

Indus Forever is a quarterly newsletter of Indus for All Programme; the first six years (2006-2012) implementation phase of a 50-year vision of Indus Ecoregion Programme. Funded by the Embassy of the Kingdom of Netherlands in Pakistan, the Programme is being implemented by WWF - Pakistan in close collaboration with Government of Sindh. The Programme aims to conserve the rich biological diversity of Indus Ecoregion through livelihood improvement of local communities. The quarterly newsletter aims to keep the stakeholders, concerned organizations and individuals updated on the activities, progress and future endeavours of the Programme.



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## Spotlight Otters on Camera

In July, a state-of-the-art camera trap installed by WWF – P captured photographs of an otter family in Makhi area of Nara Canal, which lies in Chotiari wetlands of Sanghar. The smooth coated otter is a priority species of Indus Ecoregion Programme. It inhabits freshwater bodies in plain areas of Khyber Pakhtunkhwa, Punjab and Sindh provinces. In Sindh, it has been spotted in eleven districts: Kashmore, Ghotki, Sukkur, Qambar-Shahdadkot, Khairpur, Shaheed Benazirabad, Sanghar, Jamshoro, Badin, Thatta and Mirpur Khas. In Chotiari Wetland Complex, 86 otters are claimed to have been sighted. However, their numbers are dwindling at high rates, due to hunting, habitat degradation, pollution, water shortage and human encroachment. The species can be found only in fragmented habitats in scattered populations.

Out of the 13 otter species in the world, two are found in Pakistan; the smooth-coated otter (*Lutrogale perspicillata*) and the Eurasian otter (*Lutra lutra*). The smooth-coated otter is marked as vulnerable on IUCN's Red List of Threatened Species. In 1972, the otter was also given a protected status under the Sindh Wildlife Protection Act, making its capturing and hunting illegal in Pakistan.

The otter is an important component of the local aquatic environment; it ensures healthy fish stock by consuming weak and diseased fish. It is also considered to be an indicator of wetlands health, as it is sensitive to degrada-

tion along the food chain, water quality, toxicity and pollution. Otters are thus among the first species to disappear when their environment is contaminated.

Observations made by staff through Indus for All Programme surveys states that the species weights 7-11 kg on average, with an average life span of 10 to 15 years. Approximately 95% of its diet is composed of fish. Other prey includes rodents, larger spiders, frog, freshwater prawn, crab, birds and other aquatic invertebrates. This species is bigger than the Eurasian otter, has short smooth fur and large webbed feet and a flattened tail. Its color varies from black to sandy brown with a white to yellow chin and throat patch. They live in groups typically consisting of an alpha adult male and female with cubs of first two generations.

In tandem with global network action, WWF – Pakistan has actively worked to protect the species in Chotiari Wetland Complex in particular. Measures taken include identification of hotspots, installation of hidden cameras in hotspots, establishment of protected zones and awareness campaigns for local communities. WWF – P hopes for upscaling its community based otter conservation initiative, declaration of an otter sanctuary, restoration of their habitats and enforcement of wildlife law to protect the rare and elusive species.

We applaud the efforts of our field team and community partners, particularly Makhi Development Organization for their dedicated conservation efforts based on scientific knowledge.



# Programme Highlights

## 11th Indus Ecoregion Steering Committee meeting



Officials at the IESC meeting

The 11th IESC meeting was held on 20 March. Mr. Mushtaq Chandina, Secretary, Planning and Development Department, chaired the meeting. Key points deliberated upon were: seeking approval for designating Sindh Ibex (*Capra Aegagrus*) as provincial mammal and Black Partridge (*Francolinus*) as provincial bird. On July 9, this decision was materialized by Government of Sindh.

Furthermore, in the meeting principles of Ecoregion based conservation were highlighted, salient features of the second phase of Indus for All Programme were shared, stating possibility of a joint venture with Government of Sindh. Decisions on sustaining the first phase activities were taken. These included continuation of support to hog deer sanctuary and observatory hut at Pai Forest, reed and weed management and community based fish nursery at Keenjhar Lake, mangroves rehabilitation at Keti Bunder, and institutional support to partnership fund projects. WWF – P's recently launched project, Build Capacity on Climate Change Adaptation in Coastal Area Pakistan, was also discussed.



Black Partridge (Provincial bird)

Senior government officials who attended the event include Secretary, Environment and Alternate Energy Department; Special Secretary, Local Government; Senior Chief, Water and Drainage, Planning and Development Department; Director, Agriculture Department; Director, Marines Fisheries Department; Advisor, Irrigation Department; Assistant Director, Sindh Environment Authority.



Sindh Ibex (Provincial mammal)

## Mangroves Conference



Participants at the Mangroves Conference

A two-day national conference on mangroves ecosystem of Pakistan was organized on 8-9 March by Human Resource Development Network, in collaboration with Mangroves for Future, a regional initiative promoting investments in coastal ecosystems. Senior representatives of environment sector, and private and public sector shared their views and experiences at the occasion. Discussion topics were: reduction in mangrove cover (from eight species to four), causes and effects of coastal ecosystem degradation, loss to GDP through health and loss of marine resources. Recommendations given include, key role of media in creating awareness on the subject, stakeholder participation in policy formulation, and establishment of authentic data collection centre to study socio-economic and ecological aspects of mangroves. The need to educate the masses on significance of mangroves was made evident through 2004 Asian tsunami case study that made evident the role mangroves play in disaster risk reduction; the tsunami catastrophe made people shift to alternate livelihoods sources in order to limit mangrove resource use. The benefit of mangrove conservation to private sector was identified in terms of better reputation and cost saving on legal and punitive action. Heads of organizations present included: Chairman, National Disaster Management Authority, Dr. Zafar Iqbal Qadir; Sindh Forest Conservator Riaz Wagan; Director Sindh, WWF - P, Rab Nawaz; Regional Coordinator, Mangroves for Future, Dr. Steen Christensen; IUCN Global Vice President, Javed Jabbar; IUCN Asia Regional Director, Aban Kabraji; and Senior Vice President, Corporate Social Responsibility, Tahir Javed. A field trip to a mangroves site was also organized.



Mr. Umair Shahid presenting at the occasion

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# Programme Highlights

## International Rivers Day

Friends of Indus Forum observed International Rivers Day on 14 March. The objective was to demand improvements in water policies and future strategies. Two position papers, namely Indus Downstream Kotri and Manchar Lake were launched at the occasion. A documentary on dams was also screened to depict its adverse affects on biodiversity and indigenous communities (such as migration). The panel discussed threats to Indus Delta, conservation measures for freshwater resources and need for comprehensive analysis



Mr. Jam Saifullah, Minister for Irrigation speaking on the Day

to estimate water conditions. Building of dams was discouraged, recommendations on Indus Water Treaty were shared, and advice was directed towards addressing water security concerns through collective action. Mr. Jam Saifullah Dharejo, Water and Irrigation Minister, discussed climate change studies underway at the Ministry, in addition to highlighting concerns emerging from diminishing wetlands as well as post flood rehabilitation and water drainage. Participants expressed the need for a proactive role of policy makers in streamlining the importance of rivers for local economy; for this purpose they particularly urged on creating mass awareness on water storage and conservation on post flood rehabilitation and water drainage, and diminishing wetlands.

## Launch of Position Paper on Forests

Friends of Indus Forum's launch ceremony of a position paper on Vanishing Riverine Forests of Sindh was held in Hyderabad on 7 June, in collaboration with WWF - P. Speakers suggested that forest lease policy be abolished and partnerships be developed with civil society organizations for forest conservation.



Launching of Position Paper on Forests, Hyderabad

## Indus Conservation Award distribution and launch of Partnership Fund publication

A Launch ceremony of Partnership Fund publication: Along the River Indus and Indus Conservation Award distribution ceremony was jointly held in Karachi on 22 June 2012. The publication titled "Along the Indus River: Engaging Communities, Sustaining Environment" presents eleven case studies of successful projects. To date, Indus for All Programme's Partnership Fund has supported 54 conservation projects in four thematic areas: conservation of species, conservation of natural habitats, livelihood support and alternate energy.

The event was attended by Secretary, Environment and Alternate Energy Department; Secretary Forest and Wildlife Department; Senior Chief, Planning and Development Department; Director, Fisheries; and other field partners who shared their experiences. 14 partner organizations were also given Indus Conservation Awards.



Participants launching the publication: Along the River Indus

## Keenjhar pollution

Keenjhar Lake is a major source of drinking water for Karachi and parts of Thatta district. It is also the main source of livelihood for thousands of fishermen. In April many fish species and animals died due to consumption of



Keenjhar Lake, Thatta

contaminated water of the lake. Issue was raised by WWF - P and other concerned organization at different forums. This prompted the relevant

government departments to visit the lake and collect samples of water and dead fish. WWF- P representatives at the site office recommended for immediate release of adequate quantities of water into lake to reduce the level of toxicity and advised the district health department to adopt adequate measures against possible outbreak of diseases.



# Programme Highlights

## Partnership Fund Technical Committee meeting

The 10th meeting of the Partnership Fund Technical Committee (PFTC) was held on 23 May, 2012, at local hotel, Karachi. The first part of the meeting was chaired by Mr. Ghulam Muhammad Mahar Director General, Fisheries Department, Government of Sindh, while the second part was chaired by Mr. Fazal Ahmed Nizamani Senior Chief Water and Drainage, Planning and Development Department, Government of Sindh. Mr. Altaf. H. Sheikh, Manager Policy and Partnership Fund presented a detailed review of the progress of on-going projects along with the observations and findings made during various monitoring visits. The committee principally approved two projects i.e. 'Extension of Community Integrated Rangeland Conservation and Management' to be implemented by Sustainable Development Foundation and 'Upscaling of Biodiversity Conservation of the Natural Dye Plant Indigo in 2 districts of Ecoregion' to implemented by Goth Sudhar Sangat Haji Keerio. During meeting, the final reports of five PF projects were presented by the partners and it was decided that the research work of Zoological Survey Department should be published for dissemination. Finally, the committee awarded no cost extension till July 30, 2012 to three projects i.e. "Improvement and Rehabilitation of Haleji Lake Project", "Reforming Forestry Governance Project" and "Distribution and Status of Threatened Species of Freshwater Turtle in Selected Areas of Indus River System".



WWF officials at the PFTC meeting

## Peacock mortalities



Peacock

WWF - Pakistan conducted rapid assessment regarding the number of mortalities of peacocks in Tharparkar. It was carried from 6-8 August 2012. A total of 48 villages were assessed where 69 mortalities and 19 infected peacocks were recorded. According to Wildlife

department total population of peacocks in the district is estimated to be 70,000. WWF - Pakistan provided medicines, logistic support and manpower to tackle this disease. WWF - P team also suggested long as well as short term recommendations to Wildlife department.

## Post Flood Rehabilitation

2011 floods devastated several districts in Sindh, including Sanghar and Shaheed Benazirabad. To rehabilitate the damage to Programme efforts, a rapid assessment exercise was undertaken to identify the most affected interventions, such as information centres, schools, and alternate energy units and livelihood schemes.

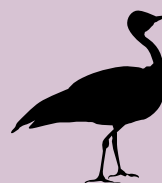
Under livelihood recovery plans more than 100 direct beneficiaries recovered income losses, and the benefit spread further to the community through a socio-economic multiplier effect. Focus was on supporting local women overcome lost earnings and infrastructure. Specific interventions rehabilitated include women-owned enterprise for hand-crafts (ten shops), two vocational centres, two bakeries (run by six households), 15 sewing machines and livestock distribution among 30 women. Disaster risk reduction training was also imparted to flood affectees, including students and CBO members at all four sites.

## Alarming Facts



The endangered Indus river dolphin (bhulan) found in Pakistan's Indus River - one hundred years ago, the sub-species lived throughout the 3,500km-long river and its tributaries. Today around 1,100 individuals survive in a 1,375km-stretch of the Indus, divided into isolated populations by six barrages (WWF)

At least 308,000 whales, dolphins and porpoises are killed in fishing gear each year in the world's oceans (WWF)



Percentage of species that are considered threatened: 17 per cent of wetland birds, 38 per cent of freshwater dependent mammals, 33 per cent of freshwater fish, 26 per cent of freshwater amphibians, 72 per cent of freshwater turtles, 86 per cent of marine turtles, 43 per cent of crocodilians and 27 per cent of coral reef-building species (Ramsar)



12 percent of all existing bird species (about 1,250) could disappear by the end of this century.

# Glimpses from Programme Implementation Units

## IT Center and Bakery Launched

An inauguration ceremony of the Information Technology Centre was held at Sakrand, Shaheed Benazirabad district. The Centre was established by Pai Forest Action Network (14 local community based organizations) in collaboration with WWF - P. Speakers at the event highlighted the role of information technology in conservation of natural habitat, and redefining and sharing folk wisdom on global platforms, in addition to improving computer skills of local students for better jobs. IT was also identified as a tool for rural development and social entrepreneurship, to break the cycle of limited financial, natural, physical and human capital, a condition which often leads to shortage of social amenities and livelihood opportunities as well as depletion of natural resources through greater dependency. Ten computer systems, ten UPS devices, a printer and an electric power generator has been provided to the IT Centre which offers four-month courses on MS Office, typing and English language in its regular schedule.

Women run bakeries established under the Programme for livelihood improvement and social mobility suffered damage from floods in their initiation stage. These were rehabilitated in 2012 and an inauguration ceremony was held. Two bakeries in Shaheed Benazirabad were also inaugurated the same day.



Inauguration of IT Centre, Shaheed Benazirabad

## Conservator of the year 2012 – Mr. Syed Bakal Shah

Mr. Syed Bakal Shah has done remarkable conservation work regarding partridges at Jhampir, Thatta. He does not allow any person / visitor to hunt, trap or catch partridge in the area. His conservation measures have been appreciated by WWF – P team at Keenjhar Lake site office and community members of the area.



Mr. Syed Bakal Shah

## World Forest Day



Sapling being planted to mark the celebrations, Pai Forest

Forest Department and Indus for All Programme observed World Forest Day at Pai Forest on 21 March. Three hundred saplings of indigenous species were planted at the occasion. During discussions, government officials and community members expressed concern over the current rate of deforestation and ecosystem degradation due to natural and anthropogenic threats. The participants emphasised on public-private partnership for forest conservation and the role of local communities in protecting existing forest coverage forests in Sindh, which will help sustenance and control climate change impacts. Indigenous species of trees were advocated as an alternative to invasive species that disturb the natural balance. Forest Department officials informed that beyond downstream Sukkur Barrage, Pai Forest is the only forest left intact. They are striving to remove illegal encroachments, introduce indigenous species and discourage continuation of agro-forestry. WWF – P efforts for reducing pressure on Pai Forest include providing biogas units and livestock model farms to local communities. WWF is also assisting Sindh Forest Department in revising the obsolete Sindh Forest Act 1927 to address present concerns and concepts in forest management.

## Legal Nets Promotion Campaign

For sustainable fish resources and improving livelihood of community people, legal nets campaign was commenced in



Fishing nets distribution in Keti Bunder

Thatta. Use of illegal nets for catching juvenile fish has been discouraged. Issue of illegal nets has been raised during community meetings and on occasion of environment days. The fishermen

now realize the disadvantages and harmful effects of illegal nets. Moreover, to promote sustainable fishing legal nets were distributed among fishermen of Thatta.



# Glimpses from Programme Implementation Units

## Local Festivals

### Chotiari Festival

Chotiari Conservation Forum (CCF) and WWF – P organized a local festival at Chotiari Conservation and Information Centre. The event included a blend of educational and entertaining activities, such as swimming and tableau competition, belharo (a traditional wrestling game), and musical performance highlighting environmental concerns of Chotiari Wetland Complex. Participation by locals was in hundreds, in addition to involvement of representatives of government, academic institutions, national and international NGOs, media and community based organizations.



Students performing at the local festival at Chotiari

## Fascinating Facts

- The Indus is the fifth largest delta system in the world and has the seventh largest mangrove forest system (WWF)
- Oceans produce 70% of our oxygen, absorb heat and re-distribute it around the world, and dominate the world's weather systems (WWF)
- 85% of plant life is found in the ocean
- Adult green turtles are the only truly herbivorous marine turtles; they feed mainly on seagrass and algae (WWF)
- Forests are home to 80% of terrestrial biodiversity
- 350 million people are dependent on forest resource for subsistence or income (FAO)
- A single tree absorbs approximately 1 tonne of carbon dioxide in its lifetime
- Banana trees are not trees but giant herbaceous plants

## Much Kachaheri

A campfire (Much Kachaheri) was organized on 6 January 2012 in village Marri Jalbani near Pai Forest to revive the decades old cultural tradition of Sindh. Speakers emphasized the significance of culture in promoting the message of humanism, love, fraternity, equality, spiritualism and sustainable use of natural resources. They said that cultural gatherings give birth to folk wisdom which is vital for harmonizing human life with different aspects of nature. They demanded that deforestation and illegal occupation of forest lands in Sindh should be checked to save precious natural resources. Unique species of birds and other animals are disappearing in the region which needs immediate attention of all concerned stakeholders including government departments and civil society members, they added.



Audience enjoying the performances of local artists

## WWF Green Literature



- Floral Guidebook, Indus Ecoregion: WWF - Pakistan
- Biodiversity Guidebook, Indus Ecoregion: WWF - Pakistan
- Recommendations for Water Policy Reforms: WWF – Pakistan
- Along the River Indus – Lessons Learnt from Partnership Fund Supported Projects: WWF – Pakistan
- Flowing Rivers, Full Bellies: The case for freshwater conservation to achieve food security: WWF International
- Rivers at Risk - A publication to aid informed decision making in dam construction plans and projects: WWF International
- The Energy Report 2011: WWF International
- CCAP Sindhi Brochure

# Glimpses from Programme Implementation Units

## World Water Day

Rapid population growth, urbanization and unsustainable water consumption practices have placed immense stress on the quality and quantity of water resources in Pakistan. This was stated by the speakers at a seminar on World Water Day on 22 March at WWF-established Chotiari Conservation and Information Centre. Stakeholders felt that continuous flow in Indus River must be ensured for survival of local communities and natural habitat. The link between water quality and health risks was deliberated upon; these include use of chemical fertilizer and pesticides contaminating water resources and causing fatal diseases such as cancer. Likewise, inadequate quantity and quality of potable water, and poor sanitation facilities and practices are leading to illnesses such as diarrhea, typhoid, intestinal worms and hepatitis. Participants advised upon taking measures to control water logging and salinity in Chotiari Wetland Complex, in addition to recycling wastewater and providing safe drinking water to the local population.



Participants at the World Water Day

## Mangrove Plantation

Indus for All Programme team with active participation of community members has planted 7500 hectares of land with mangrove saplings in Khobar Creek, Keti Buder, Thatta. The set target during first phase of the Programme has been successfully achieved.



**Be an  
Eco-Warrior**



**Volunteer and save species!**  
Register online; match your interests and skills with our work and get involved.

## World Wetland Day

WWF celebrated World Wetland Day at Keenjhar Lake, Thatta. Students presented tableaux, poems and paintings depicting the beauty and benefits of wetlands. A story competition among partner schools of all four sites highlighted issues confronting wetlands in Sindh. Speakers at the occasion



Speakers at the World Wetland Day, Thatta

also highlighted the significant (provides food and fiber, and generates income opportunities to the local people), threats (dumping ground for untreated industrial and domestic waste water, loss of freshwater flow and consequent saltwater intrusion affecting the ecology and inhabitants of Indus Delta, and overexploitation of natural resources) and solutions for wetland management (adopting environmental friendly fishing practices).

Pakistan has over 225 significant wetlands. Out of the 19 Ramsar sites, 10 are located in Sindh. However, 12 out of 42 natural wetlands in the province have dried up and the rest are facing risk of water depletion. At Haleji Lake, water shortage, sedimentation and spread of aquatic vegetation have resulted in loss of a sanctuary for migratory birds. Speakers pointed out the value of Keenjhar Lake for Karachi, and called for making it pollution free. Karachi Water and Sewerage Board was requested to allocate at least 1% of its income for the revival of Keenjhar Lake and wellbeing of local inhabitants. Other suggestions given by participants included giving wetlands equal footing to agriculture, promoting ecotourism to generate sustainable livelihood for local communities, strengthening the role of community in saving wildlife, controlling drainage of industrial effluents from Noriabad and Kotri SITE areas, prohibiting bird shooting and wildlife hunting, and banning illegal fishing nets.



Students being awarded for their participation



# Out Reach and Education

## Journalists Exposure Visit to Keenjhar Lake

A media exposure visit to Keenjhar Lake was organized for writers and photojournalists representing English, Urdu and Sindhi media houses. The visit helped build understanding on local environmental conditions that can be highlighted through print and electronic media to inform and instigate corrective action.



Journalists at Keenjhar Lake

## Journalists Exposure Visit to Keti Bunder

As a part of the “Building Capacity on Climate Change Adaptations in Coastal Areas of Pakistan (CCAP)” project, a Media Exposure visit to Keti Bunder was organized on 15 June 2012. A total of twenty five media personnel were a part of this exposure visit, out of which six participated from Punjab, Balochistan and Khyber Pakhtunkhwa; while nineteen were from Sindh.



Journalists taking briefing at Keti Bunder

## Women exposure visit to Abbottabad and Mansehra

Women of Programme sites were given a unique opportunity to travel to Abbottabad and Mansehra to share experiences with local communities and civil society organizations working in the area. Several livelihood schemes have been launched under the Programme; this exposure visit helped broaden skill and knowledge base of females residing in the

Indus Ecoregion. Host organizations were those working for community empowerment and running successful women entrepreneurship models in Khyber Pukhtunkhwa: Sungi Development Foundation, Sarhad Rural Support Programme, Khwendo Kor and Haasher Association. Meetings with and field



Women group at the exposure visit

support of these organizations helped provide further options for ecologically sensitive livelihood opportunities, mobilize local women for taking action to reverse ecological damage in Programme sites, motivate women to adopt alternative livelihoods and enhance their entrepreneurship potential. The collaboration has also helped initiate national level network of women based organizations for collective efforts and knowledge sharing.

## Pitcher and drip irrigation demonstration by youth

A youth greening activity 'demonstration of pitcher and drip irrigation' was organized for local nature club students and community youth of Chotiari Reservoir vicinity.

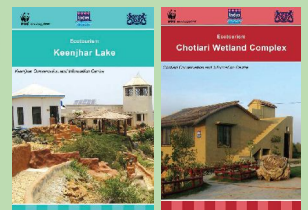


Youth engaged in the activity

They gained technical understanding and hands-on experience on installing pitcher irrigation and drip irrigation system in the area. Programme staff briefed the audience on effective water conservation methods, especially for agriculture / irrigation, followed by an outdoor demonstration activity on pitcher and drip irrigation - a replication of similar models successfully implemented under the Programme. The demonstration was undertaken for further replication at school level in selected Programme sites, to ease the pressure on scarce water resources. The event was held at WWF's Chotiari Conservation and Information Centre, a platform for collective action in ecological sustainability.

## Communication material and local crafts

- Key chains and bags (by women artisans in Nawabshah)
- Handicrafts catalogue
- Ecotourism leaflets for Keenjhar Lake and Chotiari Reservoir





## Out Reach and Education

### Waste material recycling for hand-made paper making

In collaboration with Water and Environment Sanitation Project, Indus for All Programme launched a hand-made paper making campaign at the Programme four sites and Karachi city. The objective is two pronged – to address solid waste management and provide a creative option for sustainable livelihood. The exercise also helps fulfill one of WWF's three priorities-food, fiber and fuel.

For proper training, the team collaborated with Ravissant Handmade Paper, Doulat Rehmatullah, the pioneer of the concept in Pakistan and an avid trainer as well. Demonstrations were held for local women and students. Paper was prepared from composite waste (wheat and sugarcane husk, banana leaves and vegetable), dead flowers and leaves etc., using natural processes. With experience, it takes four hours to make between 120 and 150 sheets of paper without use of machines or much energy sources.

The training will be useful for local communities in generating income by recycling organic material and no-cost paper to students, while also ensuring a cleaner environment. From a conservation perspective, it means reduced deforestation from reduced paper pulp, and less use of energy and resources for paper production.

Paper making can be seen as a useful craft for cottage industry, as is being done in South East Asia and beyond. India, Laos and other Asian countries have been making handmade paper in tones, for commercial purpose.



Women at the paper making training and products from hand made paper

### BMP in agriculture taught in schools

Better management practices in agriculture project has been a successful venture of WWF – P across Pakistan and in Indus Eco-region. Keeping in mind its effectiveness and the local community dependency on agriculture, a school level initiative was undertaken for partner nature clubs whereby instilling good practices in agriculture were shared. Agriculture is also taught as a subject in Sanghar in particular. Therefore, redirecting their curriculum was considered vital. BMP publications were also distributed.

### Micro projects demonstration in schools

For a practical ownership oriented edge to the Programme's outreach efforts that enhance youth role in conservation, around 25 nature club students were engaged in interactive information



Students at demonstration session at local school

sessions, primarily focusing on micro-projects demonstration. The objective was for students to proactively and independently undertake conservation activities at school / local level. This was done through building knowledge, attitude and practice. Each session included demonstration of micro-irrigation, water filtration, handmade paper making, composting, ecological audit, seed bank and herbarium development, visual presentations (documentaries, photos, videos), defining nature club committee roles, and reflection on own practices. Certificates were distributed among all nature club members and information material was shared with staff and students. Other educational activities initiated include integration of environmental concepts in curriculum, and incorporation of nature club representatives in local CBO networks.

### National Children's Mountain Conservation Meet-2012

Inculcating a caring attitude towards nature and promoting youth-led efforts towards sustainable conservation of Indus Eco-region, the



Youth group at NCMCM-2012, Abbottabad

Indus for All Programme arranged a National Children's Mountain Conservation Meet - 2012. The Meet was organized by Adventure Foundation Pakistan at Thandyani, Abbottabad from 1 to 10 July 2012. The participants included 7 schoolchildren and one environmental education officer. This group from Sindh was joined by other 150 students who came from other parts of the country. During these thought-provoking ten days, a number of environmental education activities were conducted such as basic campcraft, trail trekking, wilderness study visits, personality building exercises, tree plantation, interaction with tourists for environmental awareness, wakeup walk and cultural evening activities.

### UN Ambassador visits WWF bio-gas plants

United Nations Development Programme's National Goodwill Ambassador Ms. Hadiqa Kiyani visited communities of district Thatta and interacted with village women, children, elders and other beneficiaries of UNDP support in restoring their socio-economic conditions with enhanced sustainability and disaster resilience. Ms. Kiyani was accompanied by the UNDP team led by Country Director, Toshihiro Tanaka, World Wide Fund for Nature - Pakistan (WWF - P) Regional Director Rab Nawaz and other representatives. One of the main objectives of her visit was to highlight the importance of linking early recovery interventions with climate change mitigation, adaptation strategy and disaster management at community level. In this regard, she visited the bio gas plants established by WWF - P which provide rural poor families with sustainable access to alternate renewable energy and require no running cost.



Mr. Rab Nawaz briefing the UN Goodwill Ambassador Ms. Hadiqa Kiyani

### Turtle hatchlings released at Sandspit, Karachi



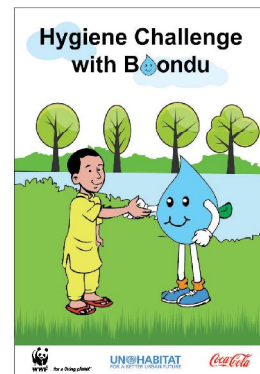
Turtle hatchlings

WWF - P team released 34 turtle hatchlings at Sandspit beach which were handed over by Mr. Sajjad Tufail who was on picnic with his family at Sandspit beach. Mr. Sajjad told Manager Conservation (Sindh) Mr. Subhash Dawani that he saw turtle

eggs and hatchlings being eaten by dogs. He saved hatchlings and eggs and brought them at home. Afterwards, he contacted WWF – Pakistan, Karachi office for taking hatchlings into their custody. WWF team safely released these hatchlings into their habitat where they were found i.e. Sandspit Beach, Karachi.

### Development of training material and teaching aids

WWF – P under its Water and Environmental Sanitation Improvement in Coastal Communities in Karachi Project has published an interactive activity based learning book on the themes of water, sanitation and hygiene education titled as 'Hygiene Challenge with Boondu'. The book is designed taking into consideration local perspective about learning, human values, social norms, existing Water Environment and Sanitation relevant issues and the environmental linkages with health and hygiene. The book is very informative and useful for students.



### World Ozone Day

Building Capacity on Climate Change Adaptation in Coastal Areas of Pakistan (CCAP) project organized World Ozone Day at Makli gymkhana in Thatta. The event was attended by government officials, academia, NGOs' representatives, civil society members, students and media persons. Dr. Ali Murtaza Dharejo, Mr. Nasir Ali Panhwar, Ghulam Mustafa Mirani, Mr. Tahir Abbasi and Ms. Sassi Memon spoke on the occasion. Students from Makhdoom Muhammad Hashim Thattwi School took part in tableaus and highlighted the importance of ozone layer. Gifts were distributed among the students and shields were presented to volunteers working in the coastal communities.



Students performing at World Ozone Day

### WWF Global Action

Nepal tests new unmanned aerial vehicle technology to stop wildlife crime

Through the Smart Fishing Initiative (SFI), WWF's global fisheries programme, WWF tackles the many problems of overfishing to contribute to a sustainable future for our global fisheries.



## Other News

### WWF – P receives best presentation Award

Indian Ocean Tuna Commission's (IOTC) meeting was held on 17 to 19 September 2012 in Cape Town, South Africa. Participants from WWF Pakistan included Mr. Moazzam Khan (Technical Advisor – Marine Programme) and Mr. Umair Shahid (Tuna Fisheries Officer – WWF – Pakistan/SFI). The detailed presentation was given by WWF – Pakistan team members. It included the status of shark fisheries being the oldest fisheries of Pakistan. The information presented was acknowledged by the working party and it received the best presentation award.



Participants at IOTC Meeting in Cape Town

### MoU signed between WWF - Pakistan and CAA

WWF-Pakistan signed an agreement with Civil Aviation Authority at the CAA headquarters, Karachi. The Director General of Civil Aviation Authority, Mr. Nadeem Khan Yousufzai and Director General, WWF-Pakistan Mr. Ali Hassan Habib signed the MoU between the two organizations. The main purpose of this partnership was to raise awareness on environmental conservation and associated biodiversity in Pakistan. CAA would help WWF-Pakistan in creating a positive environment for natural resources conservation through mass media outreach, awareness building and trainings. CAA would provide almost all the platforms for promoting environmental messages at the prominent spots at all the airports across Pakistan. After signing ceremony, DGs of both organizations briefed the media on this MoU.



WWF - P and CAA officials at MoU signing ceremony

### Top 4 **ENDANGERED** Species of Sindh



**Indus Dolphin**  
Keti Bunder



**Crane**  
Keenjhar Lake

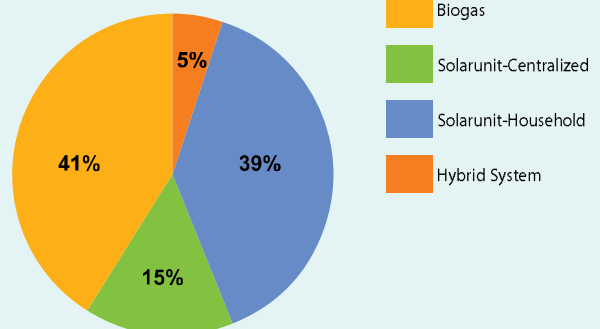
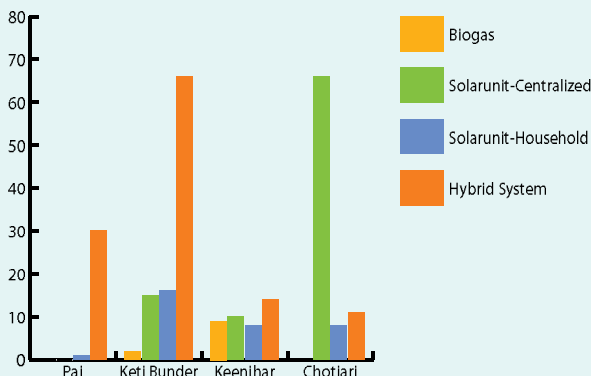


**Smooth Coated Otter**  
Chotiari Reservoir



**Hogdeer**  
Pai Forest

### Alternate energy units installed at Programme sites



## Staff Capacity Building National

- Mr. Adnan Hanif (Senior Manager Operations), Mr. Sajidullah Jan (Assistant Manager Finance), Mr. Shokat Ali Sathio (Manager M&E), Mr. Faisal Abbas (Senior Finance Officer), Mr. Muhammad Azeem (Senior Finance Officer), Mr. Muhammad Khalid (Finance Officer), Ms. Zainab Salah Uddin (Assistant Manager HR and Contracts), Mr. Sayed Shueb Ali Shah (HR and Admin Officer), Mr. Ghulam Fareed Shaikh (Senior. I.T Officer), Mr. Altaf Shaikh (Manager Partnership Fund), Mr. Asif Ali Sandeelo (Communication Officer) Mr. Piyar Ali Jakhro (Admin and Finance Officer), Mr. Ghylam Mustafa Memon (Admin and Finance Officer), Mr. Sajjad Hyder (Admin and Finance Officer) attended a two days in-house training on MS- Excel from 26th-27th January, 2012 organized by Thirteen Dimensions, Karachi.
- Mr. Altaf Hussain Shaikh, Manager Partnership Fund enrolled in a 4 months "Project Management Diploma Course" from March 2012 organized by Pakistan Institute of Management.
- Mr. Adnan Hanif (Senior Manager Operations) and Mr. Sajidullah Jan (Assistant Manager Finance), attended one day training on Effective Financial Presentation dated 15th June, 2012 organized by Octara Private Limited, Karachi.

## International

- Mr. Naveed Ali Soomro (Project Coordinator- WESK) attended a 6 days training on Human Value Based Water Sanitation and Hygiene Education organized by Sathiya Sai Society for the preservation of the Water, Thailand
- Mr. Rab Nawaz (Director Sindh) and Mr. Ghulam Rasool Khatri (Site Manager- Keenjhar) attended a 6 days training on Aquaculture Techniques organized by National Aquaculture Development Authority & University of Kelaniya, Srilanka
- Mr. Moazzam Khan (Technical Advisor – Marine Programme) and Mr. Umair Shahid (Tuna Fisheries Officer – WWF – Pakistan/SFI) attended 3 days Indian Ocean Tuna Commission's (IOTC) meeting in Cape Town, South Africa.

## New Induction

- Ms. Zainab Salah Uddin has joined as an Assistant Manager HR & Contract Management in Indus for All Programme on 9th January 2012.
- Ms Sassi Memon has Joined as a Project Officer in Building Capacity on Climate Change Adaptation Project in the Coastal Areas of Pakistan (CCAP) on 23rd July 2012
- Ms. Nadia Bajwa has joined as a Research Officer in Building Capacity on Climate Change Adaptation Project in the Coastal Areas of Pakistan (CCAP) on 16th July 2012
- Mr. Umair Shahid has joined as a Tuna Fisheries Officer in Tuna Management Project on 23 July 2012
- Ms. Sadaf Arshad has joined as a Research Officer in IDRC Project on 26th July 2012
- Ms. Menaal Fatima has joined as a Fellow in Indus for All Programme on 1st August 2012

## Internship Programme

- Mr. Najeeb Memon, from University of Sindh worked as an intern from 9th January 2012 to 08th April 2012 in Communication department
- Ms. Saba Ayub from Karachi University worked as an Intern from 2nd January to 31st May 2012
- Ms. Atiya Zafar from Karachi University worked as an Intern from 9th January to 9th April 2012 in Finance Department
- Mr. Ishfaq Ali from SZABIST worked as an Intern from 31st January 2012 to 30th April 2012 in Monitoring and Evaluation department
- Ms Shazia Iqbal from Karachi University worked as an Intern from 13th February 2012 to 13th July 2012
- Mr. Sayed Adeel Hussain Shah from Shah Abdul Latif University Khairpur worked as an Intern from 4th June 2012 to 3rd August 2012 in Finance Department

### Indus for All Programme, WWF - Pakistan Programme Management Unit

606-607 Fortune Center, 6th Floor, Block 6, PECHS, Shahrah-e-Faisal, Karachi. | Tel: 021-34544791-92, | Fax: 021-34544790 | [www.foreverindus.org](http://www.foreverindus.org), [www.wwfpak.org](http://www.wwfpak.org)

#### Keenjhar Lake

**Keenjhar Conservation & Information Center**  
P.O - 73120, Village Abdullah Gandro  
Taluka & District, Thatta, Sindh.  
Tel:+92-298624571

#### Keti Bunder

Main Road Garho,  
Near Uzmair Medical Store  
Garho City, District Thatta, Sindh  
Tel:+92-298623306, 619366

#### Chotiari Wetlands Complex

**Chotiari Conservation & Information Center,**  
Village Bakar, District Sanghar, Sindh  
Tel:+92-235-483454