

BOBP/MM/3

**Skill Gaps and Training Needs Analysis
of the Department of Fisheries, Tamil Nadu,
for Sustainable Development and
Management of Fisheries**



SKILL GAPS AND TRAINING NEEDS ANALYSIS OF THE
DEPARTMENT OF FISHERIES, TAMIL NADU FOR
SUSTAINABLE DEVELOPMENT AND MANAGEMENT OF FISHERIES



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List of Abbreviations

ADF	-	Assistant Director Fisheries
BIM	-	Bharathidasan Institute of Management, Trichy
CEO	-	Chief Executive Officer
CIBA	-	Central Institute of Brackishwater Aquaculture
CIFRI	-	Central Inland Fisheries Research Institute
CMFRI	-	Central Marine Fisheries Research Institute
DDF	-	Deputy Director Fisheries
DOF, TN	-	Department of Fisheries, Tamil Nadu
FAO	-	Food and Agriculture Organization of the United Nations
FFDA	-	Fish Farmers Development Agencies
GTZ	-	German Agency for Technical Cooperation
HRD	-	Human Resource Development
IBM	-	in-board Motor
ICAR	-	Indian Council of Agricultural Research
ICLARM	-	International Centre for Living Aquatic Resources Management
IF	-	inspector Fisheries
IIM	-	Indian Institute of Management
IRMA	-	Institute of Rural Management, Anand
JDF	-	Joint Director Fisheries
LA	-	Laboratory Assistant
LFA	-	Log Frame Analysis
MDP	-	Management Development Programme
MYRADA	-	Mysore Resettlement and Development Agency
NACA	-	Network of Aquaculture Centres in Asia-Pacific
NCDC	-	National Cooperative Development Corporation
NGO	-	Non-Government Organisation
NIRD	-	National Institute of Rural Development, Hyderabad
OBM	-	Out-board Motor
PRA	-	Participatory Rural Appraisal
PRIA	-	Participatory Research Institute Asia
RA	-	Research Assistant
SAP	-	Strategic Action Plan
SI	-	Sub-Inspector Fisheries
TAPMI	-	T A Pai Management Institute, Manipal
TNMFR	-	Tamil Nadu Marine Fishing Regulation
TNFDC	-	Tamil Nadu Fisheries Development Corporation
TNMS	-	Tamil Nadu Ministerial Service
TOTP	-	Training of Trainers Programme
XLRI	-	Xavier Labour Relations Institute, Jamshedpur
OOpP	-	Objective Oriented Project Planning

Preface

This document presents the rationale, the conduct and the findings of a study carried out for the Department of Fisheries (DOF), Tamil Nadu, in the context of its goal of sustainable fisheries development and management.

The study, supported by BOBP, aims at identifying the human resource gaps in the DOF that have to be filled, and the training needs that have to be met, so that the Department strengthens its intrinsic capacity for sustainable fisheries development and management. The study was carried out by Om Consultants, Bangalore.

The study followed a participatory approach — workshops, discussion among small groups, field visits to Cuddalore, questionnaire surveys at both Cuddalore and the DOF headquarters in Chennai, and analysis of the questionnaire responses as well as of secondary data.

The report contains a human resources development plan and recommends the setting up of a core group to implement the plan.

The BOBP is a multi-agency regional fisheries programme that covers seven countries around the Bay of Bengal — Bangladesh, India, Indonesia, Malaysia, Maldives, Sri Lanka, Thailand.

The Programme plays a catalytic and consultative role in developing coastal fisheries management in the Bay of Bengal, thereby helping improve the conditions of small-scale fisherfolk in the member-countries.

The BOBP is sponsored by the Governments of Denmark and Japan. The executing agencies the FAO (Food and Agriculture Organization of the United Nations),

Foreword

The skills traditionally available in a fisheries department are inadequate to cope with the complex requirements of participatory fisheries management. Proficiency in problem-solving, communication and negotiation and behavioural skills are needed — besides the ability to lead and motivate.

At the request of the Department of Fisheries, Government of Tamil Nadu the BOBP recently supported a study on the training needs that must be met and the gaps in skills that must be filled, so that the Department would build its institutional capacity for sustainable development and management of fisheries in the state.

The study was carried out by On Consultants, Bangalore, which obtained primary data for its assignment through stakeholder consultations, workshops in Chennai and Cuddalore, group discussions, field trips and questionnaire-based interviews with Department staff. Secondary data was obtained by studying plan documents, Ministers' speeches and the Code of Conduct for Responsible Fisheries (which has been translated into Tamil).

The consultants have recommended a core group to assist the Tamil Nadu Director of Fisheries. It will assist in strategic planning, identify junior personnel who can shoulder wider responsibilities in future, and draw up a detailed human resources development plan based on the 7-S model (A "shared vision" created through staff, structure, strategy, systems, skills and styles). A list of institutes that can provide appropriate training has been drawn up.

The Department of Fisheries, Tamil Nadu, will find the study and this report useful.

Similar studies would be useful for other fisheries departments on the east and west coasts.

Yugraj Singh Yadava
Chennai Interim IGO Coordinator
28.12.2000 Bay of Bengal Programme

BACKGROUND

The Department of Fisheries, Tamil Nadu, in its effort to build institutional capacity towards better Coastal Fisheries Management (CFM) with the help of BOBP, assigned Om Consultants, Bangalore, to conduct a Skill Gaps and Training Needs Assessment.

The Terms of Reference (Annexure-E) emphasised that the study should be conducted in a participatory manner. The skill gaps and training needs of the Department should be identified with a view to developing a training plan for human resources development.

Accordingly, the study was carried out in a highly participatory manner with interviews, workshops and small group discussions conducted at different levels (Director, Joint Director, Deputy Director, Assistant Director, Sub-Inspector, Selection Grade Inspector, Research Assistant, Librarian & others). The study team also met stakeholders (fisherfolk, people's representatives, fish processors, boat owners, fish farmers, co-operative society office bearers, NGOs, etc.), in the field, as well as officials of central research agencies such as Central Marine Fisheries Research Institute (CMFRI) and Central Institute of Brackishwater Aquaculture (CIBA). This report details the outcome of these efforts, the analysis and the findings.

We would like to acknowledge with thanks the help provided by the staff of the Department of Fisheries, by the many stakeholders in fisheries and by central research agencies – all of whom spared their time to attend the workshops and take part in discussions.

EXECUTIVE SUMMARY

- I. The Department of Fisheries (DOF), Tamil Nadu, seeks to build its own institutional capacity towards sustainable development and management of fisheries with the help of the BOBP. Toward this end, Om Consultants, Bangalore, were commissioned to conduct a Skill Gaps and Training Needs Assessment of the Department. It was emphasised that the study should be conducted in a participatory manner in order to identify the gaps in skills that the Department should fill, and the training needs it ought to meet, with a view to developing a Human Resource Development - Training Plan.
- II. The skills gaps and training needs were sought to be derived from two vital angles: (i) the needs of the stakeholders (fisherfolk, local community leaders, small-scale processors, etc.) and (ii) the organisation's mandate. The study adopted a participatory approach through workshops, small group discussions, field visits and interviews at Cuddalore (a representative area where both marine and inland fisheries are active), questionnaire responses both at Cuddalore and at the headquarters, and analysis of secondary data.
- III. The stakeholders were identified, their interests and expectations analysed, the Department's approach to meet these needs evolved. Arising from these, the competencies and skills needed within the DOF were worked out. It was observed that most of the concerns expressed related to post-harvest needs such as culture of fish / prawn. The subject of resources management seemed to be in the background, though certain concerns were expressed. Present needs tended to dominate thinking in contrast to future needs, which require a visionary approach.
- IV. The stakeholders' pre-occupation in the field related to administration of welfare schemes, and ways and means by which these may be effectively implemented. They did indeed express concern about dwindling resources, but their immediate preoccupation was with today's falling earnings, not tomorrow's falling catches.
- V. The questionnaires given to respondents related to classification of three types of skills, derived from the stakeholders' workshop. These were: (i) Technical (ii) Managerial and (iii) Extension. The Department staff were all desirous of additional skills and competence in participatory fisheries management and 'eco-friendly' technologies. While the responses of the staff were to build up skills in all these areas, the beneficiaries seemed to be more inclined towards managerial and technical skills.
- \1. The organisation's mandate was elicited from (i) the Minister's policy statement for 1998 - 1999 (ii) the IX Five Year Plan for Tamil Nadu (iii) the draft revised policy on the anvil for adoption and (iv) the Code of Conduct for Responsible Fisheries to which India is a signatory and which has been adopted by the Government of Tamil Nadu. At the core of all this is the priority need for sustainable fisheries management, with an emphasis on resource management. This would naturally shift the emphasis from culture and post-harvest concerns to pre-harvest resources management. Thus it is clear that the DOF has to shift gears and aim at a future vision and mission different from the past. It would have to reduce its role in post-harvest activities. The welfare of fisherfolk would of course continue to be of prime concern as reflected in the organisation's mandate.
- VII. The current nature of duties and responsibilities of various levels of staff was ascertained from three sources: (i) from the available manuals; (ii) through interviews with Department staff and their own observations (iii) from questionnaire responses. These responses have been at variance with each other, though there are certain common aspects. This points to the need for (a) sharing the vision for the future derived from the Organisation's mandate at all levels (b) evolving a common understanding on how to put this mandate into action and (c) making the front-line staff understand the need for delivery of services to the beneficiaries consistent with sound fisheries management. This is admittedly a difficult task, but one which is urgent.
- VIII. The staffing pattern and the qualifications prescribed were also examined. The efforts to professionalise must be strengthened not only by prescribing qualifications but also by orientation of young staff at the time of recruitment. The Directorate at present has a HRD cell to assist the Director in developing strategies for the future, consistent with the mandate. However, the cell needs to be properly staffed with specialists in all core areas with a core group which will assist the Director in (a) strategic planning,

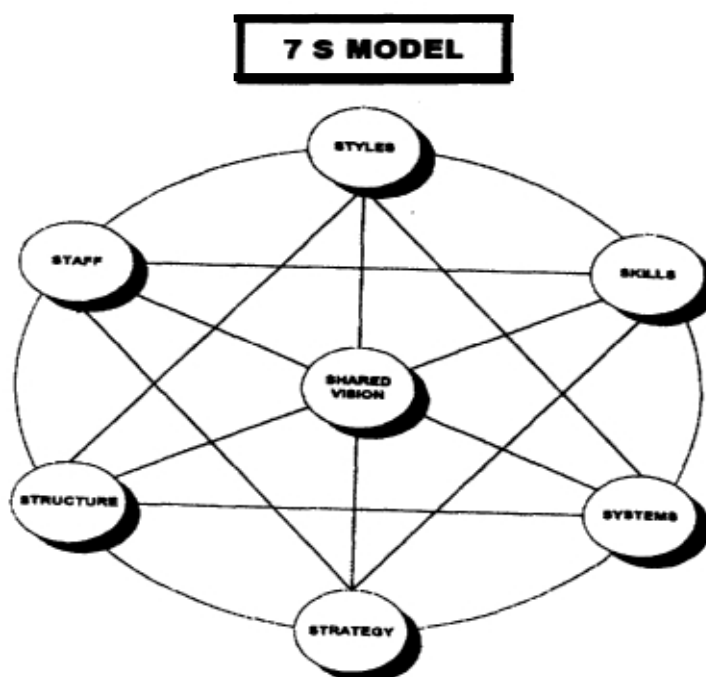
(b) keeping track of the potential of personnel at the lower level who may be encouraged to shoulder wider responsibilities in future and (c) drawing up a detailed HRD plan to build on the strengths of personnel and fill any gaps in their knowledge and experience (for example, by organising management programmes for developing conceptual skills) and (d) monitoring & evaluation of the programmes and the budget.

IX. The Department is availing of a HRD Plan under World Bank assistance. Certain officers have taken part in training programmes. Funds are available to be utilised. What is needed is a cogent HRD plan to build the DOF's institutional capacity to meet its future needs. This could consist of the following common elements:

- (i) Sustainable Fisheries Management in Concept and Practice
- (ii) Resources Management
- (iii) Participatory Fisheries Management
- (iv) Problem- Solving and Communication Skills
- (v) Leadership and Motivation
- (vi) Behavioural Skills and Attitudinal Development

A list of institutes offering such courses has been identified. But it would be even more advantageous if the DOF organised tailor-made programmes that would permit interchange of ideas on these concepts. BOBP assistance could be handy in the design of these programmes.

X. The HRD Plan to build institutional capacity hinges on seven factors as illustrated below (7S Model).



The Strategy is based on the organisation's mandate. The Strategic Action Plan (SAP) is to be implemented by translating the policy into action and working out the vital contributions at various levels. A campaign must be mounted to translate the vision of the organisation.

The Structure should include a wing or group to develop and implement the strategy. A core group has to be formed with a vertical cross-section of officers to assist the Director in strategic planning of human resources.

The Systems should include a HR System which maintains a personnel profile, and provides opportunities to develop the potential in advance of actual job needs. The DOF will thus have a number of trained people ready to take up responsibilities. This would obviate the need to organise training as and when arise.

Young people with potential must be identified and given sufficient inputs to prepare themselves for higher responsibilities. They could also be included in task forces set up from time to time for addressing critical tasks in the organization.

The Staff should include professionals such as sociologists (to meet the needs of participatory fisheries management), fisheries economists, ecologists and natural resources management personnel (for sustainable fisheries management). They should be knowledgeable in marine biology, population dynamics and stock assessment. This staff may also be contracted from outside for specific periods to assist the Department.

The Style should be participatory. Both with the stakeholders and within the organisation, so that the DOF may effectively tap the ideas of younger people.

The Skills would be of different kinds: conceptual, technical, managerial and extension. For developing conceptual skills, programmes such as those of the IIM, Ahmedabad; the Bharathidasan Institute of Management, Trichy; or the Administrative Staff College, Hyderabad may be useful. For other types of skills, a mix of external courses and in-house workshops is suggested.

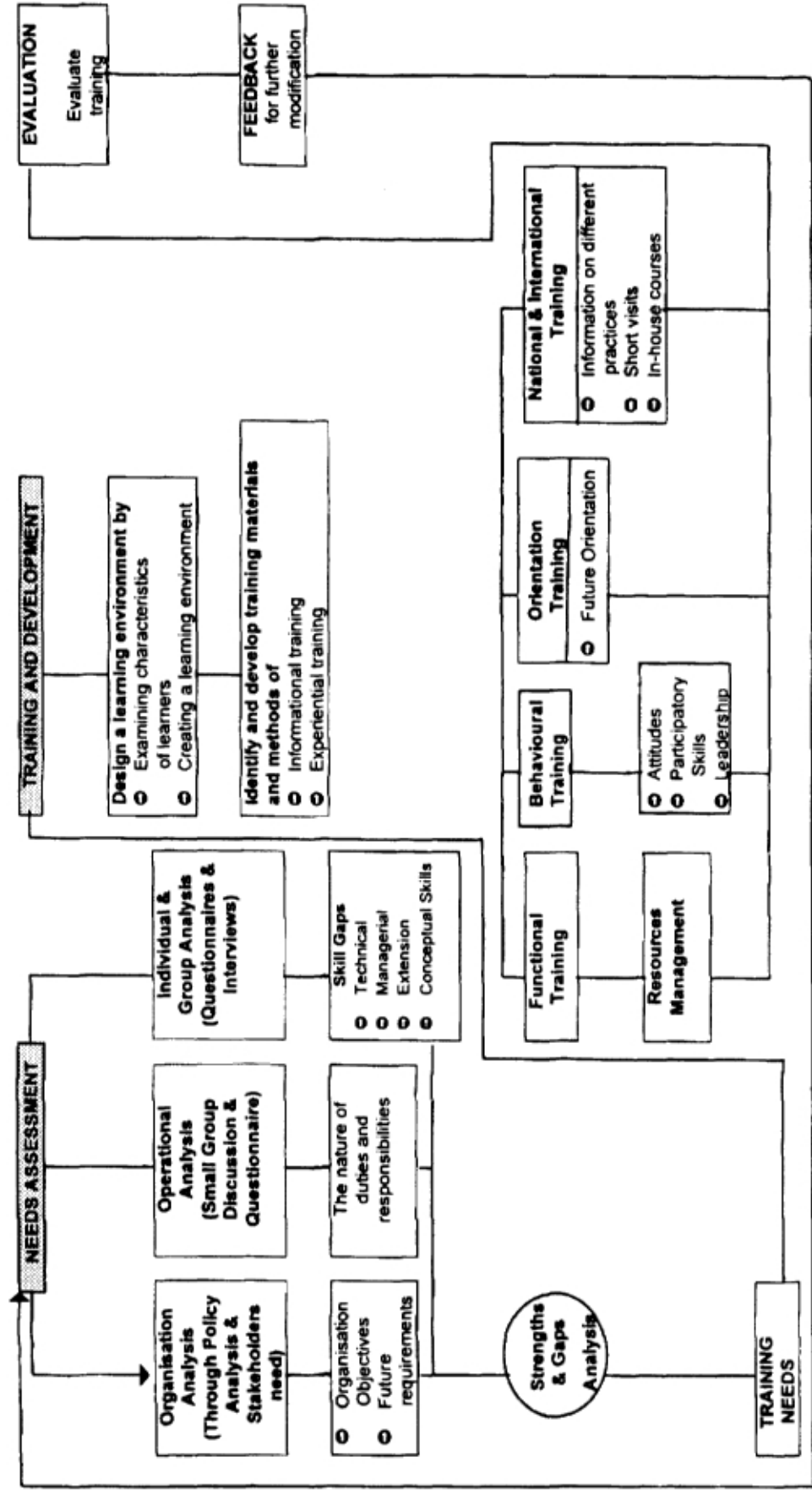
The Shared Vision should extend to all levels of staff and stakeholders in what the fisheries sector ought to achieve during the next decade. A series of workshops should be organised for a discussion on giving effect to the vision at every level.

- XI. Reorienting the Department's personnel to the needs of the future is no small task. But a good beginning has been made by the Government of Tamil Nadu with BOBP assistance. There is an urgent need to break away from the routine approaches of the past in identifying and developing talents to man the organisation and build its capacity. While individuals are always keen to develop their skills in a variety of ways, the organisation has to utilise this keenness to meet its own mandate and requirements. Hence, strategic HR Planning is a must.

IDENTIFYING TRAINING NEEDS AND MANAGING TRAINING AND DEVELOPMENT

First Set

Second Set



1.0 APPROACH & METHODOLOGY

Approach

1.01 The diagram on page viii clarifies the process of identifying training needs and managing training and development. During the study, the first set of assignments relating to “Needs Assessment” was attempted. It consisted of the following steps:

- **Organisational Analysis**

This was sought to be done by studying the organization’s mandate. It was elicited from (i) Minister’s policy statement for 1998-1999. (ii) IX Five Year Plan, (iii) Draft Revised Policy on the anvil for adoption and (iv) the Code of Conduct for Responsible Fisheries to which India is a signatory and which has been adopted by the Government of Tamil Nadu. These are elaborated in Chapter 2 (Development of Fisheries Policy – Past, Present and Future).

The organisation’s mandate has to meet stakeholders’ needs. Workshops were organised at the headquarters and the field to identify stakeholders’ needs, the DOF’s approach in response to these needs, and the competencies that have to be developed in the Department to make this effective. This appears in Chapter 3 (Stakeholders’ Perspectives).

- **Operational Analysis**

How the Fisheries Department meets its mandate through various activities was examined. Information on the duties and responsibilities assigned to the staff at various levels was elicited in three ways:

- (1) from manuals
- (2) from senior officials and
- (3) from the staff themselves through questionnaires.

This exercise was meant to check whether the organization’s thinking and action were consistent with its vision, and relate the vision to duties at various levels. This analysis appears in Chapter 4. To carry out the organisation’s activities effectively, the current staff profile – their background and required qualifications – were examined. Findings appear in Chapter 5.

- **Individual & Group Analysis**

Skill gaps relating to officials in the DOF at different levels were ascertained through a questionnaire response. They were requested to indicate needed skill areas in connection with their duties. These were classified into Technical, Managerial, Extension and Conceptual Skills for the future. These findings are elaborated in Chapter 6.

- **Training Needs**

The current HRD plan under the World Bank Scheme was looked at. An inventory of training resources was attempted. Also, arising from the needs analysis, the recommended training courses for various levels of staff and training institutions was outlined. This appears in Chapter 7.

The HRD Plan

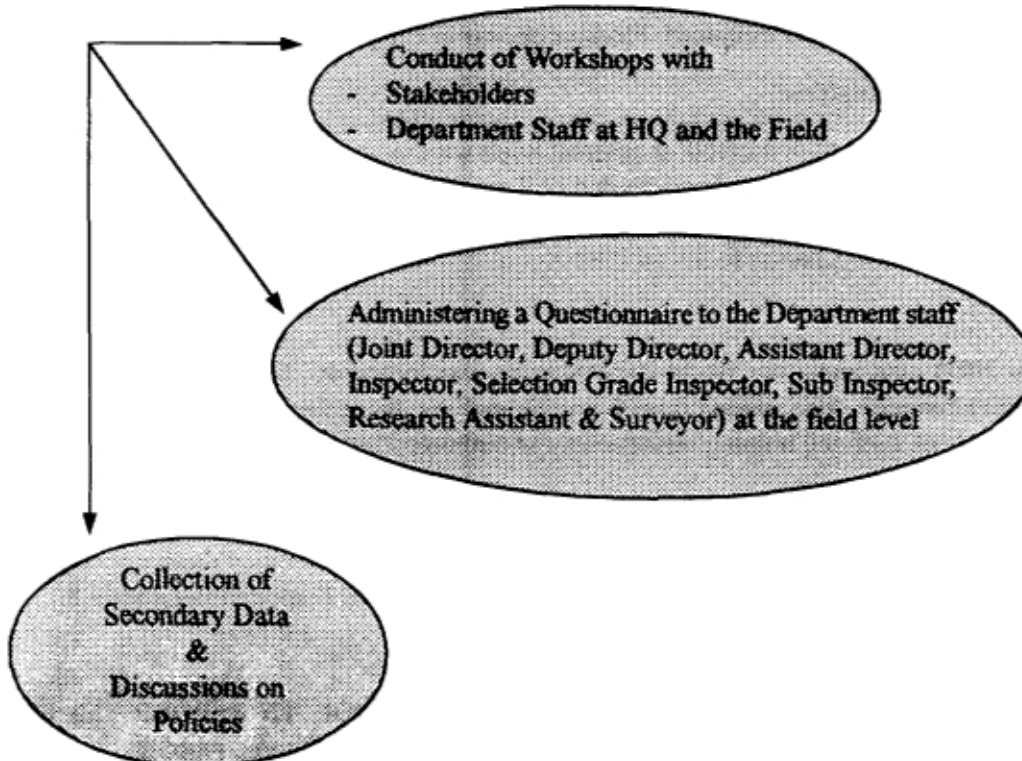
The overall HRD plan is more than just a training plan. The aim is to build institutional capacity to meet current and future needs. A model toward this HRD plan has been outlined. It appears in Chapter 8.

1.02 In consonance with the above, the steps followed were:

- **Orientation Phase:**
- Orientation to the needs of the DOF, TN & BOBP. This was achieved through workshops and small group meetings.

- **Workshop with DOF Staff** • Starting from identification of stakeholders and their needs, the approach and the competencies to be developed in the Department staff were identified.
- **Questionnaire Design** • Based on the needs identified, a classification of skills was attempted to facilitate responses from the field.
- **Appraisals & Consultation with the DOF Staff in the field** • The coastal district of Cuddalore was selected as it had both coastal and inland fisheries components. Detailed discussions and a workshop were held with several stakeholders, as also with Departmental staff at senior policy-making and advisory levels and in the field.
- **Analysis of Field Data** • Classification of skills needed into Technical, Managerial & Extension areas, level-wise.
- **Collection of Secondary Data, and Discussions with HQ Staff** • Data relating to the current activities of the DOF job descriptions, educational qualifications for different posts, and recruitment procedures.
- **Consultation with External Agencies like CMFRI & CIBA** • Obtaining their perceptions about future needs in relation to sustainable fisheries management.
- **Study of Policies & Implications for the Training Needs** • Recent developments, the mandate of the DOF, its implications for sustainable fisheries management, and the development of conceptual skills for meeting the above. Examination of existing HRD plans.
- **Appraisal of Available Training Resources** • Collection of data regarding training in India & the World Bank scheme on AHRD.
- Essential Elements of the HRD plan

1.03 Thus, a three - pronged approach was adopted to make the study as participatory as possible.



- 1.04 The conduct of participatory workshops enabled debate and discussion to bring about a consensus amongst stakeholders, the Department and frontline staff. It was therefore an important aspect of the methodology.
- 1.05 Secondary data was collected about the job descriptions of staff at different levels (Joint Director, Deputy Director, CEOs, Assistant Director, Inspector, Selection Grade Inspector, Sub Inspector, Research Assistants & others) and the various training institutes which can undertake training.
- 1.06 Reference was made to the Fisheries Policy, the Code of Conduct for Responsible Fisheries and the Five Year Plans of the Government of Tamil Nadu. Their implications for drawing up training needs were studied.

2.0 DEVELOPMENT OF FISHERIES POLICY

PAST, PRESENT AND FUTURE

- 2.01 Tarnil Nadu is endowed with rich fishery resources along its 1000 km coastline and 0.19 million sq.km of the Exclusive Economic Zone (EEZ). These cover the Coromandel Coast, Palk Bay, Gulf of Mannar and the West Coast; 21 coral islands in the Gulf of Mannar with its rich habitats of live corals; coastal lagoons (Pulicat Lake and Muthupet swamp) and estuaries. As regards inland fisheries, there are five major rivers, 51 reservoirs and innumerable tanks. These natural resources harbour a variety of fin fishes, shell fishes and plants.
- 2.02 The Fisheries Policy, from the establishment of the Department more than eight decades back, had been to raise fish production by improving technology and research. It had been presumed that increasing fish production and ensuring regular supplies to consumers would raise the earnings and improve the living conditions of poor fishermen. After India became independent in 1947, stress was also laid on welfare measures for fisherfolk to improve their living conditions.
- 2.03 However, there is a limit to possible increases in fish production. Scientific studies on existing patterns of fisheries clearly pinpoint certain trends that need to be considered while initiating management measures to ensure sustainable fisheries. The Government of Tamil Nadu therefore decided to formulate a fisheries policy aimed at sustainable development and participatory management to ensure the welfare of fisherfolk. In February 1996, the Government constituted a high-level committee to formulate a Fisheries Policy for the State. The Committee prepared a draft policy and submitted it in September 1997. Inputs for policy preparation were also provided by BOBP.
- 2.04 The DOF gave its views on the policy report. Measures relating to fisheries resources and management, including necessary amendments to the Indian Fisheries Act of 1897, had been specified in the draft report, apart from welfare measures for fisherfolk.
- 2.05 Though pending formal approval, many policy measures (dealing in particular with resources and management), had been incorporated in various fisheries schemes for the **IX Five Year Plan**. The BOBP was associated with the preparation of the IX Five Year Plan as a member of the Steering Committee. Most BOBP recommendations relating to the following aspects had been accepted and included in the **IX Five Year Plan**:
- ◆ Need for updating the existing information, and controlling increasing population and fishing pressure.
 - ◆ Managing fisheries.
 - ◆ Controlling the degradation of the coastal environment
 - ◆ Strengthening the capacity to manage fisheries through amendments to the Fisheries Act, and through regulations that give a thrust to management approaches and studies, develop human resources, and promote training systems and schemes.
 - ◆ Post-harvest fisheries.
- 2.06 The Fisheries Policy of the Tamil Nadu Government to be implemented during the fiscal year 1998-99 was presented by the Honourable Minister for Fisheries in her budget speech. Elements of the policy:
1. To achieve sustainable fish production with the involvement of fisherfolk and thereby raise the nutritional standards of the population.
 2. To achieve sustainable and improved management of the capture fishery in the marine sector, especially in the in-shore waters.
 3. To encourage scientific management in inland fisheries, reservoirs, irrigation tanks, village ponds and tanks and to bring in additional areas under fish culture.
 4. To generate employment and income in the rural sector of the economy.
 5. To ensure viable fishermen co-operatives.
 6. To ensure the economic and social welfare of fisherfolk.

- 2.07 While explaining the various schemes to implement the above policies, particularly those relating to marine fisheries, the Minister said that the aim is to conserve the existing fishing grounds since inshore fishery resources appeared to be over-exploited.
- 2.08 The thrust of the policy will be to tap rich and hitherto untapped rich fishery resources of the off-shore region through multi-day and multi-gear fishing by mechanized boats. Resource management programmes will include sea ranching in Pulicat Lake and the setting up of artificial reefs. The Minister said that the DOF is associating itself closely with the BOBP and availing of its experience and expertise in formulating policy and implementing schemes.
- 2.09 The Director of Fisheries indicated during discussions that the Code of Conduct for Responsible Fisheries, will be implemented by the Department in co-operation with fisherfolk. This will necessitate creating awareness among the fisherfolk about the **Code** and motivating them to accept it.

Statutory Support for Fisheries Policy and Implementation

- 2.10 As far back as 1897, the British Government had constituted a legal framework to manage the regulation of fishing in inland and marine waters. The Indian Fisheries Act, as it was called, prohibited the use of explosives and poisons in fisheries and laid a foundation for further legislation. Legislators of what was then Madras Presidency, slightly amended the Act in 1929. Most rules framed under the Act related to inland waters. Fishing rights in these waters frequently leased to private parties had necessarily to be defined. The profitable chank and pearl fisheries of the Gulf of Mannar were well regulated. Only once during this century did the Government issue a notification to regulate marine fisheries; this related to fixed lure fishing in the shallow waters of Palk Bay. No legal regulations for other types of marine fishing came about. Most fishing practices along the Coromandel Coast remained unregulated by the Government during most of the 20th Century.
- 2.11 A sequel to the Indian Fisheries Act and its 1929 amendment came about in 1983 through the passing of the Tamil Nadu Marine Fishing Regulation (TNMFR) Act. This Act created a new legal framework for marine fishing, and specifically addressed conflicts between artisanal and mechanised boat fishermen along the coast. Thus it formed the tail-end of a larger regulation effort.
- 2.12 The TNMFR Act in clauses 4 & 5 enables the Tamil Nadu Government, to frame rules concerning the following and notify them:
- (a) regulate, restrict or prohibit fishing in any specified area by different types of vessels
 - (b) regulate or restrict the number of fishing vessels fishing in any specified area
 - (c) regulate, restrict or prohibit catching in any specified area for such species of fish
 - (d) regulate, restrict or prohibit use of such fishing gear in any specified area
 - (e) fix the hours in a day during which any person can fish in any specified area using such a type of craft.

The Act specified that in framing rules the following are to be considered:

- (1) Need to protect the interests of different sections of people engaged in fishing, particularly those of traditional craft fishermen.
 - (2) Need to conserve fish and to regulate fishing on a scientific basis.
 - (3) Need to maintain law and order in the sea.
 - (4) Any other matters as may be prescribed.
- 2.13 The TNMFR Act provides for the regulation, restriction and prohibition of fishing by fishing vessels in the sea along the whole or part of the coastline of the State. The two principal clauses **of the Act** create zones

for mechanised fishing and specify the time and duration of the fishing operation. These seek to protect artisanal fishing operations by limiting the operations of mechanised boats to a specific geographical area as well as to daily fishing times. It does not, however, contain any restriction on artisanal fishing practices.

- 2.14 Other sections of the Act established a groundwork for enactment of its principal clauses as well as for future elaboration. Sections 7 to 14 order the registration and licencing of all fishing vessels in the State. Sections 4 and 15 to 22 describe the powers of the Fisheries Department officers, as well as procedures and penalties concerning enforcement. The Act explicitly allows for the possibility of further regulation by Government Notification (Sections 5a to d). The DOF has sent many proposals for further regulations relating to limitations of fleet strength, mesh regulations, closed seasons and prohibition of fishing in certain breeding and nursery areas. These are under the consideration of the Government, and formal enactment may be undertaken soon, Proposals for regulations relating to resource management and their formal enactment will also be undertaken.
- 2.15 The enforcement of rules and regulations framed under the Act will need resources relating to finance, manpower and equipment for patrolling and extension. Enforcement will also need the active co-operation of the primary stakeholders – the fisherfolk.
- 2.16 Management measures : The TNMFR Act of 1983, and its Rules, regulate the marine fishery in terms of fishing gear, location, duration and time of fishing, so as to resolve conflicts between artisanal and mechanised boat fishermen. However, no rules have yet been framed to implement measures concerning regulation of fishing zones, mesh sizes of fishing nets, closed seasons, and operational fishing fleets – which will ease congestion in overcrowded inshore waters.

The Tamil Nadu Government is considering various options relating to implementation of fishery /resources management, including participatory community management. Towards this option, the DOF jointly with the BOBP, has had many consultations with all stakeholders in Chennai and Kanyakumari districts to evolve management measures and a suitable implementation methodology.

- 2.17 The success of these developments necessitates a total orientation of the DOF to the concept of Sustainable Fisheries Management. Building up of conceptual skills and awareness would be a vital input for such success.

3.0 STAKEHOLDERS' PERSPECTIVES

- 3.01 The training needs of the DOF are worked out by assessing the stated needs of stakeholders and the organisation's mandate. It may be argued that the stakeholders' perceptions and views could be uninformed (reflecting a bias in thinking in favour of immediate rather than long-term needs). Nevertheless, one should take the current concerns of stakeholders as the starting point. Further, the modern stress on customer satisfaction requires that one gives the stakeholders a fair hearing. The organisation's efforts should be directed towards meeting these needs in the context of sustainable fisheries management.

Hence, the first step was to identify and brainstorm all the fisheries management players through a workshop. As many as 20 players were identified and classified into six important groups : (1) Producers (2) Consumers (3) Influencers [like BOBP] (4) Funding Agencies (5) Support Agencies and (6) Implementors of various schemes.

- 3.02 The next step was to identify the significant actors among these groups as follows:

- (1) Fisherfolk (fisherwomen co-operatives) / fishermen
- (2) Entrepreneurs (progressive entrepreneurs / aquaculturists)
- (3) Fish merchants (wholesale) / traders
- (4) Financing institutions (banks)
- (5) Allied industrialists, equipment / input suppliers & hatchery feed manufacturers
- (6) Small-scale processors (fish curers, pickling & handicrafts)
- (7) Fish consumers
- (8) NGOs (welfare organisations) and
- (9) Local community leaders

In addition to these groups, the Government is of course an important actor in the area of policy and implementation. The Central Government is a signatory to international agreements of a binding nature that should give direction to fisheries development and management in the future. Central research agencies such as CMFRI also contribute to policy-making.

The interests and expectations of these players were ascertained, also their potential contributions (both positive and negative) to the DOF. These would form the basis of the DOF's objectives, a mission statement on HRD effort. The possible approaches that DOF could adopt to address the needs of these actors and the competencies/skills required to deliver the DOF's services, were outlined.

- 3.03 Example: The interests / expectations of the fisherfolk (fisherwomen co-operatives) are:

- ✳ Increased incomes and a better standard of living
- ✳ Improved facilities for landing and marketing
- ✳ Easy credit facilities for equipment and other needs
- ✳ Protection from natural calamities

- 3.04 It was also ascertained from the field that the primary stakeholders *i.e.*, the fisherfolk, are aware about depletion of resources. However, their primary current needs appear to be financial support through grants, aids and loans for professional activities, and welfare measures to improve the community's living standards in the village.

Their potential contributions to the fisheries sector could be:

- ❖ Tapping of untapped resources (identifying new species & new areas)
- ❖ Coping with the increasing demand for fish and fishery products
- ❖ Increased motivation for adopting sustainable fishing methods

The primary negative impact on the fisheries sector could be over-crowding (extra pressure on fishing leading to reduction in resources).

The possible approaches of DOF to address these expectations are:

- ❖ Participatory fisheries management
- ❖ Diversification of fishing effort
- ❖ Strengthening of fishery co-operatives
- ❖ Development and transfer of technology
- ❖ Generation of alternative income-generation activities (ancillary fishing)
- ❖ Improving post-harvest facilities

Implications of Diversification of Fishing Effort

Hence, the competencies / skills to be developed among the DOF staff, to address these needs, were identified as:

- ❖ Demonstration and training to implement participatory fisheries management
- ❖ Updating knowledge on sustainable fisheries management
- ❖ inter-personal, communication and extension skills to support fishermen co-operatives.
- ❖ Extension methodology
- ❖ Human resource management skills

A similar analysis was done in respect of other significant actors in marine fisheries. The outcomes were derived in a tabular form under designated headings, such as the indicative table below.

ACTORS	INTERESTS EXPECTATIONS	POTENTIAL (+/-)	DOE APPROACH	COMPETENCE / SKILL To BE DEVELOPED

The detailed outcome of the workshop is presented in Annexure - II.

-
- * A question was raised subsequently about the implications of diversifying fishing effort. To reduce fishing pressure in the crowded inshore waters, as well as to ensure a sustainable fishery for small-scale fisherfolk, the DOF has planned to diversify fishing effort by utilising some of the fishing craft presently fishing in inshore waters, and modifying them for multi-day and multi-gear fishing operations. It is hoped that popularisation of these efforts would ease the pressure on inshore waters and assure a sustainable marine fishery.

The resultant implications are to:

- (a) Reduce the number of crafts operating in crowded inshore waters
- (b) Reduce of the total catch of particular fish species under stress at present
- (c) Prevent introduction of additional craft to existing total fishing fleet, for operation in the untapped offshore waters
- (d) Introduce new gear for exploitation (large meshed nets and large-sized hooks) to catch big sized fish. letting the juvenile population grow
- (e) Increase total fish production by tapping untapped offshore waters
- (f) Operate and employ fishing crafts and crew withdrawn from the inshore waters

Stakeholder Workshop at the Field

- 3.05** A stakeholder workshop was held in the field at Cuddalore. It adopted a new kind of approach for a DOF workshop, since the direct beneficiaries of DOF schemes (fisherfolk) and their representatives were themselves prominent participants. Discussion started with schemes currently being implemented. The problems encountered by the beneficiaries were identified. A brainstorming session was held, and alternative approaches to problem-solving were outlined. These were then classified into what could be done by the Department and what could be addressed by the beneficiaries themselves. The kind of skills needed to address the problems was then laid down.
- 3.06** For example, one of the current problems fisherwomen face is that there aren't enough fish containers to meet demand. It was suggested that the Government could meet the demand in stages. The most needy or the most aged fisherwomen could be given priority; NGOs or co-operatives could help identify these two groups. Lots could then be held among them to pick the beneficiaries.

A similar analysis was done for other stakeholders as well. The outcomes were derived in a tabular form as shown below, The detailed outcome of the field-level workshop is presented in Annexure - III.

SCHEMES CURRENTLY IN PRACTICE	PROBLEMS ENCOUNTERED	APPROACH FOR PROBLEM SOLVING GOVT. BENEFICIARIES	SKILLS NEEDED TO BE DEVELOPED

The fisherfolk expressed the need for prompt and timely information on fish catches and movements through satellite imagery and television. They felt that this would help them capture moving species. Right now, by the time they get the information, the fish shoals have moved away.

- 3.07** At the workshop, fisherfolk occasionally expressed concern about dwindling resources and falling fish catches. But though anxious about the future, they were more concerned and preoccupied about their todays than tomorrows. One should note that fisherfolk in Kanniyakumari district seem to be better aware of fishery resource management than fisherfolk elsewhere. During various meetings with BOBP, Kanniyakumari fisherfolk have sought scientific information about breeding seasons and the migrations of fish population, and have themselves proposed scientific management measures for implementation. It may not be long before fisherfolk in other parts of the state become equally well informed. To speed up the process, DOF officers need to further hone their communication, extension and public relationship skills.

Stakeholders' Perspectives

- 3.08** A representative sample of 20 stakeholders took part in the workshop, both at the headquarters and in the field. From the stakeholders' perspective, several competencies which have to be developed among the Department staff have been listed. These are summarized in the table below.

Technical	Managerial	Extension
<ul style="list-style-type: none"> ★ Knowledge of eco-friendly technologies ★ Knowledge on assessing quality of fish ★ Knowledge of rules & powers for quality enforcement ★ Updated information on low-cost improved methods 	<ul style="list-style-type: none"> ★ Participatory fisheries management ★ Coordination skills ★ Negotiating skills ★ Problem-solving skills ★ Information gathering techniques 	<ul style="list-style-type: none"> ★ Demonstration and training for implementation of participatory management ★ Inter-personal skills ★ Networking skills ★ Extension & communication skills

conta...

Technical	Managerial	Extension
<ul style="list-style-type: none"> ★ Awareness campaign to processors, for improvements ★ Knowledge in preservation and processing <p>Market</p> <ul style="list-style-type: none"> ★ Knowledge of market area ★ Knowledge of departmental schemes ★ Awareness of market information (where and when) ★ Knowledge of bank procedures 	<ul style="list-style-type: none"> ★ Knowledge of NGOs in their area, identification and assessment ★ Training for trainers and entrepreneurs ★ Monitoring and evaluation techniques 	

The prime need for competency development in the Department staff would appear to be in areas like eco-friendly technologies, participatory fisheries management, problem-solving skills, and monitoring & evaluation techniques.

Past concerns have been directed at post-harvest fisheries management. Awareness is slowly emerging that this has to be coupled with resources management. Sustainable fisheries management is therefore just emerging in the minds of Department staff and stakeholders. Some concerns have been expressed, though not in a crystallised manner. Hence, HRD plans in the DOF should focus on building up conceptual skills among the staff on enabling them to foresee the needs and respond to them pro-actively.

Technical skills, particularly in terms of hands-on competencies, will need upgrading. Extension skills must include problem-solving skills.

...

4.9 ACTIVITIES OF THE DEPARTMENT OF FISHERIES AND NATURE OF RESPONSIBILITIES OF THE STAFF

- 4.01 The activities of the Department and the job responsibilities of the staff at different levels have been examined from three dimensions (from the standpoints of the organisation, the requirements of superiors at various levels, and individuals). At present there is heavy emphasis on current schemes, little focus on future needs.
- 4.02 The responsibilities attached to each post are detailed in Annexure -IV. The implementation responsibility is described with reference to various Department schemes. The statutory powers given to various positions have been listed in Annexure - IVa, These indicate the framework in which they have to perform their duties – implementing various fishermen welfare and development schemes. These have been compared with the responsibilities mentioned by the staff.
- 4.03 Activities of Department of Fisheries, Tamil Nadu
(as indicated under the report on Endeavour and Achievement. 1997)

Marine Fisheries

Implementation of TNMFR Act. Indian Fisheries Act 1897 and as amended later

2. Collection of statistics relating to marine production
3. Managing fishermen training centres
4. Managing the Inshore Fisheries Survey Station
5. Overseeing fishermen co-operative societies
6. implementation of the National Cooperative Development Corporation (NCDC) scheme through TN State Apex Fisheries Co-operative Federation
7. Overseeing pearl and chank fisheries

Fishermen Welfare Schemes

1. Supply of OBMIIBM to artisanal crafts
2. Supply of fishing crafts and gear to artisanal fishermen
3. Providing savings-cum-relief schemes & group accident insurance schemes to fishermen
4. Providing community halls in fishing villages and free housing schemes for fishermen
5. Providing link roads to fishing villages / fishermen colonies / fish landing centres and cyclone shelters

Provision of Infrastructure facilities

1. Providing fishing harbours and jetties, small fish landing facilities and fish landing platforms and auction places
2. Providing marine workshops for repair of boats and engine, navigation guide lights in marine fishing villages and sodium vapour lamps at fish landing centres
3. Providing ice-plants and cold storages, etc.

Research and Extension

1. Marine fisheries research including sea ranching in Pulicat Lake, demonstration of edible oyster farming, setting up artificial reefs
2. Brackish water fisheries research including hatcheries! production of seeds & culture
3. Inland fisheries research including fish seed production, hatching and larval culture, reservoir fishing
4. Fisheries technology research including fish preservation, formulation of fish and prawn feed

Inland Fisheries

1. Implementation of the Indian Fisheries Act as subsequently amended

2. Management of reservoir fisheries
3. Collection of statistics of fish production from inland waters
4. Fish seed production and rearing
5. Supporting Fish Farmer Development Agencies

4.04 Tamil Nadu Fisheries Development Corporation (TNFDC)

Only one DOF officer in the cadre of Joint Director of Fisheries is on deputation with TNFDC as General Manager. The Corporation undertakes a variety of commercial activities. These relate to the operation of large shrimp farms, reservoir fishery management, operation of ice plants, fish marketing, fish net factories, operating diesel supply, bunks at selected fish landing centres, and prawn hatcheries.

Responsibilities of officers at various levels as indicated during the discussions with Senior Departmental Officers:

Responsibilities of Deputy Director and Joint Director at **HQ** (Directorate)

- 4.05 Officers with considerable experience in the field and who are quite senior in their respective cadres are appointed as DDFs and JDFs at the Directorate. The DDFs assist the JDFs, and function independently in certain respects, reporting directly to the Director.
- 4.06 The main function of the JDFs is that they are in charge of particular activities – research, marine fisheries, inland fisheries, brackishwater fisheries, extension and co-operation, planning, monitoring and evaluation & administration (they may hold one or more portfolios), covering the entire state of Tamil Nadu, and relating to all aspects of planning, project/scheme preparation, obtaining government sanctions, implementation, monitoring & evaluation.
- 4.07 Thus they carry out all the work in the name of the Director of Fisheries, who has to provide his concurrence and approval for all policy and financial matters.
- 4.08 A certain amount of in-depth technical knowledge and managerial skill is necessary – for effective implementation through field officers, and for monitoring and periodical evaluation. In addition, the JDFs have to provide the Government with the necessary information on implementation, on bottlenecks that may affect schemes, on delays and their causes.
- 4.09 In their interaction with the Government, the JDFs would have to meet and discuss with the desk officers, the Deputy Secretary, the Joint Secretary and the Secretary to the Government, or the Minister of Fisheries. The JDFs must possess good technical knowledge, as well as knowledge of rules and regulations. They should be familiar with field situations through inputs from field officers, supplemented by personal experience and knowledge.
- 4.10 The preparation of five year plans, and of schemes for funding by external agencies (World Bank, etc.) will be the full responsibility of these officers. They will plan for the Department's training needs, and will help select suitable persons for training.
- 4.11 Other responsibilities: Interaction with the public, with fisherfolk, with NGOs, with government departments, attending meetings at the state and centre level, and participating in discussions relating to broad policy matters that involve the state government or the central government – these are other responsibilities attached to these posts.

Responsibilities of the Deputy Director and Joint Director at Stations other than the Headquarters (Directorate)

- 4.12 The DDF has more than one district jurisdiction. He will have to ensure two-way flow of information through the Assistant Director, so that the DDF is able to monitor fisheries trends and the needs of fisherfolk. In addition, he has to guide and monitor active interaction among all stakeholders to implement the government's mandate.

The ADFs and other staff must be given updated technology inputs and guidance by DDFs and JDFs. This can be achieved only if these officers are sincere about updating their knowledge and skills by studying literature, and attending seminars organised by fisheries institutions and other concerned agencies.

Being experienced officers, DDFs and JDFs should provide these inputs to refine project proposals prepared by ADFs for acceptance by sanctioning authorities, also for better and successful implementation at the field level.

Administratively, the DDFs and JDFs should be able to ensure support to ADFs and provide proper information to the Directorate / Government for obtaining any additional sanction or orders.

The public relations role to be played by the DDFs and JDFs must necessarily be efficient. The planning and implementation of extension activities for the Department is a vital responsibility of these officers.

These officers in their statutory functions will naturally be appellate officers. Hence they should frequently update their knowledge of acts, rules and regulations and field situations.

Participation in scientific workshops / symposia / seminars organised by various fisheries institutions within India and abroad has to be encouraged. This will ensure wider exposure to technical work, and contacts with fellow-administrators in fisheries.

Responsibilities & Duties of the Assistant Director of Fisheries

- 4.13 Since ADFs are district- level officers, they bear primary responsibility for planning and implementation of technical, development and welfare schemes.
- 4.14 The ADF would be required to maintain information on fisheries trends and the needs and requirements of fisherfolk. He would do this through personal visits and contacts with fisherfolk in coastal villages,. The ADFs would have to keep the Department informed about the activities of fisherfolk and vice versa. Through Inspectors and Sub Inspectors of Fisheries, a flow of information will have to be maintained both ways. The basic planning of all activities has to start from the district level; hence the role of the ADF is important. Further, the ADF has to maintain close liaison with the District Collector and keep him informed about the progress of various activities. He should also coordinate with the District Collector's Office for community welfare measures relating to roads, water, electricity, health and education in fishing villages.
- 4.15 Hence, the ADF has the responsibility to maintain public relations with other government officials as well as with fisherfolk. The ADF has also the responsibility to implement statutory functions as specified in various acts and regulations relating to fisheries.
- 4.16 During implementation of development programmes, the ADF has to solve or troubleshoot problems that may arise – ranging from laboratory to field execution.
- 4.17 The ADF must provide good leadership, motivating the Inspector and Sub Inspector of Fisheries toward successful implementation of DOF schemes. Administratively, being the head of district-level implementation, he has to provide the necessary technical and financial inputs for smooth progress of activities. He must periodically appraise senior officers about progress, and whenever necessary seek their technical and financial support.
- 4.18 ***The duties of the staff, as reflected in the responses to questionnaires, are presented here. However, these will need to be reviewed and strengthened incorporating their obligations towards responsible fisheries and adoption of the Code of Conduct for Responsible Fisheries.***

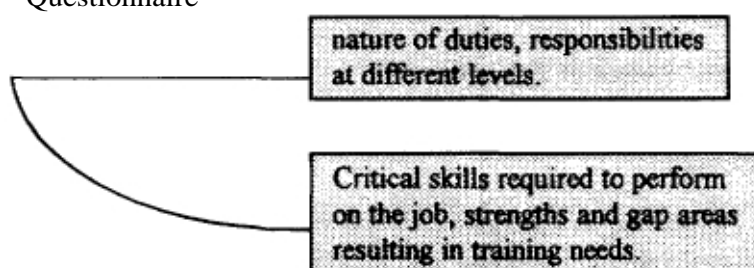
Questionnaire Response Analysis (First Part)

- 4.19 Discussions were held with DOF staff representing different levels in the organisation. The questionnaire was issued to a representative sample of 39 out of a total of 196 permanent Department staff at different levels (Joint Director, Deputy Director, Assistant Director, Inspectors, Selection Grade Inspectors, Sub Inspectors, Research Assistants and Surveyors). The numbers sampled are indicated below. The sample size includes only one district, apart from the headquarters covered under the study.

Level	Sample No	Total Population
Director	1	1
Joint Director	4	3+ CEO of TNFDC
Deputy Director	3	6
Assistant Director	7	28
Inspector/Selection Grade Inspector	12	63
Sub Inspector	4	66
Research Assistant	8	28
Total	39	196

The questionnaire responses have been consolidated and analysed to arrive at the findings. The questionnaires have been analysed in two parts. The first part deals with the nature of duties/responsibilities at different levels, as described by the Departmental staff themselves, and the responsibilities as spelt out by the Department. The second part deals with the critical skills required for the job and the gaps that exist. The questionnaire responses are consolidated in Annex - V.

Questionnaire



Duties of the Joint Director / Deputy Director

- ★ Overall supervision, management, administration & review
- ★ Planning & evaluation
- ★ Assisting the Director of Fisheries in implementation & monitoring of various development and welfare schemes for the target groups
- ★ Facilitating rescue operations during natural calamities

Duties of the Assistant Director

- ★ Implementation of socio-economic schemes
- ★ Enforcement of regulatory measures
- ★ Transfer of technology in marine, inland and estuarine fisheries
- ★ Fisheries management in reservoirs, lakes & tanks
- ★ Supervision of fisheries co-operatives
- ★ Creating awareness among fisherfolk about state government fisheries programmes
- ★ Supervision of subordinate staff

Duties of the Inspector / Selection Grade Inspector and Sub Inspector of Fisheries

- ★ Assisting the Assistant Director of Fisheries in implementation of the TNMFR, 1983
- ★ Training of fishermen in modern fishing methods
- ★ Training of farmers in fish culture
- ★ Conservation of fishery resources
- ★ Stocking and exploitation of reservoirs and other water bodies

Duties of Research Assistants

- ✳ (Tarry out research work on specific problems assigned by the Tamil Nadu Fisheries Research Council
- ✳ Transfer technology to fishermen and fish farmers
- ✳ Conduct studies about environmental impact on coastal areas and *riverine* stretches, and carry out pollution studies throughout the state.

4.20 *On a perusal of the above, it is evident that Department staff have given expression to their current concerns with an emphasis on scheme implementation. A vision for the future is absent, clarity on the future needs of the Department is lacking. Concern about the future vis-a-vis sustainable fisheries management is needed.*

The Department should communicate to all stakeholders on the subject. Workshops would be necessary at various levels to discuss the vision of the Department and build a shared vision of the future.

Management vuni Peter Drucker save in his latest work "Managing in a time of great change".

On the New Society of Organisations -

Because the modern organisation is composed of specialists, each with his or her own narrow area of expertise. its mission must be crystal-clear. The organisation must be single minded, or it's member will be confused. They will follow their speciality rather than apply it to the common task. They will define "results" in terms of their speciality and impose its values on the organisation. Only a focused and common mission will hold the organisation together. Without such a mission the organisation will soon lose credibility".

5.0 STAFFING PAFFERN

5.01 The staffing pattern in the DOF and the educational qualifications prescribed were examined. The picture that emerges is given below. An organogram of the DOF is presented in Annexure - VI.

Manpower at various cadre levels of the DOF

SI No	Cadre Level	No. of Posts			
		Permanent	Temporary	Total	
1.	Joint Director of Fisheries (JDF)	3	3	6	- On deputation with TN Fisheries Development Corporation (1) - T N Women Welfare Corporation (1) - Fisheries Economist (1)
2.	Deputy Director of Fisheries (DDF)	6	4	10	
3.	Assistant Director of Fisheries (ADF)	28	22	50	
4.	Research Assistant (R.A)	28	8	36	
5.	Inspector of Fisheries (IF)	63	52	115	
6.	Sub inspector of Fisheries (SI)	66	37	103	
7.	Laboratory Assistant (LA)	6	-	6	

5.02 Educational qualification of present holders at different cadres
(available information from DOF but not complete)

Cadre	Ph.D.	M.F.Sc. B.E.Sc.	M.Sc. Zoo/ Bot/ Chem/ M.B.	D.F.Sc. (CIFE)	M.Tech.	B.Sc. Zoo/ Bot/ Chern	D.F. P.T., Slangalore	B.E.	LFT	SSU
JDF			4	6	3	5	2			
DDE	2		4	2						
ADF		3	9	6		5			14	1
ADF Economist			M.A., M. Phil (Economics)					1		
JDEngg.										

Legend: M F.Sc.: Master in Fisheries Science

B. F.Sc. : Bachelor in Fisheries Science

M. B. : Marine Biology

D. F.Sc : Diploma in Fisheries Science

CIFE : Central Institute of Fisheries Education (Bombay)

D. F.P. T. Diploma in Fish Pmcessing Technology

LFTN : Licentiate in Fisheries Technology & Navigation

SSLC : Senior School Leaving Certfficate

Educational qualifications at recruitment

- * The main recruitment (direct) to the Department is at the levels of Sub Inspector of Fisheries, Inspector of Fisheries (IF) and Research Assistant (RA). Of late, recruitment is also being made at the level of Assistant Director of Fisheries (ADF) to satisfy the ratio of direct recruitment for infusion of young blood.
- Till a decade back, M.Sc. and B.Sc. were recruited at the Inspector of Fisheries and Research Assistant levels. Those holding a LFTN, a 3-year polytechnic diploma course, were also taken in as Sub Inspectors, besides B.Sc. and M.Sc. Many LFTNs have eventually become JDFs.
- Since all recruits are to undergo one year of in-service training at the Staff Training Institute, Chennai, and pass the Government Department Test, it was presumed that all of them would have sufficient knowledge in fisheries.
- Of late the preference in recruitment is for M.F.Sc. and B.F.Sc., coming out of Fisheries Colleges from Agriculture / Veterinary Universities. Hence most fisheries staff in the DOF may soon have this professional qualification.
- Deputation to specialised training courses will endow the officers with skills to meet specific technical (or other) needs of the Department.

5.03 Organisational Strengthening

- The staff should include professionals such as sociologists (to meet the needs of participatory fisheries management), ecologists, natural resources management personnel and economists (to achieve sustainability in fisheries).
- The DOF's efforts to professionalise need to be strengthened, not only by prescribing the right qualifications but also by orienting young personnel to future needs. At present the organisation has no one who develops strategies for the future. It should therefore appoint a core group or cell which will assist the Director in (a) strategic planning (b) keeping track of the potential of personnel at the lower levels who can reliably shoulder wider responsibilities in future (c) drawing up a detailed FIRD Plan to build on the strengths of people, fill gaps in their skills and equip them in advance for high responsibility. This would include exposing these staff to management programmes that would develop their conceptual skills and (d) monitoring and evaluation of the DOF's programmes and budget.
- The core group will present detailed information in a comprehensive manner on all aspects of HRD at any given time to the Director, so that decision-making is correct and quick. This will be a valuable help to the Director who is almost always under time pressure.

5.04 Current Practices with Staff Performance Appraisal

In the DOF, no confidential report or performance appraisal is maintained for non-gazetted staff such as Inspectors, including Selection Grade Inspectors, Research Assistants, and Sub inspectors of Fisheries. Any good work is rewarded with a letter of appreciation, and at times with a cash gift that is recorded in the staff member's service register. Poor performance may result in a warning which is also entered in the service register.

Confidential Reports are maintained only for gazetted officers (ADF upwards). Assessment of work is as follows

The officer concerned prepares a self-assessment report every year which highlights both achievements and shortfalls/failures. He elaborates on the former and explains the latter. He sends this report to his immediate superior officer.

ADF to DDF
DDF to JDF or DF
JDF to DF

The immediate superior officer will record his acceptance/concurrence with the self-assessment report of his subordinate officer. If he has a different view, he will record it and substantiate it.

Either way, the immediate superior officer (controlling officer) will pass on the report to his superior officer who is the reviewing officer. He has to agree or disagree with the comments of the controlling officer and communicate any adverse remarks of the controlling officer to the subordinate officer for his explanation. The explanation may or may not be accepted by the reviewing officer who records the reasons.

These reports are filed in the confidential dossier of the office concerned and kept in the custody of the Director or the Joint Director.

5.05 The right approach to performance appraisal would be:

- (a) first specify the objectives to be achieved by the officer at the beginning of the year
- (b) periodically review it
- (c) actively counsel the officer towards achieving the objectives and
- (d) at the end of the year, appraise the performance and communicate the findings to the concerned officer.

Concurrent with the appraisal of performance, there must also be an appraisal of potential, on the basis of which career development plans can be made.

PETER DRUCKER, in his recent book *Managing in a time of great change* says....

On the Emerging Knowledge Society

"Knowledge workers will not be the majority in the knowledge society. But in many countries, if not in most developed countries, they will be the largest single group in the population and the workforce. And even if outnumbered by other groups, knowledge workers will be the group that gives the emerging knowledge society its character, its leadership, its social profile. They may not be the ruling class of the knowledge society, but they are already its leading class. And in their characteristics, their social position, their values and the expectations, they differ fundamentally from any group in history that has ever occupied the leading, let alone dominant, position".

"The key to the productivity of knowledge workers is to make them concentrate on the real assignment. Do you know why most promotions fail? One-third are outright disastrous while another third are a nagging backache. Not more than one in three works out because of misfits".

...

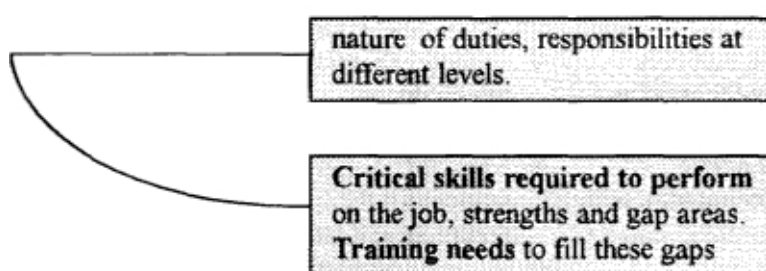
6.0 SKILL GAPS & TRAINING NEEDS

- 6.01 The training needs of the DOF were sought to be derived through the needs of stakeholders, and the perceptions of the staff as reflected through an understanding of the organisation's mandate. Arising from these, critical skill gaps were identified.

Types of Skills

- 6.02 To identify the skills needed, the second part of the questionnaire responses from DOF staff (see Annexure-V) was analysed. The first part dealt with the nature of duties of personnel and the critical skills required for effective delivery of services to the stakeholders. The second part dealt with the skills needed for effective, fisheries management, and listed their training requirements.

Questionnaire



- 6.03 The second part was derived from the workshop described earlier which listed the competencies and skills required to meet the needs of stakeholders. These skills were classified under three broad headings

- Technical skills
- Managerial skills
- Extension skills

In addition to these it was recognised that conceptual skills in sustainable fisheries management would have to be built up at the higher echelons. For each skill listed under the headings of Technical, Managerial and Extension skills, the respondents were asked to identify whether it was an area of strength or weakness (gap area). They were also asked to indicate if it was a development need. The responses were put together in a table format (see next page) and analysed.

The questionnaire was issued to both headquarters and field staff from different levels. Joint Director, Deputy Director, Assistant Director, Inspector, Selection Grade Inspector, Sub inspector, Research Assistants, Surveyors. This constitutes a representative sample of the total work staff of the DOE. Discussions were subsequently held with the respondents to cross-check the responses and obtain their views.

Discussions were also held with the staff of two leading fisheries research institutes CMFRI and CIBA – to ascertain their perceptions of the skill gaps and training needs in the DOF.

- 6.04 The second part of the data analysis dealt with the critical skills required at each level to perform effectively on-the-job and the strengths that the staff possessed (both of these from the Department's perspective). The gaps in skills were then listed on the basis of a combined analysis of the stakeholder's perspective and the Department's perspective. The important training requirements were then arrived at for different levels (Joint Director, Deputy Director, Assistant Director, Inspector, Selection Grade inspector, Sub Inspector, Research Assistant & Surveyor). This is presented in a tabular form in the pages that follow.
- 6.05 For example, at the level of Assistant Director, one of the critical skills required for the job is Monitoring & Evaluation, which has also been identified as a gap area. Hence this has emerged as a training need. Similarly, gaps/weaknesses with respect to the Technical, Managerial & Extension areas have been analysed, and the findings listed according to levels in a tabular form in the following pages. Further, during the field meeting with stakeholders, a clear need emerged for better skills among officials on the following aspects as well.

- ⊙ **Problem Analysis**
- ⊙ **Problem-Solving**
- ⊙ **Generating and Implementing Solutions**
- ⊙ **Monitoring and Evaluation**
- ⊙ **Reflection and Course Changes**

Training is to be provided on the above aspects, as well as those indicated in the tables that follow.

DOF Officials Skills, Skill Gaps and Training Needs

Level	Critical Skills & Knowledge required for job (as perceived by the Department)	Strengths (as perceived by the Department)	Gap areas as perceived by the Stakeholders and Department	Training Needs
Joint Director	<ul style="list-style-type: none"> ⊙ Leadership skills ⊙ Managerial skills ⊙ Knowledge of latest techniques in sustainable fisheries management ⊙ Thorough knowledge of rules & regulations ⊙ Interactive skills ⊙ Presentation skills 	<ul style="list-style-type: none"> ⊙ Knowledge in quality assessment ⊙ Knowledge of rules & powers ⊙ Co-ordination skills 	<ul style="list-style-type: none"> ⊙ Updated knowledge of new eco-friendly techniques ⊙ Knowledge of rules & regulations in the context of the Code of Conduct ⊙ Knowledge of market potential ⊙ Participatory fisheries management techniques, involving stakeholders ⊙ Information use for monitoring & evaluation ⊙ Extension ⊙ Negotiation skills with other agencies ⊙ Networking skills 	<ul style="list-style-type: none"> ⊙ Exposure to the latest developments in sustainable fisheries management ⊙ Exposure to information access techniques & their use ⊙ Strategic & long-term planning techniques ⊙ Presentation & interactive skills ⊙ Updating knowledge of legal framework
Deputy Director	<ul style="list-style-type: none"> ⊙ Skills in participatory fisheries management ⊙ Project formulation skills ⊙ Public relations and interactive skills ⊙ Knowledge of latest eco-friendly sustainable fishing techniques ⊙ Information accessing skills and knowledge for effective monitoring & evaluation 	<ul style="list-style-type: none"> ⊙ Awareness of market information ⊙ General administration ⊙ Co-ordination & negotiating skills 	<ul style="list-style-type: none"> Technical ⊙ Information on latest eco-friendly techniques ⊙ Knowledge of sustainable fisheries management ⊙ Transfer of know-how from research to the field ⊙ Managerial ⊙ Participatory fisheries management ⊙ Knowledge of NGOs ⊙ Monitoring and evaluation ⊙ Extension ⊙ Communication & PR skills 	<ul style="list-style-type: none"> ⊙ Knowledge of community-based management systems as followed in other countries ⊙ Participatory Fisheries Management ⊙ Exposure to project formulation techniques ⊙ Exposure to information-gathering techniques like remote sensing, Internet, e-mail facilities, etc. ⊙ Workshop with NGOs to facilitate interaction ⊙ Communication skills

Level	Critical Skills & Knowledge required for job (as perceived by the Department)	Strengths (as perceived by the Department)	Gap areas as perceived by the Stakeholders and Department	Training Needs
Assistant Director	<ul style="list-style-type: none"> J Managerial skills like planning, coordinating, motivating, negotiating & monitoring J Liaisoning skills J Problem solving & trouble shooting skills J Leadership skills J Knowledge of new eco-friendly technologies J Project preparation skills 	<ul style="list-style-type: none"> J Technical knowledge of assessment of quality J Knowledge of schemes J Co-ordination skills 	<ul style="list-style-type: none"> Technical <ul style="list-style-type: none"> J Knowledge of new techniques in sustainable fishing and management J Market knowledge Managerial <ul style="list-style-type: none"> J Methods of data gathering and sharing information J Problem-solving skills J Monitoring & evaluation techniques Extension <ul style="list-style-type: none"> J Extension methodology J Communication skills J Participative management techniques & public relations skills J Inter-personal skills 	<ul style="list-style-type: none"> J Demonstration and training for participatory fisheries management J New techniques in sustainable fishing J Problem-solving skills J Exposure to information gathering techniques J Project formulation & scheme preparation J Leadership & motivation skills J Monitoring & evaluation J Extension methodology J Communication skills J HRM skills J Public relations skills
Inspector/ Selection Grade Inspector/ Sub Inspector	<ul style="list-style-type: none"> J Effective basic managerial skills J Extension skills to motivate beneficiaries in sustainable fishing J Training & communication skills J Knowledge of new eco-friendly techniques J Thorough technical knowledge J Planning & co-ordination skills 	<ul style="list-style-type: none"> J Knowledge of quality assessment J Knowledge of area and schemes J Co-ordinating skills J Negotiating skills 	<ul style="list-style-type: none"> Technical <ul style="list-style-type: none"> J Knowledge of rules and powers for quality enforcement J Knowledge of new eco-friendly technologies J Knowledge of rules, regulations and implementation procedures J Market knowledge J Knowledge of bank procedures Managerial <ul style="list-style-type: none"> J Knowledge of NGOs, identification and assessment of their capabilities J Interactive skills to deal with NGOs J Training skills to impart training for entrepreneurs Extension <ul style="list-style-type: none"> J Networking, extension and communication skills J Demonstration and training for implementation of participatory management 	<ul style="list-style-type: none"> J Training in new techniques for sustainable fisheries management J Knowledge of new eco-friendly technologies J Training in advanced methods of seed production J Training techniques J Extension Methodology/ Techniques! skills for motivation J Exposure & training in basic data gathering techniques & participatory techniques like PRA etc. J Interpersonal & communication skills, Public Relations skills

Level	Critical Skills & Knowledge required for job (as perceived by the Department)	Strengths (as perceived by the Department)	Gap areas as perceived by the Stakeholders and Department	Training Needs
Research Assistants	<ul style="list-style-type: none"> Knowledge of latest research methodologies & techniques Updated technical knowledge 	<ul style="list-style-type: none"> Knowledge on quality assessment and know-how of preservation & process. Knowledge of market area 	<ul style="list-style-type: none"> Technical Knowledge of how to prepare schemes Managerial Coordinating skills Extension Extension skills 	<ul style="list-style-type: none"> Updating technical knowledge Training in new eco-friendly techniques Exposure to new research techniques Exposure to data-gathering techniques & computers Extension techniques Workshop to facilitate gaining of practical experience
Others (Surveyors, Lab Assistants, etc.)	<ul style="list-style-type: none"> Technical knowledge Communication skills Co-ordination skills 	<ul style="list-style-type: none"> Knowledge on quality assessment and know-how of preservation & processing Knowledge of market area 	<ul style="list-style-type: none"> Technical Knowledge of how to prepare schemes & statistical tools for data analysis Managerial Coordinating skills Extension Extension skills 	<ul style="list-style-type: none"> Exposure to statistical tools & techniques and computers Training in PRA & Extension skills

An overview of skill gaps in the DOF staff

- 6.06 As ascertained during the workshop at Chennai, personal discussions at field stations and during the workshop at Cuddalore, DOF officers appear to have sufficient technical skills to implement the Department's technical programmes. Further, they undergo various training programmes to update and fine-tune their technical knowledge.
- 6.07 However, resource assessment and participatory resource management of coastal fisheries are relatively new concepts that call for new approaches. Most officials expressed the need for comprehensive training in order to build the requisite skills. Department staff need to be oriented to concepts such as stakeholder analysis and perceptions and stakeholder consultations. They need to learn communication methods and skills in dealing with other stakeholders. They need orientation of thought and behaviour to treat other stakeholders as equals in the participatory effort. Only a few officers have been trained by the BOBP on these aspects during the past few years.
- 6.08 Discussions were held with scientists of the CMFRI and CIBA about considered perceptions and views on the skills required by DOF Officers, vis-a-vis implementation of schemes as per the latest policy announcements. They agree with the policy statements and indicate that the primary task for the DOE should be the management of fisheries in order to ensure sustainability of fish resources and profitability for those engaged in fishing. They indicate that the skills needed would be both technical and managerial. The two institutes are willing to provide or facilitate training relating to technical and scientific aspects of resource assessment and management. Training for the management of resources will have to be done elsewhere.

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7.0 TRAINING COURSES

- 7.01 Under the World Bank project (see page 75), a detailed HRD plan was evolved for the DOF with pointers for the future. These have been detailed in Annexure - VII. The current training courses offered in India and abroad on technical subjects, both long-term and short-term, have been detailed below (source DOF). Under the World Bank project, 10 personnel have been deputed to programmes on different aspects of aquaculture management.

Training courses on technical subjects, long-term and short-term, offered in India and abroad, which are currently being attended by the DOF staff:

7.02 *Long-Term Training Courses*

- ◆ One year training at DOE Staff Training Institute, Chennai
All entrants to the Department at the SI, IF, ADF and RA levels are to undergo this training. Subjects include marine fisheries, inland fisheries, brackishwater fisheries, fisheries technology, navigation and seamanship, fisheries co-operative principles and office administration.

On completion of training, the candidates have to pass the Departmental Government Test (Fisheries) I & II and the Government Accounts Test for sub-officers Part I. The ADFs must also pass accounts tests for Executive Officers.
- ◆ PG Diploma in Fish Science (D.F.Sc) at the Central Institute of Fisheries Education (CIFE), Mumbai (deemed University).
This qualification is recognised as a post-graduate qualification equivalent to M.Sc for purposes of direct recruitment / promotion.
The practice a few years ago was that the DOE could nominate and depute its officers to undergo this training. Later, the system changed: all entrants were to write and pass the entrance exam, then face an interview. As a result, the DOF has stopped deputing its officers to CIFE.
- ◆ M Tech course in remote sensing and applications at Anna University, Chennai

7.03 *Short-Term*

Short-term training courses to which DOF officers are deputed, subject to funds budgeted and available.

Technical Courses

- ⇒ **Diversified fishing, processing and marketing at the Integrated Fisheries Project, Cochin**
- ⇒ Technical courses on Inland and Marine Fisheries Development
- ⇒ Training in Bacteriology at Central Institute of Fisheries Technology, Cochin
- ⇒ “Fisheries Development” at Central Inland Fisheries Research Institute, Barrackpore, West Bengal
- ⇒ “Shrimp Culture and Hatchery Management” at Marine Products Export Development Authority, Cochin
- ⇒ “Artificial Reef and Mariculture Technology” at the Central Marine Fisheries Research Institute, Cochin
- ⇒ “Fishing Second-hand (Mate)” course at the Central Institute of Fisheries Nautical Engineering and Training at Chennai / Cochin / Vizag
- ⇒ “Coastal Zone Management” at Indian Institute of Technology, Chennai
- ⇒ “Refrigeration Engineering, Quick Processing Technology and its application” by Government of Maharashtra, Mumbai
- ⇒ “Fishing Vessels Engine Driver” course at Central Institute of Fisheries Nautical Engineering and Training at Chennai / Cochin / Vizag
- ⇒ “Fish Stock Assessment in Inland Waters” at Central Inland Fisheries Research Institute, Barrackpore, West Bengal

- ⇒ “Gear Technician Course” at Central institute of Fisheries, Nautical Engineering and Training, Chennai / Cochin/ Vizag

Management Courses

- ⇒ “Application of Software for Management of Agricultural Extension” at NIRD, Hyderabad
- ⇒ “Management of Finance” at Madras Institute of Management, Chennai
- ⇒ “General Management for Agriculture and Allied Development” at Anna Institute of Management, Chennai
- ⇒ “Foundation Training in Office Administration” at Civil Service Training Institute, Bhavanisagar, Tamil Nadu
- ⇒ “Human Resource Development” at Anna Institute of Management, Chennai
- ⇒ “Agricultural Statistics Training” at New Delhi
- ⇒ “Sampling Techniques for Assessment of Exploited Marine Fisheries Resources” at CMFRI, Cochin

Extension courses

- ⇒ “Co-operative Principles and Statutory Function” at Co-operative Training College, Chennai
- ⇒ “Communication and Media Strategy” at Extension Education Institute, Hyderabad

(Note Some of the training programmes/courses mentioned above have been discontinued)

7.04 The list of training courses mentioned in this chapter is not complete. There are also other training programmes and courses for example, on culture of specific species, on personnel management which DOF officers are sent.

7.05 What are the criteria for deputation to undergo training? These include age, the aptitude of the incumbent., the nature of the post he holds

Training within India

Sl. No.	Name of the Central institute	Short-Term Courses Offered	Level of Participants from the Department of Fisheries
I.	Central Institute of Freshwater Aquaculture Bhubaneswar	<ul style="list-style-type: none"> Advances in Carp Breeding Cage Culture of Carps Sewage- Fed Fish Culture Integrated Fish Farming Breeding and Hatchery Management of Fresh Water Prawn Fish Disease Diagnosis and Control Magur Breeding Multiple Carp Breeding 	Inspectors of Fisheries Research Assistants Assistant Directors of Fisheries
II.	Central Marine Fisheries Research institute, Cochin	<ul style="list-style-type: none"> Computer Applications in Fisheries Statistics Computers in Fisheries Research 	Inspector of Fisheries Sub Inspector of Fisheries Assistant Statistical Investigator Research Assistants Assistant Directors of Fisheries
III.	Central institute of Fisheries Nautical Engineering and Training, Cochin	<ul style="list-style-type: none"> Marine Electronics & Equipments 	Sub Inspector of Fisheries Inspector of Fisheries

SI. No.	Name of the Central Institute	Short Term Courses Offered	Level of Participants from the Department of Fisheries
IV.	Central Institute of Fisheries Education, Mumbai	<ul style="list-style-type: none"> • Computer Applications in Fisheries • Essentials of Environmental Impact Assessment Studies related to Aquaculture Projects • Disease Diagnosis in Aquaculture • Cryo-preservation Techniques and Development of Gamete Banks • Recent Techniques in Fisheries Extension • Breeding and Keeping of Ornamental Fishes • Planning and Management of Training Inputs in Fisheries 	Research Assistants Inspector of Fisheries Assistant Director of Fisheries Deputy Director of Fisheries
V	Indian Agricultural Statistical Research Institute, New Delhi	<ul style="list-style-type: none"> • Introduction to Statistical Packages • Training Course on use of Computers in Agriculture Research 	Assistant Director of Fisheries Inspector of Fisheries Research Assistants Assistant Statistical Investigator
VI.	National Research Centre on Cold Water Fisheries, Bhimtal, Uttar Pradesh	<ul style="list-style-type: none"> • Masheer Breeding Techniques • Trout Hatchery Systems and Management 	Assistant Director of Fisheries Research Assistants Inspector of Fisheries

SL No.	Name of the Central Institute	Short Term Courses Offered	Level of Participants from the Department of Fisheries
I.	South East Asian Fisheries Development Centre (SEAFDEC), Philippines	<ul style="list-style-type: none"> • Fresh Water Aquaculture • Fish Nutrition Programme • Culture of Natural Food • Aquaculture Manage • Fish Health Management • Marine Fish Culture 	Assistant Director of Fisheries Research Assistants Inspector of Fisheries Sub Inspector of Fisheries
II.	University of Hebrew, Israel.	<ul style="list-style-type: none"> • Post-Graduate Programme on Farm Animal Production and Management of Poultry and Aquaculture 	Joint Director of Fisheries Deputy Director of Fisheries Assistant Director of Fisheries
III.	Ministry of Agriculture and Rural Development, Centre for International Agricultural Development Cooperation, CNACDO, Israel.	<ul style="list-style-type: none"> • Intensive Aquaculture 	Assistant Director of Fisheries Research Assistants Inspector of Fisheries
IV.	South East Asian Aquatic Disease and Animal Health (AAHRI), Department of Fisheries, Kasetsart University Campus, Jatujak, Bangkok, Thailand	<ul style="list-style-type: none"> • Shrimp Health Management 	Assistant Director of Fisheries Research Assistants Inspector of Fisheries

In addition to the above, we also suggest the following Institutes

- (1) Coastal Resources Centre
University of Rhode Island
Narragansett, Rhode Island, USA
- (2) Center for Tropical Coastal Management
Department of Marine Sciences and Coastal Management
University of New Castle upon Tyne. UK
- (3) ICLARM (International Centre for Living Aquatic Resources Management)
No. 10, Lower level 6, Equatorial Hotel Office Block
1 Jalan Bukit Janthul. Bavan Lepas
11900 Penang. Malaysia
- (4) University of Hull
Humberside International Fisheries Institute
Cottingham Road, Hull HU6 7RX. UK
- (5) University of London
Wye College. Department of Agricultural Economics
Wye. Ashford. Kent T2 5AH. UK
- (6) Auburn University
Department of Fisheries and Allied Aquacultures
Swingle Hall, Auburn
AL 36849-5419, USA
- (7) Colorado State University
Department of Fishers' and Wildlife Biology
Fort Collins, CO 80523, USA
- (8) Japan International Cooperation Agency (JICA)
Hiroshima International Plaza
3-3-1. Kagamiyama
Higashi-Hiroshima-Shi
Hiroshima 739. Japan

7.06 As elaborated in the earlier section which dealt with the overview of skills and gaps, it appears that the staff of the DOF are technically well-equipped to implement the technical programmes of the Department. However, a clear gap exists in the area of strategic management with specific reference to assessing and planning for future conservation needs. It would be useful for the Department to organise tailor-made programmes for their staff utilising expert external agencies. For instance, a week's module on strategic planning would help build the skills of long-term planning and would cater to behavioural and attitudinal changes in the leadership styles required to bring about change, which are essential for sustainable fisheries management in future.

For organisational change to take place, officials who are in leadership positions must be oriented to methods of management which can help them. Towards this end, expertise can be drawn from the institutes of management listed below

- Bharathidasan Institute of Management (BIM), Tiruchirappalli.
- National Institute of Rural Development (NIRD), Hyderabad
- Indian Institute of Management, (IIM) Bangalore
- Institute of Rural Management, (IRMA), Anand, Gujarat
- Administrative Staff College of India (ASCI), Hyderabad

- TA Pai Management institute, (TAPMI), Manipal
- Indian institute of Management, (IIM), Ahmedabad
- Indian Institute of Management, (IIM), Calcutta
- Xavier Labour Relations Institute (XLRI), Jamshedpur
- Management Development Institute (MDI), Gurgaon
- School of Management, Pondicherry
- Symbiosis institute of Management & HRD, Pune
- N.M.Institute of Management Studies, Mumbai

(All these institutions have been ranked among top 20 in the country in a recently conducted study).

Besides the above, agencies such as the National Productivity Council, and private consultants could also help the DOF evolve “tailor-made” programmes.

7.07 The following training plan has been arrived at after careful examination of the current skills of the staff and the future critical skills that need to be built up. The table below states the training requirements at different levels and the recommended training courses and institutes that could cater to these needs

Level	Critical Skills to be built up	Recommended Training Courses	Training Institute
Joint Director	<ul style="list-style-type: none"> Knowledge of latest techniques in sustainable fisheries management Thorough technical knowledge of rules & regulations Leadership & Co-ordinating skills Managerial skills Interactive skills Presentation skills 	<ul style="list-style-type: none"> Exposure to the latest developments in sustainable fisheries management Strategic & long-term planning techniques Presentation & interactive skills Workshop to revisit the legal framework in the context of the new Code of Conduct Information access techniques & their use 	<ul style="list-style-type: none"> Workshops conducted by BOBP/FAO, ICLARM, Penang Study tours to Japan & Thailand to gain information on Community-Based Fisheries Management (CBFM) Management development programmes organised by IIMs/XLRI/ TAPMI/ BIM/IRMA FAO/DOF workshop to discuss Code of Conduct for Responsible Fisheries & operationalising the dissemination process Tailor-made programme organised by the Indian Statistical Institute, Bangalore

The prime need of the hour would be exposure to developments in sustainable fisheries management. This can be done through workshops conducted by BOBP/FAO and ICLARM, Penang and through study tours to Japan and Thailand to gain information on community-based fisheries management

- A question has been raised about assessing trends in fish stocks and taking decisions on fisheries management. The research wing of the DOF periodically assesses trends in the stock of fresh water fishes in reservoirs, lakes and rivers, in collaboration with the CM FRI. Possible management steps are taken by regulating the stocking of fish seeds, fish exploitation and introduction of suitable varieties of fish. Research studies on marine fish stock assessment with reference to geographical areas and migratory habits are NOT undertaken; but the CM FRI does carry out such studies for a few varieties of fish. The CM FRI and the DOF have occasional dialogues on the research information needs relating to Tamil Nadu. On the basis of such information, the Department will have to take policy decisions on fisheries management, in consultation, co-ordination and collaboration with adjacent and contiguous coastal states since most of the pelagic and columnar fish which are under excessive fishing pressure are migratory in nature. Hence, the DOF needs to obtain scientific data and information on assessment of fish stocks from the CM FRI and help plan management measures in co-ordination with other state DOFs.

Level	Critical Skills to be built up	Recommended Training Courses	Training Institutes
Deputy Director	<ul style="list-style-type: none"> Skills in participatory fisheries management Knowledge of latest eco-friendly sustainable fishing techniques Project formulation skills Public relations skills Human resources management skills Information accessing skills & knowledge for effective monitoring and evaluation 	<ul style="list-style-type: none"> Participatory fisheries management Knowledge of community-based management systems as followed in other countries Knowledge of the latest eco-friendly techniques Project formulation techniques Exposure to ZOPP & LFA methods Mediation and negotiation skills programme HRD programmes Information technology (exposure to latest techniques) 	<ul style="list-style-type: none"> BOBP / FAO workshop with presentation of successful practices in SE Asian countries like Thailand (Phang-Nga bay) and others FAO experience-sharing workshop BOBP Regional Consultation on evolving self-financing schemes & mechanisms for fisheries MDP of XLRI, IIMs, TAPMI and BIM Tailor-made programmes conducted by trained and approved moderators IIM, Bangalore DIM, Trichy Tailor-made programme by Indian Statistical Institute, Bangalore Use of remote sensing applications in fisheries, National Remote Sensing Agency

The prime training need at this level is for courses in participatory fisheries management and eco-friendly technologies. This need could be met through a BOBP workshop with suitable expertise drawn from international organisations.

Level	Critical Skills to be built up	Recommended Training Courses	Training Institutes
Assistant Director	<ul style="list-style-type: none"> Knowledge of new eco-friendly technologies Managerial skills like planning, coordinating, motivating, negotiating & monitoring. Liaisoning skills Problem-solving and trouble-shooting skills Leadership and public relations skills 	<ul style="list-style-type: none"> Demonstration and training for participatory fisheries management New techniques in sustainable fishing General management and applications Problem-solving skills Leadership and motivation skills Public relations skills Exposure to information collection techniques. 	<ul style="list-style-type: none"> Workshops conducted by BOBP/ FAO, ICLARM, Penang BIM/ TAPMI / XLRI/ IRMA Management Development Programmes Tailor-made programme by Indian Statistical Institute, Bangalore Introduction to statistical packages and training at the Indian Agricultural Statistical Research Institute, New Delhi

to be built up	Training Courses	Training Institutes
<ul style="list-style-type: none"> Project preparation skills 	<ul style="list-style-type: none"> Project formulation & scheme preparation Monitoring & Evaluation techniques 	<ul style="list-style-type: none"> BOBP Regional Consultation on evolving self- financing schemes & mechanisms for fisheries management Management development programme organised by IIm, Ahmedabad / Bangalore Tailor-made programme on developing monitoring indicators using the OOPP method (conducted by trained OOPP moderators). The Delhi office of GTZ could be contacted for getting the list of moderators. Training of trainers programme envisaged under the World Bank project

The prime training need at this level would appear to be demonstration and training for participatory fisheries management and new techniques in sustainable fishing. This could be taken care of through BOBP workshops and programmes of ICLARM, Penang.

Management skills could be imparted through an in-house training programme to be conducted by the Bharathidasan Institute of Management, Trichy.

The programme of training for trainers under the World Bank project could be useful for enabling selected Assistant Directors to impart training on the above aspects to the lower staff

Ltvei	Critical Skills to be built up	Recommended Training Courses	Training Institutes
Inspector of Fisheries	<ul style="list-style-type: none"> Knowledge of new eco-friendly techniques Extension skills to motivate beneficiaries in sustainable fishing Effective managerial skills Training & communication skills 	<ul style="list-style-type: none"> Training in new techniques for sustainable fisheries management Training in fisheries development Extension skills for motivation Exposure to participatory techniques like PRA, networking with other agencies and NGOs Co-operatives Management Training techniques & communication skills Interpersonal & communication skills to deal with grassroot level clients 	<ul style="list-style-type: none"> FAO / BOBP experience- sharing workshop Central Inland Fisheries Research Institute, Barrackpore National Institute for Rural Development, Hyderabad Institute for Rural Management, Anand Programmes conducted by IRMA, DIM, Anna Institute of Management, School of Management, Pondicherry Tailor-made training for trainers programme (private agencies) MYRADA, Outreach, Bangalore and PRIA, Delhi

The prime training need at this level is for training in participatory techniques like PM by agencies such as MYRADA, Bangalore.

Level	Critical Skills to built up	Recommended Training Courses	Training Institutes
Sub-Inspector	<ul style="list-style-type: none"> ⊃ Thorough updated knowledge about schemes ⊃ Extension skills, especially mediation & negotiation skills with beneficiaries ⊃ Knowledge of Implementation Procedures ⊃ Communication skills 	<ul style="list-style-type: none"> ⊃ Course on updating technical knowledge ⊃ Co-operative management ⊃ Extension Skills ⊃ Recent techniques in fisheries extension ⊃ Training in PRA techniques ⊃ Introduction to statistical techniques 	<ul style="list-style-type: none"> ⊃ Technical course on Inland and Marine Fisheries Development, Chennai ⊃ Institute for Rural Management, Anand ⊃ Extension Education Institute, Central Institute of Fisheries Education, Mumbai ⊃ MYRADA, Outreach, Bangalore and PRIA, Delhi ⊃ Indian Agricultural Statistical Research Institute, New Delhi ⊃ Indian Statistical Institute, Bangalore

Extension skills is a much-needed training area for Sub-Inspectors. External experts could be invited for developing a specific in-house programme.

Level	Critical Skills to be built up	Recommended Training Courses	Training Institutes
Research Assistants	<ul style="list-style-type: none"> ⊃ Knowledge of the latest research methodologies & techniques ⊃ Updated technical knowledge 	<ul style="list-style-type: none"> ⊃ The latest research techniques ⊃ Computer application in fisheries research ⊃ Training in new eco-friendly techniques ⊃ Exposure to data collection techniques & computers ⊃ Workshop to facilitate practical experience 	<ul style="list-style-type: none"> ⊃ Tailor made programme by the Documentation Research & Training Centre, ISI, Bangalore ⊃ Central Marine Fisheries Research Institute, Cochin ⊃ Central Institute of Fisheries Technology, Cochin ⊃ Central Institute of Fresh Water Aquaculture, Bhubaneswar ⊃ Indian Agricultural Statistical Research Institute, New Delhi ⊃ Indian Statistical Institute, Bangalore ⊃ FAO/BOBP experience-sharing workshop

The prime training need for Research Assistants would be training in computer applications relating to fisheries research.

Level	Critical Skills to be bush up	Recommended Training Courses	Training Institutes
Others Surveyors, Lab Assistants, etc.	<ul style="list-style-type: none"> ⌞ Technical knowledge ⌞ Communication skills ⌞ Co-ordination skills 	<ul style="list-style-type: none"> ⌞ Exposure to statistical tools & techniques & computers ⌞ Training in PRA ⌞ Extension Skills 	<ul style="list-style-type: none"> ⌞ Indian Agricultural Statistical Research Institute, New Delhi ⌞ Indian Statistical Institute, Bangalore ⌞ MYRADA, Outreach, Bangalore and PRIA, Delhi ⌞ Extension Education Institute, Hyderabad ⌞ Central Institute of Fisheries Education, Mumbai

The prime training need at this level is for exposure to statistical tools and techniques.

7.08 A HRD scheme assisted by the World **Bank** is currently in operation. It visualises the setting up of a HRD cell under the Secretary of Agriculture. This cell would:

- J update and maintain staff training and experience records
- J update job descriptions in co-operation with development department managers and the personnel department
- J maintain a departmental manpower inventory
- J carry out training needs assessment for all categories of staff
- J identify staff training based on the needs assessment
- J plan for implementation of training activities and
- J carry out training impact assessments

The project includes a training programme to strengthen the training skills of trainers at state institutes and centres and also for selected key resource persons who are called upon frequently to assist in training activities. The Training of Trainers Programme (TOTP) would be directed by a HRD specialist to ensure that updated technical skills are accurately transferred from the specialists to the trainees by using the most appropriate teaching / training methods. The TOTP would include

- J basic adult learning theory
- J designing training courses / activities based on needs assessments
- J field-testing of training courses
- J selection, use and production of audio and visual aids
- J training delivery
- J formative and summative evaluation of courses & activities
- J training management (for training institution staff) including accurate record keeping
- J training programme impact evaluation

Also envisaged is a provision for exposing the staff of the DOF to courses, both inland and overseas. This could be utilised to build up the expertise of younger staff to meet future needs.

The following elements have been identified to make the HRD efforts successful

- ❖ selection of job candidates based on their compatibility with accurate and updated job descriptions
- ❖ finding the right person for the right job
- ❖ supporting HRD, including maintenance of up-to-date training records and conduct of regular training needs assessments
- ❖ appointing interested and capable persons to positions in HRD cells and training institutions
- ❖ encouraging training impact evaluations
- ❖ limiting frequent staff transfers

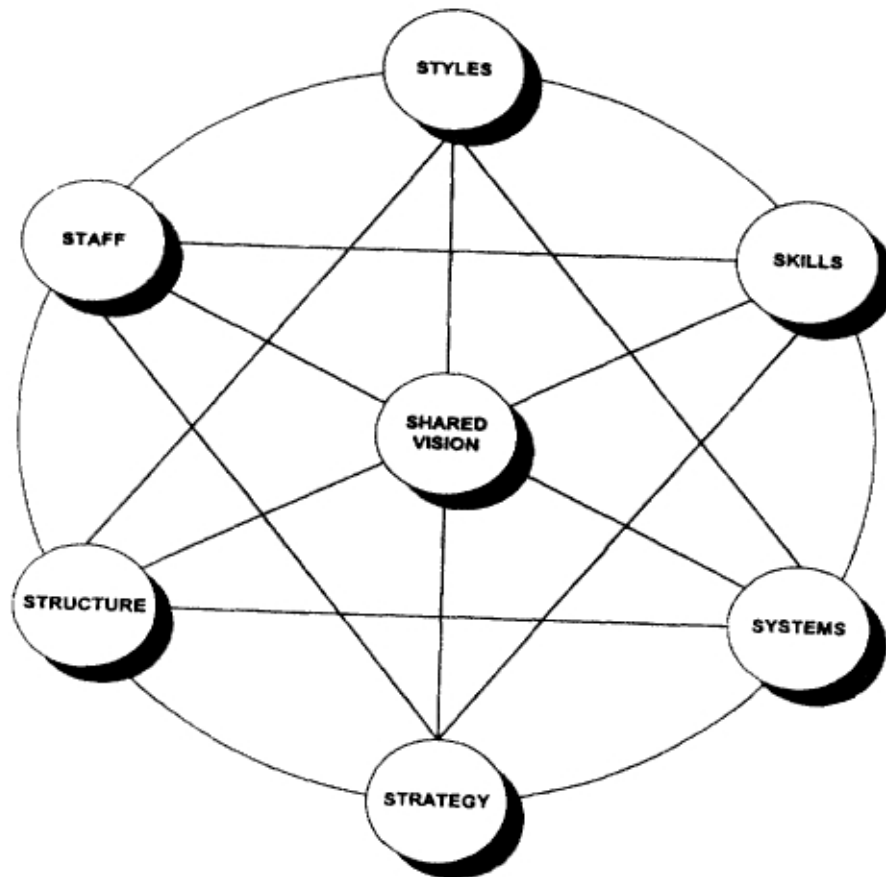
709 *Conceptual skills **must be built up** for the ‘Responsible Fisheries’ movement. An awareness campaign **must be launched at all** levels including that of stakeholders. This would require a massive effort. Since World Bank funds are available, it is suggested that **BOBP** expertise be made use of to develop tailor-made programmes for the DOF supported by audio-visual aids to carry the message across in an effective manner.*

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8.0 THE HRD PLAN

- 8.01 The FIRD approach consists not only of training but also of building up the organisational capacity. This encompasses induction of professional staff, the initial orientation towards the Department's long-term needs, potential appraisal of personnel in the Department, identifying their strengths and weaknesses, and building them up in advance of actual requirements

7 S MODEL



The Strategy is based on the organisation's mandate. The Strategic Action Plan (SAP) is to be worked out by translating policy into action, also the vital contributions at various levels, A campaign must be mounted to translate the vision of the organisation.

The Structure should include a wing or group to develop and implement the strategy. A core group has to be formed consisting of a vertical cross-section of officers to assist the director in strategic planning of human resources.

The Systems should include a HR System that keeps track of the potential of staff and suitable opportunities develop the potential are provided in advance of the actual job needs. Thus the Organization should have a number of trained people ready for tasks that arise, rather than have to train people as and problems surface. Young people with potential should be identified and prepared for higher responsibilities. They should also be included in task forces set up from time to time to address critical tasks in the organisation.

The Staff should include professionals such as Sociologists (to meet the needs of participatory fisheries management), Fisheries Economists, Ecologists and Natural Resources Management personnel (for sustainable fisheries management). They should be knowledgeable in Aquaculture, Inland Fisheries Marine Biology Population Dynamics and Stock Assessment. This staff may also be contracted from outside for specific periods to assist the Department.

The Style should be oriented to a participatory approach, not only with the stakeholders but also within the organisation to utilise the ideas of younger people effectively

The Skills relate to conceptual, technical, managerial and extension skills. For developing conceptual skills higher-level external programmes like the ones offered by IIM, Ahmedabad, Bharathidasan Institute of Management, Trichy or Administrative Staff College, Hyderabad may be useful. For other types of skills too, a mix of both external courses and in-house workshops are suggested.

The Shared vision should encompass all levels of staff and stakeholders in what the fisheries sector would achieve in the next decade. A series of workshops should be organised to discuss how the vision may be translated to reality at various levels.

8.02 The re-orientation of Department personnel to the needs of the future is no small task. But a good beginning has been made by the Government of Tamil Nadu with BOBP assistance. There is an urgent need to break away from the routine approaches of the past in identifying and developing talent to man the organisation and build its capacity. While individuals are keen to develop their skills in a variety of ways, the organisation must satisfy its own mandate and meet its own requirements. Strategic HR Planning will ensure that the talents and skills of staff are developed in the best possible way for the organization's benefit.

8.03 The elements of strategic HR planning would include:

- selection of candidates based on their compatibility with accurate and updated job descriptions
- finding the right person for the right job
- supporting HRD, including maintenance of up-to-date training records and conduct of regular training needs assessments
- appointing interested and capable persons to positions in HRD cells and training institutions
- encouraging training impact evaluations
- limiting frequent staff transfers

8.04 HRD plans sometimes go awry, with trained personnel getting transferred midway while plans are being implemented. This may be unavoidable at times, but should be kept to the minimum. Such transfers should be an exception rather than the rule.

Positive encouragement is necessary for trained personnel to perform better and better. Examples: providing the right facilities and infrastructure; ensuring a conducive managerial environment; making funds available promptly through budget allocations; expressing prompt appreciation for good work.

It is necessary to spot talent in junior officers, and build and prepare them for future responsibilities by organising appropriate training

8.05 The following steps are needed to operationalise the HRD plan

1. Set up a core group that will formulate the strategic thrust areas of HRD
2. Formulate a plan to start the initial training
3. The core group can be given external inputs through a facilitator from a management institution, such as the Bharathidasan Institute of Management. This will help activate the process.

- 4 A “competency roster” can be prepared to identify talent among staff, and draw up plans to meet the organization’s needs by building the talent.
5. Since the World Bank project has funds available, the training plan drawn up should be submitted to this project for funding.

On the Future

“One cannot make decisions for the future. Decisions are commitments to action. And actions are always based in the present. But present actions are the one and only way to make the future”.

Peter Drucker, ‘Managing in a time of great change’.

Annexure – I

TERMS OF THE AGREEMENT

Background

The BOBP assisted Coastal Fisheries Management (CFM) Project aims to facilitate and enable improved management of coastal fisheries in Chennai and Kanniyakumari Districts of the State of Tamil Nadu, India, in the context of conserving coastal fishery resources and ensuring the sustainability of coastal fisheries, through awareness - building, strengthening the institutional capacity of concerned agencies and provision of technical assistance.

The CFM Project is executed nationally by the Department of Fisheries (DOF) of the State of Tamil Nadu with assistance from BOBP. The project has identified the stakeholders of coastal fisheries in the two districts, conducted stakeholder analyses, analysed the perceptions and communication systems of the stakeholders and undertaken a series of consultations with the stakeholders to better understand the problems and solutions options from the points of view of the various stakeholders. Having decided, in consultation with the stakeholders, to initiate selected management actions, such as exploratory fishing trials to diversify coastal fisheries and move them offshore to tap under-utilized and un-tapped resources, establishment of artificial reefs and seasonal zoning of fisheries, and keeping in mind the increasing role of management of fisheries in its mandate, the DOF is interested in building up its institutional capacity to promote and enable coastal fisheries management. The DOF is interested in undertaking a skill gaps and training needs assessment, with a view to develop a human resources development training plan.

For this purpose Om Consultants (India) Private Limited, a leading consulting company based in Bangalore, India, with considerable experience in working with organizational and human resource development aspects of government and development agencies, has been designed to undertake a participatory study to identify the skill gaps in the DOF of the State of Tamil Nadu and undertake a training needs assessment to facilitate improved coastal fisheries management. The study will evolve a human resources development – training plan for the DOF.

The Managing Director of Om Consultants (India) Private Limited will, in close co-operation with the staff of the Bay of Bengal Programme of the FAO and with the staff of the DOF, co-ordinate activities to be carried out by leading professional management experts and technical fisheries experts to produce a detailed report of the findings and recommendations of the study of the CFM Project.

The study will consist of the following components:

1. Workshop with BOBP staff in Chennai
2. Discussion with DOF staff and consultation with Stakeholders in Chennai
3. Workshop with DOF staff in Chennai
4. Collection and analysis of secondary information
5. Appraisals and consultation with DOF staff and stakeholders in a selected coastal district
6. Workshop with DOF staff and stakeholders in the selected coastal district
7. Analysis and preparation of draft report
8. Presentation of draft report and discussion with Department of Fisheries and BOBP staff in Chennai
9. Preparation of study report incorporating feedback from DOF and BOBP

Monitoring and Progress Reporting

BOBP / RAPR on submission of draft reports of field appraisals and workshops, as well as on submission of the draft final report by end - June 1998.

Monitoring / Certifying Officer




















































The BOBP Programme Co-ordinator will monitor the proper implementation of this Agreement and will certify to the disbursing officer (FAO Representative, New Delhi) that the terms of the Agreement have been satisfactorily met and that appropriate payments can be made.

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STAKEHOLDERS’ WORKSHOP AT THE DEPARTMENT OF FISHERIES HEADQUARTERS

Participation Analysis

ACTORS

PRODUCERS	CONSUMERS/TRADERS	INFLUENCERS	FUNDING AGENCIES	SUPPORT AGENCIES	IMPLEMENTORS
<div><div> Fisherfolk * (Fisherwomen Co-operatives)  Entr epreneurs *</div><div><div> Fish merchants*</div><div> Fish consumers*</div><div> Exporters</div><div> Retail vendors</div><div> Commission agents</div></div></div>	<div><div> Local community leaders*</div><div> Media</div><div> Environmentalists</div><div> Communities (Neighbourhood or interfacing)  Elected representatives</div></div>	<div><div> Banks *</div><div> Money lenders</div></div>	<div><div> Central Government</div><div> ICAR institutes</div><div> International agencies</div><div> Allied industrialists*</div><div> Small-scale processors *</div><div> NGOs *</div><div> District administration</div><div> Allied departments</div><div> Consultants</div><div> Researchers</div><div> scientists</div></div>	<div><div> State Government</div><div> Department Officers</div><div> Field level staff</div><div> Planners (Department)</div><div> Training institutes</div><div> Trainer or trainees</div></div>	
ACTOR	INTEREST/EXPECTATIONS	POTENTIAL (+ /-)	APPROACH	COMPETENCE / SKILLS TO BE DEVELOPED IN THE DOF STAFF	
Fisherfolk * Fisherwomen Co-operatives	<div><div> Increase in incomes</div><div> Better standard of living</div><div> Improved facilities for landing and marketing</div><div> Easy credit facilities for needs such as crafts, gear, etc.</div><div> Protection from natural calamities</div></div>	<div><div> (+) Tapping of untapped resources (New species and new areas)</div><div> (+) increasing demand for fish and fishery products</div><div> (+) Increased moti vation due to easy credit</div><div> (–) Reduction m resources in existing areas (inshore)</div><div> (–) Overcrowding of fishing</div></div>	<div><div> Participatory fishesnes management</div><div> Development and transfer of technology</div><div> Diversification of fishing efforts</div><div> Generation of alternate income activities (ancillary fishing)</div><div> Strengthening of fishery co-operatives</div><div> Improving post-harvest facilities</div></div>	<div><div> Participatory fishesnes management</div><div> Updating knowledge on technology</div><div> Demonstration & training tor implementation of participatory management</div><div> Inter-personal and communication skills</div></div>	

ACTOR	INTEREST/EXPECTATIONS	POTENTIAL(+/_)	APPROACH	COMPETENCE/SKILLS TO BE DEVELOPED IN THE DO STAFF
Entrepreneurs Progressive Entrepreneurs (Aquaculturists)	<ul style="list-style-type: none"> Challenging business with high profit potential 	<ul style="list-style-type: none"> (+) Ever-increasing demand for internal & export market (+) Development of sustainable fishery (-) Deficiency in quality control measures (-) Damage to eco-system through farming (+) Increasing demand (-) Lack of proper handling facilities, etc. 	<ul style="list-style-type: none"> Standardisation and dissemination of technology Development of eco-friendly technology 	<ul style="list-style-type: none"> Facilitate training for trainers and entrepreneurs Updating knowledge on new (eco-friendly) technology for staff and entrepreneurs Development and collection of required information
Fish merchants (wholesale) -	<ul style="list-style-type: none"> Assured supply and improved infrastructure facilities for profit earnings 	<ul style="list-style-type: none"> (+) Increasing demand (-) Lack of proper handling facilities, etc. 	<ul style="list-style-type: none"> Facilitate development of cost-effective packaging system and cold chain 	<ul style="list-style-type: none"> Inter-personal and communication skills
Financing Institutions (Banks)*	<ul style="list-style-type: none"> Meet targets (extend credit) Prompt repayment 	<ul style="list-style-type: none"> (+) Availability of funds (-) Limited reach (make people run back and forth) (-) Inadequate expertise in fisheries (-) inadequate advocacy for priority (-) Cumbersome procedures 	<ul style="list-style-type: none"> Motivate fishermen (attitude change) Revitalise co-operatives Promote self-help approach Facilitate /liaison with banks Educating bankers (on fisheries) 	<ul style="list-style-type: none"> Communication skills Knowledge of bank procedures Knowledge of schemes Inter-personal skills Networking skills
Allied Industrialists* Equipment / Input Suppliers & Hatchery Feed Manufacturers	<ul style="list-style-type: none"> Provision of implements and inputs Introduction of new technologies Tie-up arrangements for financing the purchase Subsidized puce for encouraging industry and sales promotion 	<ul style="list-style-type: none"> (+) New technologies (+) Making available “ready-to-use” equipment (gear, feed, etc.) (-) Quality sometimes missing (-) Safety aspects not fully considered 	<ul style="list-style-type: none"> Promote new technology R&D/extension Registration & subsidy for registered crafts only 	<ul style="list-style-type: none"> Knowledge of new technologies Extension skills Monitoring & evaluation techniques
Small scale Processors - (Fish Curers, Pickling, Handicrafts)	<ul style="list-style-type: none"> To earn livelihood Part-time jobs (supplementing income) Market information on value-added products Easy availability of small loans 	<ul style="list-style-type: none"> (+) Rural employment (+) More women's involvement (+) Good market for their produce (-1) Unhygienic conditions 	<ul style="list-style-type: none"> Improved methods (good quality salt, packaging material, better drying methods, etc) Cost-effective Dissemination of market information 	<ul style="list-style-type: none"> Updating information on low-cost improved methods Awareness of market information (where and when) Awareness campaign for improvements (to processors)

ACTOR	INTEREST/EXPECTATIONS	POTENTIAL (+/-)	APPROACH	COMPETENCE /SKILLS TO BE DEVELOPED IN THE DOF STAFF
Fish Consumers	<ul style="list-style-type: none"> Quality (fresh + species) at reasonable price Availability throughout the year Easy reach 	<ul style="list-style-type: none"> (+) Increasing demand Opportunities for Employment (Marketing) (+) Awareness about nutritious value (-) Fear about quality of fish (-) Unhygienic market conditions (-) Improper weighing 	<ul style="list-style-type: none"> Consumer awareness To promote improved preservation in procurement site To promote quick transport facilities To provide link roads Enforce quality regulations (Ref:G.O.) 	<ul style="list-style-type: none"> Knowledge on assessing quality of fish Knowledge in preservation and processing Knowledge of rules & powers for quality enforcement Communication skills Negotiating skills
NGOs - Welfare Organisations)	<ul style="list-style-type: none"> To serve community Economical sustainability To gain reputation 	<ul style="list-style-type: none"> (+) Useful to community (+) Ability to mobilise community (+) Technical skills (+) Catalyst (Motivator) (+) Access to funds (-) To win popularity 	<ul style="list-style-type: none"> To involve NGOs in departmental schemes 	<ul style="list-style-type: none"> Knowledge of NGOs in their area Coordination skills Identification and assessment of NGOs
Local Community Leaders -	<ul style="list-style-type: none"> To serve community Personal financial interests To gain popularity control 	<ul style="list-style-type: none"> (+) Settlement of disputes (+) Coordination between Government and Community Ability to motivate or convince community 	<ul style="list-style-type: none"> To maintain good rapport Honouring good working leaders Mass contact programmes with leaders Conducting seminars 	<ul style="list-style-type: none"> To improve knowledge of schemes Communication skills Knowledge of area Coordination skills

FIELD-LEVEL STAKEHOLDER WORKSHOP

SCHEMES & CURRENT PRACTICES			EXPECTATIONS	
GENERAL		FOR WOMEN		
OBM	Link Roads	Fish containers	Increase of subsidy for nets by 10%	Subsidy for speed boats
10% subsidy for the nets	Street lamps for fisherfolk villages	Tricycles for transport	Subsidy for mono-filament nets	Information through satellite & T V to help fishermen
Insurance scheme (Rs.60)	Diesel subsidy	Ice box on subsidy	Free housing for fishermen towns	Awarding “pattas” (ownership titles) for the tenements
Savings schemes (Rs 45 monthly)	Leasing of Government-owned tanks (Inland fishing)		Extending community halls to all villages	Electnc connections to all houses
Free housing scheme	Subsidy for digging tank in farmers land		To complete link roads	
Community halls	Loan schemes for inland fisheries		Not permitting foreign fishing vessels.	
			Diesel subsidy to be made available in all bunks	

SCHEMES	PROBLEMS ENCOUNTERED	APPROACHES TO PROBLEM-SOLVING		SKILLS NEEDED
		GOVERNMENT	BENEFICIARIES	
1. Distribution of fish containers to women fish vendors (for carrying to the market)	Resources inadequate to meet the demands	To meet demand in stages	1 By “lots” among the needy 2 By seniority 3 With co-operative societies’ permission 4. With the help of NGOs	To communicate the method of distribution to women in an acceptable way
2a. Three wheeler cycle 2b. Ice box on subsidy	Existing resource not utilised	Beyond 5 km van is needed	Upto 5 kms tricycle can be used	Effective communication with members

SCHEMES	PROBLEMS ENCOUNTERED	APPROACHES TO PROBLEM-SOLVING		SKILLS NEEDED
3. Insurance scheme	Lack of awareness of the scheme Delay in claim settlement	Agreement with insurance firm for time bound settlement Fisherwomen also to be included in the scheme	Repayment of loans	Interaction with insurance officials
Savings-cum-relief	For those who don't possess ration cards, but who are legitimate beneficiaries	Simplified Government order which enables all the members to avail of the scheme without problems	Proof of authenticity - society admission and register	Simplifying procedures and effective communication
Diesel subsidy	Limited bunkers, non-availability of required quantum of diesel	Subsidised diesel to be made available at all the district outlets.		Understanding distribution logic for effective service delivery
Leasing of Government-owned tank (Perumal Tank)	Non-availability	Giving exclusive rights to local co-operative societies for inland fishing in water tanks		Resolution of social conflicts

Training needed:

- Training for fisherwomen in:
 - Scientific fish breeding and **bow** to overcome impediments
 - Study tours **m** modern fish breeding techniques

Annexure- IV

**NATURE OF RESPONSIBILITIES OF DEPARTMENT STAFF AT
DIFFERENT LEVELS**

(Department of Fisheries,)

Sl. No.	Name of the category	Method of recruitment / promotion	Prescribed educational qualifications / experience	Nature of duties and responsibilities attached to the post
1.	Joint Director	—	Promotion from the post of DDF after two years of service in the post of DDF	In respect of Head Office JDFs assist the Director in the implementation of their respective schemes - marine inland and research activities In respect of region, the JDFs are in charge of the implementation of various schemes of the Department and Administration.
2.	Deputy Director of Fisheries		Promotion from the post of ADF after six years of service in the post of ADF.	In respect of HO., DDFs assist the Director! JDFs in the implementation of their respective schemes. In respect of region, the DDFs are in charge of the implementation of various schemes of the Department.
3.	Assistant Director of Fisheries	Direct Recruitment/ Promotion	M.F.Sc., or Degree or a Doctorate (Zoology) or (Marine Biology) or a first class degree in M.A. / M.Sc (Zoology or Marine Biology) with minimum 3 years of research experience as evidenced by published scientific papers. Preference shall be given to candidates with an M.F.Sc, degree. Only if sufficient number of such candidates are not available, will candidates with other qualifications be considered.	Implementation of fisheries schemes in districts.
		Promotion	Holders of the posts of Inspector of Fisheries and Research Assistants with inter seniority having 8 years of service in the post of IF/ RA.	
4.	Research Assistant	Direct Recruitment	1. Must possess a degree of Bachelor of Fisheries Science (B.F.Sc) or its equivalent degree or 2. Must possess Associate Diploma in Fisheries Science of the Central Institute of Fisheries Education, Bombay or 3. Must possess a degree of M.A. or M.Sc in the subject in which recruitment is necessary. First preference shall be given	Implementation of research programmes of the DOF as allotted by the SFRC / DF

St No.	Name of the category	Method of recruitment/ promotion	Prescribed educational qualifications / experience	Nature of duties and responsibilities attached to the post
4	Research Assistant (contd..)	Promotion	<p>to candidates with B F Sc degree. Only if a sufficient number of such candidates are not available will candidates with other qualifications be considered.</p> <ol style="list-style-type: none"> 1. Must possess a first or second class degree in the subject in which recruitment is necessary; and 2. Must have worked for a period of not less than five years in laboratories under the DOE <p>Other things being equal, preference shall be given to persons who have taken either marine biology or fresh water biology as their special subject in degree courses.</p>	Implementation of fisheries schemes entrusted in the respective jurisdiction
5	Inspector of Fisheries	<p>Direct recruitment or promotion from the category of SI</p> <p>Promotion</p>	<ol style="list-style-type: none"> 1. Must possess a degree of Bachelor of Fisheries (B F.Sc) or its equivalent degree or 2. Must possess the Associate Diploma in Fisheries Science of the Central Institute of Fisheries Education, Mumbai or 3. Must possess a degree of MA. or M.Sc. in Zoology or Marine Biology. <p>First preference shall be given to candidates with B.F.Sc degree. If a sufficient number of such candidates are not available, candidates with other qualifications shall be considered</p> <ol style="list-style-type: none"> 1. Must have put in service in the post of SI in the DOF <ol style="list-style-type: none"> (a) for a period of not less than 3 years in the case of persons who hold certificate of successful completion of the All India Fisheries Training Course or a certificate of having successfully completed a full course of inland or marine fisheries classes conducted by the Government of India or the Diploma in Fisheries Science Education, Bombay or a post-graduate degree in zoology or marine biology, or 	

SL No.	Name of the category	Method of recruitment / promotion	Prescribed educational qualifications/ experience	Nature of duties and responsibilities attached to the post
5	Inspector of Fisheries (contd..)		<p>(b) for a period of not less than five years in the case of persons holding a diploma in fisheries technology and navigation course from a polytechnic in the State or a degree in zoology, or</p> <p>(c) for a period of not less than 10 years in the case of others who possess the minimum general educational qualifications.</p>	
6	Sub-Inspector of Fisheries	<p>Direct recruitment or promotion from the category of Fishery Overseer or transferred from the members of TNMS in the DOF in the ratio of 14:33 in the cycle of 20 vacancies</p> <p>Promotion</p> <p>Recruitment by transfer</p>	<p>1. Must possess the Associate Diploma in Fisheries Science of the Central Institute of Fisheries Education, Mumbai, or</p> <p>2. Must possess a certificate of successful completion of the full course of inland or marine fisheries classes conducted by the Government of India, or</p> <p>3. Must possess diploma in fisheries technology and navigation awarded by the State Board of Technical Education and Training. T N: or</p> <p>4. Must possess a degree in any science subject; or</p> <p>5. Must possess a degree of bachelor of fisheries science awarded by the University of Agricultural Science, Bangalore and Fisheries College, Mangalore: or</p> <p>6. Must possess a degree of bachelor of technology (fisheries) awarded by the Calicut University</p> <p>1. Must possess the minimum general educational qualification:</p> <p>2. Should have passed the Account Test for Subordinate Officers Part-I and</p> <p>3. Must have put in service as FO for a period of not less than 5 years</p> <p>Must have put in service for a period of not less than five years in the T N Fisheries Ministerial Service in the DOF and must possess a degree in science</p>	Implementation of fisheries schemes entrusted in the respective jurisdiction

SL. No.	Name of the category	Method of recruitment / promotion	Prescribed educational qualifications/ experience	Nature of duties and responsibilities attached to the post
7	Laboratory Assistant	Direct recruitment	Must possess a first or second class degree of B.A. or B Sc with zoology, botany or chemistry as the main subject Provided that other things are equal, preference shall be given to candidates who possess previous experience in research work for a period not less than one year in any of the recognised research stations	To assist the research assistant in research work as allotted by the ADF concerned

Training All direct recruits shall undergo training at the Fisheries Staff Training Institute.

Tests All direct recruits and promotees should have passed the following tests

**ADF Fisheries Departmental Test Parts I and II
Departmental Test for Executive Officers**

**RAs / IFs Account Test for Subordinate Officers Part – I
Fisheries Departmental Test Parts I and II consisting of**

- A – Oceanography**
- B – Inland fish culture**
- C – Fisheries technology**
- D – Training and office administration**

General Departmental Officers are deputed for training within India and abroad at various institutions as and when required / offered.

Sl No.	Category	Statutory Powers			Development Schemes	
		Tamil Nadu Marine Fisheries Regulation Act 1983	Indian Fisheries Act of 1897 and Tamil Nadu Fisheries Amendment Act 1929	Tamil Nadu Co-operative Societies Act 1983	of various fishermen welfare schemes	Wand Marine
1	Joint Director Fisheries	Adjudicating officer		Appellate authority	Regional level monitoring	Monitoring of various seed farm, reservoir management and other schemes related to fish farmers
2.	Deputy Director of Fisheries	Adjudicating officer		Appellate authority	Regional level monitoring	Monitoring of various seed farm, reservoir management and other schemes related to fish farmers
3.	Assistant Director of Fisheries	Authorised officer	Enforcement of the Act	Functional registrar for the fishermen co-operative society in the district	District-level implementation in their jurisdiction	District-level implementation in their jurisdiction
4.	Inspector of Fisheries	Authorised Officer	Enforcement of the Act		Implementation in their jurisdiction	Implementation in their jurisdiction
5.	Sub-Inspector of Fisheries		Enforcement of the Act		Implementation in their jurisdiction	Implementation in their jurisdiction

Annexure - V

TRAINING NEEDSASSESSMENT & SKILL NEEDS ASSESSMENT QUESTIONNAIRE

Questionnaire Responses

The table below indicates the representative sample covered

Level	Sample No.	Total Population
Director	1	1
Joint Director	4	3 + CEO of TNFDC
Deputy Director	3	6
Assistant Director	7	28
Inspector/Selection Grade Inspector	12	63
Sub Inspector	4	66
Research Assistant	8	28
Total	39	196

Level	Joint Director	No. of respondents	4
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- (1) Who are the major target groups/beneficiaries of your Department's services ?**
 - + Fishermen & women
 - + Fish farmers. co-operative society members. fisherfolk, aquafarmers, consumers, central institutes of fisheries
- (2) What kind of services are offered to them? Rank them in order of importance to the beneficiaries.**
 - + Supply of inputs on loan and subsidy basis to fisherfolk
 - + Supply of ice boxes to fishermen for retail sales of fish
 - + Bringing awareness of the latest technology of crafts, fishing methods & fish handling, preservation methods.
 - + Technical guidance
 - + Extension facilities as approved in the IX Plan
- (3) What are the major duties of your job?**
 - + Overall supervision, management, planning & review
 - + Assistance to Director of Fisheries in the implementation & monitoring of various development and welfare schemes for the target groups
 - + Management in administration
- (4) What are the critical skills and knowledge required to perform effectively on the job!?**
 - + Technical knowledge
 - + Communication skills
 - + Management skills
 - + Leadership qualities
 - + Extension skills
- (5) What critical skills would you like to acquire to perform effectively on the job?**
 - + Interaction with agencies involved in fisheries development for effective extension.
 - + Technical knowledge of aquaculture, and sustainable fisheries management
 - + Computer skills for data collection, storage and retrieval for updating knowledge & information
 - + Project preparation

- (6) What is the type of training that would be useful?
- + Training in the latest techniques in aquaculture and eco-friendly sustainable fisheries management
 - + HRD & HRM aspects (extension communication)
 - + Training in computers
 - + Training in statistics and its use in planning & monitoring
 - + Exposure to the latest technological developments
 - + Financial and personnel management
 - + Project formulation
- (7) In the future do you foresee any additional job demands being added to the current responsibilities in your job?
- + Yes
 - + New schemes based on the technological developments
 - + Research projects
- (8) What additional skills or abilities will be needed to meet these demands?
- + Seafaring skills in offshore and deep sea areas with focus on sustainable fisheries management
 - + Aquaculture
 - + Computer application skills
 - + Human resources management

SKILL NEEDS ASSESSMENT

Level Joint Director

No. of respondents 4

For each of the skills / competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills / Competencies	Strengths	Gaps	Development Needs
SECTION I TECHNICAL.			
<input checked="" type="checkbox"/> Knowledge on assessing quality of fish	3		
<input checked="" type="checkbox"/> Knowledge in preservation and processing	3	1	
<input checked="" type="checkbox"/> Knowledge of rules & powers for quality enforcement	3	1	
<input checked="" type="checkbox"/> Updating information on low cost improved methods	3	1	
<input checked="" type="checkbox"/> Awareness campaign for improvements (to processor)	2	2	
<input checked="" type="checkbox"/> Updating knowledge on technology	2	2	
<input checked="" type="checkbox"/> Knowledge of nets technologies (eco-friendly)		2	
Market			
<input checked="" type="checkbox"/> Knowledge of the area		4	
<input checked="" type="checkbox"/> Knowledge of schemes	3	1	
<input checked="" type="checkbox"/> Awareness of market information (where and when)	1	3	
<input checked="" type="checkbox"/> Knowledge of bank procedures for assisting fisherfolk to secure loans	1	3	
Other Needs			
<input checked="" type="checkbox"/> Need for workshops and training programmes for processors			4
<input checked="" type="checkbox"/> Need of the hour eco-friendly and sustainable technologies, market potentials and trends to be broadcast or put on Internet			4
<input checked="" type="checkbox"/> Need for setting skills in off-shore and deep sea areas			4
<input checked="" type="checkbox"/> Need for evolving suitable government transfer policy for making the best use of the skills of employees			4
SECTION II MANAGERIAL			
<input checked="" type="checkbox"/> Coordination skills	3	1	
<input checked="" type="checkbox"/> Negotiating skills	2	2	
<input checked="" type="checkbox"/> Development and gathering of required information	1	1	
<input checked="" type="checkbox"/> Knowledge of NGOs in their area, identification and assessment of their capabilities	1	3	
<input checked="" type="checkbox"/> Participation fisheries management		3	
<input checked="" type="checkbox"/> Facilitation of training for trainers and entrepreneurs	1	2	
<input checked="" type="checkbox"/> Monitoring and evaluation techniques	1	2	
Other Needs			
<input checked="" type="checkbox"/> Need for identifying skill and competencies of the staff			4
<input checked="" type="checkbox"/> Need to develop and suitably harness skills in keeping with the demands of the job			4
<input checked="" type="checkbox"/> Need for participatory approach to fisheries management if marine fisheries is to become a sustainable resource			4
<input checked="" type="checkbox"/> Need for exposure to MIS			4

A nnexure — V (contd..)

Fur each of the skills competencies. the number in the columns indicates the number of respondents who have ticked in the releas ant columns

Skills / Competeneics	Strengths	Gaps	Development Needs
SECTION III: EXTENSION			
+ Communication skills	2	2	
+ Inter-personal skills	2	2	
+ Networking skills		4	
+ Extension skills	2	2	
+ Demonstration and training for implementation			
+ ot pa rticipatorv ma nagement	2	2	
Other Needs			
+ Need to develop communication skills, inter-personal			
+ skills and networking skills			4
+ Need to update extension skills			4
+ Need to associate research managers and stakeholders			4

SUMMARY

Strength treas	Technical	<ul style="list-style-type: none"> ★ Knowledge on qualiti assessment ★ Knowledge of rules and regulations
	- Managerial	★ Coordination skills
	- Extension	★ Communication skills
Gap Areas	- Technical	<ul style="list-style-type: none"> ★ Awareness of market information ★ Knowledge of legal framework
	- Managerial	★ Strategic planning for participatory fisheries management
	- Extension	★ Networking skills
Training Needs	Technical	<ul style="list-style-type: none"> ★ Latest developments in sustainable fisheries management ★ Methods of building awareness campaigns ★ Rensiting the legal framework, rules & regulations
	- Managerial	<ul style="list-style-type: none"> ★ Participatory fisheries management ★ Exposure to information access for decision making
	- Extension	<ul style="list-style-type: none"> ★ Demonstration and training for implementation of participatory management ★ Networking skills

Level: Deputy Director

No. of respondents 3

- (1) Who are the major target groups/beneficiaries of your Department Services 2
 - + Fishermen and women
 - + Fish famers, co-operative society members, fisherfolk, aquafarmers, consumers, traders,/ exporters.. processors
- (2) What kind of services are offered to them? Rank them in order of importance to the beneficiaries.
 - + Socio-economic measures for fisherfolk
 - + Transfer of technology
 - + Technical guidance & assistance
 - + Ensuring enforcement of safety and regulatory measures
- (3) What are the major duties of your job?
 - + implementation of socio—economic schemes
 - + Enforcement of regulatory measures
 - + Facilitating rescue operations
 - + Facilitating transfer of technology in marine and inland sectors
 - + Creating awareness among fisherfolk about fisheries programmes
 - + Management and administration
- (4) What are the critical skills and knowledge required to perform effectively on the job?
 - + Communication skills
 - + Management skills
 - + Extension & HRD skills
- (5) What critical skills would you like to acquire to perform effectively on the job?
 - + Knowledge of participatory fisheries management
 - + Knowledge of community—based management systems as followed by South Asian countries
 - + Training in HRM & HRD skills and communication
- (6) What is the type of training that would be useful?
 - + Participatory techniques
 - + FIRD & HRM
 - + Training in prawn culture
 - + Training in computers
- (7) In the future do you foresee any additional job demands being added to the current responsibilities in your job?
 - + A ‘service wing’ should be attached to the extension wing. This would liaise with NGOs to educate fishermen / women
- (8) What additional skills or abilities will be needed to meet these demands?
 - + Training in remote sensing
 - + Decision—making in critical situations
 - + Training in HRD
 - + Training on small-scale by—products preparation

SKILL NEEDS ASSESSMENT

Level: Deputy Director

No. of respondents : 3

For each of the skills /competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills / Competencies	Strengths	Gaps	Development Needs
SECTION I: TECHNICAL			
+ Knowledge on assessing quality of fish	2		
+ Knowledge in preservation and processing	2		
+ Knowledge of rules and powers for quality enforcement	1	1	
+ Updating information on low-cost improved methods	1	1	
+ Awareness campaign for improvements (to processors)		2	
+ Updating knowledge on technology	1	2	
+ Knowledge of new technologies (eco-friendly)		2	
Market			
+ Knowledge of market		2	
+ Knowledge of schemes		2	
+ Awareness of market information (where and when)	2	1	
+ Knowledge of bank procedures	1	1	
Other Needs			
+ Access to information on latest remote sensing technology			3
+ academic Interaction between research and institutions			3
+ Need for organising seminars involving institutions and traders			3
+ Workshops in collaboration with funding institutions, consumers and traders			3
SECTION II: MANAGERIAL			
+ Coordination skills	2		
+ Negotiating skills	3		
+ Collection of required information	2		
+ Knowledge of NGOs in their area, identification and assessment of their capabilities		2	
+ Participatory fisheries management		2	
+ Facilitation of training for trainers and entrepreneurs		2	
+ Monitoring and Evaluation techniques		2	
Other Needs			
+ Management training			3
+ Extension training			3
+ Infrastructure development			3
+ Need for a one-day workshop to be arranged with the help of NGOs, central institutions and fisherfolk to facilitate information – sharing & better coordination			3

Annexure - V(contd..)

For each of the skills / competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills / Competencies	Strengths	Gaps	Development Needs
SECTION III: EXTENSION	3	1	
☞ Communication skills	2	1	
☞ Inter-personal skills	1	1	
☞ Networking skills	1	1	
☞ Extension skills	1		
☞ Demonstration and Training for implementation of participatory management			
Other Needs			
☞ Latest developments in communication skills			3
☞ Need for improvement of communication system			3
☞ Proper networking needed			3
☞ Need to arrange training programme at the department for networking skills			3

SUMMARY

Strength Areas	- Technical	Knowledge of quality control requirements Knowledge of preservation & processing
	- Managerial	Negotiating skills
	- Extension	Communication skills
Gap Areas	- Technical	Knowledge of eco-friendly technologies
	- Managerial	Participatory fisheries management Monitoring & evaluation
	- Extension	Networking & public relations skills Knowledge of NGOs
Training Needs	- Technical	Knowledge of community-based management systems in Sustainable fisheries management
	- Managerial	Monitoring & evaluation techniques Project formulation skills
	- Extension	Communication skills

- (1) Who are the major target groups / beneficiaries your Department services?
- ☒ Fisherfolk, agriculturists, aquaculturists, inland fishermen and entrepreneurs, brackishwater fish farmers
 - ☒ Target groups will benefit through co-operative societies, Department schemes, FFDA and other welfare schemes.
- (2) What kind of services are offered to them ? Rank them in order of importance to the beneficiaries.
- ☒ Transfer of technology
 - ☒ Financial assistance - loans, subsidy etc.,
 - ☒ Extension works
 - ☒ Training to fishermen in improved pisciculture activities
 - ☒ Social and economic welfare measures,
- (3) What are the major duties of your job?
- ☒ Offering socio-economic help to fisherfolk
 - ☒ Providing assistance and encouragement to fisherfolk in co-operative societies
 - ☒ Fishing management in reservoirs and irrigation tanks
 - ☒ Supervision and guidance to field staff on technical matters
 - ☒ Office administration
 - ☒ Extending knowledge of co-operative methods in fishing and marketing
 - ☒ Implementation of welfare schemes
- (4) What are the critical skills and knowledge required to perform effectively on the job?
- ☒ Coordinating skills
 - ☒ Negotiation skills
 - ☒ Directing, leading, motivating and managing
 - ☒ Knowledge of modern fishing techniques and practical know-how on deep sea fishing with focus on sustainable fisheries management
 - ☒ Close contact with fisherman and motivating them to take up modern fishing techniques and marketing
- (5) What critical skills would you like to acquire to perform effectively on the job?
- ☒ Monitoring and evaluation techniques
 - ☒ Leadership and technical skills
 - ☒ Training on modern fishing techniques and processing
- (6) What is the type of training that would be useful?
- ☒ **Demonstration and training for implementation of participatory fisheries management**
 - ☒ **Culture techniques for improved fish production**
 - ☒ Offshore fishing training
- (7) In the future, do you foresee any additional job demands being added to the current responsibilities in your job?
- ☒ Knowledge of **eco-friendly** techniques
 - ☒ Transfer of low-cost technology, sharing and experiencing
 - ☒ To cope with the latest techniques and knowledge in marketing, processing and preservation

Annexure- - V(contd..)

(8) What additional skills or abilities will be needed to meet these demands?

- + Updating knowledge on new eco-friendly technologies
- + Facilitating training for trainers and entrepreneurs
- + Institutional development
- + Extending the latest techniques to the field staff in sustainable fisheries management, marketing, processing and preservation, etc.

Level Assistant Director (Headquarters) No. of respondents 4

Who are the major target groups/beneficiaries your Department services?

- + Inland and brackishwater fish farmers, fishermen and fisherwomen Co-operatives, customers, vendors, merchants, exporters, processors

2. What kind of services are offered to them? Rank them in order of importance to the beneficiaries.

- + To improve the status of fisherfolk
- + Provide technical guidance to fish farmers
- + Implementation of the Regulation Act
- + Conducting various research studies approved by State Fisheries Research Council to develop fisheries
- + Providing financial assistance
- + Welfare schemes like free housing, street lights and link roads
- + Transfer of technologies through training and extension
- + Socio-economic measures
- + Development of infrastructure facilities like landing, handling and transportation, etc..

3 What are the major duties of your job?

- + (Assistant Director - Research)
- + Co-ordinating various research projects
- + Preparation of project reports
- + Planning of personnel training
- + Co-ordinating working of fisheries staff training institutes
- + Conducting on-the-job training for staff.

4. What are the critical skills and knowledge required to perform effectively on the job?

- + Updated technical knowledge on natural resources management Communication and interpersonal skills
- + Developing training capability
- + Knowledge of computers
- + Training in statistics
- + Various extension methodologies

5.What critical skills would you like to acquire to perform effectively on the job ?

- + Technical skills and knowledge on sustainable fisheries management.
- + Interpersonal relationship and communication skills
- + Computer training and applications for fisheries

Annexure - V(contd..)

6. What is the type of training that would be useful?
 - ☛ HRD & communication skills
 - ☛ Computer training
 - ☛ Training in statistical tools for information collection & processing
7. In the future do you foresee any additional job demands being added to the current responsibilities in your job?
 - ☛ Development of inland fishermen
 - ☛ Implementation of Tamil Nadu Marine Fisheries Regulation Act
 - ☛ Research projects
8. What additional skills or abilities will be needed to meet these demands?
 - ☛ Decision-making and conflict resolution skills
 - ☛ Knowledge of recent developments in India and abroad in sustainable fisheries management
 - ☛ Project preparation and managerial skills

SKILL NEEDS ASSESSMENT

Level Assistant Director

No. of respondents 7

For each of the skills / competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills / Competencies	Strengths	Gaps	Development Needs
SECTION I: TECHNICAL			
Knowledge on assessing quality of fish	6		
Knowledge in preservation and processing	2	1	1
Knowledge of rules and powers for quality enforcement			1
Updating information on low-cost improved methods	1	5	2
Awareness campaign for improvements (to processors)		1	2
Updating knowledge on technology	1	2	3
knowledge of new technologies (eco-friendly)			5
Market			
Knowledge of market	5		1
Knowledge of schemes	2	4	1
Awareness of market information (where and when)	5	1	2
Knowledge of bank procedures for assisting fisherfolk to secure loans		4	2
Other Needs			
Need of the hour is training in eco-friendly and sustainable technologies.			7
Training in low cost improved methods of sustainable fishing, developed by research institutes			7
Training in determining market potential			7
SECTION II MANAGERIAL			
Coordination skills	4	1	
Negotiation & public relations skills to deal with grassroots clients	3	1	1
Collection of required information	2	1	2
Knowledge of NGOs in their area, identification and assessment of their capabilities	1	2	1
Participatory fisheries management	2	2	2
Facilitation of training for trainers and entrepreneurs	1	3	2
Monitoring and evaluation techniques		3	2
Other Needs			
Participatory fisheries management is the dire need			7
Exposure to MIS			6

Annexure - V (contd..)

For each of the skills / competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills/ Competencies	Strengths	Gaps	Development Needs
SECTION III: EXTENSION	3	2	1
	3	2	2
+ Communication skills	2	2	
+ Inter-personal skills	2	3	2
+ Networking skills			
+ Extension skills		4	
+ Demonstration and training for implementation of participatory management			5
Other Needs			5
+ Interaction between research managers and stakeholders should be facilitated.			
+ Training in communication skills and audio-visual equipment handling.			

SUMMARY

Strength	Areas Technical	J	Knowledge on assessing quality of fish
		J	Knowledge of the area
	- Managerial	J	Co-ordination skills
	- Extension	J	Communication
		J	Interpersonal skills
Gap Areas	- Technical	J	Updating knowledge in eco-friendly techniques
	- Managerial	J	Participatory fisheries management
		J	Information access to aid decision making
	- Extension	J	Networking skills
		J	Communication skills
Training Needs	- Technical	J	Eco-friendly and sustainable fishing technologies
		J	Information access to aid decision-making
	- Managerial	J	Formulating projects and schemes to enhance participatory fisheries management
		J	Leadership and motivation skills
	- Extension	J	Inter-personal skills
		J	Extension skills

- (1) Who are the major target groups / beneficiaries your Department services?
- ☒ Fisherfolk, agriculturists, aquaculturists, inland fishermen and entrepreneurs
 - ☒ Consumers, fish vendors
 - ☒ Target groups will benefit through co-operative societies, department schemes, FFDA and other welfare schemes
- (2) What kind of services are offered to them? Rank them in order of importance to the beneficiaries.
- ☒ Transfer of technology
 - ☒ Financial assistance - loans, subsidy, etc.
 - ☒ Extension works
 - ☒ Training to fishermen on improved pisciculture activities
 - ☒ Social and economic welfare measures
 - ☒ Registration of co-operative societies
 - ☒ Supply of crafts at subsidised rates
 - ☒ Savings and relief schemes
 - ☒ Information on fish stocks
 - ☒ Leasing of tanks and water bodies, thereby improving fish production.
- (3) What are the major duties of your job?
- ☒ Teaching modern fishing methods
 - ☒ In charge of fish culture tanks
 - ☒ Production and supply of fish seeds
 - ☒ Loan collection
 - ☒ Maintenance of registers
 - ☒ Preparation of periodicals
 - ☒ Drafting letters
 - ☒ Attending court duties
 - ☒ Assisting fishermen / women in availing of welfare schemes
 - ☒ Collection of license fees
 - ☒ Assisting and supporting co-operative societies (at headquarters)
 - ☒ Collection and compilation of fisheries statistical data (estimation of fish production, etc.)
- (4) What are the critical skills and knowledge required to perform effectively on the job?
- ☒ Thorough knowledge of Departmental schemes, fishery technology
 - ☒ Coordinating skills
 - ☒ Leadership skills
 - ☒ Knowledge of extension methodologies and skills
 - ☒ Knowledge of statistical tools
 - ☒ Skills for drafting and formulating new schemes

- (5) What critical skills **would you** like to acquire to perform effectively on the job
- ☛ Training in extension and sustainable fishing techniques
 - ☛ More exposure to behavioural science concepts which would aid in effectively dealing with grassroots level clients
 - ☛ Advanced methods of fish seed **production**
(At headquarters)
 - ☛ Familiarity with computers.
- (6) What is the type of training that would be useful?
- ☛ Modern sustainable fishing techniques and management of fishing co-operatives
 - ☛ Updated knowledge of new eco-friendly techniques
 - ☛ Basic knowledge of co-operatives management
 - ☛ Computer skills training
- (7) In the future, do you foresee any additional job demands being added to the current responsibilities in your job?
- ☛ Management and office administration
 - ☛ Management of co-operative societies
- (8) What additional skills or abilities will be needed to meet these demands?
- ☛ Skill in management and administration
 - ☛ Training in communication, education and fisheries
 - ☛ Computer skill

SKILL NEEDS ASSESSMENT**Level : inspector of Fisheries****No. of respondents : 6**

For each of the skills / competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills) Competencies	Strengths	Gaps	Development Needs
SECTION I: TECHNICAL			
Knowledge on assessing quality offish	4	1	1
Knowledge in preservation and processing	2	3	1
Knowledge of rules and powers for quality enforcement	2	3	1
Updating information on low-cost improved methods	1	2	3
Awareness campaign for improvements (to processors)		2	4
Updating knowledge on technology	2	1	3
Knowledge of new technologies (eco-friendly)	1	1	4
Market			
Knowledge of the area	4	1	1
Knowledge of schemes	2	1	3
Awareness of market information (where and when)	2	3	1
Knowledge of bank procedures	3	2	1
SECTION II: MANAGERIAL			
Coordination skills	5	1	
Negotiating skills	2	1	2
Collection of required information	3	1	1
Knowledge of NGOs in their area, identification and assessment	2	4	
Participatory fisheries management	1	1	2
Facilitate training for trainers and entrepreneurs	2	1	1
Monitoring and evaluation techniques	1	2	
SECTION III: EXTENSION			
Communication skills	3	1	1
Inter-personal skills	4	1	
Networking skills	2	1	2
Extension skills	3		2
Demonstration and training for implementation of participatory management	1	2	3
Inter-personal skills	2		

Annexure- V(contd..)

SUMMARY

Strength Areas	- Technical	<ul style="list-style-type: none"> ⊗ Knowledge on assessing quality of fish ⊗ Knowledge of the area
	- Managerial	⊗ Co-ordination Skills
	- Extension	⊗ Communication
Gap Areas	- Technical	⊗ Knowledge of rules and regulations in the context of the Code of Conduct
	- Managerial	⊗ Knowledge of NOOs and their potential to contribute to the project
	- Extension	<ul style="list-style-type: none"> ⊗ inter-personal skills ⊗ Networking skills
Training Needs	- Technical	<ul style="list-style-type: none"> ⊗ Knowledge of new eco-friendly technologies ⊗ Knowledge of sustainable fisheries management
	- Managerial	<ul style="list-style-type: none"> ⊗ Planning and controlling skills ⊗ Training for trainers
	- Extension	<ul style="list-style-type: none"> ⊗ Extension skills ⊗ Motivation skills

Level : Selection Grade Inspectors

No. of respondents : 6

(1) Who are the major target groups / beneficiaries your Department services?

- ☛ Fisherfolk, agriculturists. aquaculturists, inland fishermen and entrepreneurs
- ☛ Target groups will benefit through co-operative societies, Department schemes, FFDA scheme and other welfare schemes.

(2) What kind of services are offered to them? Rank them in order of importance to the beneficiaries.

- ☛ Transfer of technology
- ☛ Financial assistance - Loans. subsidy. etc.
- ☛ Extension works
- ☛ Training to fishermen on improved pisciculture activities
- ☛ Social and economic welfare measures.

(3) What are the major duties of your job?

- ☛ Training of fishermen candidates in modern eco-friendly methods of fishing
- ☛ Implementation of the Tamil Nadu Marine Fisheries Act of 1983
- ☛ Training of fish farmers on composite fish culture
- ☛ Extending technical guidance on fish culture for the best results
- ☛ Propagation of do's and don'ts of fish culture
- ☛ Registration of mechanised boats, issue of identification cards, supervision of fishermen societies
- ☛ Updating fishermen with information
- ☛ Creation of accountability among fishermen
- ☛ Developing participatory sensitivity among beneficiaries and consumers

Annexure - V(contd..)

- ☐ Facilitating bank loan applications, obtaining necessary certificates for accidental death of fishermen and fire accidents, F I **R** from police, medical, revenue authorities
 - ☐ Generating awareness among fisherfolk about government schemes and the latest techniques and technologies
- (4) What are the critical skills and knowledge required to perform effectively on the job?
- ☐ Participatory fisheries management
 - ☐ Monitoring and evaluation techniques
 - ☐ Coordination, managerial skills and extension
 - ☐ Improve fishing activities, help poor fishermen and women improve their condition
 - ☐ Use of modern equipment
 - ☐ Extension and management skills
- (5) What critical skills would you like to acquire to perform effectively on the job?
- ☐ Participatory fisheries management skills
 - ☐ Psychological studies about farmers and tackling village problems
 - ☐ Extension skills and PRA skills to elicit co-operation **from** the fisherfolk
 - ☐ Fishing and fish culture
 - ☐ Training skills
- (6) What is the type of training that would be useful?
- ☐ Managerial services and administration
 - ☐ Training in modern fishing management skills
 - ☐ PRA training, communication skills
 - ☐ Training through NCDC
 - ☐ Latest methods of fishing
 - ☐ Insight into behaviour of rural populations
- (7) In the future, do you foresee any additional job demands being added to the current responsibilities in your job?
- ☐ Yes.
 - ☐ Management and Administration
 - ☐ Extension services
 - ☐ Fish culture
 - ☐ Insight into behaviour of rural populations
- (8) What additional skills or abilities will be needed to meet these demands?
- ☐ Computer training
 - ☐ Management **and** administration
 - ☐ Planning and **formulating schemes**
 - ☐ Finance
 - ☐ Additional boats fitted with eco-sounders and **other** modern equipment
 - ☐ Fish preservation technology.

SKILL NEEDS ASSESSMENT

Level Selection Grade Inspector
No. of respondents: 6

For each of the skills /con petencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills / Competencies	Strengths	Gaps	Development Needs
SECTION I : TECHNICAL			
Knowledge on assessing qualits of fish	6	1	1
Knowledge in presenation and processing	2	4	3
Know ledge of rules and powers for quality enforcement	1	6	
Updating information on low- cost improved methods	4	2	2
Awareness nnipuign for improvements (to processors	2	4	2
Updating knowledge on technology	2	5	1
Knowledge of new technologies (eco-friendly)		6	3
Market			
Know ledge of the area			
Know ledge of schemes	6	1	
Awareness of market information (where and when)	3	4	1
Knowledge of bank procedures	2	5	1
SECTION II: MANAGERIAL			
Coordination skills	6	1	
Negotiating skills	6	1	1
Collection of required information	4	2	2
Knowledge of NGOs in the area, identification and assessment	3	4	2
Participatory fisheries management	4	3	1
Facilitate training for trainers and entrepreneurs	5	2	2
Monitoring and evaluation techniques	3	3	4
SECTION III: EXTENSION			
Communication skills	5	2	
Inter-personal skills	4	3	1
Networking skills	1	5	2
Extension skills	1	5	
Demonstration and training for implementation of participatory management	5	2	

Annexure - V(contd..)

SUMMARY

Strength Areas	-	Technical	✱ Knowledge on assessing quality of fish
			✱ Knowledge of the market area
	-	Managerial	✱ Co-ordination skills
	•	Extension	✱ Communication
			✱ Inter-personal skills
Gap Areas	-	Technical	✱ Knowledge of rules and powers for quality enforcement
			✱ Updated knowledge on new sustainable technologies
		Managerial	✱ Knowledge of NGOs
	-	Extension	✱ Extension skills
			✱ Networking skills
Training Needs	-	Technical	✱ Knowledge of new eco-friendly technologies
	-	Managerial	✱ Monitoring & evaluation
			✱ Information-gathering techniques
			✱ Training for trainers
	-	Extension	✱ Extension skills
			✱ Interpersonal skills

Level: Sub-Inspectors

No. of respondents : 4

- (1) Who are **the major target groups** /beneficiaries your Department services?
- ☛ Fisherfolk, agriculturists, aquaculturists, inland fishermen and **entrepreneurs**
 - ☛ Target groups **will benefit through** co-operative societies, department schemes, FFDA and **other** welfare schemes.
- (2) What kind of services are offered to them? Rank them in order of importance to the beneficiaries
- ☛ Transfer **of** technology
 - ☛ Financial assistance - loans, **subsidy, etc.**
 - ☛ Extension works
 - ☛ Training **of** fishermen **on** improved pisciculture activities
 - ☛ Social and economic welfare measures.
- (3) What are **the major duties of your job?**
- ☛ Stocking
 - ☛ Culture **of** fish
 - ☛ Extension work, explaining welfare schemes and applicability **to** fisherfolk
 - ☛ Aiding and supervising **the** management **of** fishermen/ **women societies**
 - ☛ Conservation **of** inland waters
 - ☛ Issuing of licenses in provincial waters
 - ☛ Statistics **of** inland fisheries
- (4) What are the critical skills and knowledge required to perform **effectively on the job?**
- ☛ Management **skills**
 - ☛ Mechanical boats to control poachers
 - ☛ Updated knowledge about schemes
 - ☛ Communication **skills**
 - ☛ Implementation procedures
- (5) What critical skills would you like to acquire to perform effectively on the job?
- ☛ **Communication skills & techniques**
 - ☛ **Management & coordination skills**
- (6) What is the type **of training that would be useful?**
- ☛ **Inland fisheries, managerial and administration**
 - ☛ **Latest techniques of spot visits**
 - ☛ **Training in statistical tools & techniques**
- (7) In the future, do you **foresee any** additional job demands being added **to the current responsibilities in your job?**
- ☛ **Management and extension skills**
- (8) What additional skills or abilities will be needed to meet these demands?
- ☛ **Ovaprim treatment**
 - ☛ **Skills in the latest technologies on par with private entrepreneurs**
 - ☛ **Management and communication skills**
 - ☛ **Orientation in statistical tools and techniques**

SKILL NEEDS ASSESSMENT

Level Sub-Inspector

No. of respondents 4

For each of the skills/ competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

Skills Competencies	Strengths	Gaps	Development Needs
SECTION I: TFCHMCAL			
knowledge on assessing quality of fish	3		
knowledge in preservation and processing	3		
knowledge of rules and power for quality enforcement		3	1
Updating information on low-cost improved methods		3	1
Awareness campaign for improvements (to processors)		3	
Mating knowledge on technology		3	1
knowledge of new technologies (eco-friendly)		3	
Market			
knowledge of the area	2	1	
knowledge of schemes	3		
Awareness of market information (where and when)	3		
Knowledge of bank procedures		3	1
SECTION II: MANAGERIAL			
Coordination skills	2	1	
Negotiating skills	1	2	
Collection of required information	1	2	
knowledge of NGOs in their area (identification and assessment)	2	1	
Participatory fisheries management	1	2	1
Facilitate training for trainers and entrepreneurs		3	1
Monitoring Evaluation techniques	1	2	
SECTION III: EXTENSION			
Communication skills	2	1	
Inter-personal skills	2	1	
Networking skills	1	2	
Extension skills	1	2	
Demonstration and training for implementation of participatory management		3	3

Annexure - V (contd..)

SUMMARY

Strength Areas	-	Technical	✱ Knowledge on assessing quality of fish
			✱ Knowledge in preservation and processing
			✱ Knowledge of market and schemes
	-	Managerial	✱ Coordination skills
	-	Extension	✱ Communication
			✱ Inter-personal skills
Gap Areas	-	Technical	✱ Knowledge of rules and powers for quality enforcement
			✱ Updated knowledge on new technologies
			✱ Knowledge of bank procedures for assisting fisherfolk in obtaining loans
	-	Managerial	✱ Training for trainers
	-	Extension	✱ Demonstration & training for participatory management
Training Needs	-	Technical	✱ Knowledge of new technologies
			✱ Knowledge of rules and regulations
	-	Managerial	✱ Participatory fisheries management
			✱ Training for trainers
	-	Extension	✱ Demonstration & training for participatory management

Annexure - V(contd.)

Level Others (Research Assistants, **Librarian &** Surveyors)

No. of respondents: 8

- (1) Who are the major target groups / beneficiaries your department services?
- ☛ Fisherfolk, agriculturists, aquaculturists, inland fishermen and entrepreneurs
 - ☛ Target groups will benefit through co-operative societies, Department schemes, FFDA and other welfare schemes.
- (2) What kind of services are offered to them? Rank them in order of importance to the beneficiaries.
- ☛ Conservation of endangered species of aquatic flora.
 - ☛ Implementing Marine Fisheries Regulation Act to avoid clashes among traditional and mechanised fishermen at mid-sea.
 - ☛ Transfer of technology
 - ☛ Financial assistance - loans, subsidy, etc
 - ☛ Extension works
 - ☛ Training to fishermen on improved pisciculture activities
 - ☛ Social and economic welfare measures.
 - ☛ Extending technical support to small / medium aquaculturists.
 - ☛ Conducting various research projects and developing low-cost practice packages for aquaculturists
- (3) What are the major duties of your job?
- ☛ To guide fishermen about welfare measures of the department
 - ☛ Shrimp farming, selection of site, suitability, preparation of bankable projects, culture methods, technology, marketing
 - ☛ Fish seed stocking, fish seed rearing
 - ☛ Training fishermen candidates in use of mechanised fishing boats
 - ☛ Extension work on cultivation of fish and other aquatic animals
(At Headquarters)
 - ☛ Carrying out research projects allotted by State Fisheries Research Council
 - ☛ Guiding aquaculturists in advanced scientific aquaculture practices
 - ☛ Investigation of fish mortality due to disease or pollution
 - ☛ Extending technical guidance to aquaculturists
 - ☛ Assisting supervisor officers in project preparation and scrutiny of research processes
 - ☛ Guiding students on culling technical knowledge from library books
- (4) What are the critical skills and knowledge required to perform effectively on the job
- ☛ Coordination with fish farmers
 - ☛ Optimum stocking
 - ☛ Training fishermen candidates on mechanised boats and marine diesel engines
 - ☛ Technical skills
 - ☛ Knowledge in the latest developments and technology in fisheries
 - ☛ Communication and extension skills

Annexure - V (contd..)

(5) What critical skills would you like to acquire to perform effectively on the job ?

- ☛ Human psychology
- ☛ Training in fish husbandry
(At Headquarters)
- ☛ Skills in planning, presentation and technical paper writing
- ☛ Computer skills for data gathering and statistical analysis
- ☛ Training in handling of latest equipments / instruments

(6) What is the type of training that would be useful ?

- ☛ Training in low-cost modern technology of sustainable fishing practices
- ☛ Training in mechanised boats i.e., engine, maintenance, etc.
- ☛ Extension skills
- ☛ Exposure to computers

(7) In the future, do you foresee any additional job demands being added to the current responsibilities in your job ?

- ☛ Inland fisheries development
- ☛ Project preparation
- ☛ Implementation of various acts related to fisheries

(S) What additional skills or abilities will be needed to meet these demands?

- ☛ Knowledge of eco-friendly sustainable technologies
- ☛ Project planning and management

SKILL NEEDS ASSESSMENT

Level Others (Research Assistant & Surveyor)







No. of respondents 8

For each of the skills / competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.


Skills /Competencies	Strengths	Gaps	Development Needs
SECTION I: TECHNICAL			
Knowledge on assessing quantity of fish	7	1	
Knowledge on presentation and processing	2	6	1
Knowledge of rules and powers for quality enforcement	2	5	2
Updating information on low-cost improved methods	1	4	3
Awareness campaign for improvements (to processors)	1	4	3
Updating knowledge on technology	2	4	2
Knowledge of new technologies (eco-friendly)	2	4	2
Market			
Knowledge of market area	7		1
Knowledge of schemes	4	4	
Awareness of market information (where and when)	3	3	1
Knowledge of bank procedures	3	3	2
Other Needs			
Handling of the latest equipment / instruments related to fisheries			7
Exposure to the latest developments in sustainable fisheries management			7
SECTION II: MANAGERIAL			
Coordination skills	3	2	
Negotiation & public relations skills to deal with grassroots level clients	3	1	2
Collection of required information	3	1	1
Knowledge of NGOs in their area, identification and assessment	2	1	2
Participatory fisheries management	1	2	2
Facilitate training for trainers and entrepreneurs	3		2
Monitoring and evaluation techniques	2	1	2
Other Needs			
Knowledge of computers for project preparation, planning, processing of data and analysis			7

Annexure - V(contd..)

For each of the skills / competencies, the number in the columns indicates the number of respondents who have ticked in the relevant columns.

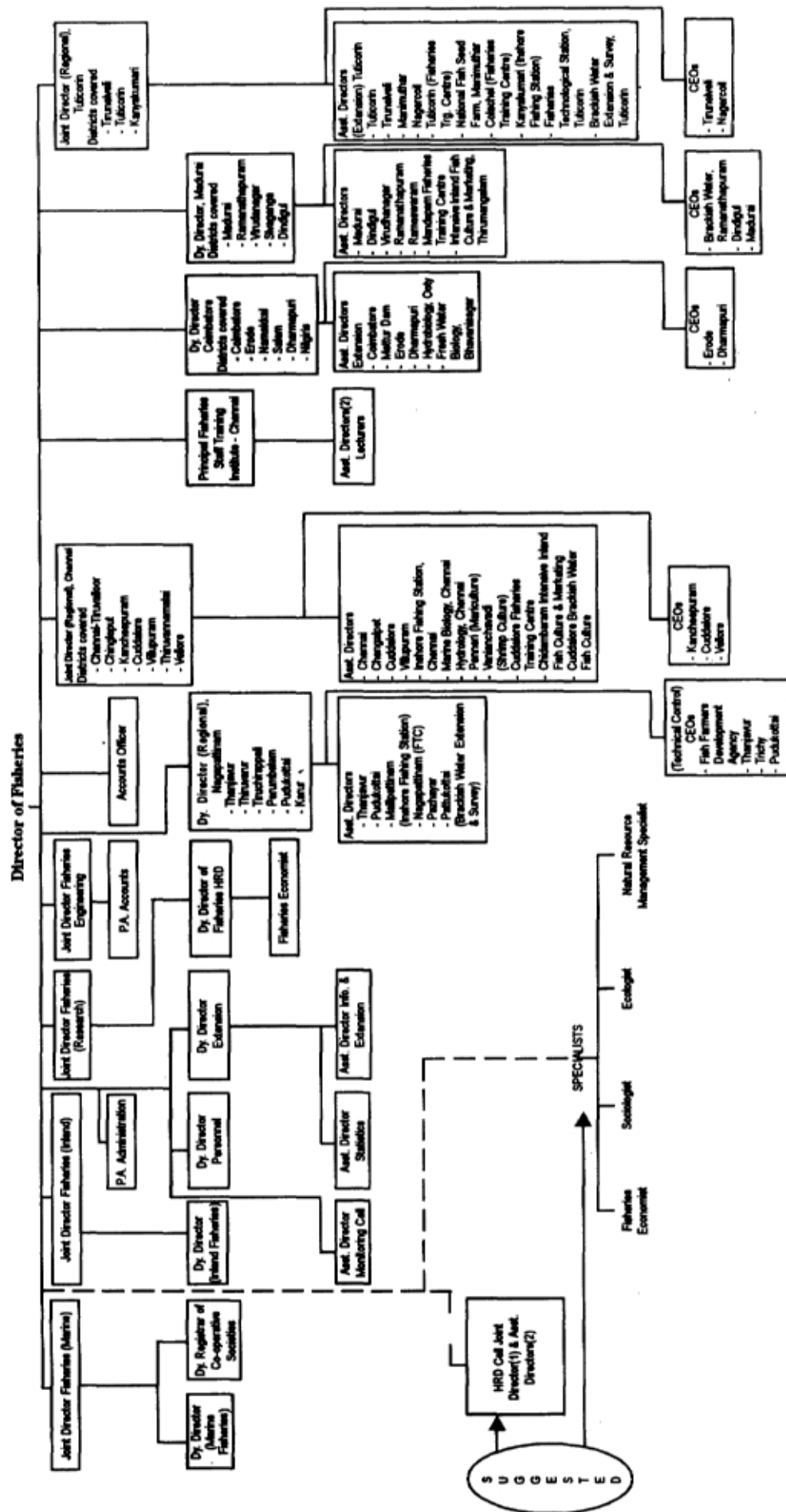
Skill / Competencies	Strengths	Gaps	Development Needs
SECTION III: EXTENSION			
 Communication skills	4	1	
 Inter-personal skills	3	2	
 Networking skills	2	1	2
 Extension skills	3		1
 Demonstration and training for implementation of participatory management	2		4
Other Needs			
 Training in handling of audio-visual equipment			3

SUMMARY

Strength Areas	Technical	 Knowledge on assessing quality of fish
		 Knowledge of new technologies
		 Knowledge of bank procedures
		 Knowledge of market area
	Managerial	 Coordination skills
		 Collection of required information
	Extension	 Inter-personal skills
		 Communication skills
Gap Areas	Technical	 Updated knowledge of research techniques
		 Project & scheme formulation
		 Coordination skills
	Managerial	 Information collection and effective use
		 Inter-personal skills
Training Needs	Technical	 Updated knowledge of research techniques
		 Knowledge of new technologies
		 Project & scheme formulation
	Managerial	 Coordination skills
		 Information collection & effective use
	Extension	 Inter-personal skills

Annexure- VI

ORGANOGRAM OF THE DEPARTMENT OF FISHERIES



DEPARTMENT OF FISHERIES . ENGINEERING WING

DIRECTOR OF FISHERIES
SUPERINTENDING ENGINEER, FISHING HARBOUR PROJECT CIRCLE, CHENNAI

Personal Assistant to Superintending Engineer (Assistant Executive Engineer Cadre)	Assistant Executive Engineer (Quality Control) Nagercoil	Executive Engineer Chinnamuttom at Nagercoil <ul style="list-style-type: none">- Madurai- Ramanathapuram- Kamarajar- Vaigai Veeran- Azhagamuthu- Pasumpon- Muthuramalingathevar- Tirunelveli- Kattabomman- Chidambaranar- Kanyakumari- Pudukottai	Executive Engineer Fishing Harbour Project Division, Thanjavur <ul style="list-style-type: none">- Chennai- M.G.R.- Anna- Villupuram- South Arcot- Thiruvannamalai- North Arcot- Nagai Quaid-E-Milleth- Thiruvarur- Thanjavur- Tiruchirapalli- Perumbidubi- Mutharayar- Peramballur- Thiruvalluvar- Coimbatore- Periyar- Rajaji- Salem- Dharmapuri- Nilgiris- Dindigul- Mannar- Thirumalainayagar
	Asst. Executive Engineer - I Chinnamuttom Sub-Division <ul style="list-style-type: none">- Kanyakumari	Asst. Executive Engineer - II, Ramanathapuram <ul style="list-style-type: none">- Ramanathapuram- Madurai- Kamarajar- Vaigai Veeran- Azhagamuthu- Pasumpon- Muthuramalingathevar- Pudukottai	Asst. Executive Engineer, Chennai
	Asst. Executive Engineer - III, Tirunelveli Kattabomman <ul style="list-style-type: none">- Tirunelveli- Kattabomman- Chidambaranar	Asst. Executive Engineer, Pattukottai <ul style="list-style-type: none">- Villupuram- South Arcot- Thiruvannamalai- North Arcot- Nagai Quaid-E-Milleth- Thiruvarur- Thanjavur- Karur- Tiruchirapalli- Perumbidubi- Mutharayar- Peramballur- Thiruvalluvar- Coimbatore- Periyar- Rajaji- Salem- Dharmapuri- Nilgiris- Dindigul- Mannar- Thirumalai	Asst. Executive Engineer, Ponneri (Investigation Sub-Division) <ul style="list-style-type: none">- Investigation work in all the districts of Tamil Nadu

Annerure- VII

WORLD BANK PROJECT, TAMIL NADU, 1995-1996 TO 2000-2001

Under the auspices of a five-year World Bank project on agriculture and human resources development in Tamil Nadu which began in 1995-1996, a sum of Rs. 22.2 million was allotted to upgrade fisheries expertise and strengthen facilities and infrastructure for “training of trainers” in Tamil Nadu.

The project was scheduled to terminate at the end of 20(X) but was recently extended to 2001. The main components of the project

- Thirty seven fisheries officials have benefited so far, either through study tours or training courses overseas, at a cost of Rs. 86.25 lakhs.
- The overseas partners in the study tours and training have been the USA, Netherlands, China, the Philippines, Thailand and Israel. Institutions that provided the officials with training include SEAFDEC in the Philippines; NACA in Bangkok, Thailand; A & M University in Texas, USA; and the International Agricultural Development Centre at Wageningen, Holland.
- Training courses overseas for the TN officials have related to aquaculture, carp culture, reservoir fisheries management, fish disease identification and mariculture.
- The facilities and infrastructure of the Fisheries Staff Training Institute, San Thome, Chennai, have been upgraded at a cost of Rs. 2.2 million. This includes hostel facilities and additional classrooms, laboratory equipment, computers, teaching equipment. Books and journals have also been provided.
- Computers and a vehicle have been provided to the Department of Fisheries, Tamil Nadu. Networking for the Department of Fisheries is under active consideration during the current year.

The Rs. 22.2 million for fisheries is part of a larger World Bank project that also includes agriculture, agricultural engineering, animal husbandary and horticulture in Tamil Nadu.

State Level Human Resource Development / Management under the World Bank Project

This chapter sets out the rationale for improvement in Human Resources Development (HRD) and Human Resources Management (HRM) expected to occur in participating states during the implementation of the project. It also describes the responsibilities of managers, training institute staff, proposed specialists and HRD cells in the pursuit of higher quality HRD and HRM.

Rationale

The state development departments of Agriculture, Fisheries, etc. have been the largest employer of graduates from the state agricultural universities. In recent years, the public sector has been increasingly unable to hire the traditional numbers of new graduates due to severe fiscal constraints. In addition, there is growing concern about the amount of remedial induction and in-service training required to bring new employees to work-ready standards. Government concern about the general quality of human resources in the agricultural sector prompted the development of the project to address both human resource generation and use, emphasising quality of university teaching and management and improved HRD and HRM at state level.

The following realities currently prevail in most states

1. University graduates entering service require significant induction and technical training to make them work-ready.
2. There is no focus on HRD. Evidence lies in the frequency of current training programmes, unsatisfactory trainee selection, lack of systematic training needs assessment, preponderance of supply-driven training and lack of routine evaluation of training impact.
3. Systematic HRM is lacking, which would ensure that the most qualified candidates fill every job vacancy, that transfers are limited to enable staff to make an impact, and that career development is supported and encouraged.

4. Trainers are often of poor quality.
5. Training facilities and support equipment / materials are frequently in unsatisfactory condition or are lacking.

Human Resources Development

Employees are a resource as important as technology, physical inputs and finance but are often neglected on the assumption that the resource is always there and always capable of performing necessary tasks. Regrettably, experience shows that this conventional benign neglect results in a small fraction of staff often doing the bulk of work while a large number remains in frustrating underemployment. Every institution needs to develop its human resources by practising HRD, the principal elements being:

- sound employee records containing not only personnel data but also training and experience history
- up-to-date job descriptions
- training needs assessments
- training programme design
- training selection based on training needs assessments
- training impact evaluation
- career development
- basic manpower planning

To address these needs, every state development department participating in the project would create a small cell or group to take the lead in HRD. A total of 14 departments are participating in the project (one of them is the Fisheries Department in Tamil Nadu).

Main tasks of each HRD cell would include:

- updating and maintaining staff training and experience records
- updating job descriptions in co-operation with development department managers and personnel departments
- maintaining a departmental manpower inventory
- carrying out routine training needs assessment for all categories of staff
- clearly specifying needed staff training based on analysis of the training needs assessments
- planning for the implementation of training activities, and
- planning and carrying out training impact assessments.

Suitably trained and skilled persons to perform the functions listed above would be recruited. Three persons are proposed for each cell with the following responsibilities:

- training needs assessment and training programme design
- training programme implementation and training impact evaluation, and
- manpower planning, training records and job descriptions.

While each would have different responsibilities, they should be fully trained to perform any of the cell's tasks. In addition, the team would need secretarial support and appropriate office equipment.

HRD Technical Assistance

The project would assist the development of HRD capacity within the state departments by funding the salary of a qualified and experienced HRD specialist. He would be located in the Project Monitoring and Implementation Cell (PMIC) under the Secretary of Agriculture, Livestock & Fisheries in each state. The HRD specialist would be responsible for guiding the process of HRD capacity-building with staff from each of the departmental HRD cells, and would have project funding to hire specialised consultants to provide short-term technical inputs as

Annexure VII (contd..)

required. The HRD specialist's position would be financed for the full implementation period to ensure sustainability of the HRD function within the departments. Each HRD activity would be explained and undertaken first by the HRD specialist and consultants with cell-counterpart assistance. Staff from individual department cells would then practise their newly acquired skills by performing HRD activities alone under the HRD specialists supervision. The HRD specialist would also prepare an HRD manual or handbook which would be used as a reference for future HRD cell activities.

Once training needs are assessed for a particular group of staff, and training programme content is recommended, training institutes / centres would be requested to develop detailed courses / training activities (curricula) to meet these needs. The project would enable state training institutes to upgrade trainer skills and facilities and to develop and implement appropriate training activities. The HRD cell would carry out impact evaluation of such activities. In this manner, HRD cell staff would complete the cycle from needs assessment to training impact evaluation. Training institute staff would practise newly acquired or upgraded skills by implementing a number of demand-driven training activities (refer next para). The project would fund a couple of courses in each state. Some 30 persons from every key trainee target groups will take part in this course, which would cover implementation of the training needs assessment, course design, course implementation and impact evaluation cycle. These practice courses would be completed over a period of about three years in association with the HRD specialist and the HRD cells in each participating state.

Training of Trainers Programme (TOTP)

Once training needs are identified, the next step is to obtain a good quality training to correct the knowledge-skill gaps detected. The project would include a training programme to strengthen the training skills of trainers at state institutes and centres, and also to train selected key resource persons who are called upon frequently to assist in training activities. TOTP would be directed by the FIRD specialist located in the PMIC to ensure that updated technical skills are accurately transferred from the specialists to the trainees by use of the most appropriate teaching / training methods.

TOTP would include:

- basic adult learning theory
- designing training courses / activities based on needs assessments
- field testing of training courses
- selection, use and production of audio and visual aids
- training delivery
- formative and summative evaluation of courses / activities
- training management (for training institution staff) including accurate record-keeping
- training programme impact evaluation

The project would finance the services of a suitably qualified and experienced institution or firm to design and implement the TOTP under the direction of the FIRD specialists. Since acquisition of training skills requires practical application of techniques learned, it is envisaged that the TOTP would be divided into a number of activities (modules) to enable trainees to practice techniques and to obtain assistance when difficulties are encountered. Since the roster of trainers and training resource persons changes as people retire and are reassigned and as skills need to be refreshed and updated, TOTP training should be institutionalised as a regular feature from each department's annual training programme.

Human Resource Management

FIRM refers to the process whereby managers maximize the effectiveness and efficiency of their staff by managing them actively and well. Even with accurate training needs assessments and high quality training, staff can perform well only if they are managed well.

Annexure - VII (contd.)

Elements of HRM of importance to the project include:

- selection of job candidates based on their compatibility with accurate and updated job descriptions
- matching the right person to the job
- supporting HRD, including maintenance of up-to-date training records and conduct of regular training needs assessments
- appointing interested and capable persons to positions in HRD cells and training institutions
- encouraging training impact evaluations
- limiting frequent staff transfers.

Besides, a human resources manager is observant, encourages staff to perform up to expectations and rewards good performance through training or special assignments. The project would refresh and develop managers' capacity to manage by providing training at specialised institutes or in situ through suitably qualified specialists. The planning and implementation of this training programme would be managed by the HRD specialist. It would ensure that systematic HRM and HRD improve training quality.



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