A.D.M. COLLEGE FOR WOMEN (AUTONOMOUS), NAGAPATTINAM.

DEPARTMENT OF B.VOC., MARINE FOOD PROCESSING AND PRESERVATION TECHNOLOGY

TITLE OF THE PAPER: FISHERIES ADMINISTRATION AND LEGISLATION



CLASS: III – B.VOC., MARINE
STUDY MATERIAL

FISHERIES ADMINISTRATION AND LEGISLATIONS

SYLLABUS

Unit - 1

Public administration: Principles of organization - Public sector enterprises - Current scenario-Public sector enterprises - Forms of organization of enterprises - Importance of public sector enterprises-Producer companies & Trusts. Legal and organizational framework: Fisheries administration in India -Work allocation - Key State Government Organizations - Fisheries administration in Tamilnadu.

Unit - 2

Fisheries development over five year plans: Sectoral Growth - Marine fisheries: Contributions to state economy - Development of marine fisheries during Five Year Plans - Investment in fisheries sector - An analysis of growth in production and fishing capacity - The 2002 Tenth Five Year Plan and the 2004 India Marine Fishing Policy.

Unit - 3

General background on law: Introduction - M.C. Mehta v. Kamal Nath - 'Span Motel Case' - Legislations covering IPRs in India - Indian constitution. Marine fisheries legislations: The Indian Fisheries Act, No. 4 of 1897 - The Maritime Zones of India (Regulation of fishing by foreign vessels) Rules, 1982.

Unit - 4

Laws and policies related to the environment: The Environment Protection Act, 1986 - The Water (Prevention and Control of Pollution) Act, 1974 - The Air (Prevention and Control of Pollution) act, 1981- National Environment Policy 2006 - Protected area Management - Integrated coastal and ocean management (ICM) - Legislations Related to Protected Area Management - CITES - Biological Diversity Act 2002 (No. 18 of 2003).

Unit - 5

Laws relating to fish products and fish marketing: Introduction - Some important acts regulating fish products - Trade and other matters - Consumer Protection and Regulations. International law of the sea: Introduction - Shared fish Stocks - Prohibition of Driftnet Fishing- Sustainable Fishing

res	responsible fisheries - SEZ Law(s) and India's Coastal Areas.					

- European Union Fish Labeling Requirements - Shrimp-turtle case - WTO - Code of conduct for

Unit - 1

Public administration:

Introduction:

The Public Administration/Management has following objectives:

- ➤ Understand the concept of public administration/ management/organization
- > Understand the evolution of the concept of public administration and its importance
- > Understand the role of government
- > Understand the role and core functions of public manager
- ➤ Understand the structure of government /organizations
- > Create understanding about the skills required by the public manager in imparting duties
- ➤ Understand the changing role of government and role of public managers.

The word 'administration' has been derived from Latin words 'ad' = to and 'ministiare' = serve and 'Public' = people or citizens. Thus the word administration means to execute the policy of government to serve public.

The course on public administration/management is important as every citizen must understand the functioning of government. Besides, whether one works in private or public organization or one is doing one's own business or whatever the profession, this course is useful as it helps understand organizations and their functioning. It also helps us understand the environment in which we are working.

Definition of public administration:

Now we will look at various definitions of public administration to better comprehend the concept: "Public administration is the action part of government, the means by which the purposes and goals of government are realized".

- > "Public administration as a field is mainly concerned with the means for implementing political values"
- "The process of public administration consists of the actions involved in effecting the intent or desire of a government. It is thus the continuously active, 'business' part of government, concerned with carrying out the law, as made by legislative bodies (or other authoritative agents) and interpreted by the courts, through the processes of organization and management."
- ➤ It is a cooperative group effort in a public setting;
- > It covers all the three branches --- executive, legislative, and judicial -- and their interrelationships.

Principle of organization:

The principles of organization that can facilitate smooth functioning of organization are as follows:

- ➤ Unity of objectives: There should be unity of objective for each member of the organization so that all collective efforts can be concentrated on the set goals. The objectives of organization should be well understood and formulated so that every member is familiar with it.
- ➤ **Division of work and specialization:** The division of total work is done as to confine every individual to the performance of a single job. It facilitates specialization in the organization and enhances efficiency and quality. Every area of specialization should be interconnected to the total integrated system by means of coordinating together of all activities done in all departments.
- ➤ **Definition of job:** There should be appropriate defining of every position in relation to other positions in the organization. The overlapping of functions should be avoided. It can be done by assigning duties and responsibilities to every position and its relationships with other positions in the organization.
- > Separation of line and staff functions: Line functions are those functions that help in accomplishing the main objectives of the company. These line functions should be separated from staff activities. The functions other than line functions are staff functions.
- ➤ Unity of command: Every subordinate should report to his assigned superiors or boss. It will avoid state of confusion, chaos, conflicts and lack of action in the organization.
- ➤ Unity of Direction: The unity of direction states that group of activities with a common goal should be managed by one person. It encourages one head and one plan of action for a common objective of different activities.
- **Exception principle:** The exception principle states that high level of managers should attend to exceptional matters only. The higher level of managers should deal with problems that concerns with unusual matter and policy decisions. The routine decisions should be referred to lower level of managers.
- > Span of supervision: It refers to the number of persons that a manager or supervisor can direct or control. Every manager is confined with restricted numbers of subordinates so that he can direct them efficiently within the limits of available time and ability. The number of persons is dependent on the nature of job and the desired frequency of intensity of supervision required in the organization.
- ➤ **Principle of Balance:** The principle of balance states that there should be proper balance between various parts of the organization. No function should be given undue importance at the cost of other functions. This balance should also be maintained between centralization and decentralization, span of supervision and

lines of communication and authority allocated to department and personnel at various levels.

- ➤ Communication: The Objectives of organization desires good communication network. The two way communication between superiors and subordinates helps in uniting organization into working as effectively operating system.
- Flexibility: The flexibility in organizational structure helps in adapting to changes in the nature of the business as well as changes corresponding to technological innovations.
- ➤ Continuity: The continuity in efficient performance of organization can be achieved by adapting to new changes that takes place inside or outside the organization. It will help organization to survive and excel for longer duration of time.

Public sector enterprises:

We have learnt about various forms of business organizations, which primarily relate to private enterprises. Traditionally, business activities were left mainly to individual and private organizations, and the government was taking care of only the essential services such as railways, electricity supply, postal services etc.

But, it was observed that private sector did not take interest in areas where the gestation period was long, investment was heavy and the profit margin was low; such as machine building, infrastructure, oil exploration, etc.

Not only that, industries were also concentrated in some regions that had certain natural advantages like availability of raw materials, skilled labour, nearness to market.

This led to regional imbalances. Hence, the government while regulating the business activities of private enterprises went in for direct participation in business and set up public enterprises in areas like coal industry, oil industry, machine building, steel manufacturing, finance and banking, insurance etc.

These units are not only owned by central, state or local government but also managed and controlled by them and are termed as Public Sector Enterprises. In this chapter, you will learn about the nature and characteristics of public enterprises and the forms of their organization.

Meaning of public enterprises:

As state earlier, the business units owned, managed and controlled by the central, state or local government are termed as public sector enterprises or public enterprises. These are also known as public sector undertakings.

A public sector enterprise may be defined as any commercial or industrial undertaking owned and managed by the government with a view to maximize social welfare and uphold the public interest.

Public enterprises consist of nationalized private sector enterprises, such as, banks, Life Insurance Corporation of India and the new enterprises set up by the government such as Hindustan Machine Tools (HMT), Gas Authority of India (GAIL) and State Trading Corporation (STC) etc.

Characteristics of public enterprises:

Looking at the nature of the public enterprises their basic characteristics can be summarized as follows:

- ➤ Government Ownership and Management: The public enterprises are owned and managed by the central or state government, or by the local authority. The government may either wholly own the public enterprises or the ownership may partly be with the government and partly with the private industrialists and the public.
- In any case the control, management and ownership remain primarily with the government. For example, National Thermal Power Corporation (NTPC) is an industrial organization established by the Central Government and part of its share capital is provided by the public. So is the case with Oil and Natural Gas Corporation Ltd. (ONGC).
- Financed from Government Funds: The public enterprises get their capital from Government Funds and the government has to make provision for their capital in its budget.
- ➤ **Public Welfare:** Public enterprises are not guided by profit motive. Their major focus is on providing the service or commodity at reasonable prices. Take the case of Indian Oil Corporation or Gas Authority of India Limited (GAIL). They provide petroleum and gas at subsidized prices to the public.
- ➤ **Public Utility Services:** Public sector enterprises concentrate on providing public utility services like transport, electricity, telecommunication etc.
- ➤ **Public Accountability:** Public enterprises are governed by public policies formulated by the government and are accountable to the legislature.
- Excessive Formalities: The government rules and regulations force the public enterprises to observe excessive formalities in their operations. This makes the task of management very sensitive and cumbersome.

Current scenario- Public sector enterprises:

Public sector enterprises occupy an important place in the Indian economy. At the time of independence, the Indian economy was basically agrarian with a weak industrial base. There were very few public sector enterprises in our country.

The Indian Railways, the Posts and Telegraphs, the Port Trust, Government Salt Factories were the prominent public sector enterprises. After getting independence, the government felt that if the country needs to speed up its economic growth, then state's intervention in all sectors of the economy is inevitable.

At the commencement of the first five-year plan (1.4.1951) Government's investment was Rs. 29 crore in five central public sector enterprises. Now it has increased to Rs. 3,93,057 crores in 239 enterprises as on 31 March 2006. The public sector enterprises have been making substantial contribution to augment the resource of central government. During 2004-05 their contribution to the central exchequer was Rs. 1,10,599 crores.

There is no doubt that public enterprises have played a significant role in the Indian economy. But the overall performance of most of the public sector enterprises is not satisfactory. The rate of return on capital investment is very low. Most of them suffer from the limitations already discussed in the earlier sections.

To improve the performance of the public enterprise, Government of India has taken several measures. On 24 July 1991 the Government of India announced its Industrial policy to improve the performance and portfolio of public sector enterprises.

The new economic policies also emphasized on liberalization, privatization and globalization of Indian economy. The role of public sector was redefined. In July 1997, Government identified nine central public sector enterprises as 'Navaratnas'. They are BHEL, BPCL, GAIL, HPCL, IOC, MTNL, NTPC, ONGC, SAIL.

These public sector enterprises have been given autonomy for capital investment, to enter into joint ventures, to raise capital from domestic and international market etc. In October 1997, the Government granted enhanced autonomy and delegation of financial power to some other profit making public sector enterprises and categorized them as 'Miniratnas'. Presently there are 45 Miniratna Public Sector Enterprises functioning in India.

These enterprises are referred to Board for Industrial and Financial Reconstruction (BIFR) to prepare appropriate revival or rehabilitation package. The government has set up a Board for Reconstruction of Public Sector Enterprises (BRPSE), which considers and advises the Government on the proposal of restructuring/ revival of sick and loss making units including the proposal for disinvestment or closure or sale.

BRPSE has made recommendations in respect of 31 central public sector enterprises so far and out of them the Government has approved revival plan of 15 cases till 30 March 2006.

Forms of organization of enterprises:

Administration- business organization

1. Sole proprietorship:

One single person is managing the entire business. Following things required for registering the enterprise

- > Bank account on the name of enterprise
- > Application for license to City Corporation
- > Full address and proof of address and PAN number are required
- ➤ Local self government will issue the license for establishing enterprise.
- > License is also issued based on building bylaws (National Building Code) and Zoning regulation.

2. Partnership:

When more than one person is involved, partnerships are created. If there is a legal conflict against a partnership, one has to sue the individual partner become bankrupt then creditors of that partner could sue all other partners even if debt is unrelated with the partners.

When one partner leaves/dies the partnership the whole deal of partnership needs to be reconstituted.

3. Cooperatives:

In India cooperatives is in state list but cooperative can be multistate subject.

Eg: CAMPCO (Central Area Marketing and Processing Cooperative Limited). It is under Kerala and Karnataka states which work under federal act.

Cooperative society can be registered under the state cooperative societies act, Indian cooperative society act-1959.

Federal act is a multi unit cooperative society's act which is under central government. Cooperative society is owned by the partners and works for the benefit of partners.

Cooperatives are divided into worker owned business and customer owned business Cooperatives can give loan to its members but not to non members one person can become member of cooperative society based on the following:

- The person should be residing in the area of that cooperative society
- ➤ The person should not be member of any other cooperative society
- > Organizations.

Features of cooperatives:

- > Open and voluntary membership
- > Principle of democratic control
- > Equitable distribution of surplus
- > Patronage dividend- refers to the dividend for the business done by the individual partners.

In agricultural and cooperative society, government is also shareholder and one nominee from the government will be the executive member of the cooperative society and audit can be organized by the government periodically to check the account.

Money lenders can't be member of agricultural credit cooperative society because the mandate of agricultural credit cooperative society is that the person who has same work as that of credit cooperative society can't be a member of the credit cooperative society. Souharda cooperation- no government involvement, private cooperatives.

4. Companies

Company is a legal personality with distinct legal status

- Limited liability (loss or profit is only paid from the share and not from their assets)
- > Transferrable shares- shares can be transferred from one person to another person

Legal personality- one has to sue the company in case of legal conflict but they can't sue the individual shareholder

It has originated in early 18th and 19th century. It is a legal person and liability is limited

- > Private limited companies-a minimum of 7 persons along with promoters (who originally contribute for the company) sign and applied to registrar of companies' office (Chennai). If a member wants quit then his share can't be sold to non member, it can be sold only to other members
- > Public limited companies- first the members contribute their share to start the company, if a person wants to quit he can sell his share in a stock market (he should have his share

certificate). As a share holder person gets two types of income. (annual dividend and capital appreciation)

Importance of public sector enterprises:

You know that all enterprises in our country are not public enterprises. There is mixed economy in our country and the private as well as the public sector contribute to the development of our economy.

However, there are only some selected areas in which the government establishes its enterprises for a balanced development of the economy and promote public welfare.

There are several areas where huge investment of capital is necessary but the margin of profit is either meager or it can be obtained only after a long period as in case of generation and supply of electricity, machine building, construction of dams, etc.

Industrial progress is of utmost importance for the development of the country and for this, it is necessary that some basic industries like oil, coal, gas, iron, steel, production of heavy electrical goods, etc., are to be fully developed.

Public enterprises give impetus to the development of these basic industries and also help in the development of the private sector with their products and services. There are some industries which require heavy capital investment on account of technical reasons.

Electricity, power, production of gas, heavy machinery tools, production of telephone etc., are such industries. The development of public enterprises also prevents concentration of economic power in the hands of an individual, or a group of individuals.

Not only is that, in our country economic inequalities increasing. Poor are becoming poorer and the rich more rich.

The public enterprises can help in reducing inequalities with the help of various policies like utilizing the earned profits in public welfare activities and by selling raw material to the small scale industries at lower prices.

It is also necessary for the economic progress of the country that industries which can decrease imports and increase exports are only promoted.

Public enterprises also ensure promotion of such industries.

There is an old belief that the benefits derived from the nature should be made available to all without any distinction.

The public enterprises ensure that land; oil, coal, gas, water, electricity and other necessary resources are made available to all at fair prices. The security of the country is supreme.

There should be no compromise in ensuring this. The production of fighter aeroplanes, arms and ammunition etc, connected with the security of the country is put under the domain of Public Enterprises for the purpose.

Thus, public welfare planned economic development of the country, regional balance, import substitution and checking concentration of economic powers are the major goals.

Producer companies:

It is intermediate between cooperative society and companies. There is no limit for the contribution of share by the members. Two methods of distributions of profits

- ➤ Based on the share capital
- > Based on patronage

Trusts:

Joint families can form trusts, where the members of the family can be member of trust. The trusts work for the welfare of the people. The membership of the trusts is decided by the trustees.

This is also same as that of trusts but the membership of the societies is not decided by the member of society.

Membership is open. These are social organizations. If these organizations promote any business oriented companies (like joint stock companies), then the profit goes to the social organizations and the profit is used for social welfare.

Purpose of the Act is to provide for registration of literary, scientific and charitable societies.

Fisheries administration in India:

In India fisheries science is, unlike agriculture, largely a new and unfamiliar discipline. In Japan, Norway, Great Britain, United States etc., to mention only a few instances, fishing and fishery industry have been organised and developed by private enterprise in the course of several generations.

In these countries Governmental intervention followed in response to the needs of the industry, which have set a pattern for training and assistance from the public sector. But even amongst the countries mentioned above, Japan may be cited as an example of forth-right governmental assistance in which establishment of training institutions played a major role in the modernisation of fishing industry.

It was recognised that achievement of that conversion in step with other changes would call for intensified programme of training and research. Thus Japan happens to be the foremost fishing industry in the world and the country with the greatest network of fisheries research institutions, fishery schools and colleges and universities.

It has been rrecognised in India that if pace of development is to be accelerated in an effective manner, governmental intervention will have to come in forcefully at a stage of development, much earlier than was necessary in the countries where fisheries are now well established.

One of the most stlriking forms of governmental assistance on a national scale, is to provide facilities for training of personnel at various levels.

A special Committee was constituted by the Government of India in June, 1958, to review and assist the training requirements for fisheries personnel to man the administration, executive and research projects in India and to examine the needs for higher or ancillary facilities. The Government of India have now established two training institutes, one for fishery management and administration and another for operatives.

At present a number of fisheries extension units have been established by Government of India for extending the results of fisheries researches on the field. It is proposed to establish at least one such unit in each of the States in India.

With the promotion of schemes for development of fisheries - both marine and inland, it is important to have proper management of fishery resources and their utilization.

Such a programme will call for close coordination and integration with the development of fishing ports, transport and communications, cooperative marketing, promotion of ancillary industries and development of programmes in river valley projects, river systems and irrigation tanks.

The need for conservation of inland fishery resources and regulation of fishing methods, both in marine and inland, is to be applied on the basis of extensive studies and researches - mainly for conservation of the fishery resources.

Development:

For developing marine fisheries, efforts are being intensified towards mechanization of fishing crafts, supply of fishery requisites, provision of facilities for landing, preservation, transport and marketing and for training.

In developing inland fisheries, schemes relating to survey of cultural waters, investigation of spawn, fry and fingerling resources are being taken up. In addition, large water areas will be brought under fish culture by improved methods of preparation of ponds, stocking, management etc.

Fisheries schemes in the Third Five Year Plan in India have been formulated with the main objective of increasing production, location of future resources and improvements in the existing channels of distribution.

Due consideration has also been given towards the need for effective improvement in the socioeconomic conditions of fishermen. Emphasis has also been placed on development of export trade.

Department of Animal Husbandry Dairying & Fisheries (DADF) is responsible for matters relating to livestock production, preservation, protection and improvement of stocks, dairy development and also for matters relating to the Delhi Milk Scheme and the National Dairy Development Board.

It also looks after all matters pertaining to fishing and fisheries Development Board. The Department advises the State Governments/ Union Territories in the formulation Policies and programmes in the field of animal husbandry, dairy development and fisheries.

The main focus of the activities is on

- > Development of requisite infrastructure in States/ UT's for improving animal productivity.
- > Preservation and protection of livestock through provision of health care.
- > Strengthening of central livestock farms (Cattle, Sheep and Poultry) for development of superior germplasm for distribution to states.
- > Expansion of aquaculture in fresh, brackish water, welfare of fisher folk, etc.

Work allocation:

Animal husbandry commissioner

National Livestock policy Bio-diversity and Animal Genetic Resources, Animal Care/ Animal Welfare

Joint secretary (fy)

All matters related to Fisheries Development and all matters related to Fishery Division and Vigilance

Joint secretary (P&F)

Poultry, Central Poultry Development Organizations, Feed & Fodder, Central Fodder Development organization, goat, sheep, pig, Equine and Pack animals, Slaughterhouses, Meat and meat products, Plant coordination.

Joint secretary (A&DD)

Administration, Dairy development, DMS, NDDB, and all matters related to diary division, NPCBB, Parliament, Trade and Codex matters, International cooperation.

Joint secretary (C&LH)

Livestock health, Veterinary council of India, Central Cattle development organizations, Animal husbandry extension, General coordination, Administration Reforms and Public Grievances.

Adviser (Stat)

All matters related to animal husbandry statistics division including livestock census In order to better understand the legal framework and the relationship between the administration of the laws that directly regulate fishing activities and those that are relevant to fisheries, fisheries laws in the Union Government, the roles of key Ministries in the fisheries sector are set out below.

- **1. Departments under the Ministry of Agriculture** (Department of Animal Husbandry, Dairying and Fisheries, Agriculture Research and Extension and Agriculture and Co-operation) are responsible for fisheries in the EEZ as follows:
 - > Survey and assessment of fisheries resources
 - > Exploration of resources in the EEZ
 - > Fisheries development
 - > Fisheries technology
 - > Fisheries management
 - ➤ Education, research, training and extension
 - > Aquaculture development
- **2. Ministry of Commerce and Industry:** the development and promotion of exports of fish products, quality control and for setting standards for the processing units. Relevant departments and agencies include:
 - > Department of Commerce,
 - Directorate of Foreign Trade
 - > Export Inspection Council
 - ➤ Marine Products Export Development Authority (MPEDA)
 - > Promotion of fish exports
 - Quality control
 - > Fish inspection /export inspection

3. The Ministry of Food Processing Industries:

Fish processing (including canning and freezing), provides technical assistance and advice to the fish processing industry. The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006 which consolidates various acts & orders that have hitherto handled food related issues in various Ministries and Departments.

FSSAI has been mandated by the FSS Act, 2006 for performing the following functions:

- > Framing of Regulations to lay down the Standards and guidelines in relation to articles of food and specifying appropriate system of enforcing various standards thus notified.
- > Laying down mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management system for food businesses.
- > Laying down procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories.
- > To provide scientific advice and technical support to Central Government and State Governments in the matters of framing the policy and rules in areas which have a direct or indirect bearing of food safety and nutrition.

4. The Ministry of Defense, Coast Guard:

The Ministry of defense plays a role in fisheries through coast guard. Coast guard takes care of pollution by the vessels, unauthorized fishing by the foreign vessels, coastal pollution, oil spill etc. Coast Guard Act, 1978

According to this Coast Guard Act, 1978, the coast guard has to perform the following Duties and functions.

- (1) It shall be the duty of the Coast Guard to protect by such measures, as it thinks fit, the maritime and other national interests of India in the maritime zones of India.
- (2) Without prejudice to the generality of the provisions of sub-section (1), the measures referred to therein may provide for -
 - Ensuring the safety and protection of artificial islands, offshore terminals, installations and other structures and devices in any maritime zone;
 - Providing protection to fishermen including assistance to them at sea while in distress;
 - ➤ Taking such measures as are necessary to preserve and protect the maritime environment and to prevent and control marine pollution;

5. The Ministry of Shipping: the fishing vessel industry and fishing harbours.

Merchant Shipping Act 1958

The act aims to deal with waste arising from ships along the coastal areas within a specified radius. The act should be incorporated in the course structure as it is concerned with harm caused to fisheries albeit indirectly.

Merchant Shipping Act as is existed today has 24 parts. The review committee appointed by the Government of India, in 1991 under the Chairmanship of DG(s) to study the provision of the Act in its entiraty and give suggestions for amendments taking into consideration..

6. The Ministry of Environment and Forests

Protects and preserves the coastal and marine ecology and environment (excluding the marine environment in the EEZ)

Coastal habitat protection

Protects endangered marine species under the Wildlife Protection Act, 1972.

Regulation of industries on the coasts

Prevention of pollution through Central Pollution Control Board, State Pollution Control Boards as well Pollution Control Committees in the union territories.

National focal point for

1972 Wetlands (Ramsar) Convention

1973 Convention on International Trade in Endangered Species of

Wild Fauna and Flora (CITES)

1979 Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention)

1992 Convention on Biological Diversity (CBD)

7. The Department of Ocean Development (under the Minister for Ocean Development):

Preservation, protection and conservation of the marine environment in the EEZ development of technology

Mapping of resources and for the establishment of the ocean commission which Preparation of policies and legislation relating to ocean and ocean resources (the policy and details of specific schemes are dealt with by the respective Ministries and departments)

8. The Ministry of External Affairs: negotiations on the Law of the Sea matters, including the 1995 UN Fish Stocks Agreement

In the review of the legal mandates of these and other institutional arrangements, this study emphasizes the need to avoid overlap and duplication particularly in matters of fisheries management, trade/export in fish and fish products and monitoring, control and surveillance of fisheries-related activities.

MPEDA:

The Marine Products Export Development Authority, a nodal agency set up by the Govt. of India in 1972 for the promotion of seafood exports from India. The role envisaged for the MPEDA under the statute is comprehensive - covering fisheries of all kinds, increasing exports, specifying standards, processing, marketing, extension and training in various aspects of the industry. The plan schemes of the Authority are implemented under seven major heads:

- ➤ Market Promotion
- > Capture Fisheries
- Culture Fisheries
- > Processing infrastructure & value addition
- Quality control
- > Research and development
- ➤ Viability gap funding

Key State Government Organizations:

The State Department of Fisheries (DOF) is the nodal agency responsible for formulation of policy, development and management programs and their implementation. The DOF is tasked with providing direct support for increasing supply from both capture and culture fisheries.

It has a mandate to monitor and promote improved management of the resources, and actively promotes the involvement of small-scale and poorer participants in the sector.

While state laws provide some regulations for fisheries management, such as mesh size regulations, these are inconsistent across states and weakly enforced.

Some states are trying to control expansion of vessels by capping numbers at existing levels, but this does not appear to be very effective nor is it addressing the issue of overcapacity.

Research Organizations

Fisheries research is undertaken by both the central government and the individual state governments. The central government research institutions generally fall under the control of the Indian Council of Agricultural Research (ICAR), which is affiliated with the Department of Agriculture Research and Education (DARE) Fisheries research in the states is done by agricultural universities and their colleges of fisheries.

ICAR coordinates the activities of six major research centers, covering inland fishing, aquaculture, education and technology. The Central Marine Fisheries Research Institute (CMFRI) in Kochi, Kerala is directly supporting marine fishing in India.

Financial Institutions

The National Bank for Agriculture and Rural Development (NABARD) has a special component for preferential lending to the fisheries sector at subsidized rates of interest. NABARD's support to fishing sector included refinancing mechanized and other boats and aquaculture. In the Tenth 5-Year Plan period, NABARD plans to refinance loans worth over 6 thousand crores or US\$1.5 billion (GOI, 2001a: 41).

Trade Associations

The Seafood Exporters Association of India (SEAI) is the representative body of seafood exporters. It takes an active part, in conjunction with the Marine Products Export Development Authority (MPEDA), in conducting the International Seafood Fairs in India, besides participating in the various international fairs and exhibitions. It brings out the Seafood Exporters Journal.

Training Institutions

The main bodies involved in training and capacity building at the field level are the state Departments of Fisheries, which frequently offer courses in new technologies or ancillary activities for supporting fishing effort (e.g., gear and engine repairing), and post-harvest issues such as processing, quality control and fish handling.

Community Institutions

The most important community institutions are the traditional governance systems (caste/kinship-based, with geographical origin also being important in case of migrant/settler communities). Some of traditional management systems are still in place that provides fisheries governance at the local level although these are being eroded by changes in society and the macroeconomic policies of governments.

Fisheries administration in TamilNadu:

The maritime state of Tamil Nadu is blessed with 1,076 km long coast line and 41,412 km2 continental shelf area with an Exclusive Economic Zone (EEZ) of 1.9 lakh sq. km, contributing 5.209 lakh tons of marine fish production.

This supports the livelihood of 10.48 lakh marine fishers through 5,803 mechanised and 41,337 traditional fishing crafts which are actively engaged in fishing. Tamil Nadu possess 3.83 lakh ha. of effective inland water resources comprising reservoirs, major irrigation tanks, minor irrigation tanks, short seasonal tanks, ponds, rivers, backwaters and derelict water bodies.

The inland fisher population is 2.35 lakh (2018-2019). An estimated brackishwater area of 56,000 ha. is under capture fisheries and an area of 6115.68 ha. is under coastal aquaculture production, mainly shrimp aquaculture.

Tamil Nadu is enriched with Marine, Brackishwater and Inland fishery resources amenable for capture and culture fisheries. Substantial focus is being given on the economic and social dimensions of fishery resources by the Government of Tamil Nadu.

The Indian Fisheries Act, 1897 enacted by the then Madras Presidency paved the way for the formulation of fisheries legislations across India. The Fisheries sector plays an important role in the socio-economic development of the country by providing livelihood to large number of fishers, generating employment opportunities in allied sectors and ensuring nutritional security.

The total fish production of the country in 2017-2018 was 12.59 million metric tonnes. India is the second largest producer of fish in the world and occupies the second position in inland fish production.

The fisheries sector contributes 1% of the GDP of the country. Tamil Nadu ranks 4th in total fish production of the country. Tamil Nadu exported 1,28,845 MT of marine products and earned a foreign exchange of Rs.5591.49 crore during 2018-2019.

The per capita consumption of fish in Tamil Nadu is 9.83 Kg as against the recommended requirement of 11.60 kg. With the increase in demand for fish, there is a need for augmenting the overall fish production of the State substantially from all the available fishery resources.

However, aquaculture is emerging as a prominent activity for enhancing fish production and income generation in rural areas. Integration of fish culture with agriculture has proved to be an option for augmenting the unit productivity from aquaculture systems. The Government is determined to enhance the inland fish production three-fold in the coming years.

Fisheries Sector contributes 0.7 % to the Gross State Domestic Product (GSDP). Tamil Nadu has an efficient fishing fleet of 6,000 mechanised and 38,779 traditional fishing crafts. The total marine fish production is 4.97 lakh MT. There are 2.5 lakh active marine fishermen. Tamil Nadu marine fisheries sector supports livelihood of about 10 lakh fisher folk.

Tamil Nadu has an excellent landing and shore infrastructure with 9 major fishing harbours, 3 medium fishing harbours and 36 fish landing centres which ensure hygienic fish handling and high quality fish. Tamil Nadu has a vast inland fishery resource of 3.83 Lakh ha including rivers, reservoirs, canals, irrigational tanks, ponds, etc. The total inland fish production of the State is 2.15 lakh tons. About 11,000 ha are under Coastal aquaculture activities, mainly shrimp farming.

Tamil Nadu has an excellent fish processing infrastructure of 75 exclusive fish processing plants with a capacity of 3,140 tons and in addition to that 77 cold storage facilities are available with a capacity of 48,000 MT. Tamil Nadu contributed to the marine seafood exports of 1,14,337 tons valued at Rs. 5407.69 Crore.

Presence of Research and Export promotion institutions like Central Marine Fisheries Research Institute (CMFRI), Central Institute of Brackishwater Aquaculture (CIBA), Central Institute of Fisheries Nautical Engineering and Technology (CIFNET), Fishery Survey of India (FSI), National Institute of Ocean Technology (NIOT), National Centre for Sustainable Coastal Zone Management (NCSCZM) and Rajiv Gandhi Centre for Aquaculture (RGCA), Marine Products Export Development Authority (MPEDA) and Coastal Aquaculture Authority (CAA) support the fisheries sector in the State.

The Honorable Fisheries Minister is in exclusive charge of the Department. The Department is under the administrative control of the Principal Secretary to Government, Animal Husbandry and Fisheries Department. The policies and schemes of the Government are implemented through the Department of Fisheries.

The Department is headed by Director of Fisheries, who is assisted by 3 Joint Directors, 9 Deputy Directors, 23 Senior Asst. Directors, 32 Asst. Director (Gr.1) and other officers and staff. In addition, 3 Joint Directors, 2 Deputy Directors, and 6 Senior Assistant Directors are working on deputation in different departments, institutions/organizations.

UNIT -2

Fisheries development over five years pans:

Sectoral Growth

The most important economic criteria used for assessing the economic importance of various sectors is their contribution to GDP of the country and generation of employment in the country (FAO 1999).

Fishing is considered under the agriculture. The contribution of primary sector, secondary sector and tertiary sector to the state Gross Domestic product (at constant 1999-2000 price) and employment generation between 1999-2000 and 2008-09 are presented in Table.

Table - Sectoral income and employment of the state

Sector	Income		Employment			
	1999-2000		2008-09		1990- 2000	2008- 09
	Rs.(in crores)	Per cent	Rs.(in crores)	Per cent	Per cent	Per cent
Primary	3171469	31.32	3024000	16.67	67	58
Secondary	2366515	23.37	5243419	28.92	13	16
Tertiary	4587760	45.31	9866400	54.41	20	25
Total	10124744	100	18133819	100	100	100

The primary sector provided employment to 67 per cent in 2000 and decreased to 58 per cent in 2009 which indicates the decline in the real income of the people employed in the primary sector. This trend is in line with national trend and explains the vulnerable status of households in the primary sector. While the share of service sector increased by 10 per cent, the employment increased by only 5 per cent indicating that, the rate of growth of income in service sector was much higher than employment.

Marine fisheries: Contributions to state economy

Fisheries are a sunrise sector of our country. At present, it emerged as an important commercial activity from its traditional role as subsistence supplementary activity. The economic importance of the fisheries sector to the economy may be identified under three main areas: (1) as a source of animal protein for human consumption (2) as a source of income employment, and (3) as a source of foreign exchange earnings.

Source of animal protein for human consumption:

Fisheries is being considered as 'rich food for poor people' and cheapest protein to the poor across the world. Small fish are especially important for consumers, as they can be purchased in small quantities at low cost.

It plays a vital role in addressing nutritional security and food security of poor coastal and inland population through its richness in micronutrition (Satia & Jallow 2010).

According to the study of National Sample Survey Organisation (NSSO) (64th round 2007-2008) on food habits of the people, in India 62.5 per cent of rural and 59.4 per cent urban households consume fish, meat or egg.

Between 1987-88 and 1990-2000, the proportion of households consuming one of the three items has increased by 4 per cent in rural areas and 1 per cent in urban areas.

This reveals that fish plays an important role in meeting the protein requirement in the country. In India, as per 9th plan document per capita fish consumption is 9 kg/ annum based on an estimate that 56 per cent are fish eaters.

Between 1998 and 2008 the per capita cereal consumption declined from 12.5 kg to 11.7 kg in rural areas and from 10.4 kg to 9.7 kg in urban areas. This may reveal that there is a diversification of food basket in favour of non-cereal foods like fish, meat and eggs.

Almost 56 per cent of world population derives nearly 20 percent or more of their animal protein from fish (FAO 2007).

The average global per capita fish supply is 16.5 kg. But with large difference across regions and countries as well as within countries (FAO 2007). Unlike other animal food like meat, egg, and pork fishes are available at wide range of price tags, making it accessible to the poor people.

In India for every 1000 households, 149 houses in rural and 156 houses in urban areas consume fish (GOI 2008).

In Karnataka the per capita monthly expenditure on meat, fish and eggs in rural area has increased from Rs. 21.18 in 2001 to 29.51 in 2008 and for urban areas for the corresponding period it increased from 31.85 to Rs. 42.67 (NSSO 2001, 2008).

Fish contains 60 per cent of first class protein on a dry matter basis, along with fat, calcium, phosphorus and other nutrients needed for healthy human life (Josupeit 1981).

Fish also contributes fatty acids that are necessary for the proper development of the brain and body (Kurien 2005). Fish is second in importance among the nutritious food, after egg with protein efficiency ratio of 3.5.

Source of Income and employment:

Fisheries sector contributes significantly as a source of employment to the primary sector of the nation. Globally, fishing and fish farming activities provided livelihood to an estimated 41 million people in 2004, working either on a part time or full time basis.

Applying an assumed ratio of 1:3 for direct employment (production) and secondary activities (postharvest processing, marketing, and distribution) respectively about 123 million people are estimated to be in secondary activities, and a high proportion of these workers are women (FAO 2007).

According to live stock census 2003, fisheries gives source of livelihood for over 14.49 million people, of which 4.70 million were males, 4.03 million females and 5.67 million children below 14 years of age. The total number of fishermen engaged in the actual operation of fishing was about 2.01 million of whom 0.093million were full-time fishermen and 1.07 million part-time fishermen (GOI 2008).

According to the 2005 Marine Fisheries Census (CMFRI 2005), the total population of marine fishers in the country is 3.52 million, living in 756,212 households in 3,202 fishing villages along the coast, or nearly 25 percent of the total number of fishers in India.

Of this total, over 9, 00,000 are recorded as active fishers, 1.0 million as part time fishers while 1.4 million fell into the category of 'others'. The Karnataka state accounts for 5.3 percent (7.67 lakh) of the total fishermen population of the country. Out of the total fishermen, share of marine sector is 35.96 percent (2.75 lakh).

The contribution of fisheries to the national income is estimated at Rs. 35,650 crores at 2007-08 current prices, which constitutes 1.1 per cent of total GDP and 5.34 percent of the agricultural GDP (GOI 2008).

Table presents the contribution of fisheries to GSDP and NSDP.

Year	GSDP of fishing industry (Rs.)	GSDP (%) of fishing to total GSDP of Karnataka	NSDP of fishing industry	NSDP (%) of fishing to total NSDP of Karnataka
1999-2000	59648	0.58	53766	0.59
2000-2001	61437	0.60	55421	0.60
2001-2002	54316	0.51	48058	0.52
2002-2003	58355	0.53	50244	0.51
2003-2004	52964	0.46	45492	0.46
2004-2005	53366	0.43	44320	0.40
2005-2006	64691	0.45	53401	0.43
2006-2007	61152	0.40	48483	0.36
2007-2008	61119	0.35	46902	0.31
2008-2009	65100	0.36	49146	0.31

Details	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06	2008-09
India (Rs. Crores)	234.84	398.00	893.37	3501.11	6443.89	7245.30	8607.94
Total marine fish export in India (Quantity in tons)	75.59	83.65	139.41	296.27	440.47	512.16	602.84

Development of marine fisheries during Five Year Plans:

Coastal fisheries are a state subject under the Indian Constitution and coastal states have played a variety of roles in developing fisheries and post harvest sector. Though it is a state subject the central government continues to support fisheries by providing more capital intensive infrastructure investments for areas such as fishing harbours and deep sea fisheries (Bhatta 2003).

Many centrally sponsored schemes are implemented by the states. The contribution of fisheries to national gross domestic product (at current prices) increased from 18,939 crore in 1999-2000 to 35,650 crore in 2007-2008 (GOI 2008).

The study of investments made by the central government during five year plans shows that that central government expenditure on fisheries increased from Rs. 2.78 crore during first five year plan (1950-1955) to Rs. 1414.41 crore during ninth plan (1997-2002).

The state government also enhanced the investment from Rs. 0.30 crore in the First Five Year Plan to 1692.5 crore in X Five Year Plan (GOK 2009) Planned programme for the integrated development of fisheries in the country initiated from second year of second National Five Year Plan.

In respect of marine fisheries development, in the first two Five Year Plan period (1951-56 and 1956-67) importance was given to introduction of mechanized boats, improvement of infrastructure facilities for preservation, processing, storage and transportation of fish and fishery products, landing and berthing of crafts and organizing multipurpose fisheries co-operative societies (GOI 1956).

In the third Five Year Plan (1961-66) and in succeeding three annual plans (1966-67 to 1968-69) an emphasis was given to encourage export trade in fish and fishery products together with the programmes towards development of fisheries education and research institutes.

During fourth plan period (1969-74) measures were taken to strengthen the infrastructure facilities by constructing fishing harbours at major and minor ports and in further expansion of export trade coupled with the objective of improvement in the economic conditions of the fishermen (GOI 1969). Fifth (1974-79) and Sixth (1980-85) Five Year Plans provided for motorisaion of artisanal craft, introduction of purseseines, development of diversified fishery products, encouragement to deep sea fishing through licensing.

The declaration of 200 miles as exclusive Economic Zone (EEZ) in the year (1977) was an historic event during this period (Anonymous 1978).

During Seventh Five Year Plan (1985-90) attention was development of post-harvest technologies and in the subsequent two annual plan years (1990-91 and 1991-92) the development of deep sea fishing received further momentum.

Priority was also given for the encouragement of fish marketing in the co-operative sector.

It was also decided to set up Fisheries Industrial Estates, which provide landing centers with jetty and shore facilities, besides providing facilities for processing, preservation, marketing and boat making with supply of diesel and spare parts of the engine (GOI 1985).

In the Eighth (1992-97) Five Year Plan period importance was given to development of deep-sea fishing by joint venture and coastal aquaculture (GOI 1992).

During Ninth (1997-2002) Five Year Plan period importance was given to intensify research activities (GOI 1997). In the Tenth (2002-2007) Five Year Plan the development thrust was on management of coastal fisheries, development of deep-sea fisheries with equity participation and infrastructure development and improve post-harvest management (GOI 2002).

Besides, development of infrastructural facilities marketing network through viable fishermen cooperatives etc. have been taken up to ensure better livelihood for fisheries and enhance export promotion for economic development of the country.

It is only in the Eleventh (2007-2012) Five Year Plan an attention was given by the government of India to conserve the declining fish stock and depleting fishery resources due to increased fishing effort and coastal pollution.

The main objectives of the Eleventh (2007-2012) Five Year Plan are enhancing the production of fish on an environmentally sustainable and socially equitable basis, conservation of aquatic resources and genetic diversity, strengthening of infrastructure in harvest, post harvest, value addition and marketing etc. (GOI 2007).

These development programmes resulted in growth and expansion of marine fisheries sector in the country state by providing better infrastructure and facilities.

As a result, today fishery resources are exploited by 107,448 traditional crafts, 76,748 motorized traditional crafts and 59743 mechanised crafts employing different gears varying from simple shoreseiners to modern trawl and purse-seine nets in the country (GOI 2008).

The infrastructural facilities like fishing habours, jetties, and slipways at different shipyards, fishery roads, fish markets, and auction halls increased significantly. The fishery sector contributed over Rs. 28,000 million to the national GDP at current prices 0.95 per cent of the total GDP in 1987.

Today, the contribution of fisheries to the national income is estimated at Rs. 35,650 crores at current prices, which constitutes 1.1 per cent of total Gross Domestic Product (GDP) and 5.34 percent of the agricultural GDP (GOI 2008).

Investment in Fisheries Sector:

One of the indicators of development policies and programmes is the allocation of resources for respective sector over different periods. Analysis of the allocation of funds highlights the push given for development of fisheries sector. The outlay for fisheries sector was about 5.13 crore in the first five year plan and it went to Rs. 1,946 crore in the X plan. Table highlights the financial outlay made for fisheries sector during different plan periods in India.

Outlay for fisheries sector during different Five –Year Plans, India. (Rs. in crores)

Five Year	Total outlay	Outlay for	Outlay for	Share of fisheries sector	
Plan		agricultural	fisheries	(per cent)	
		sector	sector	Total outlay	Agricultural
					outlay
First (1951-1956)	2378	354	5.13	0.22	1.45
Second (1956-61)	4500	501	12.26	0.27	2.45
Third (1961-66)	8577	1089	28.27	0.33	2.60
Annual Plan (1966-69)**	6625	1107	42.21	0.64	3.81
Fourth (1969-74)	15779	2320	82.68	0.52	3.56
Fifth (1974-79)	39426	4865	151.24	0.38	3.11
Annual Plan (1979-80)	12177	1997	1	-	-
Sixth (1980-85)	97500	5695	371.14	0.38	6.52
Seventh (1985-86 to (1989-90)	180000	10525	546.54	0.30	5.19
Annual Plan	123120	7256	292.74	0.24	4.03

(1990-92)					
Eighth	434100	22467	1205.39	0.28	5.37
(1992-93 to					
1996-97)					
Ninth	859200	42462	2069.78	0.24	4.87
(1997-2002)					
Tenth	1525639	58933	1946.44	0.13	3.30

From the Table, it can be noticed that fisheries share in the total plan outlay was hovering from 0.22 per cent in First Five Year plan to 0.52 per cent in IV plan and decreasing thereafter continuously and it received only 0.13 per cent in X plan, in spite of that the sector has been growing at an annual growth rate of 5 per cent in the last two and half decades.

Similarly, its share in agricultural outlay has increased from 1.45 per cent in First plan to 6.52 per cent in VI plan and it is slowly declining since then and is about 3.30 per cent in X plan. However, the status of fisheries sub-sector is better, when compared to that of agricultural sector as a whole.

Because, the per cent allocation to agricultural sector in the total plan outlay started declining from IV Five year Plan onwards and is continuously decreasing further, which is a great concern for the sector's growth. Its share in First Fiver Plan was about 15 per cent and it went to 17.16 per cent in IV plan and is now only 3.86 per cent in X plan.

Considering the general importance given to agricultural sector, the preference received by the fisheries sub-sector in the plan outlays is still reasonable. This shows greater importance given to fisheries sub-sector within agriculture. Financial allocation/expenditure on the development of fisheries in Karnataka.

Table - Financial Allocations for Fisheries Development under Various Plans (Rs. in Crores).

Sl.	Plan period	India		Karnataka	
no.		Total plan	Expenditure on fisheries	Total plan expenditure	Expenditure on fisheries
		outlay			
1.	I Plan (1951-56)	2378	2.78	405.3	0.30
			(0.14)		(0.08)
2.	II Plan (1956-61)	4500	9.06	1442.7	4.94
			(0.19)		(0.35)
3.	III Plan (1961-1966)	8577	23.32	2641.4	23.61
			(0.31)		(0.89)
4.	Annual Plans (1996-69)	6625	32.67	1909.6	22.24
			(0.49)		(1.16)
5.	IV Plan (1969-74)	15779	54.11	3598.5	28.57
			(0.34)		(0.79)
6.	V Plan (1974-79)	39426	115.11	8523.3	32.11
			(0.29)		(0.38)
7.	VI Plan (1980-85)	97500	286.95	2710.1	73.20
	, ,		(0.29)		(0.27)
8.	VII Plan (1985-90)	180000	477.59	35000.0	299.00

			(0.26)		(0.85)
9.	VIII Plan (1992-97)	434100	1118.46	N.A	901.06
			(0.25)		
10.	IX Plan (1997-2002)	859200	1414.41	N.A	1380.46
			(0.16)		
11.	X Plan (2002-2007)	1525639	1163.25 (up to	51948.04	1692.5
			2004-05)		(3.26)

It is evident from the above table that, there has been a quantum jump in the expenditure for the fishery sector both in the central and state sectors since third plan. This is due to the consideration of the importance of fishery industry as a potential source of employment and income generation. However, the expenditure on fisheries is marginal in the state when compared with the country

An analysis of growth in production and fishing capacity:

Indian fisheries sector consists of several subsectors based on fish production. The marine subsector currently accounts for nearly 40 per cent of the total fish production which contributes 71per cent of the total during 1950-51.

The CMFRI identifies three phases of development in marine fisheries (CMFRI 2003). Phase I corresponds to the pre-development stage up to 1965 where fishing was predominantly by indigenous crafts and gears.

Phase III (1965-86) is characterized by substantial increase in the use of synthetic gears, export trade and expansion of mechanized crafts, establishment of fishing ports and motorization of small boats. Phase III (1986-2000) witnessed substantial growth in the modernization of the artisanal crafts, extension of fishing grounds, offshore fishing through multi-day vessels and introduction of seasonal closures.

The fourth phase (Post-2000 period) is characterized by stagnation with inshore catches, reduced investment and increasing conflicts at sea over access to fish.

The fishing capacity can be determined with reference to fishing inputs (vessels, potential efforts) over a period of time by a vessel if fully utilized.

Fisheries scientists often view capacity based on comparisons between fishing efforts, fishing mortality and maximum sustainable yield (MSY). When total mortality exceeds MSY there is excess fishing capacity.

Comparison of fisheries objectives in key policy documents in India

Tenth	Five	Eleventh Five Year	CMFP 2004	Policy elements
Year Plan		Plan		

To grow fish production from aquaculture and marine fisheries and in particular utilize the full potential of deep sea fisheries to enhance fish consumption Management of coastal fisheries Increase fish seed production Equity of participation	Enhancing the production of fish from Indian waters, both marine and inland, on an environmentally sustainable and socially equitable basis; Address the hitherto unexplored potentials of Indian fisheries such as island fisheries and non-food fisheries;	To augment marine fish production of [India] up to the sustainable level in a responsible manner so as to boost export of seafood from the country and also increase per capita fish protein intake of the masses	Fish production outcomes: Increased production Increased consumption
Train fisherwomen Optimal exploitation Increased investment for infrastructure	Promoting fish as health food and meeting the changing requirements of both domestic and export markets to make the sector globally competitive; Increasing profitability of fishers and aquafarmers through an integrated approach from production to consumption; Strengthening of infrastructure in harvest, post harvest, value addition and marketing and upliftment of fisher and aqua-farmer communities with gainful employment opportunities and capacity strengthening	To ensure socio- economic security of the artisanal fishermen whose livelihood solely depends on this vocation To ensure sustainable development of marine fisheries with due concern for ecological integrity and biodiversity	Socio-economic outcomes Social equity Socio-economic security Increased profitability / optimal use Infrastructure development

Enhancing the production of fish from Indian waters, both marine and inland, on an environmentally sustainable and socially equitable basis; Conservation of aquatic resources and genetic diversity, as also preservation of the health of	To ensure sustainable development of marine fisheries with due concern for ecological integrity and biodiversity	Environmental outcomes Protection / preservation of the environment Environmental sustainability
preservation of the health of ecosystems;		

One specific target set in the Tenth Plan was that fish production should reach 8.19 tonnes by the end of the planning period in 2007. The Eleventh Plan Working Group estimated that annual fish production in the four years from 2002 to 2005 increased from 5.96 to 6.3 tonnes.

This represented an average increase of less than 2 percent per annum, which is well below the target of 5.44 percent annually which would be needed reach an annual harvest of 8.19 tonnes. Fish production from the marine sector in particular, changed little over this period.

A range of other intended outcomes for fisheries are identified at various places in the Tenth Five Year Plan that warrant mention.

For marine fisheries these outcomes include; i) increased production from the deepwater fisheries (linked to the overall fish production target); ii) increased fish consumption per capita in India; iii) management of coastal fisheries; iv) equity in participation; and v) optimal exploitation.

Few if any specific measures of performance against these outcome statements are available but some general comments are provided below based on information sources noted above and earlier chapters of this report. They are as follows:

- > There is little or no evidence of increased production in deepwater fisheries;
- > Information on actual fish consumption change in India is limited, but various studies cited earlier in the report suggest that demand is expected to increase significantly;
- Various fishery performance indicators (such as change to catch per unit of effort, change in fishery trophic status, change in numbers and capability of vessels, change in user conflict) show that current management of coastal fisheries is inadequate and leading to the overexploitation of coastal fisheries (both in terms of fishing and capacity);
- > Growing levels of conflict between users between states, and between states and neighboring countries such as Pakistan, as vessel numbers and capacity increase, and fish stocks decline, suggest equity in participation in management or in access to the fisheries resource is poor;

> There is evidence that coastal fisheries are over exploited and deepwater / island fisheries are underexploited.

The 2002 Tenth Five Year Plan and the 2004 India Marine Fishing Policy:

The India Marine Fishing Policy was originally drawn up in 2000 and adopted in 2004. Its objectives relate to increased production, exports and food security, ensuring socio-economic security of the artisanal fisher and ensuring sustainable development of marine fisheries "with due concern for ecological integrity and biodiversity".

Adopted in the early stages of implementation of the December, 2002 Tenth Five-Year Plan, it was anticipated that there would be positive outcomes from complementary aims of the two documents.

The latter emphasized the role of governance, and the importance of synergy and coordination between different government department and agencies.

It declared that research focus would be placed on: Intensification of research on sustainable capture and culture fisheries and development of a strategy for the optimum utilisation of two million sq km of sea surface area available under the Exclusive Economic Zone (EEZ).

Interestingly, in Article 62 of the 1982 convention, "optimum utilization" was taken to mean that fisheries management would allocate marine resources surplus to national needs to foreign vessels. Although increased export of fish harvested in the Indian EEZ was clearly an aim of the India Marine Fishing Policy.

It was not clear whether the Plan itself was based on the "surplus to need" interpretation. There appeared to be nothing in the Plan specifically related to institutional or legal aspects of fisheries management.

The rationale behind the India Marine Fishing Policy was explained in its Preamble. Marine fisheries within the territorial waters are the subject of maritime states whereas fisheries beyond this limit within the EEZ fall in the jurisdiction of Central Government.

The Central Government besides playing an advisory role also provides funding support to the States/Union Territories for implementation of Central Sector and Centrally Sponsored Schemes.

The policy initiatives are required not only for making marine fisheries sustainable and responsible, but also globally competitive so that Indian producers stand to gain in international markets.

This arrangement was appropriate until recently considering that only the resources close to the coasts of the maritime states were harvested.

The global scenario with respect to marine fisheries is rapidly changing with major developments in harvesting and processing technology and consequent expansion of global markets for fish and fishery products.

It was clear that the approach taken in the Policy would depart from that of previous years, which focused only on the developmental needs of the deep-sea sector, leaving aside similar issues pertaining to the coastal sector to the respective marine states and Union Territories (UTs).

Therefore, in the current approach towards an integrated policy the Government sought to bring the traditional and coastal fishermen into the picture together with stakeholders in the deep-sea sector so as to achieve harmonized development of marine fishery both in and beyond the territorial waters.

The preamble further referred to the connection with other policies and plans, noting that the National Agriculture Policy referred to the theme of a comprehensive marine fishing policy.

The promulgation of the Policy with a legal framework for its enforcement was expected to result in all-round development of marine fisheries sector of the country, ensure balanced growth of all stakeholder groups and minimize inter-sectoral clashes.

A key feature of the Policy was to formulate an appropriate legal framework for regulating marine fishing operations in Indian Exclusive Economic Zone (IEZ) by all classes of vessels.

The Inter-Ministerial Empowered Committee on Marine Fisheries was set up to steward the implementation of the Policy under the Chairmanship of the Secretary in the Department of Animal Husbandry & Dairying. Outside this framework, regional consultations have apparently been held to discuss how best to operationalize this policy, but no specific information was obtained.

The Policy consists of the following components:

- > Preamble
- > Marine fisheries resources
- > Harvesting of marine fish resources
- > Post harvest operations
- > Resource management
- > Fishermen's Welfare
- > Environmental aspects
- > Infrastructure development for marine fisheries
- ➤ Legislative support

The above components of the Policy have been implemented somewhat unevenly, but all have a need for ongoing policy and legal underpinning.

Five -year Plans

From the outset in 1951, the Five Year Plans have included specific reference to fisheries which is a reflection of their economic and social importance to India. Until the advent of the 2004 CFMP, the Five Year Plans were the only policy framework for fisheries in India.

All ten of the Five Year Plans established so far have focused fisheries policy on increasing fish production through technological and infrastructure development (mechanization, building new port and landing facilities, etc.), aquaculture development, and through the expansion of fishing into poorly utilized offshore fisheries.

The Tenth Five Year Plan began in 2002 and has only just expired in 2007. This Plan did recognize that marine fisheries in India were facing increasing sustainability problems and emphasized the need for a greater focus on sustainability measures, particularly in stressed inshore fisheries.

The various schemes funded through the Tenth Plan nonetheless still targeted fisheries development with the aim of increasing fisheries production from an estimated 6.12 million tons (in 2000-01) to a target of 8.19 million tons by 2007.

Most of this increase was expected to come from inland fisheries and aquaculture production but some increased marine harvests were also envisaged through exploitation of un-fished offshore resources. The Tenth Plan continued to focus government expenditure in fisheries on technological and infrastructure development. The Eleventh Five Year Plan is currently being prepared.

The aspects of this Plan that relate to fisheries are being informed by a specially appointed Working Group of 52 members largely consisting of officials from state, Union and international fisheries agencies. The Working Group report proposes seven objectives for fisheries over the next five years (Table 8) and identifies these objectives as current government policy.

To implement these objectives, the Working Group has recommended that the various schemes detailed in the last Five Year Plan are continued. They have also recommended several new schemes also targeted largely at fisheries development; principally aquaculture development, deep-sea vessel construction, mariculture and value added activities.

A central government budget of Rs 4,013 crores (US\$1.0 billion) is proposed, which is a significant increase over the previous Five Year Plan budget for fisheries of Rs2,497 crores (US\$640.5 million).

A large part of this increased expenditure has accompanied the operations of the newly established National Fisheries Development Board (Rs.2, 069 crores). As in past years, some of these centrally sponsored schemes are designed specifically to support state activities and are expected be cofinanced by the states.

Consequently the operational activities of the Union and state / territory fisheries agencies are heavily influenced by the policies set by the Union Government and resourced through the Five Year Plan process.

Marine Fishing Policy, 2004:

Marine fisheries within the territorial waters are the subject of maritime states whereas fisheries beyond this limit within the EEZ fall in the jurisdiction of Central Government. The Central Government besides playing an advisory role also provides funding support to the States/Union Territories for implementation of Central Sector and Centrally Sponsored Schemes.

The policy initiatives are required not only for making marine fisheries sustainable and responsible, but also globally competitive so that Indian producers stand to gain in international markets. This arrangement was appropriate until recently considering that only the resources close to the coasts of the maritime states were harvested.

The global scenario with respect to marine fisheries is rapidly changing with major developments in harvesting and processing technology and consequent expansion of global markets for fish and fishery products.

The marine fishing policy announced by the Govt. of India in the past focused only on the developmental needs of the deep-sea sector, leaving aside similar issues pertaining to the coastal sector to the respective marine states/ UT's.

Even though substantial assistance was channelized through Central and Centrally Sponsored Schemes in to the States/ UT's for the development of coastal fisheries, non-existence of an integrated policy for this sector was found to hamper fulfillment of the national objectives.

Therefore in the present policy the Government seeks to bring the traditional and coastal fishermen also in to the focus together with stakeholders in the deep-sea sector so as to achieve harmonized development of marine fishery both in the territorial and extra territorial waters of our country.

The theme of comprehensive marine fishing policy is enshrined in the National Agriculture Policy promulgated by this Government. It is significant that the new policy is being pronounced during the initial years of the X Five Year Plan, the elements contained therein may be gainfully used by the implementing Departments in the Central and State Governments to reach the benefits to the stake holders.

The policy objectives are:

- > To augment marine fish production of the country up to the sustainable level in a responsible manner so as to boost export of sea food from the country and also to increase per capita fish protein intake of the masses.
- > To ensure socio-economic security of the artisanal fishermen whose livelihood solely depends on this vocation.
- > To ensure sustainable development of marine fisheries with due concern for ecological integrity and bio-diversity.

The 2004 CMFP is the first ever national Comprehensive Marine Fishing Policy and is the current national fisheries policy framework for India. The policy document establishes three key objectives:

- > to augment marine fish production of India up to the sustainable level in a responsible manner so as to boost export of seafood from the country and also increase per capita fish protein intake of the masses;
- > to ensure socio-economic security of the artisanal fishermen whose livelihood solely depends on this vocation;
- > to ensure sustainable development of marine fisheries with due concern for ecological integrity and biodiversity

The 2004 CMFP consists of ten components which include establishing a "stringent fisheries management system" encompassing an improved regulatory and MCS systems.

The CMFP also proposes a new legal framework to enable the various components of the new policy to be implemented. What makes the CMFP significant is that it also identifies a need to reform the legal framework.

An Inter-Ministerial Empowered Committee on Marine Fisheries has been established to steward the implementation of the Policy under the Chairmanship of the Secretary in the DAHDF.

Outside this framework, regional consultations have apparently been held to discuss how best to operationalize this policy.

Fisheries Management Systems:

On the whole, there is no mechanism for management of fisheries outside the territorial sea other than the granting of licenses, and even those provisions are largely procedural and not related to mechanisms or procedures to decide conservation and management measures or their enforcement.

As described in the previous chapter, state legislation provides a rudimentary regulatory and licensing regime for fisheries management within territorial waters but management objectives and roles and responsibilities are often confused and legal powers are weak.

Enforcement of even this level of regulatory and licensing regime is very poor on the ground. Regarding subsidies, the policy refers to incentives for acquisition by the small-mechanized sector of multi-day fishing units, vessels landing quality fish for export, and wholly owned Indian vessels for venturing into international waters and concluding arrangements with other nations under license

- ➤ Uniformity in welfare schemes in different regions would be ensured, schemes operated in parallel by States and Centre would be rationalized
- ➤ Policy indicates the need to support the traceability and/or certification of products: packaging and bar coding would be made mandatory for authorized sales of fish and fish products through registered outlets for ensuring food safety.
- > Policy indirectly refers to increasing the value-added, including through MPEDA
- > The policy seeks to increase exports
- The Policy does not refer to tariff barriers and/or free trade areas in the region
- > There are no specific policy initiatives to improve the efficiency of fisheries administrations
- Socio-economic and poverty issues
- > The policy refers to food security
- The policy does not refer specifically to poverty, but there is a component on Fishermen's Welfare
- There is no provision for micro-finance in the Policy, but this is available elsewhere
- > The Policy does not include reducing the number of those engaged in fishing maintaining current numbers or increasing/maximizing employment
- > The Policy does not include assistance to fishers to leave the fisheries sector or to supplement livelihoods from non-fishing activities

The Policy goal to ensure observer coverage faces two challenges: there are no laws to regulate observer placement and activities; and there is opposition from boat owners. This is a common approach by boat owners worldwide, and best practices elsewhere have overcome the opposition.

The key is legal authority to appoint observers, place them, assign rights and duties and the duties and liabilities of boat owners. Best practices are to charge the boat owners for all costs of the observer (including wages, insurance, food and accommodation, embarkation, disembarkation and even training). Training of observers and a reasonable level of payment is also essential.

Unit - 3

General background on law

Introduction

Laws should be fair, justice, process (often more important than the actual outcome),

- Legitimacy (What rules are legitimate? Aren't rules arbitrary? Fear of consequences; authority to make a rule,
- > dispute resolution
- > rule of law and monopoly of violence(laws are more important than individual peoples; rule of law is one of the attributes said to comprise political freedom; the state has monopoly of violence, and even then violence is subject to the rule of law)
- ➤ Necessity we would kill each other if the world had no law
- > Weak people who could write started writing laws (possible explanation, probably not true)
- > In looking at primitive traditions, we don't find anarchy in any long-run system of government. People can't tolerate such anarchy over the long run.
- > Natural law from the Enlightenment: Through insight, certain things were obvious.
- > E.g. Man is endowed with certain inalienable (can't get rid of it) rights
- > These sorts of rules can't be removed or sold. You always have them.
- > You have the right to "life, liberty, and the pursuit of happiness"
- ➤ Liberty When you work for someone, you sell some of your liberties for money.

What is a right?

Something individuals value that will be enforced by the state against other people who would take it away from you. It's a thing of value, not necessarily material, that the state will protect on your behalf.

E.g. if someone threatens you with physical violence, the state will attempt to protect you through the police force.

What is a duty?

If you want the right to be left alone, then you have the duty to leave others alone. These duties are the counterparts of whatever rights you have. In being so constructed, you have society.

Law can therefore make the world fairer.

Virtues of Common Law

- > Predictability
- > Flexibility
- ➤ Legitimacy appeal is to tradition rather than sovereign authority

Property Right

- ➤ legal recourse; something that the state will protect/ensure; but then the state could infringe on your rights; something that the state should protect; something valuable
- > Someone else's attempt to take it away from you would be a cause of the government using force to protect your retention of it.
- E.g. Right to privacy. The court ruled that the right to use contraceptive devices is a right to privacy granted in the constitution. The word "privacy" is not in the constitution, but supposedly it's implied. In this case, the state was the party allegedly infringing on the right. Would that right, as described, protect you against a neighbor who watches what you do on your property?
- Many developing countries have property rights, but lack the means to enforce those rights. One reason why those countries have difficulty in developing b/c that property, whether in themselves or in physical capital, can't be kept. They can't keep their own property the local government or other people just take their property... leaving very little incentive to invest in human or physical capital.
- > Three characteristics of meaningful property rights: universality, exclusivity, alienability

Universality

• Property rights have to encompass everything that is worth anything to anyone. There must be a property right for everything, or otherwise there'll be a market failure, and then we'll result in the tragedy of the commons.

Exclusivity

• Every useful thing, including procedures, have to be associated exclusively with people, an individual or a group. If not, we'll have the tragedy of the commons, another market failure.

Alienability

• People have to be able to transfer these rights.

M.C. Mehta v. Kamal Nath- 'Span Motel Case':

The Supreme Court of India, in the landmark case of M.C. Mehta v. Kamal Nath, also known as the 'Span Motel case' laid down this doctrine for the first time. In this case, the state government

granted lease of riparian forestland to a private company for commercial purposes.

The purpose of the lease was to build a motel at the bank of the River Beas. A report published in a national newspaper alleged that the motel management interfered with the natural flow of the river in order to divert its course and to save the motel from future floods.

The Supreme Court initiated suo motu action based on the newspaper item as the facts disclosed serious acts of environmental degradation. The doctrine of public trust has now come to be an integral part of the environmental jurisprudence of the country.

The doctrine has helped the alienation of valuable community resources to private persons, recognizing the inherent worth and value of these resources to the community. The development of this doctrine in our country will go a long way in establishing a strong framework for the protection of nature's timeless gifts to man.

- A patent is not a monopoly, but just prevents other people from using it for a certain period of time. Or they have to pay you if they want to use it.
- > Originally, patents were issued by royalty. You would bid for a patent, and then you had a business monopoly. You bid for the right to collect tariffs, and so the king got the money up front, and then the winner of the bid could keep the tariffs he collected.
- ➤ Patents are usually ok for 20 years after issuing +/- delays; for drugs it's about 22 years. Drugs have longer patent period because it takes so long to get it.
- > Copyrights- It is an enabling legislation
- > Copyrights last for 70-80 years after the author dies.
- ➤ Why they are so much longer then patents?
- > The question is to balance objectives: you want people to have the incentive to engage in the creative work to get a copyright/patent. You wouldn't be giving a reward if everyone could just copy it.
- > So we need to figure out how much protection would encourage how much innovation. You could make a calculation of the economically efficient number of years for a copyright.
- > Another problem: the design of something is a public good.
- ➤ Public good it would be beneficial to society if everyone had the good, but not for one individual to make it. The good is non-rivalrous and non-excludable.
- ➤ Non-rival one person's consumption of the good doesn't decrease someone else's ability to consume the good. E.g. National defense.
- > For ordinary goods, e.g. a car tyre, for one person to get a car tyre, you have to buy one for yourself, and you are the only person who can benefit from it. Once the design is created, there is a zero marginal cost per user.

- > So public good usually has a huge fixed cost, and zero or tiny marginal costs for each additional unit.
- Trademarks
- > To protect the brand/unique label of the product from being used by somebody else, we could get a trade mark and then we could go to court and if it is used by unauthorized persons. If consumers wouldn't be confused because your products are so different, then you need not challenge.
- > Designs Act 1911 and New Designs Act 2000 was enacted which superseded the earlier act. The design means only the features of shape, configuration pattern, ornamental or composition of lines or colors applied to any article by any industrial process.

Indian constitution:

The Constitution provides fundamental rights and aims at securing these rights against the might of the State. Thus, it limits the state's ability to curtail people's fundamental rights.

Article 14: Right to Equality: Equality before law – The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India. Art. 14 guarantee only a negative right not to be discriminated. Article 15 to 18 extends the right to equality.

Art. 15 to 18 assure this to be a positive right. With this right of equality is not only granted but is protected against social and economic inequalities supported by religion and other social norms and practices.

"Equality before the law" is a declaration of equality of all persons; no special privilege favoring any individual. Before the law" ensures that every person is subject to the jurisdiction of ordinary courts, irrespective of his position or rank.

"Equal protection of the laws" – equal protection shall be secured to all persons within the territorial jurisdiction. Thus "equal protection of the laws" is a pledge of protection or guarantee of equal laws.

"Before the law" ensures that every person is subject to the jurisdiction of ordinary courts, irrespective of his position or rank.

Article 15: Prohibition of discrimination on grounds of religion, race, case, sex or place of birth. The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, and place of birth or any of them.

Article 16: Equality of opportunity in matters of public employment. There shall be equality of opportunity for all citizens in matters relating to employment of appointment to any office under the State.

No citizen shall, on grounds only of religion, race, caste, sex, place of birth, residence or any of them, be ineligible for, or discriminated against in respect of any employment or office under the State.

Nothing in this article shall prevent the State from making any law prescribing, in regard to a class or classes of employment or appointment to an office under the Government of, or any local or

other authority within a State or Union territory, any requirement as to residence within that State or Union territory, prior to such employment or appointment.

Nothing in this article shall prevent the State from making any provision for reservation in matters of promotion, with consequential seniority, to any class or classes of posts in the services under the State in favor of the Scheduled Castes and the Scheduled Tribes which, in the opinion of the State, are not adequately represented in the services under the State.

Articles 15 and 16 are instances of the same right in favor of citizens in some special circumstances. Article 15 is more general than Article 16, the latter being confined to matters relating to employment or appointment to any office under the State.

Article 15 does not mention descent as one of the prohibited grounds of discrimination as Article 16 does".

The Central government plans to appoint a development officer in panchayats across the country, to accelerate the implementation of rural development schemes. The officer will play the role of a 'catalyst' and address issues of service delivery.

The Central government plans to appoint a development officer in each of the 2.4 lakh panchayats to accelerate the implementation of rural development schemes.

Broad understanding of Art. 16

- Clause 1 is a general rule that there shall be equal opportunity for all citizens in matters of employment.
 - Clause 2 specifies reasons due to which citizens cannot be discriminated against.
- Clause 3 provides that if necessary, the State may prescribe residence requirement within that State for employment.
- Clauses 4 and 4A empower the State to reserve jobs and promotion opportunities favoring certain classes.
 - Clause 5 allows persons of religious denomination in institutions of religious affairs.

Article 17: Abolition of Untouchability

Article 18: Abolition of Titles

Article 19: Protection of certain rights regarding freedom of speech etc.

• Clause 1 – All citizens shall have the right

a. to freedom of speech and expression

b.to assemble peaceably and without arms

cite form associations or unions

d.to move freely throughout the territory of India

e.to reside and settle in any part of the territory of India

f.[to acquire, hold and dispose of property and]

g. to practice any profession or to carry on any occupation, trade or business.

Mahseer – whether it is conserved under Wild Life Protection act

Article 20 – Protection in respect of conviction for offences.

• Clause 1 - No person shall be convicted of any offence except for violation of law in force at the time of the commission of the charged as an offence, nor be subjected to a penalty greater than that which might have been inflicted under the law in force at the time of the commission of the

offence.

Article 26 – Freedom to manage religious affairs. Subject to public order, morality and health every religious denomination or any section thereof shall have the right –

- a. To establish and maintain institutions for religious and charitable purposes;
- b. To manage its own affairs in matters of religion;
- c. To own and acquire movable and immovable property; and
- d. To administer such property in accordance with law.

Article 27 – Freedom as to payment of taxes for promotion of any particular religion.

• No person shall be compelled to pay any taxes, the proceeds of which are specifically appropriated in payment of expenses for the promotion or maintenance of any particular religion or religious denomination.

Article 28 – Freedom as to attendance at relgious instruction or religious worship in certain educational institutions.

- Clause 1: No religious instruction shall be provided in any educational institution wholly maintained out of State funds.
- Clause 2: Nothing in clause 1 shall apply to an educational institution which is administered by the State but has been established under any endowment or trust which requires that religious instruction shall be imparted in such institution.
- Clause 3: No person attending any educational institution recognized by the State or receiving aid out of State funds shall be required to take part in any religious instruction that may be imparted in such institution or in any premises attached thereto unless such person or, if such person is a minor, his guardian has given his consent thereto.

Administrative Division (VII Schedule): There are three lists under this

1. Union list: Defense, External affairs, Article -246, Railways, P&T (Port and

Telegraph)

2. State list: Agriculture, Fisheries, Land Revenues, Minor port, Police, Primary

education

3. Concurrent list: Under Union as well as state list, higher education, forests, trade and

commerce.

4. Panchayat list (73rd & 74th Amendment)

Union List:

Article 246 Railways, Atomic energy, entering into treaties with other countries, Citizenship and naturalization of aliens, Maritime shipping and Navigation, Ports (major with central govt and minor one under state govt)

Commercial banks-Reserve bank of India, Trade and Commerce, Regulation and Development, Mineral Oil and petroleum resources, Insurance. Minor irrigation is also part of state list-Forest is mostly under state list but slowly it is moving under union list.

In the year 1992-1993, two amendments were brought to constitution 1.e 73rd and 74th amendment. 73rd Amendment is concerned with Panchayat system. 74th Amendment is concerned with Urban Corporatio

Panchayat also has jurisdiction over 29 subjects according to amendment 73rd and 74th . It is there in XI the schedule and article 243 G. Subject matter includes

- Agriculture
- Fisheries
- Land improvement
- Minor forest produce
- Animal husbandry, poultry
- Small Scale industries
- Rural housing
- Non conventional energy source
- Education including primary and secondary schools
- Health and Sanitation
- Market & Fairs
- Maintenance of community assets-forest, floral & fauna, water bodies

Indian Easement Act 1922

The common law doctrine of riparian rights has been codified under Indian easement act 1999. Section 7 deals with the pollution. Every riparian owner is entitled to the continued flow of water of natural stream in its natural condition without any obstruction or pollution.

An upper riparian owner can't so use the waters of a stream which will injure the rights of a lower riparian in those waters. However, every riparian owner has a right of reasonable use of water. There is an equality of rights in water by all the riparian owners so long as there is no interference with the rights of the other riparian owner.

Indian penal code- 1860

Under section 277 of Indian penal code whoever voluntarily corrupts or fouls the water of a public spring or reservoir so as to render it less fit for the purpose for which it is ordinarily used shall be punished with imprisonment, fine or both. Pollution of water other than springs and reservoir was covered under section 290. It provides whoever commits public nuisance in any case is punishable.

Section 269 provides for punishment of people who spread the infection of any dangerous to life shall be punishable. Water pollution could also be punished under section 423 of Indian penal code.

Factories Act 1948

It is a social welfare organization intended to secure health, safety and welfare of water. Section 12 deals with disposal of trade wastes and affluent. This section provides for

- 1. Effective arrangement shall be made in every factory for disposal of waste effluent due to manufacturing process carried by the factory.
- 2. The state govt. should make the rule prescribing the arrangement to be made under subsection of section12

No court shall take obligation of any offence under this act except on a complaint or with the previous sanction of an inspector.

Municipal Status

Labour laws

Indian labour law refers to laws regulating employment in India. There are over fifty national laws and many more state-level laws. Traditionally Indian governments at federal and state level have sought to ensure a high degree of protection for workers.

So for instance, a permanent worker can be terminated only for proven misconduct or for habitual absence. In Uttam Nakate case, the Bombay High Court held that dismissing an employee for

repeated sleeping on the factory floor was illegal - a decision which was overturned by the Supreme Court of India.

Moreover, it took two decades to complete the legal process. In 2008, the World Bank has criticized the complexity, lack of modernization and flexibility in Indian regulations. India can boast of a quarter of the world's workforce by 2025, provided the country harnesses the potential of its young and productive population.

Collective labour law

The Industrial Disputes Act (1947) requires companies employing more than 100 workers to seek government approval before they can fire employees or close down. In practice, permissions for firing employees are rarely granted.

- Trade Unions Act 1926
- Provisions of the Factories Act, 1948

Individual labour law

All India Organisation of Employers points out that there are more than 55 central labour laws and over 100 state labour laws.

The Contract Labour Act (1970) prohibits companies from hiring temporary workers. Women are not permitted to work night shifts.

- Minimum Wages Act 1948
- Weekly Holidays Act 1942
- Beedi and Cigar Workers Act 1966
- The Payment of Wages Act, 1936
- The Workmen's Compensation Act, 1923
- The Factories Act, 1948

Marine fisheries lagislation:

42 of 1981)

The following four major legal instruments of the Central government, described below, directly govern fisheries activities:

- The Indian Fisheries Act, 1897
- The Maritime Zones of India (Regulation of fishing by foreign vessels Act, 1981 (No.
- The Maritime Zones of India (Regulation of fishing by foreign vessels) Rules, 1982
- The Operation of Deep Sea Fishing Vessels, 20m OAL and above, Notifications dated 14 December 2006
 - Merchants shipping act
- 35A. Application of Part-- Save as otherwise provided, this Part applies to every Indian fishing boat.
 - 435B. Definition-- For the purposes of this Part, "Indian fishing boat" means--
 - (a) Ever fishing vessel, as defined in clause (12) of section 3;
- (b) Every sailing vessel, whether or not fitted with mechanical means of propulsion, solely engaged in fishing for profit;
- (c) Every boat or craft of any other type used solely for fishing which the Central Government may, by notification in the Official Gazette, specify to be a fishing boat for the purposes of this section.
 - 435C. Obligation to register-- Every Indian fishing boat shall be registered under this Part.

 Provided that any Indian fishing boat registered at the commencement of this Part under Part V

or Part XV of this Act or any other law for the time being in force in India shall be deemed to have been registered under this Part.

Provided further that every Indian fishing boat so deemed to have been registered shall be reregistered under this Part within such period from the commencement of this Part as the Central Government may, by notification in the Official Gazette, specify.

Provided also that registration of non-mechanised sailing vessels will commence in different parts on such dates as the Central Government may, by notification in the Official Gazette, specify.

- 435D. Port of registry-- (1) The ports at which registration of Indian fishing boats shall be made shall be such ports or places in India as the Central Government may, by notification in the Official Gazette, declare to be ports or places of registry under this Part.
- (2) The port or place at which an Indian fishing boat is registered for the time being under this Part, shall be deemed to be her port or place of registry and the port or place to which she belongs.
- 435E. Registrars of Indian fishing boats—The Central Government may, by notification in the Official Gazette, appoint an officer to be registrar of Indian fishing boats (hereafter in this Part referred to as registrar) at every port or place declared as a port or place of registry under sub-section (1) of section 435D.
- 435F. Application for registry-- An application for the registry of an Indian fishing boat shall be made-
- (a) In the case of an individual, by the person requiring to be registered as owner or by his agent;
- (b) In the case of more than one individual requiring to be so registered, by one or more of the persons so requiring or by his or their agent or agents, as the case may be; and
- (c) In the case of a company or a co-operative society requiring to be so registered, by its agents; and the authority of the agent shall be testified in writing, if appointed by an individual under the hand of the person appointing him and, if appointed by a company or a co-operative society under its common seal.

435G. Certificate of registry-

- (1) The owner of every Indian fishing boat required to be registered under this Part shall make an application in the prescribed form to the registrar for the grant to him of a certificate of registry in respect of the fishing boat.
- (2) The owner of every Indian fishing boat in respect of which an application under sub-section (1) is made, shall cause the tonnage of the fishing boat to be ascertained in the prescribed manner.
- (3) The registrar may make such inquiry as he thinks fit with respect to the particulars contained in such application shall enter in a register to be kept for the purpose (hereinafter referred to as fishing boats register) the following particulars in respect of the Indian fishing boat, namely:--
 - (a) The name of fishing boat, the place where she was built and the port to which she belongs;
 - (b) The rig, type and tonnage of the fishing boat;
 - (c) The number assigned to the fishing boat;
 - (d) The name, occupation and residence of the owner of the fishing boat;
 - (e) The mortgages, if any, effected by the owner in respect of the fishing boat; and
 - (f) Such other particulars as may be prescribed.
 - (4) After the particulars in respect of the Indian fishing boat have been entered in the fishing boats

register under sub-section (3), the registrar shall grant to the applicant a certificate of registry in the prescribed form.

- (5) The owner of every Indian fishing boat shall pay for each certificate of registry a fee according to such scale as may be prescribed by the Central Government having regard to the tonnage of the fishing boat, but in no case exceeding one rupee per ton of its gross tonnage.
- (6) An Indian fishing boat required to be registered under this Part but not so registered may be detained by a proper officer until the owner, skipper, tindal or other person in charge of the fishing boat produces a certificate of registry in respect of the fishing boat.
- 435I. Change of name of Indian fishing boat-- A change shall not be made in the name of an Indian fishing boat registered under this Part except in accordance with rules made in this behalf.
- 435J. Special provision for Indian fishing boats-- Every Indian fishing boat registered under this Part shall carry on board such life saving appliances and fire appliances as are prescribed by rules made under section 288, 289 and 457 or under any other provision of this Act, subject to such exemptions as may be specially granted in respect of such fishing boat.
- 435K. Certificate of inspection-- (1) No Indian fishing boat shall ply or proceed to sea unless there is in force in respect of that fishing boat a certificate of inspection granted under this Part.
 - (2) A certificate of inspection in respect of an Indian fishing boat shall specify—
 - (a) the name and tonnage of the fishing boat;
 - (b) the name of skipper, tindal or other person in charge of the fishing boat;
 - (c) the maximum number of members of crew the fishing boat is certified to carry;
 - (d) the safety equipments and appliances the fishing boat is required to carry on board;
- (e) such other matters as the Central Government may think fit to specify. and shall contain a statement to the effect that her hull, rigging, equipment and machinery where fitted are in good condition.
- (3) Every certificate of inspection shall be in force from the date of issue for a period of one year or for such shorter period as may be specified therein.

Provided that when an Indian fishing boat is at sea at the time of expiry of the certificate, the certificate shall continue to be valid until her first arrival at a port or place in India.

- 435L. Cancellation, re-issue etc. Of certificate of inspection-- Where at any time subsequent to the issue of a certificate of inspection in respect of an Indian fishing boat, the registrar has reason to believe that the fishing boat is not fit to proceed to sea, he may, after giving the owner an opportunity of making a representation, cancel such certificate.
- 435M. Inspection of safety equipments and appliances—(1) Any surveyor appointed under section 9, any registrar appointed under section 435E or any other officer appointed by the Central Government in this behalf by notification in the Official Gazette may at any reasonable time inspect any Indian fishing boat for the purpose of seeing that she is properly provided with safety equipments and appliances in conformity with the rules referred to in section 435J.
- (2) If the sruveyor, or, as the case may be, the registrar or other officer appointed under subsection (1) finds that the Indian fishing boat is not provided with the aforesaid equipments and appliances, he shall give to the owner, skipper or tindal or any other peson in charge of the fishing boat a

notice in writing pointing out the deficiency and also what in his opinion is requisite to remedy the said deficiency.

- (3) No Indian fishing boat served with a notice under sub-section (2) shall proceed to sea until it obtains a certificate signed by the surveyor, registrar or other officer appointed under sub-section (1) to the effect that it is properly provided with safety equipments and appliances in conformity with the aforesaid rules.
- 435N. Registration of alteration—When an Indian fishing boat is so altered as not to correspond with the particulars relating to her entered in the certificate of registry, the owner of such fishing boat shall make a report of such alterations to the registrar of the port or place where the fishing boat is registered, and the registrar shall either cause the alterations to be registered, or direct that the fishing boat may be registered anew, in accordance with such rules as may be made in this behalf.

The need for a more robust and forward-looking law has been addressed most recently by the development of the Draft Maritime Zones of India (Regulation of Fishing and Fisheries) Act. A draft note to Cabinet was prepared and circulated to 26 agencies for comment, but at the time of writing no further progress has apparently been made and the draft was not available for review.

The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976 of India, recognizes the sovereign rights over conservation and management of living resources in the Indian exclusive economic zone, as well as their exploration and exploitation.

It empowers the central government to make rules for conservation and management of the living resources of the exclusive economic zone, and the protection of the marine environment.

The fisheries legislation that followed this Act, the Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act, 1981 and the Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Rules, 1982.

Neither instrument includes any reference to conservation or management. This is not to say that the potential of the conditions to the license and permit cannot be creatively used. The entire mandate as well as the rationale of the above Act and Rules was a response to increased poaching activities by foreign fishing vessels and thus to regulate fishing.

The conditions that may be attached to such license or to the permit can be used to promote sustainable fisheries management as per global standards and trends. The need is to lay out these frameworks so that principles can be integrated into the license or permit regime.

Globally fisheries laws are increasingly including in their terms the objectives and principles that have been agreed and are evolving – they provide an important guide for the conditions of license, management decisions, etc.

Two recent Notices relating to Deep-Sea Fishing allow operation of Deep Sea Fishing Vessels (20 meters OAL and above) under joint venture. The Inter Ministerial Empowered Committee on Marine Fisheries (EC) is to consider proposals "on merit and vessel wise", but again there is no reference to management of the resource.

The only Indian legislation which refers to "undertaking measures for the conservation and

management of offshore and deep-sea fisheries" is the Marine Products Export Development Authority Act, 1972, but no management measures appear to exist under this Act.

There is still an absence of a legal regime to manage fisheries operated by Indian nationals using vessels of Indian origin in the EEZ. Another serious gap includes the absence of legislation on gear selectivity to address the negative impact of bottom trawling on fisheries resources and fish habitats.

Although, the State Marine Fishing Regulations do prescribe the methods of fishing, the areas as well as the as kind of gears that are essential, automatic extension to EEZ areas may not be clearly linked. In practice, because the vessels originate from state ports and landing places, the state regulations apply to them regardless of where they are fishing.

The Maritime Zones of India (Regulation of fishing by foreign vessels) Rules, 1982

The Rules cover definitions that are supplementary to those in the Act, but which still do not adequately provide a sound basis for implementation and enforcement.

They require certain information to be provided on license applications, but this needs to be updated to implement international instruments and address modern technology and regional and international requirements for the exchange of information.

The Rules empower the Central Government to grant a license for a range of activities that are not contemplated in the Act, and do not fall within the definition of "fishing":

- taking on board any outfit or supplies while at sea;
- landing fish or fish products,
- purchasing or obtaining bait, outfits, provisions or supplies (including fuel) at an Indian
- port;
 Effecting repairs at an Indian port.

There is no provision for a corresponding offence or penalty for carrying out these activities without a license. This appears to be a major inconsistency that may be challenged.

Other activities for which a license may be granted are included in the definition of "fishing" in the Act, and refer to commercial fishing, transshipment or supply at sea, processing at sea and transporting fish from the fishing grounds.

They should be reexamined for scope and consistency with other laws covering processing on land and transporting fish generally, not just from the fishing grounds to port. In the latter case, activities involving transshipment at port and transport to another port would not be covered.

The issue of transshipment at sea was discussed at the Fifth Meeting of the Inter-Ministerial Empowered Committee on Marine Fisheries, held on 24 January 2007. The Meeting reviewed the decision taken at the Fourth Meeting of the EC, held on 18 July 2006 that "Mid-sea transfer of stocks should be discouraged. As a first step, it was decided that henceforth transshipment would be permitted only within 24 nautical miles or the Contiguous Zones.

It would appear so because Contiguous Zones are declared for customs, fiscal, immigration or sanitary reasons, which are relevant to transshipments.] It was also decided that transshipment of tuna catches should be done only into carrier vessels, which are in the approved list of the IOTC".

It agreed that a new condition should be added, and this information was circulated to companies fishing. Concerns of the companies were subsequently discussed in various flora, but information on the outcomes was unavailable.

The result is that, although transshipment requirements may be included in individual Letters of Permission for vessels to fish in India's EEZ, there are a number of situations that are not now covered, including those that India is required to implement as a member of the Indian Ocean Tuna Commission. Separate sections deal with the term of validity for licenses (directed at owners of foreign vessels) and permits (directed at Indian citizens who charter foreign vessels).

There is no requirement for the government to maintain a register of licenses or permits, or implement the rules of a regional fisheries management organization (RFMO). There is a requirement for the vessel to display the license or permit on board the vessel.

Significantly, the terms and conditions of licenses and permits are very different. For licenses – valid for the length of time on the permit - they are directed at fishing activities, such as reporting, employment of crew, fishing/transporting/processing only in accordance with the terms of the license, communication equipment, storage of fishing gear, research, observers, inspection and vessel identification.

For permits – valid for up to five years – the terms and conditions include to payment for the permit, expertise in fishing, bank guarantee, percentage of crew to be Indian citizens, settlement of disputes, submission of valuation and seaworthiness and safety certificates and other areas directed largely at corporate, rather than fisheries management.

In respect of fisheries management, the Rules only prohibit some forms of fishing (for protected species and coastal shrimps) and impose a duty on the charterer to ensure that the vessel reports to an authorized officer before and after every fishing voyage.

The Rules, particularly those relating to chartered vessels, do not allow for fisheries management, including relevant requirements under the UN Fish Stocks Agreement, and under RFMO conservation and management measures.

Some general provisions govern transit, permitting scientific research and prohibiting damage to Indian vessels, fishing in territorial waters and use of explosives. Offences under the Rules are punishable by a maximum Rs50, 000 fines. Compared to other jurisdictions, this is very low and the deterrent effect could be very low.

Higher fines for "serious offences", such as those described in Article 21 of the 1995 UN Fish Stocks Agreement, are not distinguished.

The forms appended to the Rules are outdated and need review and revision to allow for fisheries management and implementation of international instruments, including the license application, license, catch data, discards, protected species, daily records, processing on board and voyage of chartered vessels.

The licensing procedures should be reviewed in order that a modern, transparent and accountable process can be established by law.

Unit - 4

Laws and policies related to the environment The Environment Protection Act, 1986

Is an umbrella legislation designed to provide a framework for the Central Government to co-ordinate the activities of various Central and State authorities established under previous laws, and to bring about uniformity in regulations. It has provisions to allow the making of rules for various activities and areas of concern/interest, and hence it is an 'enabling' law.

The Act empowers the Central Government to take appropriate measures for the purpose of protecting and improving the environment. It is authorised to lay down standards for controlling emissions and effluent discharges of environmental pollutants, to regulate industrial locations, to prescribe procedures for managing hazardous substances, to establish safeguards for preventing accidents, and to collect and disseminate information regarding environment pollution.

In accordance with this act, the central government has issued a number of rules and not Regulations as Regulations connote a different meaning in India.

Ecosystems and landscapes can be notified Ecologically Sensitive Areas (ESA). This would enable control or restriction of certain identified commercial, industrial and development activities. Potentially a strong tool to fight against commercial and industrial pressures.

Subsequent notifications under the Environment Protection Act have also made it mandatory to conduct environmental impact assessments (EIAs) for specified developmental activities and have made public hearings mandatory for all developmental activities.

The scope of public hearing has drastically reduced in the most recent EIA notification of 2006. The discharge of pollutants is regulated, inspection schemes are provided, and the location of certain industries in coastal zones are prohibited and restricted. The ecologically sensitive areas such as habitats of turtles (this more under the Wildlife Act and not so much under the EPA) but does this Act still provides

The Water (Prevention and Control of Pollution) Act, 1974

Article 252: Power of parliament to legislate for 2 or more states by consent and adoption of such legislation by any other state. It shall be lawful for the parliament to pass an act for regulating that matter and any act so passed shall apply to such states and to any other state by which it is adopted afterwards.

This Act provides for the protection of the coastal sea from land-based sources of pollution subject to the discretion of the state government. The main provisions aim at prevention and control of water pollution as well as restoration of water quality through the establishment of State Pollution Control Boards.

In conjunction with the Coastal Regulation Zone Notification of 1991 under the Environment (Protection) Act, 1986, the Act can contribute to regulating land-based sources of pollution in the coastal waters up to a maximum distance as decided by the State government.

Most SPCBs claim a very active role with respect to the coastal industries. The Annual Reports of the SPCBs do provide some background in terms of the action taken by the respective coastal state in terms of curbing pollution to the sea.

In 2003, it was reported that no known attempt has been made in any maritime State of India to protect the coastal waters from land-based sources of pollution other than an initiative taken by the Maharashtra Government for the treatment of sewage in Mumbai.

Functions of state pollution board

- To inspect trade effluents, work and plans for treatment of trade effluents under section 17 (7)
- To lay down, modify on annual effluent standards for the trade effluents and for the quality of receiving waters resulting from discharging effluents.
- To advice the state government for location of an industry or industrial activity.
- To take samples of trade effluents being discharged from any plants and to have them analyzed Eg: Harihar poly-fibers near Harihar causing major fish kill

Civil suit is also allowed in water act. i.e. an individual is also allowed for inspection of the effluent.

The Air (Prevention and Control of Pollution) act, 1981

The Air (Prevention and Control of Pollution) Act was enacted in 1981 and amended in 1987 to provide for the prevention, control and abatement of air pollution in India.

This act to provide for the prevention, control and abatement of air pollution, for the establishment, with a view to carrying out the aforesaid purposes, of Boards, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.

Whereas decisions were taken at the United Nations Conference on the Human Environment held in Stockholm in June, 1972, in which India participated, to take appropriate steps for the preservation of the natural resources of the earth which, among other things, include the preservation of the quality of air and control of air pollution and whereas it is considered necessary to implement the decisions aforesaid in so far as they relate to the preservation of the quality of air and control of air pollution.

Central Board for the Prevention and Control of Air Pollution.

The Central Board for the Prevention and Control of Water Pollution constituted under section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), shall, without prejudice to the exercise and performance of its powers and functions under this Act, exercise the powers and perform the functions of the Central Board for the Prevention and Control of Air Pollution under this Act.

Functions of Central Board.

- (1) Subject to the provisions of this Act, and without prejudice to the performance, of its functions under the Water (Prevention and Control of Pollution) Act, IL974 (6 of 1974), the main functions of the Central Board shall be to improve the quality of air and to prevent, control or abate air pollution in the country.
- (2) In particular and without prejudice to the generality of the foregoing functions, the Central Board may-

- (a) Advise the Central Government on any matter concerning the improvement of the quality of air and the prevention, control or abatement of air pollution;
- (b) Plan and cause to be executed a nation-wide programme for the prevention, control or abatement of air pollution;
- (c) Co-ordinate the activity of the State and resolve disputes among them;
- (d) Provide technical assistance and guidance to the State Boards, carry out and sponsor investigations and research relating to problems of air pollution and prevention, control or abatement of air pollution.
- (e) Plan and organize the training of persons engaged or to be engaged in programmes for the prevention, control or abatement of air pollution on such terms and conditions as the Central Board may specify.
- (f) Organize through mass media a comprehensive programme regarding the prevention, control or abatement of air pollution;
- (h) Lay down standards for the quality of air.,
- (i) Collect and disseminate information in respect of matters relating to air pollution;
- (j) Perform such other functions as may be prescribed.
- (3) The Central Board may establish or recognize a laboratory or laboratories to enable the Central Board to perform its functions under this section efficiently.

Functions of State Boards

- (1) Subject to the provisions of this Act, and without prejudice to the performance of its functions, if any, under the Water (Prevention and Control of Pollution) Act, 1974 (Act 6 of 1974), the functions of a State Board shall be-
 - (a) To plan a comprehensive programme for the prevention, control or abatement of air pollution and to secure the execution thereof-,
 - (b) To advise the State Government on any matter concerning the prevention, control or abatement of air pollution;
 - (c) To collect and disseminate information relating to air pollution;
 - (d) To collaborate with the Central Board in organizing the training of persons engaged or to be engaged in programmes relating to prevention, control or abatement of air pollution and to organize mass-education programme relating thereto;
 - (e) To inspect, at all reasonable times, any control equipment, industrial plant or manufacturing process and to give, by order, such directions to such persons as it may consider necessary to take steps for the prevention, control or abatement of air pollution;
 - (f) To inspect air pollution control areas at such intervals as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas;
- (2) A State Board may establish or recognize a laboratory or laboratories to enable the State Board to perform its functions under this section efficiently.

National Environment Policy 2006

A National Environment Policy was adopted by Cabinet in 2006, giving rise to a range of issues, some of which are parallel to concerns about fisheries law and policy.

The industry-friendly aspects of the environmental reforms have been criticized by a broad base of environmental supporters.

The Policy itself has no timelines, institutional responsibilities or targets, but instead offers measures and possible action plans that may or may not materialize.

The Policy does refer to fisheries, but only indirectly in terms of the effect that environmental degradation could have on fisheries and food for the poor, the need for wetlands and the desirability of building adequate environmental safeguards into development projects in the islands, in particular those relating inter alia to deep sea fishing.

A key concern of stakeholder groups is the Policy's objective of decentralization (also in the Fisheries Policy) and the lack of human capacity to implement it effectively.

The question of whether existing sectoral policies would be replaced, such as those relating to forest, water, biodiversity and pollution, does not appear to have been addressed. Another issue is that other environmental laws have been disregarded, such as the Wildlife Protection Act, 1972 or the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988. The lack of transparency in developing the Policy was a prominent and widespread concern.

The process for environmental governance described above impacts on the fisheries sector because of the nature of the process and the decisions being taken that affect the fisheries sector.

It was explained that proposed environmental legislation declares that law to be paramount, so if there is any conflict between environmental and fisheries laws, the former would prevail.

Here again, some of the basic rules of interpretation needs to be adhered to give primary to one sector over the other.

In case of a recent versus old legislation, the latest would ordinarily prevail. In case of special versus general legislation, the special legislation prevails.

Integrated coastal and ocean management (ICM)

ICM can be defined as "a continuous and dynamic process by which decisions are taken for the sustainable use, development, and protection of coastal and marine areas and resources".

ICM involves the application of a set of principles: overarching principles, principles related to environment and development, and principles related to the special character of oceans and coasts. Overarching principles guiding ICM are: (1) sustainable development, and (2) integration.

The Basic Act on Ocean Policy entered into force in 2007, and "Integrated Coastal Management (ICM)" was stipulated in Article 25 of the Act. This was the first time that the concept was stipulated as a law in Japan. Through this action, ICM was clearly defined as one of the twelve fundamental measures that Japan should promote, and for which necessary measures must be taken.

In the Revised Basic Plan on Ocean Policy of 2013, it is stated that measures should be promoted to manage land areas and sea areas in an integrated manner by revitalizing coastal areas, preserving and reclaiming the marine environment, taking countermeasures against natural disasters, and improving convenience for local residents.

In an effort to assist the model sites, we carried out an "Investigative Research on the Implementation of ICM", subsidized by The Nippon Foundation as the second phase, three years from FY 2013. During that period, we tried to have the Japanese government institutionalize ICM, as was

presented in the "Policy Proposal for Promoting ICM" by OPRI, and we also tried to ensure six actions/steps to be taken by local governments towards implementing ICM.

In collaboration with local governments, OPRI supported a smooth transition at ICM model sites to the implementation stage and the establishment of independent actions by the communities. In this process, we will examine the challenges and issues of implementing Integrated Coastal Management.

Based on the results, we will make proposals for ways to implement and support Integrated Coastal Management by communities.

Functions

- Area planning- Plan for present and future uses of coastal and marine areas, Provide a long-term vision
- Promotion of economic development- Promote appropriate uses of coastal and marine areas (e.g., marine aquaculture, ecotourism)
- Stewardship of resources- Protect the ecological base of coastal and marine areas, Preserve biological diversity, Ensure sustainability of uses
- Conflict resolution- Harmonize and balance existing/potential uses, Address conflicts among coastal and marine uses
- Protection of public safety-Protect public safety in coastal and marine areas typically prone to significant natural, as well as human-made, hazards
- Proprietorship of public submerged lands and waters- As governments are often outright owners of specific coastal and marine areas, manage government-held areas and resources wisely and with good economic returns to the public

Legislations Related to Protected Area Management Indian Forest Act, 1927

The Indian Forest Act, 1927 provides for the conversion of reserved forests into Village Forests (VFs) if the local communities ask for the same and fulfil certain requirements as per the act.

The concerned communities are then vested the powers of the Forest Department for the management of VFs. Many communities conserving forest ecosystems could apply for their Community Conserved Areas (CCAs) to be declared VFs.

This could be one of the best legal supports for the forest CCAs as this leaves the institutional arrangements, rules and regulations largely to the local communities as long as the objective of effective management and protection is fulfilled.

This act is a colonial legislation aimed more to secure a permanent supply of timber and technically facilitate control and custodianship of forests in the present context.

The focus is not on forest biodiversity but on controlling and regulating the timber trade. The relevance of this Act to fisheries would be primarily in terms of habitat, and it would be applicable more to coastal fisheries than operations in the EEZ.

Some of the coastal states such as Gujarat and Orissa among others have also used this Act to declare certain mangrove forests as reserve forests and this has direct implication on coastal fisheries as well as aquaculture. Some of these areas are then automatically considered to be the highly protected CRZ I areas.

Wildlife (Protection) Act, 1972, amended in 1983, 1986 and 1991, 1993, 2002, 2006

Two new categories of Protected Areas (Pas), namely Community Reserves and Conservation Reserves have been added. Community Reserves can be declared on privately owned or community lands (the definition of which is not clear).

Conservation Reserves can be declared by the government on government owned lands in consultation with the local people. Community Reserves can provide legal support to CCAs on private or community lands.

Conservation reserves, for the first time in Indian wildlife conservation history, provide a space for consultation with local people declaration of a reserve, and to seek their inputs in management.

The Wildlife (Protection) Act provides for the protection of wild plants and animals and regulates hunting, trade and collection of specific forest products. Certain tribes are however, allowed to pick, collect or possess specified plants for their personal use.

The revised Act also provides a licensing system to regulate cultivation and trade of specified plants in a pattern similar to the trade in fauna. Licensees are required to declare their stocks and follow prescribed procedures.

Ten species of shark, Rays, seahorses, sea cucumbers, giant grouper and some mollusc species have been listed in Schedule I of the Act, which prohibits hunting and trading in these species. There are some more endangered species such as Sperm Whale and others which are given equal protection as Scheduled I under the Wildlife Act.

Then there are other marine species including Sponges some sea snakes, other types of Molluscs given a lesser degree of protection under Schedule III or IV of the Wildlife Protection Act.

The Act adopts a two- pronged conservation approach: specified endangered species are protected regardless of location, and all species are protected in designated areas, called sanctuaries and national parks.

There are two more protected areas category called Conservation and Community Reserves. The declaration and management of conservation reserves is also aimed at protecting seascapes.

However, most importantly any area comprised within any part of the territorial waters which is considered by the state government to be of adequate ecological, faunal, flora, geomorphologic, natural or zoological significance for the purpose of protecting, propagating or developing wildlife or its environment, is to be included in a sanctuary or a national park, the State Government can create such a sanctuary or a national park by issuing a notification specifying the limits of the area which shall be comprised within the sanctuary or national park. There are three conditions to creation of such sanctuaries or national parks.

First, the prior concurrence of the Central Government is necessary to be obtained by the State Government and secondly, when the limits of the area of the territorial waters is to be included in the

sanctuary or national park it shall be determined in consultation with the Chief Naval Hydrographer of the Central Government and finally due care and adequate measures to be taken to protect the occupational interests of the local fishermen.

Another important development is the fact that the Wildlife Act is being revised under a sixteen member committee with a focus on criminal provisions and trade aspects of wild fauna and flora. Further, the criteria for scheduling species and the species covered under the schedules are all been revised by another group of experts. This will have a direct bearing on coastal and marine habitats both in terms of species protection and habitat protection.

Wild Life Protection Amendment Act 2006 (WLPA 2006)

This set up a National Tiger Conservation Authority (NTCA), and provides a process for notifying tiger reserves. Some provisions (such as the creation of Foundations with multiple stakeholder participation for each tiger reserve) could help initiate peoples participation in wildlife management.

Coexistence strategies in areas other than those to be made inviolate would also need to be explored, and relocation would only be under consent. The amendment is too recent to see any impacts on ground.

National Wildlife Action Plan, 2002-2016 (NWAP)

This plan deals with policy imperatives and strategic actions to conserve wildlife in and outside PAs, to manage these PAs, to prevent illegal trade on endangered species, to ensure peoples participation in the conservation of Wildlife, to promote ecotourism in PAs, among others.

The plan envisages the involvement of local communities residing in and around PAs in the management of natural resources. Their participation is recognized as an effective tool for the management of PAs.

According to this plan, local communities must participate in and benefit from ecotourism developments in wildlife areas. Community initiatives in conservation are also to be supported.

Marine national park and sanctuary

India's first Marine Sanctuary and National park is found in the Gulf of Kutch, Jamnagar District in Gujarat. The Marine sanctuary and the park located on the southern shore of the Gulf of Kutch were established in 1980 and 1982 respectively under the provisions of the Wildlife (Protection) Act, 1972 for the protection of threatened marine flora and fauna in the area.

Besides Mangroves, the major flora include sea grass and sea weeds, Saag, Sesam, Kheru, Limda etc. and the major Fauna are Coral lichen, Coral sponge, Green sponge, Puffer Fish, turtles, dolphins, crabs, Prawns, Sea anemones, Jelly Fishes, Starfishes, octopus etc.

In all, the area supports 37 species of hard and soft corals, 70 species of sponges, 150-200 species of fishes, 27 species of prawns, 30 species of crabs, more than 200 species of molluscs, 3 species of endangered sea turtles, 3 species of sea snakes, 3 species of sea mammal, 94 species of water birds, 78 species of terrestrial birds and 108 species of brown, green and red algae. Some of the sea grass species 1qupport unique fauna like the endangered herbivorous marine mammal dugong and the sea horse.

Migratory sea turtle also depend on sea grass. Green Turtles from as far as Brazil come and breed along the coast of Gulf of Kutch and on the sea shore of Saurashtra. Besides Green sea turtle, Olive ridley turtle and Leather back turtle are also found visiting Gulf of Kutch. The Marine National Park is maintaining a hatchery at Madhupur near Porbandar and also some temporary hatcheries on islands near Okha and Dwarka.

CITES

CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

Widespread information nowadays about the endangered status of many prominent species, such as the tiger and elephants, might make the need for such a convention seem obvious. But at the time when the ideas for CITES were first formed, in the 1960s, international discussion of the regulation of wildlife trade for conservation purposes was something relatively new. With hindsight, the need for CITES is clear.

Annually, international wildlife trade is estimated to be worth billions of dollars and to include hundreds of millions of plant and animal specimens. The trade is diverse, ranging from live animals and plants to a vast array of wildlife products derived from them, including food products, exotic leather goods, wooden musical instruments, timber, tourist curios and medicines.

Levels of exploitation of some animal and plant species are high and the trade in them, together with other factors, such as habitat loss, is capable of heavily depleting their populations and even bringing some species close to extinction.

Many wildlife species in trade are not endangered, but the existence of an agreement to ensure the sustainability of the trade is important in order to safeguard these resources for the future. Because the trade in wild animals and plants crosses borders between countries, the effort to regulate it requires international cooperation to safeguard certain species from over-exploitation. CITES was conceived in the spirit of such cooperation.

Today, it accords varying degrees of protection to more than 30,000 species of animals and plants, whether they are traded as live specimens, fur coats or dried herbs.

CITES was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN (The World Conservation Union). The text of convention was finally agreed at a meeting of representatives of 80 countries in Washington DC., United States of America, on 3 March 1973, and on 1 July 1975 CITES entered in force.

CITES is an international agreement to which States (countries) adhere voluntarily. States that have agreed to be bound by the Convention ('joined' CITES) are known as Parties.

Although CITES is legally binding on the Parties – in other words they have to implement the Convention – it does not take the place of national laws. Rather it provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES is implemented at

the national level. For many years CITES has been among the conservation agreements with the largest membership, with now 175 Parties.

Biological Diversity Act 2002 (No. 18 of 2003)

The Biological Diversity Act 2002 has three main objectives:\

- > the conservation of biodiversity;
- > the sustainable use of biological resources;
- > Equity in sharing benefits from such use of resources.

Among its key provisions relevant to fisheries, it provides for measures to conserve and sustainably use biological resources, including habitat and species protection, environmental impact assessments (EIAs) of projects, and integration of biodiversity into the plans, programmes, and policies of various departments/sectors.

It also provides for the establishment of State Biodiversity Boards SBB at state level, and a National Biodiversity Authority (NBA) and most importantly biodiversity management committees (BMCs) at the local bodies' level which is defined to mean local self-government level. The role of BMCs would be quite critical in the coastal context.

The National Biodiversity Authority also has representation from the Ministries of Ocean Development, Agriculture and Science and Technology among others which has direct implications on the Coastal and Ocean Management from the biodiversity stand point.

The Biodiversity Act also provides for creation of biodiversity heritage sites which can be declared by the state government in consultation with the local bodies.

Further, the Central Government also has the power under this Act to notify threatened species and prohibit or regulate the collection of such species in any such biodiversity area.

By implications this could also include marine or coastal areas. Some organizations and people feel that the basic framework of the Act is problematic, since it accepts intellectual property rights on biodiversity, could be used to further commercialize biodiversity, and does not truly empower communities.

Others feel that the Act provides some potential for checking biopiracy, achieving conservation, and facilitating community action. They stress that a combination of strong rules, and amendments related to the above points, would help strengthen this potential. It is also relevant to add that the Biological Diversity Act is also a reflection of the commitment or the fact that the India is committed to the Convention on Biological Diversity.

Objectives of biodiversity Heritage Sites

Biodiversity is closely linked to ecological security and therefore human welfare. Such area often represents an interface between nature, culture, society and technology.

Creation of biodiversity heritage sites shall not put any restriction on any prevailing practice of local communities. The biodiversity heritage sites are defined as those areas that are unique, ecologically

fragile ecosystems, terrestrial, coastal, inland waters comprising of any one or more of the following component.

- ➤ Richness of wild as well as exotic species
- ➤ High endemism
- > Presence of rare and threatened species
- ➤ Keystone species
- ➤ Wild ancestors of domestic and cultured species. Preeminence of biological component represented by fossil bed and having significant, cultural, ethical and aesthetic value and are important for maintenance of cultural diversity.
- The State biodiversity beard shall invite suggestion for declaration of BHS through BMC's and other relevant and other community issues. The State biodiversity board should come up with list of areas which have to be designated as BHS.

Unit - 5

Laws relating to fish products and fish marketing

Introduction

In 1966, Karnataka enacted Agriculture Produce Market (Regulation) Act. Prior to that farmer used to sell the produce through commission agent/wholesalers without centralized marketing system.

Services provided by commission agent:

- Credit
- ➤ Gives advance to farmers (up to 80%)
- > Storing/marketing the produce
- > Take the risk of storing & marketing
- ➤ Arrangement for sale

Also merchant do not pay all amount at same time so commission agent also give merchant time to pay. On behalf of these services commission agent would collect a portion of value of product as commission from farmer (not from merchants). Later in 1966 the market regulation legislation was passed. Some important provision of this Act is:

- ➤ Centralization of agricultural produce marketing for better regulation
- As per this act there is a provision of declaring a product as a notified commodity in official gazette to bring it under per view of this act
- ➤ Maximum of 2% commission can be taken by commission agent (1% from farmer & 1% from merchant) but now only 1% from merchants
- Establishment of sub-market yard as a part of agricultural produce market
- Specialized market for a particular commodity

- Establishment of agricultural produce marketing committee
- ➤ Introduction of auction/tender/tender cum auction system
- ➤ With the help of world bank agricultural produce markets are established in taluks

Tender system: In tender form details like product code, merchant code and quoted price is filled & put in tender box & tender goes to person quoting maximum price. If two person quotes same price, the first merchant filling the tender is given the product.

Auction system:

Here is price is quoted by merchants in auction hall and merchant quoting max. Price is given the product. Auctioning can be done either from minimum price to subsequent increase (followed in APC market) or starting from maximum price and subsequent decrease in price (some part of Orissa & West Bengal).

Once a merchant quote a price he cannot deny buying the product at that price but the farmer still can refuse to sell the product at quoted price.

Several acts are enacted to ensure the welfare and safety of the consumers using agricultural products including fishery product. The main objectives of such acts and regulations are:

- > To prevent adulteration.
- > To regulate hygiene condition. Enacted
- > To ensure information to consumer
- > To provide product specification
- ➤ To provide specification for exports, sanctuaries.

Some important acts regulating fish products

- ➤ Prevention of food adulteration act, 1954: this act is basically enacted to prevent consumer being supplied with products having unwanted/unauthorized materials. It specifies the list of ingredients that can be used in products .use of any other additive can be considered adulteration even if the additive is safe.
- Essential commodity Act, 1955: It is a central act. It is being enforced by department of civil supplies, Ministry of consumer affairs. This act has several orders:
- > Vegetable oil & edible oil order, 1967
- ➤ Food product order, 1955
- Meat food product order, 1973-fish product under this order
- ➤ Milk and milk product order, 1992
- > Standard and weight measure Act, 1976
- Agricultural produce (marketing & grading Act, 1937)
- ➤ BIS Act: An Act to provide for the establishment of a Bureau for the harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto. It gives AGMARK certification for products meeting specified standards.
- Export quality control and inspection Act 1963: This act has the provision of setting up of body for inspection and regulation of products meant for export.

The APMC Act which was amended in 2006 as per the Central Government model (2003)

implements two main changes. They are allowing the retailer or processor to buy directly from the farmer thereby passing the commission agent and other intermediaries. Secondly, allowing contract farming.

Under the contract farming provision a buyer can directly contract (fishing/farming) produces. The buyer can also lease farmland/fishing vessels and create his own supply chain system. Overall the fishing firm/farmer would know the price and quantity in advance.]

Alternately, the farmer/fisher can continue to rely on commission agents for selling his catches. Thus the amended APMC Act has been the key factor in making the supply chain system sustained and organized. It facilitates the entry of organized retailers such as Reliance/ METRO and other big players.

In 2003 amendment in agriculture produce market (regulation) Act, farmers are allowed to sell their commodity directly to consumer/retailer (prior to this they can only sell their produce to APMC).

This is basically to promote contract farming. In contract farming the big retailers (metro company, Bangalore) finance the seed, feed & other inputs & buy the products from the farmers at predetermined price directly. Because of this 2003 amendment the centralized APMC market may get weathered slowly. Fish is a notified commodity only in Bangalore market but similar is not the case in Mangalore market in Karnataka. So farmers are paying commission @ 6% or even more.

Trade and other matters

The Genetic Engineering Approval Committee (GEAC) is the apex body constituted in the Ministry of Environment and Forests under 'Rules for Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells 1989, under the Environment Protection Act, 1986.

The Rules of 1989 also define five competent authorities i.e. the Institutional Bio safety Committees (IBSC), Review Committee of Genetic Manipulation (RCGM), Genetic Engineering Approval Committee (GEAC), State Biotechnology Coordination Committee (SBCC) and District Level Committee (DLC) for handling of various aspects of the rules.

Bio-safety data of approved GM crops

Biosafety data including comparative toxicity, allergencity and feeding studies in experimental animals is generated by applicants prior to seeking approval from GEAC as per "Rules for the manufacture, use, import, export & storage of hazardous micro organisms, genetically engineered organisms or cells, 1989" and "Revised Guidelines for Research in Transgenic Plants & Guidelines for Toxicity and Allergenicity Evaluation of Transgenic Seeds, Plants and Plant parts - 1998."

Domestic marketing of fish:

Domestic marketing of fish needs regulation of wholesale as well as retail trades with adequate thrust on hygiene while handling, transportation and storage. [Ministry of Agriculture, Govt. of India may initiate a network programme to identify the problem and to develop necessary infrastructure].

Popularization of domestic market, especially for shrimp and fish products, is essential creating some kind of a system on the lines of Anand Dairy, Gujarat or Sudha Dairy, Bihar.

In order to make the marketing activities successful, the local committee should have the representation from stakeholders, State department of marketing, State department of fisheries and members of municipality/ Gram panchayat. The market committee should levy a cess on the sale of fish

and fishery products for its maintenance.

Minimum support price: Fish is a high demand commodity and as it is a live material of buffer stock like grains is a difficult proposition. Evidently, providing support price is not possible.

Movement of fish/seed: There should not be any restriction on the movement of fish and fish seed from one state to another so long duly certified fish and seeds are transported. However, any consignment carrying diseased fish/seeds or banned fish, the state should confiscate the same and initiate legal action against the dealer/trader.

Inter departmental Coordination:

It is important to have an interdepartmental (irrigation, agriculture, fisheries and others) coordination committee towards the sharing of resources. This is essential to ensure rational utilization of resources, both physical and biological.

Experience suggests that apathy towards the importance of other sector has done greatest damage to multiple user resources.

Post harvest issue: Post harvest issues, such as value addition to agricultural produce, have become vital due to changed world order during the WTO regime. The State shall educate people in this regard for higher gain.

Generation of Data on Fisheries:

A mechanism should be developed under the overall supervision of the Ministry of Agriculture to collect data on a uniform and regular manner on various facets of fish and fisheries.

Consumer Protection and Regulations

Consumer protection focuses on the problems of consumers in relation to the sellers. The need for consumer protection arises due to the various malpractices adopted by sellers in the marketing process.

Consumers of food are susceptible to adulteration, spurious, hazardous substandard quality products. An important development in consumer protection is passing of Consumer Protection Act 1986, which provides a system for the protection of consumer rights and the redressed of consumer disputes.

Under the Act, consumer protection councils were established at the national state and district levels. The Act also provides for the establishment of Consumer Dispute Redressal agencies at the central state and district levels. The consumer rights are:

- Right to safety
- Right to choose
- > Right to be informed
- Right to be heard
- ➤ Right to seek redressal
- > Right to consumer education
- > Right to healthy management

Food safety and standards act 2006

GOI in 2006 enacted Food safety & standard Act. It consolidates the law relating food and establishment of food safety & standard authority of India for laying down scientific standard for food article and to regulate their manufacture, storage, distribution, sale & import to ensure availability of safe food for human consumption

An Act to consolidate the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption and for matters connected therewith or incidental thereto.

Under the Act, everyone in the food sector is required to get a license or a registration which would be issued by local authorities. The law will be enforced through State Commissioners of Food Safety and local level officials.

The organized as well as the unorganized food sectors are required to follow the same rules. There might have difficulty in adhering to the law, for example, with regard to specifications on ingredients, traceability and recall procedures.

The power to suspend the license of any food operator is given to a local level officer. FSSA will be aided by several scientific panels and a central advisory committee to lay down standards for food safety. These standards will include specifications for ingredients, contaminants, pesticide residue, biological hazards and labels.

The immediate adoption of international standards, without preparing the domestic food industry to meet the challenges, the implementation will be difficult. Moreover the FSSA is filled with bureaucrats instead of technocrats. The food industry participation is limited to two in number. Industry associations which play a crucial role in the development of the industry have excluded.

The Health Ministry's notification issued recently on the Prevention of Food adulteration (7th Amendment) Rules 2006 regarding the mandatory packaging rules will also made the industry in a disadvantageous position for more investment in packaging and labeling without any incentive.

More importantly, the industry doesn't have sufficient testing facilities to comply with the law. The law talks about international standards, risk assessment, risk communication and risk management. There are special provisions dealing with genetically modified (GMOs) food items.

There is no sufficient expertise or technical facilities are available in the country for the effective management of the food issues. The Act not mentioned anything about the small tea shops or "dhabas" working in the roadsides which provide livelihood for millions.

Right to Information Act, 2005

Because of efforts of Aruna Roy (ex IAS officer in Rajasthan) and many social activist this act came in to picture in 2005. All government entities union, state, local level are covered under this act.

Under this act government means any public authority which is established, constituted, owned , controlled or substantially funded by central government, state government or any other state establishment There is one central information commission (CIC) consisting of chief information commissioner and a max. of 10 central information commissioner.

CIC is an independent entity & it does not come under any government department. Only President of India can remove the commissioners after a thorough inquiry conducted by Supreme Court Under section (5) each public authority should appoint a public information officer.

He acts as a link between the information seeker & public authority. His job is to accept application with prescribed fees from the information seeker, collect the information from concerned section, and supply such information to the applicant. However public information officer may refuse to supply information if such information is exempted under section (8) of RTI Act.

The public authority[under sec.2(h)] means an institution established under constitution or any other law by notification issued by the appropriate government, body owned, controlled or substantially financed or NGO which are substantially financed.

Record includes any document, manuscript or file, reproduction of images or any other material through computer. Information means inspection of work, document, record, taking of notes, extracts certified copy. Public information officer can take maximum of 30 days to give information.

International law of the sea:

The 3rd United Nations Conference on Law of the Sea in 1973-1982 achieved the status of law in 1994. Until early 50's there were only international agreements for sharing of fishery resources.

The 1st United Nations Conference on law was held on 1958 followed by 1960 and a series of meetings during 1973-1982. According to United Nations Conference on law of seas, Part V EEZ of from territorial waters became the property of coastal states.

The doctrine of the freedom of the seas as it pertained to fisheries, rested upon two premises:

- ➤ The high seas fishery resources are inexhaustible
- Coastal states will not be able to control the resources beyond their territorial waters

However with the developments in fishing technology, shipping and transport, the above reasons were found to be wrong. Under part V of the UNCLOS 1973-1982 coastal states were granted the right to establish EEZs out to 200 nautical miles (370.4 kilometers) from the shore.

Within the EEZ the coastal state has "sovereign the rights for the exploring and exploiting, conserving and managing the fishery resources contained therein" If the coastal state has effective property rights to fishery resources within the EEZ, then the next and obvious question is the impact of EEZ on world capture fisheries.

It was estimated that 90 percent of the world commercial marine capture fisheries were harvested within the EEZ.

Reason for International Law of the Sea, 1982

- Freedom of seas
- Extension of territorial waters
- Rights of the coastal state like India, Bangladesh, Srilanka

Shared fish Stocks

- > Tranboundary stocks that cross the EEZ boundary into one or more neighboring EEZs.
- ➤ Highly migratory stocks such as tuna

> Straddling stocks: all stocks to be found within the EEZ and outside in the high seas.

These stocks which migrate from one EEZ to other EEZ. Through International negotiation and agreements resources can be shared if the two coastal states share same EEZ. Members of SAARC (South Asian Association for Regional Cooperation)-Nepal, Bhutan, India, Pakistan, Bangladesh, Srilanka, Maldives. -India can allow foreign vessels for fishing by chartering, licensing, joint ventures.

The maritime boundary agreement between India & Srilanka was held in 1974. According to this agreement the Adam bridge was the line of boundary. However Indian fishers are permitted to visit (kachhativu island area) without travel documents.

The traditional vessels rights were also protected but fishing vessels were not defined. However in 1976 agreement, there was a provision for granting rights to Srilankan fishing vessels in Indian EEZ as a short term arrangement but not vice-versa.

When Indian fisherman traditional rights were included by Sri-lankans, trawlers were not permitted. Both India & Sri Lanka are claiming rights for Kachhativu island for so many years.

- ➤ RFMO-Regional Fisheries Management Organization
- > NWAFO-North West Atlantic Fisheries Organization
- North East Atlantic Fisheries Organization
- ➤ Distinct water fishing states (DWF)- Japan, Spain. These countries do fishing in high seas (beyond 200 nm) all around the world.
- ➤ Sharing of straddling stock between two coastal states is done through RFMO.

RFMO sometimes called regional fisheries organization (RFO), is an international organization dedicated to the sustainable management of fishery resources in a particular region of international waters, or of highly migratory species.

RFMOs may focus on certain species of fish (e.g. the Commission for the Conservation of Southern Bluefin Tuna) or have a wider remit related to living marine resources in general within a region (e.g. the Commission for the Conservation of Antarctic Marine Living Resources).

This wide diversity of mandates and areas of application, and also effective implementation of regulations, opens up opportunities for illegal, unreported and unregulated fishing vessels. We need to establish collective RFMO property rights to both straddling and discrete fish stocks. Further absolute freedom to fish in the high seas should be eliminated.

It was observed that the RFMOs and freedom to fish in the high seas is now incompatible with the goals of conservation, sustainable use and optimum utilization of the world's capture fishery resources.

Convention on Fishing and Conservation of the Living Resources of the High Seas, 1958 can also be analyzed. However, it must be mentioned that India is not a party to the convention.

The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks is not mentioned in the course structure and since the FAO Code of Conduct is mentioned I am of the opinion that the same must be incorporated.

It sets out principles for the conservation and management of those fish stocks and establishes that such management must be based on the precautionary approach and the best available scientific information.

The Agreement elaborates on the fundamental principle, established in the Convention that States should cooperate to ensure conservation and promote the objective of the optimum utilization of fisheries resources both within and beyond the exclusive economic zone.

The Agreement attempts to achieve this objective by providing a framework for cooperation in the conservation and management of those resources.

It promotes good order in the oceans through the effective management and conservation of high seas resources by establishing, among other things, detailed minimum international standards for the conservation and management of straddling fish stocks and highly migratory fish stocks.

The Agreement was adopted on 4 August 1995 by the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks and opened for signature on 4 December 1995. It remained open for signature until 4 December 1996 and was signed by 59 States and entities.

Prohibition of Driftnet Fishing

In November 1989, the Convention for the Prohibition of Fishing with Long Drift Nets in the South Pacific was opened for signature at Wellington, New Zealand (Wellington Convention 1989) can also be touched upon. Since the Convention is only concerned with South Pacific, it may not be of much relevance to India; however, it can be briefly touched upon as it is concerned with the problem of fisheries administration.

Sustainable Fishing- Marine Stewardship Council- BLUE ECOLABEL

The concept of Sustainable Fishing must a part of the course. A study can be made of the Marine Stewardship Council (MSC) which is an independent non-profit organization with an ecolabel and fishery certification programme.

Fisheries that are assessed and meet the standard can use the MSC blue ecolabel. The MSC mission is to 'reward sustainable fishing practices'. When fish is bought that has the blue MSC ecolabel, it should indicate that this fishery operates in an environmentally responsible way and does not contribute to the global environmental problem of overfishing.

As of the end of 2010, more than 1,300 fisheries and companies had achieved a Marine Stewardship Council certification.

European Union Fish Labeling Requirements

The European Union introduced new labeling requirements for fishery products from 1 January 2002 specifying that all products (some processed products are excepted) shall carry labels that state production method (capture or farmed), catch area of wild species (FAO fishing area) and country of production in the case of farmed fish products, Latin name and commercial name. It can be studied whether India can adopt the same measure

Shrimp-turtle case-WTO

Endangered species act-ban on import of Indian shrimp. Seven species of sea turtles have to date been identified. They are distributed around the world in subtropical and tropical areas.

They spend their lives at sea, where they migrate between their foraging and nesting grounds. Sea turtles have been adversely affected by human activity, either directly (their meat, shells and eggs have been exploited), or indirectly (incidental capture in fisheries, destruction of their habitats, pollution of the oceans). In early 1997, India, Malaysia, Pakistan and Thailand brought a joint complaint against a ban imposed by the US on the importation of certain shrimp and shrimp products. The protection of sea turtles was at the heart of the ban.

The US Endangered Species Act of 1973 listed as endangered or threatened the five species of sea turtles that occur in US waters, and prohibited their "take" within the US, in its territorial sea and the high seas. ("Take" means harassment, hunting, capture, killing or attempting to do any of these.) Under the act, the US required that US shrimp trawlers use "turtle excluder devices" (TEDs) in their nets when fishing in areas where there is a significant likelihood of encountering sea turtles.

Section 609 of US Public Law 101–102, enacted in 1989, dealt with imports. It said, among other things, that shrimp harvested with technology that may adversely affect certain sea turtles may not be imported into the US — unless the harvesting nation was certified to have a regulatory programme and an incidental take-rate comparable to that of the US, or that the particular fishing environment of the harvesting nation did not pose a threat to sea turtles.

In practice, countries that had any of the five species of sea turtles within their jurisdiction, and harvested shrimp with mechanical means, had to impose on their fishermen requirements comparable to those borne by US shrimpers if they wanted to be certified to export shrimp products to the US.

Essentially this meant the use of TEDs at all time. Many have missed the importance of the Appellate Body's ruling on this case. In its report, the Appellate Body made clear that under WTO rules, countries have the right to take trade action to protect the environment (in particular, human, animal or plant life and health) and endangered species and exhaustible resources). The WTO does not have to "allow" them this right.

It also said measures to protect sea turtles would be legitimate under GATT Article 20, which deals with various exceptions to the WTO's trade rules, provided certain criteria such as non-discrimination were met. The US lost the case, not because it sought to protect the environment but because it discriminated between WTO members.

It provided countries in the western hemisphere-mainly in the Caribbean- technical and financial assistance and longer transition periods for their fishermen to start using turtle-excluder devices.

It did not give the same advantages, however, to the four Asian countries (India, Malaysia, Pakistan and Thailand) that filed the complaint with the WTO. The ruling also said WTO panels may accept "amicus briefs" (friends of the court submissions) from NGO's or other interested parties.

Similar to the Shrimp and Turtle Case was Dolphin Tuna Case in the 1970s. Companies such as Sunkist and Del Monte Fresh modified ocean floor trawling for wild-caught tuna as dolphins and their pods were depleted through unsustainable fishing practices. The US and the public later required the ban of tuna caught by ocean floor trawling. Tuna sold to the US markets had to be labeled "Dolphin Safe".

Code of conduct for responsible fisheries

The FAO of United Nations developed a code of conduct for responsible fisheries and it was adopted in 1995. It is being implemented by committee of fisheries of FAO. India was also one of the

founder signatory. There are 12 articles in the code of conduct for responsible fisheries:

- ➤ Nature & scope
- Objectives
- Relationship with other international instruments
- > Implementation and monitoring
- Special requirement of developing countries
- > General principles
- > Fisheries management
- > Fishing operation
- Aqua development
- > Integration of fisheries in to coastal area management
- > Post harvest practices
- > Fisheries Research

However it is not binding on the part of members & is considered as voluntary code.

Objectives

- To establish principle & criteria for the elaboration & implementation of National policy for conservation of fisheries resources & management.
- To serve as instrument for reference.
- To provide guidance for implementation of international agreements.
- To promote protection of living aquatic resources.
- To promote trade of fish.
- To promote research in fisheries.

SEZ Law(s) and India's Coastal Areas

The new SEZ bill that was tabled in the monsoon session (but not yet cleared) of the Maharashtra state assembly is raising serious concerns. These zones are duty-free enclaves for trade and operations, with developers getting fiscal and regulatory incentives.

The new bill will give developers a tax holiday for 25 years, complete governance powers over the area and complete privatization of water and electricity supply with the right to determinate their rates. No labor laws will be applicable, so locals who have been employed cannot protest against the developer's decisions.

It also gives the developers sweeping powers to appoint the SEZ chairman to head the self-contained zone and not be governed by any local civic body.