

Newsletter Wet Notes

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The quarterly newsletter of the Pakistan Wetlands Programme (PWP) is published to inform donors, scientists, academics, researchers, environmentalists and environmentally concerned individuals of all qualifications and ages about the Programme, its projects and upcoming events while giving insights and updates on research, education and habitat management activities. The PWP's objective is to conserve the globally important wetlands biodiversity in Pakistan while alleviating poverty. It is a progressive initiative of the Federal Ministry of Environment and is being implemented by the World Wide Fund for Nature, Pakistan (WWF-P). It is funded by a consortium of national and international donors including, the Global Environment Facility (GEF), United Nations Development Programme (UNDP), the Embassy of Kingdom of Netherlands (EKN) and WWF Global Network.

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Programme updates

» “Controlling Illegal Wildlife Trade in Pakistan”



Pakistan Wetlands Programme WWF Pakistan and PMNH arranged a 2-days training workshop titled “Controlling Illegal Wildlife Trade” on Nov 23rd, 2011 at Pakistan Museum of Natural History (PMNH), Garden Ave, Shakarparian, Islamabad. This training opportunity was organized for customs authorities and other wildlife law-enforcement agencies involved in controlling illegal trade from

ports and exit points in Pakistan. Illegal wildlife trade is not only causing huge loss of revenue to national exchequer but also disturbing the ecosystem in the country leading to climatic change, various deadly diseases and socio-economic problems, said Pakistan Science Foundation (PSF) Chairman Dr. Manzoor Soomro. Dr Ghulam Akbar from WWF Pakistan emphasized on the urgent need to control illegal trade of wildlife that has endangered many species. It involves live animals and plants or a diverse range of products needed or prized by humans—including skins, medicinal ingredients, tourist curios, timber, fish and other food products, he added.

Syed Mahmood Nasir, Inspector General Forests, said that there is an urgent need for knowledge and action, including strengthening of the role and effectiveness of the Convention on [Continued on page 2](#)



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International Trade in Endangered Species of Wild Fauna and Flora (CITES), applying new approaches through instruments such as the Convention on Biological Diversity (CBD), mobilizing action by the private sector and using other regulatory and incentive mechanisms at international, national and local levels to ensure that the positive values of wildlife trade are harnessed and its negative impacts avoided.

Mr. Khalid Mahmood, President of WWF-Pakistan, said that the primary motivating factor for wildlife traders is economic, ranging from small scale local income generation to major profit-oriented business, such as marine fisheries and logging companies. He said WWF Pakistan seeks and activates solutions to the problems created by illegal and unsustainable wildlife trade. The legislation is a vital way to control wildlife trade, but to be successful, laws need to be widely understood, accepted and practical to apply. This training programme was first of its kind in the country and will be helpful for conservation of biodiversity of Pakistan by controlling illegal trade of wildlife species now reaching to billions of dollars.

» Consultation on inter provincial protected area held

Following the successful establishment of two wetlands based National Parks in Northern Alpine Wetlands Complex, the concept for establishment of first ever inter provincial protected area initiated with the custodian departments at both sides. These two protected areas are inter linked in terms of boundaries, the corridors movement of key wildlife and shared habitat of the waterfowls and other bird species. In this connection the first consultative gathering was conducted between the custodian departments of Khyber Pakhtunkhwa and the Gilgit Baltistan. The outcome of the first gathering was fruitful while indicating the facts; that the two sides fully support the concept of

joint Protected Area and willingness to work together. The Pakistan Wetlands Programme under the Northern Alpine Wetlands Complex in collaboration with the Saving Wetlands Sky High Project is facilitating these dialogues further at provincial and federal level.

» Meetings of wetlands management committee-nawc held

The second WMC meeting was held at Chitral town, where the District Coordination Officer chaired the session. The members come up with feasible suggestions especially in the sustainability factors after the end of the programme. The local administration and the KP Wildlife Department were selected as focal points after the withdrawal of the programme from the region.

» Site management plan developed for Broghil National Park

In the light of improved status of Broghil Valley as National Park, the site Strategic Plan was developed and shared with the custodian Wildlife Department of Khyber Pakhtunkhwa. This custodian Government Department is also in the process to develop and implement a community based participatory management plan in the context of "National Park" with focus on wetlands, associated biodiversity and other natural resources. Both the conservation partners kept close liaison with the custodian communities and other

key stakeholders in the process of management plan development for Broghil National Park. For technical inputs a local consultant was hired jointly by the KP Wildlife Department and PWP-NAWC to develop an acceptable and implementable community based Management Plan. The NAWC team conducted and facilitated several gatherings with the custodian departments and the custodian communities.

» Information centre for Broghil National Park established

The NAWC has developed certain materials on Broghil valley's wetlands resources and other aspects since its operation. After getting the National Park status, the programme worked out with the custodian Wildlife Department to establish and operate an Information Centre for Broghil National Park. In this connection, the wildlife department provided space within the office of Chitral wildlife Division where the NAWC established an information centre. The management, maintenance and operation responsibility was handed over to the department.

» Winter wildlife census survey conducted in Qurumbar Valley, Ghizer

To explore the biological aspects of recently established Qurumbar National Park, NAWC in collaboration with the Saving Wetlands Sky High Project and the GB Forest, Wildlife Department conducted the winter wildlife survey



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in the buffer zone. The survey teams comprise of 16 individuals consisting 3 members within each group equipped with binocular, GPS, spotting scope and standard data sheets. Direct count method was applied during the survey. Appropriate vantage points were fixed to avoid repeat subsequent in the next survey. A total of 743 ibex population were recorded in 8 different sub valleys of Qurumbar where highest population of 169 Himalayan ibex was observed in Qurumbar Nallah, 140 in Sarband and Matrandan Nallah, 130 Payakhin and sokhterabad Nallah and in Belhans and Barsworth 108 respectively. Out of the total population, the survey team recorded 47 trophy size male ibex. Nocturnal mammals such as Snow leopard and fox were detected through faeces and scraps while small hare and pikas were seen during day light. The result showed that the ibex population in Qurumber Valley is quite satisfactory than other wildlife species. The population of ibex has been increasing due to the conservation measures and community interest.

» Land use plan developed for plateau's wetlands

Each year the Shandur plateau is hosting an annual Polo Festival at altitude 12000 feet above sea level. During the event more than 10,000 people visit the area to enjoy this traditional festival between the polo teams of Khyber Pakhtunkhwa (Chitral) and Gilgit Baltistan. The polo ground, camping site, hotels, shopping area, parking areas and latrines are nearby to the unique Lakes ecosystem. In addition the

lake is facing eutrophication problem due to washing, bathing, vehicle washing and dust particles runoff from vehicle running around and degradation of the buffer zone vegetation cover along with a huge solid waste burden on the fragile wetlands ecosystem. Following the recommendations of David Jhonson's (an Oxford student) who conducted a research study on Shandur, NAWC first assessed the existing Land Use trend of the plateau. Then a detailed GIS map was developed and shared with the custodian department's representatives for inputs, and developed a GIS based Environment friendly Land Use plan. The proposed Land Use plan encompasses the related issue like solid waste management, buffer zone demarcation, relocating the camping, parking, shopping sites and remarking the access routes within the plateau.

» Women wetland conservation committee registered

With the aim to extend legal support to the established women organization and to ensure its sustainability in future, the efforts were made to register it with the custodian Social Welfare² Department. In the initial phase byelaws were developed, office bearers and members of the organization were selected and other formalities were completed before submission to the government department for its registration. As prerequisite for the registration process a separate bank account of the organization was opened and names of signatories were finalized. This took

more time as planned because of reluctance of the women to visit Chitral town for the first time in their life and to complete the formalities in the bank and the Social Welfare Department. The initiated process was successfully completed while getting legal registration from the Social Welfare Department of Khyber Pakhtunkhwa.

» Tunnel vegetation farming models introduced

In Qurumbar valley, through mutual understanding with the custodian QSWCDO, a site was selected for Tunnel vegetation farming model in Badswat village of Qurumbar valley. Similarly the site was also selected for the activity in Garm Chashma village of Broghil valley. Both the selected points are located at highpoint as compared to surrounding fields considerably helpful to manage it in snowfall and heavy rain. As the areas fall under harsh climatic conditions, heavy snow fall is expected each year in winter season, the expert team recommended use of iron rods in the model. On experimental basis two off season vegetation tunnel were installed, one each at Badswat village of Qurumbar valley and Garam Chashma village of Broghil valley. The purpose of the introduction of models was to provide a controlled and favorable environment for the vegetation to grow and give high yield in all the seasons. The tunnels structured by using iron rods, covered with polythene sheet, green mesh has provided adequate growing conditions where the vegetation growth rate is satisfactory so far. The model if successful will be replicated and adopted by the community in future.



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» Fuel efficient stoves (FES) business established

During the reporting period a detailed proposal including cost estimate and feasibility for the establishment of FES workshops/centers for the already trained community members by NAWC was developed and site assessments done in Chitral town and within Broghil valley. So far three FES centers have been established and the production with income has started. Interestingly the businesses operating within the valley have more demand and income as compared to the business centre at Chitral town. According to the trained persons; these competition with other such businesses which are already operating in Chitral town, where as in Broghil valley there is no such market competition. However, the activity is destined to ensure profitable use of the skills of the trained community members alongside augmenting their household income and reducing dependency on natural resource base, especially the peatlands use.

» Plantation of birch stem cuttings experimented

In Gilgit-Baltistan, Birch forests are located throughout the area, but due to deforestation these forests are at high risk of degradation. The growth rate of Birch is very slow and usually it grows at an elevation of about 1000ft above sea level mostly

in subalpine zone. Other major threat is debarking of the plants by the local community for many purposes, which causes the Birch trees to thin and die finally. The natural regeneration rate is very slow and there are no models for its nursery raising. The PWP-NAWC demonstrated a small nursery in Qurumbar valley and planted more than 100 stem cuttings in the soil bed prepared for this purpose. The results of the activity are yet awaited and if successful, the community will adopt similar techniques to maximize birch forest cover in the area.

» Exposure visit conducted for women of Qurumbar community

The Pakistan Wetlands Programme-Northern Alpine Wetlands Complex has extended its conservation activities in Qurumbar valley through involvement of womenfolk in conservation and management practices. After establishment of women organizations, the programme involved them in trainings and other capacity

building exercises. To further build their capacity in the livelihoods enhancement activities, NAWC organized five days long exposure visit for the selected females to Hunza district of Gilgit Baltistan. The 14 member team visited a Self-help based vocational handicraft center at Pisan valley. A visit to KADO was also organized, which is the gemstone cutting and polishing centre, handicraft and shoe making center. They were provided with the opportunity to visit the Attabad Lake, formed due to heavy landslide on river Hunza. The visitors took keen interest in the livelihood activities in Hunza Nagar area and wanted to replicate it in Qurumbar valley.

» Ecotourism promotion material developed

In the year 2011, three set of ecotourism promotion materials were developed. First the brochure on the planned ecotours was developed and published on the website of PWP. The "Broghil Festival" a key event in NAWC was promoted and highlighted through a beautifully designed poster. The centre of attraction was the designing and development of the poster on High Altitude Lakes of Pakistan and its ecotourism potentials. All these recently developed materials along with the copies of telecasted documentary on "Broghil" were distributed, which resulted in attraction of a number of tourists to the region.

» Marshland of gahkuch assessed for Ramsar status

The wetlands ecosystem at Gahkuch locality in Ghizer district of Gilgit Baltistan holds substantial potentials to be designated as



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protected area. The baseline studies were conducted through collaboration with the Saving Wetlands Sky High Project of WWF-Pakistan and the Forest, Wildlife Department of Gilgit Baltistan. The results of the studies reveal that this marshland area is not fulfilling the required criteria for a Ramsar Site. However the study results were shared with the custodian departments in Gilgit Baltistan with the recommendations to designate it as a research area for the students of Karakoram International University and other researchers of the country, it was also suggested to establish and maintain it as a wetlands Centre, which poses substantial potential for it.

» Distribution of solar rechargeable lanterns in Qurumbar and Broghil Valleys

In Qurumbar valley a total of seventy three (73) solar rechargeable lights were distributed among the community having no or low access to electricity in the valley. The distribution criteria was developed with consent from Qurumbar Social Welfare Conservation and Development Organization in August 2011. The enlisted beneficiaries were approached with the assistance of QSWCDO and the delivery of lights was processed accordingly. The same distribution methodology was adopted in Broghil Valley, while keeping in loop the community based Chiantar Welfare Society Broghil. The valley lacks the electricity facility, and the use of peat is common for burning

and lightning at altitudes of 12000 feet above sea level. In pursuance of introducing clean and green energy, solar lanterns were distributed among 85 households in Broghil valley for lighting purposes. This activity will help the local community towards conservation and will also minimize dependency on wetlands resources.

» Wind/solar hybrid systems installed in Broghil and Qurumbar Valleys

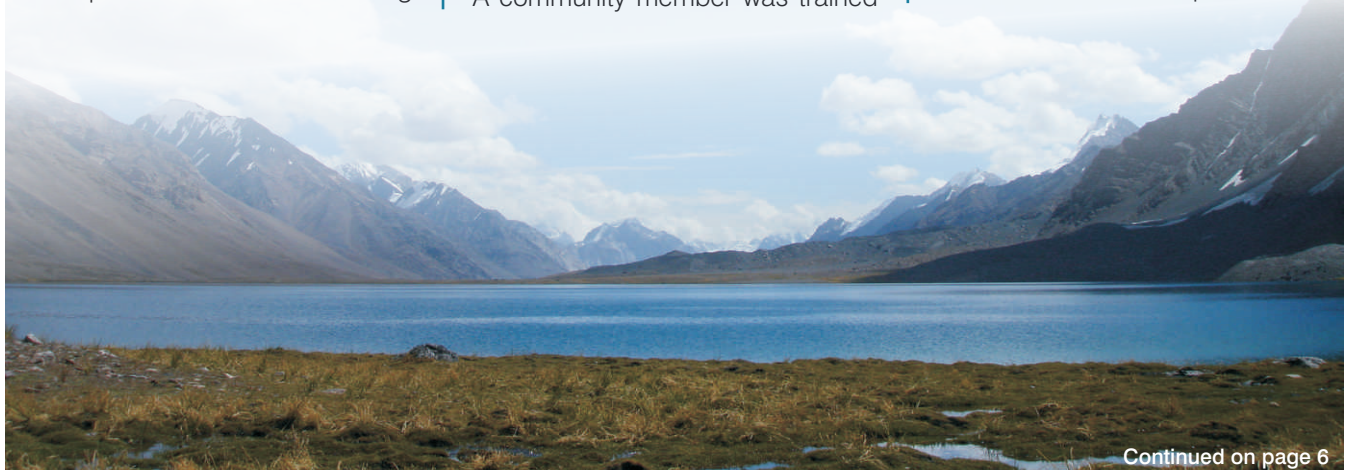
Due to lack of basic facilities, the low income communities of Broghil are dependent on natural resources of wetlands. Only 4 out of 12 villages of the valley have access to electricity, recently introduced in the lower localities. Majority of the local people either rely on kerosene oil or outer bark of Juniper and other wetlands plants for lighting. Use of kerosene oil is putting burden on the limited income as well as is hazardous to the human health. The mentioned natural resources are also under tremendous pressure to meet the increasing demand of fuel source.

To mitigate the issue Pakistan Wetlands Programme for the first time in the history of Chitral has introduced wind/solar hybrid electric systems in the valley. Two more units were installed this year at Chikar and Garil villages. The same model was introduced in the adjoining Qurumbar valley of Ghizer district. The only village "Buk" lacking the electricity was provided with the facility through installation of wind/solar hybrid electric system. A community member was trained

for operation and maintenance of the unit. The representatives of different organizations visited the village and recorded the success for replication in other areas of Gilgit Baltistan region.

» Solar geysers installed in Qurumbar Valley, Ghizer

The feasibility study was carried out in both the valleys for demonstration and installation of the Solar Geysers. According to the assessments, proposed sites in Broghil valley were not feasible due to the non availability of water supply to the houses and high altitude of the area. The proposed sites in Qurumbar valley were assessed and finalized as they fulfilled the criteria for installation. The representatives from Qurumbar Social Welfare Conservation and Development Organization made consensus on selected sites and their role for its maintenance in future. The water and sanitation extension programme WASEP of AKRSP ensured continuous water supply in the valley. Most of these units were installed in Jamat khanas (a religious place of the Ismailis community). The units were successfully installed at four locations in immit cluster and four in Bilhanze cluster of Qurumbar valley, Ghizer district. The demonstration if successful; will be replicated by wetlands dependent communities as an alternate energy facility. Salt range is blessed with unique land pattern which attracts human eyes. Keeping in view the demand of tourists and promotion of ecotourism in the valley, PWP has established few tourist points.



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PWP-SRWC Updates



» Kanhatti Garden Camp Site

Kanhatti garden is located at the junction of Potohar plateau and Salt range, and is surrounded by Khabeki Reserve Forest on three sides. The garden is home of indigenous local flora & fauna and keeps historical and biological value. PWP has established a beautiful campsite and a garden view point for ecotourists. They have set up information boards, bridge on spring water channel and tags on prominent trees. Kanhatti village is an ecovillage, where the community has been sensitized to facilitate ecotourists and express their cultural values and practices.

» Uchali Bird Hide and Ecotourism Point



Uchali lake is a habitat of water birds and have attraction for professionals and bird lovers. To facilitate bird watching activity of the tourists and professionals, a bird hide and a tourist point have been established at the lake road. A local tour guide has been appointed to facilitate the tourists in their eco activities. A spotting scope, boat and tuck shop are also there to meet

the tourists' requirements. Local community based organizations and schools are mobilized to promote environment friendly tourism.

» Community Resource Center

A well equipped community resource center has been developed at Khabeki Site office. Backlit displays reflecting local flora and fauna of the area have been displayed to disperse the local information. Broachers and booklets of local flora and fauna, cultural heritage and general information are placed there for local people, students and visitors. In the context of conservation, a silent awareness campaign under single roof has been precticed. Local community products are also displayed to introduce and value them.



Events

» Eco-tourism event organized at Taunsa barrage

The CIWC team under sub output 8.8.1 organized an eco-tourism event on 27th October, 2011 at Taunsa Barrage in collaboration with local partner's organization and communities. A total of 44VC registered people participated in the events including participants from CIWC CBO's including Saiban Welfare Foundation, Rights and Rights Social Society, Kot Sultan CBO's and other local partners, school children, College Students, representatives from Punjab Wildlife Department, Irrigation Department Punjab, Tehsil Municipal Administration Kot Adu, electronic and print media personnel, local influential, and community representatives. The main objective of organizing this event was:

- ◆ To raise awareness among the public and partner organization about the importance and significance of Taunsa Wildlife Sanctuary;
- ◆ To promote the concept and ethics of eco-tourism in the area among school children, local community and local partner organizations;
- ◆ To attract other partner organization and local community based organization for getting their support and attention in promotion of eco-tourism in the area;
- ◆ To provide a healthy opportunity to local people and students.

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The participants were given a brief introduction about WWF-Pakistan and PWP's efforts for promotion on eco-tourism in the area. They were informed about the importance and significance of Taunsa Wildlife Sanctuary and its precious biodiversity. The activities conducted by CIWC team include Birds Watching, Dolphin Safari and Sanctuary visits/TWS cleaning activity. The participants were given a brief overview on the threats to biodiversity due to ruthless killing/hunting/poaching and poisoning, habitat destruction, natural disasters and climatic change phenomena. They were briefed about how they could contribute in saving/conserving precious species.

» Exhibition of local products display organized by CIWC at WWF-P/PWP/CIWC Taunsa information and conservation center, Taunsa barrage Kot Adu

The CIWC team under sub output 8.6.1 organized two days long exhibition of local products from 29th October-30th October, 2011 at WWF-P Taunsa Conservation and

Education Center, Taunsa Barrage, Kot Adu in collaboration with local partner's organization and communities. A total of 05 stalls of local handicrafts and embroidery were displayed under the umbrella of WWF-P/CIWC mega local products exhibition organized for the first time in the area. The CIWC CBO's including Saiban Welfare Foundation, Rights and Rights Social Society, Kot Sultan Community Based Organization and Sindho Baily Community Based Organization displayed their community products.

Most of the products displayed were prepared in the CIWC established vocational centers in collaboration with CIWC community based organizations. Females from these

poor local communities are getting trainings on "NRM best practices, embroidery and local handcrafting" since years in support from WWF-P/PWP/CIWC. A total of 65 female have been trained so far in these vocational centers and batches of more 65 females are currently receiving trainings. The main objective of organizing this exhibition was:

- ◆ To raise awareness among the public and partner organization about the importance and significance of nature and natural resources in the form of value addition to the displayed products brought in the exhibition;
- ◆ To promote the concept of best NRM practices among the local



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communities and partner organizations;

- ◆ To attract other partner organization and local community based organization for getting their support and attention in promoting the local handicrafts and embroidery
- ◆ To create awareness among the masses about nature and natural resource management;
- ◆ To promote marketing of these products in the area and maximizing support to the poor local communities mainly depending on the wetlands resources.

The revenue collected as a result of the event directly went to the poor communities females. All the CBO's members and partners appreciated the effort and suggested replication of such activities to be ensured in future. The visitors appreciated the WWF-P/CIWC efforts for protection of natural resources and local flora and fauna.

» Environment Friendly Excursion

Partners of the Event include Sind Forest Department, Pakistan Wetlands Program, Sind Wildlife Department and The City School. More than 50 people had active participation in this event, including Teachers who were local women of Sukkur, Students of The City School, Local representatives of Ghotki Riverside Community and Staff of Sind Forest Department. The activities of the event included the following:

- ◆ Briefing on Concept of Eco-tourism
- ◆ Information Lecture on Trees and Plants
- ◆ Plantation of total numbers of 36 plants including *Murraya exotica*, *Delonix rigia*, *Cassia fistula* and *Azadirachta indica*
- ◆ Memoir Shield presented to the Madam of City School at the plantation event.
- ◆ Presentation on Forest and Environment
- ◆ Presentation on Biodiversity
- ◆ Excursion Walk in Forest

The trip participants later walked in the forest and closely watched the

different kinds of trees and plants. The group also had opportunity to discuss on different issues of nature and particularly the problems that different species are facing due to habitat loss. The participants were told about the pressure on natural resources and role of mankind to reduce this pressure.

» Field investigation of Indus dolphin mortality

The issue of mortality of Indus dolphin has been discussed at different forums and some of the key stakeholders have had intensive sessions of series of meetings and discussion. These meetings include Sind Wildlife Department, Pakistan Wetlands Program, Sind Fisheries Department, Environmental Protection Agency Sukkur, Sind Youth Welfare Organization, WWF IRDCP, Sind Forest Department, Local Media Persons, Fish Contractors, Representatives from Fishermen Communities.

One of such meeting was recently conducted at Indus Dolphin Centre on 23-11-2011 and field visit was planned to investigate and assess the situation particularly on fishing nets stretched inside the river. The field visit was organized with support from Pakistan Wetlands Program and Sind Wildlife Department. The team found people fishing in the mid of the river without any card or fishing license. The team also found temporary camps of fishing groups on islands inside the river and along narrow channels all of them were unable to produce any permit but they claimed to be fishing for their fish contractor who they said has the license.

Sind Wildlife Department, Sind Forest Department and Pakistan Wetlands Program are in the process of series of dialogues with all key fish contractors and influentials living along the river in Katcha area. Fisheries department need to take strict actions to stop that illegal and offensive mode of fishing that has deteriorated the situation for Indus dolphin. There is an urgent need for patrolling and monitoring to keep check on these

fishing nets and practices. There may be a patrolling task force including persons from Fisheries department and Sind wildlife with a mandate of taking actions against those fishermen and contractors. There is also need of dialogues with those fish contractors and card holders and strong message may be conveyed to stop the style of fishing that is posing direct threat to Indus dolphin. NEED BASED TRAINING OF FISHERMEN. is required

» World mountain day celebrated in Qurumbar Valley

The International Mountain Day is celebrated every year in various countries as an opportunity to raise awareness among the masses and enhance activities on environmental related challenges faced by the world. This year's International Mountain Day theme was "Mountains and Forests". The mountain forests play an important role in Green Economy as well as in climate change adaptation measures. This day also highlight the importance of conservation of mountain forests by the adjacent communities which is crucial for the ecological health. The Saving Wetlands Sky High project and Northern Alpine Wetlands celebrated the World Mountain Day, 2011 with the community of Qurumbar national Park. The Speech and drawing competition were arranged among the school childrens of the valley. A total of 48 students/teachers and 15 representatives of the Qurumbar community and relevant agencies participated in the program.

» Free medical camp in Broghil Valley

Due to poor infrastructure, extreme poverty and physical isolation, the basic health facilities are neither available nor accessible for the Wakhi communities living in Broghil valley. In case of emergency, the local patients often have to travel to down towns of Chitral or Gilgit. Even for the treatment of minor ailments

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which cost them hefty sum of cash, leading them to increased burden on limited household income. Women, in particular, due to their low mobility, lack of access to balance diet and low awareness level are more prone to diseases as compared to men. In order to improve health condition of local community, a five days long free medical camps was organized at different villages of the valley. During the camp more than 200 patients were examined and free medicines were provided. During the free medical camps it was also recorded that among the patients, the children and women constitute 75% of the total.

» Winter uniform provided to the field staff of Deosai National Park

The Deosai National Park located in the Skardu, Astore Districts of Gilgit-Baltistan at an elevation of 4,114 meters (13,497 ft) above sea level. This wetlands dominated protected area of 3,000 square kilometers (1,200 sq mi) is managed by the Parks and wildlife Department of Gilgit Baltistan. The Deosai plain is well known for its fragile potential wetlands and associated biodiversity in the region. In spring season it is covered by sweeps wildflowers while in winter it is covered with snow. The beautiful Sheosar Lake, also called the "Blind Lake" is located within this park. The Pakistan Wetlands Programme has signed memorandum of understanding with Gilgit-Baltistan forest wildlife and parks department for conservation management of key wetlands ecosystem including Deosai. The programme so far has undertaken various conservation and research activities in Deosai plateau. The field staff was provided with winter uniform by the programme under Northern Alpine Wetlands Complex. Dr.Ejaz Ahmad, Deputy Director WWF-P handed over a total of 41 sets of uniforms in a ceremony held at skardu with aim to stimulate the efficiency of the field staff to effectively conduct watch & ward activities even in harsh winters.

Trainings

» Training of selected females of CIWC CBO's in designing and construction of mud efficient stoves and installation of 50 mud efficient stoves in the CIWC communities

The Central Indus Wetlands Complex (CIWC) site office of WWF-P/PWP based at Kot Adu organized day long training for selected 05 females of CIWC CBO's in construction and design of the Mud efficient stoves. On 24th of October, 2011 the total five female participants were trained in the construction and design of approved model of mud efficient stove. The installation of 50 mud efficient stoves started on 25th Oct,2011 and completed on 30th of October,2011 at Basti Allah Wali and Basti Shiekhan. Receptively, a total of 100 mud efficient stoves installation were replicated and completed by communities of Basti Allah Wali and Basti Shiekhan on their own in support from Sindho Baily CBO and CIWC. The total approximate cost per unit ranges from PKRs=360-410 with mean average of PKRs 385/unit. The main objective of the installation of mud efficient stoves were:

- ◆ To compensate CIWC communities in improving/diversifying their livelihood options by curtailing the fuel wood consumption.
- ◆ To curtail the deforestation and unsustainable utilization of wetlands and its resources in the area by providing the mud efficient stoves.
- ◆ To improve health condition of the local residents by providing the clean fueling/heating options in the form of mud efficient stoves.
- ◆ To sensitize the local communities for environmental conservation and efficient energy consumption.
- ◆ To strengthen the working

relationship with the communities of WWF-P for the nature conservation and environmental protection in the Central Indus Wetlands Complex

» TRAINING WORKSHOP ON PROJECT PROPOSAL WRITING



The workshop was organized from 25-26th November 2011 at Indus Dolphin Centre Sukkur. The partners include WWF IRDCP, Pakistan Wetlands Program and Sind Wildlife Department. The objectives of the training were:

- ◆ Capacity building of community based organizations.
- ◆ Training on administration and function of organization.
- ◆ Training on project proposal writing and project cycle management.

There were 25 participants in this training belonging to Partner CBOs of WWF IRDCP, PWP and WWF Cotton project, Fishermen community, Sind Wildlife Department, Environmental Protection Agency Sukkur, Sind Fisheries Department, Sind Mallah Social Welfare Forum and SYWO Sind Youth Welfare Organization.

» 2nd Ecotourism Guides Training Workshop

In order to promote ecotourism in Central Indus Wetlands Complex in southern Punjab and provide job opportunities to unemployed local young people in tourism sector, Pakistan Wetlands Programme (PWP) in collaboration with Sustainable Tourism Foundation Pakistan (STFP) conducted a 4 days training workshop for eco-tourist guides. A batch of 15 local eco-tourist guides from CIWC

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Communities attended this 4 days training workshop in eco-tourist guiding skills from 25 to 28 October, 2011. The training course was divided into two parts comprising on procedural knowledge and technical skills. The Objectives of the training workshop were:

- ◆ To train young individual selected by The Pakistan Wetlands Program from CIWC Communities as Ecotourism Guides.
- ◆ To enhance their understanding and skills of tourist group handling.
- ◆ To create awareness among these guides about the negative and positive impact of tourism activity in project areas.
- ◆ To make them familiar with the techniques and skills necessary to conduct tours in an environmentally and culturally friendly way.
- ◆ To make them understand the linkages between the sustainable development of Ecotourism, nature conservation and community socio-economic development.

In overall, it was a good learning experience for all the participants. All the participants took keen interest in the course and appeared to have derived benefit from it. The selection criteria and procedure should be strictly followed. Only those participants should be selected who are motivated/educated to adopt tour guiding as a profession. The performance of these guides will be assessed after one tourist season and a refresher course may be conducted after 6 months.

» TRAINING WORKSHOP ON “SUSTAINABLE FISHING PRACTICES FOR BY-CATCH REDUCTION”

The CIWC team under sub out 8.5, conducted many activities to share the importance and significance of Indus River, Taunsa Wildlife Sanctuary and its precious biodiversity. From October 16th-19th, 2011 in collaboration with local

partner's organization Sindho Baily Community Based Organization (SBCBO) and CIWC team organized field survey upstream and downstream of Taunsa Barrage Wildlife Sanctuary and identified the MOHANAS communities' settlements which includes: Daira Shah Gharbi (Moza Bodo Mana, Sikhani Wala), Basti Sheikhan and Basti alla wali. Extreme poverty, illiteracy, rights for fishing, unemployment, boats and fishing nets cost out of range, no facility and training for fish catch storage, limited access to market, limited facility to transport the fish and prevailing water born diseases in the area were identified as main problems.

The CIWC team after conducting Training Need Assessment and detailed consultations with identified communities organized the 04 days (starting from 31st October, 2011 to November 3rd, 2011) training on “Sustainable Fishing Practices Techniques for by-catch Reduction”. A total of 45 selected fishermen including 15 from each 03 selected settlements of MOHANAS were trained on “sustainable fishing practices for by-catch reduction” in collaboration with Punjab Fisheries Department, Muzaffar Gargh. The objective of organizing these activities and trainings was:

- ◆ To raise awareness among the fishermen communities about the importance and significance of Taunsa Wildlife Sanctuary;
- ◆ To train the fishermen community in sustainable fishing techniques and to make them aware about the Government of Punjab Fisheries Department rules and regulations.
- ◆ To train in handling and rescue techniques of Indus Dolphin/turtles if stuck in the net as to curtail/reduce mortality of precious wildlife Dolphin/turtles as result of by-catch;
- ◆ To strengthen the working relationships of fishermen folk communities with WWF-P for protection and conservation of nature and natural resources.

» Six months long diploma training course of community watchers held

Availability of local trained human asset plays a central role to ensure sustainability in conservation efforts and prudent use of resources. In order to introduce a better ward and watch system in Broghil and Qurumbar valleys, four community members were selected for 6 month training course as wildlife watcher and forest guard in Thai Forest School Abbottabad. The selection process was done in consultation with community representatives of both Ishkoman and Imit valleys of Ghizer district, Gilgit-Baltistan as well as the custodian Forest Wildlife Department. These community representatives joined the School in February, 2011 and completed the course in August 2011.

This course has enhanced the technical capacities of the trainees which in turn will award them with livelihood opportunities as employee in the notified two National Parks in their respective valleys. They are recently involved as community based Wildlife Watchers through their representative community based organization like Chiantar Welfare Society Broghil (CWSB), Proper Ishkoman Development Organization (PIDO) and Qurumbar Social Welfare and Conservation Development Organization (QSWCDO). One of the trained person got employment in Qurumbar National Park through WWF-Pakistan's Saving Wetlands Sky High Programme.

» Community based activists trained in animal husbandry exercises

The livestock in Broghil valley is the backbone of their subsistence and economy. Due to extreme remoteness, the valley is lacking livestock management facility. The diseases of foot and mouth sometimes burst out as epidemic. Due to the lack of facility and trained persons in livestock sector, huge losses were recorded before the

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programme operation. To build the capacity of the local Wakhi community and to provide treatment facility within the valley, four selected community activist successfully completed one month long training course. This was organized through Livestock Trainers and Consultant and Agricultural University of Peshawar.

» Training in social mobilization and organization held for Broghil community

By definition social organization is the ability of a community structure to realize the common values of its residents and maintain effective social controls". The present world emphasizes a great deal on the participation of communities in the development and conservation efforts. Accustoming representatives of community based institutions is mandatory for the sustainable operation of the institutions and especially in remote areas. Keeping this fact in mind and to ensure the sustainability in the functioning of community organization, a week long social organization training was organized in Broghil valley. Office bearers, members of both male and female organizations actively participated in the training. In total 35 community representatives including 12 female members participated in the training session.

» Training workshop held for Qurumbar community on social mobilization

The PWP-NAWC conducted two-days long 'Social mobilization training workshop' for the community leaders/members of Qurumbar valley at Gahkuch. The objective of the training was to harness the skills of the participants of Qurumbar Social Welfare Conservation and Development Organization for social mobilization and community participation in natural resources conservation. A total of 14 participants attended the workshop. The workshop sessions included brain storming exercises,

lectures, presentations and group work on key concepts like conservation, sustainable development, conflict resolution, qualities of community leaders and promotion of responsible tourism in Qurumbar valley.

Article

» Comparative analysis of biogas plants and its ecological and social impacts in Soon Valley



The beautiful Soon Valley is located approximately 300km south of the capital city of Islamabad. It is part of the Khushab District. The valley is divided amongst 22 villages, surrounded by the Salt Range (second largest salt mine in the world) to the northwest and towards southeast is river Jehlum. The Soon valley is an important landmark because of the flourishing farms, natural resources and precious ancient civilization. The famous saltwater lakes of the area include Khabeki, Uchhali and Jhalar. Pakistan wetland programme is playing a significant role in sustainability and conservation of natural resources in the Salt Range Wetlands. The area is home to vast natural forests, wildlife, hills, natural springs, numerous species of local and migratory birds.

Soon Valley is a hilly area with developing infrastructure. Mining and agriculture are the two main professions of the people. Approximately 80% population is dependent on agriculture. There are hundreds of small land holders in Soon Valley who are totally dependent on their fields for livelihood. The area is blessed with several natural resources including

forest (Pail-Piran). This area has a huge scope of alternative energy sources like solar, wind and biogas. The people are totally dependent on forests for fulfilling their domestic needs like cooking, water boiling and space heating. Therefore cutting of trees is a common practice adopted by the locals. Many factors have lead to deforestation in the area, including forest fires and cutting of trees as there is no gas supply in the area. Electricity is available since 2009, but the power shortage is common in rural area like Soon valley.

The biogas technology is considered as an important alternative source of energy. It helps in reducing the use of fuelwood, and therefore helps in conservation of forest resources. It has health benefits by reducing indoor pollution and improving the household environment. It promotes the idea of waste to energy technology, which plays an important role in solid waste management. Thus it has both social and ecological impacts on the community. The study was conducted in Soon Valley by Pakistan Wetlands Programme; a joint project of WWF- Pakistan and the Government of Pakistan. The Valley is situated in the north west of Khushab district in Punjab province. Socio-economic conditions in the area present a picture of excessive population pressure combined with intensive use of natural resources for livelihoods and daily needs. The people of the area are mostly dependant on agriculture and livestock. The common source of fuel being used in the area is wood leading to deforestation. A study was conducted in November 2011,

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to compare the consumption and benefits of biogas over other sources of energy, and to observe if biogas can substitute other fuel sources and how it can help to conserve natural resources.

The area has a population of around 0.1 million and the total number of biogas plants in the area are 50. Out of these 50 plants, 10 were installed by Pakistan Wetland Program (PWP) and rest of 40 were installed by Soon Valley Development Program (SVDP). The first plant was installed in the area in a village called Siddique Abad in 2007. Except one plant, all were made of concrete or conventional fixed dome plants. There was only one fibre plant with a floating drum, located in Khabeki, Dhoke Khalan.

The people of Soon valley are basically dependant on cow dung as raw material for their biogas plants. Each household has enough livestock. So cowdung is easily available raw material and is free of cost. Thus it serves as a significant process of converting this waste into useful form of energy. The climate of the area under study is usually very cold during winters and pleasant during summers. Therefore the plants work efficiently during summers and produce less amount of biogas during winters. The people living in the area were totally dependent on wood before installation of biogas plants. The most common wood being used as fuel includes Phulai (*Acacia modesta*) and Sanatha (*Dodonaea viscosa*). Phulai is a slow growing tree and a preferred wood for household energy. It is extensively used for burning in winters while Sanatha is used more in summers. The consumption of wood per household in winters before installation of biogas plant was approximately 19.62 kg per day. The rate of consumption decreased to 14.08 kg per day. Thus 5.54 kg of wood is being saved per day and

1996.8 kg per year. The cost of 40 kg (1 maund) of wood in the Soon Valley is about Rs 400 to 600. The locals mostly buy the wood from wood sellers. The consumption of wood in summers before installation was 11.34 kg per day. After installation the consumption of wood has been decreased to 1.89 kg per day. About 9.45 kg is saved per day and 3403.2 kg per year.

This depicts the reduction in the rate of wood consumption due to biogas. During winters people are more dependent on wood consumption because of low production of biogas. Even then the use of biogas in the area has resulted in decrease in the rate of cutting of trees. Ultimately it has reduced deforestation in winters and particularly in summers.

There are two main types of biogas plants being used in Soon Valley. One is concrete and fixed dome, which does not work as efficiently in winters as in summers. Most of the plants in the valley are made up of concrete. There is only one plant made of fibre, which has a floating drum. Due to its structure it works efficiently in winters as well as in summers. And the inner temperature of digester remains ideal year round for the production of biogas.

In addition the liquid slurry being produced as byproduct during the process is used as manure in the fields. The liquid slurry is utilized for agricultural use after drying. This manure is free of harmful chemicals and has no health hazards. Its use has reduced the amount of money spent on health related issues. The cost of one bag of chemical fertilizer is Rs 4500, while the slurry has reduced the use of chemical fertilizers. Some farmers are totally dependent on slurry as manure while others are using slurry as well as chemical fertilizers both at the same time.

Ameer Khatoon narrated, "We are

satisfied with the working of biogas plants. The only problem is its low production during winter season. The cooking time for biogas is less as compared to wood. The gas produced is clean and free of smoke. Due to which the utensils do not turn black during cooking. In addition natural fertilizer is also obtained". She also added that they are poor people, so they cannot afford to install biogas plants themselves.

Thus the biogas technology serves as an efficient substitute for wood in Soon valley. This has reduced the pressure on forest resources, ultimately reducing extensive deforestation in the area. The practice of wood cutting for fuel has been reduced particularly in summers. But during winter they are again dependant on wood because of low pressure of biogas. So efforts are required for making the biogas plants work efficiently in winters as well. It has been observed that fiber biogas plant is more efficient as compared to concrete plants. The improvements need to be made in the design of plants and fibre plants should be promoted as compared to concrete plants.

Therefore biogas has brought ease and comfort in the life of residents of Soon Valley. Especially the females find usage of biogas energy cheaper and beneficial than wood. It has reduced the health hazards due to burning of wood and lowered the amount spent on wood, health and chemical fertilizers. The pressure on forest and its biodiversity has also been reduced. Thus biogas has been proved to be socially, ecologically and economically beneficial alternate source of energy.

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