

3. INSTITUTIONAL ANALYSIS OF KEY SECTOR ORGANISATIONS

3.1 Fisheries in the external environment

Sri Lanka is officially a Democratic Socialist Republic having achieved independence in 1948. The country's population consists of 16 million. Sri Lanka's Per Capita GDP is presently US\$1 200 - the highest in South Asia and the literacy rate is 92 percent - the highest in South Asia and second highest in Asia. According to the Economic Intelligence Unit (EIU) Forecast 1998, Sri Lanka's Business Environment ranks 11th in the region, and 42nd in the world, ahead of India, China, Indonesia, Vietnam and Pakistan.

3.1.2 Political environment

Sri Lanka's political system comprises a directly elected Executive President, a Cabinet of Ministers, 54 in number, a Legislature comprising a 196-member unicameral Parliament having power to pass laws by simple majority and amend the Constitution by two-thirds majority. Each representing a separate Ministry, and elections to representative political institutions at all levels: National (Parliament), provincial (Provincial Councils) and local levels (Municipal Councils, Urban Councils and Pradeshiya Sabha) are based on proportional representation. The governance structure is therefore a three-tiered one.

The electoral system based on proportional representation has strengthened small parties resulting in a series of coalition governments in recent times. This has resulted in post-election bargaining in the formation of the Cabinet of Ministers seriously affecting policy coherence that is a basic requirement for effective governance.

Sri Lanka moved to a devolved system of government in 1987 (the Thirteenth Amendment to the Constitution) establishing a new sub-national tier of government at the provincial level (intended to give Tamil people in the North and East a greater say in the management of their affairs at the regional level). Eight Provincial Councils were established in 1988, with the Northern and Eastern Provinces being temporarily merged, the merger being recently nullified by a Supreme Court decision.

The Thirteenth Amendment allocated functions of government as between the Centre ("Reserved") and the Provinces ("Provincial"), while some functions were made "Concurrent" (where both the Centre and the Provinces can act subject to a process of consultation being followed). The shift to devolution has been viewed with suspicion, and even hostility, since centralization would provide the centre with opportunities for the control of the affairs of the country's polity, economy and society. Fisheries constitute a central subject with fishing within "territorial waters" a "concurrent" subject.

Representative political institutions are complemented by a well established electoral process and a political party system. However, the social welfare policies adopted by successive governments have cast the politicians in the role of 'benefactor' and oriented the electorate to expectations of welfare benefits. With high participation rates of the electorate in the electoral process the politicians especially at national (and now at provincial and local) level have become new patrons acting under the hangover of the traditional system of power and patronage dispensing favours and obtaining benefits and amenities for their constituents. In this context the pursuit of development goals has come sharply into conflict with the short-

term political objectives of the contending parties to win or retain power by offering more popular policy packages and engaging in patronage politics.

An important aspect change is the increasing political underpinnings of State reforms. Weakening of State structures in the face of growing social tension - emergent during 1960s breaking out in conflict during the 1970s - was perceived as reflecting the need for a greater involvement of the political leadership in steering the implementation of development. The shift of the political leadership from policy to implementation brought the elected politicians into the arena of service delivery operations challenging the principle of political neutrality of the public service in the delivery of public services. Political patronage and influence thus extends to “political interference” in service delivery operations. As a result, the implementation processes, particularly in relation to some reporting, policing and control activities has become heavily undermined. This has resulted in two-way delivery process, rapid delivery of investment programs, but slow delivery in the implementation of controlling systems.

3.1.2 Administrative environment

Sri Lanka’s administrative system represents the historical transition of a centralized top-down law, order and welfare oriented administration with a focus on delivering social development, economic management and accountable governance. Several initiatives to broad-base governance have sought to bring together the public and private sectors to work jointly, through policy clusters in different areas of public policy under the purview of a National Council for Economic Development. Formulation of National Policy in respect of all subjects and functions is the responsibility of the Centre.

The present policy focus is on:

- increasing productivity and economic performance;
- reducing poverty;
- reducing regional disparities.

The system of administration is underpinned by the Ministries at the centre overseeing Departments working through a network of district and divisional functionaries across the country. Policies and national plans, including appropriations, are provided on a sectoral basis. These are invariably sporadic and often politically motivated. An annual implementation plan is prepared by each Ministry following formal submission and vetting by the Department of Planning, Ministry of Finance, a budget is prepared and appropriations approved by Parliament.

Policies and programs are largely generic for all areas of the country. Every sector has decentralised and devolved delivery channels which are managed through central government functionaries (Assistant Directors and Fisheries Inspectors in the case of fisheries) at the district and divisional level, and are accountable and report to their respective headquarters in Colombo. The focus of implementation remains very top down; and service delivery is largely secondary to delivery of the core policy goals.

Fisheries constitute a subject assigned to the Centre, with a very limited supporting role assigned to the Provinces, except where there are interactions with other Government Departments where there has been some devolution of power. This is the case in respect to the development of fishery cooperatives which is supported by the Department of Cooperatives at Provincial Level.

At the community level, Divisional Secretaries (Ministry of Public Administration) may take a prominent role in facilitating some devolved management activities, particularly in respect to chairing Special Area Management coordinating committees. However, these remain small in number, and in many cases, weak Divisional coordination can result in committees becoming dysfunctional. It therefore becomes the imperative to strengthen the stakeholder groups themselves, the Fishery Management Area Committees and Special Area Management. In the past this has relied very much on donor project intervention, as opposed to proactive participation by Provincial Governments. MFAR envisage that such Committees can be supported through improved service delivery via fishery extension officers.

The Ministry of Public Administration constitutes the focal point for public personnel policy spelt out through the 'Establishments Code' and interpreted with rulings and determinations in specific cases. However, the national Public Service Commission (PSC) at the centre and Provincial Public Service Commissions (PPSCs) are responsible for the public personnel functions of selection, recruitment, promotion and disciplinary control of national and provincial public services. Personnel of Statutory Bodies do not come under the purview of the Establishments Code and are governed by separate personnel codes.

There is strict control over recruitment to national and provincial public services enforced through a Department of Management Services located with the Ministry of Finance in respect of cadres of both departments and statutory bodies. A separate National Salaries and Cadres Commission is responsible for the public service salaries and wages policy determinations. The day to day management and discipline of public personnel is the responsibility of the respective organizations in which they serve, and is referred to higher authorities such as the relevant Ministry or the Public Service Commission(s) only where severe disciplinary action is warranted. While the system of public personnel management in effect leaves little responsibility with the departments and statutory agencies in the management of their human resources, it is compounded by political pressure for creating more jobs in the public sector, a situation worst confounded in the public corporate sector.

3.1.3 Legal environment

Sri Lanka's legal system is a mixture of several different laws. While being principally governed by Acts of Parliament, a substantial element of "common law", i.e., rules and principles not laid down by statute are recognized and enforced by the Courts. Each of the different ethnic communities (Sinhalese, Muslims and Tamils) has their own laws which apply mainly in respect of marriage and transfer and inheritance of property. Acts of Parliament have introduced new rights and duties while also codifying existing common law.

The country's Constitution is the supreme law. In terms of the Constitution legislative power is exercised by Parliament and by the people at a referendum; executive power is exercised by the President; and judicial power is exercised by Parliament through Courts, Tribunals and Institutions created or recognized by the Constitution or by law. Parliament can pass any law that is not inconsistent with the Constitution with a simple majority, or where inconsistent with a two-thirds majority (including subjects assigned to Provincial Councils). Any amendment to the Constitution also requires a two-thirds majority and in specific cases being approved by a majority of voters at a referendum. The Supreme Court determines as to whether a Bill requires a two-thirds majority and/or a referendum. Any member of the public can petition the Supreme Court for a ruling on any matter before the Bill becomes law. Usually the law making process is set in motion with a decision by the Cabinet of Ministers approving the drafting of legislation for the specific purpose.

Sri Lanka's court system is based primarily on the British judicial system modified to some extent to suit the needs of the country. It is comprised of a hierarchy of civil and criminal jurisdiction. The Courts structure for criminal jurisdiction is comprised of Magistrate's Courts, High Court, Court of Appeal and Supreme Court. The Magistrate's Courts exercise original criminal jurisdiction, while the High Courts has original criminal jurisdiction in respect of grave offences. At the end of a preliminary inquiry, a Magistrate may commit an accused to stand trial before the High Court. Appeals lie from both the Magistrate's Courts and High Court to the Court of Appeal, and then to the Supreme Court. Implementation of statutory law such as Fisheries and Aquatic Resources Act and Coast Conservation Act involves criminal jurisdiction and any offences would be first taken up in a Magistrate's Court. However, offences under the Regulation of Foreign Fishing Vessels Act come under the purview of the High Court.

3.1.4 Socio-cultural environment

Sri Lankan society is a socio-cultural heterogeneity with complex group diversities based upon distinctions in language, religion and caste. The three dominant ethnic groups, the Sinhalese, Tamils and Muslims make up more than 99 percent of the population. The Sinhalese comprising 74 percent of the population are differentiated into low-country and up-country (Kandyan) Sinhalese. The Tamils comprising 18.3 percent of the population consist of Ceylon Tamils (12.7 percent) in the north and east, who are socially and culturally distinct from the Indian Tamils (5.6 percent), living mainly in the central regions of the country. Muslims comprising approximately 7.5 percent of the population also have regional allegiances. Other communities (including the burghers of mixed European descent) constitute less than 1 percent of the population.

Thus these groups are spatially polarized giving them regional identity. The socio-cultural diversities especially in terms of religious identity have tended to impart differing value orientation and outlook to these groups. In the case of fisheries the different ethno-demographic groups have responded to community participation issues differently. Catholic Sinhalese and Tamil communities in the West, North and the North-West have very strong links to the Church, and their community structures revolve around strong interaction with the Church including integration into organisational (social and marketing orientated) functions. Likewise the Hindu Tamils in the North and East also have stronger organizational hierarchies and have demonstrated a greater capacity to operate independent fisher cooperative societies including the operating of successful micro credit facilities. This is in part driven by the harsher environment where the village unit is the only real focal point within a fairly isolationist society.

3.1.5 Technological environment

Sri Lanka's technology development is largely located in the public sector comprised of sector specific Research and Development institutions and Universities. The R&D activities of the Universities and R&D Institutes provide the contribution to the technology development of the country, however, expenditure on R&D is low at around 0.19 percent of GDP.

Universities produce the human resource base for R&D activities while Technology training is provided by technical and vocational training institutes, and undergraduate courses provided by universities. Universities prioritise undergraduate teaching, leaving little resources for research. The majority of post-graduate courses are part-time that do not make for any significant research output. Hitherto the Sri Lankan industry has not been able to provide satisfactory jobs in science and technology disciplines. Thus many graduates from technical colleges and universities leave the country for foreign employment while some are employed in non-technical disciplines making for a two-way brain drain out of the country and out of science and technology.

The capacity of universities and research institutes is constrained by many challenges in expanding R&D activities. These, include recruiting and retaining the best graduates in university staff, brain drain, lack of research funding, bureaucratic procedures and limited opportunities for research publications. Until recently the interaction between universities, research organisations and industry has been limited. The initiatives to build academia-industry relationships in recent time are noteworthy, including University Industry Interaction Cell at the University of Moratuwa, Design Centers at the University of Moratuwa, Ruhuna Business Incubator collaboration with the Ruhuna University and Faculty/Department Consultative Boards. However as to whether these linkages are adequate to orient university academia to become service providers remain an issue in servicing the industry.

3.1.6 Economic environment

Sri Lanka is a small open economy averaging a steady economic growth of around 5.5 percent over the years with income at around US\$1 200 per capita. Social indicators such as life expectancy, literacy are well above those in comparable developing countries. In terms of the Human Development Index (HDI) Sri Lanka ranked 96th with an index of 0.74 among 177 countries in 2004. However, poverty still remains an issue affecting as much as a quarter of the population. This is complemented by significant regional disparities in development.

The sectoral composition of the economy has changed over time from that of an agriculture based economy to one which is dominated by the services sector. The services sector leads the sectoral composition of GDP at 56 percent, followed by the industrial sector with 26 percent and agriculture contributing 18 percent at the end of 2004. Liberalization of the economy leading to increasing participation of the private sector in the economy, modernization and increased competition have contributed to the expansion of the share of the services sector. However, despite decreasing significance in its contribution to GDP, the agricultural sector continues to be important in the economy, employing over one-third of the workforce and constitutes the base for a significant area of manufacturing and services.

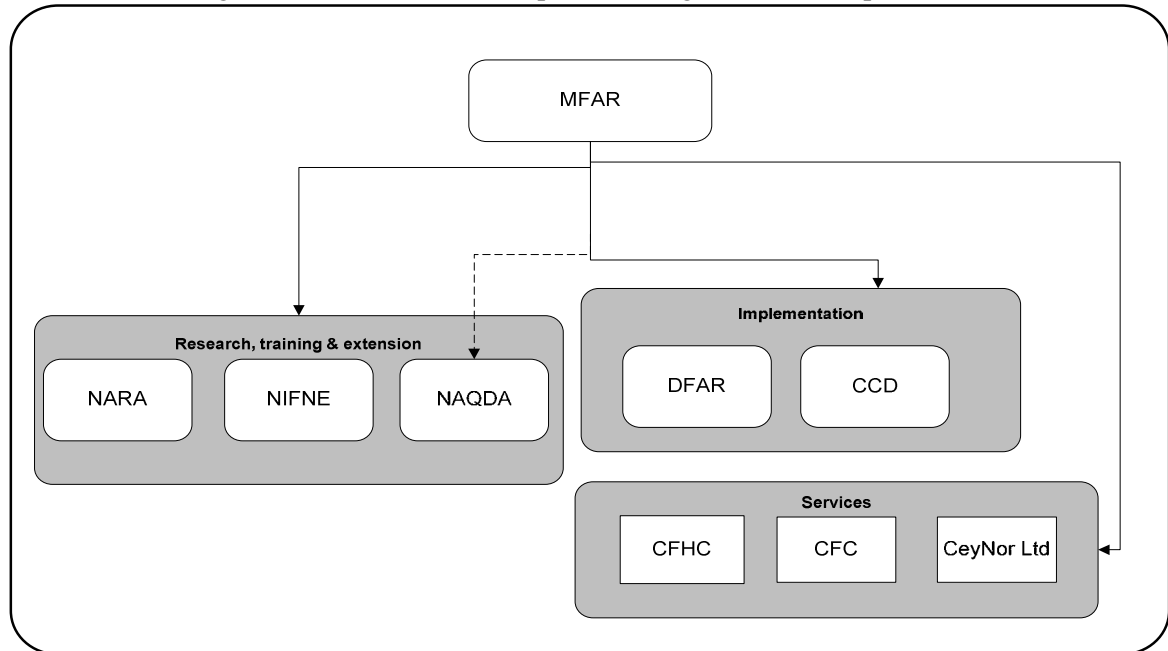
The fiscal sector is marked by inadequate tax to GDP ratio accounting for declining levels of public investment in the face of rising current expenditures. It would seem that in the recent past, Sri Lanka is committed to a large public investment program to provide a wide range of infrastructure facilities, developing human resources, as well as post-conflict rehabilitation work in the North and East. Indications are that public investment will continue to rise with substantial public investment programs being planned. Creating fiscal space by rationalizing public expenditure would be critical to sustaining a major public investment thrust.

Thus Sri Lanka's development challenge remains achieving and sustaining higher growth rates, in a manner that enables poor people and poor regions to participate more fully in this growth.

3.2 Overview of institutional roles, responsibilities and linkages

The principal organization responsible for fisheries policy, management and development is the Ministry of Fisheries & Aquatic Resources (MFAR). It has 8 other subordinate organisations (Figure 1).

FIGURE 1: Linkages between MFAR, the departments, agencies and corporations



Distinction can be made between:

- The implementation organisations: Department of Fisheries & Aquatic Resources (DFAR) and Coast Conservation Department (CCD).
- The research, development, extension and training organisations: The National Aquatic Resources Research & Development Agency (NARA), the National Institute of Fisheries and Nautical Engineering (NIFNE) and the National Aquaculture Development Authority (NAQDA).
- The Corporations: Ceylon Fishery Harbour Corporation, CeyNor Foundation Ltd²⁰, and Ceylon Fisheries Corporation. These organisations are mandated to undertake specific activities including harbour management, fishing vessel design and construction and provision of nets, and fish distribution.

There are some additional implementation issues covered by MFAR: (1) cooperative development through the Fisheries Social Development Division; and (2) Fisheries Statistics. NAQDA is also required to implement compliance policy in the inland lakes²¹.

MFAR also coordinates the interactions with the Donors, identifying specific project needs, and liaising with Donors, the departments and agencies on the actions taken. There are

²⁰ Cey Nor is a public limited corporation wholly owned by the Government, reporting to MFAR. For the purpose of this report, it is collectively to the Corporations

²¹ The Draft Amendment to the Fisheries Act makes provision for enforcement functions by NAQDA extension officers. Up to now NAQDA has been required to draw on the police for powers of arrest.

presently three major donor projects managed through the MFAR budget. These make up the bulk of the capital expenditure (around 90 percent) of inputs into national fisheries sector redevelopment. These include:

1. Coastal Resources Management Project (CRMP) funded by ADB and the Government of the Netherlands, interacting with CCD;
2. Aquatic Resources Development & Quality Improvement Projects (ARDQIP), funded by ADB, interacting with NAQDA; and
3. Post Tsunami Coastal Rehabilitation & Resources Management Program and Post Tsunami Livelihood Support & Partnership Program (IFAD), implemented by MFAR.

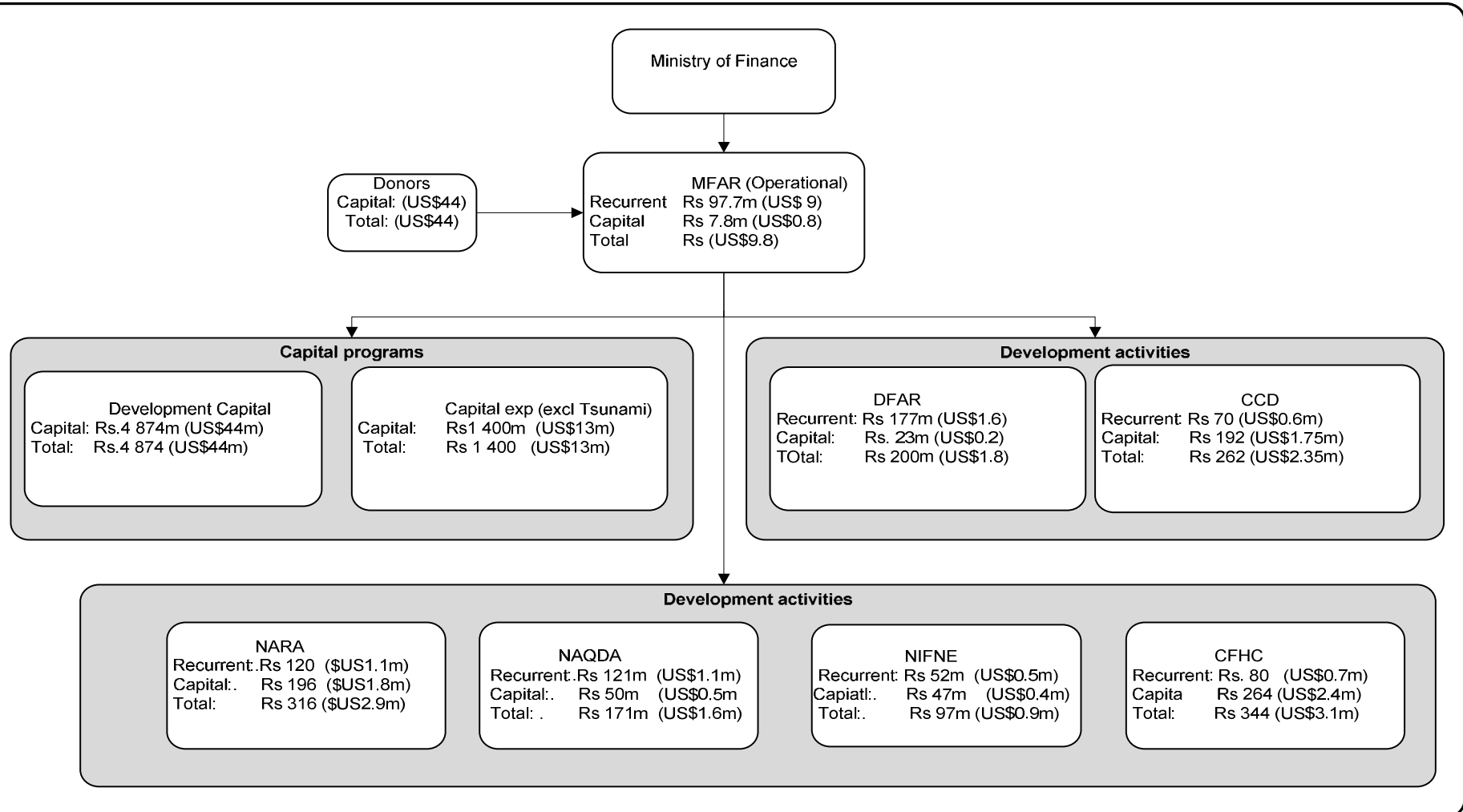
MFAR's horizontal linkages are largely with the Department of Planning, Ministry of Finance, on budgeting issues and the Ministry of Public Administration, Public Services Commission and the Management Services Department in respect to personnel. Unlike other national administrations, there are no inter departmental linkages with provincial organisations.

Figure 2 summarises the distribution of capital and recurrent funding between the principal organisations. The diagram also illustrates the capital funding work, excluding the Tsunami reparations. MFAR financial resources are provided from a combination of monies drawn from the Ministry of Finance in the form of the Consolidated Fund (US\$13m), and monies derived from Donors. Donors provided Rs 4 874m (US\$43 m²²) for special projects in 2007 (excluding the emergency rehabilitation). Special project support accounts for around one third of the total expenditure within circulation. These donor funded programs are dispersed as capital items to the development organisations and for coastal rehabilitation programs. Organisations using high levels of capital expenditure are CCD and CFHC. The GoSL also supports high levels of capital funding for harbour and market development and coastal zone protection.

The recurrent expenditure, 52 percent of which is salaries, is spread between DFAR (25 percent), NARA (17 percent), NAQDA (17 percent), MFAR (14 percent), CFHC (11 percent), CCD (9 percent), and NIFNE (8 percent). CeyNor Foundation Ltd and CFC are reliant on funds drawn from commercial or subsidised operations.

²² This includes the IFAD assistance that was not fully applied in 2007.

FIGURE 2: Annual budget and funding flows, 2007



Source: Budget Estimates, MFAR, 2007

There are a number of other organisations with some interaction with the fisheries sector.

- The Department of Policy and Planning, Ministry of Finance, is responsible for the preparation of MFAR's appropriations, following submission from MFAR. The Budget is submitted to Parliament for approval, but capital and recurrent expenditure items are approved by the Department of Planning in recognition of the overall policy goals. The Ministry of Finance is also responsible for providing refinancing capital for approved loans scheme for the sector. These may be underwritten by specific donor funds, or alternatively from the Consolidated Fund.
- The Central Bank of Sri Lanka acts as the means for refinancing commercial and State Banks for specific loan schemes targeted at specific sectors. Refinancing packages may be funded directly from the Treasury or International Development Banks.
- Department of Co-operatives which has the responsibility for the promotion of cooperative societies, and delivers advice and education programs to Fishery Cooperative Societies (FCS) through its provincial offices.
- Provincial Councils established as per the 13th amendment of the Constitution, Municipal and Urban Councils and village level Pradesheeya Sabas. The Councils provide support activities, through their District Secretariats for regionally based activities. Examples include facilitation of Special Area Management (SAM) Committees which support local coastal zone protection initiatives.
- Department of Animal Production & Health (DAPH) is responsible for the checking of veterinary drugs and feeds entering Sri Lanka which are in turn used as inputs for the aquaculture sector.
- The Ministry of Health is responsible for checking domestic food security on fish markets and retail outlets.
- The Board of Investment (BOI) facilitates company investment in Sri Lanka, providing fiscal incentives for registered companies investing in Sri Lanka including tax holidays and training.

3.3 Fisheries governance

3.3.1 The Government organisations

The section below examines the structure of the individual fisheries sector organisations.

3.3.1.1 Ministry of Fisheries & Aquatic Resources (MFAR)

The Ministry of Fisheries & Aquatic Resources is a dedicated national Ministry with its own Cabinet Minister. The MFAR, formerly the MFOR (The Ministry of Fisheries & Ocean Resources) was established in 1970, having previously been part of the Ministry of Agriculture.

BOX 1: Vision, mission, objectives and task statement of MFAR

<p>Vision: Optimal utilisation of fisheries and aquatic resources for the prosperity of the nation while ensuring sustainability</p>
<p>Mission: To manage all resources including communities and institutions using community based management and appropriate technology with the objective of satisfying the needs of the present and future generations while ensuring the sustainability of the fisheries and aquatic resources.</p>
<p>Objectives:</p> <ul style="list-style-type: none"> • to increase nutritional status and food security of the people through increased fish supply; • to minimize the qualitative and quantitative loss in national fish production and improve quality up to the standard levels; • to increase employment opportunities in the fishing industry and related industries; • to increase foreign exchange earnings from the export of fish products; • to regulate development activities in the coastal zone and to conserve and manage the coastal environment; and to raise the socio economic status of the fishing community.
<p>Tasks:</p> <p><i>Secretary's Division</i></p> <ul style="list-style-type: none"> • provide direct support for the Minister; • facilitating the activities of the Fisheries Secretary; and • coordinating internal and external management meetings. <p><i>Planning & Monitoring Division</i></p> <ul style="list-style-type: none"> • the submission of plans to the Department of Planning, Ministry of Finance for the Public Investment Program (PIP)²³; • the setting of financial and physical targets, and the monitoring; and • evaluation of performance of these targets including evaluation of progress reports by the departments, agencies and corporations. <p><i>Export Development Division</i></p> <ul style="list-style-type: none"> • facilitating export promotion through liaising with the Export Development Board; and • Revising plans, making recommendations and liaising with the industry and key national administrations such as the Ministry of Finance on export policy. <p><i>Development Division</i>²⁴</p> <ul style="list-style-type: none"> • Facilitating the development of the fleet. <p><i>Administration and Social Development Division</i></p> <ul style="list-style-type: none"> • HR Development within the Ministry and its organisations, including appointments, recruitments and discipline²⁵; and • Social development, with responsibility for the Government's welfare schemes including promoting the fisher pension scheme²⁶ and number of social welfare programs such as housing, drinking water, health and hygienic facilities, providing equipments for nursery schools for fishing communities. <p><i>Finance Division</i></p> <ul style="list-style-type: none"> • Assuring that funds are properly dispersed, and conducting internal audits; • Submitting of expenditure estimates to the Treasury <p><i>Statistical unit</i>²⁷</p> <ul style="list-style-type: none"> • Collating and disseminating landing statistics; and • Collating and disseminating market price information.

²³ MFAR (Action Plan 2007)

²⁴ The Division was set up primarily to deal with the Tsunami rehabilitation program

²⁵ Following guidelines set by the Ministry of Public Administration, Public Services Commission and the Management Services Department.

MFAR has the responsibility to implement laws, policies, plans and programs for the development of the fisheries and ocean resources, and for the management of the departments, agencies and the corporations.

The organisation has 6 divisions and 1 unit (Appendix D.1 and BOX 1 above).

MFAR has a relatively small number of employees (180) due to the primary focus on policy as opposed to implementation activities (Table 1). Most units within MFAR are quite small (6-19 persons). The larger units comprise Planning & Monitoring, the Fisheries Social Development Division (FSDD) and the Statistics Unit. The policy making units, the Export Development Division and Development Division are quite small.

²⁶ Fishermen's Pension and Social Security Benefit Scheme Act No 23 of 1990

²⁷ This Unit comprises 10 personnel seconded from the Department of Census.

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TABLE 1: MFAR employee distribution, 2007

Secretary's Division	Number	Planning Division	Number	Statistical Unit	Number
Secretary	1	Director	Vacant	Statistician	1
Coordinating Secretary	1	Deputy Director	2	Fisheries Inspector	2
Management Assistant	1	Development Assistants	11	Computer Programmers	10
Minor Staff	4	Management Assistants (G1)	5	Fisheries Social Dev Division	
Administration Division		Computer Programmer	1	Director	1
Director	1	Other assistants	1	Assistant Director	1
Senior Assistant Secretary	1	Export Development Division		Development Assistants	1
Assistant Secretary	1	Director	1	Social Development Assistant	2
Administration Officer	1	Management Assistant (G1)	3	Management Assistant	7
Legal Assistant	1	Management Assistant (G2)	1	Development Assistants	3
Translator	1	Management Assistant (G3)	1	Computer Programmer	1
Management Assistants (G1)	5	Other Office Assistants	1	Other assistants	3
Management Assistant (G2)	9	Development Division		Internal Audit Division	
Finance Department		Additional Secretary	1	Accountant	1
Chief Accountant	1	Computer Programmer	1	Management Assistant	3
Accountant	1	Management Assistant (G1)	2	Other Assistants	2
Accountant (payments)	1	Management Assistant (G2)	2	Transport Division	
Accountant (supplies)	1	Management Assistants (G3)	4	Transport Officer	1
Management Assistants (G1/2)	5	Fisheries Resource Management Assistants	5	Management Assistant	1
Management Assistants (G1)	2	Central Extension Unit		Drivers	27
Management Assistants (G2)	6	IEC Specialist		Information Division	
Management Assistants (G3)	4	Senior		Senior Clerk	1
Supplies Assistants (G 3)	3	Program Assistant	1	Office Assistants (G1)	1
Computer Programmer	1	Office Assistant (G1)	1	Office Assistants (G3)	1
Office Assistant (G1)	3	Community Radio Unit		Other Office Assistants	2
Office Assistant (G2)	1	Program Composer	3		
Office Assistant (G3)	2				

Source: MFAR

3.3.2.1 Department of Fisheries & Aquatic Resources (DFAR)

The DFAR is responsible for the management, regulation, conservation and development of fisheries and aquatic resources (Box 2). The legal basis for DFAR activities is the Fisheries and Aquatic Resources Act No. 2 1996. It is responsible for the administration and enforcement of the Fisheries Act and the Regulations.

BOX 2: Vision, mission, objectives and task statement of DFAR

<p>Vision: Sri Lanka becomes a leader in the South Asian region in sustainable utilization of fisheries and aquatic resources</p>
<p>Mission: The sustainable development of the fishing industry through sound resource management and the application of new technology in conformity with national and international laws and conventions for making effective contribution to the national economy of Sri Lanka</p>
<p>Objectives:</p> <ul style="list-style-type: none"> • to manage, regulate, conserve and develop fisheries activities in a sustainable manner in conformity with national and international laws and conventions; • to promote local and foreign investment in the fishing sector; • to introduce new technology for the exploitation of fishery resources in national and international waters; • to ensure quality and safety of fish and fishery product exports in conformity with international standards; • to uplift the socio-economic status of the fishing communities; and • to minimize post-harvest losses and improve the quality of local fish products.
<p>Tasks:</p> <ul style="list-style-type: none"> • framing, updating and implementing fisheries operational regulations, fisheries management regulations and aquaculture management regulations; • registration of fishing boats and issuing of fishing operational licences; • action relating to the mortgaging of fishing boats; • issuing of licences for the export of live fish; • issuing fish licensing permits for foreign fishing boats; • enhance understanding and awareness about fishery management; • coordinate loan facilities for the purchase of capital goods; • registration and performance monitoring of boat builders, manufacturers of fishing gear, sales agents and agents for foreign engines; • approve prices for boats, engines and gear; • guidance and supervision of fisheries cooperative societies to enhance their efficiency; • formulation of development projects for fisheries cooperatives and the establishment of fisheries (Idiwara) banks; • improve the understanding and awareness among fishing communities on fisheries management; • repatriation of fishermen arrested by foreign countries and rescue of fishermen stranded in the high seas; • collection and analysis of data regarding the fishing industry; • upgrading the standards of fish sale outlets for local consumption; and • registration of fish processing establishments, monitoring quality of fish exports and issuing export permits.

Structure

DFAR has 6 divisions (Appendix D.2):

- Finance, responsible for the Department's financial management and reporting to MFAR;
- Administration
- Fisheries management (fisheries management, enforcement and legal);
- Monitoring, control & surveillance (radio communications);
- Quality control; and
- Fishing Industries (Marine Engineering and Inspectors).

The Fisheries Social Development Division, now residing with MFAR, was formerly in DFAR.

The DFAR cadre comprises 778 staff, 586 of which are in post. Table 2 below identifies some of the core activities

TABLE 2: Employment and approved cadre in DFAR, 2007

Designations	Number approved	Number in post	Vacant
DG	1	0	1
Directors	2	1	1
Deputy Directors	6	4	2
Assistant Directors (HQ)	4	1	3
Assistant Directors (Districts)	25	4	21
Engineers	3	2	1
Marine Surveyor	1	0	1
Marine Engineering Assistants	16	8	8
Legal Officer	1	1	0
Legal Assistant	1	1	0
Socio economist	1	1	0
Biologist	1	1	0
Quality Control Officer	5	5	0
Quality Control Assistant	10	5	5
Fisheries Inspectors (G1)	30	43	13
Fisheries Inspector (G2)	137	98	39
Chief Radio Officer	1	0	1
Radio Officers	37	21	16
Social Development Officers	22	22	0
State Manage Asst	177	135	42
Fisheries Res Management Ass	138	112	26
Others	159	121	25
Total	778	586	205

Source: DFAR

Some specific observations in respect to the above are as follows:

The core functionaries for DFAR's activities relate to:

- Fisheries Inspection (167) acting as inspectors, welfare agents and extension officers with 50 specifically responsible for statistical data collection;
- Marine Radio officers (38);
- Marine engineers and surveyors (17);
- Quality Control Officers (15); and
- Economics, biological and Legal specialists.

In addition, the DFAR has 177 graduates that have been allocated without portfolios. These form part of a GoSL decision to absorb graduates into national administrations.

Fourteen District offices have been established in the coastal districts to carry out the activities of DFAR. It is proposed to extend these to 25. The current offices are at Negombo, Mahawewa, Puttalam, Mannar, Jaffna, Killinochchi, Mullaitivu, Trincomalee, Batticaloa, Kalamunai, Tangalle, Matara, Galle and Kalutara. Work stations in these activities comprise Assistant Director, Fisheries Inspectors (G1), Radio Officers and Social Development Offices. Some of the Quality control assistants are also strategically placed in these offices. Fisheries Inspectors (G2) are more widely dispersed in sub offices. Specific outputs cited by the DFAR are summarised in Box 3.

BOX 3: DFAR outputs

<ol style="list-style-type: none"> 1. Promoting the fishery pension and social security scheme, with 58 840 fishers registered. 2. Tsunami rehabilitation work, with the provision of new boats, nets and engines. 3. The registration of fishing crafts, fishing gears and safety tools. 4. Issuance of licenses for fisheries (1322 inland fisheries licences issued) and aquaculture (159 management licenses) in 2006. 5. Issuance of Import & export (4217 licenses for landings by foreign vessels, export licences for lobster, ornamental fish, chank, sea cucumber and shark fin in 2006). 6. Regulations sent for approval by Parliament including: monofilament prohibition regulation. 7. Development of Fisheries and Aquatic Resources Bill. 8. Regulations sent or to be sent for approval by the legal draftsmen: Fisheries products (export amendment regulation) and Regulations for fishing boat standards. 9. Filing of 120 cases for fisheries offences in the 9 months from January 2006. 10. Disbursement of funds for the organisation of fish landing sites. 11. Quality control and renewal of licences for fish processing, including acting as the approved inspection authority for food safety standards prior to export. Some 11 277 health certificates being issued in 2006, along with undertaking official sampling procedures for micro biological testing (water, ice and fish/shrimp), Chemical analysis for histamine and heavy metals, chemical analysis in shrimp farms and micro biological analysis on fish markets and foreign vessels landing into Sri Lanka. 12. Promotion of fisheries cooperative societies, including the setting up of banks and resolving sanitary and infrastructure resource deficiencies. 13. Workshop and awareness programs, conducting awareness programs for Multi day boat owners (Negombo) and aquaculture monitoring (Chilaw).
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3.3.2.3 Coast Conservation Department (CCD)

The CCD is responsible for the conservation, protection, development and regulation of activities in the coastal zone. Its responsibilities are to conduct research, formulate Coastal Zone Management Plans (CZMP), regulate and control activities in the coastal zone, and to formulate and execute coastal protection (Box 4).

BOX 4: Vision, mission, objectives and task statement of CCD

<p>Mission: The sustainable development of coastal resources and the management of coastal processes to optimize social, economic and environmental status of Sri Lanka</p>
<p>Objectives:</p> <ul style="list-style-type: none"> • to improve the status of the coastal environment; • to develop and manage the coastline; • to improve the living standards of coastal communities and resource use; and • to promote and facilitate economic development based upon coastal resources.
<p>Tasks:</p> <ul style="list-style-type: none"> • undertake surveys and research to describe the existing condition of the coastal zone; • formulate and execute the work for the coast protection and conservation; • considerably reducing coral mining and beach sand mining; • ensuring environmental impact assessments for coastal development; • prepare and periodically update the Coastal Zone Management Plan; • regulate and control the development activities within the coastal zone; • ensuring permit compliance; • facilitating coastal access; • enhancing awareness of coastal issues, including curriculum development for schools; and • promoting community participation in coastal resource management through SAMs and APCs.

The legal basis for CCD's mandate is the *Coastal Conservation Act No. 57 of 1981 and Amendment No 64 of 1988*. Starting in 1990, there have been three Coastal Zone Management Plans. A main focus of CCD has been coastal erosion, addressed by special protection and management plans, and currently being implemented with the support of ADB/CRMP. The legal framework of CCD activities is currently being revised, with a particular focus on enabling communities to establish Special Area Management, that is, local and regional cross-sector management bodies. CCD has 5 divisions (Appendix D.3):

1. Finance, responsible for the Department's financial management and reporting to MFAR;

2. Administration;
3. Planning;
4. Research & Design; and
5. Works.

CCD has 4 Regional offices: Negombo, Galle, Matara and Moratua.

The organisation primarily depends on funding from the CRMP, accounting for 90 percent of total expenditure on CZ rehabilitation (Table 3).

TABLE 3: CCD Program budget, 2007

CCD Task	Budget (Rs m)	CRMP Task	Budget (Rs m)
Rehabilitation of coastal stretches	24.8	Coastal stabilization	151.2
New coastal constructions	109	Coastal environment resources management (dredging & visitor centres)	534.3
Coastal engineering & design	2.2	Harbour & anchorage constructions	762.5
Coastal zone management plans ²⁸	9	Institutional strengthening Gov offices	50
Monitoring & Research	3.5		
Data acquisition (GIS)	2.5		
Environmental education program	2		
Total	153		1 498

Source: MFAR Action Plan

The Organisations cadre comprises 262 workers, 209 of which are in post. Table 4 below identifies some of the core activities:

- Engineers and surveyors (18);
- Coast Protection Inspectors (165);
- Planning and development assistants (72);and
- Technical assistants (12).

One hundred and fifty (150) coastguards were recently removed from the organisation and to another Ministry (as opposed to MFAR), undermining the organisations ability to police the coastal zone. The CZMP also places a considerable emphasis on extension through SAMs and APCs (See Section 4.6.2).

TABLE 4: Numbers engaged and approved cadre in CCD, 2007

Designations	Number approved	Number in post	Vacant
Director	1	1	1
Other Directors	4	2	2
Chief Engineer	2	2	0
Engineers & Surveyors	16	13	3
Legal Officer	1	0	1
Planning Assistants	36	26	10
Development Assistants	36	29	7
Technical Assistants	12	8	4
Coast Protection Chief Inspector	1	0	1
Other	153	128	24
Total	262	209	53

Source: CCD, 2007

28 Includes implementation of Green Belt Program, Beach access, Revision of coastal Management plans, demolishing structures and inspection raids on coral and sand mining establishments

The organisation's outputs in 2007 are summarised below (Box 5).

BOX 5: Outputs achieved by CCD in 2007

- improved quality of coastal lands and waters;
- biodiversity conserved and sustainably used;
- enhanced quality of coastal lands available for development activities;
- regulated development of the Coastal zone;
- new economic opportunities created;
- improved living conditions of coastal communities;
- ecotourism and recreational facilities provided; and
- scientific/scenic/historical/archaeological and cultural sites conserved.

3.2.3.4 National Aquatic Resources Research & Development Agency (NARA)

NARA is the principal national institute charged with the responsibility for carrying out and coordinating research activities on aquatic resources. It is effectively the research-arm of MFAR. It was established in 1981 (Act number 54) as a response to the implementation of Sri Lanka's EEZ. It provides scientific and technological expertise and advice for the development and management of the fishing sector (Box 6).

BOX 6: Vision, mission, objectives and task statement of NARA

Vision: To be a premier scientific institution for conservation management and development of aquatic resources in the region
Mission: To provide innovative solutions for national development issues in the aquatic sector utilizing scientific and technological resource base.
<p>Objectives:</p> <ul style="list-style-type: none"> • Application and utilization of scientific and technological expertise for the implementation of the national development program on the subject of living and non-living aquatic resources. • Promote and conduct research activities directed towards identification, assessment, management, conservation and development of aquatic resources in the following fields: <ul style="list-style-type: none"> ○ Oceanography and Hydrography; ○ Fishing gear, fishing craft, equipment and fishing methods; ○ Social and economic aspects of the fishing industry and welfare of the fishermen and their dependents; ○ Processing, preservation and marketing of fish and aquatic products; and. ○ Development, management, conservation of aquatic resources in the inland waters, coastal wetlands, coastal and offshore areas.
<p>Tasks:</p> <ul style="list-style-type: none"> • Provide advisory and consultancy services on scientific, technological and legal matters relating to the exploitation, management, conservation and development of aquatic resources; • Co-ordinate the activities of institutes engaged in the exploitation, planning, research, development; conservation, control and management of aquatic resources; • Collection, dissemination and publication of information and data useful to the fisheries industry and development of aquatic resources. Collection, processing and publication of hydrographic data and nautical information on the near shore and off-shore area and inland waters and to have overall control of such activities in Sri Lanka; • Provide training required to carry out functions of NARA; and Exercise, discharge and perform all the powers, functions and duties conferred by NARA Act No.54 of 1981 as amended by Act No. 32 of 1996.

NARA has a research staff of 117 (Table 5), of which 50 are Research Officers (most to PhD level) with a further 36 Research Assistants.

The activities of NARA are organised into 9 divisions (Table 6). The organisation is based in Colombo with 4 Regional Research Centres at Rekawa, Kadolkele, Kalpitiya and Trincomalee.

Research priorities are required to be determined by the scientists and submitted formally to the Science and Technical Committee. Representation on the committee includes MFAR, Universities and the private sector.

The NARA organisation chart is shown in Appendix D.4.

TABLE 5: Cadre and numbers engaged and job specifications

Designation	Approved	In Post	Vacancies
Chairman	1	1	0
Director General	1	1	0
Accountant	2	2	0
Assistant. Accountant	1	1	0
Accounts Clerks	7	7	0
Purchasing & Supplies	1	1	0
Store Keepers	4	3	1
Internal Auditor	1	1	0
Audit Clerks	2	2	0
Chief Librarian	1	0	1
Librarians	3	3	0
Information Officer	1	1	0
Assistant Network Administrator	1	1	0
Research Officers	62	50	12
Research Assistants.	49	36	13
Chief Engineer	1	1	0
Economist	1	0	1
Director/Hydrographer	1	1	0
Dy. Director/Hydrographer	1	0	1
Hydrographer Surveyors	11	6	5
Total	152	118	34

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TABLE 6: NARA Objectives and outputs

Unit	Marine Biological Resources Division (MBRD)	Environmental Studies division (ESD)
Cadre	11 scientists (ROs), 12 RAs, 12 samplers, 2 data analysts, 2 divers and a secretary.	5 with academic qualifications, 8 staff
Responsibilities	<ul style="list-style-type: none"> • Assessment and management of coastal and offshore fisheries resources such as tunas, bill fishes and sharks, small pelagic and demersal fishes, crustaceans and mollusks; and • Conservation of sensitive habitats such as coral reefs, and threatened marine fauna. 	<ul style="list-style-type: none"> • implement studies on water pollution; • assessment of environmental related issues with respect to aquatic environment; • assessment of water pollution status; • collection baseline data on water quality of inland water bodies, coastal & marine waters for scientific and management purposes; • provide technical guidance to other institutions, i.e. responding to development impact issues for CCD and the Central Environment Agency; and • support other technical divisions of NARA and to render technical & consultancy services.
Outputs (2006-2007)	<ol style="list-style-type: none"> 1. Resource assessment program (training NARA staff, identifying survey methodologies, carrying out resource surveys and preparing management plans). 2. Monitoring of small pelagic fisheries in Puttalam, Galle, Gampaha, Colombo, Kalutara, Matara, Ampara, Hambantota, Trincomalee. 3. Investigate the optimum capacity for sustainable development of coastal resources in Hambantota. 4. Development of artificial reefs (with FTD). 5. Identification of pelagic fishing zones using remote fishing sensings (with IT). 6. Tuna assessments evaluating thermoclines, marine plankton distribution and fishing gear efficiencies (with Oceanography). 	<ol style="list-style-type: none"> 1. Monitoring of Sethusamudram Ship Canal. 2. Conservation and management of Coral Reefs. 3. Monitoring the distribution of whales & dolphins. 4. Evaluation of threatened species in native streams. 5. Development of conservation strategies for mangroves. 6. Assessment of pollution of levels in Hikkaduwa National Park.
	Fishing Technology Division (FTD)	Hydrographic Office
Cadre	The division has 10 staff (4 with academic qualifications).	The HO has 32 (5 with academic qualifications), technicians, engineers & seame
Responsibilities	<ul style="list-style-type: none"> • to undertake the research and development initiatives in the field of fishing gear technology; • to make productive contribution to settle disputes between different user groups; • to provide the necessary assistance for formulation of legislation pertaining to the field as the prime consultation body; • to evaluate the efficacy of the existing fishing gears for sustainable exploitation of the fishery resources from the seas off Sri Lanka; and • to identify the destructive fishing gears and emphasizing the important initiatives to suppress the activities of the above. 	<ul style="list-style-type: none"> • production of nautical charts, fisheries maps and other user or miscellaneous maps; • hydrographic data collected in digital and analog form are to be widely used for research management plans and navigational purposes; • carry out detailed hydrographic surveys of inshore, near shore and off territorial waters up to the outer limits of the Exclusive Economic Zone, as well as of inland water bodies.

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Outputs (2006-2007)	1. the development of inshore fishing techniques in the perennial reservoirs as a substitute for illegal monofilament netting (with IARAD). the development of artificial reefs (with MRBRD).	1. National charting program (Bathymetric survey and charts). 2. coastal sea level monitoring. 3. study of wave energy spectrum. 4. ocean observation and early response. 5. geotechnical and geophysical investigation of coastal resource management.
	Inland aquatic resources and aquaculture Division (IARAD)	Oceanography Division
Cadre	The division has 26 staff (15 with academic qualifications).	The Oceanography division has 12 staff (9 with academic qualifications).
Responsibilities	<ul style="list-style-type: none"> • environmental assessment and management in aquaculture development; • stock assessment²⁹ and provision of advice on Inland fisheries management; • verification of culture technologies for ornamental fish shrimp, fresh water prawns, brackish water fish and ornamental aquatic plants; • endemic fish breeding, crab fattening, development of high quality, high demand exotic ornamental fish brood stocks, propagation methods for aquatic ornamental plants; • closing the routes of infection of WSSV disease in shrimp aquaculture and reservoir fisheries management; • integrated fish farming to transfer of technologies developed to the industry; and • conducting regular training programs on ornamental fish culture. 	<ul style="list-style-type: none"> • assess and predict the changes of marine environment and provide information for fisheries; • manage coastal and ocean resources to optimize benefits to the environment, the economy and public safety; • monitor and observe the sea and create a data collection and maintain a network to track ocean changing systems; • understand and describe natural aquatic ecosystems through investigation and interpretation of information; and • engage advise and inform individuals, partners, communities, and industries to facilitate information flow, assure coordination and cooperation, and provide assistance in the use, evaluation, and application of information.
Outputs (2006-2007)	<ol style="list-style-type: none"> 1. Development of fishing gears (with the Fishing Technology Division) to catch exotic cyprinids on inland reservoirs. 2. Rearing <i>Clarias clarias</i> and <i>Ophiocephalus sp.</i> 3. Development of high quality high demand stocks for export orientated products. 4. Trials into seaweed farming (Negumbo). 5. Increasing the diversity of live feeds used for export orientated products. 6. Fingerling production using community participation. 7. Mapping the distribution of aquatic plants. 8. Assessment of the availability of <i>P.monodon</i> brood stocks and development of efficient catching gear. 9. Investigation of shrimp bacterial diseases in hatchers. 10. Examination of the genetic diversity of <i>P.monodon</i> shrimp stocks in different geographic locations in Sri Lanka. 11. Identifying the risks of WSSV impact using crab as brood stock feed³⁰. 12. Environmental monitoring of shrimp farm effluents. 	See hydrography.

²⁹ The activities are confined to only 2 of the 113 (42 major, 71 intermediate) perennial reservoirs

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	Socio-economic and Market Research Division (SED)	Post Harvest Technology Division (PHTD)
Cadre	Socio-economic and market research division Staff 7 (6 with academic qualifications).	The division has 10 staff (6 with academic qualifications).
Responsibilities	<ul style="list-style-type: none"> • preparation of the Fisheries Year Book; • socio-economic studies; • cost-benefit analyses; • feasibility studies on projects; • market research studies; and • social impact assessments. 	<ul style="list-style-type: none"> • the introduction of new products both food items and support products from locally available under-utilized or non-utilized fish shrimps, molluscs, and plants (seaweed) using appropriate technology; • introducing improved processing techniques for traditional fish products such as Maldives fish, dry fish, Jaadi; • new technology in methods of preventing putrefaction of aquatic food from harvesting to consumption and improving and certifying the quality of aquatic food items has also been introduced; • provide extension and consultancy services to the public and industrialists pertaining to post harvest technology of living aquatic resources; and • provide internationally accepted microbiological laboratory services (ISO17025) to the industry.
Outputs (2006-2007)	<ol style="list-style-type: none"> 1. Study on the impact of micro-finance on empowerment of fisher women and their families (Galle and Hambantota). 2. Study on the perceived trading barriers to fish in coastal and inland areas. 3. Fishery Statistics. 	<ol style="list-style-type: none"> 1. Extension program to support fish processing in fresh water fisheries products (Current). 2. Testing services for accredited quality control (Current). 3. Evaluation and improvement in the quality of water used to produce ice. 4. Waste utilization in CFC processing activities. 5. CSW investigation into prolonging the shelf life of fresh water fish. 6. Public awareness programs on fish processing in Tsunami affected areas.
	Information Technology Division	Extension Office
Cadre		
Responsibilities	<ul style="list-style-type: none"> • provide Internet services, system support; • geographic information systems (GIS), remote sensing; • modeling and training in computer applications; • host to local and regional level databases on aquatic resources and Provides links to other institutions involved in aquatic resources research; and • application of GIS technology for zonal planning in aquaculture and coastal resources management. 	The extension office comprises one Mass media individual charged with publicizing the work of NARA.
Outputs (2006-2007)	NA	NA

³⁰ Some of the above projects have been undertaken at the behest of NAQDA (11, 12). There are other areas where the activities undertaken are similar and there would appear to be a lack of coordination between the organisations

The budgets for research expenditure are identified below (Table 7).

TABLE 7: NARA Program budget, 2007

Division	Consolidated Fund (Rs m)	Additional donor funded projects (Rs m)
Marine	10.5	185
Inland Aquaculture	10.6	3.07
Environment	9.5	0.2
Post Harvest	2.7	9.7
Fish Technology		
Oceanography & Hydrology	7.6	
ITD		
SED		
Extension	2.5	
Yearbook & Journals	1	
Extension		
Total	44.4	197.97

Note: There is no private sector funding for research in these organisations.

Source: MFAR Action Plan

Some specific observations are as follows.

- The Marine Biological Resources Division (MBRD) is the largest with 42 staff. More than 95 percent of its research funding is derived from special projects (Donor funding). Some of the Division's projects are undertaken in collaboration with the other Divisions (such as Fishing Technology & Oceanography). This Division should provide the data sources for formulating management plans. The Fishing Technology Division (FTD) does not appear to be particularly active but there are some joint gear trials with MBRD and IARAD.
- The Hydrographic Division is the second largest of the Divisions, with 32 staff. The organisation undertakes some of the research activities supporting the assessment of coastal zone erosion as well as evaluating the impact of coastal aquaculture of harbours and anchorages. The Environmental studies Division provides a useful adjunct in assessing EIAs.
- Inland Aquatic Resources and Aquaculture Division (IARAD) undertakes some of its activities in consultation with NAQDA. However, both organizations would appear to work very much in isolation from one another³¹. Consequently, some research activities (NARA) may include areas that are not strategically assessed, and some development activities (NAQDA) might require greater adherence to research input.
- The Socio Economics Division (SED) would not appear to be particularly active. Moreover, core research would need to focus more on vessel and farm input/output analysis in order to focus on the viability of specific operations, current and new. There would appear to be a greater need for integration of economists into IARAD and MBRD.
- The PHTD (Post Harvest Technology Division) does not appear to be sufficiently proactive in undertaking consultancy services with industrialists. This niche would appear to have been taken by ITI.

³¹ D Weerakoon, DG NAQDA (pers com May 2007)

3.3.2.5 National Aquaculture Development Authority of Sri Lanka (NAQDA)

NAQDA was established by the *National Aquaculture Development Authority of Sri Lanka Act, No 53 of 1998*. It is charged with both implementation and development functions. It is vested with the task to leading development of aquaculture and inland fisheries. NAQDA's main functions are to develop aquatic resources and the aquaculture industry in order to increase fish production, and promote the creation of employment opportunities by developing freshwater aquaculture, coastal aquaculture, and sea farming. NAQDA is also responsible for preparing and implementing plans and programs for the management and development of aquaculture and aquatic resources.

BOX 7: Vision, mission, objectives and task statement of NAQDA

<p>Vision: To improve the quality of life of the people through sustainable development & management of aquatic resources of Sri Lanka.</p>
<p>Mission:</p> <ul style="list-style-type: none"> • to contribute to the improvement of the socio-economic status of rural societies by alleviating poverty; • to facilitate the availability and acceptability of aquatic food products to the consumer; • to manage the aquatic resources and ensure sustainability; and • to create an enabling environment for the development of small, medium & large scale aquatic enterprises.
<p>Objectives:</p> <ul style="list-style-type: none"> • to develop aquaculture and aquaculture operations with a view to increase fish production and fish consumption in the country; • to promote the creation of employment opportunities through the development of freshwater aquaculture, brackish water aquaculture and coastal aquaculture with the view to alleviate poverty among the rural masses; • to promote the farming of high valued fish including ornamental fish for export, in order to earn valuable foreign exchange to the country & to introduce technology and export opportunities to stakeholders in the industry; • to promote optimum utilization of aquatic resources through environmentally friendly aquaculture programs & good aquaculture management practices for sustainable development; • to promote & develop small, medium and large scale private sector investment in aquaculture; and • to prepare and implement programs for management, conservation & development of aquaculture.
<p>Tasks:</p> <ul style="list-style-type: none"> • fish fingerling production for stocking of water bodies in the country; • stocking of perennial & seasonal tanks to increase fish production in the country; • development of fresh water & brackish water aquaculture and mariculture of economically viable fish & crustacean varieties; • promotion & development of ornamental fish and aquatic plants for export; • development of post harvest technologies for fresh water fish to encourage increased consumption among urban populations; • encouraging public/private participation in aquaculture production activities; • enforcement of inland fisheries & aquaculture regulations; • rehabilitation & maintenance of infrastructure of NAQDA; • promotion of production, monitoring & regulation of shrimp farming; and • training of NAQDA, public and private sector personnel.

The GoSL is making efforts to encourage community-based fish-seed production and fish-farming systems, with a view to promoting private sector participation in aquaculture. The recently rehabilitated aquaculture development centres under NAQDA are involved in promoting fish-seed production and increasing food-fish production by the private sector, fishing cooperative societies, NGOs, and farmers, through their training and extension services. In some districts, inland fishers have identified over fishing and scarcity of fish in tanks as a problem. NAQDA's aquaculture development centres currently play an important role in supporting these developments by providing fish seed and technical training. NAQDA needs to develop the capacity to maintain information systems for the sector, and to use this information for planning and development.

NAQDA comprises 3 divisions (Appendix D.5):

1. Freshwater Aquaculture;
2. Coastal Aquaculture and Mariculture; and
3. Administration & Finance.

A summary of the current activities carried out under CF & Aquatic Resources Development & Quality Improvement Project³² (ARDQIP) are listed below. These may be subdivided into:

- providing carp fingerlings for the stocking perennial reservoirs (CF/ARDQIP);
- support to brackish water shrimp culture (CF);
- enterprise development for new aquaculture sectors (ARDQIP);
- environmental testing (RF/CF/ ARDQIP);
- training and extension (RF/CF); and
- monitoring (data collection), control & surveillance (fisheries inspection) (RF/CF).

The budgets for development and extension expenditure are identified in Table 8.

NAQDA is 77 percent dependent on donor support. This includes a limited income from private sources (Rs. 19 million in 2006), including:

- income from leased Aquaculture Development Centres;
- income from sale of fry and fingerlings; and
- income from issue of Management Licenses for aquaculture.

³² ARDQIP project run from 2003 to 2009. The components are focussed on the development of Chinese and Indian carps in seasonal and perennial reservoirs and enterprise development in milkfish, freshwater prawns, ornamental plants, artemia Brood stock development, tilapia cage culture establishing freshwater prawn culture, establishing milkfish hatchery/growout.

TABLE 8: NAQDA Program budget, 2007

Consolidated Fund Task	Budget (Rs m)	ARDQIP Task	Budget (Rs m)
Monitoring illegal fishing activity (inland)	0.5	Inland Fish production enhancement ³³	193.3
Special fingerling stocking (inland) programs	4	Identification of fisheries management areas and support to CBOs	
Exhibitions & Newsletter (inland)	1	Enterprise development in milkfish, freshwater prawns, artemia in saltwater lakes, tilapia cage culture, ornamental plants and brood stocks	16.75
Training fish farmers (inland)	0.75	Fish quality improvement and marketing (laboratories/processing & infrastructure)	16.5
Training NAQDA officers	2.25	Provision of credit	Forthcoming
Monitoring & Extension activities to shrimp farmers	1.5	Institutional strengthening ³⁴	95.1
Development of Shrimp Farms	0.5	Project management	58.2
Improvement to shrimp ponds and Infrastructure	5	Procurement	79.75
Shrimp farm effluent training	1		
Rehabilitating Dutch canal	36.5		
Controlling diseases and improving management of shrimp farms	1		
Establishing bio secured screening facility in NW Province	6		
Preparation for zonal plan at Trincomalee (shrimp)	6		
Development of ornamental industry	15		
Rehabilitation & improvement to facilities	29		
Rehabilitation & Acquisitions	5		
Total	115		459.6

Source: Action Plan 2007

The Organisation's cadre comprises 462 workers, 303 of which are in post. Table 9 identifies some of the core activities. There are 6 Aquaculture Development Centres: Udawalawe, Dambulla, Inginiyagala, Nuwara Eliya, Rambodagala AND Pambala. It has a network of regional extension officers in 15 districts including Vavuniya, Batticaloa, Kantale (Trincomalee) and Uhana (Ampara)

Some specific observations are as follows:

- The cadre has provision for 26 statisticians. This would appear to be somewhat excessive;
- The organisation lacks an economist. This is a vital role given the importance of using input/output to examine the feasibility of the different types of aquaculture.

³³ Upgrading the rehabilitation of NAQDA Hatcheries, Regional extension offices, Procurement of a complete brood stock, establishing mini hatcheries

³⁴ Construction of NAQDA HQ, Field training centre, training, Information system

TABLE 9: NAQDA cadre and numbers engaged and job specifications

Designations	Number approved	Number in post	Vacant
Director General	1	1	0
Directors	3	4	1
Deputy Directors	5	3	2
Assistant Director	1	1	0
Economist	1	0	1
Statistics	26	3	23
Legal Officer	1	1	0
Engineers	2	2	0
Senior Aquaculturist	4	3	1
Aquaculturists	29	21	8
Extension Officers	10	10	0
Enterprise Dev Officer	2	0	2
Community Development Officers	11	1	10
Senior Project Officer	1	1	0
Shrimp Project Officers	25	02	20
Aquaculture Project Officers (G1)	12	10	2
Aquaculture Project Officers (G1)	50	42	8
District Aquaculture Officers	25	7	18
Aquaculture Assistants	9	9	0
Others	208	182	
Total	426	303	

3.3.2.6 National Institute of Fisheries and Nautical Engineering (NIFNE)

NIFNE was constituted by law in December 1999 (Act No. 36) starting its first BSc programs in 2001. The aim of NIFNE is to become Sri-Lanka's "Oceans University".

BOX 8: Vision, mission, objectives and task statement of NIFNE

Vision: Become the leading and prominent fisheries training and education institute in the region of South East Asia
Mission: Development of technical and management skills of persons engaged in or expecting to be engaged in the industries related to aquatic resources through education and training in efficient and sustainable utilization of aquatic resources
Principal Objectives: NA
Principal tasks: <ul style="list-style-type: none"> • training, education; • consultancy; • disaster management and rescue operations; • project, planning, monitoring and evaluation; and • extension and management.

NIFNE is located in Colombo in the same location as NARA.

There are an additional seven regional training colleges under the auspices of NIFNE: Colombo, Negombo, Tangalle, Batticalao, Jaffna, Trincomalee and Galle. Some of these colleges have mobile training centres (numbers unspecified).

NIFNE has an approved cadre of 242 (Table 10), but presently 150 staff together with 15 drawn from on a sub contract basis from the Universities.

TABLE 10: NIFNE cadre and numbers engaged and job specifications

Designation	Approved	In Post	Vacancies
Chairman	1	1	0
Director General	1	0	1
Directors	3	0	3
Deputy Directors	2	1	1
Senior Lecturer	1	0	1
Lecturers	9	3	6
Naval Engineer	1	0	1
Legal Officer	1	0	1
Accountant	1	0	1
Asst. Accountant (Colleges)	1	0	1
Legal Officer	1	0	1
Internal Audit	1	0	1
Asst. Registrar (Exams)	1	0	1
Asst. Librarian	1	0	1
College Lecturers G1	6	0	6
Asst. Engineer (Civil)	1	0	1
Asst. Directors	8	5	3
Captain	5	0	5
College Instructors	42	22	20
Clerks	37	26	11
Seamen	26	24	02
Fisheries Training Assts.	15	12	3
Other	77	56	21
Total	242	150	92

Lecturers are also drawn from NARA and Universities to provide for additional support. Certificates and diplomas are issued for courses that last from 1-7 days up to one year. The courses cover a wide range of topics (Box 9).

BOX 9: Training courses provided by NIFNE

<p><i>Degree Programs</i></p> <ul style="list-style-type: none"> • B.Sc Fisheries & marine science; • B.Sc Marine engineering; <p><i>Diploma programmes</i></p> <ul style="list-style-type: none"> • Fishing vessels desk officers; • Marine engine technology; • Electronics in navigation; • Fibreglass technology and boat building; • Basic coastal hydrology surveying; • Aquaculture and fisheries management; and • Computer science. <p><i>Vocational training</i></p> <ul style="list-style-type: none"> • Fibreglass technology; • Ornamental fish culture; • Scuba diving; • Life saving; • Swimming; • Coxswain;

- Outboard engine repair, maintenance and operations;
- Electrical circuits in fishing vessels;
- Electronic navigation;
- Marine chart reading, communication and satellite navigators (GPS);
- Tig and Mig welding technology;
- Welding technology;
- Basic computer applications;
- Computer graphics;
- Marine Engine Technology;
- Fishing technology; and
- Marine science and disaster management.

3.3.2.7 Ceylon Fishery Harbours Corporation (CFHC)

CFHC was established in 1972 and is responsible for the construction, operation and management of all fishery harbours and anchorages (Box 10). The Corporation's activities are currently being appraised with a view to making the organisation more self sufficient.

There are 11 CFHC harbours. These include Panadura, Beruwala, Hikkaduwa, Galle, Mirissa, Puranawela, Tangalle, Kudawela, Kirinda, Mutwal and Cod Bay (Trincomalee).

BOX 10: Vision, mission, objectives and task statement of CFHC

Vision: To be the fundamental resource of the fisheries industry and the inspiration of the local fishing community while striving to become the top facilitator of the region's maritime enterprise

Mission: To deliver superior quality of fishery harbour related services together with supporting infrastructure to provide all modern facilities to the fishing community, and achieve self sustainability by upgrading the harbours through commercially viable ventures

Objectives:

- planning, designing and constructing fishery harbours, anchorages, marine structures and other shore facilities;
- establishment, operation, administration and maintenance of fishery harbours, anchorages, marine structures and other shore facilities;
- provision of repair and maintenance facilities for fishing vessels;
- establishment, operation and maintenance of cold rooms, ice plants and other refrigeration facilities
- supply of water, fuel, lubricating oil, electricity, ice, cold room facilities and any other incidental services to support the fishing industry;
- provision of security services to fishery services, anchorages, marine structures and other organisations within the MFAR, and recovering charges, fees and any other payment for such services;
- monitoring, controlling and surveillance of Sri Lanka's EEZ; and
- imposition and recovery of Common harbour charges, fees, charges, boat registration fees such as harbour charges, lighthouse charges, dockage, tonnage and unloading fees for the facilities, services and supplies provided for fishing vessels, fishermen and any other parties within the fishery harbours and anchorages of the Corporation.

Table 11 below provides some indication of harbour usage.

TABLE 11: Harbours activity income and financial viability

Harbour	Vessels	Income	Profit/Loss
Beruwala	388	6 093	(637)
Hikkaduwa	119	826	(3 400)
Galle	270	7 009	(2 000)
Mirissa	94	3 256	(2 600)
Kalpitiya	277	521	(2 781)
Panadura	205	1 099	(1 119)
Tangalle	132	2 870	(5 799)
Puranawella		3 615	(2 344)
Kudawella		2 418	(2 135)
Kirinda		1 208	(5706)
Cod Bay	123	5 491	32
Mutwasl	97	21 026	16 807
Hambantota	Na	Na	Na
Ambalangoda	Na	Na	Na
Chilaw	Na	Na	Na
Total	1 705	55 432	(11 682)

Source: CFHC Corporate Plan

Income is generated from berthing charges, fuel sales, water and gate passes. Income rarely covers harbour costs, and attempts to increase harbour levies have not had public support. Harbour refurbishment has been broadly covered by Donors, but the Consolidated Fund continues to support CFHC (Rs 264m in 2007).

The organisation has a staff complement of 637 workers (Table 12). The following comments are made:

- The organisation has been required to absorb new staff as a result of Ministerial decrees. This has made it extremely difficult for the organisation to streamline its activities to operate as port specific costs centres.
- The organisation is top heavy in HQ management, clerical staff and security. CFHC along with the other Corporations would like to reduce staff numbers but are prevented from doing so. The Public Enterprise Reform Commission (PERC) provides advice for rationalisation of expenditure and identification of realisable income options (e.g. leasing land).

TABLE 12: CFHC employment and approved cadre in CFHC, 2007

Staff	Number
HQ Management	
General Manager	1
Other Managers	15
Dep Manager	1
Legal Manager	3
Civil Manager	5
Harbour Manager (HQ)	1
Harbours	
Harbour managers	18
Cashier	9
Clerks	65
Civil supervisor	31
Diesel store keeper	27
Labourers	46
Security	103
Others / Marine Pollution control	57
Contract labourers	46
Other HQ staff	
Accountants	4
Clerks	88
Security	51
Others	66
Total	637

Source: CFC Corporate Plan, April 2006

3.3.2.8 Ceylon Fisheries Corporation (CFC)

The CFC was established in 1964 with a mandate covering all activities pertaining to the fishing industry. The mandate has been gradually reduced as some parts of the operation are divested elsewhere (e.g. the creation of CFHC). The organisation is primarily responsible for 11 ice plants, 12 cold rooms and an extensive network of fish vending shops (100), *Ceyfish* is a well known and respected brand name amongst Sri Lankan consumers. CFC has been a major beneficiary of post Tsunami donor funding through JICS including the receipt of 30 cold chain distribution trucks and two long line vessels. The organisation has not received any central government funding since 1991.

The main income comes from the sale of fish, providing service to foreign vessels at the harbour of Mutuwal, sale of ice, filleting and packaging fish, and cold storage facilities. Following the civil unrest in the North and East all CFC activities were discontinued in the region. With few exceptions the CFC has been operating with losses, implying cuts in costs and activities. At present the CFC only handles a reported 1 percent of total landings made into Sri Lanka.

BOX 11: Vision and objectives and tasks statement of CFC

Vision: To be the leading National commercial organisation guiding and promoting fishing, processing and marketing, maintaining safety standards and be able to secure a profitable and sustainable future benefits to all involved in the fishing industry.
Mission: NA
Objectives: <ul style="list-style-type: none"> • to be an effective organisation to contribute more to the Gross National Product; • to be the most significant organisation responsible for marketing of fisheries production, processing and marketing; • to be of assistance to the Fisheries Regulatory Authority for continuous improvement in fisheries management systems for the conservation of fishing stocks, protecting the country's general interest • to (optimise) increase the stability of methods used in resource allocation for integrated development of the industry; • to maximise economic growth of the sector by stimulating value added production; • to (harness) strengthen the economic activity of fishermen and to obtain greater (achievement) development of production capacity; and • promoting sustainability, fair access and quality recreational fishing opportunities.
Tasks: <ul style="list-style-type: none"> • purchase and sale of fish; • production and sale of ice; • provision of cold storage facilities and their maintenance; and • production and sale of fishery by-products.

In 1996 the CFC was subjected to a restructuring/privatisation exercise by PERC (Public Enterprise Reform Commission) but whilst some bids were received, these were perceived as too low and against the public interest.

The organisation has a staff complement of 708 workers. These include 118 clerical workers and 391 others.

TABLE 13: Employment and approved cadre in CFC, 2007

Staff	Number
General manager	1
Head of operations	1
Chief engineer	1
Managers (Finance, Planning, Personnel, Admin)	5
Internal audit	2
Civil engineer	26
Grade 2 Executives	6
Grade 3 Executives (Managers)	12
Grade 4 Executives (Managers)	21
Technical staff (Machine operators, radio officers, carpenters, masons, welders, plumbers, mechanics)	72
Store keepers	12
Fish supervisors	15
Purchasing officers	8
Sales assistants	51
Clerical officers	118
Security staff	23
Contractual	61
Others	391
Total	708

3.3.2.9 Cey-Nor Foundation Ltd

CEY-NOR was established in 1967 as a non-profit organisation, but was turned into a public limited liability company in 1990. Its objectives are to build and sell fishing vessels and related marine equipment, fishing nets and other gear, and to operate workshops for the fishing industry. In practice the operations of CEY-NOR are limited: operating one boatyard and three gear factories (2002).

Attempts were made to privatise CeyNor Ltd in 1994. PERC reviewed the proposals for privatisation in 1996, but no proposals were received. The organisation's vision, mission and objectives are summarised below (Box 12).

BOX 12: Vision, mission, objectives and task statement of CeyNor Ltd

Vision: To be the market leader for high quality fishing nets, fishing vessels and various types of fishing gear and other allied products in the Sri Lankan market and to achieve a significant position as an exporter of such products
Mission: To achieve excellence as a provider of goods and services required by the fishing industry, maintaining quality, and customer care and employee satisfaction and to achieve the desired levels of productivity and commercial viability
Objectives: <ul style="list-style-type: none"> • to be an effective contributor to the development of the fishing industry by supplying high quality products such as fishing vessels and fishing gear; • to provide caring customer service; • to equip the factories, the boat yards and the workshops with the required capital equipment and facilities and a trained workforce in order to achieve optimum levels of productivity; • to upgrade the existing technology and adopt new and improved technology in the business; • to motivate and reward employees on performance based criteria; • to aggressively promote the products of the Company and to obtain a substantial share of the market and enter the export market; and • to achieve commercial viability in the operations of business.
Principal tasks: <ul style="list-style-type: none"> • manufacture and sell fishing nets; and • manufacture and sell fishing boats.

The organisation has a staff complement of 397 workers (Table 14). These include skilled and unskilled workers as well as 51 clerical workers.

TABLE 14: Employment and approved cadre in Cey-Nor, 2007

Staff	Number	Required cadre
General manager	1	1
Finance manager	1	1
Other managers	9	10
Assistant Managers (G3)	9	10
Quality controller	0	1
Ex assistants (G4)	11	15
Primary level skilled	251	308
Clerical	51	55
Primary level semi skilled	22	21
Primary level unskilled	42	49
Total	397	471

3.3.3 Non Government organisations

3.3.3.1 Fisher Cooperatives

The co-operative sector in Sri Lanka comprises 924 village level Fisheries Co-operative Societies with a total membership of 116 000. The stronger Fishery Cooperative Societies have tended to operate in the North and East, as well as in the Negombo and Chilaw area. DFAR,

the Department of Cooperatives, Donors and NGOs have been seeking to support the expansion of cooperative societies in the southern and western provinces. The fishers are members of Fisheries Co-operative Societies (FCS), which are organised in a three-tier structure: primary societies, secondary unions (6 groups) and an apex federation called the National Federation Fishermens' Cooperatives (NFFC), based in Negombo. Approximately 115 of these societies have been transformed into fisheries banks (Indiwara). Other functions include settlement of disputes and social welfare support. Some of these organisations, particularly those in the North and East, have set up collective marketing organisations. Because of the nature of the communities in these areas, fishers and their households tend to be very reliant on the cooperative structure. In contrast, the cooperative movement in the south and west is rather diffuse. Table 15 below shows the current status of the cooperatives in the 14 districts.

Table 15: Distribution and activities of fishery cooperative societies, 2007

District	Active including Bank functioning	Active without Indiwara Banks	Inactive	Total	% active
Puttalam	17	15	26	58	55
Chilaw	12	20	22	54	59
Negombo	5	14	20	39	49
Colombo		8	6	14	57
Kalutara		8	3	11	73
Galle	4	24	30	58	48
Matara	4	10	35	49	29
Hambentota	18	5	25	48	48
Ampara	15	67	29	111	74
Batticaloa	15	104	15	134	89
Trincomall	5	52	14	71	80
Mullaitive		17	5	22	77
Jaffna	6	111	6	123	95
Kilinochchi		13	5	18	72
Mannar	11	19	9	39	77
Polonnaruwa		3		3	100
Anuradhapura		11	5	16	69
Monaragala	1	4		5	100
Badulla	1	6	3	10	70
Kandy		1	1	2	50
Nuwaraeliya		4		4	100
Kegalle			2	2	
Ratnapura		3	2	5	60
Matale	1	5	5	11	55
Vavnia		7		7	100
Kurunegala		5	5	10	50
Total	115	536	273	924	70

Source: FSDD

The following services are expected to be provided by the Coops (Box 13).

BOX 13: Role & functions of Fishery Cooperative Societies

Duties of Fishery Cooperative Societies

- operate Indiwara banks;
- conservation and management of fisheries resources and involvement in conciliation of fisheries disputes and introduction of innovative technology;
- marketing of fisheries inputs (Fuel, gear, ice);
- providing welfare services (loans for welfare functions such as funerals);
- maintenance of Community facilities and amenities for fishers;
- contributing to the maintenance of fishery harbours and anchorages;
- conducting and directing training programs to create awareness among fishers; and
- assist in enlisting members to the Pension Fund

Banks:

- loan facilities for the fishing industry (purchase of fishing gear, marketing of fish, self employment);
- consumer and other loan facilities;
- savings schemes;
- pawning of gold & jewellery;
- marketing of fish & other products; and
- development programs for youth, children and women.

3.4 An overview of the principal problems

3.4.1 Institutional performance

Summary observations on organisational strengths and weaknesses (Appendix E) were identified within dedicated institutional performance workshops (Appendix K.3). The key observations are as follows:

(1) MFAR's departments, agencies and corporations comprise 8 institutions. The definitions for some of institutions' objectives show that organisations are implementing, developing and researching all at the same time, when there needs to be a finer definition between policy, implementation, research and development, and some rationalisation in organisational structure. More clearly defined and linked roles would also facilitate greater interaction when it comes to fulfilling specific tasks that can support the achievement of the national objectives. This includes improving support to the private sector.

It is therefore essential to:

- refine the missions to reflect the differentials between policy, implementation, research, extension and development goals;
- refine the objectives in the light of the above and the principal policy objectives (to be discussed in Section 4).

(2) The process of initiating policies into defined actions appears to be strong. The activities to support policies are translated into Annual Action Plans and these are monitored by MFAR. However, implementation of policies appears to be a bottleneck. The Annual Action Plan is very capital expenditure focussed, and deliverables on human resource activity are difficult to identify, most specifically, the actions of the fisheries inspectors and social development officers.

It is therefore essential to:

- refine each Organisation's tasks in order to suite activities required (to be discussed in Section 4).

(3) MFAR, and its implementation agencies, particularly DFAR has access to extensive human resource pool in most of its areas of activity. This is as a result of the Government's policy of employing graduates. Groups such as fishery inspectors are well resourced. However, there are some problem areas. CCD, has most recently lost the coastguard reducing the compliance resources. Some of the organisations, most specifically NARA and NAQDA are under resourced. Moreover, other organisations such as the Corporations are expected to absorb large groups of graduates. These organisations are required to operate as independent entities and additional employees increase the burden of costs on such organisations.

It is therefore essential to:

- review each institutes organisational chart in order to optimise the delivery of the institutes objectives; and
- review the cadre requirements needed to undertake the activities.

(4) Sri Lanka has had a good track record in obtaining support for its development programs. However, development plans appear to show either no or weak linkages to longer term sustainability, and in some cases take precedence over other core implementations activities. Examples of long term reliance on donor as opposed to Consolidated Fund support activities include three successive coastal zone development programs.

It is therefore essential to identify and distinguish between:

- the opportunities that must be sustainable in the long run and should operate without the support of donor funding;
- the opportunities that may be sustainable in the long term that would benefit from short term capital expenditure and technical advice, and
- the opportunities that require capital expenditure, reduce poverty and where the GoSL does not have the financial capacity to implement fully.

(5) Some of the R&D components are heavily under resourced in terms of capital and human resource capacity. NARA and NIFNE are allocated small annual quantities of funding from the Consolidated Fund, and do not appear to be actively engaged as Service Centres to support management planning or act as service centres to support key development needs, i.e. training in areas that are needed to support the national development program.

It is therefore essential to identify systems where:

- the organisations could realise funding through greater cooperation and integration, more specifically involving linkages to the private sector, but also representing a link between research, development, training and extension.

(6) The corporations have developed into less efficient organisations where over staffing is a key constraint to operating profitably and efficiently. Organisations may adapt by identifying added income opportunities, or offloading non essential assets, but rationalisation of the workforce is not for debate. The problem is that the Corporations cannot operate units as efficiently as the private sector, and in some cases they do not adequately or appropriately utilise some of their assets. CFC has to a large extent departed from the original mandate set for it, i.e. selling low cost fish to the poor and needy, and is now acting as an intermediary source of supply for the export industry, absorbing margins to support its functions, without fulfilling its defined role.

It is therefore essential to:

- identify the major opportunities for the corporations;
- identify the major bottlenecks being experience and find ways to remove these, and
- refine the corporation tasks and activities in the light of changes to policy.

(7) The principal non Government organisations, the Fishery Cooperative Societies, and its hierarchical structure still require considerable support from the FSDD. Most successful organisations have good leadership and a strong community spirit. However, the focus on cooperative banking has distorted the perception that these organisations can evolve into dynamic economic enterprises which can support the fishers and female members of the community. The loss of fishers to MDBs, also suggests a serious need for cooperatives to amalgamate into clusters. Most specifically, without empowerment at village level, it is unlikely that the NFFC will ever have the capacity to support the cooperative structure. This organisation requires considerable strengthening in finances and management capacity. This may possibly only be achievable through a bottom up strengthening, but strong leadership, and access to donor support funding would allow, at least for the organisation to work in partnership with FSDD, DCD, the departments and agencies.

It is therefore essential to:

- Develop the cooperative structure to a position where it will be self sustainable.

3.4.2 Professional performance

All organizations have tenured staff with prospects of long-term employment, thereby becoming available for professional development. Cadres that are allowed to an organization are fixed through a procedure of 'approval' of both positions and numbers. Personnel practices follow established government systems and procedures in regard to recruitment, appraisal and training as well as matters such a disciplinary control. In fact an established structure of positions guides selection and recruitment with government approved schemes for recruitment, promotions and disciplinary control. The schemes of recruitment and promotion are usually vetted by the relevant government authority, hence establishing uniformity in terms of qualifications and experience and salaries.

All jobs therefore usually carry 'duty lists' as far as the two departments are concerned and 'job descriptions' in respect of the government organisations. Training is mostly provided through placements in formal institutional training courses, both local and foreign. Incentives are available for improving knowledge especially for professional grades through arrangements that provide 'duty' leave and payment of specified course fees.

An elaborate staff performance appraisal system was introduced by Public Administration Circular in 1998. The performance appraisal system was linked to the granting of the 'annual increment', in order to ensure that a 'proper appraisal of work performed during the incremental period' is carried out prior to granting of the increment. The scheme of performance appraisal was made applicable to all 'public officers', i.e., officers of the public service, which excludes officers of statutory bodies. The provision in respect of performance appraisal therefore will apply to DFAR and CCD. The scheme involves agreement between the appraisee and appraiser regarding (i) the main areas of responsibility, (ii) key tasks to be completed, (iii) specific performance indicators, and (iv) facilities and resources that are necessary to ensure performance. The scheme is comprehensive and presumes well defined jobs linked to measurable outputs.

Significant gaps have been found to exist in practice that have tended to undermine the credibility of the human resource management systems and procedures in all of the organizations. Overall there is an urgent need to optimise utilization of available staff both in terms of deployment and matching of skill and jobs especially at supervisory levels. There is a perception in some of the parastatals that government controls on recruitment do not allow appropriate personnel to be employed. While recruitment must always be justified on the basis of need, the tendency for government controls to become restrictive arises from the approving authorities adopting standard norms that may not adequately address specific cases and at the very least cause delays in approval and hence in staffing.

Selection and recruitment in all agencies have in practice often deviated from the ideal procedure. The situation would seem to be particularly serious in the case of parastatals.

As far as selection, recruitment and promotion are concerned there seems to be much flexibility with regards to established procedures in some instances resulting in deviation from such procedures. This situation was found to be of particular concern in the statutory bodies where the top management, chairman and governing boards appear to be politically appointed. In general it was found that the appointment of persons to job positions often does not take place only according to suitability which means that the system of promotion is vulnerable to manipulation. In so far as the schemes of promotion being the avenues of career progression, manipulation of promotions may in some cases close opportunities of advancement to the majority of the qualified staff. The process thus becomes susceptible to manipulation and loses credibility and confidence of the mainstream of the staff.

Perhaps the more serious gap in human resource management is in the area of training. All of the sector organizations lack a coherent, comprehensive and consistent system of staff training. No organization has so far been able to formulate and implement a training plan that addresses training needs of the organization on a systematic basis. There are several aspects that indeed have a negative effect in regard to the acquisition of skills and knowledge for competent job performance. Most importantly there is no systematic transfer of knowledge either at induction or while in service. Secondly, there is no proper basis for deciding upon training priorities and selection of individuals for training. It makes access to training opportunities inequitable, especially the much valued foreign training.

Thus training is often ad hoc, often leaving a gap in staff development. Provision of 'duty leave' for the pursuit of professional training does not make for staff development. This makes promotions totally inadequate as the mode for career progression. It is significant to note that personnel systems in the sector organizations (whether the two departments or the statutory organizations) are in effect 'closed' in so far as lateral entry at promotional levels is minimal. Then systematic induction and in-service training become a must for ensuring the levels of competency required to perform jobs up to standards necessary for achieving planned results.

This inadequacy is reinforced by the reduction of the staff appraisal system to a routine recommendation of the annual salary increment. It was found that the salary increment is rarely denied, unless for disciplinary reasons that are not questions of output. It is the consensus at all levels of staff interviewed that the staff appraisal system does not work though it provides for setting of standards, measurement and support for improving performance. The situation is no different in the statutory organizations where the practice of the public administration system of staff performance appraisal is not mandatory. The staff appraisal arrangements in place lack depth and does not seem to provide the necessary support to staff in improving their performance. This often results in the absence of effective supervision of staff performance. It

was the view of staff interviewed at all levels across the sector organizations that the lacuna in the practice of staff appraisal is cause and effect of the break down in the capacity of human resources management to create a credible working environment.

There is too little focus on productivity. The human resource management systems do not create or provide adequate incentives for motivating enhanced performance. There are no incentive schemes for improving staff productivity. There are no schemes for recognition and reward of good performance.

It will therefore be necessary to approach the improvement of the status of human resource management in a coherent and comprehensive manner in order to establish a credible system.

Important elements of a program for improving human resource management will consist of the following:

- Define staff roles and job specifications more clearly in line with policy requirements;
- Identify and introduce a system of training and career development to provide the required skill levels for competent performance of job requirements;
- Revamp staff appraisal systems;
- Provide top management oversight for ensuring greater consistency in human resource management through the formulation and adoption of 'best' practices;
- Negotiate and provide for options in staffing of specific 'project' requirements; and
- Establish credible and consistent reward systems.

3.4.3 Institutional motivation

The human resources management situation sets the work environment in which staff members at all levels perform their job responsibilities. The fundamental problem with the current human resource situation in the sector organizations is their formalistic nature, what is prescribed as procedure and how things happen. It has significant implications for the levels of motivation not only to carry out individual job responsibilities but also to team up with others in producing the collective effort that is necessary for enhanced levels of organizational performance.

A major finding of this study regarding institutional motivation in the sector organizations is the differing perceptions of the executive and non-executive staff levels regarding the status of institutional motivation. Thus while the executive levels considered organizational morale to be 'high', the non-executive levels found organizational morale to be 'satisfactory'. Similarly in regard to interaction of staff the executive levels considered staff interaction to be 'positive', the non executive levels found the situation to be less than positive while some considered enthusiasm to be low in teaming up for work. From an institutional point of view this divergence in the perceived task situation between executive and non-executive levels is of significant importance in sustaining required levels of staff productivity and organizational performance.

The executive and non-executive levels cannot work in isolation and staff interaction should not only be at peer level but also between different task levels. In this regard the senior managers in particular have a critical role in ensuring that vertical interaction is positive and the staff under their purview work as a team. This would have important implications for the accountability of senior managers in terms of responsibility for the team and to the team. The feedback from non-executive levels in this regard was that there is little or no responsibility for

or to the team which leaves the lower levels isolated in the overall organizational situation. This constitutes a serious lacuna in the institutional motivation framework.

In this regard the role of training is important if not critical in sustaining a sense of involvement not only in task performance but also for the team and the organization. However as pointed out earlier training is ad hoc and does not take on a motivational role and function in terms of creating a mindset of willingness to work on the part of all categories of staff. Clearly a more dynamic training function is necessary that would contribute towards high organizational morale and positive staff interaction.

The status of institutional motivation in the public sector fisheries organizational system (Appendix F) suggest several critical organizational planning and management issues affecting performance at the individual level. It is significant to note that the assessment of the current status of institutional motivation varied as between the executive and non-executive levels.

- **Institutional Motivation:** Organizational morale was assessed as being 'high' and staff interactions 'positive'. The non-executive assessed organizational morale to be 'satisfactory' and considered staff interaction to be less than positive while some considered that enthusiasm was low in teaming up for work. However DFAR found staff to be enthusiastic when performing 'specific' activities.
- **Standards and Performance:** Basic levels of performance requirements are set by the 'Lists of Duties' and 'Job Descriptions' with a broad correspondence but not explicitly targeting organizational goals. Even though some of the organisations have corporate plans, performance standards are not available on a job basis. The departments are required to conform to government performance appraisal system where the appraiser and appraisee are required to agree on an annual work plan. Nor do organizations have 'training plans' supporting job performance.
- **Measurement System:** A broad notion of organizational performance measurement exists linked to Action Plan targets. However these are physical and financial and not related to outputs. Measurement of performance is more of a 'review' (perceived by some as measurement), usually taking place at the organizational level, with little or no measurement or review taking place at the 'division' level. Delivery targets are used for project type activities (such as NARA) while output targets are used by organizations with program type activities.
- **The review process examines reasons for under performance though systematic analysis in terms of organizational gaps and training requirements is not undertaken.** The analysis of underperformance at the individual level is a very limited exercise carried out as a part of the application of the performance appraisal system and usually linked to the routine of recommending the 'annual salary increment'. Usually underperformance at the individual level does not get analyzed for motivational factors though the appraiser-appraisee interaction is expected to
- **Managers Role:** A manager's accountability for performance is only upwards, more in the nature of being 'answerable' with little or no accountability to the 'team'. The situation would seem to be different in the two departments where there appears to be greater interaction between managers and their staff. Staff appraisal systems exist, linked to the payment of the annual salary increment (usually paid in any case) and hence lacking in appraisal content.

- Reward System: Systems for reward of good performance do not exist as a part of HRM practice. Financial rewards do exist but linked to specific job tasks such as prosecutions (DFAR, NAQDA), consultancy fees (NARA). Most public corporations are usually able to pay an 'annual bonus' which is not linked to performance. Other forms of reward and recognition are not practiced, though a system of 'commendation' for good work exists in government departments.
- Career Planning and Development: Advice and guidance on career planning is not standard 'personnel' management practice. In the government departments the appraiser-appraisee interaction within the framework of staff appraisal is required to discuss career development expectations and needs. However it would rarely extend to non-executive levels. Training needs will also be taken care of in a similar manner.

Participation in formal local and foreign training course offerings constitute the common mode of staff training and learning. The practice of on-the-job-training is no longer undertaken on a systematic basis as a job responsibility of the manager/ supervisor.

- Succession Planning: There is no succession planning in any of the organizations and seems to be often confused with promotion.
- Recruitment and Selection: All organizations have approved schemes of selection and recruitment as a part of government's cadre management exercise. The general consensus is that the selection and recruitment procedures are vulnerable to disruption or may be undermined by manipulation.
- Efficiency: Most organizations considered staff productivity to be 'satisfactory' rather than 'high'. Staff turnover is not a problem generally, though for some staff categories (research staff at NARA and extension staff of NAQDA) turnover is an issue. For most organizations and for most job categories absenteeism is not a problem. However there is absenteeism in administration and finance divisions generally. Absenteeism is a problem in production level jobs, especially in Cey-Nor.
- Relevance: Periodic and systematic review and revision of programs does not take place, except when carrying out a corporate planning exercise. (Periodic updating of the CZMP is perhaps the only case of periodic revision of organizational programs.) Such review and revision of programs would not involve change of mandate and would be accommodated with changes in departmental responsibilities. In any event changes in departmental responsibilities would occur on a regular basis in response to natural, social or political events. Changes in departmental responsibilities would in turn be accommodated within the existing job specifications as 'duty lists' in the public sector would constitute a very broad statement of responsibilities.

The fundamental issue about institutional motivation is the formalistic nature of organizational systems and procedures that set the work environment for job performance. Thus while systems and procedures exist for selection and recruitment, setting job standards, career progression, training, performance analysis and measurement, there is a general weakening in their application in creating a framework of institutional incentives for generating high levels of morale, staff interaction and productivity. Thus training is reduced to ad hoc responses to course offerings, staff performance appraisal is reduced to a routine of recommending salary

increments and accountability for performance being vitiated by the absence of an output orientation.

Improving institutional motivation would therefore involve creating and sustaining a work environment wherein there will be greater willingness to perform on the part of all categories of staff. While making human resource management systems and procedures work will be important it will also be necessary to redesign the work situation in such a manner that motivates better performance.

Important elements in the re-design of the work situation will be the following:

- Job tasks to be more output focused in order to make individual activity more measurable and to bring about a greater sense of achievement and contribution to the organization;
- Integrate training with work through quality management initiatives;
- Recognition and reward for good work done;
- Re-vamp staff appraisal systems to strengthen its motivational content; and
- Create greater opportunities for team work.

3.4.4 Training Needs

Improving organizational performance will therefore assign a critical role to training. The results framework for achieving the Ten Year Plan targets identified several areas of subject specific training. The management planning situation of the sector organizations assessed through SWOT analysis pointed out weaknesses in several areas of organizational functions. *Improving institutional motivation will require training that will support organization development (OD) in the sector organizations.*

For purposes of understanding capacity building issues for achieving institutional relevance and organizational performance it is necessary to disaggregate capacity by different levels of functionality. Thus the institutional system for the delivery of the Ten Year Plan can be disaggregated into three levels:

- Sector Level: Core performance responsibility at the sector level will be to steer the defining, negotiating and coordinating the roles and responsibilities of the sector organizations and stakeholder partners.
- Organization Level: Establish a credible framework of planning and management systems, procedures and practices
- Individual Level: Establish a work environment that will create competence and sustain a positive mindset.

Training will address competencies at the three levels of performance.

Training needs will be different at the different levels in terms of the respective institutional role and responsibility and hence the scope of knowledge, skills and understanding to perform competently.

At the same time there are three areas of training needs necessary to support institutional relevance and organizational performance in achieving Ten Year Plan results.

a. Subject Specific Training

Subject specific training will focus on knowledge and skills required to perform service delivery job tasks in the sector organizations. The specific areas of training would be identified and prioritized according to the program activities undertaken by the sector organizations. Subject specific training will be mainly at the organizational level.

There will be two broad categories of subject-specific training at the organizational level:

- Professional training of an educational content; and
- Job-specific training with knowledge and skill content.

b. Training in Planning and Management

Improving organizational performance will involve knowledge, skills and understanding of the core functions of organization and management in delivering services.

Important areas of training for improving organizational performance will be the following:

- Planning and management of service delivery;
- Human resources management; and
- Resource management, mainly in the areas of finance and information technology.

c. Training for Organizational Development

Improving institutional motivation will involve training that will support change and re-orientation of the work situations:

- Change management;
- Teamwork and team development; and
- Communication skills.

The training needs matrix and training plan are identified in Table 16.

TABLE 16: Training Plan for institutional capacity building

Training Purpose	Training Area		
	Subject Specific (Knowledge and Skills on Service Delivery Activities)	Planning & Management (Knowledge and Skills on Systems and Procedures for Managing Service Delivery)	Organization Development (Knowledge and Skills on Methods and Approaches for Developing a Positive Work Environment)
A Sector (Knowledge and Skills for Steering the Coordination of Roles and Responsibilities or Institutional Partners in the Delivery of Ten Year Plan Results)			
1. Sector systems management		<ul style="list-style-type: none"> - Course on policy management for MFAR and sector organization directorate level staff - Course on preparation of policy documents - Course on program review 	
2. Sector process management	Training on managing interactions with sector stakeholders for MFAR and sector organizations <ul style="list-style-type: none"> - Stakeholder analysis - Negotiation skills - Public-private partnerships 	<ul style="list-style-type: none"> - Course on program and project management for MFAR and sector organization directorate level staff - Course on managing organizational networks (coordination, monitoring and facilitation) for MFAR and sector organization directorate level staff - Course on sector policy reporting - Seminar on legal and regulatory framework for the fishery sector - Seminar on investment opportunities in the fisheries sector 	
3. Change management			<ul style="list-style-type: none"> - Course on managing organizational change for MFAR and sector organization directorate level staff

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Training Purpose	Training Area		
	Subject Specific (Knowledge and Skills on Service Delivery Activities)	Planning & Management (Knowledge and Skills on Systems and Procedures for Managing Service Delivery)	Organization Development (Knowledge and Skills on Methods and Approaches for Developing a Positive Work Environment)
B Organization (Knowledge and Skills for Establishing Systems, Procedures and Practices for Service Delivery)			
1. Planning and management of service delivery	<p>Job-specific training to deliver Ten Year plan sub-objectives</p> <p><u>Conserve coastal and aquatic environment (Fisheries)</u></p> <ul style="list-style-type: none"> - Training on participatory co-management for fishers - Training program for fisheries inspectors - Seminar on case management procedures <p><u>Improve food safety, product marketing and nutrition</u></p> <ul style="list-style-type: none"> - Training on food safety and traceability - Training on post harvest handling for fishers - Awareness workshops for local administrators - Awareness training for DFAR officers - Food labelling and certification <p><u>Optimize employment and increase fishery income (Marine)</u></p> <ul style="list-style-type: none"> - Training for cooperative extension officers - Modular training for skippers <p><u>Optimize employment and increase fishery income (Aquaculture)</u></p> <ul style="list-style-type: none"> - Training of trainers on production systems and input management; - Training of NAQDA extension officers - Training of extension officers of other institutions <p><u>Conserve coastal and aquatic environment (Coastal Zone)</u></p> <ul style="list-style-type: none"> - Training on compliance monitoring and reporting in the districts/divisions 	<ul style="list-style-type: none"> - Course on corporate strategy/ strategic management for top management and heads of divisions of sector organizations - Course on results-based planning and monitoring for heads of divisions, senior managers and planning staff - Course on strategic leadership for heads of divisions and senior management - Course on program and project management for DFAR District Assistant Directors and CCD Area Managers - Course on benchmarking and best practices for heads of divisions and senior managers 	<ul style="list-style-type: none"> - Course on leadership for supervisory level staff - Training on problem analysis and problem solving for heads of divisions and senior managers - Training on quality management (e.g ISO) for organizations ?
2. Human resources management	Educational training for professional development of the technical cadres to provide advanced knowledge in core subject areas of service delivery	<ul style="list-style-type: none"> - Course on HRM for heads of divisions and senior management - Seminar on the preparation of job responsibility 	- Course on HRM for supervisory staff

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Training Purpose	Training Area		
	Subject Specific (Knowledge and Skills on Service Delivery Activities)	Planning & Management (Knowledge and Skills on Systems and Procedures for Managing Service Delivery)	Organization Development (Knowledge and Skills on Methods and Approaches for Developing a Positive Work Environment)
	responsibilities of MFAR, DFAR, CCD, NARA, NAQDA, NIFNE	statements for heads of divisions and supervisors - Seminar on performance appraisal - Seminar on organizational reward systems - Course on training management for heads of NIFNE Regional Colleges and HRD staff of MFAR and sector organizations - Training of trainers for NIFNE trainers	
3. Resource management	- Courses on resources management (Finance and IT)	- Training on applications in resource management	- Training on quality management
C Individual (Knowledge and Skills for Managing Competence and Sustaining a Positive Mindset Amongst Staff Members at all Levels)			
1. Team building			- Courses for senior managers and Supervisors
2. Communication			- Course for work teams (Divisions/ Districts/ Area Offices) on giving and receiving feedback
3. Introducing Change			- Course for senior managers and supervisors

The training requirement thus extends from short one/two day seminars/workshops through short-term three to five day training course (both modular and one-off) to long term educational training for professional development. Operational training at the organizational level would be best approached through a combination of formal training for supervisors who would in turn transfer knowledge and skill to the rest of work teams through on-the-job training mode, as an integral part of streamlining systems, procedures and practices.

Therefore it is imperative that a human resource development function is established in all organizations with responsibilities extending beyond the traditional administration and personnel management functions. Since training would constitute an integral and an important component of institutional capacity building the focal point for the human resource development initiative would lie in MFAR. The role of the focal point would be to formulate and monitor the implementation of a sector training plan. The MFAR administration division would require strengthening to undertake the new and additional role and responsibility.