

## **COMMUNITY BASED SEA TURTLE AND THEIR HABITAT CONSERVATION PROGRAMME 2010-11**

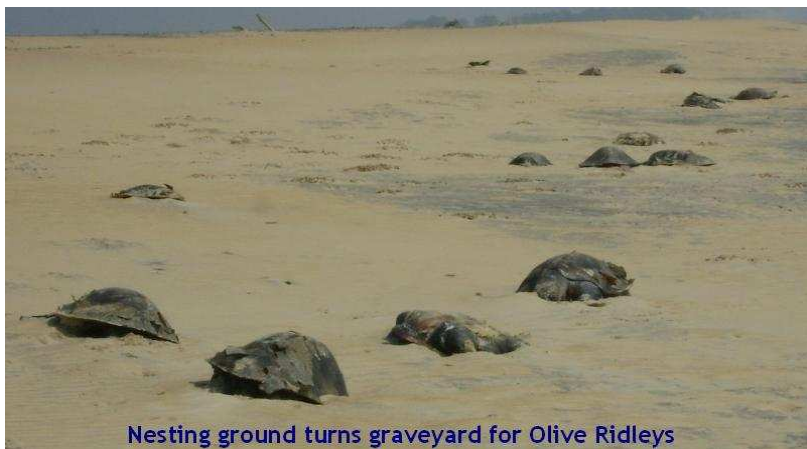
### **BACKGROUND:**

The 480 km. long coastal zone in Orissa is amongst the most dynamic of the coastal environments of India due to its critical location as well as physical, biological and oceanographic processes there by being a vital area of life support by creating within it a variety of ecological niches. Three of the world's six known major mass nesting beaches of olive ridley occur in Orissa. The three mass nesting beaches in Orissa at Gahirmatha, Devi River mouth and Rushikulya together support a significant portion of the world's olive ridley population. Although mass nesting or arribada takes place in these beaches, the adjacent beaches are also contribute greatly through highly sporadic nesting of sea turtles.

The Olive Ridley sea turtle offers one of nature's greatest spectacles. The Olive Ridley sea turtle, which nests along the Orissa coast, is highly endangered today. The World Conservation Union (IUCN) lists this species as Endangered or critically endangered. Some of the threats these sea turtles face in the Orissa are drowning in shrimp nets, getting caught in net, development of nesting beaches, habitat and light pollution. The polluted beaches make unsuitable for turtles to nests, the high predation by feral and wild animals are hindrance and moreover, the human activities are harmful for habitat and breeding of turtles.

### **TURTLE TROUBLE:**

Of critical concern, however, is that over 500 dead turtles have been recorded along the Orissa coastline over the last two months in the ongoing turtle nesting season. The nesting beaches have turned into graveyard for the endangered Olive Ridley sea turtles. It is noted that, over 1 lakh dead Olive Ridelys have been reported along the Orissa coast since last one decade.



Nesting ground turns graveyard for Olive Ridelys



Stray dog feast to a dead female turtle and her eggs

### ***Turtle mortality data in Orissa coast (still date 31<sup>st</sup> December, 2010)***

SI No	Place/Site	No's of dead turtle recorded	Source
1	Rushikullya river mouth to Podampeta	08	Rushikullya Sea Turtle Protection Committee
2	Petaphata to Siali	94	Action for Protection of Wild Animals(APOWA)
3	Kalavedi to Ramtara	56	Action for Protection of Wild Animals(APOWA)
4	Mahanadi river mouth to Jatadhari	35	Action for Protection of Wild Animals(APOWA)
5	Gahirmatha	152	Rajnagar Mangrove Forest(WL) Division
6	Devi river mouth	Data not collected	-

### **APOWA's ACTION:**

Presently, APOWA's activities each nesting season include:

- 1) Protect, conserve and rehabilitate sea turtle, their nest and habitats
- 2) Involve local community in sea turtle and their habitat protection efforts.
- 3) Develop sustainable programs for protecting the olive ridley sea turtle and their habitats that are critical to the survival of marine biodiversity.
- 4) Develop public awareness and education campaign about sea turtles and their habitat
- 5) Develop education programs for teachers and students about sea turtle conservation
- 6) Promote alternative livelihood for traditional fishermen

### **OUR OPERATIONAL AREA:**

The operational area situated south of the Gahirmatha Marine Sanctuary in Orissa known for world's largest Olive Ridley turtle nesting and breeding ground. Although mass nesting takes place at Gahirmatha, the buffer zone contributes greatly through sporadic nesting of Olive Ridley turtles. The project field works are in the buffer zone of Gahirmatha viz. Pentha, Sandhakud, Jatadhari mouth, Paradeep urban beach, Siali and Petaphata.

## Monthly Report from November 2010 and December 2010

### **A) Beach Clean and Educational Programme at Pentha under Gahirmatha sea turtle rookery**

The beach debris make the habitat unsuitable for nesting and we are try to clean the beach for providing the Olive Ridley, a safe and clean nesting habitat. The Cleaning of beach debris from important nesting habitat to ensure sea turtles easier access to nesting sites.



**Nesting Beach Cleaning programme at Pentha**

As per the schedule, the beach cleaning and educational programme was conducted at Pentha beach, a part of the Gahirmatha sea turtle rookery on 20<sup>th</sup> December 2010. School students of M.N.High school, Pattamundai and Nigamanada Ucha Vidyapitha, Badanaukana have joined hands with members of APOWA to clean about three kilometer sea beach at Pentha to facilitate mass nesting of the Olive Ridley turtles. Apart from that 30 community volunteers from the near by villages and members of Banabihari Jew Disaster Resilience committee have participated the programme. Around 100 participants cleared all garbage from the beach to nearest dustbin installed by APOWA. With

nesting of the turtles round the corner, it is required to keep the nesting beach clean.

In the afternoon session, a sea turtle educational programme was conducted for school students, local communities and public at Pentha beach. The programme was attended by Mr. Binod Acharya, forest range officer, Rajnagar Mangrove (WL) division, Mr. Baikuntha Behera, forester, Mr. Manoj Kumar Satapathy, Eco club resource teacher, Mrs. Aradhana Dash, eco club teacher, MN High School, Mr. Ashok Kumar Dash, teacher MN High School, Mr. Ghanshyam Bal, head master, Pentha UP school, Mr. Ramagovinda Lenka and Dharma Panda, teacher, Nigamanada Ucha Vidyapitha as resource persons. The programme was coordinated by Mr. Bijaya Kumar Kabi in association with its team members. More than 200 participants comprising of school students, teachers, local communities, villagers, visitors etc have been enjoyed the programme.



**Sea Turtle Educational Programme for school students and communities**

The school students and teachers have been learned about science and marine turtles, spending time at the beach. The participants have been explored the habitat of world's vanishing species and learn how they can help protect endangered sea turtles and their habitat, from the brink of extinction.

### **B) Beach Clean and Sea Turtle Educational Programme at Siali**



**Beach Cleaning programme in association with community volunteers at Siali**

Armed with blue garbage bags and gloves, the school students of Binapani high school, Olarah, members of Dolagovind Jew Youth club, Siali, community volunteers and members of APOWA were there to clean up the turtle-nesting beach at Siali. It is also an important highly sporadic nesting ground for sea turtles. The clean up event included briefing on the importance of beach cleaning, garbage collection and its proper disposal. On behalf of forest department, Mr. Dilip Mohanty and Subash ch Behera were participated the programme.

The field workers along with the local volunteers and members of local youth club carried out the beach clean work every afternoon for an hour. Garbage on the beach, such as plastic, polythene bags, clothes and other debris were cleared from the beach for safely nesting of turtles. This movement will be continued for a month. As it is an important tourists place, the beach pollution levels are high than other beaches.

### **C) Public Awareness:**

The public awareness programme, through which residents and visitors are informed about the plight of the Olive Ridley turtle and how they can utilize the beaches without disturbing turtles and nests. The Public Awareness programme has been conducted in a variety of formats: display of turtle hoardings, community meetings, involvement of school children, informing visitors on the beaches etc. In addition, our Turtle Guards are regularly informing and educating beach visitors in the course of their monitoring duties.

### **D) Nesting Beach Patrolling and monitoring:**

A large part of this project work is devoted to direct protection of the turtles and their habitat. The volunteers from the sea side villages have been appointed as Turtle Guards for 24x7 Nest & turtle protection along the major nesting sites.



**Beach Patrolling**



**Informal Meeting with communities on sea turtle conservation**

## **ACTIVITIES REPORT FROM JANUARY 2011 to MARCH 2011**

In March first week this year, the spectacular mass-nesting of the endangered Olive Ridley sea turtles have commenced at Gahirmatha and Rushikulya sea turtle rookery in Orissa; the sporadic nesting, which had begun one month earlier in unprotected adjacent beaches, went almost unnoticed. The endangered species which comes en-masse to these places, rarely turn up in such large numbers anywhere in the planet. In recent years regular 'arribada' beaches have fortunately received a lot of attention and protection, however the sporadic nesting sites are overlooked leaving the eggs and hatchlings susceptible to many dangers. We are focusing on non-protected areas and protect nesting turtles, as the majority of the nests get predated by feral animals and people. The sporadic nests contribute equally to that of arribada (mass nesting) of turtles hence it is highly required that sporadic nests are protected.



## Summary of Activities Undertaken:

During the period from January 2011 to March 2011, the field work was undertaken by Action for Protection of Wild Animals.

### A. Community Participation in Sea turtle Conservation:

Local communities associated with sea turtles and their habitats are often a strong force in the conservation of sea turtle populations and their habitats. This well-considered innovative model directly engages local community participation and has proven extremely successful.

#### 1. Formation of Monitoring Units:

To enhance effective beach patrols, protection of sea turtles and habitat management through community based monitoring units has been formed in nesting sites. The members from fishing community, educated youth, local and village leaders have been selected as members of the monitoring committee. The committee has been monitoring the entire programme for the season and meeting has been held every month to review the works and update the progress of the work. APOWA has been facilitating the monitoring units with provide equipment for members.

**Training:** It is an ongoing event that training provided to all members of the monitoring units, turtle guards and staff. The additional training has been provided for beach patrollers on skills in accommodating turtle watching while at the same time preserving best practices with regard to protection of nesting turtles. There 28 members and 6 turtle guards were participated in two training camps. All participated in the learning experience and the community beach patrollers, had great pride in their role as guides and interpreters.

#### 2. Nest and Turtle Protection:

A large part of our work is devoted to direct protection of the turtles and their nests. The six persons from the sea side villages have been appointed as Turtle guard. They have been protecting the turtles and their nests from feral dogs, jackals, wild boar and other wild and domestic animals. The turtle guards have been working in closely association with Monitoring units and local volunteers in the nesting sites. They have been monitoring the nesting beaches to record sporadic nesting and to rescue nests from predation.

#### B. Sea Turtle Awareness Programme:

To inform people and children of the complex biology of sea turtles, their role in local ecosystems, and the importance of managing threats to their survival with the aim of ensuring stable populations and sustainable use options for the future. The education component is envisioned to include initiatives such as informal meetings with villagers, workshops, public presentations, class room teaching, publication and distribution of educational materials, fieldtrips and camp for children etc.

#### 1. Community Events:

As part of the community based sea turtle conservation programme, community events has been organized at different coastal villages. Members of surrounding communities were routinely invited and encouraged to participate in the programme. The participants were given hand on training on various aspects of sea turtle conservation and protection measures. Villagers were also educated on community benefits involving sea turtle as a resource. Each awareness programme also consisted of an open discussion with the community members, groups by the team members as well as invited guest lectures



Sea turtle educational programme organised for villagers

#### Venue of the Community Events

Siali, Jagatsinghpur  
Sandhakud,Paradeep

#### Number of Participants

84  
73



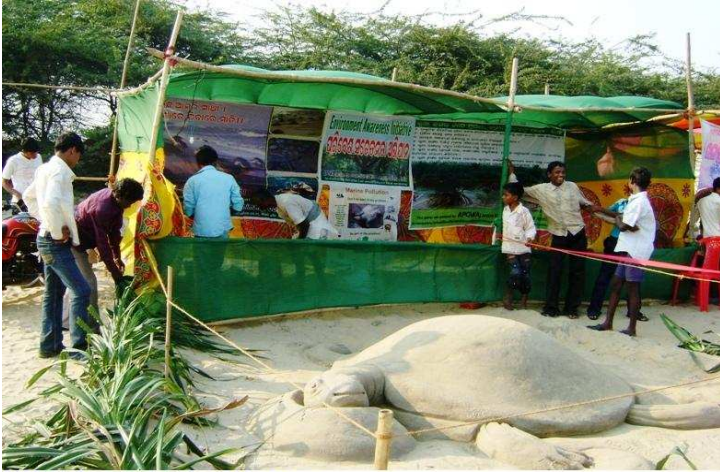
Patrolling of turtle nesting beach by turtle guards

#### 2. Sea Turtle Exhibition:

A five day-long exhibition (from 15<sup>th</sup> March to 19<sup>th</sup> March 2011) was organized at Penth beach about sea turtles featuring: Sea turtle poster and banner exhibition, sea turtle debates with the school students, turtle sand art, and education about marine pollution. We have created awareness campaign through sand sculpture at Penth beach. We have created many sandy eggs from which hatching takes place and a mother turtle giving message "Save my baby". This has been a great focus on sea turtle conservation that brought people in. These activities reached thousands of peoples, visitors, and many schools from around the coastal villages on a daily basis.

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Sea Turtle Exhibition Camp organised at Pentha



Sand Sculpture on sea turtle created for conservation awareness generation

**3. Sea Turtle Education Programmes in Schools:**

APOWA continues to focus very much on the education of children inside the classroom though its Schools Programme. The school outreach program is designed to help teachers and students (and through them, their families) not only learn about sea turtles, but to inspire involvement in conservation efforts. Nesting beach cleans-ups also involve hundreds of children were very popular with residents.

**Name of the School**

**Total number of Participants**

1. Bhabagrahi Vidyapitha, Lanjuda-Kaitala, Mahakalpara block of Kendrapara district.	86
2. Balya Vikash School, Kaltunga, Mahakalpara, Kendrapara	150
3. Chakada High school, Chakada-Gogua, Mahakalpada, Kendrapara	162
4. USAK High School, Kedrapara district	128

**4. Educational Materials-** Outreach involved teaching people (residents and visitor) about sea turtles, and involving them in conservation efforts. The educational resource materials were very popular among children and adults, and served as effective teaching aids and promotional tools. The signages were also placed in nesting beaches at Siali, Pentha, Paradeep, Sandhakud etc.



Sea Turtle Educational Programme organised for school students of coastal villages



## Monthly Activities Report APRIL 2011 to MAY 2011:

### A) Rescue and safely release to disoriented Baby Turtles:

The hatchlings normally emerge after a period of about 45-55 days depending upon the ambient sand temperature and climatic conditions. According to scientific research, only one out of every 1,000 survives to become an adult sea turtle. Turtle hatchlings normally emerge in the evening hours and night only and move towards the Sea under the cover of darkness. The artificial lights disorient them and make them travel towards the wrong way instead of the Sea. But, our turtle guards, volunteers and members have been taken care of this problem with the appropriate measurers at the nesting beaches of Siali, Ramtarpatana, Sandhakud, Padmapur. They had been rescued disoriented baby turtles and released them safely into the Sea. More than 2,00,000 hatchlings saved from predators and safely released back to the sea by the team. Unfortunately, some nests and eggs had lost due to beach erosion caused by strong summer winds and high waves and unseasonal rain in some beaches at Siali, Jagatsinghpur.



Hatchlings Emerging from pits

### B) Sea turtle awareness programme at fishing and coastal villages:

A major focus of the Olive ridley sea turtle conservation programme was involved a broadly based community awareness campaign and awareness about the need to protect the endangered Olive ridley turtles. The community awareness campaign's objective was to begin the difficult process of changing community perceptions and attitudes towards turtles. The public awareness programme, through which residents and visitors were informed about the plight of the olive ridley sea turtles and how they can utilize the beaches without disturbing turtles and nests. The awareness and education programme have organized at various places of the nesting areas. The public awareness programme has conducted in a variety of formats: publication of educational materials, informal community meetings, involvement of school children, inform visitors on the beaches etc.

The important and perhaps most enjoyable activities were the education and community outreach work we have been done. The sea turtle awareness and education effort in the operational area directly reached at community through meetings and smaller scale village gatherings.

**Table 1. Number of People informed during APOWA's Community Awareness Programme**

Places	Pentha	Paradeep	Sandhakud	Siali
<b>Activity</b>				
Beach Patrols	-	653	346	520
Community Meetings	61	82	80	106
Information Stations	638	-	-	452



Community meeting on Sea Turtle conservation organised at Siali, Jagatsinghpur



Sea Turtle Awareness to beach visitors at Information Station installed at Pentha beach



Safely release of rescue turtles to sea