |
| 3.5.2 | Seed cost |  |  |  |  |
| 3.5.3 | Other inputs |  |  |  |  |
| 3.5.4 | Labour   * watch and ward\* * Harvest\* |  |  |  |  |
| 3.5.5 | Others (specify) |  |  |  |  |
| 3.5.6 | Total cost (Rs.) |  |  |  |  |

\* (man days x wage rate)

**A4: Landing centres and marketing aspects (4.0)**

**4.1 Number of Fish landing centres/points:**

|  |  |  |
| --- | --- | --- |
| **Names of landing centres** | **Major** | **Minor** |
|  |  |  |
|  |  |  |
|  |  |  |

**4.2 Species composition in landing centres**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Fish species/ categories (local names)** | **Quantity of fish and prawn**  **(in Kgs)** | **Fish size structure**  **(Av. size)** | **% composition**  **to total** | **Species wise price/kg** | **Remarks**  **(Fish catch data recording, etc.)** |
| Commercial carps |  |  |  |  |  |
| Local Catfish & others |  |  |  |  |  |
| Local small indigenous fishes |  |  |  |  |  |
| Prawn |  |  |  |  |  |
| Exotic spp. |  |  |  |  |  |
| Others |  |  |  |  |  |

**4.3 Mode of fish catch/harvest disposal**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **system 1** | **system 2** | **system 3** | **Remarks** |
| 4.3.1 | On-site sale |  |  |  |  |
| 4.3.2 | Nearby/ local market |  |  |  |  |
| 4.3.3 | Own marketing |  |  |  |  |
| 4.3.4 | FCS |  |  |  |  |
| 4.3.5 | Sold to retail |  |  |  |  |
| 4.3.6 | Whole sale market |  |  |  |  |
| 4.3.7 | Through merchants |  |  |  |  |
| 4.3.8 | Other markets |  |  |  |  |

**4.4 What is the variety and av. sale price realised in the last three years?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Fish type** | **Sale price realised (Rs./ kg)** | | |
| **Year I** | **Year II** | **Year III** |
| 4.4.1 | Commercial carps |  |  |  |
| 4.4.2 | Local Catfish & others |  |  |  |
| 4.4.3 | Local small indigenous fishes |  |  |  |
|  | Prawn |  |  |  |
|  | Exotic spp. |  |  |  |
|  | Others |  |  |  |

**4.5 Gross Sales Realization in the last three years**

|  |  |  |
| --- | --- | --- |
| **Amount in Rs.** | | |
| **Year I** | **Year II** | **Year III** |
|  |  |  |
|  |  |  |

**4.6 Consumer preference of fish species and their market price**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Fish species** | **Rating on Preference level** | | | **Remarks** |
| **High** | **Medium** | **Low** |
|  | Commercial carps |  |  |  |  |
|  | Local Catfish & others |  |  |  |  |
|  | Local small indigenous fishes |  |  |  |  |
|  | Prawn |  |  |  |  |
|  | Exotic spp. |  |  |  |  |
|  | Others |  |  |  |  |

**A5: Feedback, perceptions and suggestions (5.0)**

**5.1 Feedback**

**5.1.1 Department and Gram panchayattanks?**

(a). What is the presentsystem of annual fish seed stocking ?

* By individual fisherman/ by FCS/ by DOF / other sources (specify)---------

(b.) What is the source of fish seed(in case you stock seed)? -------------------------

(c). Mention cost of seed/ --------------------Rs. /1000 fingerlings

(d)What per cent of seed stocked is outsourced?

(e) What percent of seed stocked by Govt is being outsourced and from where?

**5.1.2 in case where DOFstock theseeds**

|  |  |
| --- | --- |
|  | **Were you involved in fish seed stocking program yes/ no, If no what are the reasons (Specify)** |
| a. |  |
| b. |  |
| c. |  |
| d. |  |
|  | **If yes, what is your opinion on the seed quality (health, size) and the specified quantity, species ratio** |
| a. |  |
| b. |  |
| c. |  |
| d. |  |

5.1.3 Whether you / PFCS executives or its representatives were involved in participatory planning of tank fish seed stocking and in other development process

5.1.4 Are you aware under which developmental scheme/s fish seed stocking of tanks is being undertaken / supported by DOF? If yes, name the scheme/ program: ------------------------

5.1.5 Are you aware on the process adopted/ in practice for seed procurement, supply and stocking? If yes, how:

1. Direct purchase from seed supplier
2. Tender process/ quality check on set guideline
3. Involvement of FCS representatives while stocking
4. Transparency in procurement process
5. Any other ( specify)

If no, why: were you not involved in the process

1. Not aware of the provisions
2. Not interested
3. Others (specify)--------

5.1.6 What is the role played by PFCS/DOF/ others in the entire fish seed stocking process?

* PFCS :
* DOF:
* Beneficiary:
* Others :

5.1.7 Have you/ any member of FCS/Groupbeen trained / sensitized on checking for seed quality? If yes, what are the indicators used for the quality check?

5.1.8 Has tank stocking by DOF enhanced fish availability in the region / given additional income to your family? Yes/No, if no, what are the reasons?

|  |
| --- |
|  |
|  |
|  |
|  |

**If yes, how it has benefited?**

|  |
| --- |
|  |
|  |
|  |
|  |

5.1.9 Do you/any of your FCS/ Groupparticipate in management and other related issues of tank fisheries development? Yes/No

If No, why? Not interested/ not involved by the group/ other reasons (specify)----------------

If yes, what is the nature and levelof participation?

|  |
| --- |
|  |
|  |
|  |
|  |

5.1.10 Details of Trainings under gone by Fishers/ other stakeholders and the organization conducted such program

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Name of Training prog.** | **Duration** | **Organizing institution** | **Remarks** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

5.1.11 what are your expectations on Training program

|  |
| --- |
|  |
|  |
|  |

5.1.12 how are you benefited by the Training program?

|  |
| --- |
|  |
|  |
|  |

If no, why you could not take fisheries related training?

|  |
| --- |
|  |
|  |
|  |

5.1.13 Are you aware of govt. schemes/ programs related to tank fisheries development: Yes/No. If yes, what are developmental schemes?

|  |
| --- |
|  |
|  |
|  |

5.1.14 Have you received support of DOF / other institutions for stocking of fish seed. If yes, details of support

|  |
| --- |
|  |
|  |
|  |

5.1.15 Have you received support of DOF / other institutions for fishing/ other fisheries related activities. If yes, details of support (net, boat, accessories etc.)

|  |
| --- |
|  |
|  |
|  |

5.1.16 Have you received support of DOF / other institutions for marketing of fish.If yes, details of support

|  |
| --- |
|  |
|  |
|  |

5.1.17 Have you received support of infrastructure facilities: Ice plant/ transport vehicle/ others

|  |
| --- |
|  |
|  |
|  |

5.1.18 Have you received support for other tank /other small water body - based aquaculture activities (fish seed rearing, fish fattening ornamental fish production etc).

If yes, details of support

|  |
| --- |
|  |
|  |
|  |

5.1.19 did youreceive support under the welfare schemes.If yes, details of support

|  |
| --- |
|  |
|  |
|  |

5.1.20 Do you feel that the Tanks are being regularly stocked annually as per recommendations with fish seed of quality and numbers?

|  |
| --- |
|  |
|  |
|  |

5.1.21 Do you feel that the number of members involved in tank fisheries and fish culture is increasing over the period of 3-5 years?. If so what was the number

Earlier no: ------------ and Present no -----------

5.1.22 Are you getting regular income throughout the year from the activity. If yes, how muchIn Rs...........

5.1.23 Are you witnessing progressive increase in fish production of your village compare to past 3-5 years

Yes/ no.; if yes to what per cent: 25%/ 50%/ 75%/ 100% / >100%

5.1.24 Do you wish to attribute this increase in fish harvest to:

Regular Fish seed stocking/improved management/ change in craft and gear/ increased fishing effort/ any other (specify)-:--------------

5.1.25 Do you feel that the activity has also facilitated fishers for asset building, if so what are the assets acquiredby you over the period of 3-5 years

|  |
| --- |
|  |
|  |
|  |

5.1.26a. Do you feel that due to the increased activity, availability of fish in the region and per capita fish consumption has increased over the period of 3-5 years. If yes to what an extent?

10%/ 20%, 30%, 40% -----------------------

b. Do you feel that your family fish consumption has increased over the period of 3-5 years? If yes, to what an extent?

10%/ 20%, 30%, 40% -----------------------

5.1.27 as per your understanding, how is the fish catch from tanks disposed?

|  |  |  |
| --- | --- | --- |
| **Particulars** | **Tick (🗸)** | **Indicate %** |
| * Most of the catch is sold locally |  |  |
| * Most of the catch is sold in nearby markets in the state |  |  |
| * Substantial catch goes to outside the state markets |  |  |

5.1.28 Do you feel that the activity is ensuring you economic security?If so, how

|  |
| --- |
|  |
|  |
|  |

Any others (Specify)

**5.2 Perception of Respondents**

5.2.1 How do you rank the following key issues constraining development of tanks?

|  |  |
| --- | --- |
| **Constraints** | **Ranking from 1 to 6** |
| * Resource access |  |
| * Equity in allotment of water bodies/ licensing |  |
| * Availability of quality fish seed for timely stocking |  |
| * Water pollution –domestic sewage / effluents |  |
| * Inadequate institutional support including marketing |  |
| * Governance, mesh size regulation etc |  |
| * Any others ( specify) |  |

**5.2.2 What are the likely causes for these issues?**

1. Inadequacy in code of conduct for leasing of water bodies
2. Seed deficit and dependence on outsourced seed
3. lack of knowledge on resource management
4. Exclusive dependence on the resource for livelihood
5. Poor literacy and socio economics of fishers
6. weak PFCS and lack of participatory management
7. Any others ( specify)

**5.2.3 What could be possible solutions/suggestions for improvement?**

1. Positioning code of conduct for leasing of water bodies
2. Secured access over water bodies by the fisher communities for longer period
3. Strengthening seed production in local vicinity
4. Promotion of participatory collective action
5. Improving functioning of PFCS and other local institutions
6. Strengthening institutional net works
7. Improvement of marketing channels
8. Any others ( specify)

**5.2.4 in your opinion who has to address the above solutions**

1. DOF
2. Federation
3. FCS
4. Other institutions
5. Any others (Specify)

**5.2.5 What are your roles and responsibilities in addressing these solutions?**

1. Participation and support in development process of Integrated tank Fisheries Development
2. Compliance to the COC
3. Play active role in cluster fish farming,
4. Involvement in sector related activities and institutional collective action
5. Others (specify)

**5.2.6 What are your expectations from the DOF /other stake holders?**

What are your/groupexpectations from the DOF /other stake holders?

1. DOF:
2. Federation:
3. PFCS:
4. Research and Extension institutions:
5. Seed supplier:
6. Input dealers (net, craft, other accessories):
7. Financial institutions:
8. Insurance:
9. Community welfare Depts.:
10. Any others (specify):

**5.3 Suggestions from respondents**

What are your specific suggestions on the following?

5.3.1 Further scope to increase tank productivity and daily fish harvest

5.3.2 Changes required for the existing annual leasing system needs and opinion on long term leasing

5.3.3 Any other type of fishing access right system for better management of tank fisheries/fish culture

5.3.4 Way out for minimizing fishing by non members that is affecting your livelihood

5.3.5 Forward price fixing for fish to ensure better sale price and minimize exploitation of fishers by market intermediaries

5.3.6 Minimizing social problems viz., poisoning, theft etc that are threatening the segment growth and how

to overcome the same

5.3.7 Managing the tanks to improve the governance with better community participation

5.3.8 The overall integrated development of tank fisheries