MULTI-STAKEHOLDER PROCESSES (MSPs) IN RESPONSIBLE FISHERIES MANAGEMENT

Over the last decade, approaches to fisheries management and governance of fisheries resources have been undergoing a significant transition. The focus is shifting from the stock and species based management to conservation and ecosystem based strategy (EAF: Ecosystem approach to Fisheries Management). Governance is shifting towards community based and co-management approaches, which emphasize fisher participation and development of authority and responsibility.

Why co-management? The crisis in fisheries and coastal communities is pressurizing national governments to look for alternative management strategies. These alternative approaches range from community based management and co-management, meant to address the lack of participation and conflicts that were the legacy of centralized management, to market regulation and rights based management.

There is increasing realization that there is a need to change the structure of governance. Co-management includes the sharing of governance structures between stake holders in the resource and institutions of local collective governments of common property. Co-management is a consensus driven process of recognizing different values, needs, concerns and interests involved in managing a resource.

Partnerships are pursued, strengthened and redefined at different times in the co-management process depending on the existing policy and legal environment, the political support of government for community based actions and initiatives, and community organizations capacities to become partners of the government. Co-management is a partnership arrangement in which government, the community of local resource users (fishers), external agents (Non-governmental organizations, academic and research institutions) and other fisheries and coastal resources stakeholders (boat owners, fish traders, money lenders, tourism establishments etc.) share the responsibility and authority for decision making in the management of a fishery. This form of responsible fisheries management approach entails the Multi-Stakeholders Process (MSPs) which aim to bring together all major stakeholders in a new form of communication, decision finding/making on a particular issue.

What are Multi-Stakeholder Processes (MSPs)?

Multi-Stakeholder Processes (MSPs) in fisheries management are processes that aim to involve stakeholders in improving situations that affect them. These are forms of social interaction that enable different individuals and groups who are affected by an issue to enter into dialogue, negotiation, learning, decision making and collective action. It enables government staff, policy makers, community representatives, scientists, donors, business people and NGO representatives (people’s organizations: POs) to think and work together.

The characteristics of MSPs: MSPs focus on a situation/problem/issue to improve and involve stakeholders with common (but often conflicting) interests, working across different sectors and scales. MSP has a clear process, time frame and agreed rules about cooperation. It integrates 'bottom up' and 'top down' approaches, engages with institutional change and involves stakeholders in learning processes (not just negotiation). In MSPs, structured processes/methodologies enable participants to engage in constructive dialogue, learning and action. It also recognizes the legitimacy of different perspectives and knowledge sources (e.g. scientific knowledge and 'local' knowledge), deals consciously with politics and power and enables capacity building for participation.

The process model for MSP interventions involves Setting up →Planning strategically (planning) →Implementing and managing (acting) →Learning and adapting (reviewing) (Figures 1 and 2).

In setting up the MSP interventions, it begins with some general concern, issues or conflict, like decreasing fish stocks. The purpose, scope and mandate for the proposed MSP are clarified by undertaking an initial situation analysis (stakeholders, issues, power and institutions). An interim steering body is established, with community support. Scope, mandate and stakeholder expectations are established and the process, time-frame, resource needs and institutional requirements are outlined. (Contd...)
From the Director's Desk

Time was when we understood marine pollution as industrial discharges, domestic sewerage release, oil spills, waste disposal and other outfalls of anthropogenic activities in the coastal region. In recent years, it has become increasingly clear that similar to what is happening on land, man's search for wealth and opportunities has begun to impact the seas also. Akin to the terrestrial situation with regard to air pollution and noise pollution, the seas are also being impacted by sound pollution. Recent studies have indicated that underwater sound pollution is a threat to marine life. Rising levels of intense underwater sound produced by activities related to oil and natural gas exploration, military sonar and other man-made sound cause significant long term threats to fish, whales, dolphins and other marine species.

A documentary "Lethal Sound" flags the threat from underwater sound to marine life. According to Michael Jasmy, "Ocean noise is insidious form of pollution. The tremendous damage it is doing to life in the sea is becoming more evident with each passing year. Nations of the world need to work together now to reduce the impacts of ocean noise before the problem becomes unmanageable and the harm to marine life irreversible".

The above statement arising out of the study conducted by Natural Resource Defense Council (NRDC) poses many concerns to developing maritime nations. In countries like India where the seas were generally devoid of noise pollution are currently being targeted for oil and mineral exploration ventures by both governmental and commercial organizations. These activities are expected to increase with more stakeholders joining in the efforts in search of non living marine wealth. Underwater noise can harm marine life in many ways. There are many reports linking military sonar to numerous instances of mass straddling of whales around the world. Oil and natural gas explorations have been reported to damage fish and drastically reduce the catch rates. In spite of these documented information, there have been no efforts either to reduce impacts or to protect marine life.

Underwater sound also has strategic importance. Many studies are being carried out by naval authorities in many countries to establish underwater noise benchmark and to characterize submarine noise for strategic reasons. From the point of view of basic science, we know that many mammals use sound to navigate, communicate, find food, avoid predators and care for their young in the darkness of the deep sea. Man-made noise can interfere with all the above activities of sea creatures. Scientists from International Whaling Commission have confirmed that mass straddling of whales are linked to mid frequency sonar generated from military activities. Cases reported from North Carolina, Alaska, Hawaii, Canary Islands, Madeira, the Bahamas, the U.S. Virgin Island and Greece, all point towards the above conclusions. Many scientists believe that a greater threat is from the cumulative impact of behavioural changes caused by increasing ocean noise. Background noise in the deep seas has been growing by 3 to 5 decibels per decade. The ocean noise continue to increase from a host of activities from military, commercial and industrial sources including ship traffic, dredgers, high explosives from oil platform, testing naval vessels, construction of pile platforms, fisheries devices, tunnel borers, drilling platforms, oil and gas surveys, ships, commercial and military sonar and submarines. Scientists across the world are disturbed to note that there are no comprehensive laws or mechanisms to deal with the problem. Concerted efforts are needed to regulate and restrict intense noise pollution from military sonar and seismic air guns. There is also need to come up with technological improvements to reduce the damage from sound and to carry out adequate monitoring and species population research including management of marine populations from cumulative impacts in behaviour resulting from increasing underwater noise pollution. A new challenge to marine scientists indeed!

Mohan Joseph Modayil
In planning for the MSP interventions, it is necessary to build stakeholders understanding of each other’s values, motivations and interests, generate visions, identify issues (problems) and opportunities, examine options (scenario analysis) and make decisions, set objectives and identify actions, time frames and responsibilities, establish criteria for success and monitoring mechanisms and document and communicate the strategy.

In implementing and managing MSP interventions, it is important to develop integrated projects/initiatives and action plans, establish management structures and responsibilities, secure resources and technical support, develop capacity of stakeholders, manage implementation, carryout monitoring and maintain stakeholder commitment.

In learning and adapting MSP interventions, it is essential to create a learning culture and adapting environment, define success criteria (performance questions and indicators), develop and create a learning culture and adapting environment, define success.

The process of MSP interventions and the tools employed for each level of the multi stakeholder process is shown in the flow chart.

Role of CMFRI as secondary stakeholder in the Multi Stakeholder Process:

In marine fisheries development and management the primary stakeholders are the fishers. The secondary stakeholders are governments at four levels (central, state, district and gram panchayat) and the external agencies (NGOs, academic and research institutions).

Among the familiar species, the red-ring, Aristeus alcocki showed distribution up to 800 m showing a c/h of 10 kg. Presently, the deep-sea trawlers target the deep-sea shrimps up to 270 m wherein mostly the smaller and more abundant Plesionika spinites and Metapenaeopsis anadamanensis dominate. The red-ring is poorly represented in this zone, but shows more abundant distribution in deeper waters.

The Indian Ocean Lobsterette, Nephropsis stewartii, showed a good fishing ground off Mangalore in the 250 m depth zone. At present the deep-sea trawlers operating from Mangalore marginally exploit the resource. The deep-sea glass sponge, Hyalonema sp. is a new record from the Indian seas. An extensive mud flat with luxuriant growth of this species was located off Mangalore at 900 m depth. This sponge consisted of glass rod like structures. Each rod measured 70-120 cm in length. These structures arise from a basal stalk like strands of a fibre optic cable. They have been found to occur in hundreds in the area. This species is ecologically important forming ‘habitat islands’ in the deep plains of endless mud areas. Reports indicate that Bio-silica extracted from this species has a wide range of application in the medical field from novel biomaterials for bone replacements to stabilization of tissue.

Information on the population parameters of deep-sea demersal fishes is practically nil from our EEZ. For the first time the length-weight relationship of 24 fishes have been worked out. Also the L∞, K, natural (M) and total mortality coefficients (Z) of 11 species have been estimated. Fishing mortality is nil in these species. The recruitment pattern in various fishes showed great similarity and synchronization as an adaptation to meet the challenges in the deep-sea realm.

RESEARCH HIGHLIGHTS

Deep-sea demersal finfish and shellfish resources in the 500-1000m depth zone of southwest Indian EEZ

A recent exploratory demersal fishery resource survey by FORV Sagar Sampada (Cruise 241) in the shelf-break area (Lat.09° - 16° N, Long.72° – 75° 46° E) at depth 500-1000 m in the southwest region of the Indian EEZ indicated that the area is the habitat of a rich and diverse group of non-conventional deep-sea demersal finfishes and shellfishes. A total of 77 species of fishes belonging to 51 families under 20 orders have been recorded and identified. The survey was conducted by employing High Speed Demersal trawl (HSDT) and EXPO demersal trawl. The total catch was 976 kg at a c/h of 70 kg in the former and 566 kg and 28 kg in the latter gear. The catches of the entire cruise was dominated by Psenopsis cyanea (8.6%), Lamprogrammus exutus (7.7%) and Bembrops caudimaculata (7.2%), followed by a host of other curious and non-conventional forms. An overall increase in mean body size with depth was discernible. In most parts of the study area, the slope reaches the greatest steepness at depths between 500-900 m. However, it flattens again at about 1000 m. In the more gentle mid-slope area, the living conditions appear to be improved by slumps and turbidity currents from steeper zones above to provide the area with energy pulses.

In employing the MS process in problem/issue identification, CMFRI has a significant role in identifying and analyzing the issue/s, besides facilitating the collective decision making and the development of an effective fisheries management plan by all the stakeholders.

(Article contributed by Dr. P. Laxmilatha, Senior Scientist, MFD)
This work was carried out under the funded project DOD/CMLRE: Biology and stock assessment of deep-sea resources of the continental slope of the Indian EEZ.

(Pelagic Fisheries Division)

**Baleen whale species and their sex identified from their skin tissues using molecular approach**

Molecular taxonomy technique based on phylogenetic reconstruction of mitochondrial DNA sequences developed by the institute (Jayasankar, P., CMFRI Newsletter, No. 107, July-September 2005) was successfully applied to ratify species identity of one beach cast blue whale (*Balaenoptera musculus*), which was in fairly fresh condition and unambiguously identify another one as Bryde’s whale (*Balaenoptera edeni*), which had decayed beyond recognition. Application of PCR-based gender identification method developed by the institute (CMFRI Newsletter, No. 110, April-June, 2006) determined the sex of *B. edeni* as male and also ratified sex of *B. musculus* determined by examination of the external genitals.

(PNP Division & FEM Division)

**Breeding and seed production of blue green damsel was achieved for the first time**

Blue green damsel is among the first ten marine ornamental fishes which are presently being traded in the international market. Broodstock development, breeding and larviculture of the blue green damsel *Chromis viridis* was achieved for the first time in India at Mandapam Regional Centre of CMFRI. Pre-adults collected from wild became broodstock within one year. The eggs were anchored either on the sides of the broodstock tank or at some substratum provided in the tank. The eggs hatched on the evening of the third day of incubation. Larviculture was carried out by green water technique and by employing nauplii of the copepod *Pseudodiaptomus serricaudatus* as the starter feed. Metamorphosis period was around 40 days.

(Mandapam Regional Centre)

**Multiple Mabe Pearls Produced**

Multiple mabe pearls were produced from *Pinctada fucata* at Minicoy. Three to 4 images were placed in individual oysters which were coated with good quality nacre producing mabe pearls in 90 days. The grading of quality of the mabe pearl harvested (in percentages) were 23.1 ‘A’ grade, 30.8 ‘B’ grade and 30.8 ‘C’ grade. Mortality and rejects amounted to 15.3%.

(Minicoy Research Centre)

**Shift in spawning season of threadfin bream**

Analysis of data on the occurrence of spawners of several species of demersal fish along Coromandel coast for 25 years has revealed that the period of peak spawning activity in threadfin bream *Nemipterus japonicus* has been shifted. During 1980 – 1996, about 64% of the annual number of spawners occurred during October-March, and 36% of the spawners during April-September. During 1997-2005, about 89 % of the annual number of spawners occurred during October-March and only 11.0 % of the spawners during April – September. The reasons for the shift in spawning season to October-March are being investigated.

(Demersal Fisheries Division)

**Heavy fish landing at Thumboli**

Heavy landings of *Sardinella longiceps* and *Pomadasys* sp. were observed at Thumboli in Alleppy district during the month of September, possibly as a result of mud bank formation. Tons of these fishes were sold at low price and were transported to Tamilnadu.

(Mariculture Division & FEM Division)

**Extensive phytoplankton bloom at Poovar**

Extensive bloom of phytoplankton was noticed on 29th September in the intertidal area of Poovar which extended till Anjango. The sample was collected at 08.20 h when the surface water temperature was 25°C and the salinity was 23.67 ppt. Sea was turbulent with very high nitrate (11.99 µg at/l) and silicate (67.56 µg at/l) content. The bloom was caused by *Peridinium* and *Dinophysis* species. Fishers were kept away from fishing in the near coastal waters due to a nauseating smell of the sea.

(Mariculture Division & FEM Division)

**Bivalve shell collection - an alternate source of income for coastal fisherfolk**

Extensive collection of bivalve shells from the sea off Andhakaranazhy in Alleppy district was observed. It is a family activity usually done by unemployed youth and the female members of the house hold. The shells are collected during high tide in netted bags and dumped near the shore very close to their houses. Finally they are transported by lorry to either lime industry or to poultry feed industry depending on the demand. Each basket of shells cost Rs.5/-.

(Mariculture Division & FEM Division)

**Brood stock of Sepia pharaonis developed**

The eggs of *S. pharaonis*, which were hatched and reared in the hatchery showed good growth and reached an average mantle length of 150 mm in 6 months. They started showing mating behavior from 5th month onwards. The male swam parallel to the female in a slightly higher position and showed intense tiger colour pattern. Males some times showed aggressive behaviour, such as jumping and ink ejection against other competing males and at Vizhinjam Research Centre.

**Growth acceleration in rock spiny lobster post-puerulii with Squilla**

Alima larvae of *Squilla* collected simultaneously with puerulii of the spiny lobster *Panulirus homarus* were reared in the
Laboratory at Kovalam. Metamorphosis of alima into juvenile Squilla and that of puerulii of P. homarus into post-puerulii was synchronous and the post-puerulii were found to be highly receptive to young Squilla as feed. The use of Squilla meat was found to increase molt frequency in the post-puerulii and early juveniles and reduce cannibalism when grown in aggregation. In experiments on monosex culture using Squilla meat as feed, juveniles of male and female lobsters showed similar growth rates. The growth rates were relatively lower in mixed culture. The efficiency of Squilla meat as feed in spiny lobster growout systems is a progressive step towards reducing the time taken for puerulii to reach the minimum legal marketable size. Experiments to identify the nutritional cue to augment molt frequency in juvenile lobsters are in progress.

(Madras Research Centre)

Successful rearing of the rock spiny lobster Panulirus homarus in high density culture

Floor area and antennal length are limiting factors in fattening and growout systems for spiny lobsters which exhibit territorial defense. Providing shelters and hiding places for newly molted lobster to escape detection by antennae of the healthy ones leads to a reduction in the floor area of the growout system. This in turn poses problems in management of the system as fouling and water quality controls as well as cleaning of tank bottoms become increasingly difficult. Experiments using different tank colours, substrates, hideouts and filters showed black coloured tanks, restricted light exposure (22 D: 2 L) using black nylon screens as tank covers and external biofilters of one-third capacity of the rearing system with nearly 70 – 100 cm high water column gave good results. Vertically hung black nylon net screens of 3 mm mesh size suspended with the help of thermocole floats and granite sinkers reduced cannibalism greatly. Newly molted lobsters were found to ascend the screens to avoid predation. Three screens of 50 cm (length) x 50 cm (breadth) x 60 cm (depth) each placed in one sq.m. area was found to support 2 kg of lobster biomass. This was further augmented by trimming the antennae after completion of every molt cycle within the system. Trimming antennae was found to greatly reduce the territorial defense and aggressive behaviour among the lobster, leading to reduced cannibalism, improved growth rates and better performance under high density stocking (3 – 5 kg per sq.m).

(Madras Research Centre)

Unusually heavy landings of red bait Dipterygonotus leucogrammicus

Red bait D. leucogrammicus was observed in the bycatch at Cuddalore during August and at Chennai Fisheries Harbour during September. About 500 kg – 1000 kg of red bait were landed by trawlers with a length range of 52-106 mm. A total of 485 oyster spat were collected and transferred to specially designed wooden cages for single oyster culture. A three tier cage was fabricated using netlon (>10 mm) as the base and wooden panel support. Three such trays were stocked with the cultch less spat and tied together to form one unit and suspended in the farm for further rearing. Four such units were stocked with cultch less spat for further rearing.

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A total of 182 single oysters of regular rounded shape were harvested at the end of the experiment having an average total length of 62 mm (range: 32-85 mm) and average total weight of 44 g. The meat content was 8 %. The mortality was 51 %. Single oysters have high export demand in the European markets for their uniform, rounded shape and aesthetic appeal. Apart from their superior shape and uniformity, the ease of transportation and shucking and elimination of costs of handling cultch materials (attached oysters) offer economic benefits in oyster trade.

(Madras Research Centre)

Giant Whale Shark (Rhincodon typus, smith 1828) caught at Chennai Fisheries Harbour

A male whale shark Rhincodon typus (smith) measuring 8.1 m in length and weighing approximately 4 t was caught in mechanized gill net operated 25 km northeast off Chennai coast at a depth of 40 m and was landed at Chennai Fisheries Harbour on 7th July. Since the whale shark comes under the ‘endangered species’ list, the Forest Department staff prevented the fishermen from selling it and was buried in the sand after conducting autopsy formalities.

(Madras Research Centre)

Cultch-less spat production and single oyster culture

Experiment was set up for production of cultch less spat for single oyster culture in the integrated bivalve farm set up in Moorad estuary in January 2006 and examined every month for spat settlement. Four substrates were stocked at 200 numbers per 0.5 m² netlon cages viz;

1) clam Shells (Meretrix casta) of medium size with average length 25 mm
2) clam Shells (Meretrix casta) of small size with average length 15 mm
3) lime coated clam shells of 25 mm size and
4) broken shell pieces of green mussels

It was observed that medium sized clam shells of Meretrix casta of average size 25 mm gave best results in terms of percentage of settlement compared to small clam shells, lime coated shells and mussel shell bits. In all cases, except in lime coated shells, percentage of settlement of spat was higher on the inner side of the shell.

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(Madras Research Centre)

Oyster spat on clam shell

(Single oyster)

(Calicut Research Centre)
Parasitic infestation on shrimps and crabs

Bopyrid isopod parasite was detected in *Metapeneaopsis stridulans* (56-109 mm TL) and *Parapeneaopsis stylifera* (73-105 mm). This is a branchial parasite living on the gills of shrimp. It can be detected by the ‘toothache’ swelling on the side of the carapace of the host shrimp. Parasite *Sacculina* was observed on crabs *Portunus sanguinolentus* (44-114 mm) and *Charybdis lucifera* (56-75 mm).

**Sacculina parasite on crab**

(Madras Research Centre)

**Blunthorn lobsters in indigenous gear**

Three numbers of blunthorn lobster *Palinustus waquensis* (Kubo, 1963) ranging in carapace length 48-70 mm were recorded for the first time from the indigenous gear ‘Nakku valai’ during September. All the tree specimens were females.

**Bluethorn lobster**

(Madras Research Centre)

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**NEW HEIGHTS**

Marine Fisheries Census 2005

Recognizing the need for a strong real time and reliable database on various aspects of marine fisheries and the expertise and experience of CMFRI in conducting such massive census surveys, the Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture (DAHD&F, MOA) entrusted the task of conducting the All India Marine Fisheries Census in the mainland to CMFRI with a funding support of Rs.80.50 lakhs.

The entire census operation was carried out during 15th April to 15th May 2005 for the maritime states except Tamil Nadu and Pondicherry where the census was carried out during November-December 2005. The Census was formally launched by Mr. Ajay Bhattacharya, Joint Secretary, Union Department of Agriculture, Animal Husbandry, Dairying & Fisheries, New Delhi at a brief function organised at the Central Marine Fisheries Research Institute, Cochin on the morning of 15th April 2005 and thereafter at the field level at Narakkal, near Cochin, Ernakulam district, Kerala.

A great deal of planning, technical consultations, designing the various schedules and vetting had been carried out intensively before the onset of the census. Schedules for data collection and publicity materials such as posters and handouts were printed in the official languages of the respective maritime states concerned. Mock sample surveys were also conducted to pre-test the schedules and as a part of training of the enumerators. Software for data entry, validation and processing was developed by the scientists of CMFRI. The data entry was carried out by specially recruited trained data entry operators.

Prof. (Dr.) Mohan Joseph Modayil, Director, CMFRI was the national Co-ordinator of the Census and Dr. M. Srinath, Head of Fishery Resources Assessment Division was the National Team Leader, who were ably supported by all the Scientists-in-Charge of Regional/Research Centres of CMFRI.

Awards won by staff

- Dr. C.P. Suja, Technical Officer (T-6) received the Jawaharlal Nehru award on 18th August at New Delhi for outstanding post-graduate Agricultural Research 2005 for the thesis on “Mantle Tissue Culture of abalone Haliotis varia Linnaeus” under the guidance of Dr. N. Sukumaran, Dean, M.S. University, Tirunelveli by the Indian Council of Agricultural Research.
- Dr. C. Ramachandran, Scientist (SS), received the award of Japan International Fisheries Research Society (JIFRS) ‘Yamamoto’ price and was invited for paper presentation in IIFET Biennial Conference during the period from 10th to 14th July 2006 at University of Portsmouth, UK.

**Summer School conducted**

A Summer School on ‘Recent Advances in Seed Production and Grow-out techniques for Marine Finfish and Shellfish’ was organized at Mandapam RC of CMFRI from 7th to 27th August. Chief Guest of the inaugural function was Dr. S. A. H. Abidi, former Member, ASRB. Eighteen scientific personnel from different states participated.

**New positions**

- Dr. R. Sathiadhas, Head, SEETTD and Dr. N. G. K. Pillai, Head, PFD were appointed as the members of Trawl Ban Committee by the Govt. of Kerala.

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**TRANSFER OF TECHNOLOGY**

Training on estimation of fish landing

As a part of the chain of training schemes conducted in the area of fish stock assessment and estimation of fishery resources, a weeklong training was arranged from 11th to 16th September at Cochin. Officials from Karnataka state fisheries department participated in the training programme. As complete enumeration of certain short listed landing centers were in vogue in Karnataka, the trainees were deputed with the specific goal of working out a sampling pattern which will expand the sampling base so as to cover all the landing centers and days of fishing. In addition to classroom training, a one day field trip was arranged to a landing center where the whole gamut of activities involved in a day’s recording information, ranging from identification of fish stock to recording of the catch data, was explained to the trainees on a
real time mode. The training interspersed with question and answer sessions, concluded with a formal feedback hour, in which all the technical members of the division took part to answer various posers raised by the trainee officials.

(FRA Division)

Agricultural Technology Information Centre (ATIC) News

- Twelve numbers of Awareness Programmes on Fish conservation & Sustainable Fisheries Management were organized at Agricultural Technology Information Centre (ATIC) between 4th July and 28th September for 413 beneficiaries.
- Dr Vipinkumar V. P. prepared research study report of ‘Impact Assessment of ATIC, CMFRI’.
- Under ATIC, during July to September 2006 an amount of Rs. 28,572/- was generated through sales and services.
- As many as 179 farmers and 587 students visited ATIC in additional to 17 VIPs’.

Training programmes conducted for practicing farmers, rural youth and rural women

Krishi Vigyan Kendra CMFRI, Narakkal conducted 16 training courses imparting training to 286 persons. The number of training courses and beneficiaries in each discipline are as follows: Fisheries 2- 34; Agriculture 6- 105 and Home Science 8- 147.

PARTICIPATION IN EXHIBITIONS

- Exhibition in connection with Golden Jubilee of Mithranikethan 2006 during the period from 14th to 18th August.
- Participated in the exhibition at National Fisheries Development Board, Hyderabad on 9th September.

INTERACTION AND EVALUATION

Satellite workshop of National Agricultural Innovation Project (NAIP)

CMFRI organized Satellite Workshop of the NAIP (ICAR) on 16th September at the head quarters. Dr. Mruthyunjaya, National Director, NAIP (ICAR), New Delhi presented the project implementation plan covering the basic concepts of NAIP and objectives, concept of consortium, concept & expectations behind each component of the NAIP, components of NAIP with examples, preparation, evaluation and selection of projects, governance & implementation of projects, monitoring, evaluation and impact assessment (technical). Shri G. P. Sharma, Sr. Finance and Accounts Officer, CMFRI, Cochin presented the administrative and financial matters related to NAIP. Seventy participants representing ICAR Institutes and SAUs, other Universities, State Departments, CSIR Laboratories, KVKs, NGOs, civil society organizations, private organizations and public extension organizations participated in the workshop.

Awareness Campaign on “Marine Fisheries Management”

An awareness campaign on “Marine Fisheries Management” was organized by the Visakhapatnam Regional Centre in the Gopalpur region of Ganjam district in Orissa on 9th September with the participation of 47 fishermen. Dr. Sheela Immanuel Scientist (SG) welcomed the gathering. Dr. R. Narayana Kumar, Senior Scientist in his introductory remark explained the importance of fisheries in the Indian economy, total fleet strength, resource potential, the declining CPU, increasing operating cost per trip and declining revenue per trip.

The Councilor of Gopalpur, Shri Tulasi Rao in his address highlighted the problems faced by the local fishermen. Dr. Biswajit and Dr. Patnaik explained in detail about the importance of resource conservation and how best the resource could be managed and conserved by their effort. A pamphlet prepared on Marine Fisheries Management was also distributed among the fishermen.

Farmers’ Meet (‘Karshaka Dinam’)

A farmers’ meet was conducted on the ‘Karshaka Dinam’ on the Malayalam New Year Day (1st Chingam) at Puthenkurish in collaboration with the Krishi Bhavan, Puthenkurish (17th August).

Mahila meet

Krishi Vigyan Kendra conducted two mahila meets, one in the KVK campus on ‘Protection of the rights of women and children’ in collaboration with Ernakulam Welfare Service Society, and the other on ‘Fruit preservation’ at Edavanakkad in collaboration with Saksharatha Mission, Vypeen Block (14th July).

Mahila Mandal

One Mahila Mandal was conducted on ‘Rain Water Harvest’ in the KVK Campus in collaboration with the Ernakulam Welfare Service Society (22nd September).

OFFICIAL LANGUAGE IMPLEMENTATION

In order to commemorate the historic event of adopting Hindi as Official Language of the Union on 14th September, 1949 and to create awareness about the use of Official Language Hindi, Hindi Chethana Maas was organised in the Institute from 1st to 28th September with various programmes. Hindi Chethana Maas was inaugurated on 1st September by Director, CMFRI by launching a word a day programme. This programme continued throughout the month as a competition in which many officers and staff participated.

The following programmes were conducted:

- Karyalayeen Hindi Nipunatha Diwas
- Original writing propagation Day
- General Knowledge Day
- Extension of Agricultural Research Day
- Linguistic Harmony Day
The valedictory function of Hindi Chethana Maas was held on 28th September at 2.30 p.m in the auditorium of the Institute. Shri L.N. Maharana, Chief General Manager, Indian Rare Earths Ltd., Udyogamandal was the chief guest and Dr. Mohan Joseph Modayil, Director, CMFRI presided over the function. Dr. E.V. Radhakrishnan, Head, CFD and Scientist-in-charge, Hindi welcomed the gathering. Shri K.L. Meena, Sr. Administrative Officer, CMFRI presented the message on Hindi Chethana Maas received from ICAR. Chief Guest distributed prizes to the winners of competitions. The officers/staff who have contributed towards the progressive use of Official Language during the year and who have participated in the incentive scheme for original work were also honoured in the function. A demonstration on different kinds of official language software was also held. A music programme was presented by the staff and students.

Dr. E. Vivekanandan, Head, DFD won the cash award for participation in wider contribution – Hindi incentive scheme, while Dr. (Mrs.) S. Sivakami, Principal Scientist won 2 prizes, one for participation in wider contribution to Hindi incentive scheme and the other for Essay competition in connection with the Hindi Chethana Maas 2006.

**OLIC meeting at headquarters**

Quarterly meeting of the Official Language Implementation Committee of the Institute was held on 30th September. Progress and shortcomings were reviewed and steps to be taken to increase Hindi correspondence were discussed in the meeting.

**Hindi Week celebration at Minicoy Research Centre**

Hindi week was celebrated at Minicoy Research Centre during 14th to 20th September. This year the message of use of Hindi was spread in almost all Offices in the Island. A special meeting of Official Language Implementation Committee has also been held during the Hindi Week. The valedictory function of Hindi Week was organized on 20th September. The valedictory function was inaugurated by the Chairman of Village Dweep Panchayath and presided over by the Dy. Collector. Members of District Panchayath and Village Dweep Panchayath were also present in the function. An exhibition of Hindi books published by CMFRI was organized on this day.

**Hindi week celebrations at Visakhapatnam Regional Centre**

The Hindi week was celebrated from September 18th to 22nd. As a part of the celebrations different competitions were held for the staff members. Dr. K.R. Prasad, President, Fisheries Professional Forum, Visakhapatnam was the chief guest. The chief guest distributed prizes to the winners.

**Hindi week celebrations at Mandapam Regional Centre**

‘Hindi Week’ was celebrated from 18th to 23rd September and the staff members participated in the various competitions conducted.

**IN-HOUSE EVENTS**

**Onam celebration at Headquarters**

Onam celebration was initiated by distributing *payasam* to all the staff members of CMFRI Kochi on 28th August. The recreation club of CMFRI organized Onam Celebration on 2nd September. Managing Director, Skyline SFS, Shri. Lava Krishna and his family were the chief guests. A floral carpet competition was held in the campus. Eleven teams participated in the competition. A tug-of-war was also arranged. An Onam feast was given by the canteen for the staff of the institute.

**Felicitation to meritorious children**

The meritorious children of staff members of Vizhinjam Research Centre who passed SSLC/HSC examinations during the year 2006 were felicitated in a function organized on 5th August. Ms. L. Aarthi Dharshana, D/o Dr. A. P. Lipton, Ms. Keerthi B. S. and Keerthana B. S., Ds/o Shri. S. Satheesh Kumar were given cash prizes during the occasion.

**Onam Celebration at Vizhinjam Research Centre**

Onam was celebrated on 2nd September. A floral carpet was laid in front of the main building and feast was served. All members with their families participated.

**PERSONALIA**

**Guests**

**Mandapam Regional Centre**

- Dr. S. A. H. Abidi, Former Member, ASRB
- Dr. M. Sakhivel, Aquaculture Foundation of India, Chennai

**Visakhapatnam Regional Centre**

- Dr. Anchana Waren, Project Officer, WWF-India, Hyderabad.
- Dr. S. A. H. Abidi, Chairman, DOD Review Committee
- Dr. V. Ravindranathan, Advisor, DOD
- Prof. Dr. N.R. Menon, CUSAT, Cochin
- Dr. M. Sakhivel, President, Aquaculture Foundation of India.
- 175 students from various colleges
**Tuticorin Research Centre**
- Dr. Nguyen Van Twa, College of Aquaculture & Fisheries, Cauthew University, Vietnam
- Dr. I. K. Sivadas, Visiting Professor, CUSAT, Lake side campus, Cochin
- Pro. R. Damodaran, (Rtd.), CUSAT, Lake side campus, Cochin
- Dr. K. K. C. Nair, Former SIC of NIO, Cochin
- Shri. S. Manoharan, Rural Development Specialist, World Bank
- 443 students along with faculty members of various colleges/schools of Tamil Nadu & Kerala

**Minicoy Research Centre**
- Dr. P. P. Koya Hon’ble Member of Parliament

**Chennai Research Centre**
- Dr. R. C. Bhaskar, PS to Chairman, ASRB, ICAR, Pusa, New Delhi
- Dr. G L. Sharma, Award Cell, ICAR, KAB-I, Pusa, New Delhi
- Dr. Cheryl Hyacinth/Dr. S. Balasundari, KVK, Kattupakkam, ANUVAS

**Karwar Research Centre**
- Dr. (Smt) Rama Naik, Principal and 38 students from Kamat English medium school

**Vizhinjam Research Centre**
- 14688 persons visited Marine Aquarium and a revenue of Rs. 2,47,040/- was collected as entry fee.

**PROGRAMME PARTICIPATION**

**Headquarters**

**Dr. Mohan Joseph Modayil**, Director
- The releasing Ceremony of Marine Fisheries Census report at New Delhi (24th -29th July).
- Inaugural ceremony of the Summer School on “Recent advances in Seed production and grow out Techniques for Marine Fin fishes and shell fishes” at Mandapam Regional Centre of CMFRI and delivered two lectures (6th - 8th August).
- Meeting to discuss and finalize the perspective plan documents at New Delhi (27th - 30th August).
- Inaugural function of the National Fisheries Development Board at the Auditorium of the A.N.G. Ranga University, Rajendranagar, Hyderabad (7th - 10th September).
- Meeting of the committee constituted to modify the proforma for assessment for Sr. Scientist to Principal Scientist under Career Advancement Scheme, under the chairmanship of Dr. N. K. Tyagi, Member, ASRB at New Delhi (13th - 15th September).
- Vigilance training at NAARM, Hyderabad (17th - 21st September).

**Dr. N. G. K. Pillai**, Principal Scientist & Head, PFD.
- Meeting of the Heads of Central Government Fisheries Research Organizations convened by Shri. S. Sharma, Hon’ble Minister of Fisheries & Registration to conduct a Workshop to evolve a Master Plan for the development of fisheries sector in Kerala (2nd July).
- 3rd Annual Workshop of the ICAR Network project on Impact adaptation and vulnerability of Indian Agriculture to Climate change and presented a paper on Recent trends in weather and their association with agriculture at NDRI, Karnal (10th - 11th July).
- Meeting in connection with the construction of ice plants in Lakshadweep islands at Lakshadweep Development Corporation Ltd, Panampilly Nagar (29th July).
- 2nd Meeting of XI Plan Working Group on Fisheries at Central Inland Fisheries Research Institute, Barrackpore, Kolkatta (21st - 22nd August).
- Meeting on the Workshop on Sustainable Fisheries for Kerala for preparation of Master Plan organized by Department of Fisheries, Govt. of Kerala at Integrated Fisheries Project, Kochi (31st August).
- Represented Deputy Director General (Fy.) in the Department Selection Committee for the promotion of the Scientists in the Disciplines Agricultural Extension, Biotechnology (AS), Computer Applications & Fish & Fishery Science under CAS Scheme (20th September).
- Meeting on Master Plan for the development of the fisheries of Kerala at IFP, Ernakulum (29th September).

**Dr. N. G. K. Pillai**, Principal Scientist & Head, PFD and **Dr. R. Sathiadhas**, Principal Scientist & Head, SEETTD
- 1st Meeting on Trawl Ban Committee organized by Department of Fisheries, Govt. of Kerala at IFP, Kochi (31st August).
- Workshop on “Sustainable Fisheries Development for Kerala” at CMFRI, Cochin organized by State Fisheries Department, ADAK (22nd to 23rd July).

**Dr. E.V. Radhakrishnan**, Principal Scientist & Head, CFD
- Two-days training programme on “Methods of impact assessment of fisheries research” organized by CMFRI, NCAP, CIIFT and NAARM (3rd and 4th July)
- Meeting on Sustainable Fisheries Development of Kerala at CMFRI, Cochin organized by State Fisheries Department, ADAK (22nd – 23rd July).
Given a lecture on lobster farming in connection with the summer school on “Recent advances in Seed production and grow out Techniques for Marine Fin fishes and shell fishes” at Mandapam Regional Centre of CMFRI (16th August).

Kochi Town Official Language implementation Committee at CIFNET, Foreshore Road, Kochi-16 (24th August).

Meeting at Airport Authority of India in connection with the visit of Parliamentary Committee on Official Language (25th September).

Dr. M. Rajagopalan, Principal Scientist & Head, FEMD

3rd Annual Workshop of the ICAR Network Project on “Impacts, Adaptation and Vulnerability of Indian Agriculture to Climate Change” at NDRI, Karnal (10th -11th August).

Awareness building Workshop on “National Agricultural Innovation Project” (NAIP) at CIBA, Chennai (19th August).


Dr. R. Sathiadhas, Principal Scientist & Head, SEETTD

National Self Reliance Day & Swadeshi Vigyan Mela at BTH, Ernakulam (21st July).

Inter-Media Publicity Co-ordination Committee Meeting at Divisional Railway Manager’s Office, Thycaud, Trivandrum (31st July).

State level Consultation Meet on Fisheries Development at Conference Hall, NABARD, Trivandrum (8th August).

Exhibition and symposium of “Mitra Golden Expo 2006’ at Vellanad, Trivandrum (14th – 17th August).

Inter-Media Publicity Co-ordination Committee Meeting at Thycaud Guest House, Trivandrum, organised by MG University (18th August).

Workshop organized by cooperatives and self help groups and led the Group Discussion at Loyola Hall, Kattoo, Alappuzha (19th August).

Management Committee Meeting of the Central Institute of Fisheries Technology (CIFT), Kochi (28th September).

Seminar on “Tsunami & afterwards: What have we learnt from it?” organized by Peace Trust, Kanyakumari (15th - 16th September).

Dr. E. Vivekanandan, Principal Scientist & Head, DFD

Brainstorming session on AP Cess Fund Project “Impact of Fisheries Research in India” at CMFRI, Cochin (3rd – 4th July).

Workshop on “Impact of bottom trawling on benthic communities” at Bharat Tourist Home, Cochin sponsored by OSTC under CUSAT, Cochin (7th July).

Presented the results of the DOD Funded project on Marine Mammals in the 2nd meeting of Scientific Advisory Committee of MLRP at Visakhapatnam (24th - 25th July).

Delivered lectures on Ecosystem Analysis to Ph.D. students at CIFE, Mumbai (7th-8th August).

Presented the results of the ICAR Network project on “Impacts adaptation and vulnerability of Indian marine fisheries to climate change” at NDRI, Karnal. (9th - 10th August).

Dr. K.K. Vijayan, Head, PNPD; Dr. P.C. Thomas, Principal Scientist and Dr. P. Jayasankar, Senior Scientist

Meeting of the Scientists in ICAR Fisheries Research Institutes and a panel of experts, held under the Chairmanship of Dr. S. Ayyappan, Deputy Director General (Fisheries), ICAR at NRCCWF, Bhimtal and presented highlights of the research carried out during the past 5 years as well as proposed research programme for the XI plan (22nd – 23rd September).

Dr. Rani Mary George, Principal Scientist & Head, MBDD

Workshop conducted by the District Level Committee regarding Prevention of Atrocities against Women, Kochi City at Aashirbhavan, Kacheripady, Kochi (15th July).

Meeting of the ICAR Network project on “Impact, adaptation and vulnerability of the Indian marine Fisheries to climate change” (26th August).

Awareness Building Satellite Workshop at CMFRI, Cochin (16th September).

Official Language Implementation Committee meeting at CMFRI, Kochi (30th September).

Dr. Rani Mary George, Principal Scientist & Head, MBDD, Smt. Rekha J. Nair, and Smt. Sandhya Sukumaran, Scientists

Workshop on ‘Biogeographic Information system for Indian ocean’ at NIO Regional Centre, Cochin (25th - 26th September).

Dr. L. Krishnan, Principal Scientist

Brainstorming Session organised by M. S. Swaminathan Research Foundation under DBT at Jeypore, Koraput, Orissa (24th - 25th July).

Delivered lectures in the Summer School on “Recent advances in seed production and grow out techniques for Marine finfish and shellfish” conducted at Mandapam Regional Centre of CMFRI (7th - 27th August).

Dr. G. Syda Rao, Principal Scientist and Scientist-in-Charge, Visakhapatnam Regional Centre

Served as faculty member for the summer school on “Recent advances in seed production and grow out techniques for marine finfish and shell fish” organised by CMFRI at Mandapam Regional Centre (7th -27th August).
Dr. V.D. Deshmukh, Principal Scientist and Scientist-in-charge, Bombay Research Centre, Dr. Mohammad Zafar Khan, Principal Scientist, Dr. V. V. Singh, Scientist (S.G.), Mrs. Paramita Banerjee Sawant, Scientist

- Annual day inaugural lecture by Dr. M.V. Gupta, Retired D.G. World Fish Centre, Malaysia on the occasion of National Fish Farmers Day at CIFE, Deemed University, Mumbai (10th July).

Dr. P. Kaladharan, Senior Scientist

- National Training Workshop on Seaweed Farming and Processing for Food at Keelakarai, Tamil Nadu and presented a paper on ‘Animal feed from Seaweeds’ (3rd to 5th August).

Dr. P. Laxmilatha, Senior Scientist and Dr. C. Ramachandran, Scientist (SS)

- Participated in the International training course on: (“Strengthening responsible fisheries through multi-stakeholder processes (MSPs) for the wise use of ecosystems”), Bohol island, The Philippines, under the National Fellowship Programme of the Netherlands Government 14th - 26th June.

Dr. Sheela Immanuel, Scientist (SG)

- Meeting of the scientists organised by DDG (FY) to discuss the priorities in Social sciences research in fisheries and Aquaculture during the XI plan, at Delhi (26th - 27th September).

Dr. J. Jayasankar, Scientist (SS)

- Sensitization workshop on ICT projects under NAIP, at NAARM, Hyderabad (4th – 5th September).

Dr. C. Ramachandran, Scientist (SS)

- Participated and presented paper in Japan International Fisheries Research Society (JIFRS) for IIFET Biennial Conference 2006 at University of Portsmouth, UK (10th-14th July).

Dr. Vipinkumar, V. P., Scientist (SS)

- Participated in Rithusandhya, a sponsored programme of Doordarsan Kendra, Kerala (22nd July).

- International Workshop on Evaluation Capacity Building on Rural Resource Management (3rd Phase) at IARI, New Delhi organized by Michigan State University, USA and sponsored by International Development Research Centre, Canada (21st to 25th August).

- Conducted training for local enumerators in Veraval Regional Centre of CMFRI for project work on ‘Appraisal of marine fisheries in Gujarat’ (16th September).

- Conducted meeting of local enumerators in Uttan location of Thane district in Mumbai for project work on ‘Appraisal of marine fisheries in Maharashtra’ (20th September).

Dr. Miriam Paul Sreeram, Scientist (SS)

- Delivered a talk on India’s Marine Biodiversity and the Ecological Challenges towards its Conservation as part of the monsoon lecture series conducted by the Navy at Western Naval Command, Colaba, Mumbai (18th August).

Smt. Bindu Sulochanan, Scientist Dr. Biswajit Dash and Dr. P. Patnaik, Technical Assistants

- Participated in the ICAR Summer School on ‘Recent Advances in Seed Production and Grow-out Technique for Marine Finfish and Shellfish’ at Mandapam Regional Centre of CMFRI (7th to 27th August).

Dr. P. M. Aboobaker, Technical Officer

- Visited the four micro watershed units of Kurappillithode, Koothattukulam for evaluation of the micro watershed projects (24th August).

Dr. P. K. Martin Thompson, Officer-in-Charge, KVK and Dr. P. M. Aboobaker, Technical Officer

- NAIP Satellite workshop conducted at CMFRI, Kochi (16th September).

Dr. P. K. Martin Thompson, Officer-in-Charge, KVK and Dr. P. M. Aboobaker, Technical Officer

- NAIP Satellite workshop conducted at CMFRI, Kochi (16th September).

## APPOINTMENTS

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<td>T-1 (Electrician)</td>
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<td>Shri M. Radhakrishnan</td>
<td>Junior Accounts Officer</td>
<td>Mandapam Regl.C. of CMFRI</td>
<td>11.09.06</td>
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## TRANSFERS

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<td>Dr. P.U. Zacharia</td>
<td>Senior Scientist</td>
<td>Mangalore R.C of CMFRI</td>
<td>Tuticorin R.C of CMFRI</td>
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<tr>
<td>Dr. T.S. Velayudhan</td>
<td>Principal Scientist</td>
<td>CMFRI, Kochi</td>
<td>Tuticorin R.C of CMFRI</td>
</tr>
<tr>
<td>Dr. Prathibha Rohit</td>
<td>Senior Scientist</td>
<td>Mangalore R.C of CMFRI</td>
<td>Visakhapatnam Regl.C. of CMFRI</td>
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<td>Shri K. S. Ajith</td>
<td>LDC</td>
<td>Kochi</td>
<td>24.07.06</td>
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<td>Shri N. Viswanathan</td>
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<td>Kochi</td>
<td>13.02.01</td>
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<td>Shri M. Thayalan</td>
<td>SSG-I (Lab. Attendant)</td>
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<td>Smt. Chinnamma Anjalo</td>
<td>SSG-II (Safaiwala)</td>
<td>KVK of CMFRI, Narakkal</td>
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<tr>
<td>Shri A. Yesudhas</td>
<td>SSG-II (Lab. Attendant)</td>
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**OBITUARY**

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<td>Shri M. Rajkumar</td>
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<td>Madras R.C. of CMFRI</td>
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- Dr. K. S. Sobhana, Senior Scientist, PNPD (Member)
Secretarial Assistance: Shri. P. S. Anilkumar

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FISHERIES MANAGEMENT

Figure 1

Biodiversity, the community of local resource users (fishers), different times in the co-management values, needs, concerns and interests institutions of local collective need to change the structure of governance. Address the lack of participation and conflicts with community support. Scope, mandate and stakeholder expectations are established and the process, time-frame, resource needs and institutional requirements are outlined.

Breeding and seed production of blue green damselfish was achieved for the first time in India at Mandapam Regional Centre of CMFRI. Breeding and seed production of blue green damselfish was achieved for the first time in India at Mandapam Regional Centre of CMFRI.

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निदेशक के देश से

हम यह देखते हैं कि समुद्र में अर्थात उत्तरी और दक्षिण मध्य-तट घाटों से, तब विख्यात देशों और दक्षिण-तट के अन्य मध्य-वर्तमान गतिविधियों से समुद्र नाल उत्पन्न होता है। हालांकि अनुसार में महाद्वीप मर्मान्तिक और तटीय क्षेत्रों के अन्य मध्य-स्वास्थ्य गतिविधियों से समुद्र नाल प्रभावित होता है। हालांकि, बाहरी तटीय और भारतीय तट के उत्तरी उत्तरी मध्य-तट के मध्य-स्वास्थ्य क्षेत्र में विस्तारित देशों के प्रभाव को पहले लगाते हैं। हालांकि, तट की आर्थिक, नाल आर्थिक, नाल आर्थिक और अन्य मध्य-स्वास्थ्य गतिविधियों के लिए दोनों क्षेत्रों के कारण अन्य नाल देशों के प्रभावी होते हैं।

"भारत भारत" नामक कुल निदेशक के देश से समुद्र में पहले वाहन की ओर संकेतक करता है। व्यक्ति जानकारी के अनुसार "महाद्वीप मर्मान्तिक उत्पादन का उत्तरी रूप है। इस से समुद्र में होने वाली आर्थिक संयोजन हानि हर वर्ष बढ़ती जा रही है। समुद्र के वाहन प्रभाव से होने वाली वाहन उत्पादन नियंत्रण के पहले है और समुद्र में होने वाली हानि अनुकूल नहीं होती है। इस तरह के दोनों निदेशक से देशों की प्रभाव को सहा पाने है। जहां के निदेशक द्वारा विवरण रूप से नियंत्रण प्रभाव के पहले हैं। तट के लिए भारत के क्षेत्रों से मालिक वाहन हानि पड़ गयी है और एक दर में भी तीन घटती हुई है। इस तरह की प्रभावी संख्या प्राप्त होने पर भी संयंत्र कम करने के लिए या समुद्र में होने वाला कुछ कारण भी प्राप्त नहीं किया गया है।

ग्रहर समुद्र की धार्मिक प्रभावता भी है। कई देशों में नीचे से क्षेत्रों के प्रभावकारीद्वारा ग्रहर समुद्र की धार्मिक संदर्भित कर तभी समुद्र की धार्मिक विविधता और समुद्र की धार्मिक के विविधता पर अपनें दिए जा रहे हैं। विशेष विशेष उत्पादन बूटिंग में यह जानते हैं कि कई समुद्र सानी या या सुनिश्चित, संपूर्ण देश, आपातक में खोजने, विविधताओं से विचारों और ग्रहर समुद्र के अंदर में वाहन को सुरक्षा देने के लिए धार्मिक को सहायता करते हैं। जलवायु नाल और धार्मिक प्रभाव की दो गतिविधियों में विभा पड़ जाती है। इसामसलन महीने के बैंकिंग के वैश्विकों ने इस व्यक्ति की पुंजी की है कि जिसमें लोक मुक्ति रूप से विविध होने का एक मुख्य कारण सेविंग गतिविधियों से उत्पन्न माहूर्त भारी भारी हो गया। सेविंग, वाणिज्यिक वा वैश्विक तट जैसे गहराई यात्रा, तैनात, ओवल प्लास्टिक जैसे विविधता, नीचे से प्रभावित, गतिविधियों धारावाहिक निर्देश सेविंग, अमाला का उपयोग, इलेक्ट्रिक धारावाहिक, तट एवं तट लसीक्र, जहां, वाणिज्यिक एवं सेविंग सेविंग और समस्त गतिविधियों की गतिविधियों से महा माहूर्त धारा रहता है। पूरे विवरण में वैश्विक लोक विविध कहते हैं कि इस समस्त का सूचनकार करने के लिए विभि एवं वजन उपचार होते हैं। इस में से होने वाली हानि कम करने के लिए वैश्विक तट का सूचनकार है और समुद्र में होने वाली परिवार अनुकूल और वैश्विक और ग्रहर समुद्र के वाहन प्रभाव के परिवार संयंत्र से समुद्री जीव जाना के कारण बदल जाता है। वह समुद्री वैश्विकों के लिए एक नया निर्देश है इसे लें "शेष नहीं।

मोहन जोसोफ कोडनियल
पहली बार नील हरित डालसेल का प्रजनन और बीजोत्पादन

नील हरित डालसेल अंतर्राष्ट्रीय बाजार में नियंत्रा की जानकारी प्रमाण द्वारा अन्तर्गत मछलियों की सूची में आता है। नील हरित डालसेल कृषि प्रयोगों के लिए अन्वेषण, प्रकट और डिग्गी पानी में, यह भारत में पहली बार चार अंक अंकित बन गया। ब्रेस्टलॉक टैंक के पानी में या टैंक में रखा गया कुछ धातुवान में अंडा का जन्म दिखा पड़ा। नियंत्रण होने के लिए नियंत्रण गांठ को अंडा स्पर्श करना। नील हरित डालसेल गृहनिर्माण के खुद एवं कक्ष, प्रकट और डिग्गी पानी में सामान्य तूफान और नील हरित डालसेल का बीजोत्पादन।

(समुद्री संचरण और एक ई एम प्रयोग)

पुधार में पादरकल्पक की व्यापक पुश्करिकाएँ

पुधार के अंतर्राष्ट्रीय क्षेत्र में 29 सितंबर को पादरकल्पक की पुश्करिकाएँ व्यापक रूप से दर्शाया गया। सुही का 08.20 प. म. जन्माने प्राकृतिक प्रयोग, का नाम प्रायोगिक रूप से दर्शाया गया। प्रति मास में 50 लोगों का जन्म, का नाम प्रायोगिक रूप से दर्शाया गया। दर्शाया गया का नाम प्रायोगिक रूप से दर्शाया गया।

(समुद्री संचरण और एक ई एम प्रयोग)

विक्रेता कब्जा संग्रहण - गड़बड़ मछली, योग और अनुसंधान के लिए एक बदल उपाय

मछलियों के अंतर्गत नियंत्रण के लिए बहुत ही फायदेमंद है। रोज़ारआचार या बाल्य और पक्ष के लिए प्रभाव नहीं होते थे। अन्य अंतर्गत स्वामी गुरु की धारणा का नाम जानकारी जानकारी है। बाद में मां के अनुसार इसका पुनः उदाहरण वा बुद्धिज्ञान उद्धोशक के लिए परीक्षण कर जाता है।

(समुद्री संचरण और एक ई एम प्रयोग)

संपन्न एफारोसिस का अंडांक विकास

स्पूनबल्का में पाल्ला एस. एफारोसिस के अंदर में अस्स की है, विभिन्न विभिन्न जाति और 6 महीनों के अंदर अंडांक विकास कर सकते है। पंक हां नामाने का अंडा विकास कर सकता है। न जानते मछली के उर्जा समान रूप में रहने हैं और शारीय समारूह के प्राकृतिक विकास हैं। कभी कभी न जानते इसके राज्यांकन के रहने का तार्किक है और नामाने है।

(विभिन्न अनुसंधान केंद्र)
In experiments on monosex culture using
found to increase molt frequency in the post-puerulii and early
frequency in juvenile lobsters are in progress.

Successful rearing of the rock spiny lobster
leucogrammicus
high density stocking (3 – 5 kg per sq.m).

Three screens of 50 cm (length) x 50 cm (breadth) x 60 cm (depth)
granite sinkers reduced cannibalism greatly. Newly molted
mesh size suspended with the help of thermocole floats and
rearing system with nearly 70 – 100 cm high water column gave
restricted light exposure (22 D: 2 L) using black nylon screens
lobster to escape detection by antennae of the healthy ones leads
defense. Providing shelters and hiding places for newly molted

PERSONALIA

Aarthi Dharshana, D/o Dr. A. P. Lipton, Ms. Keerthi B. S. and
Mandapam Regional Centre
A. P. Lipton, Dr. K.R. Prasad, President, Fisheries
Radhakrishnan, Head, CFD and Scientist-in-charge, Hindi
function was inaugurated by the Chairman of Village Dweep
staff members participated in the various competitions conducted.

Onam celebration at Headquarters

Onam celebration was initiated by distributing payasam to all
the staff members of CMFRI Kochi on 28th August. The recreation
Ash Abhishek, Sr. Scientific Officer, CTD and Science-charge, Hindi
welcomed the gathering. Mr. K.L. Moosa, Sr. Administrative Officer, CMFRI
posted the message on Hindi Chitra, Hindi

Onam celebration at Vizhinjam Research Centre

Onam was celebrated on 28th September. A festival carpet was laid in front of the main
building and feast was served to all the members with their families participated.

Guests

Mandapam Regional Centre
Dr. M. A. A. Elakkiy, Dean, MRC, ASRB

Vizhinjam Regional Centre
Dr. Archana Varma, Project Officer, WWT-SDs, Sanctuary
Dr. M. A. Ali, Chairman, DDO Review Committee
Dr. R. Ravindranathan, Advisor, DDO
Prof. D. R. Mohan, CUSAT, Cochin
Dr. M. Siddin, President, Aquaculture Foundation of India

17 students from various college

1. 25 yr. B. Sc. (Fish. Science) Quar. In charge
2. 25 yr. B. Sc. (Fish. Science) Quar. In charge
3. 25 yr. B. Sc. (Fish. Science) Quar. In charge
4. 25 yr. B. Sc. (Fish. Science) Quar. In charge
5. 25 yr. B. Sc. (Fish. Science) Quar. In charge
6. 25 yr. B. Sc. (Fish. Science) Quar. In charge
7. 25 yr. B. Sc. (Fish. Science) Quar. In charge
8. 25 yr. B. Sc. (Fish. Science) Quar. In charge
नए मान

समुद्री मालिकों की जनागणना 2005

समुद्री मालिकों के संस्थाओं, जो स्वयंचालित आदेशों को ज्ञात तथा ऐसे व्यापक जनागणना के आयोजन में सी एम एन एक आर आ को नियुक्ता एवं अनुबंध का पालन करने हुए पहुँचान, दरी एवं मालिकों का, कृषि मंत्रालय ने 80.50 लाख रुपए की तलाश महत्त्व से जनागणना आयोजन करने का कार्यान्वयन सी एम एन एक उप सर पर साक्ष्य दिया।

जनागणना का समय कार्यान्वयन तमिलनाडू और पौडीरी, जहाँ नवंबर-अक्टूबर, 2005 के दौरान किया गया था, को चक्रवात में समुद्रतटीय राज्यों में 15 अक्टूबर से लेकर 15 मई 2006 के दौरान किया गया। कौशीन्द में एक जनवरी, 2005 के आयोजन छोटे कार्यक्रम में श्री अजय मटूरचाण, संवारक सचिव, कृषि, पर्यावरण, दरी और मालिकों का संगठन विभाग। नई दिल्ली द्वारा जनागणना का आयोजन का अध्यक्ष उपाध्यक्ष किया गया। इस के तुलनात्मक वे रणमहेन्द्र मिहिल द्वारा की तीन चौथे के निकट नागरिक में श्रेष्ठ पत्र का कार्यान्वयन किया गया।

जनागणना की तयारी के रूप में गंगार तौर की विज्ञान, तनावों में, विभेद राष्ट्रीय को समाचार और मौत किया गया। अंतर्गत सांस्कृतिक की विभेद, विभाग की सांस्कृतिक जीवन प्रकार जो विवेकी तथा मौत को राष्ट्रीय भावना में भाग लिया। परिवारहों (एनडीएसर) की प्रभावशाली देने के भाग के रूप में और राष्ट्रीयं के पूर्व-पीछा करने के लिए नवन संवारण भी आयोजित किया गया। सी एम एन एक आर आ के वेबसाइटों द्वारा डाटा डाटा और प्रभाव के लिए लागु किया गया। विशेष रूप से शहीद जिसे प्रशिक्षण डाटा डाटा ओपरेटर लागू किया गया।

प्रौद्योगिकी इस्तेमाल

मछली अवसरों के आयोजन पर प्रशिक्षण

कौंशल में शुरू होने वाली प्रशिक्षण योजना के भाग के रूप में भारतीय राष्ट्रीय निर्माण और संपादकों के आयोजन के क्षेत्र में 11 से 16 नवंबर तक एक समाचार का प्रशिक्षण आयोजित किया गया। इस प्रशिक्षण कार्यक्रम में कांग्रेस राष्ट्रीय मालिकों की विभाग के कार्यक्रम में भाग लिया। कार्यक्रम में सुविधाजनक प्रशिक्षण का आयोजन जनरल सरकार ने किया गया। कार्यक्रम में सुविधाजनक प्रशिक्षण का आयोजन जनरल सरकार ने किया गया। कार्यक्रम के क्रांति के संस्थापक के अन्याय जैसे ऐसे अवसर प्रदेश में लेकर गया, जहां मछली डाटा का उपयोग, आदेश के रूप में निर्देश किया गया। प्रशिक्षण में साधन-नवीन सत्ता का आयोजन बन्द किया गया।
शी की गयी थी और संगणन रूप में प्रशिक्षण को सक्रिय बनाने का आकर्षण किया गया था जिस में प्रशिक्षणियों काम कर उठाई गई सभी कड़ी किस्म साधनों पर समस्याओं देने के लिए प्रभाव के सभी तकनीकों के सदस्यों ने भाग लिया।

(एक अफ ए प्रभाव)

कृषि प्रोत्साहित सूचना केंद्र (एटी आई सी) समाचार

- कृषि प्रोत्साहित सूचना केंद्र (एटी आई सी) में 4 जुलाई और 28 सितंबर के बीच 413 देशकर्मियों के लिए मलिकाने परिशिष्ट एवं दिग्गज मालिकानेप्रशिक्षण पर जानकारी देने के कार्यक्रम आयोजित किए गए।
- डॉ. विश्वनाथ मलंग पी. डी. ने एटी आई सी में संस्था निर्देशक लेखा।
- एटी आई सी के अंदर विभिन्न संस्थाओं का जुलाई-सितंबर 2006 के दौरान 28,572/- रुपए का ब्याज कमाया गया।
- एटी आई सी में 17 मुख्य व्यक्तियों के अंतर्गत 179 किस्मांत और 587 चालू ने मुआवजा किया।

किसानों, प्रायोगिक युवाओं और प्रायोगिक महिलाओं के लिए प्रशिक्षण कार्यक्रम

सीएन एक अफ अल्ल आई के कृषि आयोजक केंद्र, नरकार्य में क्लास 286 व्यक्तियों के लिए 16 प्रशिक्षण पाठ्यक्रम आयोजित किए गए। प्रशिक्षण पाठ्यक्रम और जीवन प्रशिक्षण के द्वारा संस्था नीचे दो जगह हैं: मालिकानेय 2-34; कृषि 6-105 और गृह विज्ञान 8-147।

प्रदर्शनियों में सहभागिता

- मिजनकंकेन 2006 की रक्षण जानकी के सिलसिले में 14-18 अगस्त के दौरान प्रदर्शनी
- राज्यीय मालिकानेविकास कार्य, हेडरबर्ग में 9 सितंबर को आयोजित प्रदर्शनी में भागीदारी

आपसी विनिमय और मूल्यांकन

राज्यीय कृषि नवनिर्माण परियोजना (एटी आई पी) की सालाइट कार्यस्थल

संस्थान मुख्यालय में 16 सितंबर को एटी आई पी (भा कृ अनु प) का सालाइट कार्यस्थल आयोजित किया गया। डॉ. मुनोजना, राज्यीय विदेशक, एटी आई पी (भा कृ अनु प) नई दिल्ली ने परियोजना कार्यवाही, एटी आई पी को आयोजन, अनुभव, संस्था को अनुभव, एटी आई पी के हर फलों में निहित धारणा और प्रशिक्षण, एटी आई पी के उद्धरण स्थित पटक, लेख, मूल्यांकन और परियोजनाओं का चित्र परियोजना के गर्भनिर्माण और कार्यान्वयन, अनुभवांक, मूल्यांकन और संस्थान निरीक्षण (तकनीकी) के बारे में विवरण दिया। वी जी. पी. शर्मा, बोरोइ किव एवं लेखांकन अभियंताओं, सीएसएस एटी आई पी के अन्य आयोजक तथा न्यायाधीश, लेखांकन, मूल्यांकन और परियोजनाओं का सकारात्मक कार्यक्रम के गर्भनिर्माण और कार्यान्वयन आयोजित किया।

राजभाषा कार्यान्वयन

हिंदी को 14 सितंबर, 1949 को संस्था की राजभाषा के रूप में सीमित करने की ऐतिहासिक घटना को सरल तरीके द्वारा और राजभाषा हिंदी को द्वारा हिंदी के कार्यक्रमों के उद्देश्य संस्थान में 1 से 28 सितंबर के दौरान विभिन्न कार्यक्रमों के साथ हिंदी चेताना मास आयोजित किया गया।

हिंदी चेताना मास का उद्घाटन 1 सितंबर को विदेशक, एटी आई पी के एक अफ्यूक जीवन स्थित एक शायद कार्यान्वयन के लाभ के लिए किया गया। यह कार्यान्वयन पूरे मयानों में प्रतिनिदित्व के रूप में जाना किया गया था। उनके बाद अभियंताओं और कमेंटेंयों ने भाग लिया।

इस दौरान निम्नलिखित कार्यक्रम कला खेले गए:

- कृषिविद्यार्थी हिंदी नियुक्ति विश्वास
- मूल रूप स्थापन विश्वास
- सामाजिक जानकारी विश्वास
- कृषि अनुसंधान नियुक्ति विश्वास
- भाषाओं सुद्धारक विश्वास
हिंदी संपादक मास का समापन कार्यक्रम 28 सितंबर को आरंभ 2-30 बजे संस्थान के सभा गृह में शुरू हुआ। श्री एस.एच. अग्रवाल, मुख्य मास प्रमुख, दीपा राय एवं बालिशाल, उपमुख्य मास प्रमुख अधिकारी और श्री डॉ. रमेश मोहन नोरस्क मोडली, निर्देशक, सीएसएफ ऋतु असाधारण में सब का स्वागत किया। श्री के. कृषिकांत, वरिशा प्रसाद अधिकारी, सी एम एच अधिकारी आदि सभी सहित सभा का स्वागत किया।

इस समारोह के दौरान राजस्थान मुख्यमंत्री हिंदी के प्राप्ति लिखित किया गया, जो कागजात के प्राप्ति के लिए लिखित किया गया, अधिकारियों और कर्मचारियों के लिए प्रशंसक आदेश दिया गया।

“प्राप्ति लिखित किया गया, जो दौरान राजस्थान कार्यवाही समिति की प्रतिस्पर्धा के लिए प्रशंसक श्रेय प्राप्त किया गया। राजस्थान कार्यक्रम के प्रवर्तकों के आदेश बौद्धिक चौकशी के लिए निर्देशों के आदेश की गयी।

**हिंदी संपादन समारोह – विश्वासपूर्वक स्थिति केंद्र**

इस से पहले 25-28 सितंबर के दौरान हिंदी संपादन किया गया। कार्यक्रम के भाग विश्व रूप में कर्मचारियों के लिए समान्य प्रशिक्षण दिया गया। श्री के. कृषिकांत, वरिशा प्रसाद अधिकारी, विश्वासपूर्वक स्थिति के प्रशिक्षण प्राप्त मुख्य अधिकारी रहे। मुख्य अधिकारी ने प्रशिक्षणों के विवरणों को पुष्पकिरण प्रस्तुत किया।

**हिंदी संपादन समारोह – मंडपम क्षेत्रीय केंद्र**

मंडपम क्षेत्रीय केंद्र में 18 से 23 सितंबर के दौरान हिंदी संपादन किया गया और हिंदी संपादन विभाग प्रशिक्षणों में कई कर्मचारियों ने भाग लिया।

**गूहांदर घटनाएं**

**मुख्यलय में ओगोम समारोह**

सी मिः एच आर आर वोल्ट में 28 अगस्त को सभी कार्यकर्ताओं का प्रस्ताव का निर्देशन करते हुए ओगोम समारोह 2006 को मुख्यलय में किया। सी मिः एच आर आर वोल्ट के नेतृत्व में कार्यक्रम द्वारा 2 सितंबर को ओगोम समारोह किया। श्री लक्ष्मी कुमार, प्रथम निर्देशक, स्वागत और उनके पार्श्व मुख्य अधिकारी रहे। इस समारोह संस्थान में पूर्वोत्तर की सजन्ता (पुकार) को प्रतिभाकांत पायी गयी जिसे नायक टीम ने भाग लिया। इस के अंतरिक्ष में सांस्कृतिक भी भाग लिया। इस परित्यंत में कार्यकर्ताओं के लिए ओगोम की दाता हो गया।

**संस्कारी जीत के लिए बच्चों को बच्चों**

विभिन्न अनुसंधान केंद्र में 5 अगस्त में आयोजित कार्यक्रम में कर्मचारियों के बच्चों, जो वर्ष 2006 की एस.एच.एच. अजीत प्रसिद्ध, एस.एच.एच. भारती दर्शन, श्री. एच. एच. निकटित के सुपृष्टिक बच्चों, इस की उपस्थिति की। श्री. एच. एच. अभियोजन कुमार की सुनिश्चित को नक्सल प्रदर्शन प्रणा गया।

**ओगोम समारोह**

विभिन्न अनुसंधान केंद्र में 5 अगस्त में आयोजित कार्यक्रम में कर्मचारियों के बच्चों, जो वर्ष 2006 की एस.एच.एच. अजीत प्रसिद्ध, एस.एच.एच. भारती दर्शन, श्री. एच. एच. निकटित के सुपृष्टिक बच्चों, इस की उपस्थिति की। श्री. एच. एच. अभियोजन कुमार की सुनिश्चित को नक्सल प्रदर्शन प्रणा गया।

**निजी बातें**

**मंडपम क्षेत्रीय केंद्र**

- श्री. एस.एच.एच. अब्दुले, भूमि पुढे सदस्य, एस.एच. एच. बी.
- श्री. एच. शशिकेल, अक्षाकल्प फाउंडेशन अक्षेल विद्या, चेन्नई

**विश्वासपूर्वक स्थिति केंद्र**

- श्री. अभियोजन बाबा, वर्तमान बौद्धिक अधिकारी, विविध दुर्भाग एक्स-विद्या, हैदराबाद
- श्री. एस.एच.एच. अब्दुले, अधिकारी, जी ओ जी पूर्व कार्यकर्ता संस्थान
- श्री. जी. रवीन्द्रमान, नन्दीकार, महासागर विकास संस्थान
- प्रोफेसर श्री. एच.एच. भारती, मनोविलास, विविधविवाद्यालय, कोलकाता
- श्री. एच. शशिकेल, अक्षाकल्प फाउंडेशन अक्षेल विद्या
- विभिन्न कार्यक्रमों से 175 छापलाई
टृटिकोणिन अनुसंधान केंद्र

पी.पी. कोंस माननायक संसद और टीम

चेहरे अनुसंधान केंद्र

जी.जी.पी. नाम, प्रधानमंत्री, कामनांत्य माध्यम स्कूल और ग्रामीण

विधिरजन अनुसंधान केंद्र

काराबाज़ अनुसंधान केंद्र

भारत में भागीदारी

मुख्यालय

मोहन गोसाई मोहनदास, निदेशक

नई दिल्ली में समुद्री मार्गों को जननगरी रिसर्ट्स का लाभकर्ता कार्यक्रम (24-29 जुलाई)

सो.ए.एस. कोंस मार्गों में "समुद्री पह गलीन" और कच्चे मार्गों के बीच उत्तराधिकारी को हाल को प्रभावी" विषयक प्रमुख कार्यक्रम पादपोषण का उद्घाटन कार्यक्रम में तो भाग भरना योग्य है (6-8 अगस्त)

नई दिल्ली में परिभाषा योजना दस्तावेजों का अंतिम रूप देने के बीच बैठक (27-30 अगस्त)

ए.ए.एन. एंड. रंग विश्वविद्यालय, राजस्थान, हैदराबाद में राष्ट्रीय मानवीय विषयक बैठक का उद्घाटन कार्यक्रम (7-10 सितंबर)

नई दिल्ली में ए.एं.एन. लैंग्यों, अभ्यास, ए.एं.एस. अदालत को अधिकारियों के बीच ग्रामीण विषयक नगरी रिसर्ट्स का अनुसंधान कार्यक्रम (13-15 सितंबर)

ए.एं.एस. एवं एस.एस. एवं अव्वल, हैदराबाद में सतना अनुसंधान (17-21 सितंबर)

ए.एं.ए.सी. निदेशक, प्रभाव कैंसर एवं अव्वल, एस.एस. एवं अव्वल

केंद्र के मानवीय विषयक बैठक के लिए प्रबन्धित योजना के रूप में कार्यक्रम के आयोजन के संयोजन में श्री एस.एस. गंगान, मानवीय मानवीय कंट्रोल द्वारा सूचीयता गई बैठक सरकार के मानवीय अनुसंधान संयोजन के अध्यक्ष को बैठक (2 जुलाई)

एस.एस. एवं आर, बौद्धिक में "मसाम परिवर्तन के अनुसार भारतीय कृषि के पंजाब, अनुकूलन और सुंचेना" पर भा कृषि अनुसार प्रेक्षण योजना को तीसरी विश्वविद्यालय में कृषि को हाल को प्रभावित और कृषि के साथ इसका संबंध विषय पर लेख प्रतिलिपिकारण (10-11 जून)

राजदौल में वर्तमान के निर्माण के संयोजन में वर्तमा विवाह निम्न वित्तियत, परिमाणों नगर में आयोजित बैठक (29 जून)

केंद्रीय अंतरभाषाएँ मानवीय अनुसंधान संस्थान, दीनकुल, कानपुर में मानवीय के XI थी योजना कार्यक्रम को उत्तरी बैठक (21-22 अगस्त)

सम्पूर्ण मानवीय परिवर्तन, कीवी में मानवीय विवाह, केंद्र सरकार द्वारा केंद्र की टिकाकृत मानवीय पर पारंपरिक योजना तैयार करने के लिए आयोजित कार्यक्रम और बैठक (31 अगस्त)

कृषि वित्त, विज्ञानशोधी (ए.एस.), कंप्यूटर ग्रामीण, रस्ते एवं मानवीय विवाह विषय को घोटाली में दर्ज की अव्वल आयोजित विवाह विषय कार्यक्रम में उप संचालक (मानवीय) को प्रतिलिपिकारण (20 सितंबर)

आए एस.पी., आरप्रोफ़ाइल में बैठक की मानवीय विवाह के लिए आयोजित प्रारंभिक योजना बैठक (29 सितंबर)

ए.एं.ए.सी. निदेशक, प्रभाव कैंसर एवं अव्वल, एस.एस. एवं आर. अरु. सरकार, प्रभाव विज्ञान एवं अव्वल, एस.एस. एवं आर. आर.

आए एस.पी., ग्रामीण मानवीय विवाह, केंद्र सरकार द्वारा गठित आयोजन संबंधित को प्रभावित बैठक (31 अगस्त)

सो.ए.एस. एवं आर, कोंस में राज्य मानवीय विवाह द्वारा केंद्र की "टिकाकृत मानवीय विवाह" विषय पर आयोजित कार्यक्रम (22-23 जून)

ई.ई. राजदौल, प्रभाव कैंसर एवं अव्वल, भारतीय एवं अव्वल, एस.एस. एवं आर दो दो दो दो

सो.ए.एस. एवं आर, ग्रामीण में मानवीय विवाह, केंद्र सरकार द्वारा गठित आयोजन संबंधित को प्रभावित बैठक (3-4 जून)

राज्य मानवीय विवाह, एस.एस. के द्वारा सो.ए.एस. एवं आर एस.एस. के द्वारा "मानवीय अनुसंधान में संस्था निगमन के तरीके" विषय पर आयोजित प्रतिलिपिवर्तन कार्यक्रम (3-4 जून)

आयुक्त कार्यालय, कोंस में राज्यमान मानवीय विवाह संबंधित को बैठक (4 अगस्त)

सो.ए.एस. एवं आर के मंडल कृषि कोंस में "समुद्री पह गलीन" और कच्चे
भाषातील विवरण

भाषातील विवरण
नियुक्तियाँ

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सी एम एफ आर आइ के नियुक्ति, पदनाम और स्थानांतरण के लिए विभिन्न केंद्रों की लिस्ट दी गई है।
<table>
<thead>
<tr>
<th>नाम</th>
<th>वर्तमान पदनाम</th>
<th>पदोन्नत पदनाम</th>
<th>केंद्र</th>
<th>प्रभावी तारीख</th>
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<tbody>
<tr>
<td>श्री. के.एस. अंजित</td>
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<td>उ.श्री.लिप.</td>
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<td>मंगलूरु अनुसंधान केंद्र</td>
<td>04.08.06</td>
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<tr>
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| प्रकाशक : प्रोफ़ेसर (डॉ.) मोहन जोसफ मोहन, निदेशक, सी एम एफ आर आई, कोच्चि - 682 018 |
| पुस्तक : 2394907. फैक्स : 91-484-2394909, ई-मेल : mdcmfri@md2.vsnl.net.in केंद्र साइट : www.cmfri.com |

| संपादक : संभाल, बारिष्ठ वैज्ञानिक, पी पी डी (संपादक एवं सर्वोच्च सचिव) |
| संपादक : दो. उ. रामकृष्ण, सिल्लेल, क्षेत्रभाषा, पी पी डी (असिस्टेंट) |
| संपादक : बारिष्ठ वैज्ञानिक, पी पी डी (सर्वोच्च) |
| संभाल अनुसार : श्रीमती इ.के. उपाध्याय, तकनीकी अधिकारी (हिंदी) |