

Conservation and Management of Coastal resources as a  
Potential Adaptation strategy for Sea level rise  
in  
Andhra Pradesh

INCEPTION WORKSHOP REPORT

Hotel R K Paradise, Machilipatnam,

23<sup>rd</sup> and 24<sup>th</sup> June, 2015



**M.S. Swaminathan Research Foundation (MSSRF)**  
**Chennai**

**July 2015**

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## **Inception workshop report**

### **Conservation and management of coastal resources as a potential adaptation strategy for sea level rise in Andhra Pradesh**

#### **Introduction**

Adaptation Fund board was established to support climate change adaptation projects and programs in developing countries which are parties to the Kyoto Protocol. National Bank for Agriculture and Rural Development (NABARD) is the National Implementing Entity (NIE) for the adaptation projects in India. Adaptation Fund board has sanctioned a project on Conservation and management of coastal resources as a potential adaptation strategy for sea level rise in Andhra Pradesh to the Executing Entity M. S. Swaminathan Research Foundation (MSSRF). Project aim is to overcome the consequences of sea level rise and seawater inundation through demonstrating adaptation measures such as (i) restoration of degraded mangroves and (ii) demonstration of mangrove based livelihood. As the coastal area of Krishna district, Andhra Pradesh is prone to cyclones and other climate change vulnerabilities, this project is important to reduce these vulnerabilities. Like in other natural resources management projects, MSSRF follows people centered, process oriented, science based and multi-stakeholder approach in implementing this project. Orientation workshop was organised to the key stakeholders for introducing the project and its implementation process. This inception workshop was organised in consultation with NABARD and other Government officials on 23<sup>rd</sup> and 24<sup>th</sup> June 2015 at Machilipatnam, Andhra Pradesh, India.

#### **Objectives of workshop**

##### **The key objective of the workshop was to:**

- Orient the key stakeholders on background, objectives, activities, expected results, financial reporting and auditing process
- Sensitization on the approach for project planning, implementation and monitoring and evaluation
- Refine project approach and expected results on the basis of inputs from stakeholders

## **Participants**

Representatives from NABARD (NIE), Team of MSSRF (EE), Local NGO partners, Officials from State forest and fishery departments, Andhra Pradesh, National Institutes like National Center for Sustainable Aquaculture (NaCSA) and Rajiv Gandhi Center for Aquaculture (RGCA), Traditional leaders, SHG leaders, Panchayat leaders, Fishers and Farmers from three project villages and Media representatives participated in the workshop.

## **Process**

Suitable date and venue was fixed in consultation with all the stakeholders. The programme was designed with inaugural, technical, experience sharing and concluding sessions. Overall methodology of the workshop was oral and power point presentations, followed by interactions and discussions. For the benefit of better understanding by primary stakeholders the presentations made in English were translated in local language.

Dr. R. Ramasubramanian Project Co-ordinator MSSRF welcomed the stakeholders followed by lighting of lamp by dignitaries. Dr V. Selvam Director, MSSRF briefed about the workshop structure and objectives.

Dignitaries of the inaugural session were Mr. J.P. Srivastava, GM, NABARD, HO Mumbai, Mr. P Srinivasa Sastry, IFS, District Forest Officer, Andhra Pradesh Forest department, Mr. B. Suribabu, DGM, NABARD, Smt. P. Ramalakshmi, Manager AP RO, Dr. V. Selvam, Director, Coastal Systems Research, MSSRF, Mr. K. Nagabhashavya, Traditional Leader, Sorlagondi. Initiating the session Mr. Srivastava briefed about the impacts of climate change and sea level rise on vulnerable coastal community and highlighted that this adaptation fund project is the felt need of community and it is one among the three projects sanctioned for India. The project outcome will be important for up scaling and application in other areas. He emphasized the importance of stakeholders' participation particularly the community for owning and sustaining the project. He also shared the other possibilities of NABARD to support similar projects across India through GCF and NAF. Mr. P. Srinivasa Sastry expressed that this project is appropriate and interventions will help to reduce vulnerability of the region. He assured that the department will extend co-operation and support. Dr. V. Selvam expressed that the inception workshop will

enable better understanding about the project among stakeholders. Mr. B. Suribabu also reiterated that this platform is to enlighten the project objectives, implementation process, expected results, roles and responsibilities of partnering institutions for creating a common understanding. Mr. Nagabhashavya former Panchayat President Sorlagondi expressed his sincere gratitude for selecting vulnerable villages for adaptation fund project and specified that there is a large scope for planting mangroves as it protects the lives and livelihoods of many people.

### **Introduction of Project Team**

The project team from MSSRF, Praja Pragati Seva Sangham (PPSS) and NABARD introduced themselves and their role in implementation of the project. The other stakeholders namely the community, PRI, traditional leaders, the staff of forest, fisheries department, NaCSA and RGCA were also introduced them to the gathering.

### **Technical Session**

### **Project Background**

Dr V. Selvam, Director Coastal Systems Research, MSSRF informed that the Adaptation Fund supports adaptation activities that reduce adverse effects of climate change on the communities living in developing countries. MSSRF has applied this project to the Adaptation Fund through NABARD to reduce the climate change vulnerability through adaptation measures. He explained that the frequency and intensity of climate change variabilities such as temperature, rainfall and cyclones are increasing with depressing consequences on the lives and livelihoods of the coastal community. In addition he also mentioned that the rising sea level is emerging as major threat across the globe. Thermal expansion of sea water and melting of glaciers are the major causes for SLR which will result in permanent submergence of coastal area leading to salinization of land as well as surface and ground water resources. The sea level rise will inundate low lying coastal lands that affect millions of hectares of agriculture land. The other climate change vulnerabilities include increased intensity of storm surges and higher storm surges, flooding, coastal erosion, seawater intrusion, increase in loss of coastal infrastructure and decline in soil and water productivity. He also informed that if the sea level rises by 15 to 35 cm in the year 2050 about 3.10 million ha of land will become saline in India. Recent prediction showed that

the temperature in the project region will increase by 1°C by 2020 and 2°C by 2050. A rise of 0.6 m of SLR in the Krishna and Godavari delta alone affect 89,400 ha of land which will in turn affects the lives and livelihoods of about 13 lakh people. This demands preparedness of the community particularly to enhance their adaptation capacity to cope the climate change impacts. Therefore this project is evolved with following as adaptation strategies.

**Strategy 1:** Restoration and conservation of existing mangroves with the participation of community

Anecdotal evidences of 1999 super cyclone in Odisha and 2004 Asian Tsunami revealed that the dense mangrove forest acted as a bio-shield protecting the lives and livelihoods of millions of people. In addition mangroves are also considered as soft structure as it prevents intrusion of sea water because of increasing substratum in mangrove area by accumulation of sediments and litter. This increase in substratum will be on par with sea level rise if continuous supply of sediments and undisturbed forest structures are ensured. In addition to protective functions it also plays productive functions by increasing fishery resources which fetches high economic benefits. It is valued that per hectare of mangrove area produces Rs. 600,000 lakh worth of fish, crab and prawn.

**Strategy 2:** Creation of new mangroves in suitable areas with community as the lead stakeholder

In addition to restoration and conservation of mangrove wetlands, creation of new mangroves in suitable areas becomes a vital adaptation strategy. The demonstrated model of Joint Mangrove Management (JMM) approach will be adopted in restoration and creation of mangroves in these project villages.

**Strategy 3:** Development of seawater water based agro-aqua farming system that integrates growing of salt-tolerant plants and fish, prawn and crab.

The strategy is to convert unproductive abandoned shrimp farms and saline affected coastal lands into productive resources through integrated mangrove fishery farming system. The system is eco-friendly as it does not require energy and artificial feed. The mangroves planted along the bunds of IMFFS acts as a bioshield.

### **Approach and Implementation strategy**

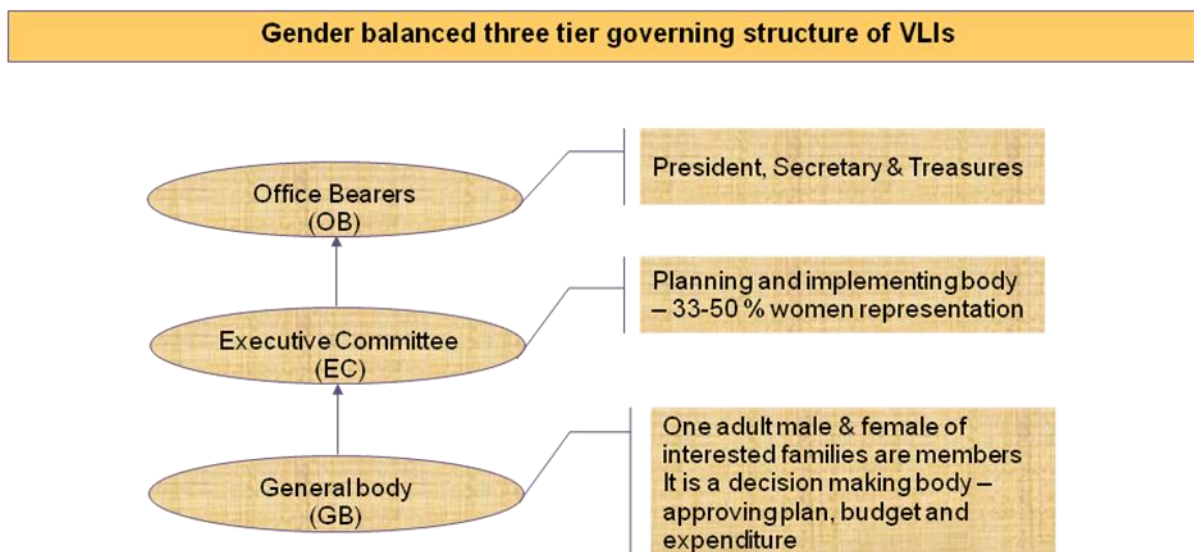
Dr. J.D. Sophia explained that this project is technology based and a process oriented project to be implemented with bottom up, people centred and partnership approach by adopting a step by step process viz. situation analysis, selection of project sites/villages, community mobilisation and institution building, community needs and vulnerability assessment, participatory planning, implementation, monitoring and evaluation and finally documentation and dissemination of process, progress and best practices.

During the project formulation period series of consultation meetings including field visits were conducted with stakeholders to understand the situation and selected Sorlagondi, Nali, and Basavanipalem as project villages by setting criteria (a) intensive user of mangrove wetlands, (b) socially and economically backward and vulnerable and (c) those villagers willing to play an active role in project activities.

Community mobilization is a continuous process that begins with identification of key stakeholders especially the traditional and elected panchayat leader through them reach the larger community. Share the project concept and its process by conducting village level meetings and further build rapport and confidence by organizing exposure visits to the successful sites of JMM and IMFFS. Concurrently initiate the process of village level institution building by adopting the process of JFM model.

### **Major purposes of village level institutions are to:**

- (i) provide a platform to participate in planning project interventions, implementing and monitoring
- (ii) create space for women and marginalized communities to participate in decision making and
- (iii) create ownership of all project activities implemented in the village.



### Project activities and Results Framework

Dr. R. Ramasubramanian described the planned activities of the project and Results Framework for monitoring the process and progress. Under the component community mobilization and organization, the community from three project villages will be mobilized and oriented on the project activities to have better understanding of the project and also on Climate Change, Sea Level Rise and adaptive capacity concepts. Participatory Rural Appraisal (PRA) will be used to identify the concerns and issues of the villagers in socio-economic and environmental related activities. Gender balanced village level institutions will be formed in all three project villages for planning, implementing and monitoring project activities. Under Capacity building for coastal protection and livelihoods the stakeholders namely the community, NGO representatives, Government officials (forest and fishery officials) and the elected leaders of the local self government will be trained on mangrove restoration techniques. In addition, about 50 aqua farmers will be trained in IMFFS aquaculture practices. Restoration of mangroves in the revenue land will be taken up in 200 ha for which nearly 3 lakhs mangrove saplings will be raised in the nursery. IMFFS farms will be established in 50 ha for which the participating farmers were identified. IMFFS farms which are tide fed will be constructed in 50 ha of abandoned shrimp farms. Planting of mangroves in the bunds and stocking of fishes/shrimps/crabs will be done in the ponds. After the harvest the economics will be worked out. Similarly for the landless and



other vulnerable families like single women culture of fishes in cages and pens will be demonstrated for which 10 such devices will be established. Stocking of fishes and crab juveniles will be done and the economics will be worked out. To enhance the understanding of climate change vulnerability resource materials in regional language (*Telugu*) will be prepared and distributed among various stakeholders. Project activities will be monitored along with community. Learnings and the knowledge on climate change, sea level rise and the adaptive strategies will be disseminated through organizing workshop at district and national in the final phase of the project.

He also explained the results framework analysis which will be used for monitoring.

Outcome/Output	Indicator	Target
<b>Component 1: Community mobilization and organization</b>		
Outcome 1: Improved community organization to undertake climate change adaptation measures	Number of men and women in 3 villages trained in participatory approaches and micro planning and implementing project activities Number of stakeholders participating in the VLI meetings, planning and implementation of activities	At least 60% people (of which nearly 50% of women) living in the project villages directly benefited from reduced vulnerability to climate change related impacts
Output 1.1: Gender balanced village level institutions formed in Sorlagondi, Nali and Basavanipalem villages	Frequency of VLI meetings organized with quorum	3 gender balanced VLI institutions for 3 participating villages
Output 1.2: 1,500 people oriented to CC, SLR and adaptive capacity concepts and measures involving mangroves	Number of orientation meetings organized in the three villages	1,500 people including 50% women
Output 1.3: Annual micro plans prepared for optimal utilization of resources	Number of micro plans with detailed activities	12 micro plans (3 annual micro plans for each village for 4 years)
<b>Component 2: Capacity building for coastal protection and livelihoods</b>		
Outcome 2: Trained stakeholders on coastal protection and livelihoods	Number of women, men and youth trained on mangrove restoration technique Number of women, men and youth trained in designing and establishing IMFFS farms	At least 50% marginalized and vulnerable members of the community and youth trained

	Number of members of local self-government, government institutions and local NGOs trained on mangrove restoration and IMFFS establishment	At least 20% members of stakeholder organizations working in coastal resource management and improving adaptive capacity of community to climate change in the project region trained
Output 2.1: 200 stakeholders trained on mangrove restoration	Number of training programmes organized with equal women and men trainees	At least 120 women, men and youth of community members of the VLI in three villages trained in mangrove restoration  At 60 representatives of local NGOs and local self-government trained At least 20 field staff of the Forest and Fisheries Department trained
Output 2.2: 50 farmers trained in IMFSS	Number of training organized with equal women and men trainees	50 farmers including at least 20 women trained in IMFFS
<b>Component 3: Restoration of mangrove areas for coastal protection</b>		
Outcome 3: Restored and healthy mangrove replanted area, contributing to protection of coastal erosion and sea -level rise	VLI plan for mangrove restoration and protection in each of 3 villages  Mangrove restored with 300,000 mangrove saplings  Conditions of mangrove plantation: 80% survival of planted saplings and growth rate.	200 ha of degraded mangrove restored by the village level institutions through community planning with about 300,000 mangrove saplings
Output 3.1: Replanted mangrove area close to 3 villages for future coastal protection	Area of mangrove restored with multispecies of mangroves	200 ha of degraded mangroves restored
Output 3.2: Established central mangrove nursery serving 3 villages	Number of saplings of different mangrove species raised	One centralized nursery
<b>Component 4: Demonstration of Integrated mangrove based fishery livelihood</b>		
Outcome 4: Demonstrated fishery related sustainable	VLI plan for IMFFS establishment and	IMFFS established in 50 ha in abandoned shrimp farms

livelihoods integrated with mangroves	management  Reduction in input costs of shrimp and fish farming compared to conventional aqua farms	by participating farmers with a minimum of 600 mangroves plants per ha 300 kilograms of prawn per year per ha of IMFFS
Output 4.1: Two models of IMFFS demonstrated with the participation of local community and stakeholders	Number of IMFFS ponds	50 ha abandoned shrimp developed into IMFFS farm
Output 4.2: Two culture of fish or prawn or both undertaken in the IMFFS farms per year	Number of culture by IMFFS farmers	100 culture in 50 ha of IMFFS farms in a year
Output 4.3: Cage and pen culture established for culture of crabs, fish, clams and cockles	Number of cages and pens established for culture of fishes	Large extent of suitable water bodies for cage and pen culture
<b>Component 5: Knowledge Management for Improved Coastal Protection</b>		
Outcome 5: Prepared and published material on ways to up-scale coastal protection and livelihood systems in mangrove areas	Awareness materials on CC, SLR, Vulnerability and Adaptive capacity prepared in local language and distributed to community and other stakeholders  Number of meetings and workshops held  Number of brochures and pamphlets prepared and distributed	4 awareness materials – brochures and pamphlets on CC, Vulnerability and Adaptive capacity, Mangroves and IMFFS prepared One workshop for district level stakeholders organised One National level workshop organized
Output 5.1: Resource materials prepared for dissemination among various stakeholders	No of pamphlets distributed to various stakeholders	Awareness materials (2,000 each) prepared
Output 5.2: Stakeholders brought together and knowledge on CC, SLR, Vulnerability and measures to improve adaptive capacity shared	Number of workshops organised  Number of stakeholders participated	2 workshops, one at district level and the other at national level organised

## Role of NABARD as NIE

NABARD is responsible for overall management of the project which include management of finance, periodic monitoring and sending reports to Adaptation Fund. It will be part of steering

committee which reviews the progress of the project and also share the knowledge product at regional and national level for facilitating up-scaling of the project interventions.

### **Role of MSSRF**

M. S. Swaminathan Research Foundation (MSSRF) is responsible for executing the project ensuring participation of vulnerable groups and women, partnership with local agencies including district level government departments, local self-government, NGOs and CBOs. MSSRF will execute proposed environmental management practices in mangrove restoration and IMFFS. MSSRF will prepare annual work plan, financial management including procurement, disbursement of funds, monitoring and evaluation of the project activities and preparation of annual progress reports and financial reports. It also ensures compliance with NABARD's procedures for governance and program implementation. He also explained the roles and responsibilities of other stakeholders namely PPSS the implementing NGO partner, Village Level Institutions, Local Self-government (PRI), forest and fisheries departments and the individual aqua farmers in implementation of the project. In addition MSSRF will collect data, analyse and submit following reports to NABARD

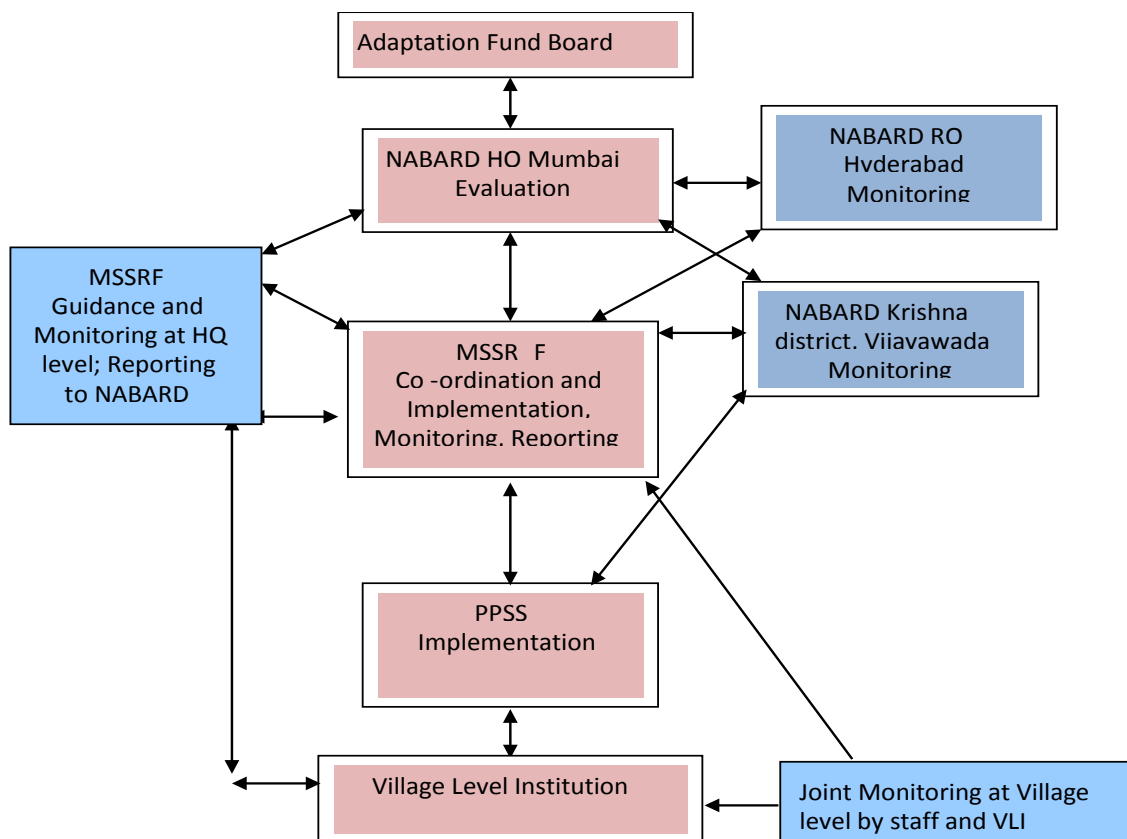
- Project inception report
- Quarterly/ Half yearly reports
- Annual Progress Report
- Yearly Audited Financial Statements

It also carries out comprehensive midterm evaluation of the project focusing on effectiveness, timeliness and efficiency. The final evaluation will be carried out 3 months before the end of the project for analyzing and summarizing the achievements, lessons learnt and recommendations for replication in other areas.

### **Monitoring and Financial reporting Structure**

NABARD's Head office will be involved in evaluation while the regional office in Hyderabad and the district office in Vijayawada will be involved in monitoring along with MSSRF implementation team.

## Monitoring Structure



Financial reporting procedures to be followed-

- Expenditure statement for every release should be duly certified by auditors
- Display of social audit boards – assistance of AFB & NABARD and Physical and Financial Achievements under the Project
- Expenditure to be incurred only in respect of sanctioned activities
- NABARD shall prescribe the formats for reporting progress

## Experience sharing by stakeholders

### Forest Department

Mr. P.S. Srinivasa Sastry, IFS, Divisional Forest Officer, Eluru Division spoke on Mangrove Conservation and Management by Andhra Pradesh forest department. He outlined the mangrove ecosystem characteristics and its role in protection from the natural disasters. He listed the uses

of mangroves for coastal community and explained the causes of mangrove degradation. The causes of degradation of mangroves include conversion of mangroves for other land uses such as industries, untreated pollutants discharge, construction of dams across the river and diversion of water for agriculture. In India about 60% of the mangroves are observed along the East coast while 27% are seen along the West coast and the remaining 13% in Andaman and Nicobar islands. He mentioned that the states of West Bengal and Gujarat have large extent of mangroves. In Andhra Pradesh, the extent of mangroves is about 582 Sq Km which is hardly 1.8% of 31,114 Sq Km of total forest area. The mangroves are found predominately in Krishna and Godavari estuaries. Krishna mangrove area has been declared as a wildlife sanctuary on 27.06.1998 under Section 26-A of Wildlife (Protection) Act, 1972. It has seven reserve forests with a total area of about 194.81 Sq Km. The floral diversity of the Krishna mangroves showed that there are about 16 true mangroves and 19 mangrove associates species. The Andhra Pradesh Forest department is restoring the degraded areas through canal method. In Krishna wildlife sanctuary it has evacuated 10,000 ha of illegal aqua farms and facilitated natural regeneration in 5,000 ha. Apart from this it has restored an area of about 2,709 ha through canal method. Some of the important observations in mangrove restoration are

- Canal method of mangrove restoration has given better results
- Performance of dibbling of *Avicennia* seeds is on par with the planting of nursery raised *Avicennia* seedlings.
- Mangrove areas provide better fish/crab/prawns catch
- Protection of the coastal villages and coastal area from Tsunami/ cyclones

He assured that the state forest department will extend help to MSSRF in implementation of the project.

### **Fisheries Department**

Mr. P. Suresh, Assistant Director of Fisheries, Machilipatnam shared his experience in coastal aquaculture and highlighted the potential for cage and pen culture. Poor management practices of tiger prawn farming resulted in outbreak of diseases in 1990s has led to losses and abandoning of large areas. During early 2010s after introduction of specific pathogen free vannamei many farmers started aqua farming again. Now, disease outbreaks in vannamei farming triggered the farmers to look for other promising species like sea bass, cobia and pampino with suitable

technologies. He informed that the seed nursery has good potential where the small farmers get juveniles from the hatchery and rear for some time to get optimal size. *Happa* method shall be opted for seed nursery in canals of mangrove area as it will fetch better income in short period and can be done effectively with the involvement of women. The small and marginal farmers could also grow the nursery raised seeds in their own farms/ pen. Cage culture would not be a feasible technique in mangrove areas as the canals are shallow and hence suggested to carry out cage culture either in open sea or in river. The fisheries department provides subsidies to a tune of one lakh for production oriented schemes for which he requested the farmers to approach the department.

### **National Centre for Sustainable Aquaculture (NaCSA)**

Mr. K. Shanmuka Rao, Officer on Duty, National Centre for Sustainable Aquaculture (NaCSA) informed that NaCSA is providing technical support to the aqua farmers to produce quality shrimps and other fishery products in a sustainable manner. More than 90% of the coastal aquaculture farmers belong to small or marginal category with size of ponds less than 2.00 ha. They are largely unorganized and scattered in various remote coastal villages of the country. These farmers mostly adopt traditional methods for operating their farms and do not have access to technological innovations and scientific applications. NaCSA forms primary aquaculture societies and build their capacity to enable aquaculture farmers to adopt sustainable and environment friendly farming practices to produce quality products. MPEDA recognizes their society after conducting the audit and based on the audit report it issues a certificate as well as Rs 50,000 as a grant for improving common facility such as construction of shed, electrification etc.,. These societies will be getting additional amount of Rs 4.5 lakhs for the renovation of ponds, roads, canals or any other work which needs financial support. He assured that NaCSA will help the small farmers of the project villages and extend technical support for quality production. However, he opinioned that production in the IMFFS is low and it has to be enhanced for which Dr Selvam informed that the IMFFS will be tried in abandoned shrimp farms which are not under cultivation. Participants mainly aqua farmers requested that NaCSA should help them to get legal entitlement (*pattas*) for their farms for which he informed that the government of Andhra Pradesh is convening a meeting shortly to settle those issues.



## **Rajiv Gandhi Center for Aquaculture (RGCA)**

Mr. P. Srinivasa Rao, RGCA, Vijayawada described the research advancement in *Tilapia* breed improvement programme which RGCA is carrying out in Vijayawada. He informed that the *Tilapia* is one of the promising species for cultivation in the coastal area and has huge export market. He showed a video documentary highlighting the activities of RGCA and assured support to the farmers.

Many farmers requested the procedure for purchasing crablets from RGCA, Sirkali of Tamil Nadu for which he asked them to login their website and procure them easily.

## **Praja Pragathi Seva Sangham (PPSS)**

Mr. P. Venkateswara Rao, President, *Praja Pragathi Seva Sangham* (PPSS) shared his experience in socio-economic development and environmental activities carried out in Krishna district with different donors. PPSS is working in the following areas.

- Health
- Drinking water and sanitation
- Housing
- Education
- Women and Child development
- On-farm and off-farm livelihood
- Environment – Mangroves and Shelterbelt development
- Disaster Preparedness

PPSS works very closely with the community and encourages participatory approach in project implementation. Some of the developmental activities like dairy farming, cattle rearing, saline land rehabilitation and eco-friendly aquaculture are being sustained even after completion of the project. In mangrove conservation and management PPSS has restored 180 ha of degraded mangroves through MSSRF between 2007 and 2010 and another 50 ha between 2013 and 2015 with UNDP-GEF support.



## **Community perception on Adaptation project**

Mr. K. Venkateswara Rao Former president and village leader, Nali expressed that the IMFFS will be useful for the small and marginal farmers who have abandoned farming for a long time. The model is most suitable for crab farming which has good scope and will provide better income to them.

Mr. Tambu Tatta Rao former MPTC member, Sorlagondi expressed that the mangroves restored near their village by MSSRF and PPSS has grown well and will help them to get sustainable fishery and protection from the natural disasters like tsunami and cyclone. He thanked MSSRF and PPSS for implementing various socio-economic and environmental activities in the past and ensured their co-operation in future.

Mr. Pandu Ranga Rao Panchyat President, Ramakrishnapuram (Basavanipalem) expressed that this project is very important as the village is located close to sea and has no vegetation for protection. The mangroves planted will act as a bioshield and protect them. He assured all help from the village panchayat for successful implementation of the project.

Mr. Vishvanathapalli Venkata Krishna Rao, Panchyat President, Nali expressed that the IMFFS will help the poor aqua farmers to earn sustainable income and ensured his co-operation for successful implementation of the project activities in their village.

Ms. Chandramma, SHG leader, Basavanipalem expressed that erosion along their coast is alarming for which the mangrove plantation is one of the best solutions to protect the coast.

## **Concluding remarks**

Dr V. Selvam, Director MSSRF clarified with the community about the possibility of completing 25 ha of IMFFS and 100 of mangrove plantation during this year for which they responded that it could be completed as they are ready to initiate the activities. He also wanted to know who will protect the restored mangroves in the revenue land for which the villagers informed that the dependency on mangroves is less due to availability of alternatives. They also informed that the

traditional panchayat system is strong in their area which could play active role in mangrove protection. Already the traditional panchayat system in Sorlagondi is protecting the restored mangroves and the same system in the respective village will take the responsibility for protection of mangroves.

The representatives of the community were unanimous in their commitment to the project and their role as key stakeholders in the implementation process.

Field visit was organized for the project implementation sites in Sorlagondi and Nali. The team observed the degraded area and the areas identified for IMFFS. They also interacted with the community about the status of mangroves and restoration processes.

#### **Annexure**

- 5) Programme Schedule
- 6) Participants list
- 7) Media clips
- 8) Photos

## Conservation and management of coastal resources as a potential adaptation strategy for sea level rise in Andhra Pradesh

### Inception workshop

Date: 23.06.2015 and 24.06.2015

Venue: RK Paradise, Machilipatnam

#### Day 1: 23.06.2015

#### Programme

9.30 to 10.00 am	Registration of participants
10.00 to 10.15 am	Welcome Dr R Ramasubramanian, Project Coordinator, MSSRF
10-15 to 10.30 am	Introduction of participants
10.30 to 10.45 am	Objective of the workshop and agenda Dr. V. Selvam, Director, MSSRF
10-45 to 11.00 am	Tea

#### Session 1: 11.00 am to 1.15 pm Orientation to key stakeholders

**Session Chair:** Mr. P Srinivasa Sastry, IFS  
District Forest Officer, Andhra Pradesh Forest Department

	Topic	Speaker
11.00 to 11.15 am	About NABARD and its programmes	Mr Srivastava, CGM, NABARD, Mumbai
11.15 to 11.35 am	Project Background, Objectives and activities	Dr V Selvam, Director MSSRF
11.35 to 11.55 am	Project Approach	Dr J D Sophia Principal Coordinator MSSRF
11.55 to 12.10 pm	Results framework	Dr R Ramasubramanian Principal Coordinator MSSRF
12.10 to 12.30 pm	Roles and responsibilities of each institution and Overview of reporting, monitoring and evaluation	Mr B. Suri Babu DGM NABARD, Hyderabad
12.30 to 12.45 pm	Financial reporting procedures and arrangements for audits	P Ramalakshmi Manager, NABARD, Hyderabad
12.45 to 01.15 pm	<b>Discussion</b>	

**1.15 pm – 2.00 pm Lunch**

**Session 2: 2.00 pm – 4.30 pm Sharing experiences**

**Session Chair: B. Suri Babu, NABARD**

	<b>Topic</b>	<b>Speaker</b>
2.00 to 2.15 pm	Mangrove Conservation and Management	P Srinivasa Sastry IFS District Forest Officer Govt of Andhra Pradesh
2.15 to 2.45 pm	Cage culture and its prospects in Andhra Pradesh	P. Jaya Rao Deputy Director – Fisheries M Balarama Murthy Deputy Director - Fisheries Govt of Andhra Pradesh
2.45 to 03.00 pm	Role of National Centre for Sustainable Aquaculture for sustainability in Aquaculture	K Shanmukha Rao Officer on Special Duty, National Centre for Sustainable Aquaculture (NaCSA), Kakinada
03.00 to 03.15 pm	Programmes of Rajiv Gandhi Centre for Aquaculture, Govt of India	Rajiv Gandhi Center for Aquaculture-Regional center, Govt. of India, Vijayawada
03.15 to 03.30 pm	Mangrove conservation and community Development; Experience of PPSS	Mr P. Venkateswara Rao, President, Praja Pragathi Seva Sangham, Machilipatnam
3.30 to 04.00 pm	Remarks - Elected Local Body members	
04.00 to 04.30 pm	Remarks - Village Traditional leaders	

**Session 3: 4.30 pm – 5.15 pm**

- Relook on assumptions and risks on the basis of Session 1 and 2
- Project implementation plan
- Concluding remarks
- Vote of Thanks Mr. Venkateswara Rao, Praja Prathi Seva Sangham (PPSS)

**Day 2: 24.06.2015 – 9.30 am – 2.00 pm** Field visit and community interaction at Nali and Sorlagondi villages

<p style="text-align: center;"><b>List of Participants</b></p> <p style="text-align: center;"><b>Conservation and management of coastal resources as a potential adaptation strategy for sea level rise in Andhra Pradesh</b></p> <p style="text-align: center;">Date: 23.06.2015 and 24.06.2015</p> <p style="text-align: center;">Venue: RK Paradise, Machilipatnam</p>			
S.No	Name and Designation	Address with Mobile number and Email id	Signature
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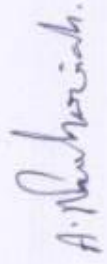



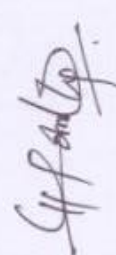



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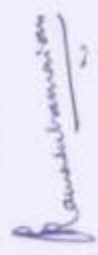




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51	<p>K.K. Ravichandran</p> <p>MSSRF</p> <p>Vedoranyani</p>	<p>Mobile: 9842323417</p> <p>E-mail: KKrao18017@rediffmail.com</p>	um-Ram
52	<p>V. Selvam, Director</p> <p>MSSRF</p> <p>Chidambaram</p>	<p>Mobile: 9442227663</p> <p>E-mail:</p>	982
53		<p>Mobile:</p> <p>E-mail:</p>	
54		<p>Mobile:</p> <p>E-mail:</p>	





# ఈనాడు కృష్ణా

బుధవారం 24 జూన్ 2015

16 పేజీలు

## మత్స్యకారుల జీవనోపాధి మెరుగుకు కృషి

గొడుగు

పేట(మత్స్యకారుల).

మ్యాన్ టుడే: మత్స్యకారుల జీవనోపాధి

మెరుగుపరచడమే

లక్ష్యంగా దేశవ్యాప్తంగా

మూడు ప్రత్యేక ప్రాజెక్టులు ఏర్పాటు చేసి

నట్లు ముంబయికి

చెందిన నాబార్డు ఉన్న

లాదికారి శ్రీవాత్సవ అన్నారు. పట్టణ

పరిధిలోని ఆర్ కే ప్యారడైజ్ ఆవరణలో

ఎంఎస్ స్వామినాథన్ ఫౌండేషన్, కాకి

నాడ ప్రజాప్రగతి సేవాసంఘం ఆధ్వర్యంలో

నాబార్డు ఆర్థిక సాయంతో చేప

ట్లనున్న కార్యక్రమాలపై మంగళవారం

చర్చా కార్యక్రమం నిర్వహించారు.

ముఖ్య అతిథి శ్రీవాత్సవ మాట్లాడుతూ

మూడు ప్రాజెక్టుల్లో బాగుగా కృషిచేస్తూ

లోని తీరప్రాంత గ్రామాల్లో ఈ పథకం

ప్రారంభిస్తున్నామని అన్నారు. స్వామినా

థన్ ఫౌండేషన్ రీసెర్చ్ ఫౌండేషన్ జైరె

క్టర్ డా. సెల్వం మడ ఆడవుల పెంపకం,



సమావేశంలో మాట్లాడుతున్న శ్రీవాత్సవ

కేజ్ కల్చర్ ద్వారా మత్స్యకారులకు జీవనోపాధి తదితర అంశాలను పవర్ పాయింట్ ప్రజెంటేషన్ ద్వారా వివరించారు. జిల్లా డివిజనల్ అటవీశాఖాధికారి పి.శ్రీనివాసశాస్త్రి మడ ఆడవుల వల్ల ఉపయోగాలను తెలిపారు. నాబార్డు మేనేజర్ రామలక్ష్మి, స్వామినాథన్ ఫౌండేషన్ శాస్త్రవేత్త డా. రామసుబ్రహ్మణ్యన్, మత్స్యశాఖ ఏడీ సురేష్, రాజీవ్ గాంధీ సెంటర్ ఫర్ ఆగ్రికల్చర్ నుంచి శ్రీనివాసరావు, ఎంపెడా అధికారి కె. పబ్బుబరావు, డా. నాగ్, పి. వెంకటేశ్వరరావు తదితరులు పాల్గొన్నారు.

# కృష్ణా ఆంధ్రప్రభ

బుధవారం, 24 జూన్ 2015

12 పేజీలు

12 కృష్ణా

ఆంధ్రప్రభ

## మత్స్య కారుల జీవనోపాధికి పథకాలు

నాబార్డు ప్రతినిధి శ్రీవాత్సవ

**మరిలపట్నం, టౌన్, జూన్ 23 (కెఎన్ఎన్):** ఆదాప్టేషన్ ఫండ్ కింద చేతంలో ప్రారంభిస్తున్న మూడు ప్రాజెక్టులలో భాగంగా కృష్ణా జిల్లాలోని తీర ప్రాంత గ్రామాలలో చేదకం ప్రారంభిస్తున్నామని నా బార్డు ప్రతినిధి శ్రీవాత్సవ తెలియజేశారు. మంగళవారం సానిటి ఆర్ట్ ఫ్యారరైజర్ యం. యస్ స్వామి నాదన్ రిసర్చ్ ఫౌండేషన్ కా శీవాడ ప్రజా ప్రగతి సేవా సంఘం వారు నాబార్డు ఆర్థిక సాయంతో విర్యహస్తున్న వివత్సల సంరక్షణకు శీమకోవాల్సిన భద్రత చర్యలపై చర్చా కార్యక్రమాన్ని నిర్వహించారు. ఈ సమావేశానికి ముఖ్య అతిథిగా విధేసిన శ్రీవాత్సవ మాట్లాడుతూ పర్యవరణ పరిరక్షణ, విర్యాపాట, ముడ ఆదవుల

పెంపకం, తీర ప్రాంత మత్స్యకారులకు జీవనోపాధి ఎలా మెరుగు పరుచుకో వాలని మేధానాలపై వివరించారు. ఈ పథకంలో గ్రామ ప్రజానికం ప్రధాన భాగస్వామాలను, ప్రజా ప్రగతి సేవ సంఘం, స్వామి నాదన్ ఫౌండేషన్, ప్ర భుత్వంలో బాగవైవ మత్స్యకాఖ, అటవీకాఖ, నాబార్డు భాగస్వామ్యం ర్హిస్తో ఈ పథకం విజయవంతంగా నిర్వహించాలని కోరారు. ఆలాగే స్వామి నాదన్ ఫౌండేషన్ డైరెక్టరు దాల్జర్ నిల్వల ముడ ఆదవులు, కేజీ కల్చర్ ద్వారా మత్స్యకారులకు జీవనోపాధి, రక్షణ తోరుతుతుందని పవర్ ప్రజెన్టేషన్ ద్వారా వివరించారు. అటవీకాఖ డివిజన్ సర్ అధికారి శ్రీనివాస్ కాన్స్టే ముడ ఆద వుల పరివరణకి ఉపయోగలను వివరిం



చర్చా కార్యక్రమంలో మాట్లాడుతున్న శ్రీవాత్సవ

చి వాటిని సంరక్షించు కోవాలని తెలిపారు. ఈ కార్యక్రమంలో నాబార్డు మేనేజర్ రామ లక్ష్మి, డిప్యూటీ మేనేజర్

వి. సూరిబాబు, వివిధ కార్యాలకు చెందిన అధికారులు సురేష్, శ్రీనివాస రావు తదితరులు పాల్గొన్నారు.



# సమష్టికృషితోనే పర్యావరణ సంరక్షణ

మరింతటికంటే : పర్యావరణ సంరక్షణ, నిర్వహణ అందరి బాధ్యత అని నాబార్డు జనరల్ మేనేజర్ శ్రీవాత్సవ (మంత్రి) అన్నారు. స్థానిక 5 డోటర్ మిటింగ్ హాల్లో మంగళవారం కాకినాడ ఎంపీ స్వామినాథన్ రిసెర్చ్ ఫౌండేషన్, ప్రజాప్రగతి సేవా సంఘం,

## నాబార్డు జీవం శ్రీవాత్సవ

నాబార్డు సంస్థల సంయుక్త ఆధ్వర్యం తీర ప్రాంతాల్లో సమష్టికృషి పెరుగుదల ద్వారా రాబోయే విపత్తులను ఎదుర్కొనేందుకు తీసుకోవాల్సిన సంరక్షణ, నిర్వహణ వ్యవస్థలపై చర్చా కార్యక్రమం ఆదిగింది. ఈ కార్యక్రమానికి ముఖ్య అతిథిగా విద్యేసన శ్రీవాత్సవ మాట్లాడుతూ నాబార్డు అకౌంట్స్ విభాగం భారత దేశంలో ఇప్పటి వరకు మూడు ప్రాజెక్టులను నిర్వహించేందుకు నిర్ణయించామన్నారు. దీనిలో భాగంగానే కృష్ణాతీర్థాల్లోని సమష్టికృషి గ్రామాల్లో ఈ వర్తకాన్ని ప్రారంభించనున్నామని తెలిపారు. ఈ వర్తకం ద్వారా పర్యావరణ



విపత్తులపై అవగాహన చర్చలో మాట్లాడుతున్న నాబార్డు జనరల్ మేనేజర్ శ్రీవాత్సవ

పరిరక్షణ, నిర్వహణ, మద ఆదవుల పెంపకం, తీర ప్రాంతాల్లోని మత్స్యవారులకు జీవనోపాధి మెరుగుపరచటం లక్ష్యమన్నారు. ఈ వర్తక అమలులో తయారీ తీరగ్రామాల ప్రజల పూర్తి భాగస్వామ్యం ఉంటుందన్నారు. వీరితో పాటు ప్రజాప్రగతి సేవా సంఘం, స్వామినాథన్ రిసెర్చ్ ఫౌండేషన్, ప్రభుత్వ కాళిదాస మత్స్య అటవీ, నాబార్డు ప్రతినిధులు భాగస్వాములుగా వ్యవహరిస్తారన్నారు. మరో ముఖ్య

అతిథి స్వామినాథన్ రిసెర్చ్ ఫౌండేషన్ డైరెక్టర్ రాజ్ కె సెల్వం మాట్లాడుతూ ఈ వర్తకం ద్వారా తీర ప్రాంతాల్లోని వలు గ్రామాల్లో ఇబ్బలాది మద మొత్తాలను పెంచనున్నామన్నారు. రేణి కల్వర్ ద్వారా మత్స్యవారులకు జీవనోపాధి, రక్షణ కల్పించనున్నట్లు తెలిపారు. జిల్లా ఆడిష

నల్ అటవీ అధికారి పి. శ్రీనివాసరావు మాట్లాడుతూ సమష్టికృషి ప్రాంతాల్లో మద ఆదవులను పెంపొందించుకోవటం ద్వారా వలు ఉపయోగాలు ఉన్నాయన్నారు. ప్రజాప్రగతి సేవా సంఘం అధ్యక్షుడు వరుదూరి వెంకటేశ్వరరావు మాట్లాడుతూ నాబార్డు సంస్థ అధిక సహాయంతో ఆమలు చేస్తున్న ఈ వర్తకం ద్వారా నాగాయలంక మండలం సొదగొంది. నాటి గ్రామాలతో పాటు కొడూరు మండలం

రామకృష్ణపురం శివారు జనవాసిపాటి ప్రాంతాల్లో మద మొత్తాల పెంపొందించుకున్నామన్నారు.

దాదాపు 500 ఎకరాల్లో మూడు లక్షల మద మొత్తాలను నాటి కార్యక్రమాన్ని త్వరలో ప్రారంభించనున్నామన్నారు. రామన్న రోజుల్లో ఈ వర్తకంపై అవగాహన కల్పించేందుకు గాన జిల్లా, జాతీయ సచివ్యాలను నిర్వహించడం వృద్ధు ఆయన తెలిపారు. కార్యక్రమానికి నాబార్డు డిప్యూటీ జనరల్ మేనేజర్ బి. సూరిబాబు, నాబార్డు మేనేజర్ రామలక్ష్మి మత్స్యశాల ఏడీ శుభేష్ రాజ్ గౌండ్రి పెంటల్ పర్ ఆగ్రికల్చర్ ప్రతినిధి శ్రీనివాసరావు, ఎంపీడా, నాస్సా ప్రతినిధి కె. షర్మణరావు, స్వామినాథన్ ఫౌండేషన్ అధికారి రాజ్ కె. శ్రీనివాసరావు, నిబ్బంది పాల్గొన్నారు. వీరంతా వారి శాఖలకు సంబంధించిన విషయాలను వచనపాయింట్ ప్రజెంటేషన్ ద్వారా ఈ కార్యక్రమానికి హాజరైన ప్రతినిధులు, మత్స్యశాల అనుచు వివరించారు.

























