

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.

Articles in this Edition:

Qurumbar Lake gives up some of its Secrets:

Also Lurking Inside:

Programme Updates
Public Events

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Broghall Valley

Programme updates

» MOU signed with Chitral Association for Mountain Area Tourism (CAMAT):

For strengthening the linkages to the key actors in the sector and to promote eco-tourism in Broghil valley different organization including the CAMAT were contacted. Detail memorandum of understanding, highlighting the roles and responsibilities of NAWC-PWP and CAMAT for the promotion of eco-tourism activities in Broghil valley was signed in Chitral district. CAMAT was represented by the Mr. Shasuddin, Manager while the NAWC was represented by Mr. Ahmad Said and Mr. Hamid Ahmad.

» Exposure Visit for Secretary of Forest and Wildlife Department:

An exposure visit organized for secretary of Forest and Wildlife department,

Balochistan. Mr. Habibullah Khan accompanied them and started their journey from Karachi to MCWC site, Gwader. Mr. Ahmed Khan Director Regional programme also joined them at Agor Hingol National Park.

» Documentary Film on Astolla Island:

Pakistan Wetlands Programme, MCWC site office jointly developed a documentary film on Astolla Island with VASH TV (Balochi television). Focus of the film is on the potential of this Island that could become a source of ecotourism in the future and to highlight the importance of this Island among viewers. Coral reef fish, corals and other marine life as uniqueness of this Island is highlighted in the documentary. In addition the possible threats of this Island are poaching of marine turtle eggs, feral cats' issues,

Continued on page 2



Continued from page 1

ghost nets; discarded nets thrown by fishermen, coral collection by local divers and illegal fishing practices were shown in this documentary.

Mr. Abdul Rahim Site manager presented a detail interview in this documentary to highlight issues in local language and elaborated the best possible way of island ecosystem protection as the site team demonstrated. The anchorpersons of VASH TV left a message for their viewers and fishermen to conserve the Island ecology because the ultimate benefit will go to them as smart catch of fishes and shellfishes.

» Rapid Ecological Appraisal of Flood Affected Areas and Wetlands Assessment:

Pakistan Wetlands Programme has planned an undertaking rapid ecological appraisal of flood affected areas of Swat, Tansa Barrage, Sajawal and Gharochan. There are also Wetlands assessment environmental baseline studies of Dhrabi Dam, Rawal Dam and Simli Dam has been completed by PWP survey team consisted of diverse experts of different line departments, Forest and Wildlife departments, Pakistan Museum of Natural History, Fisheries Development Board, CDA and universities comprised of Arid University, Islamia University Bhawalpur, International Islamic University Islamabad.

» Bird Identification and Data Recording



Ministry of Environment's Pakistan Wetlands Programme (PWP) organized two days certificate training course on "Bird

Identification and data recording" for the field staff of the Punjab Wildlife and Parks Department (PW&PD) at Kallar Kahar and Khabekki lakes during December 28th-29th 2010. The training was conducted by Mr. Muhammad Jamshed Iqbal Chaudhry, Wetlands Biologist, who has spent more than 12 years in monitoring and surveying water birds across the country and a number of peer-reviewed publications to his credit. The objective of the training was to train the professional field staff of the PW&PD in bird identification and data recording procedures. The specific training topics designed for the participants were the use of optical aids (binoculars and spotting scopes), bird identification based on field characteristics, bird census techniques, introduction to bird topography (anatomy of birds), data collection/recording and compilation and the ethics, equipment and care of equipment in the field.

During the course, a total of 18 field staff of Salt Range region of PW&PD including 11 participants from district Chakwal and 06 from district Khushab were trained. All the participants expressed their overall satisfaction with the training method and expertise of the training team. The *Pakistan Wetlands Programme* believe that this training course will help the department in developing a local pool of trained professional staff, who will further play an important role in conservation efforts in the Salt Range.

» Solar heater for Women Community of Makran Coast

PWP MCWC site office, Gwader has introduced solar water heater for coastal community, installation coordination was done with both Male and female WVCCs of Pishukan and Jiwani. Briefing for intervention of this renewable energy was given by SO's, PWP shared the cost of one unit and discussion about bearing 20% share by community was made, WVCCs appreciated the efforts for

this introduction. Site team purchased two types of geysers for communities by vendor from Karachi, one with drawing to fix it and second with drawing less latest technology.

This system comprises tank and heat absorbing panels, hot water rise and circulates between the collectors and tank under sun light and is stored in insulated tank. This geyser pay for itself and will save money, this equipment is friendly to nature with no harming effect and a facilitating device for people.

» Seventh Interim Wetlands Management Committee (IWMC) meeting held

Interim Wetlands Management Committee (IWMC) 7th meeting was organized by PWP, MCWC site office, Gwadar. The body comprises active consultation of local partners with active participation of their valuable inputs in quarterly achievements and future plans. Sharing of plans was also made to avoid the duplication of conservation works in area.

Committee is officially nominated by Government of Balochistan and sponsored by Balochistan forest and wildlife department, Chief Conservator of Balochistan as a chief guest. In this 7th meeting secretary of Balochistan forest and wildlife department participated to get updates about project interventions and future planning. Secretary of Balochistan forest and wildlife department also participated as chief guest and presented their interest to support the programme at provincial level.



Continued on page 3

Continued from page 2



» Fuel Efficient Mud Stoves of Daran Community

Pakistan Wetlands Programme MCWC site office, Gwadar has introduced mud fuel efficient stoves for Daran community, Jiwani. In rural areas of Makran Coastal Belt common burning fuel is wood due to unaffordable LPG. They use local built stoves for burning, which accumulate the smoke in kitchens with no exhausts in kitchens; this accumulation can cause health suffering for women. As we already suffer lack of forests and this anthropogenic activity can increase deforestation at Makran coast. Considering these facts MCWC site team decided to introduce Mud fuel efficient smokeless stoves.

Some features of these smokeless stoves are:

- ♦ Easy installation
- ♦ Made from mud with no cost and high availability
- ♦ Smokeless with an external exhaust line
- ♦ Efficient fuel consumption i.e. 50% less than usual ones
- ♦ Time saving for cooking

Site team introduced this Green Intervention in October, 2010 at Makran coast with 40 households and 6 Villages of 4 WVCCs. In this

month of December 2010 PWP also introduced this activity in Daran Village. This time four trained local community members of PWP team were involved in the construction of Mud Fuel efficient smokeless Stoves.

» PADI Open Water Diver Course:

PADI Open water course was conducted at Karachi. Four personnel from PWP and associated organizations participated in training; participants attended five knowledge reviews, five confined water sessions in swimming pool/sea and four open water dives in sea up to 18 meter of depth. The participants viewed that this training will boost their competence to perform much better for their organizations. Four more participants will be in next course in the first week of January 2011, five divers among them will accompany during Coastal Survey Programme scheduled in January which will help in exploring coral reefs and also cetaceans.

» CBOs Management for WVCCs of Zarin Bugg village Dasht:

Pakistan Wetland Programme, MCWC site office, organized a training programme on CBO management for Village Wetlands Conservation Committee (WVCCs) at Zarin bugg, Dasht. Aim of

training was to educate the newly formed Women CBO for the conservation of coastal wetlands and their associated biodiversities like Marsh Crocodiles, forest and other freshwater reservoirs at Dasht area. Training was coordinated by Miss. Zaitoon Abdullah Female Social Organizer and conducted by both Abdul Salam (Male Social Organizer) and Zaitoon Abdullah on participatory methods.

» Training on Diesel Boat Engine Repairing was conducted at Gwadar:



Pakistan Wetlands Programme, site office MCWC in coordination with Pakistan fisher folk's forum (PFF) and Balochistan Fisheries Department (BFD) organised a 20 days training for fishermen community on Diesel Boat Engine Repairing at the office of the Pakistan Fisher folks forum Gwadar. The opening ceremony was held at training venue, Mr. Abdul Rahim Site manager PWP of MCWC was the chief guest. The Training session was for 25 fishermen and people belonging to fishermen house.

The aim of this training programme was to develop the skills of the fishermen for repairing minor faults of engine or boat motors so they can decrease expenses. Site team often visited the training venue; Fisher Folk Forum was mainly responsible for monitoring the training programme to assure the participation of trainees and trainers with quality assurance.

The topics covered in training were internal combustion of engine, internal moving part, Ignition systems, fuel system, exhaust and lubrication systems, cooling system, transmission system.

After the successful completion of

Continued on page 4

Continued from page 3

training, the participants were awarded with course completion certificates.

» Survey of Makran coast

Pakistan wetlands programme, site office MCWC supported United Nation's International labor organization (ILO) for community meeting and field survey of Makran coast Balochistan. Currently ILO has launched a new project funded by the Canadian International Development Agency (CIDA) promoting Gender Equality for the decent employment (GE4DE) at Makran Coast. Pakistan wetlands programme as an active partner assisted ILO in the initial project survey which is an intervene area and has linked up the ILO with local organisations like Rural Development Council (RCDC) Gwadar as local beneficiary.

» Exposure Visit of Selected Women from Makran



The site team at Makran Coastal Wetlands Complex organised an exposure visit of selected women of Women Village Conservation Committees (WVCCs) from Makran Coast. The NRM sites were established by WWF, PWP-MCWC and other organizations. Thirteen (13) Women Community members from different WVCCs of Gwadar, Pasni and Kallag actively participated in exposure visit from 7th to 12th November, 2010, led by MCWC's Social Organizers Miss. Zaitoon Abdullah and Abdul Salam for Logistic Support while traveling. 10th November 2010, Miss Rahila presented WWF Pak interventions in Kheenjar under Indus for all projects. This visit brings great exposure and experience for both PWP-MCWC staff members and

community members to understand the courage of females of community for initiating the best practice of their natural resource management and sustainable development.

» Workshop on Marine Turtle Strategy

Consultative workshop on finalization of marine turtle strategy for Pakistan, organized by IUCN Balochistan programme and site manager Mr. Abdul Rahim PWP-MCWC at local hotel Karachi using Turtle Excluder Device (TED). Workshop was followed by introduction of modified Turtle Excluder Device (TED) and its implementation at Sindh Coast. Marine turtles are endangered species in world facing various threats globally. Pakistan has significant population of marine turtles and some of them nest in various beaches of Sindh and Balochistan coast, green turtle is the most prominent specie in Pakistan which migrates from Pakistan to other neighboring countries like Iran, Iraq, Oman, India and UAE etc for feeding and mating. PWP is already working on their conservation and research programme like satellite tracking/tagging programme at Balochistan coast. Till now there is no management plan for conservation of marine turtle in Pakistan.

» Extension of Drip irrigation system at Billar Dam:

Pakistan Wetlands Programme, site office MCWC supported Billar community to link up with District Agriculture department for extension of drip irrigation system installed by the Site office at Billar dam. Billar community is agriculture dependant community and the land is very fertile, construction of Billar dam in the area results in the green revolution, arise in the form of green industry like orchard and other traditional farming. *Pakistan Wetlands Programme* was the first ever introducer of these modern

agriculture techniques like drip irrigation system at Coastal area and babbler irrigations, as in past the farmers had no experience of such technologies. Local communities quietly supported the new system and they also introduced their community share as per the policy of programme. The agriculture department is an active partner for the development of such initiative of drip irrigation at Billar dam and Zarin bug village, Dasht. Joint efforts from PWP and District Agriculture department appeared as sustainable partnership for introduction and development of modern agriculture techniques at Coastal areas, with a positive and significant impact on natural resources management and to avoid the duplication of activities as per in most of organizations.

» Visit and Briefing at MCWC Site Office

Gwadar:

Visit of National Programme manager Dr. Ghulam Akbar and National Programme Director (Inspector General Forest) Mr. Syed Mahmood Nasir was organized by PWP-MCWC site team. Mr. Ahmed Khan Director Regional programme PWP and Mr. Anwar Nasim Director Operation WWF Head office Lahore accompanied them. They visited site office Gwadar and other interventions established by them.

» Mud-Fuel Efficient Stoves Installed at MCWC Site Office Gwadar:



Pakistan Wetlands Programme, MCWC fruitfully installed forty (40) mud fuel efficient stoves for coastal community. Stoves site selection and installation was conducted by women members from Wetlands Village Conservation Committee

Continued on page 5

Continued from page 4

(WVCCs). In rural areas of Makran Coastal Belt people use wood as a common burning fuel instead of expensive LPG. Wood in their locally built stoves accumulates smoke in kitchens with no way for exhaust and this accumulations cause severe health issues like asthma, respiratory tracks trauma and eye diseases. This area has already sporadic and lesser forest, mangrove is the largest forest in the region and such anthropogenic activity can cause deforestation at Makran coast. Thus considering all these facts and figures, MCWC site team decided to introduce Mud fuel efficient smokeless stoves to reduce the pressures on natural forests.

Mud fuel efficient stoves are environmental friendly, proven by the UN programme and it has capability to increase the heat pressure in cookers, minimum wood is required for cooking and most of smoke with path (chimney) as an outlet. Smokeless stoves can be made by local items like mud, livestock dung and water.

These smokeless stoves are:

- ◆ Easy installation
- ◆ Made from mud with no cost and high availability
- ◆ Smokeless with an external exhaust line
- ◆ Efficient fuel consumption i-e 50% less than usual one
- ◆ Time saving for cooking

Experts were hired for making mud stoves, selection of villages was made for demonstration in consultation with existing WVCCs, and installation of forty successful stoves was made at 20% sharing cost in seven villages. Details are as followed.

» Mud Fuel Stove

Construction training:

During installation of Mud fuel efficient smokeless stoves in villages' site team arranged on Job training for community and labors, they involved the community for making stoves and described every

aspect in detailed, like:

- ◆ Mud Selection
- ◆ Mixing of mud and its density
- ◆ Frame fixing (consists of Wooden Pieces/ Pipe four (4) inch, dia with three (3) feet length/Round tin one small and one large pieces)
- ◆ Placement of mud in frame
- ◆ Insertion of round tins in mud
- ◆ Insertion of exhaust pipe in mud
- ◆ Required time for removing frame
- ◆ How to insert wooden sticks as fuel in stove

» Rescue Operation for Live Sperm Whale at Juddi Beach Pasni:

Sperm whales are the living treasure, migrating from Indian oceans to other, male whale is 17 meter long and is the largest toothed whale and animal in the world, the name sperm comes from the milky-white waxy substance, [spermaceti](#), found in the animal's head. Enormous head and distinctive shape of this specie brought many to describe it as archetypal whale.

Pakistan Wetlands Programme, MCWC site office, Gwadar conducted a rescue operation for live sperm whale at Juddi beach, Pasni. Information of appearance of live female sperm whale, 32 feet long at Juddi beach was given by local fishermen, team was there for rescue and found the whale embedded in sandy beach. Team was also in contact with

International experts for rescue with complementing comments regarding the issue.

» Off-Season Vegetable Tunnel Rehabilitation and Farming:



Pakistan wetlands programme, MCWC site office was successful in model for rehabilitating the off season vegetable farming at Chatti village, which were damaged by recent tropical (Phet) cyclone. This model was established for growing off season vegetables, especially in summer when creeping plants can't grow due to harsh humid or scorching temperature conditions. Coastal villages don't have any market contacts that's why this model can help them to grow their daily use vegetables and also use of efficient water irrigation system like drip irrigation. This model was quite unknown to coastal area and was introduced among women as their natural resource management. This model helps the women in kitchen gardening and is equipped with latest technologies like drip irrigation results in conserving the fresh water, this system comprises the local capacity of population and they use livestock dung as fertilizer.



Continued on page 6

Continued from page 5

» Hiring Internees for Research Assessment on Sharks and Rays landing:

Sharks and shark like species (Rays, Skates and Chimaeras) collectively referred to as chondrichthyan fishes, relatively small in number (1115 described species by IUCN) has functioned successfully in diverse ecosystems for over 400 million years. Despite their evolutionary success, many species are increasingly threatened with extinction as a result of their low productivity rates (late maturity and slow growth) in the face of human activities, primarily over fishing; as a result their population is declining drastically all around the world.

The objective of internship assignment on assessment of Sharks and Rays in landing site, provides information on how to learn the basic toll of conservation and management of species which have a prime role in ecosystem, where a minute disruption may change the whole ecosystem, to check and analyses that level through theoretical and practical work in filed and gather information from the experiences and expertise of others, share the knowledge on basis of finding and developing a policy tool for the planning and policy makers to amend the existing laws and regulations developed for safety usage of biodiversity and sustainable use of natural resources. Another objective of this assignment was to enhance our credibility and capability in research, which gives us direction to formulate professional career and development.



» Biogas installation Unit for Chatti village Gwadar:

Pakistan Wetlands Programme, MCWC site office Gwadar was successful in installing the livestock management unit, Biogas plant at Chatti village. Unit was installed in help from Pakistan Dairy Development Council for the conservation of Coastal forest and wise use of animal by-products. In the socio economic survey of villages it was revealed that most of community members have livestock's and they use products like milk, Ghee and butter for their daily consumptions. Goat and sheep are most common animals at Makran coast and each community have their pasturelands or farms to feed these. It was also observed that they don't have any use of their wastes (excretions) and they simply dump it in lands near to their village

and continuously use wood as burning fuel due to unaffordable and increasing LPG cost. In this hazardous condition PWP- MCWC team decided to introduce biogas plant, which will need only water and livestock dung for producing methane gas in same ratio. PWP's vaccination campaign gives us the population idea of cattle in site, after survey few communities were organized for introduction and demonstration of Biogas unit. Site office in coordination and support of Pakistan dairy development council and Village Wetlands Conservation Committee (VWCC) Pishukan, demonstrated a biogas unit at chatti village, this was the first demonstration at Makran Coast and site office planned to introduce such models in other villages of Makran coast as well.

» Biogas Installation and its Maintenance:

PWP, MCWC organized a community training on biogas unit installation and its running techniques. Basic aim of this training is to enhance the capacity of local community members for the installation of biogas unit and to ensure the best use of animal excreta. Four community members including two skilled and two unskilled labours, Field engineer of Pakistan dairy Development Company trained the local

Continued on page 7

Continued from page 6

community at field site and for 5 days while demonstrating the Bio gas unit construction at Chatty Village. Mr. Ameer Bakhsh was the trainer and training consists of following contents;

- ♦ Working principle of bio gas plant (How methane gas can be produced from animal dung in the Tank)
- ♦ Requirement of equal quantity of livestock dung and water
- ♦ Fragmentation processes.
- ♦ Selection of site
- ♦ Dimension of dome (initial and Final)
- ♦ How to start building the Cylinder/Dome
- ♦ Procedure of Shattering or to construct the round roof of the cylinder/dome.
- ♦ How to make it effective
- ♦ How to Paint the Dome/Cylinder from both sides
- ♦ When will Plumbing work Initiate
- ♦ When it will be able to produce gas

With coordination and support of Pakistan dairy development company and WVCC Pishukan, MCWC site team demonstrated the biogas unit at Chatty village for introducing it to communities. The Biogas unit is ready with its three constructed parts and filling will start in four to five days.

» Inauguration Ceremony of NAWC Site Office and GIS Node for Gilgit Baltistan:

In month of November, 2010 NAWC was shifted from Abbottabad to Gilgit Baltistan. The Pakistan

Wetlands Programme-Northern Alpine Wetlands Complex WWF-Pakistan and the Gilgit Baltistan Forest, Wildlife and Parks Department organized the inauguration ceremony of the Northern Alpine Wetlands Complex's Site Office and Geographic Information System Node for the Gilgit Baltistan region. These two new developmental programmes will improve further natural resource conservation and management practices on one hand and will benefit the mountain indigenous people on the other. This event was conducted on 11th December, 2010 to mark the "International Mountain Day" as well. Mr. Imran Skindar Baloch, Secretary Tourism Gilgit Baltistan was the Chief Guest on this occasion.

Dr Ghulam Akbar, NPM, Pakistan Wetlands Programme briefly introduced the Programme and its interventions and achievements in four demonstration sites. He further explained that this programme aims to conserve the wetlands ecosystem nationwide while alleviating poverty. Referring to the importance of high altitude wetlands conservation, he stressed for coordinated efforts, capacity building and awareness raising initiatives for the region.

Mr.Raza GIS analyst during his presentation briefed the participants about the capacity, technical aspects and functioning of the established GIS node in Gilgit Baltistan.

Mr. Ismail Zafar, Conservator Forest Gilgit Baltistan and Secretary Forest

appreciated the partnership with the programme and WWF-P. He also highlighted the importance and introduction of GIS Node for the region and its utilization for forest, wildlife, and wetlands resources conservation and management.

» Consultative Gathering at Karumbar National Park- Gilgit Baltistan:

The WWF-Pakistan under its Pakistan Wetlands Programme has initiated consolidated steps through key stakeholders' involvement in conservation and management process of high altitude Alpine wetlands ecosystem which is found in the three biggest mountain ranges (Hindukush, Karakoram, and Himalaya). Initiatives were fruitful with the custodian community and other stakeholders in declaring the Broghil valley's wetlands as a National Park through the Khyber Pakhtunkhwa Wildlife Department. To realize the ecological link and significance of the wetlands ecosystem found on the other side of the valley, the successful progress was shared with the Forest Department of Gilgit Baltistan along with a proposal by PWP team to initiate the same protected status from the Gilgit Baltistan side. Proposal was then shared with the custodian communities by GB Forest department who agreed on consultative gathering on the subject. To get benefit from the expertise of professionals in the field, all relevant agencies representatives were invited for discussion and technical inputs at this stage of the proposal.

The first consultative gathering on proposed Karumbar National Park was held between Gilgit- Baltistan Forest Wildlife & Parks department, WWF-Pakistan, Gilgit concerned community and other line department's representatives. The main agenda here was to discuss the protected areas options for the Karumbar valley as possible National Park and then to make a consensus on its boundaries. Mr. Ahmad Said and Mr. Babar Khan of



Continued on page 8

Continued from page 7

WWF-Pakistan explained the proposed maps in detail and highlighted the possible extents of the proposed National Park. The meeting was chaired by Mr. Ismail Zafar Conservator Forest Wildlife & Parks department Gilgit-Baltistan.

The Conservator of the Forest explained the scope of the proposed national park including its strength, weaknesses, opportunities, and threats. He stressed that the proposed national park will provide a mean of sustainable conservation for fragile wetlands and its associated flora and fauna in the long run; it will ultimately enhance the living standard of the local communities. He further added that Karubar valley has more potential as the communities already practicing conservation measures. Its proposed enhanced protected status will lead to increase the wildlife population within the proposed premises. This will also help to further improve the wildlife population in existing community control hunting area which in turn may lead to increase the trophy hunting quota in near future.

The custodian community has already submitted a resolution about their concerns in the context of this proposed protected status for the valley. They repeated the pros and cons and insisted to secure their rights in every such developmental initiative for the area. All the participants discussed one by one the community benefits attached to this improvement while quoting examples from other such protected areas in the region. The gathering ended with a consensus to share and work further with the custodian community of the proposed site in Ghizer district.

» Tourist Camping Sites in Broghil valley:

To promote ecotourism activities in Broghil valley, NAWC has listed the potential camping sites through mutual understanding of the local community. In this regard four agreements regarding the operation and maintenance of the tourist camping sites were drafted

and signed with the respective sites owners. The needed tools including dustbins and pit latrines have been placed already in sites to facilitate the tourists.

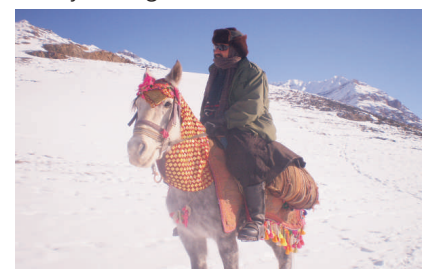
» Saving Hotspring Lake: Construction of Communal Washing and Bath centre:

The site exploration in terms of biological potentials is a continuous process in the unexplored Broghil valley of Chitral District. During the team visit in April 2010, it was investigated that out of more than 30 lakes only one Lake in valley remained unfrozen during the whole harsh winter. It is interesting to know the reason behind this; that particular lake is formed by the continuous inflow of water from nearby natural Hot spring, it is also worth mentioning here that beside a Snail specie some of the water birds including Ruddy Shel duck, Northern Shoveler, Black Tailed Godwit, Black Winged Stilt (*recorded in April 2010*) use this particular Lake during the freezing winter season. This Hot Spring Lake is also facing pollution problems due to the washing and bathing wastes by the local Wakhi community. The spring is the only season when water is accessible round the year. Female folk in sunny days who get there and carryout the laundry washing activities while for males, the lake provides a bathing place. Pollution of detergents brings the lake's ecology at risk. To keep away the polluted water from this lake, the Northern Alpine Wetlands Complex and the partner Chiantar Welfare Society Broghil discussed the issue in detail and agreed upon feasible solutions with no net loss to the attached benefits of the locals and to conserve the fragile ecology of this unique Lake. In this regard a feasible design was agreed upon, estimates were calculated and the construction of a communal washing/bath centre on hotspring initiated near Garil village, agreement between NAWC-PWP and the Chiantar Welfare Society Broghil was also signed for the completion of construction work

while ensuring the standards and agreed design.

Broghil Community Delegation visit to NAWC Field Office – Chitral:

The NAWC-PWP facilitated the visit of 6 member delegation from Broghil community to Chitral and conducted gatherings with NAWC staffs and other partner organizations. Consultative meetings between Broghil community and DFO Wildlife (Mr. Imtiaz Hussain) were organized to review the progress of recently established Broghil National Park. Meetings were also held with the office bearers of CWSB to discuss the progress against agreed activities and identify possible areas for further improvement in wetlands conservation and management. The programme has also the mandate to strengthen the linkages of the wetlands communities with the line agencies, donors and NGOs. During the visit organizations and individuals including Walk about Solution for Development, Aga Khan Development Network, DCO Chitral, AKRSP, Chitral, and Cap (Rtd) Sirajul Mulk were approached, and shared a detail proposal for relief supplies to the valley for upcoming severe winters at altitude above 12000 feet. As a result 3 trucks loaded with food items (wheat, rice, sugar, Oil) and other needed relief goods were provided to the Broghil valley community, to ensure the food security during winters. Also meetings were organized with head of line departments including Executive District Officer Health and District Livestock Officer Chitral. The livestock department Chitral has donated veterinary medicines and vaccines worth Rs. 20,000 for the treatment of livestock in Broghil Valley during winter.



Continued on page 9

Continued from page 8

Public events



» Biodiversity Day at Quaid-e-Azam University:

December 23rd, 2010, Biodiversity day was celebrated at Quaid-e-Azam University. The Department of Environmental Sciences was embellished with charts and various kinds of models. The students of this university were filled with great enthusiasm. Their aim was to represent current condition of our environment and the increasing pollution.

“Biodiversity is the number and variety of organisms living in a specified geographic region”.

The Pakistan Wetlands Programme played a mandatory role by setting a stall. The posters of PWP were displayed all around the department. Vice Chancellor of the university was the chief guest of the occasion and he made a visit to the stall of PWP. He appreciated the participation of PWP. The Vice Chancellor and students were given a brief introduction about the wetlands and the associated biodiversity. Posters, brochures, newsletters and bookmarks related to wetlands were distributed among the students. The purpose of this distribution was to develop awareness between the students. Students were curious to get information about this programme. Mr. Jamshed Iqbal Chaudhry, Mr.

Irfan, Mr. Nadir, Miss. Madeeha and Miss. Timmer were representing Pakistan Wetlands Programme. Thus the day ended leaving a message for everyone that's “Conserve Biodiversity”

» International Mountain Day in Broghil valley:

Arts/Drawing competitions were organized among the school students of Broghil valley to commemorate “International Mountain Day”. The activity was organized in Broghil valley on 11 Dec, 2010 through the partner community based organization (CWSB). More than 60 students of the community based schools in Broghil participated in the event. Realizing this year's theme for the day “Mountain Minorities and Indigenous People” the elders of local Wakhi inhabitants were specially invited to the programme held at Lahkargaz and Chilmar Abad villages.



» Students Battle it for the WWF-Pakistan Spellathon:

Karachi, Pakistan - September 19th-2010 Hundred of School students of class 1-10 took part in WWF-Pakistan's Spellathon at WWF-Pakistan's wetlands centre, Sandspit Karachi. Leading corporate companies including Owsum Milk, Rose Petal and Blue Band Margarine were the sponsors of the nation-wide Spellathon 2010 under their corporate social responsibility. GEO News is the official media partner for the highly acclaimed WWF-Pakistan's nation-wide Spellathon. WWF-Pakistan's Spellathon has heightened environmental awareness among school children while providing an environmentally significant platform for companies to present their product and show their concern for the country's natural resources.

WWF Pakistan in 1995 pioneered an environmentally driven initiative targeting the youth of Pakistan known as the “Spellathon”. It is a nation-wide spelling competition, for schools, which through a series of written quizzes promotes contemporary knowledge of the environment to the youth in a fun and exciting way. Spellathon is now an integral part of the annual calendar of almost every private school across Pakistan.

» Handicrafts Exhibition in Islamabad:



Pakistan Wetlands programme, MCWC site office, Gwadar conducted an Exhibition of community products at International workshop on Climate change in Islamabad. Community products like embroidery, mazri works, shawl

Continued on page 10

Continued from page 9

and sea shell works were organized and presented by social organizers of MCWC. The aim of this programme was to highlight the skills and products, especially of women community with less out door approach, in local and international markets. Products were tagged by proper local and community names where these are manufactured.

Community products from all over the world were invited on various trades and PWP presented all of their community products, products from MCWC were greatly appreciated by national and international organizations. EKN and IUCN also appreciated them and paid delightful comments to organization, exhibition and community trainings.

» WWF and Barclays Bank Joined Hands to Rehabilitate the Flood Victims of Kot Adu:

“Ten biogas plants and 25 typha loams will be installed in Central Indus to support local community's livelihood and benefit wetlands ecology”.

The Barclays Bank and WWF Pakistan have joined hands to address environmental issues and local community development. Both have signed a memorandum of understanding to initiate a project on providing biogas plants in the Central Indus Wetlands Complex.

The partnership will prove to be a milestone in collaboration between a conservation organization and a corporate sector organization for conserving natural resources. Under the current agreement, the Barclays Bank will provide a grant of Rs.837, 000 to WWF Pakistan for installation of 10 biogas plants and 25 typha loams in the Central Indus Wetlands Complex of its Pakistan Wetlands Programme. A biogas plant digests livestock manure to produce methane gas, which is combustible and meets household energy needs for cooking and heating. The typha loams are used to prepare mats from typha, a plant grows in wetlands of the Central

Indus, has potential for wide range application.

The WWF Pakistan and Barclays Bank, both are keenly looking forward to stronger collaboration in the future to address environmental issues and local community uplift.

Cool stuff

» Introduction of “Peatlands Saving Technologies” in Broghil Valley:

Located in the extreme north of Chitral, the valley of Broghil is blessed with large variety of natural resources. The subsistence of the local communities living in the valley is dependent mostly on livestock keeping, rare agriculture practices along with the existing wetlands resources mostly Peatlands, which refers to the accumulation of partially decayed vegetation matter over a vast plain. Besides acting as grazing lands, historically the most common use of peat in Broghil valley is as a primary source of fuel for local population living there permanently up to altitude of 12000 feet above sea level. Its continued exploitation acts as a fuel source for domestic use which began at least 75 years ago when Peat lands were more widespread in the area and the locals through a migration from China came to know to use it as a fuel source as well. Since then peat has been the traditional domestic fuel in Broghil valley. Being the most vital source of fuel in remote areas like Broghil, the Peat lands also

performs some crucial ecological roles like water storage points, offering habitat for migratory birds and is a source of fodder for livestock as well as for wildlife and the major sink for greenhouse gases at those altitudes. In the climate change phenomenon the peatlands are of prime concerns in these parts of the globe. In the last 40 years the peatlands ecosystem in Broghil valley has been under tremendous pressure due to the lack of alternatives and over exploitation to meet in-house energy/fuel needs of the local populace living permanently up to 12000 feet above sea level.

A significant proportion of the peatlands have been used up and the practices are increasing with every increase in population figure there. Pressure on the remaining peatlands ecosystem is climbing day by day and hence on the natural habitat of the associated wildlife. Some of the villages in Broghil valley including Chikar and Iskarwaz have extracted almost 90% of their share in peatlands. Now these villages are fulfilling their fuel requirements from the communal owned peatlands areas. If the present rate of peat consumption continued, then it is estimated that after 20-30 years all the peatlands will turn into wastelands.

The fast degradation of peatlands in Broghil valley is attributed to the following factors:

- ♦ Lack of alternate sources of fuel at high altitudes up to 12000 feet



Continued on page 11



Continued from page 10

- ◆ Lack of access to technological innovation for prudent use of peat
- ◆ Imprudent use of peat through traditional practices since 1935
- ◆ Harsh climatic conditions and need of heated houses in winters at high altitudes

Due to the physical isolation, lack of access to modern technology and above all extreme poverty, the local communities mainly rely on traditional means of peat use. Large quantity of peat is burnt in an open place inside the house both for traditional cooking and heating places. Thus majority of the heat contents of the peat is lost in smoke. The smoke that's produced affects the health of the Wakhi families in localities where basic health facilities are just dreams.

In the wake of the prevailing conditions there is a dire need of technological innovation for the better utilization of peatland resources. In view of the above mentioned facts the NAWC-PWP in consultation with the local Wakhi community specially women folk has developed, experimented and introduced new Gadget design of fuel efficient tool for the sustainable utilization of peat resources in Broghil valley. The design is accepted by the Wakhi community (male & female) with nominal changes to the traditional cooking places within houses, where they have centuries old attachment to the coking place. The Wakhi houses never touched by such like innovations and the NAWC-PWP as pioneer has introduced 65 sets of this Gadget fuel efficient design in Broghil valley. The underlying aim behind the activity is to make domestic utilization of peat more environment and human friendly, besides reducing the quantity of peatlands used for domestic energy need. The intervention will have the following impacts in the long run:

- ◆ Reduce pressure on peatlands used for domestic fuel needs through better management

practices.

- ◆ Improve the health conditions of the local populace, specially women and children through minimizing the exposure to hazardous peat smoke.
- ◆ Innovate technologies for improved wetlands resource utilization practices

- ◆ Replicate model in adjacent communities living across national and international borders.
- ◆ Conserve peatlands ecosystem for the associated biodiversity and for its outstanding human and ecological services.

Articals

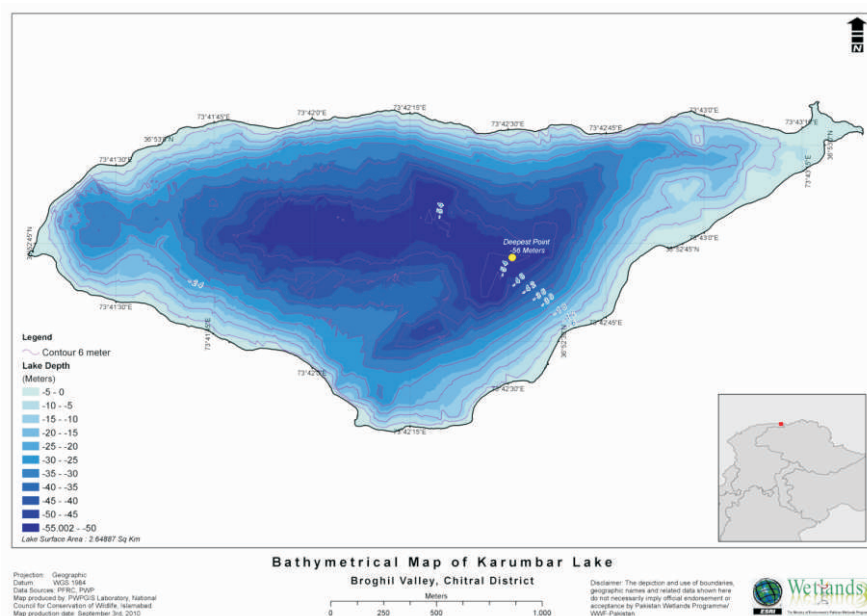
» Qurumbar Lake gives up some of its Secrets:

Karumbar Lake's vernacular name, as pronounced by the Wakhi community of Broghil Valley, is "Qarumbura Zhui", where *Qarumbura* means "a heap of boulders" and *Zhui* is the word for "lake". This seems entirely appropriate as the forces of glaciations formed the lake during a colder era, scouring out huge depression in the earth and then filling it with ice. As climate warmed up, the ice melts, leaving a barrier of *moraine* across the valley like a massive dam wall that confined the glacial melt water and formed the lake. *Moraine* is a technical term used for accumulated earth and rocks carried and finally deposited by a glacier surrounded by towering peaks, it's a breathtaking beautiful panorama that rewards any hiker who is intrepid enough to climb up

to 4,300 meters to see it. It truly is the one time life experience that very few lucky people have had. The successful summiters have shared their experiences and the second living wish after visiting the lake was the curiosity of its depth, water volume and extent.

The Pakistan Wetlands Programme organized a survey with a team of diverse field experts comprising biologists, ornithologists, a nature photographer and hydrologist in the July-August, 2010.

The PWP has always been quick to capitalize on state-of-the-art technology such as the Geographic Information Systems, the Global Positioning System, and depth sounder, which provided the meanings to record the bathymetrical later for Karumbar Lake. For further traversing on the surface of lake we installed Depth Sounder and GPS assembly on the SOAR inflatable boat, which was



Continued on page 12

powered by an ecologically friendly four-stroke Yamaha 4 HP outboard motor. We put transect lines on the lake surface area and covered the entire lake with 50 meters resolutions which took us five days. The sounding resolution was set 10 meters and the total bathymetric points logged were approx 6000. Water temperature at surface of lake while doing the survey used to vary in 5-8 C° range daily. The water clarity level was 13.75 meters (Secchi Disc Reading) which is highest value I have ever investigated or seen in the available literature of lakes in Pakistan. The maximum depth was 55 meters (180 feet) and the lake surface area is 2.64 Sq Km (655 Acres), *please see the Bathymetrical map*. The lake water quality was vertically profiled using Hydrolab (Multiprobe Sensor) up to 25 meters and was so strange to observe that the variation was almost nil. The pH and Dissolved Oxygen (DO) of the lake was 7.08 units and 7 ppm respectively.

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- ◆ Bathymetrical Map of the Lake
- ◆ Picture of boat on the lake during survey



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