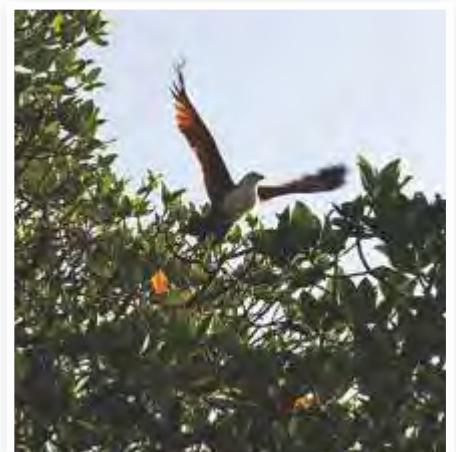


## Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post- Tsunami Sri Lanka



Participatory Coastal Zone Restoration and Sustainable Management in the Eastern Province of Post-Tsunami Sri Lanka (PCZR&SMP) is a project funded by the Global Environmental Facility (GEF) and International Fund for Agricultural Development (IFAD) and implemented by the Coast Conservation and Coastal Resources Management Department. The Lead Project Agency is the Ministry of Mahaweli Development and Environment. Aim of the Project is to restore and sustainably manage tsunami-affected coastal eco-systems in the Eastern province and to promote community adaptation to climate change. A seven-year project, PCZR&SMP will be completed by June 2017.

The coastal zone is a highly dynamic zone being influenced by both human and natural processes. Human activities related to habitat destruction, removal of coastal vegetation, unsustainable harvesting of edible fish and shell fish, degradation of coral reefs due to coral mining and dynamite blast fishing, unsustainable development of the urban infrastructure including tourism and solid waste disposal are some of the activities that have high negative influence on the coastal eco-systems. PCZR&SMP has implemented several programmes to effectively manage the Eastern coastal zone and to improve the knowledge base. The PCZR&SMP Newsletter intends sharing Project achievements with interested parties.



For information, please contact:

**(A) Project Management Unit**

B H J Premathilake  
Project Manager  
IFAD/GEF Participatory Coastal  
Zone Restoration and  
Sustainable Management Project  
4th Floor, Secretariat Building  
Maligawatta, Colombo 10

Phone : 94 11 233 6025,  
94 77 917 9818 (HP)  
E-mail : grantifad@yahoo.com  
bhjprem@yahoo.com

**(B) District offices**

Chandana Senevirathna  
District Project Coordinator  
PCZR&SM Project  
Mac Heyzer Road, Orr's hill  
Trincomalee

Phone : 94 26 222 6443,  
94 77 347 0404 (HP)  
Fax : (026)2226443  
E-mail : chandanajsenevirathna@yahoo.com

**A Kogulatheepan**

District Project Coordinator  
PCZR&SM Project  
Coast Conservation and Coastal resource  
Management Department  
Regional Office  
303, Nochimunai, Kallady  
Batticaloa

Phone : 94 11 65 224 8697,  
94 77 668 3846 (HP)  
E-mail : akogulatheepandy@gmail.com

**K M S Perera**

District Project Coordinator  
PCZR&SM Project  
Coast Conservation and Coastal resource  
Management Department  
District Office  
129 E, AVV Road,  
Pottuvil

Phone : 94 63 2248409,  
94 71 814 8970 (HP)  
E-mail : maheshasameera@yahoo.com

## Message from the Project Director

Welcome to the 'PCZR&SMP Newsletter'. A newsletter was published by the Trincomalee District Office in the past which is up-graded to represent PCZR&SMP's interventions in all three Eastern districts. This issue highlights "community co-management in coastal conservation" and includes nine articles exposing outcomes in PCZR&SMP's interventions in lagoon demarcation, solid waste management, sand dune conservation, mangrove re-planting, community-based eco-tourism etc. The articles also feature Project interventions in sustainable recovery and conservation of the coastal resources affected by the tsunami with the community taking the lead and the ownership.

PCZR&SMP is in its completion stage now and focusing on consolidation of its past interventions and hope to share its experiences with you in the future.

**B K Prabath Chandrakeerthi**

Actg. Director General/Coast Conservation and  
Coastal Recourse Management Department  
Project Director/GEF-IFAD Coastal Zone  
Restoration Project



**GLOBAL ENVIRONMENT FACILITY**  
INVESTING IN OUR PLANET



Newsletter Editor: **Bodhi Wanniarachchi**  
bodhi.wanniarachchi@gmail.com

# SMILING FACES AS DRINKING WATER FLOWS IN KOMARI SELVAPURAM

**Komari Selvapuram is a small coastal village in the Pottuvil in the Ampara district highly affected by the Tsunami devastation in 2004. There are nearly 300 families living in this village with no access to basic infrastructure / needs including drinking water. The village had been provided with a community water project by a IFAD funded programme in 2009 which was abandoned as no proper community management system was in placed. PCZR&SMP in 2013 restored this project by establishing and empowering a Water Management Committee and with a small capital infusion. Project now operates successfully having all 300 families receiving the drinking water right through out the day with a fee system for water consumption, managed by the committee.**

Komari Selvapuram is a small coastal village in the Pottuvil Divisional Secretariat (DS) division of the Ampara district which was highly affected by the Tsunami destruction in 2004. There are nearly 300 families with around 1,500 people living in this village currently, a majority of them are Tamil with several Sinhala families. People lack infrastructure facilities like electricity, good access roads and water supply. Fishing is the main livelihood of many families followed with farming and working as labourers. Komari lagoon is one of the natural resources adjacent to the Komari Selvapuram village community which provides the livelihood for many families as fishermen.



The area belongs to the dry zone and due to periodic unpredictable climate changes in the past Komari is considered to be a high disaster risk area in the Eastern



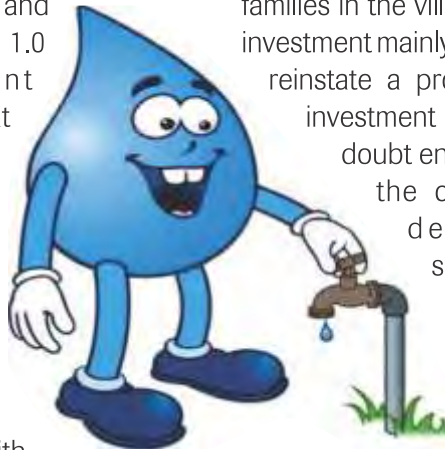
Province. Drinking water has been a serious issue for people in the area which is aggravated immensely during the dry season. Water sources from wells and tube wells are not suitable for the drinking purpose



due to the hardness as there is a risk of spreading the waterborne diseases among the children. Also the families are not equipped with portable drinking water facilities, hence have to depend on water sources which are a greater distance from the village. This has been badly affecting the lifestyle of Komari Selvapura families over many years.

IFAD funded Post-Tsunami Coastal Rehabilitation and Resource Management Programme intervened and provided a community water project to this village in 2009. However, there had been no proper community management and strengthening along with the investment due to which the project was abandoned after a few years of operation. The community approached the PCZR&SMP in 2012 seeking assistance to restore the project. As a response PCZR&SMP in 2013 under its programme agenda "to restore and manage in a sustainable manner in tsunami affected coastal ecosystems in Eastern province & promote community adaptation to climate changes" undertook to restore the project. Lifestyle of Komari PCZR&SMP identified that the major issue was the

lack of community empowerment for the failure. The community drinking water project was rehabilitated by providing two water pumping motors and related equipment costing about Rs. 1.0 Million. A Water Management Committee which was abandoned at the time was regrouped and the members were provided with training in water management. Also the committee was provided with stationaries and basic office equipment to maintain and keep records intact. Further, as a sustainable measure, a periodic monitoring system was established with the support of other relevant government agencies such as Water Supplies and Drainage Board, DS and the Coast Conservation & Coastal Resource Management Department.



The community managed Komari Selvapuram drinking water project now supplies drinking water to all 300 families in the village without any interruptions. A little investment mainly in people empowerment has helped reinstate a project which had a sizeable capital investment but without any use. This project no doubt enhanced the socioeconomic status of the community. The community who demonstrated enthusiasm in successfully managing the community water project recently being offered further assistance under PCZR&SMP livelihood development programme.

**T A Manoj Prasanga** (manoj.ruh@gmail.com),  
 M&E Assistant, PCZR &SMP, Ampara district

***Recent activities in Ampara***



International Coastal Cleanup Day Program was held on 17 September 2016 in Arugambey, Pottuvil. It was a volunteer effort of more than 2,800 participants from 11 coastal DS divisions of the district to clean-up debris to raise the awareness on the growing ecological problem

Green Belt Program - Planted 1000 Coconut plants in Akkaraipattu Coastal Belt on 06 June 2016. Programme to Continue



A three-day Community Based Ecotourism Training Program was conducted on 29 - 31 August 2016 at the Palm Grove Holiday Inn, Arugambey, Pottuvil involving 40 participants from Panama, Urani and Kottukal lagoon fishermen. The purpose of the event was to educate and motivate the community in preserving the natural resources and the biodiversity in appreciation of the economic returns the community receives through ecotourism activities



## COMMUNITY TAKES THE LEAD IN BOUNDARY DEMARCATION IN POTHUVIL PANAMA SAND DUNES

PCZR&SMP in its efforts to restore and maintain a sustainable management of coastal ecosystem in the Eastern Province identified Panama and Pothuvil sand dunes as crucial for its interventions. Sand dune encroachment among other issues had been a severe threat and the Project interventions in boundary demarcation with the active participation of the community living surrounding the sand dunes proved a successful step. The Project has taken several other initiatives to protect and conserve this natural habitat.



*Sand dune encroachment on Panama sand dune*

Sand dune is one of the major coastal ecosystems prominent to the Ampara district coastal zone spreading from Sangamankanda to Panama stretching over 17 KM and consisting around 537 hectares. Sand dune is formed by natural process of sand accumulation by wind blow that is deposited behind the beach. Factors such as sand type, wind pattern, topography of the beach, wave pattern, sand supply etc. affect the formation of dune. Stabilized sand dunes minimize the coastal erosion by absorbing the energy created from the waves. Formation of strong sand dunes in Panama and Pothuvil had been the reason for relatively less damage reported in the area following the 2014 Tsunami devastation. Sand dune is sensitive coastal ecosystem which creates many habitats for fauna species.

PCZR&SMP in its efforts to restore and maintain a sustainable management of coastal ecosystem in the Eastern Province earmarked Panama and Pothuvil sand dunes for its interventions. The Project at the inception identified several threats around Panama and Pottuvil sand dune area which include; illegal sand mining, dune encroachments, removing of vegetation cover and trampling by people and cattle. These factors together have been influencing the formation and existence of the sand dunes. Dune encroachment among others has been the major threat and the Project placed priority to demarcate the dune boundary which was challenging.

In its approach to boundary demarcation, the Project focused in community involvement in it so in 2013 three Demarcation Monitoring Committees (for Panama, Pothuvil and Komari) were established. The committee members were given

exposure training on importance of sand dunes and the need of demarcation to protect this natural habitat. It took about three months for this orientation programme involving all three communities after which the community took the leadership in the boundary marking. The Project facilitated this by awarding community contracts through respective Divisional Secretaries.

In 2014, boundary marking from Sangamankanda to Komari Manachchena spanning about 2 KM was completed followed with 6 KM length of Panama sand dune in 2015. The last in this effort, Pothuvil sand dune area of 9 KM stretch in several patches, is almost completed. Community has directly and indirectly involved demarcation of sand dunes. Demarcation monitoring committees have taken the responsibility in preparation of concrete pillars and installing in relevant places in the dune. Demarcation process were continuously monitored and supervised by Dune Demarcation Monitoring Committee and the Coast Conservation & Coastal Resource Management department. The process of boundary demarcation will be completed once it is accepted as a legal boundary through a government gazette notification which is to be completed before end of 2016.

In addition to the interventions to prevent encroachments, the Project has taken several other initiatives such as construction of a sand dune barrier wall, preparation of ecological profile for sand dune, GIS mapping and erection of awareness sign boards. Also community awareness programmes targeting the vulnerable families including school children have been conducted emphasizing the conservation and sustainable management of the sand dune

**T A Manoj Prasanga** (manoj.ruh@gmail.com),  
M&E Assistant, PCZR&SMP, Ampara district

# ENERGY EFFICIENT STOVES

## A TOKEN TO SAVE MANGROVES IN PANICHCHANKERNY

**The PCZR&SMP intervention in providing Energy Efficient Stoves to 2,000 families living adjacent to the Panichchankerny lagoon backed-up with exposure training proved successful in terms of building awareness on conservation of a natural habitat. A sample survey conducted after about six months of the intervention showed that 40 percent reduction in the use of firewood by an average family which constitutes to saving of 6.6 MT of firewood per month, reducing the burden to the surrounding mangroves. The project demonstrates high potential for up-scaling.**

For the community living adjacent to mangrove forests, requirements of firewood for cooking and timber for fencing were not a problem but this has been a serious burden on the mangroves ecosystem, which is common all over the country. Around 1500 families live around Panichchankerny lagoon in the Batticaloa District had no exception. Almost all of them cut the mangroves and forest trees for their daily needs of firewood and timber for fencing etc. This has been the traditional practice and the community has not been motivated to look for alternatives. The surrounding mangrove considered to be an asset of the border community for their daily needs but never looked to protect and conserve it for future generations, merely due to poor knowledge of mangrove conservation. If this trend continued without any intervention there is a likelihood of disappearing the mangrove patches which will negatively affect the reproduction of fishes, prawns and crabs, the main livelihood of the boarder community. Restoring and conserving mangroves is a key component of PCZR&SMP's ecosystem based climate change response strategies and Panichchankerny lagoon has been one of the targets. Provision of Energy Efficient Stoves backup with training to boarder community complemented the PCZR&SMP's interventions in conservation of the Panichchankerny lagoon and the surrounding mangroves.

In view of minimizing the destruction of forest trees and the mangroves, PCZR&SMP in June

2015 identified 1,000 vulnerable families and distributed 1,000 energy efficient stoves as a piolet project. The distribution represented four Grama Niladari Divisions (GND) such as; Palchenai (340), Ampanthanaweli (225), Puliyanandaladi (210) and Uriyankaddu (225). After a successful performance of the piolet project, the second phase was launched with another 1000 families representing Panichchankerny (85), Kathiraveli (300), Uriyankaddu (200), Vakarai Central (125) and Puchchakerny (290). The programme was implemented in parallel to the awareness building programmes to educate the boarder community on mangrove conservation.



*Traditional cook tops being used*



*Energy Efficient Stoves*

A sample survey conducted by PCZR&SMP after nearly six months of the intervention indicated very positive results. The survey was based on a sample of 50 families out of 2,000 families who have been given energy efficient stoves. The sample represented families of all five GNDs. Daily use of firewood for cooking of a family has been reduced to 3.5 KG from 5.0 KG per day, a significant achievement. The usage is much less in a small sized family which has been reduced to half from 1 KG. In an average, a family now uses 1.7 KG per day which was high as 2.8 KG before the Project intervention. The saving of 1.1 KG/day per family indicates that usage of firewood of an average

family has been reduced by about 40 percent. On this basis the usage of firewood of 2000 families has been reduced by 40 percent and the daily savings of firewood has been high as 2,200 KG and 66,000 KG per month, which is remarkable. The following table shows the effective change in the usage of firewood.

### Reduction of the usage of firewood

Firewood usage	Before the intervention	After the intervention	Effective Change
Average	2.8 Kg	1.7 Kg	1.1 Kg
Maximum	5 Kg	3.5 Kg	1.5 Kg
Minimum	1 Kg	0.5 Kg	0.5 Kg
Total	5600 Kg	3400 Kg	2200 Kg

The PCZR&SMP intervention in providing Energy Efficient Stoves to vulnerable families surrounding the Panichchankerny lagoon proved successful in terms of reducing the burden to the ecosystem and building the awareness among border community on conservation of a natural habitat by effective use of resources. This can be scaled-up and replicated.

**Pillayan Luvikaran** (luvikaran@gmail.com), M&E Assistant, PCZR&SMP, Batticaloa

### Recent activities in Batticaloa



### International Coastal Cleanup Day Program- Batticaloa District

The main program was held on 21.09.2016 at Savukkady beach in Chenkalady DS Division. The District Secretary Mrs. P.S.M. Charles was the Chief Guest. The program was organized in collaboration with CC&CRMD and MEPA.



The Computer and Multimedia equipment were handed over to Mangrove Learning Centre at Nasivanthivu on 9 August 2016.

## COMMUNITY ECOTOURISM IN POTHUVIL LAGOON BOOMS WITH PCZR&SMP INTERVENTIONS

Pottuvil lagoon is very significant with high biodiversity with tremendous potential for eco-tourism development. PCZR&SMP in 2014 intervened to upgrade the community based eco-tourism activities and so far facilitated with some boats and infrastructure such as jetties, resting holes etc. The community has taken the leadership in managing the project and the results so far have been encouraging. Income generation through the eco-tourism project has helped improve the socio-economic status of the community and the harmony between other segments of the society such as hoteliers, taxi associations etc.

Ecotourism is responsible travel to destinations with ecological diversity that involves in activities, environmental and cultural conservation measures, and community participation, providing benefits for the local people and the country. True eco-tourism requires a proactive approach that

seeks to mitigate the negative and enhance the positive impacts on the natural and socio-cultural environment; providing alternative income and employment for local communities and increasing local and visitor awareness of conservation.

Community based Eco-tourism is tourism that is managed by the community itself, management decisions are made by the community and profits directly go to the community. Sustainable tourism development meets the needs of the present tourists and host regions while protecting and enhancing the opportunity for the future. It is leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled, while maintaining cultural integrity, essential ecological process, biological diversity and life support systems.

Pottuvil lagoon is very significant than other lagoons in this area and it is created high



*Natural beauty of Pottuvil lagoon*

biodiversity with large number of flora, fauna species and many different kind of habitats in the lagoon and surrounded by paddy lands, marsh lands and forest patches. The mangrove vegetation, surrounded with different species that specific to the Pottuvil lagoon, is the home to a huge variety of birds such as sea eagles,

kingfishers, pelicans, herons, darters, grebes and long-legged stilts. Both varieties of Sri Lanka's macaque monkeys, water lurk crocodiles, water monitor lizards, fresh water snakes and a multitude of fish and prawns inhabited are also surround the lagoon. Group of wild elephant inhabit around the lagoon and mangrove forest and rocks with rocks



crops that is created an attractive background for the Pottuvil lagoon. Nearly 300 fisherman are engaging in fishing activities in the lagoon by using traditional fishing method such as casting net, gill nets, hand fishing, hook fishing etc. All these create a wonderful ecofriendly environment in Pottuvil lagoon with great potential for community ecotourism.

PCZR&SMP in its efforts to conserve and sustainable management of lagoon ecosystem while empowering lagoon fishing societies and improving alternative livelihood to reduce the undue pressure on the lagoon, identified Pothuvil and Panama as potential sites for community ecotourism development. The development interventions varied including;

- a) Preparation of ecotourism development plan for Panama & Pottuvil lagoon through an expert firm,
- b) Provided boats and life jackets for each society in Urani and Kottukal eight fiber glass boats (four each) and 50 (25 each) life jackets were provided to two societies in July 2016,
- c) Established two resting halls with floating jetties in Kottukal and Urani- each center runs as sustainable ecotourism management centre in Pottuvil lagoon – completed in 2014/15,
- d) Promotion activities on lagoon ecotourism through a video documentary and a web site – being done,
- e) Provision of a revolving fund to develop livelihoods for society members – to be completed, and
- f) Capacity building of boat operators – proficiency in English language and tourism development programmes – to be completed.

Pothuvil community ecotourism project is in full swing with all these interventions. Society leaders are motivated and prepared to take the ownership of the infrastructure developed by the Project. It is too early to gauge the outcome of the investment, but there are positive indications. The number of boat tours in Pottuvil lagoon in 2016 season has been significantly increased compared to 2015 assuring an increased



*Urani resting hall, floating jetty and boats*

income to the community. The community not only manages the ecotourism project but also by engaging in ecotourism reduces fishing pressure on the lagoon resulting increase in the lagoon productivity. Income generation through the ecotourism project has helped improve the socio-economic status of the community and the

harmony between other segments of the society such as hoteliers, taxi associations etc.

**T.A. Manoj Prasanga**  
(manoj.ruh@gmail.com),  
M&E Assistant, PCZR&SMP, Ampara district

A symposium on “Community-led Eco-tourism Potentials in Pottuvil” is to be held in Colombo in November 2016 with a distinguished gathering of senior relevant government officials, tourism-related agencies and the media.

# COMMUNITY TOURISM EARNING WHILE CONSERVING THE ENVIRONMENT; BOAT TRIP AROUND BEAUTIFUL PANICHCHANKERNY LAGOON

**The PCZR&SMP intervention in establishment of Mangrove Corner Boat Safari Site at Panichchankerny aimed at creating alternative income generation for the lagoon fisher community and conserve mangroves, while reducing the pressure on the lagoon. A dumping site with debris of a bridge construction has been developed to a community-led eco-friendly tourism project at the Panichchankerny as an energetic business activity. The visitor turnover and the feedback demonstrate the high potential for the development of the project. PCZR&SMP is geared to further strengthen the infrastructure and the management of the site.**

Vakarai is well known for rich biodiversity of ecosystem which was untapped for almost three decades due to the war. The environment now is conducive and the community is excited and looking for new opportunities. As one of the post-war development initiative, the Panichchankerny Bridge was constructed in 2011, but it demurred 15 mangrove patches and the construction waste was dumped in the lagoon bank. The lost mangrove patches could not be restored but the dumping site created an opportunity to launch a community led eco friendly tourism project. Creation of alternative livelihood options for the fisher community living around the lagoon has been a PCZR&SMP priority as a measure to reduce the pressure on the lagoon. In parallel, PCZR&SMP identified that Panichchankerny Lagoon has high potential for tourist attraction due to its strategic location which led to establishment of the community- led eco-friendly tourism project at the Panichchankerny as means of alternative and energetic business activity. The project was initiated in 2014 with the blessing of the Divisional Secretary (DS), Vakarai by first

establishing a committee namely 'Mangrove Corner Eco-tourism Committee' under the Oriyankaddu Rural Development Society followed with demarcating and clearing the site. The civil construction of two huts, a pathway, a landing strip and gabion wall took place in August 2015. In May 2016, PCZR&SMP supplied three Swam Pedal Boats and five Fiber glass Canoes (Ferries). Operation of engine boats has not been encouraged but only to promote environmental friendly eco-tourism. In the meantime a management plan was developed which provided boat and center operational guidelines. Subsequently, a training programe on operational mechanism and the centre operations was conducted for persons involved in the project. The project "Mangrove Corner Boat Safari Site" then was handed over to the society under the patronage of the DS, Vakarai, who will be the authority for supervision of the boat safari unit. The operations commenced in July 2016 with seven individuals, including an Administrative Officer, recruited from the parent society are now at work. A boat trip around beautiful Panichchankerny lagoon offers the following features:

- Kuruvikkal and Mangroves Patches
- Bird watching at Kuruvikkal and Kathiraveli
- Rich Forest Area at Kaddumurivu
- Interesting Fishing Activities: Traditional Karappu and Hook with Line by women and children



It is too early to assess the outcome of this initiative but indications so far have been very positive. The site has been attracted by good number of visitors (300 in July and 400 in August) and the total fee collection has been Rs. 60,000 in July and Rs. 84,000 in August. Seven parent society members have secured permanent jobs earning Rs. 10,000 per month through this project. A majority of visitors shown interest in mangrove watching which is encouraging. The community tend to appreciate the natural resources which stem mainly from rich bio diversity with great economic value. With the interest created and the encouraging progress to date, PCZR&SMP now plan to do further strengthening the site with two units of toilet, a fence, a vehicle park, sales huts,

four sets of Habana, a water tank, a children play park and landscaping of the site, which will boost the tourist intake.

The PCZR&SMP intervention in establishment of Mangrove Corner Boat Safari Site to boost the income generation and conserve mangroves proved successful in terms of reducing the burden to the ecosystem and building the awareness among border community on conservation of a natural habitat by effective alternative use of resources.

### **Pillayan Luvikaran**

(luvikaran@gmail.com), M&E Assistant, PCZR&SMP, Batticaloa

### ***Recent activities in Batticaloa cont.***



Project provided disaster management equipment to Disaster Management Committees of Sathurukondan and Sallitivu, Vakaraï on 23 September 2016

## COMMUNITY TAKES THE LEAD IN MANGROVE REPLANTING IN IRAKAKANDY

**The community based mangrove conservation initiates environmental benefits and subsequently enhances the socio-economic status of the people who directly rely on the goods and services of mangrove forests. Restoring and conserving mangroves form a key component of PCZR&SMP's eco-system based climate change response strategies. Mangrove replanting and rehabilitation initiative by the Project in the Irakakandy region with the active participation of the surrounding community and stakeholder representatives in October 2015 gave a boost to enhance the knowledge and the interest of the community, including school children and teachers, on mangrove replantation and conservation.**

Mangroves are woody plants, which grow in loose wet soils of brackish to saline estuaries and shorelines in the tropics and subtropics areas. Approximately 25 percent of the world's tropical coastline is comprised of mangrove ecosystems. Sri Lanka is one of the South Asian countries contains mangrove forests mainly along the northern, northeastern and eastern coastal lagoons and river estuaries. Nearly 23 true mangrove species of trees and shrubs have been recorded in Sri Lanka. Mangroves play a vital role in the ecosystem, by supporting the sustenance of coastal bio-diversity, shoreline protection, Eco-tourism, production of food by photosynthesis and medicinal value by highest antibacterial activity. Irakakandy Lagoon in Trincomalee District is an example for such enrichment with great distribution of mangrove species. PCZR&SMP in May-July 2015 undertook a study to assess the



vegetation pattern and to estimate biomass of the mangroves in Iraka kandy lagoon which carried out through the transect method. Information such as vegetation structure, species diversity, density of the stands of mangroves are very important for planning management strategies and conservation of mangroves and the study was aimed at gathering such information required for decision making regarding ecosystem restoration in Iraka kandy Lagoon. Results revealed that Iraka kandy lagoon consists of five true mangroves including *Avicennia marina* (Manda/Venkandal), *Lumnitzera racemosa* (Beriya/Tipparuthin), *Excoecaria agallocha* (Telakiriya/Tillai), *Rhizophora* sp. (Kadol/Kandal) and *Heritiera littoralis* (Etuna / Choomuntiri) with nine mangrove associated plants. Moreover, it revealed that Iraka kandy lagoon consists of fairly high biological diversity (Diversity index=0.86) of mangroves and extremely valuable for stability of the ecosystem. During this study, mangrove destruction and lagoon encroachment have also been identified as major issues in Iraka kandy lagoon. Destruction and depletion of mangroves has been substantially increasing during recent years due to anthropogenic activities leads reducing the economic and ecological value of the lagoon.

Thus, mangrove replanting and rehabilitation became an important environmental initiative in Irakakandy region and PCZR&SMP took the lead through the community participation. The first ever replanting activity with the active participation of the surrounding community in the lagoon was launched in October 2015. Under this programme 10,000 mangrove seeds were replanted adjacent to the Irakakandy lagoon. In parallel PCZR&SMP conducted three field awareness programmes targeting the community living adjacent to Irakakandy lagoon to



enhance knowledge and the interest on mangrove replanting and maintenance. The mangrove seeds were supplied from Negombo along with guidance on replanting techniques from the community leader of the Negombo Lagoon Management Committee. The replanting activity was spanned



Replanting activity

over five days with the active participation of the community. Replanted mangrove plants were a mix of; *Rhizophora* sp. (Kadol / Kandal), *Bruguiera* sp. (Mal kadol / Poo kandal) and *Ceriops tagal* (Rathu kadol / Sirukandal).

Not only adults of the surrounding families but also children, Grama Niladaris, fishermen and members of Nilaveli Tourist Boat Services Cooperative Society also actively participated in this five-day replanting programme. Officials from the Marine Environmental Protection Authority and the PCZR&SMP staff too involved in this activity leading by an example to boost the knowledge on mangrove re plantation and conservation of this valuable biome.

In November 2015 awareness programme was conducted for school children (Grade 8-10) in selected schools such as Gopalapuram Tamil Maha Vidyalayam, AlHamra Vidyalayam and AlFathah Maha Vidyalayam to educate the students on mangrove replantation and mangrove species which were planted in Irakakandy lagoon. Project related leaflets and other literature on the mangroves and their importance were also distributed. The participation of students, school principals and teachers in this exposure programmes proved that the mangrove replantation awareness reached to all levels.

A post evaluation conducted in July 2016 (after nine months of this intervention) showed that 89 percent of the mangrove seeds planted in this programme have been grown and the surrounding community pays attention to upkeep them. Community interest and the commitment demonstrate the spirit of the community-based mangrove rehabilitation project in Irakakandy which is important to protect the mangrove ecosystem in the country.



PCZR & SMP recognizes that the awareness is essential for the surrounded people on mangrove conservation, not only for adults but also for children.

#### **K.Krishnaveny**

(veny2012@gmail.com),

M&E Assistant of PCZR&SMP, Trincomalee

### **Presidential Visit to Trincomalee**

Honorable Maithripala Sirisena, President of the Democratic Socialist Republic of Sri Lanka is scheduled to arrive in Trincomalee on 21 October 2016 to preside the 'District Environmental Conference' in parallel to National Tree Planting Programme, RUK-ROPA. In conjunction with this event, PCZR&SMP in collaboration with the Coast Conservation and Coastal Resources Management Department will implement the following programmes:

- Implementation of Polythene Free Green Zone coupled with a Shramadana Programme
- Mangrove replantation in Sampaltheevu lagoon
- Back Bay beach conservation Programme (50 root balling plants will be provided for the coastal belt development)

# ORGANIC WASTE TO MAKE COMPOST WOMEN INVOLVEMENT IN KUCHCHAVELI & KINNIYA

**Most of the ecosystems existing in Kinniya and Kuchchaveli were identified to be highly vulnerable due to improper solid waste management. The lagoons were used as dumping sites for solid waste by respective local authorities. A PCZR&SMP intervention in 2012/13 to promote local authority led two compost making units and in particular the family based waste management project proved to be successful. The women involvement in making kitchen waste to compost for their home gardening has proved their involvement in waste management at home level for an economic activity and more importantly their understanding of the need of protecting the lagoon from hazardous elements.**

The Kinniya Urban Council, which administer a populated township in the Trincomalee district, used to dump solid waste collection to Upparu mangrove forest until recent times. Municipal workers used to burn the waste but most remained accumulating which had developed to a serious environmental issue in 2012/13. The consequent results have been; rich mangroves were destroyed, the lagoon was polluted and fish production (also prawn, crabs and clams) decreased. This heavily affected the aquatic and coastal resources and the fish harvest drastically reduced affecting around 58 percent of fisher families.

Kuchchaveli is the longest coastal division in Trincomalee district which had no any proper waste management system. Used polythene and plastic bottles were in every corner and animals consuming such waste was a common sight. The Kuchchaveli Pradeshiyaa Saba and hoteliers around the area used to dump the garbage along the Irakakandy lagoon. As in the case of Upparu lagoon, the Irakandy lagoon too was polluted, mangroves destructed, rich ecosystem destroyed and fishing community's livelihood severely affected. Notably, mishandle of solid waste and improper garbage disposal around the area hazardously affected the world famous marine national park, "Pigeon Island Marine National Park", polluting the coral ecosystem and the natural beauty of the beach.

In 2013, the PCZR&SMP came out with a solid waste management programme targeting these two hazardous sites. The Project approached the two local authorities and offered a package of assistance

which included technical assistance, mainly training in best practices, financial assistance to construct compost yards and other related equipment. In parallel to implementing this project, which was to complete in stages over a period of two years, a community led solid waste management project was launched in villages in Kuchchaveli, namely Periyakulam, veloor, Nilaveli, Gopalapuram, Valaiyuththu, Irakakandy and Kumburpidy targeting about 300 families. Under this project each family was given exposure training on separation of organic waste and compost making.



*Compost bin*

Following the training all 300 families were given home based compost bins and home gardening equipment (hand sprayer, flower water bucket, hand forge set, potted bag set) in promoting home gardening. PCZR&SMP coordinated with the Provincial Department of Agriculture to obtain the services of Agriculture Instructors (AI) serving in the area to promote the home gardening programme. With the support of AIs crop varieties adopted to the area were selected and seed packets of 10 varieties were distributed. In addition, an each family was given two each of Mango, Guava and coconut. The women played a major role in this home gardening programme while looking after their children, cooking, cleaning and attending to children's education and health



*Cultivated Chili Pepper*

After about three years of implementation of this family compost making and home gardening project it was revealed in a recent field

observations that 92 percent of housewives are continued to make compost and successfully engaged in home gardening using the compost and produced vegetables for their day to day needs and some of

them sell vegetables in the locality earning some money. The women who had no any understanding over the use of kitchen waste now engaged in a useful economic activity also by contributing to solid waste management.



*Compost Production in Kinniya*

Under the solid waste management programmes with Kinniya and Kuchchaveli local authorities, two compost yards have already been built with related equipment being installed. The commercial production has commenced in May 2016 producing quality compost.

Waste is a part of every human being and most important aspect is to manage it properly. The women in Kuchchaveli and Kinniya have given an example as to how best the women can involve in waste management at family level and contribute to protect the coastal ecosystem by reducing the burden/influence to the lagoon.

**Mrs. G. Thirugnanaselvam**, (gow2804@gmail.com), Development Officer, Coast Conservation and Coastal Resources Management Department, Trincomalee

### ***Recent activities in Trincomalee***

Hon. Anuradha Jayaratne, Deputy Minister of Mahaweli Development & Environment and Hon. Sarathi Dushmantha Maithripala, Deputy Minister of Justice & Buddha Sasana with the participation of Director General of Coast Conservation and Coastal Resources Management Department declared open the following community infrastructure facilities developed by the Project on 10 May 2016. The event was attended by the District Secretary of Kuchchaveli, the District Secretary of Kinniya, Director, Central Environment Authority of Eastern Province, Marine Environment Protection Authority officials and other stakeholders.



#### **Thennamaravadi safety building**

The Disaster safety building which was built for the best safety purposes during the disaster occurrence was handed over to Kuchchaveli Divisional Secretary by the Deputy Ministers. The equipment for the safety building also provided to ensure the continuous function of the facility.



*Contd. to page 17*

# PARTICIPATORY APPROACH PANICHCHANKERNY LAGOON DEMARCATION

**The PCZR&SMP intervention in demarcating Panichankerny Lagoon to conserve lagoon and mangroves, proved successful in terms of being available of legal background to the ecosystem and building the awareness among the border community on conservation and best practices. PCZR&SMP in 2012 intervened to demarcate the lagoon as the prerequisite of conservation; started with temporary demarcation to enable community to interact with relevant stakeholders. The Community Coordinating Committee paved the way for administrators and users interact effectively to solve burning issues and then the Project went into permanent boundary marking and surveying.**

Panichchankerny lagoon in the Batticaloa district is a vital asset for around 2000 families surrounding it as the source of fishing, tourism & leisure, transportation etc. According to a household survey conducted by PCZR&SMP in 2014, altogether 1308 fishers have been fishing in the lagoon and the dependency on the lagoon as the source of livelihood has been increasing over the years. In addition, land encroachment and cutting of mangrove for firewood and burning of mangroves have been in increasing trend. The pressure on the lagoon as a result has been tremendous which negatively affected the natural habitat. PCZR&SMP in 2012 intervened in conservation of Panichchankerny lagoon and its

approach was to setup a lagoon management system acceptable to all the stakeholders including the community living surrounding the lagoon. Demarcation of the lagoon to establish a legal boundary was the first priority under this project followed by surveying by licensed surveyors and declaration by a government gazette.

As its first step, the PCZR&SMP conducted Community Coordinating Committee meetings to get the community support to the project. PCZR&SMP by then had some experience in lagoon boundary demarcation in relation to PottuvilUrani Lagoon in Ampara District. The lessons learned in PothuvilUrani were useful and applied in Panichchankerny. As the focal point to take the project forward, a committee comprising divisional level relevant stakeholders including the community leaders under the chair of the Divisional Secretary (DS) in Vakarai was setup. The committee involved in temporally demarcating the lagoon with sticks in October 2012 as the first step and the community was given two weeks to lodge their grievances.

As anticipated there were hundreds of complaints and suggestions regarding the demarcation. More over in the certain pitchers a total of 121 pillars were removed by force. PCZR&SMP then organized a coordination meeting with the chair of the DS, Vakarai, and was able to resolve the bulk of the issues. PCZR&SMP then conducted series of

awareness programmes targeting the vulnerable community about the need of the demarcation and its legality. The committee arranged some field collaborative inspection to see the ground level situation. This participatory comanagement approach bringing rulers and users together in taking decisions made this problematic task completed. The finally the community was happy that they managed their own project and pledged further support to PCZR&SMP. Permanent concrete pillars were erected around the lagoon in February 2013 with the participation of the same community. The property of Panichchankerny lagoon and mangoes was surveyed and demarcated as





4226 Ha of extent with 4842 concrete pillars. Lagoon boarder community fully supported to make this happened and their involvement despite wild elephant and crocodile disturbances and in wetlands and in rich forest areas was commendable. Incidences of removing pillars and illegal encroachments were not recorded afterwards.

Learning through this intervention is that the bureaucracy along will not work in community level interventions but the community co-management system. This Special Management Area need to be declared through a government

gazette and documentation for which has already been submitted. This completes the task of forming the legal institutional setup for Panichchankerny lagoon. The PCZR&SMP intervention in demarcating Panichchankerny lagoon to conserve lagoon and mangroves and prohibit the land encroachment and undue pressure proved successful in terms of creating a legal framework to the ecosystem and building an awareness among border community on conservation of a natural habitat by best practices. PCZR&SMP has good lessons to share with the implementers of similar interventions in the future.

**Pillayan Luvikaran** (luvikaran@gmail.com), M&E Assistant, PCZR&SMP, Batticaloa

### ***Recent activities in Trincomalee***



### **Kuchchaveli and Kinniya Compost Yards**

Compost yards in Kinniya and Kuchchaveli were built and handed over to Kinniya Urban Council and Kuchchaveli Pradeshiya Sabha. Solid waste has been an environmental hazard affecting the natural habitats in Trincomalee, the Project leads by example to overcome the issue.

## TOURIST BOAT SOCIETY OBLIGES TO CONSERVE PIGEON ISLAND

**Pigeon Island National Park is one of the two marine national parks in Sri Lanka being included to PCZR&SMP's ecosystem restoration and sustainable management agenda. Tourism Boat Operators Cooperative which has been regrouped and empowered through the Project assistance now actively participate in PCZR&SMP run conservation activities. The co-op as an active member of the Pigeon Island Management Coordination Committee can play an important role in resolving threats forced by the Pigeon Island.**

Pigeon Island National Park is one of the two marine national parks in Sri Lanka which is located 1 km off the coast of Nilaveli in the Trincomalee district encompassing a total area of 471.429 hectares. The national park contains some of the best remaining coral reefs of Sri Lanka. The Pigeon Island has been declared as a sanctuary in 1963 for the purpose of protecting birds. In 2003, Pigeon Island and the surrounding area within one mile radius, including its coral reefs, were declared a Marine National Park under the Fauna and Flora Protection Ordinance of the Department of Wildlife Conservation.



*Pigeon Island*

Pigeon Island's coral reef's vegetation is dominated by *Acropora* spp. with some *Montipora* spp. *Faviidae*, *Mussidae* and *Poritidae* species dominate the coral reef around the rocky islets. Areas with soft corals such as *Sinularia*, *Lobophyton*, and *Sarcophyton* can also be observed. The coral reef harbors many vertebrates and invertebrates. Many of the 100 species of corals and 300 coral reef fishes recorded around the Trincomalee area are found in the national park. Juvenile and adult blacktip reef shark are seen around the shallow coral areas. Hawksbill

turtle, green turtle and olive ridley are the visiting sea turtles of the coral reef. The island is also an important breeding ground for the rock pigeon.

There are several stakeholders engaging in activities related to the Pigeon Island such as Cooperative Tourist Boat Society, Hoteliers' association, Diving Centers, Sri Lanka NAVY, Department of Wildlife Conservation, Coast Conservation and Coastal Resource Management Department and the Divisional Secretary. PCZR&SMP in its efforts to empower the local communities to manage this national resource brought in a development plan in 2013 which included among others reorganizing and empowering the tourist boat operators who play a significant role in transporting tourists to the island. The boat operations were formalized by regrouping the operators into a cooperative and were registered under the Department of Cooperative in 2013. In parallel, the members of the coop (33 boat operators) were provided with exposure training in planning, marketing etc. In June 2016 PCZR&SMP provided seed funds of Rs.5.0 Million to develop a revolving fund to upgrade the standards of the boats which are in service and thereby to improve their livelihood. Also the coop was provided with 33 new boats with same quality and specifications as a grant to upgrade the standards and the quality of the boat service. New boats are being operated at the movement on rotation basis to meet the demand. The revolving fund when it matures should be able to assist acquire more boats as and when necessary.



*New Boats provided for the boat society*

Boat operators' cooperative, now a formal institution, has its own administrative and accounting setup and is accountable for the Department of Cooperatives. The coop also has been included to the Pigeon Island Management Coordination Committee being setup by the Project and coop members actively engage in conserving the Pigeon Island by supporting the Project activities. They are the people living adjacent to the Pigeon Island familiar with the Pigeon Island ecosystem and the surrounding bio diversity. Boat coop members actively followed PCZR&SMP conducted awareness and training programs on conservation of the Pigeon Island and its surroundings and now practically involve in conservation. In May 2016 coop members successfully organized an event to remove invasive alien species adjacent to Pigeon Island area which is a severe threat to the coral reef. The coop

members also actively participated in a mangrove replanting activity conducted by the Project in the Irakkandy lagoon in October 2015. The coop also participated in World Wetland Day celebrations, World Environment Day celebration and coastal cleanup day activities organized by the Project.

Boat operators' coop can play a vital role to sort the major issues identified around Pigeon Island such as invasive alien species, blast fishing, reef walking, trampling, excess boat and maneuvering and pollution due to solid waste washed into the sea, chronic oil pollution, propeller cuts and damages by snorkelers. Role of the coop thus can be identified as important for the sustainability of the project interventions.

**K Sutharsan** (suthankartic89@gmail.com), Social Mobilizer, PCZR&SMP, Trincomalee District

## ***Recent activities in Trincomalee***

### **Coastal Cleanup Day 2016**

CC&CRM and MEPA jointly organized the 31<sup>st</sup> International Coastal Cleanup, (and 8<sup>th</sup> National Coastal Cleanup programme) on 17-23 September 2016 declared "National Coastal and Marine Resources Conservation Week covering approximately 1700 km of coastal line in 14 districts of Sri Lanka with the assistance of the Department of Sri Lanka Coast Guard and Sri Lanka Navy. The coastal cleanup day programme in Trincomalee was

conducted on 21 September 2016 with the participation of the District Secretary, Trincomalee and other stakeholders. Objectives of the Programme were to make general public aware about the importance of waste free marine environment.



### **COT Removal programme**

The invasive alien species, *Acanthasterplanci* (Crown of Thrown) are major threat to the Pigeon Island.

Therefore, PCZR&SMP organized COT removal program at surroundings of Pigeon Island National Park on 23 September 2016. Staffs from Wild Life Conservation Department, MEPA, Nilaveli Tourist Boat Services and Cooperative Society, Hoteliers association, SL NAVY divers and other diving centre divers were participated.



**PCZR&SMP NEWSLETTER**  
Community co-management in coastal conservation

IFAD/GEF Participatory Coastal Zone Restoration and Sustainable Management Project  
4th Floor, Secretariat Building, Maligawatta, Colombo 10.  
Phone: 94 11 233 6025 | E-mail: [grantifad@yahoo.com](mailto:grantifad@yahoo.com),