



WWF

ANNUAL  
REPORT

PAK

2013



WWF-Pakistan  
**Annual Report 2013**

Editorial board:

Ali Hassan Habib  
Dr Ejaz Ahmad  
Dr Ghulam Akbar  
Rab Nawaz

Copyright © WWF-Pakistan 2013

All rights reserved. No part of this publication may be reproduced in any way without the prior written permission of the publisher.

President – Khalid Mahmood  
President Emeritus – Syed Babar Ali  
Vice President Emeritus – Brig Mukhtar Ahmad  
Director General / CEO – Ali Hassan Habib

Editorial team:  
Editor – Asma Ezdi  
Assistant Editor – Sana Ahmed

Designer – Nadia Aine

Photo credits: Zahoor Salmi / WWF-Pakistan except those separately credited



Plain tiger, Tanda Dam, Kohat, Khyber Pakhtunkhwa  
Ghulam Rasool / WWF-Pakistan

## Introduction

WWF came into being in 1961 in Gland, Switzerland as a result of efforts of a few committed wildlife enthusiasts to establish an organization which aimed to raise funds for conservation. Over the past decades its focus has evolved from localized efforts to the preservation of biodiversity and to achieving sustainable development across the globe. Today, it is one of the leading and most respected conservation organization in the world, with a global network active in over 100 countries.

Formerly known as The Pakistan Wildlife Appeal, WWF-Pakistan was established in 1970 as a camp office with a single person working on a part-time basis. It is now the largest conservation NGO in the country and amongst the largest national offices in the WWF Network with over 350 staff and 30 offices around the country. In spite of Pakistan's challenging political situation, WWF-Pakistan continues to grow both in size as well as outreach.

WWF-Pakistan works to enable the government, private sector and civil society as a whole to help ensure the conservation of the unique ecological areas in Pakistan and to significantly impact the present state of the environment in the country. Our mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- Conserving the world's biological diversity;
- Ensuring that the use of renewable natural resources is sustainable; and
- Promoting the reduction of pollution and wasteful consumption.

WWF-Pakistan carries out conservation work according to the Global Programme Framework which includes biodiversity and human footprint meta-goals. WWF works through two meta goals that must be achieved by the year 2050, which are:

- The integrity of the most outstanding natural places on earth is conserved, contributing to a more secure and sustainable future for all;
- Humanity's global footprint stays within the earth's capacity to sustain life, and the natural resources of our planet are shared equitably.

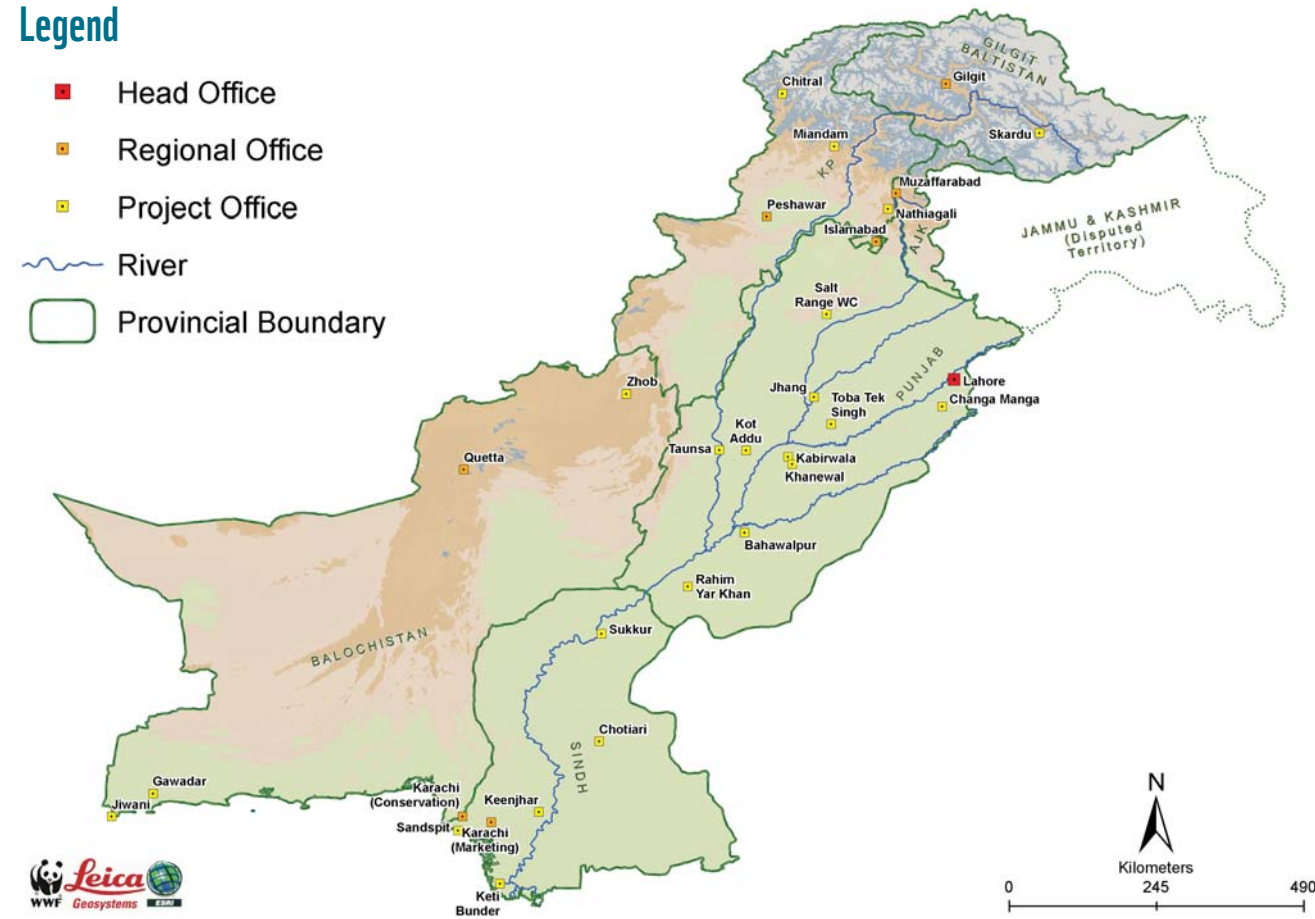
Our greatest responsibility is to lead the way in conserving Pakistan's rich natural diversity so that future generations can continue to benefit from them. The organization recognizes the connection between the environment, biodiversity and the people that surround it. WWF-Pakistan has identified eleven priority pillars as its response to the external threats to the environment that exist in Pakistan, which combines conservation, environmental awareness and sustainable policies. These are: Indus ecoregion conservation programme, forests, freshwater, wildlife, marine and coastal areas, arid and semi-arid areas, climate change, environmental assessment, education and awareness for sustainable development, poverty-environment linkages and policy research and advocacy.

This year we report on our progress against these eleven areas.

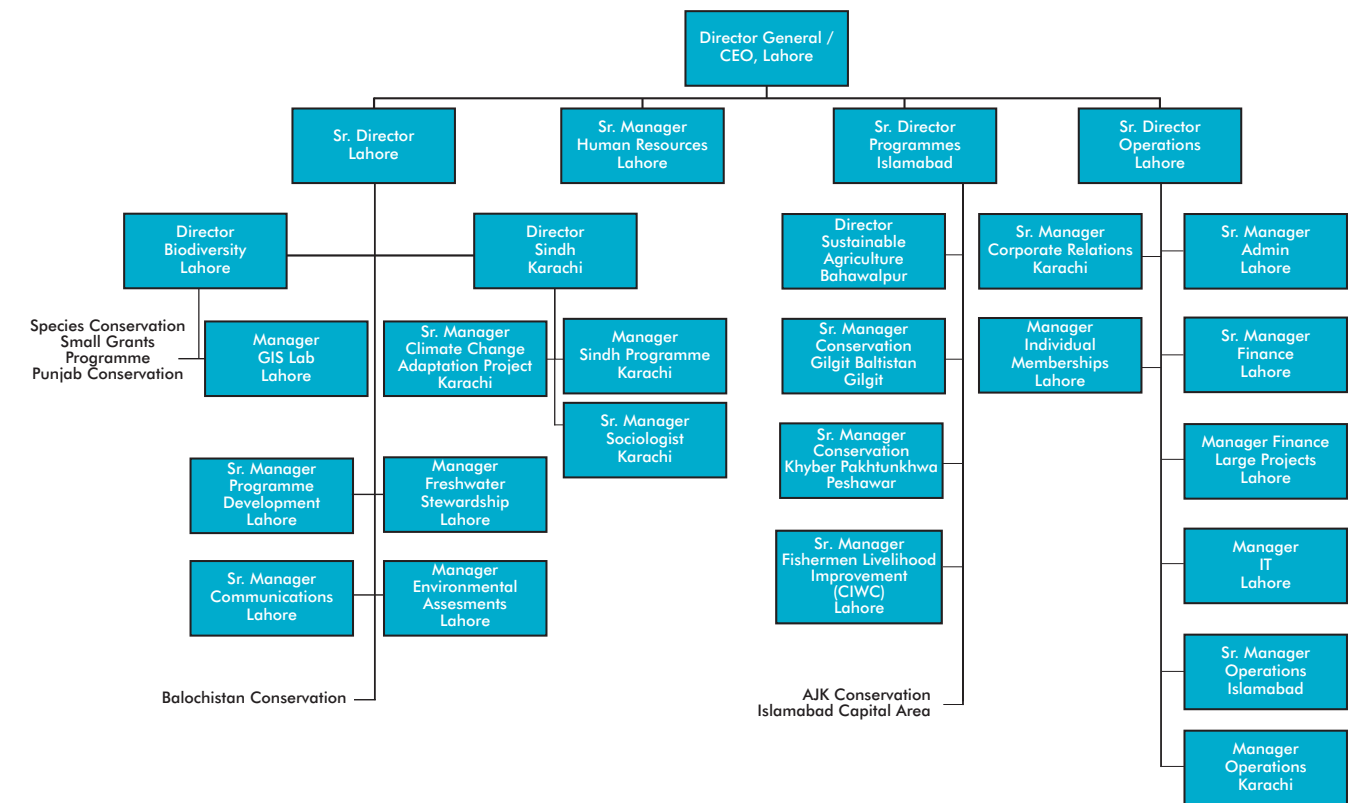
## Location of WWF-Pakistan's Offices

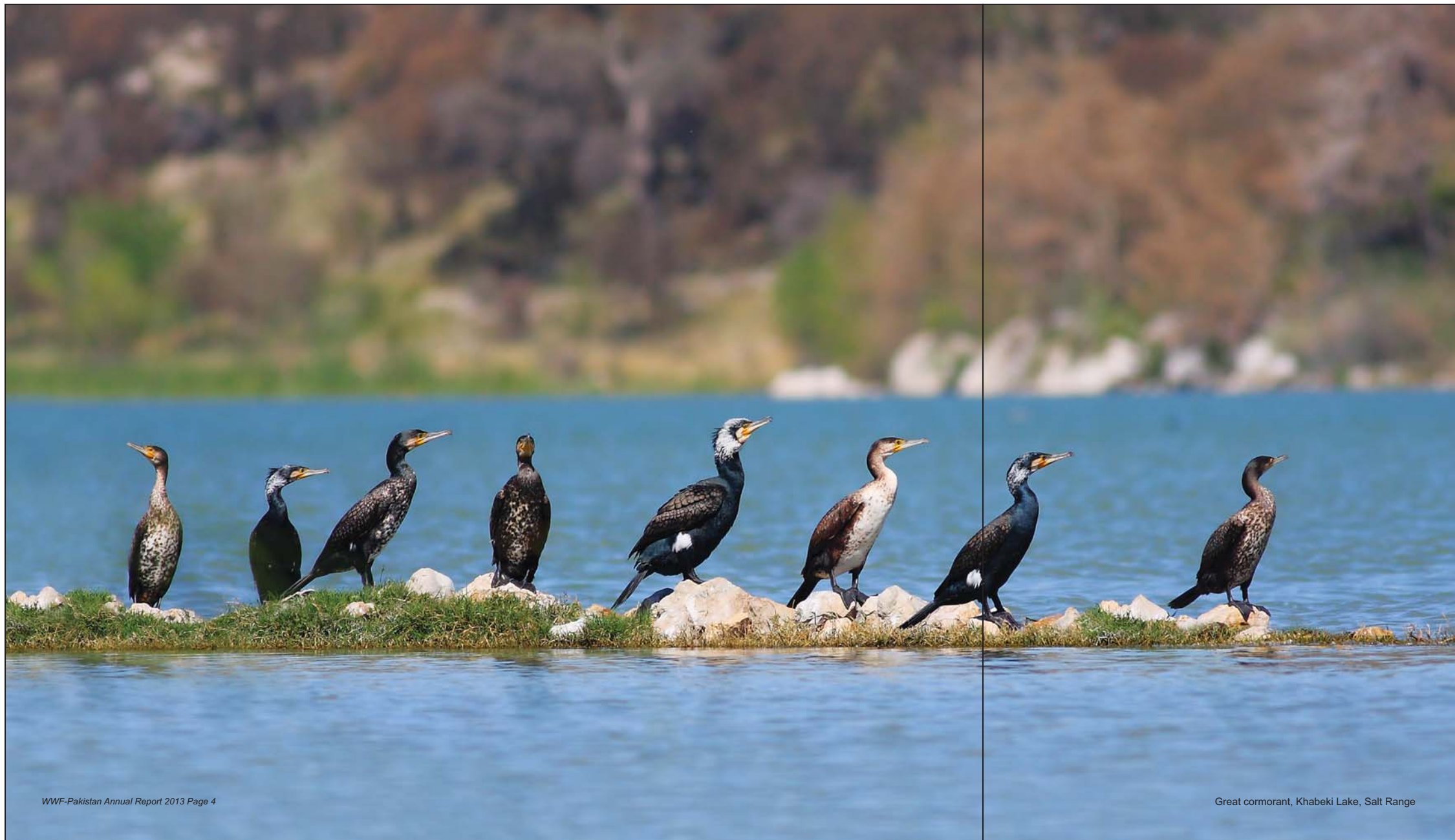
### Legend

- Head Office
- Regional Office
- Project Office
- River
- Provincial Boundary



## WWF-Pakistan's Organizational Structure 2013





### WWF-Pakistan's Ongoing Projects

In the last three decades Pakistan has witnessed modest economic growth and an exponential population increase. We have not only increased our resource consumption but also increased the pollution turn out, and now our ecosystems are stressed. This changing scenario has provided WWF-Pakistan with challenges and hence the ongoing projects show a broader scope of work. No longer limited to conserving forests and protecting species, our work includes promotion of water stewardship in Pakistan, ecological restoration of flood affected areas, provision of sustainable livelihoods, conservation of marine life along the coast, making offices green and recognizing commendable efforts of courageous men and women in the field of conservation. This year, we made our contribution to the cause of environment through more than 30 projects.

## WWF-Pakistan's Ongoing Projects

No.	Project Title	Donors
<b>FRESHWATER</b>		
1	City-wide Partnership for Sustainable Water Use and Water Stewardship in SMEs in Lahore, Pakistan	European Commission under the SWITCH-Asia Programme
2	Improving Livelihoods of Fishermen Communities of Central Indus Wetlands Complex, Pakistan through Effective Natural Resource Management	Global Poverty Action Fund under the Department for International Development
3	Saving Wetlands Sky High (Phase III)	WWF-Netherlands
4	Water and Environmental Sanitation Improvement in Coastal Communities in Karachi	UN-HABITAT The Coca-Cola Foundation
5	Environmental Baseline Survey and Monitoring of Rehabilitation and Modernization of Jinnah Barrage Under Punjab Barrages Improvement Phase II Project	Irrigation Department, Government of Punjab, MM Pakistan and Euroconsult Mott MacDonald
<b>FORESTS</b>		
6	Conservation of Chilghoza Forest Ecosystem through Natural Resource Based Livelihood Improvement in Suleiman Range	Global Poverty Action Fund under Department for International Development
7	Improving Sub-watershed Management and Environmental Awareness around Ayubia National Park (G200 - Western Himalayas) – Phase IV	The Coca-Cola Foundation
8	Social, Economic and Environmental Development (SEED) Project in Central Karakoram National Park	Social, Economic and Environmental Development (SEED) Project under Pakistan-Italian Debt for Development Swap Agreement
9	Ecological Restoration in the Flood Affected areas of Swat (medicinal plants conservation and restoration in Miandam Valley, Swat)	Roshni Association

10	Temporal Change Analysis of Kurram Tangi Watershed Area in Pakistan	Water and Power Development Authority (WAPDA)
----	---	---

### CLIMATE CHANGE / ALTERNATE ENERGY

11	Building Capacity on Climate Change Adaptation in Coastal Areas of Pakistan	European Commission (EC)
12	The Determinants, Impact and Cost Effectiveness of Climate Change Adaptation in Pakistan	International Development Research Centre, Lahore University of Management Sciences (LUMS)

### SPECIES

13	Gyps Vulture Restoration Project	The Hawk Conservancy Trust, Punjab Wildlife and Parks Department
14	Community Based Conservation of Snow Leopard and Improved Watershed Management	WWF-US
15	Common Leopard Conservation Project	Human Welfare and Nature Conservation Society
16	Conserving the Indus River Dolphin ( <i>Platanista gangetica minor</i> ) and Controlling the Illegal Trade of Freshwater Turtles between Sukkur and Guddu Barrages	WWF-Sweden
17	Conservation of the Second Largest Sub-population of Indus River Dolphin (Taunsa Wildlife Sanctuary)	WWF-Sweden
18	Development of a Pakistan National Biodiversity Clearing House Mechanism	Forestry Wing, Climate Change Division, Government of Pakistan

### MARKET TRANSFORMATION / SUSTAINABLE AGRICULTURE PROGRAMME

19	Sustainable Cotton Production in Pakistan's Cotton Ginning SMEs	European Commission under the SWITCH-Asia Programme
20	Pakistan Sustainable Cotton Initiative-III, (PSCI-III)	WWF-Sweden, IKEA
21	Better Cotton Fast Track Fund (BCFTF) – Jhang, Sukkur / Ghotki, Rahim Yar Khan	The Dutch Sustainable Trade Initiative (IDH), Rabobank, Interchurch Organization for Development Cooperation (ICCO), WWF-Netherlands
22	Pakistan Sustainable Cotton Initiative, including Chenab	WWF-Sweden, IKEA, Chenab Limited
23	Understanding the GHG Emission and Water Footprint (environmental footprint) Associated with Cotton Cultivation in Cotton-growing Regions of India and Pakistan	IKEA

### COASTAL / MARINE

24	An Assessment of Cetacean Mortality in Tuna Gillnet Fisheries in Pakistan	Department of Sustainability, Environment, Water, Population and Communities, Australia
25	Cage Culture of Local Marine Species in Keti Bundar	Food and Agriculture Organization
26	Conservation of Cetaceans in North Arabian Sea, along the Balochistan Coast, Pakistan	Department of Sustainability, Environment, Water, Population and Communities, Australia
27	Indian Ocean Skipjack and Bait Fish Management	Smart Fishing Initiative (SFI)
28	Promoting Sustainable Tuna and Fishery in the Indian Ocean	Smart Fishing Initiative (SFI)
29	Fisheries Resource Appraisal Project - Creek Survey	Food and Agriculture Organization

### OTHER

30	Integrated Approach to Skill Development and Provision of Sustainable Livelihoods in Chotiari, Sanghar	Planning and Development, Government of Sindh
31	Farmer Enterprise group (FEGs) Formation in Zhob, Shirani and Chitral	Agribusiness Support Fund
32	Mainstreaming Environment for Poverty Reduction - Poverty - Environment Analysis for Ecosystems; Integration of Indicators in Policy	Asian Development Bank
33	Provision of Drinking Water through Ultra-filtration System to Flood Affectees	Planning and Development, Government of Sindh
34	Contract for Transferring the Green Office Concept within the WWF Network	Asia Pacific Growth Strategy, WWF-Pakistan
35	Pakistan Environmental Reporting Awards	Association of Certified Chartered Accountants (ACCA) Pakistan, WWF-Pakistan
36	Flood Eco-impact Assessment	WWF Network



## DONORS

### WWF Network

Asia Pacific Growth Strategy  
 Market Transformation Initiative  
 Sustainable Fishing Initiative  
 WWF-Australia  
 WWF-Germany  
 WWF International  
 WWF-Netherlands  
 WWF-Sweden  
 WWF-Switzerland  
 WWF-UK  
 WWF-US

### Government and Aid Agencies / International Organizations

Asian Development Bank  
 Climate Change Division, Government of Pakistan  
 Department for International Development (DfID), UK  
 Embassy of the Kingdom of the Netherlands (EKN)  
 European Commission (EC)  
 Food and Agriculture Organization (FAO)  
 Indo-Pacific Research and Conservation Fund, Department of the Environment, Water, Heritage and the Arts, Australia  
 Interchurch Organization for Development Cooperation (ICCO)  
 International Centre for Integrated Mountain Development (ICIMOD)  
 International Development Research Centre (IDRC)  
 Irrigation Department, Government of Punjab  
 Mangroves for Future, International Union for Conservation of Nature and Natural Resources (IUCN)  
 Planning and Development Department, Government of Sindh  
 Social, Economic and Environmental Development (SEED) in the Central Karakoram National Park under Pakistan-Italian Debt Swap Agreement, Government of Italy, Government of Pakistan  
 Solidaridad  
 The Dutch Sustainable Trade Initiative (IDH)  
 UN-HABITAT  
 United Nations Development Programme (UNDP)  
 U.S. Fish and Wildlife Services under Wildlife Without Borders – Critically Endangered Species Fund  
 Wildlife and Parks Department, Government of Punjab

### Corporate Sector

Association of Certified Chartered Accountants (ACCA), Pakistan  
 Euroconsult Mott MacDonald  
 IKEA  
 Rabobank  
 Barclays Bank

### Trusts, Foundations and Others

Agribusiness Support Fund  
 Human Welfare and Nature Conservation Society  
 Lahore University of Management Sciences (LUMS)  
 Roshni Association  
 System for Analysis, Research and Training (START)  
 The Coca-Cola Foundation  
 The Hawk Conservancy Trust  
 Tides Foundation  
 Snow Leopard Foundation

## A MESSAGE FROM Khalid Mahmood

The President of WWF-Pakistan  
Power in numbers



While Pakistan's economy is growing at a modest rate, with a middle class of about 60 million people and over 100 million cell phone subscribers, Pakistanis are now in a strong position to contribute to social causes that are priorities for them.

WWF-Pakistan efforts to engage with a large number of citizens are showing positive trends. Examples are the over 30 per cent increase in individual WWF-Pakistan members to around 22,000, and the over 100 per cent increase in Facebook fans to around 70,000. While these are important trends, this is still the "tip of the iceberg", considering the immense potential we will continue efforts in this direction.

WWF-Pakistan's marine conservation work got a boost this year, especially with enabling regional collaboration with neighbouring countries such as the Maldives and Iran to help promote sustainable fishing practices. This regional collaboration will focus on conservation of priority species such as tuna, whales, dolphins and sharks.

On behalf of the WWF-Pakistan Board we thank all the organizations and individuals who continue to provide phenomenal support to WWF-Pakistan to contribute towards improving the ecology in the country.

Khalid Mahmood  
President  
WWF-Pakistan

## A MESSAGE FROM Ali Hassan Habib

The Director General of WWF-Pakistan  
Good ideas need no ownership



This year saw the conclusion of one of the largest projects of WWF-Pakistan; the Indus for All Programme. The project received excellent external evaluations, which concluded that much of the planned objectives were met, in spite of external constraints. While the project has come to an end, there are many aspects of work that have now been integrated into the work of government, partner civil society organizations, and WWF-Pakistan itself. Examples are the established dolphin rescue facility managed by the Sindh Wildlife Department, and conservation of the *mahasheer* fish by the Himalayan Wildlife Foundation.

Efforts to raise the capacity of WWF-Pakistan in raising funds from within Pakistan, from the corporate sector and individuals, are bearing substantial results. The Global WWF Network now has a considered strategy to assist WWF offices in the South and East to build their national resource mobilization capacity, since the usual attitude of relying on western donors for funds is likely to continue to diminish in the future.

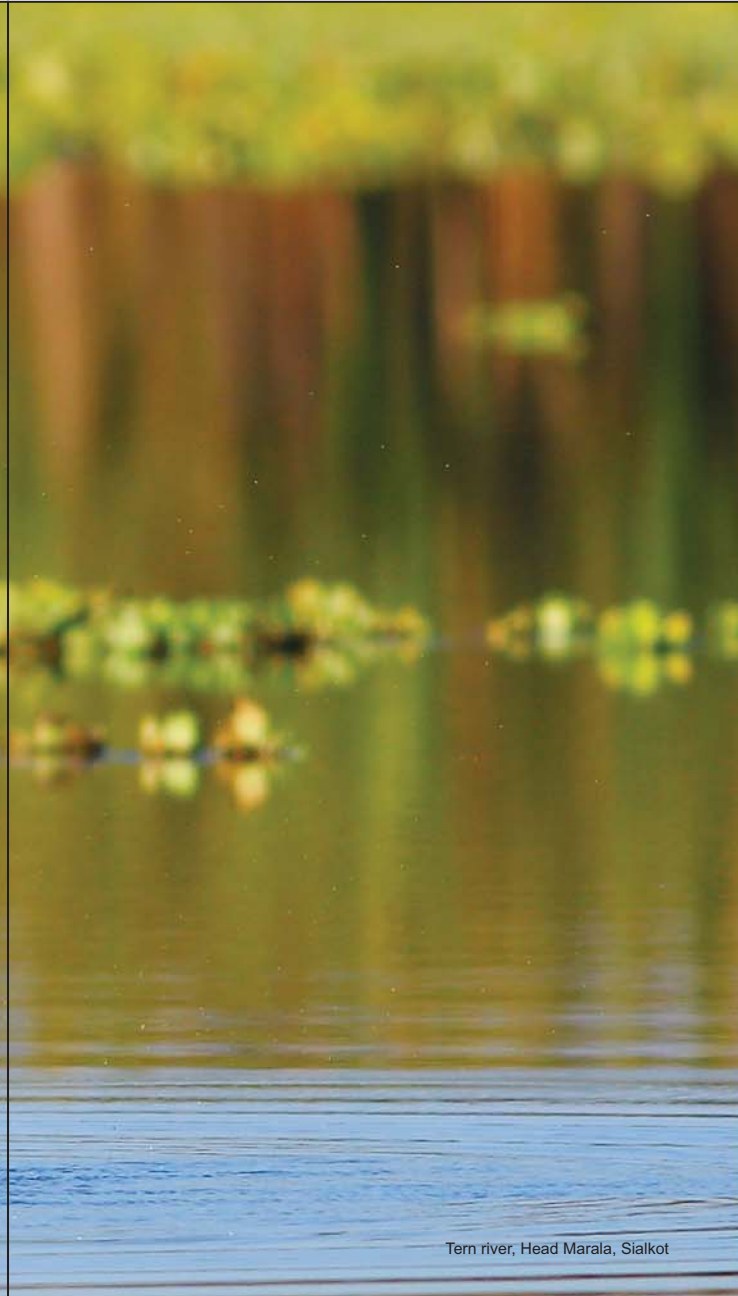
Acting on behalf of the Global WWF Network, WWF-Pakistan has formed collaborations with the governments of Iran, Sri Lanka and the Maldives to contribute towards conservation of marine resources. The focus is on making tuna fishing sustainable. An early result was achieved when the global Marine Stewardship Council certified part of the tuna fisheries in the Maldives.

With the smooth transition of the new government after the 2013 elections, WWF-Pakistan has started active engagement with the federal and provincial governments to provide assistance for various environmental initiatives. Most major political parties now clearly mention the environment as a priority in their manifesto, and some parties also give estimated targets of environmental improvement.

WWF-Pakistan wishes to invite all sectors of society to come forward and make their contributions to conserve the unique nature in Pakistan.

Ali Hassan Habib  
Director General  
WWF-Pakistan





## The Year in Focus

This year WWF-Pakistan continued exploring new avenues to protect Pakistan's environment. New companies joined the Green Office Initiative to reduce their environmental footprints, Geographical Information System data of deforestation in Murree division was completed, and Women in Conservation Awards were launched. As a part of creating environmental awareness, social media campaigns were also strengthened.

Like in previous years, health and safety of employees was ensured through trainings as well.



## The Year in Focus

### Programme Development

WWF-Pakistan sought new funding and strategic partnership opportunities with government and aid agencies, trusts and foundations, the WWF Network and other organizations. Its Programme Development department facilitated WWF-Pakistan in meeting requirements of the WWF Network including aligning WWF-Pakistan's projects and programmes with the Global Programme Framework (GPF) and selection of conservation priorities in Pakistan. It also worked to enhance the monitoring and evaluation function of the organization and conducted internal monitoring of numerous projects.

### Working with the WWF Network

WWF-Pakistan is one of the pilot national organizations that participated in a peer review self-assessment exercise carried out by WWF International. The exercise included assessing challenges and innovations of WWF-Pakistan and developing action plans for a way forward. The peer review group comprised of the CEOs of WWF-UK and WWF-Malaysia.

### Neutralizing Carbon Emissions

To meet the requirements set by the WWF Network, WWF-Pakistan offsets carbon emissions produced by all local and international staff air travel. Data for all local and international flights by WWF-Pakistan staff was compiled and neutralized by buying gold carbon credits to offset their emissions. In the period 1 July 2012 to 30 June 2013 WWF-Pakistan offset 209 tonnes of greenhouse gas emissions. All Network offices have been instructed to reduce their emissions each year and WWF-Pakistan has been steadily reducing its emissions for the last three years.

### Concepts and Proposals

In the past year, about 50 concepts and proposals have been developed with support of regional offices, conservation focal points and submitted to donors. Project proposals that were prepared are aligned with WWF-Pakistan's Global Programme Framework. These projects particularly focus on the conservation of natural resources within the ecologically important Indus and the western Himalayas ecoregions as well as projects to strengthen WWF-Pakistan's Marine Programme.

Monitoring and Evaluation (M&E) is an important part of project implementation. An M&E manual for WWF-Pakistan was also developed which defines various functions of M&E to be carried out for different scales of projects being executed by WWF-Pakistan.

### Green Office Initiative (GOI)

WWF-Pakistan's Green Office Initiative, which commenced in 2009, has been enabling offices to reduce their natural resource consumption, the cost associated with it and reducing the carbon footprint of organizations. There is also employee engagement programme that involves employees of many organizations in Pakistan becoming environmentally friendly by adopting environmentally sustainable practices.

In Pakistan, a total of 14 companies have enrolled in the Green Office Network, including Engro Polymer Port Qasim, Haleeb Foods, Mobilink, Yunus Textile Mills, Fatima Fertilizers Limited, Sialkot Dry Port Trust, and Embassy of Sweden. A total of 19 offices are successfully running the Green Office programme in their respective organizations. Most of the offices are certified with the GO diploma.

A total carbon emission reduction of 1,246 metric tonnes has been achieved by Qarshi Industries Limited, Unilever Pakistan Limited, Engro Fertilizers and Corporation Limited and Packages Limited.

Green Office trainings have also been conducted for various organizations such as Mobilink, IBA Sukkur, Engro Fertilizers and Corporation Limited and Haleeb Foods. These training workshops revolved around educating employees about green practices.

### Women in Nature Conservation Awards

Recognizing the important role women play in conservation, WWF-Pakistan initiated the Women in Conservation Award in 2012. The award acknowledges women who have made a significant contribution in the field of nature conservation at the grassroots level in Pakistan. Five awardees for 2013 were:

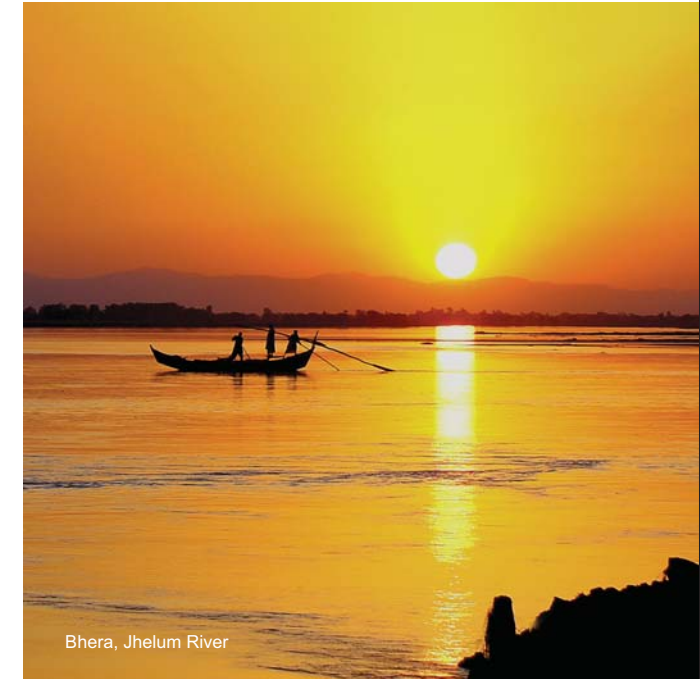
*Bibi Shannaz* from Balochistan was awarded for her devotion and dedication for the protection of trees, helping bring about a transformation into the community's mindset towards nature conservation.

*Hajira Bibi* from Keti Bundar, Sindh was awarded played an instrumental role in mobilizing female community members to take part in the management and conservation of natural resources in her community.

*Bibi Miraj* from Gilgit-Baltistan was awarded for her efforts in raising awareness about the protection of natural resources amongst the women of Hussiani Gujjal and Shimshal, Gilgit-Baltistan.

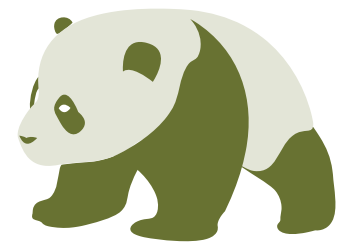
*Hameeda Keerio* from Nawabshah, Sindh was awarded for her promotion of alternative livelihood opportunities associated with tree cutting for women in her village.

*Nazeeran Bibi* from Chotiari, Sindh was awarded for her countless efforts for the economic development of women and conservation of natural resources in the area.



Bhera, Jhelum River

WWF-Pakistan works through 30 offices, including six regional offices, with a team of over 350 dedicated staff members.



Ibex, Khyber Pakhtunkhwa



### Occupational, Health and Safety

To ensure the safety of employees, WWF-Pakistan has been implementing an Occupational Health and Safety (OH&S) policy since 1 January 2010 in all its offices nationwide.

As one of the policy pre-requirements, a training of WWF-Pakistan staff in Occupational Health and Safety techniques was arranged at its head office in coordination with Pak Anti-Fire. Staff members participated in the activity and made suggestions to further improve the policy.

### Assisting the Lahore High Court: Murree Forest Case

On the instructions of the Lahore High Court, as part of the suo moto case on 27 January 2010, the Punjab Forest Department and WWF-Pakistan's GIS laboratory assessed sixty years of forest change trend analysis of the Murree Forest Division, using high resolution space borne data through modern techniques of satellite image processing. The study was funded by the government of Punjab. An atlas was also developed under the suo moto case.

The study shows a decreasing trend in the forested land of the Murree Forest Division which comprises both state managed forest and community managed *guzara* and *shamilat* forests. In *Shamilat Deh/Guzara*/private land 13 per cent (44 per cent - 31 per cent) i.e. approximately 37.6 km<sup>2</sup> decrease in the forest cover has been analyzed from 1952 to 2011. The maximum degradation took place between 1999 and 2005 which is about 6 per cent (78 per cent - 72 per cent). The study recommends concrete measures be taken to recover the encroached forest land, rehabilitate the retrieved forest and improve silvicultural practices, while also strengthening the Punjab Forest Department. There is a need for regular monitoring of the forest cover so that areas of critical importance are highlighted and appropriate measures taken, and the success of the plantation activities also need to be monitored.

According to the Food and Agriculture Organization (FAO), the annual deforestation rate of Pakistan is 2.1 per cent, which is the highest forest degradation rate in any Asian country.

For forensic support to the Court, a detailed Geographic Information System and Remote Sensing baseline mapping was conducted in close coordination with the Punjab Forest Department, Survey of Pakistan, Revenue Department and WWF-Pakistan. A baseline mapping survey was completed using Differential Global Positioning System (DGPS). The survey helped in observing the forest boundary pillars with the help of Total Stations, a modern surveying equipment which gives precise coordinates and ground measurements. The legal forest boundaries were delineated by field data and the accuracy of boundaries was assessed on ground and then endorsed by all stakeholders. High resolution satellite images of GeoEye-1 (0.46 m) were used to identify encroachments. The project has been completed in two years and a total stretch of 625 km of forest surveyed. The Punjab Forest Department has so far retrieved 518 hectares of encroached area out of a total of 1,156 hectares identified. The delineation

process identified the number of encroachers to be 2,325 in and along the boundaries of the forest currently occupying 638 ha of state forest land in the Murree Forest Division.

### Spreading the Message

With the support from Tides Foundation, a three part documentary on the floods of 2010 was developed. The documentaries traces the movement of flood water from the mountains of Swat to the plains of Kot Addu, before joining the Arabian Sea passing through Sukkur.

An anthology based on fictional stories, inspired by real life events on the floods was also published. Additionally, a workshop for journalists was organized in collaboration with the Global Poverty Action Fund (GPAF) project. During the two-day workshop, a team of journalists visited Kot Addu, Muzaffargarh district and learned about flood plain management as possible mitigation to future floods.

Amongst other publications, WWF-Pakistan's quarterly magazine *Natura*, continued to contribute to environmental awareness featuring articles on different regional environmental issues including climate change.

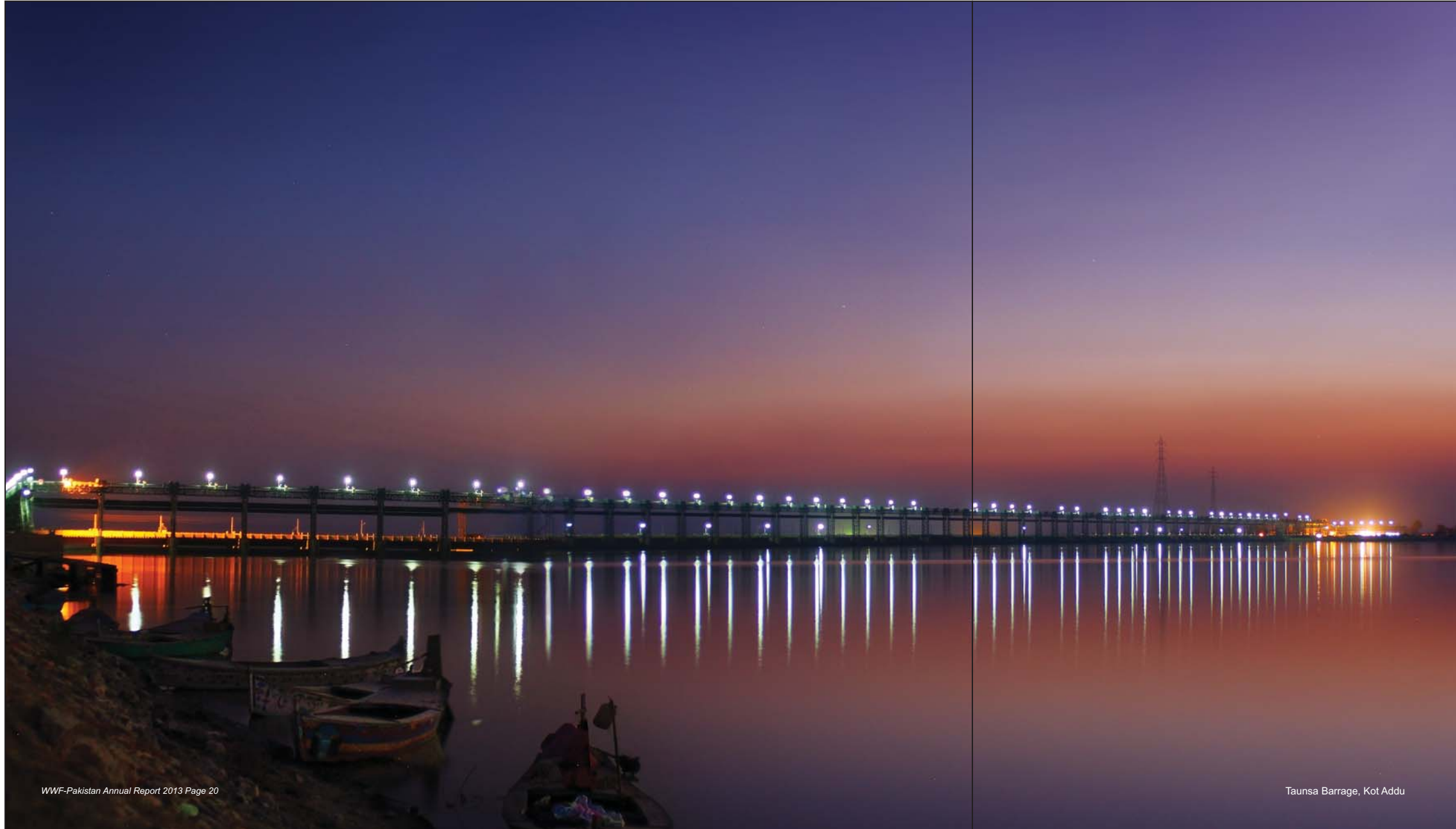
As a part of media outreach and public awareness, WWF-Pakistan continued to engage with print and electronic media on environmental issues. For this purpose, Geo, Samaa, PTV, ARY, Express News, CNBC Pakistan, Waqt News, Capital TV, Abb Tak News, Dawn News, Din News, KTN News, Aaj News, Wish Channel, City 42, and Hope TV portrayed our conservation initiatives. Newspapers including Express Tribune, Dawn, Pakistan Observer, The News, The Nation, Pakistan Today, Business Recorder, The Daily Times, The Frontier Post, The Statesmen, Jang, Daily Express, Daily Pakistan, Daily Khabrain, Daily Jinnah, Daily Awami Awaz, Daily Kawish, Daily Ibrat, Daily Appeal, Daily Sobh, Daily Khabroon, Daily Nao Sijj, Daily Moomal and Naw-e-Waqt published WWF-Pakistan news.

WWF-Pakistan also reaches out to the public through social media, utilizing popular internet based communication channels such as Facebook and Twitter. This year, WWF-Pakistan's facebook page reached over 70,000 likes and a recent nature photography contest was well received by the public.

The annual deforestation rate of Pakistan is 2.1 per cent, with ecologically important places like Murree rapidly losing forest and associated wildlife.



Short-eared owl, Zaferwal, Sialkot



## Freshwater

With the goal to conserve and sustainably manage freshwater habitats to benefit nature and people, WWF-Pakistan works to promote water stewardship and watershed management through a variety of interventions.



WWF-Pakistan Annual Report 2013 Page 22

Attabad Lake, Gilgit-Baltistan

## Freshwater

Pakistan is a water stressed country and unsustainable water use and poor water management and governance practices, in addition to the threats posed by climate change, are causing increasing water scarcity. With 1,090 m<sup>3</sup> per capita water availability, Pakistan is suspended just above the water scarcity threshold level of 1,000 m<sup>3</sup>. Already, 40 to 55 million Pakistanis are without access to safe drinking water. Pakistan's population is expected to double to approximately 350 million by 2025 which means increased pressure on water resources, particularly in urban areas, with consequent impacts on people's health, wellbeing, livelihoods and environmental sustainability more widely. The EC Country Strategy Paper for Pakistan (2007-2013) identifies growing water scarcity as a key challenge and highlights that scarcity is aggravated by pollution from various sources. It also recognizes the critical importance of good water management practices and the key role of bottom-up approaches involving all major stakeholders in achieving these.

WWF-Pakistan acknowledges the gravity of the situation and has, therefore, based its initiatives on the sustainable management of water resources of Pakistan. The Freshwater Programme of WWF-Pakistan's latest development is the launch of the Water Stewardship initiative. Water Stewardship is an umbrella term used to describe actions taken by companies with an aim to improving water efficiency in their internal operations and supply chains, while at the same time facilitating the sustainable management of shared freshwater resources. The implementation of the water stewardship concept is a gradual, step-by-step process which involves water awareness, knowledge of impact, internal action, collective action and influence governance.

According to a study conducted on the potential for water stewardship in Pakistan, 'Water stewardship will not only provide the ways and means to encounter the risk in future but it will also provide opportunities for best water management practices in the industry of the country.'

### City-wide Partnership for Sustainable Water Use and Water Stewardship in SMEs in Lahore, Pakistan

WWF-Pakistan signed a contract with WWF International in September 2012 that laid the foundations of water stewardship work in Pakistan. WWF-Pakistan strongly supports WWF International's pledge that business and government agendas be aligned towards active water stewardship in order to address the challenges of water quantity and quality. WWF-Pakistan, in partnership with WWF-UK and Cleaner Production Institute (CPI), launched the Water Stewardship Project in January 2013, with support from the European Commission.

This three-year project aims to promote sustainable economic growth and

development in Pakistan through the implementation of sustainable production and consumption practices, with a particular focus on water use and water management in high water using, cross-sectoral, urban-based Small and Medium Enterprises (SMEs). The project is based on the broader vision of mainstreaming sustainable water use and management practices in SMEs across Pakistan's main urban centres by 2025. The project will contribute towards wider efforts on sustainable production and consumption (SCP) in SMEs and water management actions being carried out in the country.

The project has successfully completed its inception phase which included a launch ceremony, an inception workshop, development of a monitoring and evaluation plan, and a communication and visibility strategy. WWF-Pakistan has also signed MoUs with the Lahore Chamber of Commerce (LCCI) and Punjab Small Industries Corporation (PSIC) in order to increase the outreach of the project.

### River Ravi Commission (RCC)

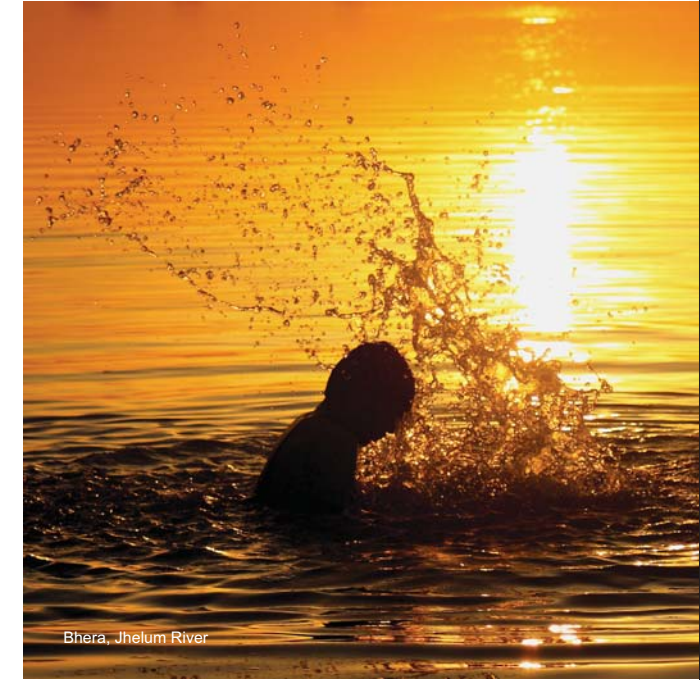
A Writ petition was submitted in April 2012 in the Green Bench of the Lahore High Court (LHC) based on the discharge of untreated municipal and industrial wastewater into the River Ravi. It stated that the major disposal of wastewater in the River Ravi occurs in the 84 kilometres stretch of the river between the Ravi Siphon and the Balloki headwork.

As a response to this petition, LHC formed a River Ravi Commission (RCC) in June 2012, to revive the ecology of the river. The commission includes members from the provincial government departments (Water and Sanitation Agency, Environmental Protection Department, Punjab), representatives from non-government organizations (NGO) and technical experts. It aims to find a solution for controlling pollution in River Ravi using indigenous wastewater treatment technologies such as bioremediation. WWF-Pakistan is a member of the commission, and is also working as its secretary.

The commission submitted an interim report to the LHC which recommended construction of wetlands on a pilot scale for 10 cusec discharge of wastewater at Babu Sabu, already under the ownership of the Water and Sanitation Agency (WASA). After a positive response during public hearings, the LHC directed the commission to proceed further for the wastewater treatment system. After deliberation, Babu Sabu was selected for the installation of the waste treatment plant, as it has a natural gradient for the flow of wastewater.

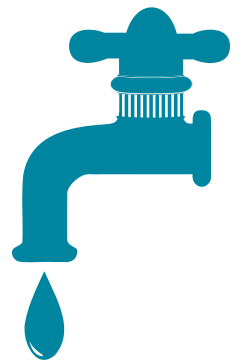
### Watershed Management Project, Nathiagali

WWF-Pakistan has been implementing a watershed management project since November 2008. The project aims to ensure availability of clean water in springs and streams for local consumption as well as to safeguard ecological flows. The project, which is being funded by The Coca-Cola Foundation, is now in its fifth phase. It focuses on stakeholders' sensitization and awareness, capacity building, research, improvement of vegetation cover on degraded slopes of catchments,

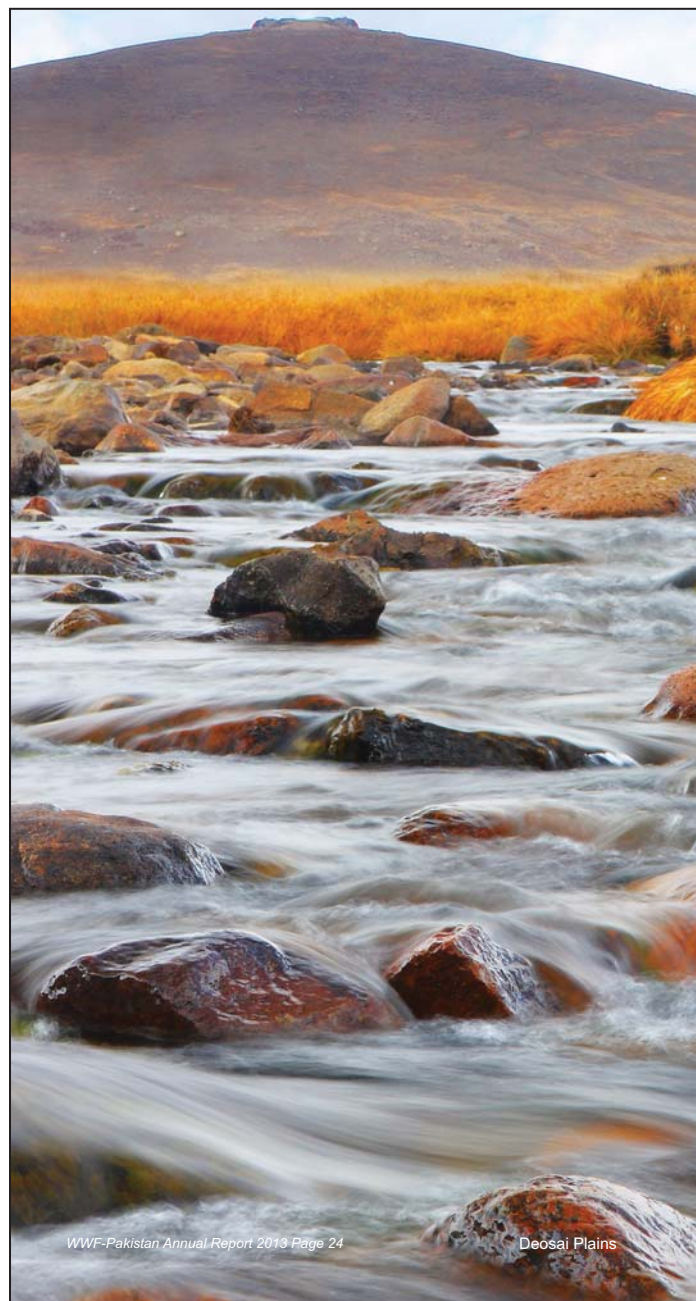


Bhera, Jhelum River

With per capita water availability in Pakistan dropping down to 1,090 m<sup>3</sup>, Pakistan is approaching the threshold level of water scarcity (1,000 m<sup>3</sup> per capita) with alarming speed.



WWF-Pakistan Annual Report 2013 Page 23



WWF-Pakistan Annual Report 2013 Page 24

Deosai Plains

bioengineering techniques of slopes and streams stabilization, water harvesting, alternate energy options, and improved farming and livelihood options, at and around Ayubia National Park located within the western Himalayas ecoregion.

Through proactive mobilization, environmental education and awareness drives, the project has created strong ownership in the local community about interventions. Village organizations, women organizations and their cluster are playing an active role in doing so. Women targeted activities such as kitchen gardening, vocational skills improvement, handicrafts making and volunteer plantations have been welcomed by the communities. Active involvement of students through nature clubs and volunteer eco-guards has also been successful, both for educating students through practical learning but also for sensitizing tourists and other target groups on conservation.

Linkages and coordination meetings among the forest department officials and local communities have increased cooperation for protection of forests and wildlife. The project carried out block plantation on 75 hectares area through the sowing of 62,100 plants and 22,200 seeds of horse chestnut trees. Besides these 20,050 forest plants were provided to farmers for planting on agricultural land. Similarly 6,000 fruit plants were provided to communities for planting on farms. So far the success rate of plantation is above 60 per cent. A total of 127 million litres of water was replenished to nature from April 2012 to March 2013 through improvement in groundwater recharge as a result of plantations, protection of forest and grass lands and improved field terracing. As a result of these activities, sediment yield is estimated to have decreased by 1,249 m<sup>3</sup> during the period April 2012 to March 2013.

Provision of support to replace cutting of *Taxus wallichiana* for use in graves has produced good results. The project has supported this initiative in ten villages. According to estimates, about 25 trees of *Taxus wallichiana* are saved per year. During this phase, the project developed a solid waste management plan for the Galliat area, which is now being implemented by the Galliat Development Authority (GDA). Sign boards and waste bins have been installed and a waste compactor has been procured by the GDA for waste collection and disposal.

### Saving Wetlands Sky High (SWSH) Programme

The Saving Wetlands Sky High (SWSH) Programme, initiated in July 2007, is a regional initiative of the WWF Network, supported by WWF-Netherlands, to mitigate some of the key threats to high altitude wetlands (HAWs) ecosystems in northern Pakistan. The third phase (2011-2014) of the programme is currently being implemented by WWF-Pakistan.

Under the programme, a number of avifauna surveys were carried out since 2011, to count and identify migratory and resident birds, in collaboration with stakeholders and line departments. Four wildlife surveys were also conducted at project sites, to monitor wetland wildlife habitat areas.

As part of education and awareness, the project celebrated significant environment days with partners such as local wildlife departments, academia,

and local community organizations. Moreover, to highlight the importance of high altitude wetlands, the SWSH project team published and distributed awareness material, i.e. 500 folders; 500 year planners; 500 fact sheets on Utter, Hundrab, Qurumbar, and Naltar; four streamers on Qurumbar, Sheosar, and Naltar lakes; and SWSH project briefs among the project site communities, government departments, NGOs, Aga Khan Development Network (AKDN) agencies and other civil society organizations.

Aiming to reduce grazing pressure on the target wetlands, alfalfa was grown on eight hectares of communal land with the help of community based organizations (CBOs) along with plantations of 16,000 fast growing multipurpose willow trees. Russian olive and poplar were planted on eight hectare of wasteland in Naltar, Gahkuch, Qurumbar and Sadpara.

Climate change risk assessment and wetland ecosystem functions and services studies of Gahkuch marshland, Jarbasso Lake, Sheosar Lake and Naltar wetlands complex was also conducted. A three-day training workshop on Climate Change Risk Management Planning and Disaster Risk Reduction has also been conducted for one of the project community.

Energy efficient stoves were provided to 18 families in collaboration with the Aga Khan Planning and Building Services, Pakistan.

Apart from climate change risk assessment studies, socio-economic studies of all project communities, peatland threat analysis, brown bear status survey of Deosai and carrying capacity study of one site has also been conducted so far. Further, the project launched breed improvement campaigns in Qurumbar, Gahkuch and Naltar. A livestock insurance scheme was also introduced in Qurumbar Valley and Deosai National Park. Improved corrals were constructed in Naltar and Qurumbar valleys.

A detailed GIS based resource inventory of 22 sites including Baha, Utter, Gahkuch marshland, Handrap, Karfaq, Naltar, Qurumbar, Rama, Rush, Shandoor, Shishalpamir and Sheosar Lake have also been developed.



Out of 239 wetlands in Pakistan, 19 have been designated as wetlands of significance by the Ramsar Convention on Wetlands.



Nowshera, Salt Range



## Forests

Pakistan has witnessed an alarming rate of deforestation in the last three decades. Considering the pressing need for protection, conserving forests of Pakistan is one of the eleven programmatic pillars of WWF-Pakistan. Our long term goal is to conserve and maintain critical forest ecosystems of Pakistan.



WWF-Pakistan Annual Report 2013 Page 28

Deodar forest, Kalam

## Forests

### Improving Chilghoza Forests and Livelihood, Suleiman Range

The Chilghoza Forest of Suleiman Range, Zhob is spaced over 260 km<sup>2</sup> and plays an important role in providing ecological and environmental services, besides being a source of income for local communities. Compared to poor quality timber harvest from Chilghoza trees, good quality Chilghoza nuts have a significant market value, both nationally and internationally. To improve and diversify livelihood opportunities of communities dependent on the forest, WWF-Pakistan took an initiative to assist the local people in processing and marketing of Chilghoza nuts. The two and a half year project is being funded by UK-Aid under the Global Poverty Action Fund (GPAF).

The project aims to conserve Chilghoza Forest and improve livelihoods through a community based integrated conservation and development approach and is successfully achieving its targets. These consist of establishment of an office, staff hiring and orientation, inception workshop, socio-economic, forest and wildlife surveys, establishment of 14 village organizations (VOs), four women groups (WGs) and two clusters, formation and engagement of nature clubs, Chilghoza post-harvest training and marketing, vegetables and wheat demonstration plots, training in improved farming, irrigation channels and water harvesting ponds, provision and planting of fruit plants, vaccination and treatment of livestock, plantation of Chilghoza and broad leaved species, and demarcation of an area for controlled grazing.

### Social, Economic and Environmental Development (SEED) Project

WWF-Pakistan is an implementing partner in the Social, Economic and Environmental Development (SEED) project for the Central Karakoram National Park (CKNP). Spanning over five years (2010-2014), the project aims to sustainably manage CKNP and the livelihood improvement of adjacent communities. The project is funded under the Pakistan-Italian Debt for Development Swap Agreement. Other partners of the project include Directorate of the CKNP, Aga Khan Rural Support Programme, Alpine Club of Pakistan and Mountains, and Glaciers Protection Organization.

WWF-Pakistan is implementing various components focusing on community-based conservation including mass awareness, mobilization, participatory conservation planning, pasture and livestock management and afforestation. During July 2012 to June 2013, WWF-Pakistan carried out a number of initiatives to create synergies between more than 20 community based organizations (CBOs) and other stakeholders of CKNP, facilitated meetings of the District Conservation Committees in Ghanche, Skardu and Gilgit. In addition to approval of five new conservation plans, the meetings resulted in stakeholders' support for implementation of valley conservation plans.

A valley conservation fund was also established in six target valleys with the

contribution of local communities and the project. The fund aims to meet expenditures regarding implementation of community developed valley conservation plans.

Livestock insurance schemes were introduced in four valleys formulating a compensation mechanism for livestock lost to large predators such as wolves and snow leopards. Livestock insurance funds have been established with project and community contributions, and a process has been devised to use interest of the funds to compensate predatory cases. The initiative aims to reduce human-carnivore conflicts. A local NGO, Baltistan Wildlife Conservation and Development Organization, has also partnered in this activity in region.

Primitive corrals (cattle sheds) in high pastures of five valleys have been improved to protect livestock from attack of large carnivores. In this regard 20 x 50 ft corrals have been developed comprising of 8 ft high stone walls and gabion-wire mesh roofs. The improved sheds aim to minimize human-carnivore conflicts in high pastures of the CKNP valleys.

Aiming to reduce grazing pressure on selected pastures, local communities in nine valleys around CKNP were provided support to grow quality fodder (alfalfa) on approximately 16 hectares. The fodder is grown on lands usually not considered suitable for cereals or other crops.

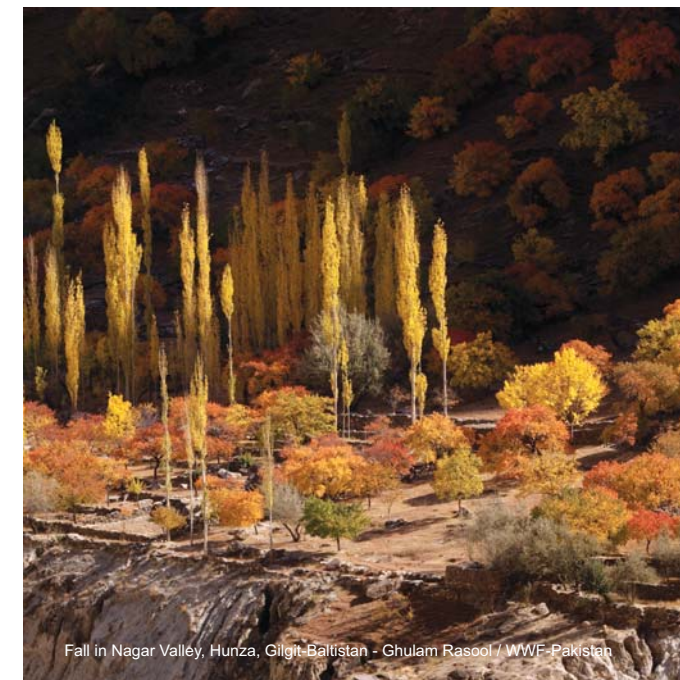
To prevent transmission of contagious diseases from domestic stock to wildlife, vaccination campaigns were organized in four target valleys covering 39,598 heads of livestock including yak, cow, goat and sheep. The Livestock and Dairy Development Department, Gilgit-Baltistan collaborated in the campaigns.

In order to protect vulnerable catchments and also to provide alternate fuelwood in CKNP valleys, a total of 253,772 plants of fast growing multipurpose trees have been planted in 17 target valleys covering about 200 hectares. Of these 95,230 plants were sown last year while the rest were planted earlier. The success rate of these plantations is approximately 70 per cent and local communities are responsible for post-planting care and replace dried or damaged plants as required.

A three-day training course was organized on best management practices for range and livestock resource in CKNP. A total of 29 participants including community members from five target valleys, field staff of CKNP Directorate and Wildlife Department, Skardu took part. Trainees now work as resource persons or extension workers among the local communities to implement pasture and livestock management related initiatives.

In pursuit of long-term monitoring of biological resources of CKNP, seasonal population surveys of ungulates were carried out in four target valleys and a baseline established of ungulates population in 18 valleys of CKNP.

The mass awareness and communication work of the project included airing of five radio programmes, celebration of Mountain Day, World Environment Day and development of a poster, four facts sheets, a table calendar and numerous banners and signboards with project messages.

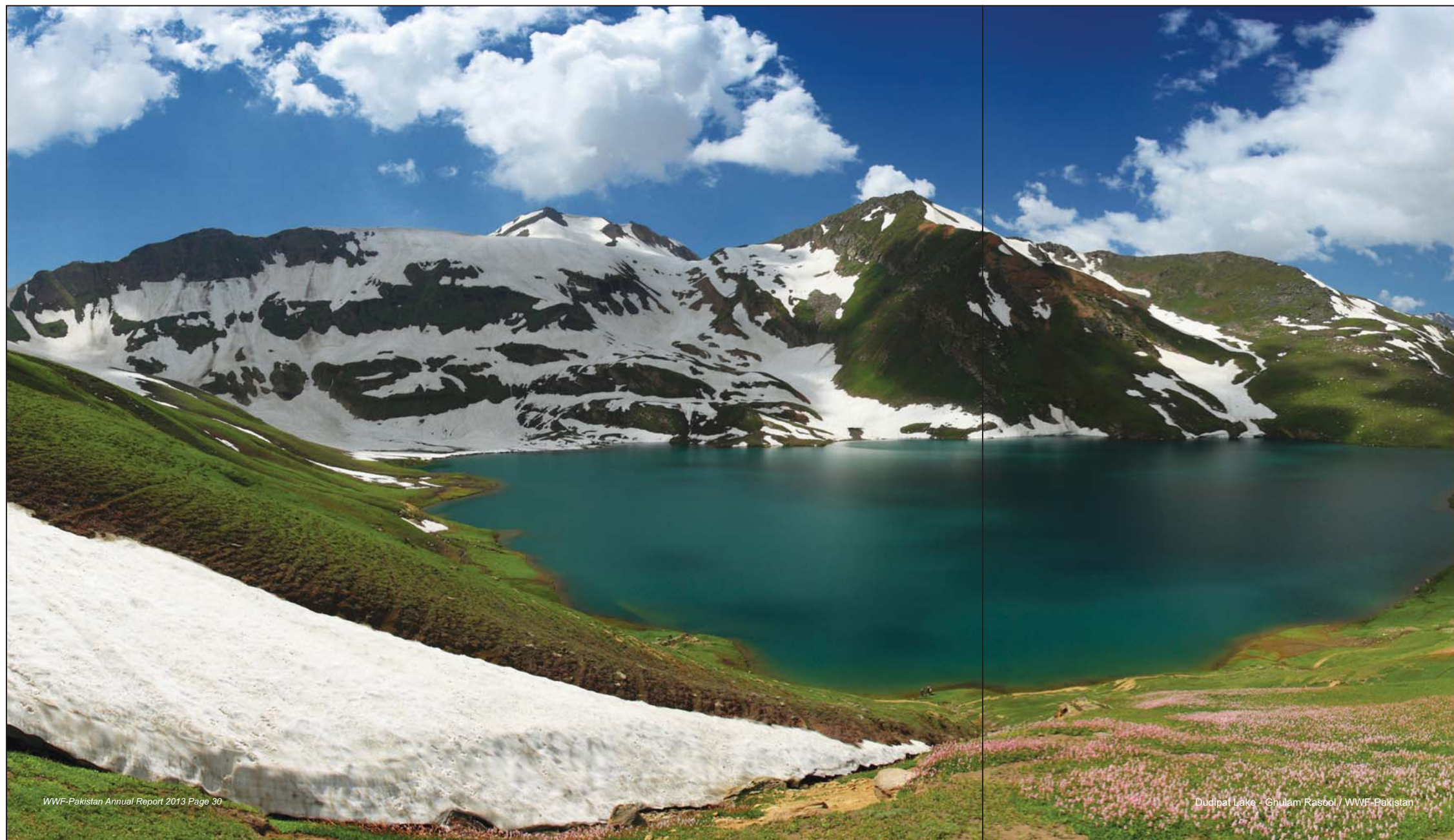


Fall in Nagar Valley, Hunza, Gilgit-Baltistan - Ghulam Rasool / WWF-Pakistan



Communities are dependent on forests mainly for fuelwood. WWF-Pakistan provides alternative energy options like biogas, and microhydel plants to local communities in order to decrease stress on natural resources.





## Climate Change

Over the past two decades, climate change has emerged as a global threat, transcending political boundaries. Although a low contributor of greenhouse emissions, Pakistan faces significant threats due to rising global temperatures. Keeping this in mind, WWF-Pakistan's climate change adaptation programme is one of its many initiatives based on this programmatic pillar. We aim to reduce the consequences of climate change on ecosystems and biodiversity in Pakistan and to promote sustainable development in the country.



WWF-Pakistan Annual Report 2013 Page 32

Keti Bundar (Thatta district)

## Climate Change

### Building Capacity on Climate Change Adaptation in Coastal Areas of Pakistan (CCAP)

In January 2011, WWF-Pakistan initiated a five-year project titled *Building Capacity on Climate Change Adaptation in Coastal Areas of Pakistan* (CCAP) funded by the European Commission. The project focuses its intervention in Keti Bundar and Kharo Chan, Thatta district, Sindh and Jiwani (primarily a research based site), Gwadar district, Balochistan. The CCAP project implementing partners include LEAD Pakistan and WWF-UK and regional associates in Bangladesh, Iran and India.

CCAP intends to reduce climate change risks faced by vulnerable communities in the coastal areas of Pakistan. This is undertaken through implementation of interventions related to adaptation and capacity building of coastal communities. In addition, the project aims to promote integrated water resource management and river basin management. The CCAP project extends its support to governance mechanisms and encourages them to become more responsive and robust while addressing climate change and its impacts.

In December 2012, CCAP compiled 11 studies and produced a delta-wide vulnerability assessment. Based on these assessments, the project plans multiple interventions in Keti Bundar and Kharo Chan between 2013 and 2015. These interventions include disaster risk reduction (raised emergency support platforms, early warning systems and mangrove plantations), value-added and sustainable human development (provision of insulated boxes, solar panels, and pond sand filtration to communities) and livelihood diversification projects (aquaculture farming, small and medium enterprises set up, saline agriculture and hatcheries). Up to September 2013, 36 solar panels and 15 insulated boxes have been distributed in the project sites. Also, mangrove plantations of 400 hectares has been initiated in Keti Bundar.

The CCAP team has developed strong stakeholder relations. Bi-annual project update meetings are held with the District Coordination Committee (DCC) headed by the Deputy Commissioner, Thatta and with the Indus Ecoregion Steering Committee (IESC) at the provincial level, headed by the Additional Chief Secretary. Also, in collaboration with LEAD Pakistan, three capacity building workshops were organized for stakeholders including community members, district government officials and journalists from Keti Bundar and Kharo Chan. The theme of these workshops was adaptation action planning for coastal communities.

In order to create awareness about adaptation needs, a media exposure visit for 25 journalists from across Pakistan was held in Kharo Chan in May 2013. The project received coverage in more than 20 English, Urdu, Sindhi and Balochi TV channels and newspapers. CCAP has also supported events such as World Environment Day, World Ozone Day, World Fisheries Day and World Forest Day,

attended by community members and district government officials. The project also developed communication material in English, Sindhi and Balochi.

### Mainstreaming Disaster Risk Reduction and Climate Adaptation in the Indus Ecoregion

As a consequence of global temperature rise due to increased anthropogenic climate change, Pakistan is likely to face more climate impacts in near future. Under the project, *Mainstreaming Disaster Risk Reduction and Climate Adaptation in the Indus Ecoregion*, WWF-Pakistan is working to enhance the adaptive capacity of farmers, fishermen and the government of Sindh by integrating disaster risk reduction (DRR) into climate adaptation policies and frameworks.

The 18-month project will undertake a productivity loss study estimating economic losses in monetary terms in the fisheries and livestock sectors of Sindh. The study will survey 500 households in Manchar and Chotiari sites. In addition, an extreme event analysis will also be carried out to assess the effects of climate variation on agriculture, fish production, and livelihoods in Sindh. The purpose of the studies will be to identify priority scientific information on climate impacts and adaptation that will be used to propose integrated disaster risk reduction and climate adaptive measures in the fisheries and livestock sectors. A political economy study will also be conducted later in the project cycle to examine adaptation and climate change policy in the political, economic and historic context of Pakistan.

Using findings from these studies, the project will also look at building the adaptive capacity of vulnerable communities (especially women) and policymakers in the Indus ecoregion area to apply new climate resilient ecosystem-based livelihood measures.

During the inception phase, several aspects of the project were finalized, including sampling design, methodological approach to conduct studies, and selection of project sites. Formation of a Technical Advisory Group was also planned to include experts from the fields of climate change and disaster management to serve as advisers on the project.

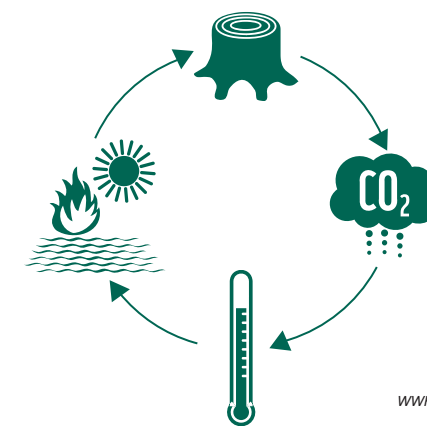
The project is awarded by global change SyStems for Analysis, Research and Training (START), with funding provided by Climate & Development Knowledge Network (CDKN).

### Determinants, Impact and Cost Effectiveness of Climate Change Adaptation in the Indus Ecoregion

In April to June 2013, over 1,500 farming households were surveyed in seven agri-intensive districts of Pakistan namely: Rahim Yar Khan, Rawalpindi, Chakwal, Jhang, Sukkur, Larkana and Sanghar. Two separate teams comprising of 10 enumerators, a GIS expert and a field supervisor participated in the surveys in Sindh and Punjab respectively. The field surveys were conducted for a micro-econometric study entitled, *Determinants, Impact and Cost Effectiveness of Climate*



Salt Range - Ghulam Rasool / WWF-Pakistan



Climate change affects local livelihoods, and has increased stress on ecosystems. WWF-Pakistan's climate change based projects help communities adapt to climate change for a secured future.



*Change Adaptation in the Indus Ecoregion.* The study is part of a three-year project (2012-2015) initiated in collaboration with the Lahore University of Management Sciences (LUMS), and is funded by the International Development Research Centre (IDRC).

The objective of the research study is to understand the impact of climate change on food security, and the nature, determinant and constraints to the adaptation process in Pakistan. The study is focused at the household level wherein the collected database will be used to undertake Ricardian type hedonic studies to estimate the extent to which profits, revenues and yields of the main crops vary with weather and climate in our sampled sites. This will help in attenuating the costs of climate change on Pakistan's agricultural production. The methodology follows similar studies undertaken in other parts of the world, and is scheduled for completion by July, 2014.

A political economy study will also be completed by LUMS with the purpose of highlighting the political, economic and historical context that have resulted in current policies and approach toward climate change adaptation. The project is supported by distinguished academics and experts namely Dr Pervaiz Amir, Dr Abid Qayyum Suleri, Seemi Kamal, Dr Mehjabeen Abidi-Habib, Dr Ghulam Rasul, Syed Ayub Qutub, in the capacity of members of technical advisory group. To date, two meetings have been conducted in September 2012 and August 2013 respectively. Additionally, the project includes two national consultative workshops, of which a second workshop is planned for February 2014.

The overall purpose is to provide field-based research findings and recommendations to guide policymakers and other stakeholders on cost-effective and politically feasible climate change adaptation and food security interventions. Under the policy uptake component, the project will develop policy briefs, and conduct dissemination meetings, to promote evidence-based policy formulation and to incorporate food security augmentation measures within government development plans. The project also envisages a number of practical interventions. In this regard, master trainers at farmer field schools will be equipped with cost effective adaptation tools through the provision of new curriculum and training manuals, and through transfer of best practices aided by exposure visits.

### Environmental Flows Study

WWF-Pakistan is conducting an environmental flows study that will evaluate the discharge and sediment regimes needed to maintain deltaic biodiversity, subsistence needs and livelihoods of deltaic communities in a changing climate.

At present, significant progress has been achieved within the environmental flows study. The scope of the study was set, stakeholders were identified, deliverables were listed, existing studies were reviewed, data collection was initiated, ecological assets were identified, conceptual models were devised and preliminary site assessments were conducted.

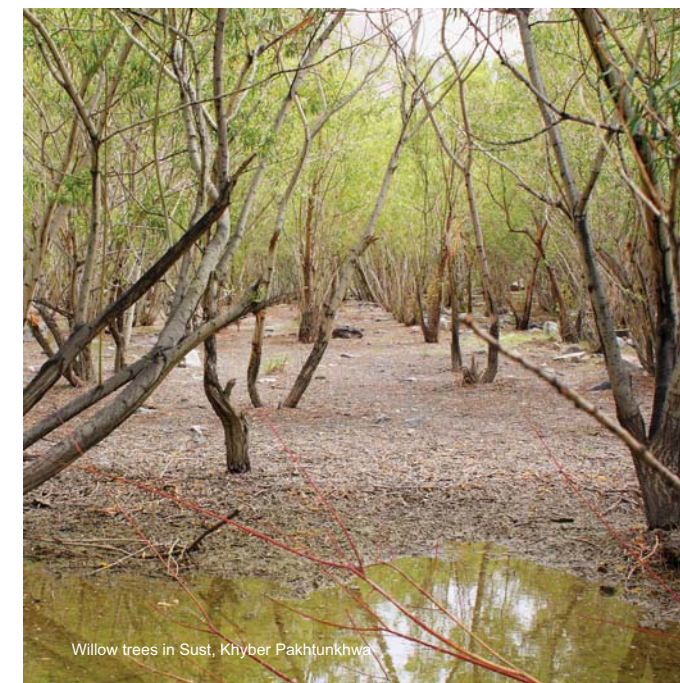
Meetings, panel discussions and planning sessions were conducted with representatives of key stakeholder institutions. These include the Federal Flood

Commission (FFC), Indus River System Authority (IRSA), Water and Power Development Authority, government of Sindh Irrigation Department, government of Sindh Planning and Development Department, and Sindh Irrigation and Drainage Authority, amongst others. Field trips, site level analysis, and focus group discussions were also carried out with community members in Kharo Chan and Kotri Barrage.

More than producing primary data, the study is heavily reliant on existing sources of information. The study aims to work and build on the existing research that have been conducted by the Federal Flood Commission on environmental flows. Currently, the project team is working on collecting primary data sources.



Climate change is a result of excessive release of carbon emissions in the atmosphere. Although Pakistan's emissions only contribute a small portion to the global count, according to the Global Climate Risk Index 2011, it is expected to be one of the top three countries severely affected by climate change. (German Watch Institute)



Willow trees in Sust, Khyber Pakhtunkhwa



## Species

One WWF-Pakistan's eleven programmatic pillars is to protect species, which it carries out by conserving minimum viable populations of selected indigenous, endemic and/or keystone genomes and species. It focuses on the conservation of wildlife species of special concern, scientifically and holistically, by promoting sustainable livelihoods, awareness and capacity building.

Long-billed vulture, Nagar Parkar, Sindh



WWF-Pakistan Annual Report 2013 Page 38

## Species

### Community-based Conservation of Snow Leopard and Improved Watershed Management Project (High Asia Project)

The High Asia Project is a regional initiative of WWF-US, implemented in Bhutan, India, Nepal, Pakistan, Kyrgyzstan and Mongolia with financial support of USAID. As an implementing partner, WWF-Pakistan has undertaken the community-oriented conservation of the snow leopard and its habitat in selected areas of Chitral district, Khyber Pakhtunkhwa and Hunza district, Gilgit-Baltistan.

Since its inception in early 2013, WWF-Pakistan initiated work on social mobilization, awareness, collaboration and research. A training was organized for herders and members of the Gilgit-Baltistan Forest and Wildlife Department on monitoring of snow leopard and prey species in Hassanabad Nullah, Hunza. Fourteen participants attended the training. As part of awareness raising initiatives, a poster competition on the significance of the snow leopard in a healthy ecosystem was organized for schoolchildren of central Hunza on World Environment Day, 2012. Similar poster competitions were organized in 11 high schools, both private and government, of central Hunza in Karimabad.

For improved understanding of the snow leopard's habitat and prey, a survey was conducted on the big cat and its prey species in Hassanabad Nullah, central Hunza. WWF-Pakistan also partnered with the Agha Khan Youth and Sports Board of Pakistan (AKYSBP) in organizing a national youth camp and conducted a day-long awareness raising session with the participants.

### Vulture Safe Zone Project

The Vulture Safe Zone project was initiated by WWF-Pakistan in January 2012, funded by the US Fish and Wildlife Service. Under this initiative a Vulture Safe Zone has been established in a 100 km diameter around the remaining Gyps vultures (white-backed vulture and long-billed vulture) breeding populations in Nagar Parkar, Sindh. This project is in-line with the overall objectives of the international consortium under the name of Saving Asian Vultures from Extinction (SAVE) of which WWF-Pakistan is also a board member. The white-backed vulture is a regional priority species for the WWF Network's Global Programme Framework and conservation initiatives are being undertaken in all range countries with different partner organizations such as the Royal Society for Protection of Birds (RSPB) and the Zoological Society of London (ZSL) in India and Nepal to preserve this species from possible extinction. WWF-Pakistan is also a member of the Vulture Specialist Group of IUCN's Species Survival Commission (SSC).

Under the project, surveys have been conducted on the availability of Diclofenac Sodium and its alternate safe drug Meloxicam in Nagar Parkar, Gyps

vulture population assessment surveys in 2011-2012 and 2012-2013 breeding seasons and the livestock and carcass availability assessments. A community based organization (CBO), Parker Foundation, has been registered for awareness raising amongst the local communities around the Gyps vultures colonies. Through the CBO, support from the community will serve as the backbone for this project which aims to become a community supported protected area for vultures.

Despite a ban on the sale and use of Diclofenac Sodium, the drug is still administered to livestock. Potency tests of Meloxicam samples manufactured in Pakistan reveal that these formulations need to be improved. Meetings have been held with ICI Pakistan in order to take appropriate measures in improving the quality of Meloxicam. Research has shown that other alternate drugs such as Ketoprofen and Aceclofenac can also be fatal for vultures in the same way as Diclofenac Sodium. The project has also integrated assessments of numerous drugs in Nagar Parkar to confirm their current status.

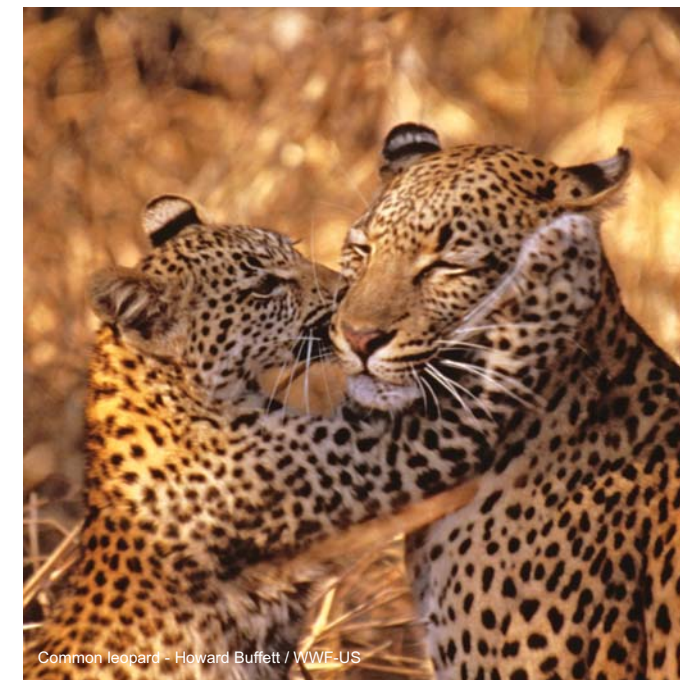
### Common Leopard Conservation Project

WWF-Pakistan launched a Common Leopard Conservation project, funded by the Human Welfare and Nature Conservation Society (HWNCS), in January 2012. The project involves research and awareness work through camera trapping in collaboration with the University of Siena, Italy and Walkabout Films (Private) Limited. Research is underway in Ayubia National Park, a relatively small Protected Area of 33 km<sup>2</sup> with an elevation range of 1,322 to 2,868 m. The project aims to make conservation assessments by compiling past and current literature, through scientific research and evaluation using Global System for Mobile (GSM) collaring and research to make media packages including documentaries, features and to raise awareness through training of locals and involving the general public in conservation issues.

The common leopard is endangered in Pakistan according to the Conservation and Assessment Management Plan (CAMP) conducted by IUCN in Pakistan. The northern parts of Pakistan including Margalla Hills, Murree, Ayubia and Thandiani, Azad Jammu and Kashmir are the last stronghold of this species. The common leopard is a top predator and helps in maintaining the population of other animals by consuming sick or otherwise unfit species.

The project includes advance research to conduct a population assessment of leopards through genetic analysis using DNA from leopard faeces. This genetic study is being carried out with the collaboration of the University of Texas, USA. The project also investigates food habits of the leopard and seasonal variation in its diet. It intends to incorporate socio-economic impacts of the leopard and is helping communities improve their livestock husbandry practices.

Genetic samples have been collected to study population structures of the leopards in the study area and 225 samples have been sent to the USA for genetic analysis that will identify individuals and their sex. The project has also successfully captured leopards in their natural habitat using camera traps for identification of individuals.



Common leopard - Howard Buffett / WWF-US

The main threats to the leopard population include habitat degradation, encroachments on protected forest, alarming decrease in its natural prey base, conflicts between humans and leopards with increasing depredation on both livestock and humans that lead to retaliatory killing by livestock owners and communities.



WWF-Pakistan Annual Report 2013 Page 39

Indus dolphin, Taunsa Barrage, Kot Addu



The project also conducts awareness sessions for communities to improve livestock management and veterinary care to protect leopards from depredation. So far nine villages have been covered and 16 awareness raising sessions have been held in schools. A total of six exposure visits have been carried out for students in the study area. A total of 15 community sessions have also been held for students in addition to a total of 11 sessions for livestock improvement.

An important project partner, Walkabout Films (Private) Limited, is developing a documentary on the common leopard covering the project activities.

### Indus River Dolphin Conservation Project

The Indus River Dolphin Conservation project, funded by WWF-Sweden, primarily focuses on the root causes of biodiversity loss by linking the protection of the Indus River dolphin with measures in the agricultural and fisheries sectors. The project aims to conserve the endangered cetacean, the Indus River dolphin (*Platanista gangetica minor*) in its core habitat through improvement of livelihood and proactive awareness raising of the fisher communities. *In-situ* conservation initiatives were taken in a legally notified Protected Area, the Indus Dolphin Reserve, hosting the highest dolphin population in Pakistan. The project area covers a 200 km stretch of the Indus River between Guddu and Sukkur barrages, in the province of Sindh.

WWF-Pakistan, under the Indus River Dolphin Conservation Project (IRDCP) organized a one-month vocational training course on advance tailoring for fisherwomen in August 2012 at the community vocational training centre, Bachal Shah Miani, Sukkur. The training was followed by a one-day enterprises and market linkage development training for 16 fisherwomen, previously trained in tailoring and embroidery. The activity was conducted in collaboration with the National Rural Support Program (NRSP). An exposure visit to the Sirtiyan Handicrafts' Display Centre and local market in Sukkur was also organized as part of the activity.

After high dolphin mortality in 2011, WWF-Pakistan improved monitoring of canals for stranded dolphins. The activity is now conducted on a regular basis throughout the year both in low and high flow seasons covering canals, active channels, lakes and the main stream of the Indus River. A total of five stranded dolphins were observed during regular canal monitoring which were rescued and released successfully in the mainstream of the river. Two community awareness sessions were also organized for fisher communities and community based organizations (CBOs) representatives of *Chattal Mirani Mahool Dost Tanzeem* and *Alam Mirani Mahool Dost Tanzeem*.

## WWF-Pakistan Priority Species

### Indus River dolphin

**Status:** Endangered (IUCN)

**Habitat:** Indus River system in Pakistan

### Common leopard

**Status:** Endangered (Pakistan Country Assessment)

**Habitat:** Moist temperate forest and areas of the Margalla Hills National Park, Murree Reserve Forest, Ayubia National Park (KP) and adjoining forest of Khyber Pakhtunkhwa and Azad Jammu and Kashmir

### Snow leopard

**Status:** Endangered (IUCN)

**Habitat:** Karakoram and Hindukush mountain ranges of Himalayas mostly concentrated in the upper reaches of Gilgit-Baltistan and Chitral

### White-backed vulture

**Status:** Critically endangered (IUCN)

**Habitat:** Nagar Parkar area in Sindh

### Marine turtles

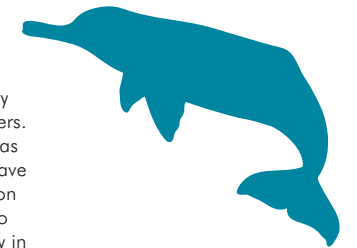
**Status:** Endangered (IUCN)

**Habitat:** Sandy, shoreline, beaches of Pakistan

### Freshwater turtles

**Status:** Threatened

**Habitat:** Indus River system including its tributaries, irrigation canals, ponds and water reservoirs



The Indus River dolphin is characterized by a long beak, rounded belly, stocky body, very small dorsal fin and large flippers. This species is also referred to as the 'blind dolphin' as its eyes have not developed a lens. It relies on echolocation (sound sensors) to find fish, shrimp, and other prey in the bottom mud.



Indus River, Taunsa Barrage, Kot Addu



## Market Transformation

The Sustainable Agriculture Programme (SAP) is a holistic, scientific approach to socio-economic transformation that endorses and respects local knowledge and values for better ecosystem management. WWF-Pakistan, through SAP, aims to help make agricultural commodities part of a sustainable industry with reduced footprint in priority ecosystems. Accordingly, projects are designed and implemented to contribute to WWF's global Market Transformation Initiative.



## Market Transformation

With exponential population growth in Pakistan over the last few decades, the demand for food and commodities has also been amplified. Economic growth has led to an improved quality of life for many but the health of ecosystems has been compromised. As a result our markets contribute significantly to deforestation, over-fishing, species loss, pollution, and water scarcity.

The WWF Network works with major companies and their supply chains to change the way key global commodities are produced, processed, consumed and financed worldwide. WWF, globally, focuses on sectors that impact the ecosystems.

The approaches employed to transform markets include:

- Developing new market standards, promote Better Management Practices (BMP), and increase the supply of certified products through multi-stakeholder engagements such as roundtables and dialogues that involve businesses, trade and industry as well as producers and other non-governmental organizations;
- Establishing company partnerships to improve the sustainability of supply chains and promote sector-wide action in this field;
- Promoting sustainable commodity investment with the financial sector.

The WWF Network market transformation initiatives include cotton, whitefish, palm oil, tuna, timber, sugarcane, paper, soy, biofuels, aquaculture, and beef. WWF-Pakistan works in the tuna, cotton and sugarcane sector.

Pakistan is the third largest producer of cotton. A vital part of the country's economy, cotton and textile make up 55 per cent of its foreign exchange earnings. It is also a water intensive crop, taking up to 4,500 litres of water to grow a kilogram of regular cotton. Three quarters of all pesticides used in Pakistan are used in the cotton sector.

Already water stressed and highly dependent on cotton crop, a pilot project was started between WWF and IKEA to promote better ways of growing cotton. Through the initiative, which is in its third phase in Pakistan, farmers have decreased water use by 37 per cent, pesticide by 47 per cent and chemical fertilizer by 40 per cent, across over 170,000 hectares of land (2010). In turn farmers have increased their income by 15 per cent, showing a promising and sustainable future for the cotton industry.

### Pakistan Sustainable Cotton Initiative (PSCI) - III

Pakistan Sustainable Cotton Initiative (PSCI), a collaboration between WWF-Pakistan and IKEA, has been working, since 2005, for the widespread dissemination of better management practices (BMPs) in cotton growing areas of Jhang, Khanewal, Bahawalpur, Lodhran, Rahim Yar Khan, and Toba Tek Singh in the

Punjab and Sukkur and Ghotki districts in Sindh. The project that started on a small scale in Vehari has expanded through participatory approaches of training of trainers (ToT) and farmer field school (FFS). There are now a total of approximately 170,000 hectares of BMP cotton cultivated by more than 37,500 trained small landholders in 2013.

This year, the project is working with 13 producer units (PU), 986 learner groups (LGs), 458 large farmer employers (LFEs), 36,141 farmers covering an area of 127,613 hectares. It is expected that Better Cotton production this year will be 83,499 metric tonnes (MT). A total of 13 producer organizations (POs) are planned under these projects and ten POs are already onboard at different maturity levels. Out of these, seven POs are being actively involved in field level implementation since 2012.

### Better Cotton Fast Track Fund (BCFTF)

In 2009, a strong group of private and public players came together to set up the Better Cotton Fast Track (BCFT) programme and an associated fund to accelerate the implementation of Better Cotton projects. The fund has contributions from the Dutch Sustainable Trade Initiative (IDH), ICCO, Rabobank Foundation, IKEA, Marks & Spencer, H&M, Adidas and Levi Strauss & Co. WWF International, Solidaridad and Ecom have been involved since the inception of the BCFT programme. The goal of the programme is to mainstream Better Cotton, with the specific target of achieving a production of 1 million metric tonnes of cotton lint (at gins), by 2015. The project has been implemented in Rahim Yar Khan, Jhang, Sukkur and Ghotki districts. It aims to involve 83,000 small and large scale farmers in effective implementation of BCI production principles and Decent Work, which involves opportunities for work which are productive and deliver fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.

After self-assessment by LGs and credibility checks more than 90 per cent of farmers qualified as Better Farmers by adopting Better Cotton System (BCS) and producing Better Cotton. In 2013, the project is working with 18 PUs, 1,494 LGs, 610 LFEs, 60,807 small farmers on an area of 227,743 hectares and expected Better Cotton is 191,707 metric tonnes (MT) by November, 2013.

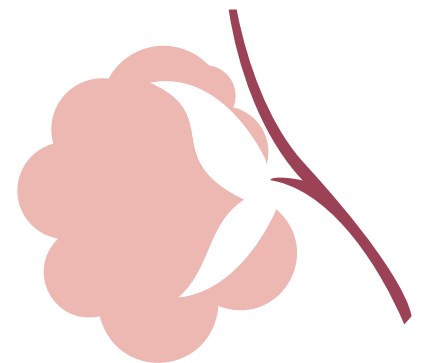
### Sustainable Cotton Production in Pakistan's Cotton Ginning SMEs (SPRING)

Sustainable Cotton Production in Pakistan's Cotton Ginning SMEs (SPRING) is funded by the European Commission (EC) under its regional initiative SWITCH-Asia. WWF-Pakistan has implemented this four-year (2012-2015) project in partnership with WWF-UK and Pakistan Cotton Ginner's Association. Through this project, WWF-Pakistan aims to target cotton ginning SMEs in Pakistan to ensure development of a sustainable cotton supply chain from the farm to final product. It is aimed that at least 500 cotton ginning SMEs in Pakistan recognise



SAP / WWF-Pakistan

As part of its Global Conservation Programme, WWF aims to help make cotton cultivation part of a sustainable industry so as to make its production environment friendly and to reduce its impacts on priority ecosystems.







the benefits of sustainable cotton production and consumption and 40 per cent of these commit to more sustainable production practices, in line with agreed better ginning practice guidelines, and supported by the procurement practices of European retailers.

WWF-Pakistan and BCI jointly conducted a one-day orientation meeting for Better Cotton ginners in Rahim Yar Khan, in April 2013. More than 100 ginners participated and showed their interest in becoming a part of the Better Cotton System.

WWF and BCI co-hosted a seminar for companies involved in sourcing cotton products in London, February 2013. The seminar, which was attended by 40 leading brands, retailers and businesses provided an opportunity for participants to discuss the risks and opportunities involved in cotton production. SWITCH-Asia Network facility also organized an annual networking meeting in 2013 in Kathmandu, Nepal. The networking meeting had a strong emphasis on strengthening project synergies and sharing of tools and methodologies existing within the SWITCH-Asia programme. In addition, three seminars on responsible choices for sustainable consumption and production were conducted in University of Agriculture, Faisalabad (UAF); National Textile University, Faisalabad (NTU); and Islamia University, Bahawalpur.

As part of the project output for linkage development between different segments of Better Cotton supply chains, a visit for step-1 ginners from Bahawalpur, Rahim Yar Khan and Sukkur to Fazal Group of Industries (spinning unit) was arranged. Step-1 ginners are those ginners the project plans to work with and are already listed under the Better Cotton System.

This year, trainings were also organized to build capacity of ginners. Cleaner Production Institute (CPI), with the collaboration with the SPRING team, started in-field (ginning factories) training of model gins in three regions. Three trainings for gin owners of step-1 ginning SMEs, covering all Decent Work themes were also conducted in three regions with the collaboration of the Central Indus Wetlands Centre. CPI also completed technical gap analysis of 45 ginning SMEs in Bahawalpur, Rahim Yar Khan and Sukkur. Forty-five individual reports covering energy, machinery, process and related issues were generated and shared with the ginning facility management. Similarly, in order to assess the status of different Decent Work criteria's in step-1 ginning SMEs, a Decent Work scoping study was conducted in collaboration with the Centre for Working Conditions and Environment (CIWCE). A code of conduct for child labour in the ginning industry was developed and shared with the Pakistan Cotton Ginning Association (PCGA) for wider dissemination to members.

### Sugarcane Improvement Project SIP-II

Sugar Producer Support Initiative (SuPSI), funded by Solidaridad, aims to add value to the sugarcane supply chain by supporting small scale farmers and farm workers and preparing them for BONSUCRO (Better Sugarcane Initiative) certification. The overall objective is to devise a mechanism in which millers and

established farming communities work together to improve the sugar supply chain, while ultimately leading to financial and economic sustainability and improved livelihoods resources for poor communities.

Around 5,000 small-scale and 60 large-scale farmers involved in project activities applied better management practices (BMPs). The project also resulted in establishment of a sustainable mechanism to facilitate and encourage uptake and widespread dissemination of BMPs. As a result, irrigation costs have been reduced by 17 per cent, fertilizer costs by 31 per cent and pesticides usage by 55 per cent, thereby resulting in an increase of 18 per cent in net profit.

Pakistan is the third largest cotton producer in the world.



Sugarcane crop, Kot Addu



## Marine

In order to mitigate the threats to the marine environment, the WWF Network has drafted a Global Marine Programme strategy. The initiatives undertaken by WWF-Pakistan fall under the broad categories defined in the Global Marine Programme.



WWF-Pakistan Annual Report 2013 Page 50

Keti Bundar, Thatta district

## Marine

### Smart Fishing Initiative (SFI)

WWF-Pakistan has been involved in support for management of tuna fisheries potential of Pakistan. With funding from the Smart Fishing Initiative (SFI) for data collection in Pakistan, WWF in April 2012, conducted a workshop in Sri Lanka for the North Indian Ocean countries; including Iran, India, Oman, the Maldives, Pakistan and Sri Lanka. The workshop was arranged by WWF-Pakistan with the support of SFI. The main purpose of the workshop was to work towards a precautionary approach and Marine Stewardship Council (MSC) certification. As follow-up of the workshop it was envisaged to formalize the Northern Indian Ocean Alliance for tuna fisheries, initiating work on a precautionary approach and developing fisheries improvement plans (FIPs) in regional countries. WWF-Pakistan decided to take the lead role in supporting MSC certification for pole and line fisheries of the Maldives, in general, and bait fisheries management, in particular.

In addition, WWF-Pakistan has implemented short to long-term projects mainly focusing on research, capacity building and organization of a North Indian Ocean alliance (Iran, India, Sri Lanka, the Maldives, Oman, Somalia and Pakistan). Research based projects include data collection from the landing centres for bridging gaps in catches, whereas capacity building has made significant progress. Two regional workshop have been organized since the April 2012 workshop.

WWF-Pakistan, with support from SFI and the European Union funded Climate Change Adaptation Project (CCAP), held a workshop from 17 to 19 January 2013 to address the region's issues pertaining to marine resources with emphasis on fish resources in the North Indian Ocean. The purpose of the workshop was to review the conservation challenges concerning the management of marine resources at a national and regional level and pave a way for improved fisheries management in the North Indian Ocean while broadening the understanding of WWF-SFI tuna coordination efforts. Delegates from the public and private sectors of Pakistan, government of Iran, WWF-SFI, MSC and government of Somalia shared current situations from their respective countries or programmes during the workshop. The workshop ended with the commitment to adopt basic principles of sustainable management and to include integrated management of coastal and marine resources at the national and regional level. Delegates strongly recommended and endorsed their participation with WWF for the management of marine resources.

During the two-day meeting, from 17 to 18 June 2013, hosted by the Republic of the Maldives and facilitated by WWF-SFI, official representatives from 17 countries expressed their priority concerns for tuna management in the Indian Ocean. All of these countries, except Bangladesh, are Indian Ocean Tuna

Commission (IOTC) members. Experts presented on topics including the principles of good fisheries management, IOTC process, harvest strategies, rights based management and aspects of international law relevant to the development of a fisheries management framework, which would need to cover both national and international waters. Participants agreed to build on the advances made at the meeting and to further bind the coastal states together by committing to two future strategic and targeted coastal states meetings. Sri Lanka and Mauritius formally offered to host these meetings.

Tuna fisheries of Pakistan are entirely dependent on gillnet. Such fisheries are known to be marred with high by-catch of species such as sharks, turtles and cetaceans. It is unfortunate that the data related to tuna fisheries is limited as well as unreliable. There is a dire need to reduce fishing efforts and urge robust recovery plans that assist in combating pirate fishing i.e. *illegal, unregulated and unreported fishing (IUU)* as the threat of overfishing is a serious issue and results are phenomenal by-catch and discards. This situation is implacable and is in need of placement of a management structure for protection of tuna fisheries and its productivity in the Arabian Sea. For this purpose, establishing Marine Protected Areas (MPA) are effective for managing coastal resources. This will form part of a no-take zone to demonstrate to stakeholders the benefit of having such areas. In lieu of this, WWF's strategy and approach centre on better governance i.e. to have a classical advocacy for building partnerships, rights and policing, advocating for 'no-take zones' and transform markets for traceability of fish stocks, and by-catch mitigation.

WWF-Pakistan and SFI is also providing support to Regional Fisheries Management Organizations (RFMO), in this instance the IOTC. WWF-Pakistan and SFI aim to continue to extend support to regional countries in fisheries management. Funding has also been secured for two regional projects, to be implemented in the Maldives, and Iran. A Memorandum of Understanding (MoU) has been signed with the Iran Fisheries Research Organization and Maldives.

### An Assessment of Cetacean Mortality in the Tuna Gillnets Fisheries of Pakistan

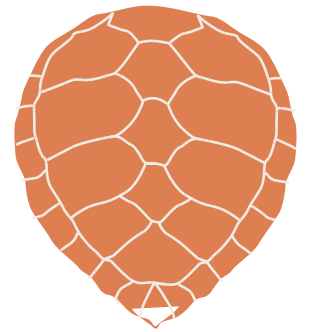
Each year several marine cetaceans are found stranded along the Pakistani coastline. The cause of their mortality remains unknown, although entanglement in nets is suspected as the primary reason. The project, which is funded by the Indo-Pacific Cetacean Research and Conservation Fund, Australian Marine Mammal Centre (AMMC), is supplementing the scarce information available about cetaceans along the entire coastline of Pakistan. A twenty-four month long assessment of cetacean mortality in tuna gillnets fishing will provide support in devising a mitigation strategy for the protection of threatened marine mammals such as Frasier dolphins (*Lagenodelphis hosei*) and humpback whales (*Megaptera novaengliae*) in Pakistan. The project focuses specifically on the issue of entanglement in gillnets, thereby addressing the often ignored issue of by-catch.

To consider the quality and quantity of data being collected two additional



Keti Bundar, Thatta district

WWF's mission is to manage, healthy, robust and full of life oceans, providing valuable services for the well-being of humanity.



WWF-Pakistan Annual Report 2013 Page 51



WWF-Pakistan Annual Report 2013 Page 52

Keti Bundar, Thatta district

surveyors were recruited. Data was collected from four boats and extensive data of cetaceans, tuna and turtle catch is currently being collected.

### Fisheries Resources Appraisal Project (FRAP)

The Marine Fisheries Department (MFD) is executing the Fisheries Resources Appraisal in Pakistan (FRAP) project, with technical support from the Food and Agriculture Organization (FAO). The aim of the project is to provide up-to-date assessment of the fisheries resources of Pakistan and to provide training and capacity building to national fisheries research and management institutions. A creek survey is one of the components of FRAP which is assessing the role and contribution of creek areas to the production and life history of marine fisheries resources. Surveys are being conducted in selected Indus Delta creeks. A total of 13 study areas have been identified for survey and data collection.

A two-week training was provided to project staff on fish identification, survey procedures and techniques and use of relevant software. Moreover, bottom topographic mapping of the project area was prepared and 21 field trips were completed. Each trip took six days. A total of 147 species were identified in the project area which starts from Issaro to Khajar creek including the lower Indus River.

WWF-Pakistan, as an implementing partner is conducting and coordinating field sampling in the selected creek study sites and assisting in designing and planning creek surveys in consultation with FAO. In addition, different partner organizations such as the National Institute of Oceanography, SUPARCO, Centre of Excellence in Marine Biology (CEMB), Geography Department of Karachi University, Pakistan Museum of Natural History (PMNH) and Marine Fisheries Department (MFD) are contributing to different elements of the programme.

### Conservation of Cetaceans in North Arabian Sea, along the Balochistan Coast, Pakistan

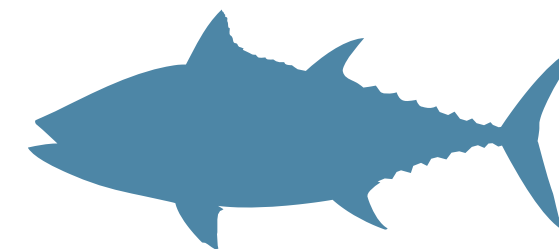
The project Conservation of Cetaceans in North Arabian Sea, along the Balochistan Coast, Pakistan; funded by the Department of Sustainability, Environment, Water, Population and Communities, Australia; aims to identify marine cetacean species and hotspots off the Balochistan coast, collect important baseline data, liaise with stakeholder communities to collaborate on knowledge and findings, and increase knowledge, awareness and understanding of marine cetaceans and habitats and their conservation needs in the local population.

This project undertook surveys to determine abundance, diversity, seasonal habitat use and assessed threats to cetacean populations. It included two boat surveys of Jiwani and Gwadar and one beach survey in Ormara, carried out in December 2012. A comprehensive Cetacean Action Plan in consultation with various stakeholders was developed.

### Cage Culture of Local Marine Species in Keti Bundar and Damb

The Cage Culture project, funded by FAO Telefood, aims to develop alternate livelihood linkages for the coastal communities to supplement income from mariculture in an attempt to reduce the pressure on wild stocks through environmentally sound cage and pen cultures.

The project was able to support artisanal communities along Keti Bundar, Sindh and Damb, Balochistan to initiate additional economic activities by demonstration of cage culture for marine fish. Under the project, a cage system consisting of six cage units was fabricated and deployed in the sea in Keti Bundar. Since Pakistan does not have a tradition of cage culture, communities were reluctant in the beginning of the projects to initiate it. However, placement of cages and their performance brought keen interest and now communities, with the help of United Community Development and Welfare Organization, Keti Bundar and other non-governmental organizations; are planning to initiate commercial scale cage farming along the coastal areas of Keti Bundar and Damb.



Overfishing is amongst the biggest threats to the world's oceans.



Keti Bundar, Thatta district



### Poverty Environment Linkages

WWF-Pakistan's conservation efforts involve working with communities to safeguard the environment. Our programmatic pillar stresses the need to establish poverty-environment linkages for the economic uplift of communities.



WWF-Pakistan Annual Report 2013 Page 56

Rahim Yar Khan, Punjab

## Poverty Environment Linkages

### Improving Livelihoods of Fisher Communities of Central Indus Wetlands Complex, Pakistan

Funded by the Department for International Development (DfID) under the Global Poverty Action Fund (GPAF) for a period of three years, this project focuses on improving the livelihoods of at least 2,000 households (approximately 16,000 people) of fishermen in three areas by addressing the poverty-environment nexus. The project is being implemented in selected areas of the Central Indus including two protected areas: Taunsa Barrage Wildlife Sanctuary and Indus Dolphin Reserve, which are also designated as Ramsar sites. The Kot Mithan-Chachran site, is located in district Rajanpur and district Rahim Yar Khan, also has significant potential.

The project was initiated with an inception and launch phase both at the provincial and site levels. Establishment of a Project Advisory Committee, setting up of a Programme Support Unit (PSU), hiring of staff, setting up of offices, signing of agreements with implementing partners, and regular coordination with the donors for updates on due diligence, were the major activities carried out during the first three months of the project.

During the implementation process, a number of activities under different outputs were initiated, which resulted in significant achievements. Under output 1, social mobilization and the establishment of ten community-based organizations (CBOs), socio-economic baseline assessments, training needs assessment (TNA), training to CBO members on project and office management, exposure visits of communities to other areas managed by the communities were major achievements of the project.

A network of 10 CBOs was established under the project, who are now proving helpful for the communities in decision-making regarding identification and implementation of different interventions. Socio-economic surveys provided baseline information about the existing economic conditions of the target communities and identified potential for future interventions.

Under output 2 of the project, livelihood development plans (LDPs) for individual CBOs were developed in close consultation with the communities while using the Livelihoods Assets Status Tracking (LAST) tool. These LDPs were further translated into local languages for easy understanding and effective implementation. In addition, TNA and market surveys were carried out. Communities have endorsed their respective LDPs which are now being implemented. Vocational training centres for each CBO are in the establishment phase in collaboration with site-level implementing partners. Skill enhancement trainings are important and are being conducted for selected members, recommended by the communities and

as per pre-defined criteria. Several other livelihood-based models mentioned in the LDPs are being implemented effectively.

Introduction of 130 biogas units and installation of mud fuel-efficient stoves to each and every targeted household has been the key achievements of output 3. The project initially targeted the installation of 50 biogas plants for fisher communities of the Central Indus Wetlands Complex (CIWC). However, based on the needs assessment of the fisher and other riverine communities, a total of 130 biogas plants were installed, benefiting 1,000 individuals, in the three project sites. In order to determine the effectiveness of the biogas plants, pre and post assessments were carried out, savings on fuelwood, health, time, finances, and labour were also calculated. Memorandum of Understandings have been signed with the CBOs for limiting natural resource use. Biogas plants were established in collaboration with the implementing partners and the trained masons from target communities. Fuel-efficient stoves have been installed at the household level in all project sites to provide further support to fishermen and reduce their fuel expenditures as well as conserve riverine forests. A total of approximately 2,000 fuel-efficient stoves are being installed that will cover all households. In addition, household level solar units are being evaluated and 100 households will be prioritized based on selected criteria. This will further support the needs and livelihoods of the target communities, resulting in building trust and confidence.

Eco-tourism initiatives are also being introduced at the three sites, to help generate funds for conservation and awareness amongst the communities and the general public. A Community Poverty Alleviation Fund (CPAF) worth Rs 10 million will be introduced in the communities (Rs 1 million per CBO) to fund interventions and also ensure sustainability.

Conservation activities undertaken so far under output 4 include the promotion of community based Protected Areas, especially the stretch between Taunsa and Guddu Barrages, the implementation of effective management of floodplains and the development of two management plans for the Protected Areas. In this regard, conservation awareness workshops and trainings have been organized for communities to enhance their knowledge base, technical skills and practical experience in order to ensure sustainable natural resource management. Species related research and management is also in process that involves protection of the Indus River dolphin, surveys of hog deer, other ecological baseline surveys and preventing illegal wildlife trade especially of freshwater turtles. In addition, specific studies related to best management practices (BMPs) in agriculture and riverine habitat, fish storage techniques and imparting trainings on making legal net size, reduction of by-catch of dolphins and turtles, sustainable fishing practices and awareness sessions have been the key achievements in the project.

### Integrated Approach to Skill Development and Provision of Sustainable Livelihoods in Chotiari, Sanghar

WWF-Pakistan; with financial support from the Community Development Programme, Planning and Development Department, government of Sindh; is implementing



Bhera, Punjab

WWF-Pakistan provides alternative energy options like biogas plants, microhydel plants and solar panels to the community.



WWF-Pakistan Annual Report 2013 Page 57



WWF-Pakistan Annual Report 2013 Page 58

Kot Addu, Punjab

this project. It aims to build capacity of the local people in sustainable management of natural resources and to provide alternative livelihoods to reduce pressure on them. It mainly focuses on three major livelihood sectors: livestock, agriculture and fisheries where better management practices (BMP) are being implemented.

Under the project, 80 ice boxes were provided to needy fishermen while, 110 heifers were distributed among poor women of the area. Moreover, a process for establishment of fish nurseries has been initiated and 15-days specialized training was conducted on vaccination, animal husbandry and better management practices. In addition to this, floriculture is being promoted in four villages in the area. The project is directly benefiting 760 households (approximately 5,320 beneficiaries) in 10 villages consisting of fishing, agriculture and livestock dependent communities in Chotiari. The project targets small land holders, livestock breeders and fishermen. It benefits underprivileged members of the communities by building assets, developing skills and imparting knowledge. Conversely, pressure on natural resources is mitigated and their sustainable use is ensured.

#### Enterprise Development in Coastal Area Communities

Enterprise Development in Coastal Area Communities, funded by Barclays Bank, has enabled fisher communities to become involved in additional income generating activities. The project aims to contribute towards poverty reduction amongst the isolated fishing communities residing in inland and remote island villages located in Ketu Bundar, Thatta district. The area has a population of 9,730 spread over 28 villages. Project activities were carried out in village Mero Dablo located near Hajamaro Creek in Ketu Bundar.

Project related activities this year included procurement of processing equipment. Four batches of product sample were produced and commercial scale production will be started from October 2013, which is the beginning of the fishing season. The product was also marketed for export and a 300 million tonnes order is in the pipeline.

#### Farmers Enterprise Groups' (FEGs) Formations in District Zhob and Shirani, Balochistan

Agribusiness Support Fund (ASF) is currently implementing a five-year USAID Agribusiness Project (UAP) with the goal to support improved conditions for broad-based economic growth, create employment opportunities and contribute to poverty alleviation through increase in competitiveness of horticulture and livestock value chains. Under the project, Farmers Enterprise Groups' (FEGs) were established, to provide an organized platform for small landholders and farmers and to build their capacity to operate on a commercially viable and sustainable basis.

Initial dialogue with farmers and market agents was completed and Rapid Market Assessment (RMA) conducted. A total of 30 FEGs were established in pre-selected seven value chains. Initial dialogues with identified farmers was completed for formation of remaining FEG. Grant overview session of IP's was also attended.

ASF monitoring visit was also facilitated. The 29 existing FEGs have been transformed to high-valued and off-season vegetables. A second reconnaissance survey was conducted to assess the potential of high-valued, off-season vegetables as well as the willingness of the target farmers. Based on the situation and suggestions from ASF, WWF-Pakistan has initiated the formation of the remaining FEGs as well as started their capacity building and proposal development for UAP funding.

#### Mainstreaming Environment for Poverty Reduction-Poverty Environment Analysis for Ecosystems: Integration of Indicators in Policy

The project proposes to evaluate poverty-environment (PE) linkages in key ecosystems, identify key ecosystem specific PE indicators to integrate within policy and development planning, and build capacity among Pakistan's government institutions (e.g. Climate Change Division, Planning Commission, Economic Affairs Division, Planning and Development, and relevant provincial departments), judiciary representatives, and other key stakeholders for effective mainstreaming of environment within poverty reduction and development efforts. Four field sites are being covered under the project for PE analysis, a rangeland ecosystem (Chotiari, Sanghar district, Sindh); a freshwater ecosystem (Taunsa, Muzaffargarh district, Punjab); a moist temperate forest ecosystem (Siran Valley, Mansehra district, Khyber Pakhtunkhwa); and a dry temperate forest ecosystem (Rama Forest, Astore district, Gilgit-Baltistan).

Linkages between poverty and environmental degradation in these four sites will be investigated and ecosystem specific indicators developed to measure this relationship. Capacity building, which is a primary component of the project, will target stakeholder groups that are directly involved with commissioning and budgeting government projects on poverty alleviation, environment, and development. Improved understanding of how poverty and environment are interlinked will facilitate integration of these factors at the policy level for sector-wise and overall government development plans, improving the efficacy of interventions for poverty reduction, development, and management of natural resources.

Field surveys to analyze PE linkages have been conducted in all four sites. Four separate questionnaires, one for each ecosystem type, were designed and a total of 909 questionnaires were filled out. Raw data from the four sites was collated within four databases, and is being analyzed to develop PE indicators. The PE indicators identified will be finalized following checks to ensure their feasibility for convenient and cost-effective periodic monitoring at different levels, e.g. village, district, provincial, and federal. PE indicators to monitoring over time at the village-level may include "volume of biomass being harvested from nearby forests by local community" for which the changes in the volume of timber, for example, can be monitored through records of the government forest department or the local timber and fuelwood market. While, "annual development budget allocated for reforestation" might serve as an appropriate PE indicator at the provincial level.

Communities rely on natural resources in absence of basic infrastructure to meet their needs. This leads to excessive environmental degradation.



Hingol National Park, Balochistan - Ghulam Rasool / WWF-Pakistan



## Disaster Response

In response to the 2010 and 2011 floods in the country, WWF-Pakistan has been carrying out efforts for flood relief, ecological assessments and rehabilitation of ecologically sensitive areas.





WWF-Pakistan Annual Report 2013 Page 62 Alipur, Muzaffargarh district - Tayyab Ahmed

## Disaster Response

### Ecological Restoration in the Flood-affected Areas of Chel-Beshigram Valley, Swat District

In response to WWF-Pakistan's ecological assessment in the flood-affected areas of Swat, the project Ecological Restoration in the Flood-affected Areas of Chel-Beshigram Valley, Swat district (part of Himalayan ecoregion) was initiated in August 2011. Funded by the WWF Network, it aims to restore and sustainably manage the flood-affected forest and stream ecosystems in selected sites of Chel-Beshigram Valley of Swat district. Major interventions include community mobilization and sensitization, eroded slopes and streams stabilization, sustainable medicinal plants harvesting and processing, plantation and protection of forests and rangelands.

To reduce pressure of fuelwood on forests, a total of 95 fuel-efficient stoves were provided to communities. Reforestation of local tree species was carried out on 16.4 hectares area while 22 hectares degraded area was fenced for natural regeneration and improvement of plant diversity. More than 200 hectares of degraded pasture was protected through a restriction on free grazing. Biological treatments were given to both streams and landslides. A total of 20 loose stone check dams, measuring 455 m<sup>3</sup>, were constructed, 11 landslides and landslips were treated with soft gabions, brushwood layering and retaining walls.

### Medicinal Plants Conservation and Restoration in Miandam Valley, Swat

The collection and selling of medicinal plants is one of the main livelihood sources of the local communities in Miandam. Due to lack of alternatives and limited resources, the inhabitants of the valley often resort to unsustainable medicinal plants' collection and processing practices, which results in low economic returns. The project aims to promote sustainable harvesting, processing, value addition and marketing of medicinal plants.

About 580 kg of five valuable medicinal plants, including *Viola biflora*, *Valeriana wallichii*, *Bistorta amplexicaulis*, *Adiantum venustum*, *Podophyllum emodi*, have been processed and packaged in the medicinal plants processing unit of Miandam Valley.

To restore vegetation cover, 140 people have been trained in proper collection and storage. For safe collection of medicinal plants and to minimize loss during collection, WWF-Pakistan provided 90 medicinal plants collection kits. These kits contain tools necessary in safe collection.

To further educate medicinal plant collectors about market trends, they were taken to Akbar Mandi, Lahore on a three-day exposure visit. A tube nursery of 12,000 bags has also been established in Miandam town where native medicinal plants and forest species can be cultivated. Fifteen species of medicinal plants

and three species of conifers were planted, and a wild patch of 1.3 hectares has been fenced while reforestation of local tree species was undertaken on 8.1 hectares area.

### Ramsar Advisory Mission

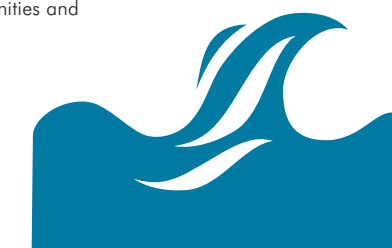
The Ramsar Advisory Mission (RAM) and experts from WWF-China visited Pakistan, in October 2012. A number of meetings were held including pre-RAM meetings with stakeholders to inform them about the objectives of the mission. The mission met with officials of the Climate Change Division, national and provincial Disaster Management Authorities, Pakistan Metrological Department, Federal Flood Commission, Punjab and Sindh Wildlife, Forestry, Fisheries and Irrigation departments. The mission also visited flood affected wetland sites such as Guddu and Sukkur barrages and the Tori Bund area where breaches occurred during the floods of 2010. It also visited Lal Suhanra National Park to assess its potential as a wetland site to absorb floodwater and to provide a storage facility for excess flood water during high floods. Key recommendations were also made by the mission.

The proposal on *Good Practices Manual - Providing Guidance for Reducing the Risk of Floods Using Natural Resource Based Techniques* was submitted for preparation of a flood manual which has been approved. The project duration is two-years and is funded by USAID. While WWF-US is the lead organization, WWF-Pakistan is a major partner in the development of the manual.



Alipur, Muzaffargarh district - Tayyab Ahmed

Floods in Pakistan, which have been associated with climate change, have caused extensive damage to communities and ecosystems.





### Engaging with the Corporate Sector

This year WWF-Pakistan continued its engagement with the corporate sector, schools, governments and other stakeholders at the national level. The organization was able to establish strategic partnerships with its three-fold objective of awareness raising, Corporate Social Responsibility and fundraising.

The team further improved its initiatives and carried out campaigns with the aim to achieve measurable conservation gains for the issues important to WWF-Pakistan. These include corporate engagements, environmental education activities, technical cooperations, joint policy work, student and employee engagement as well as sponsorships.



WWF Pakistan Annual Report 2013 Page 66

## Engaging with the Corporate Sector

### Nationwide Spellathon 2012

Launched in 1997, Spellathon, a nationwide environmental spelling competition reaches out to approximately 150,000 students and a total of 1,500 schools in more than 20 cities across Pakistan, for students in grade one to nine.

The theme of Spellathon in 2012 was waste management and energy conservation with sponsorship from Sui Northern Gas Pipeline Limited (SNGPL) and Lahore Waste Management Company (LWMC). This was the second consecutive year that SNGPL supported Spellathon by sponsoring 45,000 students in 2012 and LWMC sponsored 10,000 students.

Urdu Spellathon, for less privileged public school students, was supported by the Sustainable Agriculture Programme, WWF-Pakistan. Close to 35,000 students learned about the hazards of child labour and the significance of cotton in the agricultural sector of Pakistan through activity books.

### Travelling Nature Carnival

The Travelling Nature Carnival, launched in 1998, is designed to advocate various environmental message to the masses. This event allows students to showcase their ideas for conservation of the environment and climate safety in the form of creative artwork and 3-D models. Students also present practical concepts of green environment through different costumes and demonstrations to create awareness about protecting nature and eliminating pollution. The carnival, which takes place in Islamabad, Lahore and Karachi attracted more than 50,000 people ranging from individuals, families, schools, colleges and universities this year.

Toyota-Indus Motor Company was the exclusive sponsor of the Travelling Nature Carnival in Karachi and Islamabad for the third successive year. Additionally, WWF-Pakistan and the company ratified a partnership agreement for the initiative of Toyota School Environment Programme (TSEP), a collaborative effort to engage students and teachers of private and government schools, colleges and universities in a structured Annual Awareness Programme. Its aim is to foster a sense of individual responsibility and accountability in the future generations of Pakistan towards nature conservation. The programme hosted 250 selected schools, colleges and universities across Karachi and Islamabad.

The Lahore Nature Carnival was jointly sponsored by Tetra Pak Pakistan Limited, Shezan International Limited and Fauji Fertilizer Company Limited.

### Employee Engagement

WWF-Pakistan's Employee Engagement Programme is an initiative to work closely with the Human Resource and Corporate Social Responsibility departments of large corporations in Pakistan. This effort aims to educate and train employees on environmental conservation and to sensitize them about serious environmental challenges that the country faces.

This year, WWF-Pakistan held various engagement activities with local and global corporate organizations in Pakistan. Telenor, Pakistan participated in a one-day training session on wilderness living in Dara Jangla, Islamabad. Levis employees, participated in an interactive talk about recycling, especially that of textiles, and were taken to Lahore Zoo Safari where they received survival training, planted trees and participated in an Eco-Adventure session. UBL, Crescent Steel, Allied Bank Limited and JS Investment participated in plantation drives and beach cleaning activities in Karachi.

### Greeting Cards Campaign

WWF-Pakistan's Greeting Cards campaign is rolled out twice a year, before Eid-ul-Fitr and New Year, and consists of card designs of landscapes, mosques, flowers and wildlife species circulated through a catalogue. The catalogue is shared with 3,000 corporate partners every year who purchase cards and all revenue generated is then used to support various conservation projects.

This year the campaign was sponsored by IGI Insurance, Tetra Pak, Guard Group, Bilal Engineering, Ibrahim Fibre Limited, Berger Paints, Shezan International Limited, Thal Engineering, Millat Tractors and the Sustainable Agriculture Programme. MCB continued its support for the campaign with the purchase of 55,000 greeting cards.

Bank Alfalah also features WWF-Pakistan Panda products in its credit card rewards points catalogue.

### Earth Hour 2013

Earth Hour 2013 (EH) was celebrated globally on 23 March 2013 where WWF-Pakistan invited all Pakistanis to switch off unnecessary lights for one hour, symbolizing their commitment to conserving the planet's natural resources.

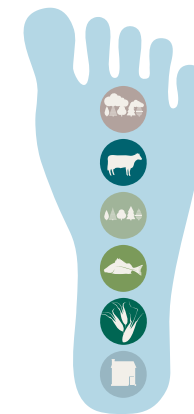
Earth Hour 2013 was supported by Qarshi Industries and Lucky Cement. Qarshi Industries, apart from being the main sponsor of the event for the third consecutive year, also encouraged its employees and management to participate in event activities. Lucky Cement organized the EH event for the first time in Pezu, Lakki Marwat district, Khyber Pakhtunkhwa.

Co-sponsor for EH 2013 was E-community. Partners included the Civil Aviation Authority (CAA), Crescent Steel and Allied Products, Philips and Unilever Pakistan.

CAA was a major contributor to the cause, as five airports of Pakistan - Islamabad, Karachi, Lahore, Peshawar and Quetta switched off all unnecessary lights to mark the symbolic significance of EH 2013.



Earth Hour ceremony - Corporate Relations / WWF-P



To reduce humanity's footprint on environment, WWF-Pakistan works with businesses by developing partnerships, transforming markets of key global commodities and promoting environmental awareness and responsible environmental practices among customers, employees, industry leaders and other stakeholders.



Levi's employee engagement during Eco-Adventure session  
Corporate Relations / WWF-Pakistan

Earth Hour ambassadors for this year were Samina Peerzada, Adnan Siddiqui, Mekaal Zulfiqar, Ayesha Omar, Faakhir Mehmood, Tapu Javeri and Frieha Altaf.

Government of Sindh as well as the Capital Development Authority (CDA) also participated in Earth Hour, helping spread its message to millions of people across Pakistan. WWF-Pakistan acknowledges the support of Sheikh Mohammad Afzal, former Minister of Environment and Alternative Energy, Sindh, for strong and overwhelming support for Earth Hour since its launch in Pakistan. The government of Sindh and CDA officially endorsed EH 2013 with 72 historical landmarks switching off their lights. These included the Mausoleum of Quaid-e-Azam, Parliament House, buildings of provincial assemblies, Faisal Mosque, 7th Avenue, D-Chowk, Daman-e-Koh, Jinnah Avenue, Constitution Avenue and Cabinet Block.

The official media partner for EH 2013, Geo TV, covered the event on electronic media. Radio 1FM91 remained the official radio promotion partners for EH 2013.

### Earth Day 2013

This year WWF-Pakistan, along with students, celebrities, doctors, professionals and families across Pakistan, took part in a massive plantation campaign to celebrate Earth Day 2013. People from 38 cities across the country organized tree plantation drives, advocacy walks, clean-up activities, educational events, art competitions and much more to protect the environment. The Earth Day campaign in Pakistan started with a pledge to plant 50,000 trees across the country, through the Save the Earth in a 'nise' way initiative. WWF-Pakistan and sponsor Pharmedo, in partnership with several institutions, planted over 150,000 trees in various cities across Pakistan, greatly surpassing the pledged figure.

Plantation events were organized in prominent schools, colleges, universities, media houses, partner corporations, government bodies and leading malls across Pakistan. Major contributors to this campaign were the Civil Aviation Authority (CAA), which planted 11,000 trees in Islamabad and Karachi. The City School network, the Roots International School System and Roots Millennium School planted over 10,000 trees. The Educators was also a prominent participant and pledged to plant 1,360 trees across the country. Another generous pledge came from AO Clinics in Karachi who planted 15,000 trees. The Punjab Forest and Wildlife Department provided support in the provision of sapplings for the campaign.

Express News, media partner for Earth Day, provided two hours of dedicated prime time coverage of the Earth Day activities across Pakistan.

### MCB Kids Club Plantation Drive

WWF-Pakistan and MCB have collaborated to promote tree plantations among youngsters under the MCB Kids Club programme. MCB encourages its clients to contribute Rs 500 to plant a sappling and support its maintenance cost for five

years. WWF-Pakistan is hopeful that this partnership will prove to be a great success and lead to a significant number of plantations in the coming years.

### Individual Membership Programme

The Individual Membership Programme encourages participation of citizens by using their individual power to bring change. Donations received through the programme help ensure support for a diverse range of projects including conservation of threatened and endangered species, pollution control, forest conservation and afforestation, freshwater preservation, climate change adaptation, coastal ecosystem balance and marine life conservation. In the year 2012-2013, 1,556 individuals joined the Individual Membership Programme.

Regular updates on social media raise environmental awareness among users and individual members, motivating them to help support various initiatives of WWF-Pakistan.

### Green School Programme

WWF-Pakistan's Green School Programme (GSP) is an environment based certification programme which engages teachers and students in modular environmental awareness programme. GSP registered 10,000 Green Students this year from 42 Green Schools across Pakistan. The schools' management, teachers and students took active part in the programme.

Roots Millennium Schools (RMS), a pioneer Green School, signed an exclusive partnership in Islamabad to register all their students for this programme. The partnership added 4,649 Green Students. The school's management and students are always at the forefront in participating and organizing campaigns with WWF-Pakistan, including Earth Hour.

Lahore Grammar School, Paragon Campus; Lahore Grammar School, 31 FCC; Beaconhouse School System, Johar Town Junior; Jadeed Dastagir, Ideal High School, Gujranwala; and Forman Christian College endorsed the Green School Programme this year from Lahore.

Genesis School; The City School, Junior D; The City School, Gulistan-e-Johar; The City School, Gulshan B (2-4); The City School, Gulshan B (5-6); and The Indus Academy registered for the programme from Karachi.

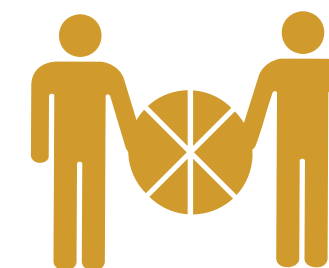
GSP also organized a Farhan Saeed concert at Beaconhouse School System, Multan.

Toffee TV and GSP signed an agreement to conduct hands-on environment awareness activities for students of grade one to five in Green Schools based in Karachi.

This year the programme also engaged students by organizing a national arts competition, in which 3,000 Green Students participated from across Pakistan. Shahsons sponsored colourpencil boxes for participants of the competition. Radio1, FM91 and GEO News were the media partners of the event.

An Earth Hour inauguration ceremony was conducted in a Green School in

WWF-Pakistan establishes strategic partnerships with its three-fold objectives of awareness raising, Corporate Social Responsibility, and fundraising.



National Arts Competition, Islamabad - Corporate Relations / WWF-Pakistan



Eco-Internship students holding participation certificates  
Corporate Relations / WWF-Pakistan

each region across Pakistan. Ambassadors including Tapu Javeri and Faakhir Mehmood attended the ceremonies in their respective regions. The City School, Shalimar campus hosted the Earth Hour inauguration with Faakhir Mehmood where they formalized their initiation into the Green School Programme.

Hundreds of Green Students participated in a skill development, adventure based series of outdoor activities as a part of the Eco-Adventure initiative for children.

All Green Schools celebrated Earth Day with great energy. Approximately 1,000 sapplings were planted by Green School students at WWF-Pakistan's project site in Lahore Zoo Safari Park. This plantation drive was led by Beaconhouse School System, Garden Town Campus; whereas in the North region, Roots Millennium School led the drive by planting over 1,300 sapplings.

This year's Green School activities concluded with a summer camp that was organized in WWF-Pakistan's head office in Lahore.

### Eco-Internship Programme

WWF-Pakistan's Eco-Internship Programme provides students with opportunities to learn about WWF and the environment, highlighting possible career paths. Students go through rigorous five-day internship sessions, designed according to the participants' age and academic interests. The session incorporated environmental challenges and various hands-on activities. An interactive exposure visit was also a part of the internship programme this year.

The Eco-Internship Programme was a success with the participation of leading schools including Beaconhouse School System; The City School; International School of Choueifat; Scarsdale; Ibn-e-Sina, Lahore; The Educators, Lahore; Foundation Public School; DA Model School; Roots Millennium School; Guidance House, Mirpur; Froebels International School; AMN school; and various branches of Lahore Grammar School from across Pakistan. Colleges and universities which participated in the Eco-Internship Programme included Dawood College of Engineering and Technology, Iqra University, Nixor College, Institute of Business Administration, Institute of Business Management, National University of Science and Technology (NUST), FAST, Karachi University, Bahria University, Kinnaid College for Women, Lahore College for Women University, Government College University Faisalabad, Air University and Quaid-i-Azam University.

Lotte Chemical Pakistan Limited sponsored the programme for the third consecutive year supporting 1,500 students in Karachi for Eco-Internship, 2012-2013.

Samaa Radio was the official radio partner of the Eco-Internship Programme this year.

### Reaching out through social media

WWF-Pakistan focused on its social media outreach with support from the Asia Pacific Growth Strategy (APGS). A three-month Calibration Campaign, from March 2013 to June 2013, led to 30,350 plus new likes on Facebook in 93

days, an average of 326 likes per day. With an 83 per cent growth in fan base, Facebook currently has over 70,000 fans. More than 900 of these fans have shown their intention to become WWF-Pakistan members.

The WWF-Pakistan Facebook page increased fan activity on Earth Day 2013 with 573 total page views. After the event 1,186 people talked about it on Facebook, and 126 people liked the event update. The Earth Day campaign had a reach of 23,414 fans.

Another initiative taken through the WWF-Pakistan Facebook page was the Capture Pakistan Photography contest. With Tapu Javeri, renowned photographer and campaign ambassador, the contest encouraged photographers of all ages to participate. It led to 1,175 total page views in two months and 28,951 likes, resulting in a total of 780 submissions.

WWF-Pakistan also engages on Twitter to stay connected with its followers. The page currently has over 1,000 followers. A dedicated hashtag, #EarthHourPK, helped create awareness on WWF-Pakistan's energy conservation efforts on the day. There were over 8,000 re-tweets regarding the event.



Students engaged in Eco-Internship session, Karachi  
Corporate Relations / WWF-Pakistan

As of 30 June 2013 WWF-Pakistan's Facebook page has over 70,000 likes.





### Scientific Committee

The Small Grants Programme, managed by the Scientific Committee, addresses environmental issues by providing technical and financial support, empowers communities, and promotes environmental research. The grant supports innovative conservation initiatives for priority species and ecosystems.



## Scientific Committee

### Small Grants Programme

Since 1986, the Small Grants Programme (SGP) has supported grassroots organizations and researchers to strengthen efforts to conserve threatened and endangered species and high priority ecological areas covering forests, freshwater and marine ecosystems and to reduce the impact of human activities on the ecosystem. Under this programme, more than 400 projects have been successfully completed with an award of Rs 50 million. The Scientific Committee (SC), comprising of eminent scientists from diverse backgrounds, administers the programme.

This year 20 different projects were funded by the SGP:

Project Title	
1	Student Research Grants Programme - Punjab and Gilgit-Baltistan
2	Student Research Grants Programme - Sindh and Balochistan
3	Student Research Grants Programme - Khyber Pakhtunkhwa
4	Population and Distribution Estimation of Musk Deer in National Park Gurez, AJK
5	Contribution to the Red List of the Plants of Pakistan: Conservation Status of Endemic and Rare Phanerogams of Naltar Valley and Adjacent Areas, Gilgit-Baltistan
6	Study of the Co-linkages of the Pond Areas and the Socio-economic Impacts on the Ecology of the Pond Areas of Chashma Barrage on Indus River
7	Assessment of Chilghoza Forests Ecosystem and Associated Biodiversity in South Waziristan Agency
8	Financial Support for Belour Advisory and Social Development Organization (BASDO), Gilgit-Baltistan
9	Status and Conservation Evaluation of the Vulnerable Western Tragopan ( <i>Tragopan melanocephalus</i> ) in a Previously Unexplored Area, the Jagran Valley, Azad Jammu & Kashmir (AJK)

- 10 Plantation of *Ficus* Trees (Banyan, Peepal, and Fig) for the Restoration of Habitats of more than 100 Reptilian, Avian and Mammalian Species in District Kasur
- 11 Setting up of Sustainable Protection and Revenue Collection for Mahseer National Park
- 12 Conservation of Chilghoza and Olive in Doyan Valley, District Astore, Gilgit Baltistan
- 13 Shimshal Action Research and Education Programme
- 14 Community Based Conservation of Common Leopard in AJK
- 15 Status Survey and Protection of Asiatic Black Bear in Diamer, Gilgit-Baltistan
- 16 Designing and Printing of the Illustrated *Field Guide to the Raptors of Pakistan*
- 17 Restoration of Ecology of River Ravi by Pollution Abatement Practices
- 18 Designing and Printing of the Illustrated Handbook *Ecosystems of Pakistan* in Urdu Language, Second Volume
- 19 Status and Assessment of Impact of Pollution on Amphibian's Population of Lahore
- 20 Baseline Studied to Determine the Current Population and Illegal Poaching of the Indian Pangolin in Pothohar Region

As part of the partnerships with the Pakistan Botanical Society and Zoological Society of Pakistan, internationally recognized platforms to showcase research of Pakistani scientists, SGP provided partial support in organizing the 34<sup>th</sup> Pakistan Congress of Zoology and the third International Conference of Botany.

While realizing the need to enhance capacity of local organizations in order to strengthen grassroots nature conservation efforts, two capacity building workshops on project proposal development for community based organizations (CBOs) and non-governmental organizations (NGOs) of Balochistan, Swat and Azad Jammu and Kashmir were also organized. These workshops were attended by representatives of more than 30 organizations and aimed to familiarize participants about the natural resources, current conservation issues and also provide a detailed overview of project proposal development. WWF's vision was also shared during the workshops as well as its conservation efforts and details of the Small Grants Programme.



Ruddy shelduck - Ghulam Rasool / WWF-Pakistan

WWF-Pakistan promotes research through the Small Grants Programme. More than 400 projects have been funded by the grant to date.



# Corporate Donors

## Exclusive Members

WWF-Pakistan's Exclusive Members make donations of Rs 100,000 and above.

1. Beaconhouse School System
2. Unilever Pakistan Limited

## Premier Members

WWF-Pakistan's Premier Members make donations of Rs 25,000 to 99,000.

3. Adamjee Automotive
4. Atlas Honda Limited
5. Cherat Cement Company Limited
6. Crescent Steel and Allied Products Limited
7. Fauji Fertilizer Company Limited
8. GlaxoSmithKline
9. Global SeaFood Marketing
10. Ibrahim Fibres Limited
11. Nestle Pakistan Limited
12. Packages Limited
13. Pakistan Beverage Limited
14. Pakistan Petroleum Limited
15. Samira Fabrics (Private) Limited
16. Tetra Pak Pakistan Limited

## Regular Members

WWF-Pakistan's Regular Members make donations of Rs 10,000 to 24,999.

- |   |   |
|---|---|
| 17. AGP (Private) Limited                             | 26. English Biscuit Manufacturers (Private) Limited |
| 18. Amreli Steels (Private) Limited                   | 27. Engro Fertilizers Limited                       |
| 19. Anis Ahmed & Brothers                             | 28. Engro Foods Limited                             |
| 20. Anwar Khawaja Industries (Private) Limited        | 29. Engro Polymer & Chemical Limited                |
| 21. Automotive Spares & Accessories (Private) Limited | 30. Engro Powergen Limited                          |
| 22. BSN Medical (Private) Limited                     | 31. Fatima Fertilizer Company Limited               |
| 23. Chiesi Pharmaceutical                             | 32. Golden Harvest                                  |
| 24. Coca-Cola Beverages Pakistan Limited              | 33. Haleeb Foods Limited                            |
| 25. EFU Life Assurance Limited                        | 34. Homeopathic Stores & Hospital                   |



35. IBA Sukkur
36. Indus Motor Company Limited
37. Industrial & Mechanical Engineers
38. International Industries Limited
39. Irfan & Irfan
40. Ittehad Chemicals Limited
41. J & P Coats Pakistan Private Limited
42. JDW Sugar Mills
43. James Finlay Limited
44. Karam Ceramics Limited
45. Kot Addu Power Company Limited
46. Malik Auto & Agricultural Industries
47. Merit Packaging Limited
48. MIMA Leathers (Private) Limited
49. Mitsui & Co.
50. Mobilink Pakistan
51. Muhammad Shafi Tanneries (Private) Limited
52. Nuricon Union (PTE) Limited
53. Oxford University Press
54. Pak - Arab Refinery Limited
55. Pak Kuwait Textile Limited
56. Pakistan Cables Limited
57. Pakistan Refinery Limited
58. Pearl Continental Hotel

59. Popular Chemical Works (Private) Limited
60. Qarshi Industries Private (Limited)
61. S. Fazalilahi & Sons (Private) Limited
62. Samin Textile Limited
63. Shahtaj Sugar Mills Limited
64. Shezan International Limited
65. Sialkot Dry Port Trust
66. Siddiq Leather Works (Private) Limited
67. Sufi Group of Industries
68. Tapal Energy Limited
69. Thal Engineering
70. Thal Limited - Pakistan Papersack Division
71. The Embassy of Sweden
72. Tri-Pack Films Limited
73. United Energy Pakistan Limited
74. Veer Corporation
75. Vikor Enterprises Private Limited
76. Yunus Textile Mills
77. Zulfeqar Industries Limited



## Board Members July 2012 - June 2013

### President Emeritus

Syed Babar Ali  
Packages Limited

### Vice President Emeritus

Brig Mukhtar Ahmed  
Houbara Foundation International Pakistan

### Khalid Mahmood

President  
WWF-Pakistan

### Syed Mahmood Nasir

Inspector General of Forests  
Government of Pakistan  
Climate Change Division

### Syed Hyder Ali

Managing Director  
Packages Limited

### Dr Feriha N. Peracha

Consultant  
Assessment Advisory and Remedial Centre

### Hasan Irfan Khan

Advocate Supreme Court  
Irfan & Irfan

### Ahmer Bilal Soofi

Advocate Supreme Court  
Ahmer Bilal Soofi & Co.

### Rameeza Majid Nizami

Deputy Managing Director  
Daily Nawa-i-Waqt



Front row left to right  
Dr Zabta Khan Shinwari, Dr Anwar Nasim, Dr Feriha N. Peracha, Khalid Mahmood, Lubna Farooq, Ahmer Bilal Soofi and Hasan Irfan Khan

Back row left to right  
Dr Ejaz Ahmad\*, Anwar Naseem\*, Syed Mahmood Nasir, Samad Dawood, Ali Hassan Habib & Dr Ghulam Akbar\*

\* Senior Director, WWF-Pakistan

### Dr Anwar Nasim

Executive Secretary  
Pakistan Academy of Sciences

### Spenta Captain Kandawalla

Consultant  
Assessment Advisory and Remedial Centre

### Dr Zabta Khan Shinwari

Professor  
Department of Plant Sciences,  
Quaid-i-Azam University

### Samad Dawood

Chief Executive Officer,  
Dawood Corporation (Pvt) Limited

### Lubna Farooq

Chief Executive Officer  
De Goodar Shirkat

### Hamid Zaman

Managing Director  
Sefam (Private) Limited

### Ali Hassan Habib

Director General  
WWF-Pakistan

### New Board Members after July, 2013

#### Atif Aslam Bajwa

President and CEO  
Bank Alfalah Limited

#### Zehra Hyder Ali

Chief Executive Officer  
Ghonsla

## Governance and Management

The WWF-Pakistan Board of Governors is a team of people committed to conserve and improve the unique natural resources of Pakistan. These individuals bring with them diverse expertise in business, science, policy, health and law. In the last year, three board meetings were held.

The board met, in Lahore, to develop key performance indicators for the board and to clarify its role in supporting the WWF-Pakistan five years Strategic Plan 2010-2015.

During the second meeting, also held in Lahore, the board was updated on the organization's performance ranking by the Pakistan Centre for Philanthropy. Among 150 organizations WWF-Pakistan was ranked amongst the highest. WWF International monitored seven key performance indicators which were ranked high. The Board also approved the WWF-Pakistan Women in Nature Conservation Awards for five recipients. A field visit to the mangrove forests of the Indus Delta was also proposed.

The third board meeting was organized at Kornagi Fish Harbour, Karachi in April. During the meeting two new projects were approved (impact of pollution on amphibians in Lahore and collaboration with tourism development cooperation of Punjab). The Fisheries Resources Assessment of Pakistan project was also introduced and launched. The group also visited Pitti Creek where trawling was demonstrated.

During the year, Rab Nawaz and Moazam Khan joined WWF-Pakistan's Scientific Committee. Spenta Captian Kandwalla, Hamid Zaman and Dr Anwar Nasim completed their terms as board members.

## Balance Sheet

as of June 30, 2013

FUNDS	2013 Rupees	2012 Rupees
General Fund	67,220,038	55,753,440
1001 The Nature Trust <sup>(1)</sup>	15,003,983	15,003,983
Scientific Committee Fund <sup>(2)</sup>	7,802,174	6,062,057
Restricted Funds <sup>(3)</sup>	36,651,685	15,381,414
<b>Total</b>	<b>126,677,880</b>	<b>92,200,894</b>
<b>REPRESENTED BY:</b>		
Fixed Assets <sup>(4)</sup>	74,002,321	48,677,641
Investments <sup>(5)</sup>	126,761,227	72,900,336
Current Assets	325,126,639	429,818,175
	525,890,187	551,396,152
Current Liabilities	385,881,746	451,936,673
Liabilities against Assets Subject to Finance Lease	5,033,376	1,226,495
Employee Retirement Benefits	8,297,185	6,032,090
	399,212,307	459,195,258
<b>Total</b>	<b>126,677,880</b>	<b>92,200,894</b>

Based on accounts audited by A.F. Ferguson & Co. Chartered Accountants, a member firm of the PwC Network

- 1001 The Nature Trust is an endowment fund.
- Scientific Committee Fund is a small grants fund for researchers and scientists. Money raised from national fundraising is used to fund different small projects with a maximum funding of Rs 300,000 annually per project.
- Restricted funds are received from various donors such as Government and Aid Agencies, WWF Network, Corporates and Trusts and Foundations to execute specific projects.
- Fixed Assets are stated at cost less accumulated depreciation. Depreciation is charged on the historical cost of an asset over its estimated useful life.
- Investments: The money set apart and kept unutilized, invested in financial institutions as short term and long term investment etc. Investments are stated at cost. Income from investments is recognized when the right to income on such investments accrues to fund.

## Income and Expenditure

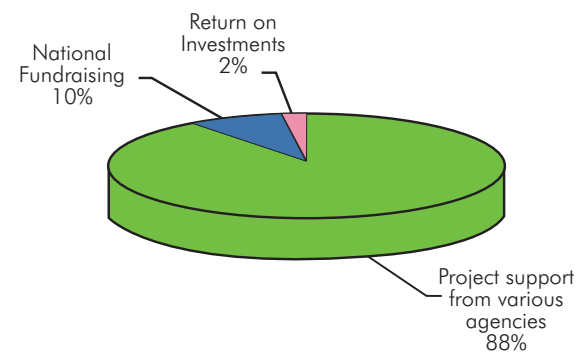
for the year ended June 30, 2013

INCOME	2013 Rupees	2012 Rupees
Project support from various agencies <sup>(1)</sup>	622,277,891	743,700,320
National Fundraising <sup>(2)</sup>	66,534,928	52,639,787
Return on Investments	16,551,211	18,630,463
<b>Total</b>	<b>705,364,030</b>	<b>814,970,570</b>
<b>EXPENDITURE</b>		
<b>Global Programme Framework <sup>(3)</sup></b>		
Species	43,449,011	30,027,282
Freshwater	72,099,730	142,494,094
Commodities	142,164,479	89,159,471
Energy / Carbon	19,783,048	102,406,935
Places	34,752,777	63,613,296
Priority drivers	14,846,648	-
Others	56,048,792	34,064,115
	383,144,485	461,765,193
<b>Non Global Programme Framework <sup>(4)</sup></b>		
Conservation, information, education & public policy	183,185,305	198,434,549
Fundraising	51,163,395	34,420,714
Administration	35,656,945	42,236,271
Depreciation	17,736,914	25,873,306
<b>Total</b>	<b>670,887,044</b>	<b>762,730,033</b>
	34,476,986	52,240,537

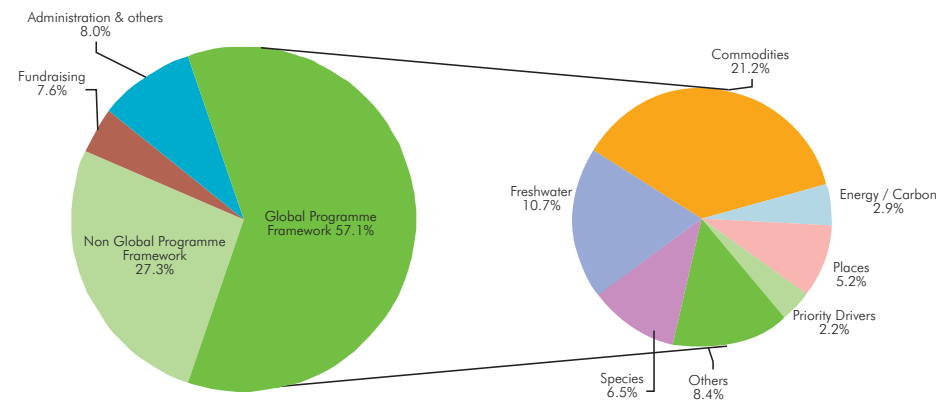
Based on accounts audited by A.F. Ferguson & Co. Chartered Accountants, a member firm of the PwC Network

- Project support from various agencies includes funds accrued from donors such as Government and Aid Agencies, WWF Network, Corporates and Trusts and Foundations during the financial year.
- National Fundraising includes the donations generated through various campaigns such as Spellathon, Nature Carnival, Earth Hour, Earth Day, Individual Membership Programme, Eco-Internship, Green School Programme and Corporate Engagement etc.
- WWF Network has organized global conservation efforts into Global Programme Framework which focus the conservation programme around two meta goals;
  - Biodiversity conservation covering priority places and species;
  - Reduce ecological footprint, impact of people on the natural environment.
- Non Global Programme Framework reflects the expenditures incurred on projects initiated to address the national conservation priorities.

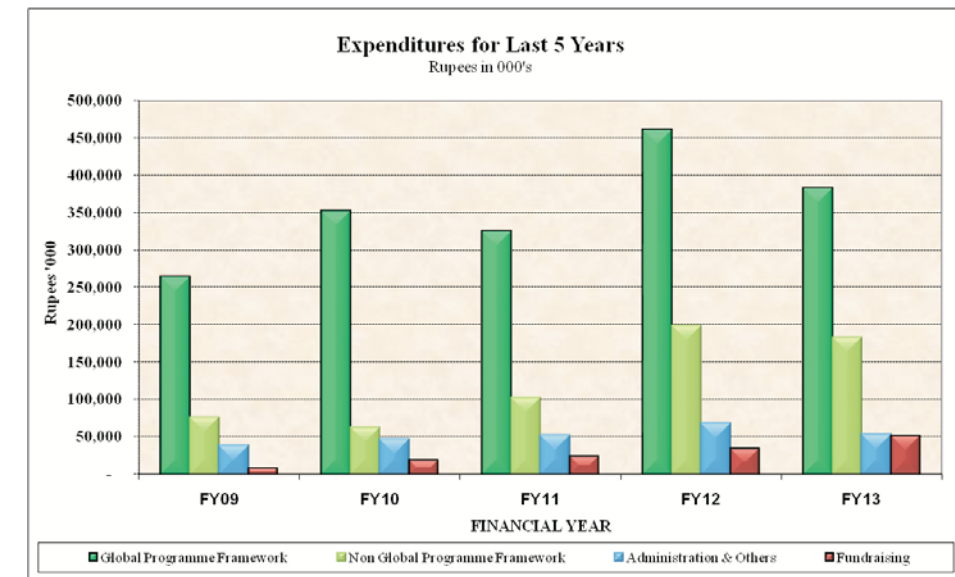
## Income For Financial Year 2013



## Expenditures For Financial Year 2013



## Expenditures for Last 5 Years (Rupees in 000's)



WWF-Pakistan came into being in 1970, and has been working to conserve Pakistan's natural resources ever since.

The organization works through 30 offices, including six regional offices, and a team of over 350 dedicated staff members.



Our greatest responsibility is to lead the way in conserving Pakistan's rich natural diversity so that future generations can continue to benefit from them.

WWF-Pakistan carries out conservation work according to the Global Programme Framework which includes biodiversity and human footprint meta-goals.



**Why we are here:**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

[www.wwf.org](http://www.wwf.org)

[info@wwf.org.pk](mailto:info@wwf.org.pk)



WWFPak



WWFPak

