



WWF®

PAKISTAN



ANNUAL REPORT 2019

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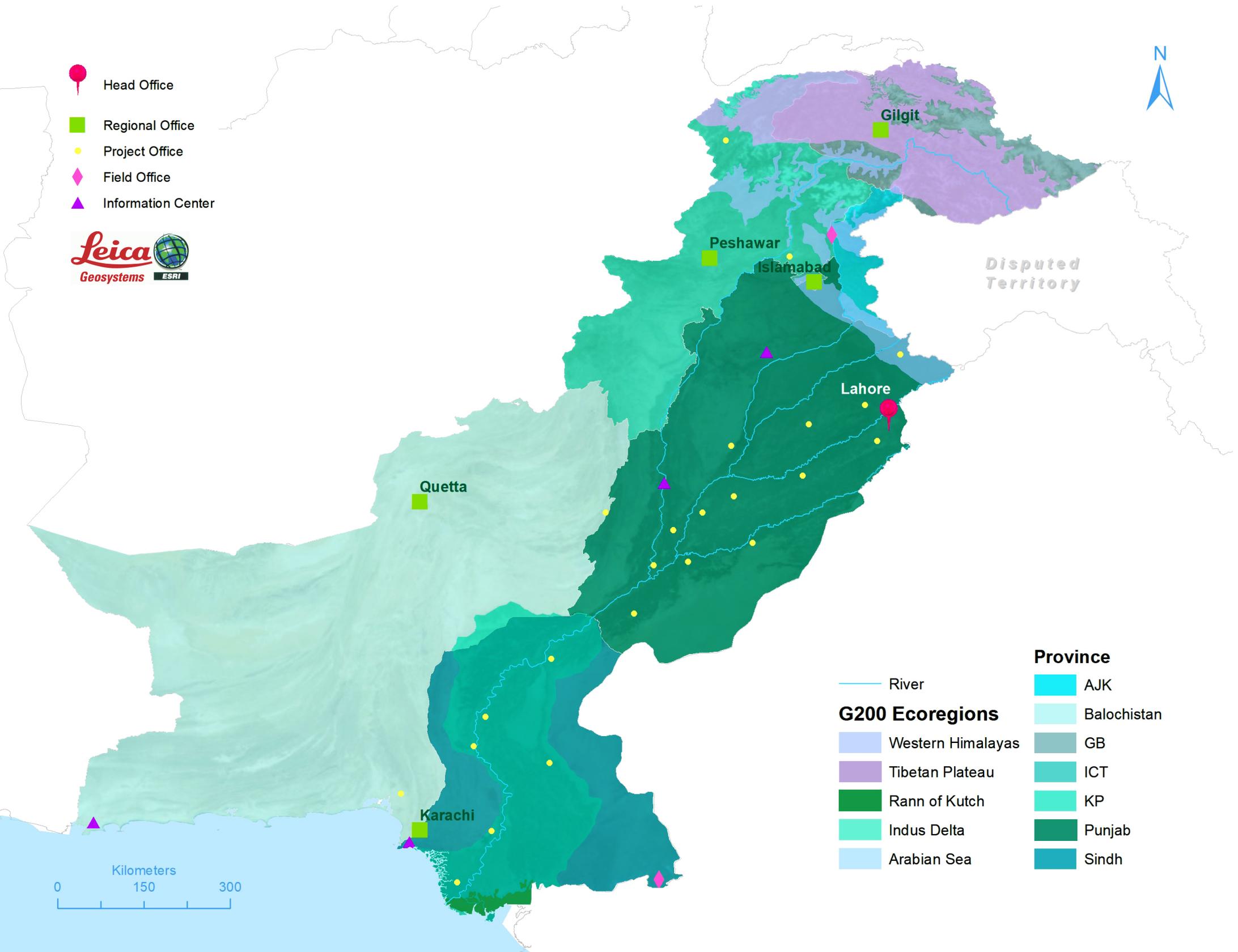
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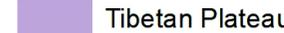
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-  Head Office
-  Regional Office
-  Project Office
-  Field Office
-  Information Center



Disputed Territory

- | | |
|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|  River |  AJK |
| G200 Ecoregions |  Balochistan |
|  Western Himalayas |  GB |
|  Tibetan Plateau |  ICT |
|  Rann of Kutch |  KP |
|  Indus Delta |  Punjab |
|  Arabian Sea |  Sindh |



OUR VISION

WWF came into being in 1961 in Gland, Switzerland. It is the leading and most respected conservation organization in the world, with a global network active in over 100 countries.

WWF-Pakistan was established in 1970 in order to address the growing environmental issues facing the nation. It is now the leading conservation organization in the country and amongst the largest national offices in the WWF Network.

WWF-Pakistan works to enable the government, private sector and civil society as a whole to help ensure the conservation of unique ecological areas and to significantly impact the present state of the environment in the country. According to the most recent census conducted in 2017, Pakistan has a staggering population of over 207 million and faces numerous economic, environmental and social challenges that are exacerbated by its rapidly increasing population. Urban challenges include pollution, overcrowding and urban sprawl, and vulnerability to extreme weather events while rural communities face issues such as dependence on natural resources for their daily needs and livelihoods. Further, both urban and rural areas face increasing power shortages that cause economic losses for industries and negatively impact household users, contributing to an increased reliance on wood or alternate sources to meet energy needs.

A rapidly growing population, poverty, and lack of education not only present development challenges, but also adversely impact the environmental situation within the country, giving rise to concerns related to food, water, and energy security in addition to conservation issues.

We continue to address these challenges through our mission – which is to stop the degradation of the planet’s natural environment and to build a future in which people and nature can thrive, 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.

To maintain a living planet and secure clean water, food and energy for all, WWF has evolved its conservation priorities into six Global Goals and three Drivers to enhance its impacts.

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.

OUR GREATEST RESPONSIBILITY: TO LEAD THE WAY IN CONSERVING PAKISTAN’S RICH NATURAL DIVERSITY



A MESSAGE FROM OUR PRESIDENT



As a new decade dawns upon us, we are reminded that our dedication to the mission of preservation and conservation is required now more than ever before. Our planet's survival demands this steadfast dedication from us, as keepers of what is tomorrow, rightfully our children's to have.

It is this genuine concern about the future of our planet and the future of our children that enabled a group of individuals to come together some 49 years ago to create WWF-Pakistan. Since then, the work carries on and progress is made in leaps and bounds with regards to conservation of habitat.

I must admit that ever since my close affiliation and work with this wondrous organization, I have realized in a more candid manner that many times the progress we make is not in leaps and bounds – at times it is made in a different way, perhaps at a slower pace - but progress it remains and that is the focus for us here at WWF-Pakistan.

So, I write this message with utmost gratitude and appreciation for my team at WWF-Pakistan. It is your hard work and sacrifices that we all reap. It is your passion and commitment that allows our organization to continue to flourish and remain a name that is synonymous in the minds of people the world over and in Pakistan, with sincere and honest devotion to the well-being of our country and planet.

It has been a privilege and a true honour to have the WWF-Pakistan Board Members very graciously have me serve as President for a second term. This has enabled me to continue to witness the selflessness of our wonderful team – from the dedicated staff out in the field who work in the most distressing of circumstances to our brilliant team members in the offices who extend the necessary support needed for our work. I am humbled and I consider myself lucky to be supported in this role by all of you – and the esteemed Board Members, all of whom truly cherish their work for WWF-Pakistan. Of course, I cannot conclude this tribute without recognizing Syed Babar Ali, who is a pioneer of conservation work in Pakistan and made available his personal assets to help establish WWF. My appreciation is also for Brig. (R) Mukhtar Ahmed, for his continued guidance and immense knowledge about the work we do. It goes without saying that their passion and commitment is an inspiration for the entire team and we remain indebted to them. All of us can only hope to work as they have throughout their lives.

I must also acknowledge Hammad Naqi Khan, who as CEO has done very good work and taken brilliant initiatives to further our work. Indeed together we have achieved so much, with vigour to continue to do more. It is with pride, faith and gratitude that I can assure you that our work will continue with a determination and consistency that will do justice to the vision we have had for decades at WWF-Pakistan.

Ahmer Bilal Soofi,
President, WWF-Pakistan

A MESSAGE FROM OUR DIRECTOR GENERAL



It is indeed a matter of great privilege and honour that we at WWF can rightly be proud of being the advance guard of committed conservationists in the country. I would like to thank my team and all other dedicated individuals, partners and entities who have enabled us to reach this far. However, the struggle is not over yet, as the challenges confronting Pakistan, in particular, and the planet, in general, are so monumental that a let up at this stage will mean accepting an existential threat to all that we hold dear.

Today, Pakistan is in serious peril. The magnitude of natural disasters witnessed in the last decade are stark reminders that we must urgently address the ecological imbalances the country faces. Fortunately, Pakistan has realized these challenges and embarked on an ambitious programme of sustainable development with focused, environment friendly approaches. The current government has displayed a firm commitment in addressing these challenges and efforts have been made towards a greener future for Pakistan. The government's Ten Billion Tree Tsunami Afforestation Project (TBTP) and all the pillars of the Clean and Green Pakistan programme will contribute towards an environment friendly development agenda. Such programmes stand to deliver positively in maximizing the environmental, social and biodiversity spheres and WWF is proud to be part of these ambitious ventures.

WWF-Pakistan's Recharge Pakistan project, currently being designed in close collaboration with the Government, aims to provide solutions that focus on the restoration of the country's wetlands and ecosystems. This project will build Pakistan's climate resilience and water security, among other benefits for vulnerable communities, through cost-effective ecosystem-based adaptation. It will increase water storages and recharge through wetlands, floodplains, and hill-torrents management, and simultaneously promote climate-adapted community-based natural resource management and livelihoods.

Another step forward taken by WWF-Pakistan this year in promoting sustainable development and preserving natural systems is through facilitation of organic agriculture in Pakistan. We successfully expanded our agricultural programme to the production of non-genetically modified organic cotton in Balochistan, and Pakistan's first certified organic cotton bale was produced in February 2019.

We also continue to engage with schools, academia, and other partners through workshops, seminars, and technical assistance on planning and implementation of key programmes ranging from environment education, water conservation, protection of wetlands to protection of endangered species.

The spectrum of issues Pakistan faces cannot be addressed singlehandedly by any individual organization. Therefore, I urge all our partners to come forth and strengthen our collaborations. The magnitude of challenges demands strong partnerships of efforts and resources, and WWF remains available to provide a platform to synergise these initiatives.

Hammad Naqi Khan
Director General, WWF-Pakistan

BOARD MEMBERS

JULY 2018 - JUNE 2019



SYED BABAR ALI

President Emeritus
WWF-Pakistan

BRIG. (R) MUKHTAR AHMED

Vice President Emeritus
WWF-Pakistan
President
Houbara Foundation International-Pakistan

AHMER BILAL SOOFI

President, WWF-Pakistan
Chairman ABS & Co.
Attorneys, Solicitors & Advocates

DR ZEELAF B. MUNIR

Vice President, WWF-Pakistan
CEO
English Biscuit Manufacturers (Pvt) Ltd

DR KAUSER ABDULLA MALIK

Professor, Biotechnology
Dean Postgraduate Studies
FC College
Chairman, Scientific Committee

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Managing Director
H. Karim Buksh Stores (HKB)

IRSHAD R. ADAMJEE

Managing Director
Adamjee Group
Pacific Multi Products (Pvt) Ltd

M. FAISAL IFTIKHAR ALI

CEO
Deep Blue Seafoods (Pvt) Ltd

NADEEM KHALID

CEO
Herbion Group of Companies

INSPECTOR GENERAL OF FORESTS

Ministry of Climate Change
Government of Pakistan

SYEDA HENNA BABAR ALI

Advisor, Business Unit Consumer Products
Chairperson, DICPK
Packages Ltd

CH. FAISAL MUSHTAQ -TI

CEO
Roots Millennium Schools, Pakistan

SYED RIZWAN MEHBOOB

Governance Expert

AAMER A. SARFRAZ

CEO
Indus Basin Holding

HAMMAD NAQI KHAN

CEO
WWF-Pakistan



DONORS

WWF NETWORK

WWF-France
WWF-Germany
WWF International
WWF-Netherlands
WWF-Sweden
WWF-US

PUBLIC SECTOR

Asian Development Bank (ADB)
Better Cotton Initiative (BCI) – Growth and Innovation Fund (GIF)
European Union (EU)
Federal Ministry for Economic Cooperation and Development, Germany (BMZ)
Government of Khyber Pakhtunkhwa, Pakistan
Government of Punjab, Pakistan
International Centre for Integrated Mountain Development (ICIMOD)
KfW Development Bank
Nordic Development Fund (NDF)
Shark Conservation Fund (formerly Global Partnership for Sharks and Rays)
The Food and Agriculture Organization of the United Nations (FAO)
The Global Environment Facility (GEF)
The World Bank
United Nations Development Programme (UNDP)
United States Fish and Wildlife Service (USFWS)

CORPORATE SECTOR

Coca-Cola Beverages Pakistan Limited (CCBPL)
IKEA, Sweden
Levi Strauss & Co., United States
Nestlé, Pakistan
PepsiCo, Pakistan
Sui Northern Gas Pipeline Limited (SNGPL)
Titans Autograph & Memorabilia, Pakistan
ZRK Group, Pakistan

TRUSTS, FOUNDATIONS AND OTHERS

C&A Foundation
Engro Foundation
Lahore School of Economics
MAVA Foundation
Snow Leopard Foundation
The Coca-Cola Foundation
The Hawk Conservancy Trust



WWF-PAKISTAN'S PROJECTS

NO.

PROJECT TITLE

DONOR / DURATION

FORESTS

1. Sustainable Management of Mangroves Ecosystem and Enhancing Resilience of Communities in Indus Delta, Sindh, Pakistan
BMZ, through WWF-Germany
January 2019 - December 2021
2. Study to Ascertain Role of ZRK Group and Medium Density Fibre-board Industry in the Extent and Diversity of Wood Grown under Agroforestry or Farm Forestry Systems in Sindh, Punjab, and Khyber Pakhtunkhwa
ZRK Group, Pakistan
August 2018 - April 2019
3. Integrated Watershed Management and Livelihood Improvement Project in Selected Sub-catchments of Khanpur Dam – Phase II
The Coca-Cola Foundation
November 2017 - Ongoing

FOOD

4. Assessing and Raising Awareness on Food Waste in Hotel Kitchens in Pakistan
WWF-US
October 2018 - December 2019

NO.

PROJECT TITLE

DONOR / DURATION

MARKETS

5.	Exploring Possibilities of Organic Seed Cotton Production in Pakistan – Phase II	C&A Foundation <i>March 2016 - September 2019</i>
6.	Better Cotton Initiative - Growth Innovation Fund	Better Cotton Initiative - Growth Innovation Fund (BCI GIF) <i>April 2017 - Ongoing</i>
7.	Agroforestry for Livelihood Improvement, Climate Change Mitigation, and Biodiversity Conservation in Selected Cotton Growing Areas of Pakistan	IKEA; WWF-Sweden <i>September 2018 - August 2020</i>
8.	More Crop per Drop	IKEA; WWF-Sweden <i>September 2017 - August 2020</i>
9.	Standardization of Post-Harvest (Boll to Bale) Processes to Improve Social, Economic, and Environmental Sustainability of Pakistan’s Cotton and Textile Sector	IKEA; WWF-Sweden <i>September 2017 - August 2020</i>
10.	Strengthening Climate Resilient Cotton Production	IKEA; WWF-Sweden <i>September 2017 - August 2020</i>
11.	Adopting Innovative Mechanization Technologies for Sustainable Cotton Production in Pakistan	IKEA; WWF-Sweden <i>November 2017 - September 2018</i>

NO.**PROJECT TITLE****DONOR / DURATION**

12. Crop Residue Management - Improving Soil Health through Clean Disposal of Agriculture Residues with Tangible Economic Benefits

IKEA; WWF-Sweden
September 2018 - August 2020

13. Advisory Consultancy to WWF-Turkey for Better Cotton Project

BCI-GIF, through WWF-Turkey
March 2018 - September 2019

OCEANS

14. Promoting Sustainable Tuna Fisheries in the Indian Ocean and Strengthening the Indian Ocean Tuna Commission

WWF International
January 2015 - September 2018

15. Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the Areas Beyond National Jurisdiction (ABNJ) Reducing By-catch in the Indian Ocean

GEF and FAO, through WWF-US
October 2014 - March 2020

16. Sustainable Fisheries Entrepreneurship in Pakistan – Phase II

Engro Foundation
January 2019 - December 2021

17. Reducing Shark and Ray Mortality in Pakistan

Global Partnership for Sharks and Rays (GPSR), through WWF-US
April 2017 - October 2018

18. Marine Protected Areas (MPA) Push Project: Accelerating the Development of a Management Plan for Astola MPA

WWF-Netherlands
March 2018 - Ongoing

NO.

PROJECT TITLE

DONOR / DURATION

19.	Supporting Swimming Crab Fisheries in Kund Malir, Balochistan, Pakistan	MAVA Foundation, through WWF International <i>October 2017 - October 2018</i>
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SUSTAINABLE LIVELIHOODS

20.	Indus Ecoregion Communities' Livelihoods Project	The World Bank <i>September 2016 - August 2019</i>
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21.	Agriculture, Water, Energy, and Hazard Management in the Upper Indus Basin for Improved Livelihoods - Phase II	International Centre for Integrated Mountain Development (ICIMOD) <i>June 2017 - April 2020</i>
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22.	Improvement of Central Karakoram National Park Management System as a Model for Mountain Ecosystems in Northern Pakistan – Assessing Climate Change Impacts and Introducing Adaptation Measures and Sustainable Livelihood Options	United Nations Development Programme (UNDP), Pakistan <i>May 2018 - January 2019</i>
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23.	Harmonize Conservation with Sustainable Development in Hindukush Karakorum Pamir Landscape in Pakistan	International Centre for Integrated Mountain Development (ICIMOD) <i>February 2019 - December 2019</i>
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NO.

PROJECT TITLE

DONOR / DURATION

CLIMATE AND ENERGY

24.	Introducing Renewable Energy Solutions to Enhance Energy Security and Build Climate Resilience in Karachi, Sindh, Pakistan	Nordic Climate Facility, Nordic Development Fund <i>July 2016 - January 2019</i>
25.	Agro-Waste Community Enterprise for Provision of Alternate Energy for Households and Small Businesses (AWARE) – Phase II	Sui Northern Gas Pipeline Ltd. (SNGPL) <i>July 2019 - June 2020</i>
26.	Survey on Access to Solar Electricity in Rural Sindh	Lahore School of Economics <i>September 2017 - August 2018</i>
27.	Tackling Pakistan's Plastic Pollution	The Coca-Cola Foundation <i>December 2018 – December 2019</i>
28.	Construction of Eight Mini and Micro Hydropower Plants in District Torghar, Khyber Pakhtunkhwa	Government of Khyber Pakhtunkhwa <i>March 2017 - June 2019</i>
29.	Green Office Programme	National and International Corporates <i>Ongoing</i>

NO.**PROJECT TITLE****DONOR / DURATION****WILDLIFE**

30.	Gyps Vulture Restoration Project	The Hawk Conservancy Trust <i>Ongoing</i>
31.	Technical Assistance in Survey, Telemetry Study and Translocation of Indus Blind Dolphin of Indus River, under the Improvement and Development of Chashma Barrage Wetland Biodiversity Project	Government of Punjab <i>June 2019 - 2020</i>
32.	Study on Vulture Toxic Non-Steroidal Anti-Inflammatory Drugs (NSAIDS)	Government of Punjab <i>June 2019 - 2020</i>
33.	Saving the Pangolins of Pakistan - Conservation of the Indian Pangolin through Research and Community-Based Management	United States Fish and Wildlife Service (USFWS) <i>October 2017 - September 2018</i>
34.	Rangers Perception Survey	WWF International <i>January - August 2018</i>
35.	Conservation of Snow Leopard and its Prey Base in Misgar Valley, Gilgit-Baltistan, through the Piloting of Spatial Monitoring and Reporting Tool (SMART) Approach for Effective Monitoring and Law Enforcement	WWF-France <i>March 2018 - February 2019</i>
36.	Assessment of the Scale of Illegal Wildlife Trade in Pakistan - Green Pakistan Programme	Green Pakistan Programme, Ministry of Climate Change <i>January - October 2018</i>

NO.

PROJECT TITLE

DONOR / DURATION

FRESHWATER

37.	Implementation of Alliance for Water Stewardship (AWS) Standards in Nestlé's Kabirwala Factory	Nestlé Pakistan <i>May 2018 - December 2018</i>
38.	International Labour and Environmental Standards Application in Pakistan's SMEs	European Union, through International Labour Organization (ILO) <i>December 2016 - December 2022</i>
39.	Basin Assessment Scenario Intervention Tool (BASIT) – Phase II	Levi Strauss and Co. <i>October 2018 - June 2020</i>
40.	Knowledge Partnership for Revitalizing the Ecosystem of Ravi River Basin	Asian Development Bank <i>December 2017 - Ongoing</i>
41.	Provision of Safe Drinking Water to Communities in Sindh	Titans Autographs and Memorabilia <i>October – December 2018</i>
42.	Community Water Stewardship: Replenishing Groundwater Resources in Lahore	PepsiCo, Pakistan <i>April 2019 – April 2021</i>
43.	Installation of Water Filtration Plants for Communities in Punjab and Sindh	Coca-Cola Beverages Pakistan Ltd (CCBPL) <i>June 2019 – May 2020</i>

FORESTS

FORESTS PLAY A CRUCIAL ROLE IN MAINTAINING PAKISTAN'S DIVERSE ECOSYSTEMS AND WITH THE SECOND HIGHEST DEFORESTATION RATE IN ASIA, THEIR CONSERVATION IS ESSENTIAL.

With only 5.7 per cent of total land area under forest cover and a deforestation rate of 2 per cent per year, Pakistan lacks adequate forest resources. An increasing demand for fuelwood for both domestic and commercial use across the country, and conversion of forestland for agriculture and housing societies are driving this loss in forests even further. This natural resource plays a crucial role in Pakistan's diverse ecosystems and its conservation is essential. In the north, the thick and deep soil humus that forests provide act as a sponge for rain and snow, preventing soil erosion. Along the coastline, mangrove forests are nurseries for shrimps, crabs and even some shark species. They provide protection during sea storms and cyclones while riverine forests provide important sanctuary and cover to the biodiversity of the plains.

This year, WWF-Pakistan planted nearly 1.7 million trees (equivalent to 1,650 hectares) in partnership with provincial forest departments, various corporate organizations, and academic institutions resulting in a wide range of benefits including potentially 85,000 tonnes of carbon sequestered. The following projects were also implemented this year.

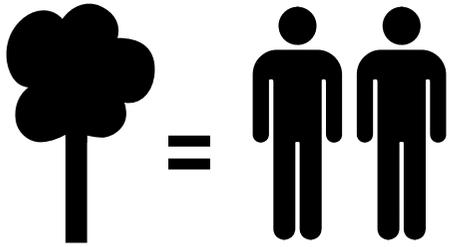
KHANPUR WATERSHED PROJECT

WWF-Pakistan initiated the project Integrated Watershed Management and Livelihood Improvement in Selected Sub-catchments of Khanpur Dam, with the aim to ensure availability of clean water in springs and streams of the area and ultimately in Khanpur Dam. The project is now in its second phase with a focus on stakeholders' sensitization and awareness, capacity building, research, improvement of indigenous flora along with stabilization of degraded slopes of the catchments through bioengineering techniques, water harvesting and enhancing groundwater recharge through artificial measures like rainwater harvesting, ponds and injection wells.

Over the year, the project made substantial achievements towards sustainable natural resource management in the Khanpur area. The project mobilized the community and helped establish two new community based organizations (CBOs). The project has also provided support in setting up offices for the CBOs, and trainings for office bearers in office management skills.

1,671,637

TREES PLANTED ACROSS THE COUNTRY



**ONE MATURE TREE CAN
RELEASE ENOUGH
OXYGEN TO SUPPORT
TWO HUMANS.
1.67 MILLION TREES
CAN SUPPORT 1.5 PER CENT
(3.34 MILLION) OF THE
COUNTRY'S POPULATION**

The project improved vegetation cover by establishing block plantations on an area of five hectares, established enclosures through fencing on 25 hectares for natural regeneration, provided 3,000 saplings to plant on agricultural land, and supported eight farmers (mostly women) to raise forest nurseries. Various activities were carried out to improve water availability including water harvesting, spring protection and improvised pipe irrigation along with rainwater harvesting. A total of 35 small to medium scale water filtration units were installed, 30 water storage tanks were constructed, close to 3,140 m of multipurpose water pipes were distributed, and 20 roof water harvesting systems were installed. To recharge groundwater, 15 recharge pits, five wells and two harvesting ponds were constructed. The accumulative water benefits of the project from all interventions was 595 million litres along with 606 m³ reduction in sediment yield. To control landslides and stabilize eroding streams, a thousand metres of stream and five eroded sites were treated with engineering techniques.

During five different trainings, about 210 community members were trained in nursery raising, plantation, forest fire management, olive grafting, pre and post-harvest of pomegranate seeds and other non-timber forest products. Two community based small processing units were also established. Six forest firefighting kits were distributed and more than 75 local community members and forest guards were trained. In the reporting period, four kits were used to control fires in Haripur, while the local community was able to control two wildfires in areas close to Najafpur as a result of their training. Additionally, no fires took place in Najafpur, within the project area this year, resulting in a significantly decreased number of incidences in the Khanpur area.

AGROFORESTRY IN PAKISTAN

WWF-Pakistan conducted a study on the relationship between Medium Density Fiberboard (MDF), the particle board industry and agroforestry under the project Protection of Natural Forests and Promotion and Expansion of Agroforestry in Pakistan. The study investigated farmers' perceptions and factors that influence their decision-making process on agroforestry on their land. About 85 per cent of farmers selected tree species for plantation based on the maximum potential of financial return. About 90 per cent of farmers showed willingness to focus more on agroforestry if the planting stock is easily available and a good financial return is offered. Multiple issues that hinder the development of agroforestry were also highlighted and include lack of technical knowledge, financial support, unavailability of good quality planting stock and an unfair pricing mechanism. The project study and findings will enable better planning for agroforestry projects in Pakistan in the future.

AFFORESTATION DRIVES ACROSS PAKISTAN

Mangroves, the first line of defense against natural hazards such as cyclones and sea intrusion, face different varying threats in the Indus Delta. To improve the mangrove forest cover and build climate resilience of local communities in the Indus Delta, WWF-Pakistan has planted and is conserving mangrove forests with a co-management approach by involving communities, the government and other key partners in the area. Under this initiative, a total of 11,000 hectares of mangroves will be conserved and 3,000 hectares will be reforested. The mangrove plantations will be managed by village communities with the support of WWF-Pakistan and other relevant government departments. WWF-Pakistan has also initiated awareness campaigns and community consultations for sustainable management of mangrove forests.

WWF-Pakistan has incorporated afforestation into the majority of its projects be it sustainable agriculture in Punjab or micro-hydro project in Khyber Pakhtunkhwa (KP). Under the agroforestry project in Punjab about 70,000 plants of native species including acacia, mulberry and siris were planted on 35 hectares. Additionally, 9,000 pine saplings were also planted in Tor Ghar district, KP.

THE WAY FORWARD

- 1 RESTORE AT LEAST 25,000 HECTARES OF FORESTS IN THE NEXT FIVE YEARS THROUGH AFFORESTATION, IMPROVED MANAGEMENT, PROVISION OF RENEWABLE ENERGY OPTIONS TO REDUCE WOOD DEMAND, AND BRING PRIORITY FOREST AREAS UNDER REDD+.**
- 2 CONTRIBUTE TO LANDSCAPE AND ECOSYSTEM RESTORATION BY SCALING UP WATERSHED MANAGEMENT INTERVENTIONS UNDER THE RECHARGE PAKISTAN INITIATIVE.**
- 3 SUPPORT IMPLEMENTATION AND MONITORING OF THE GOVERNMENT'S TEN BILLION TREE AFFORESTATION PROGRAMME AND CLEAN AND GREEN PAKISTAN PROGRAMME.**
- 4 CONTINUE WORKING FOR IMPROVED COMMUNITY BASED MANAGEMENT OF PRIORITY FOREST ECOSYSTEMS AND SPECIES, E.G. CHILGHOZA, MANGROVE, JUNIPER FOREST ECOSYSTEMS AND ENDANGERED SPECIES SUCH AS TAXUS WALLICHIANA.**
- 5 PROMOTE URBAN FORESTRY IN COLLABORATION WITH PUBLIC AND PRIVATE SECTOR PARTNERS ACROSS DIFFERENT CITIES IN PAKISTAN.**

SUCCESS STORY

COMMUNITIES WORKING FOR CONSERVATION

Suleiman Range has one of the world's largest remaining Chilghoza forests and is home to unique wildlife including the straight-horned markhor. The ownership of these forests in Balochistan lies with the Shirani tribes. Around 12,000 people directly depend on the forests for their livelihoods, ecological services, and products, and support about close to 100 villages with their fuelwood, foraging, and water needs. The major threat to these forests, however, has been the smuggling of timber.

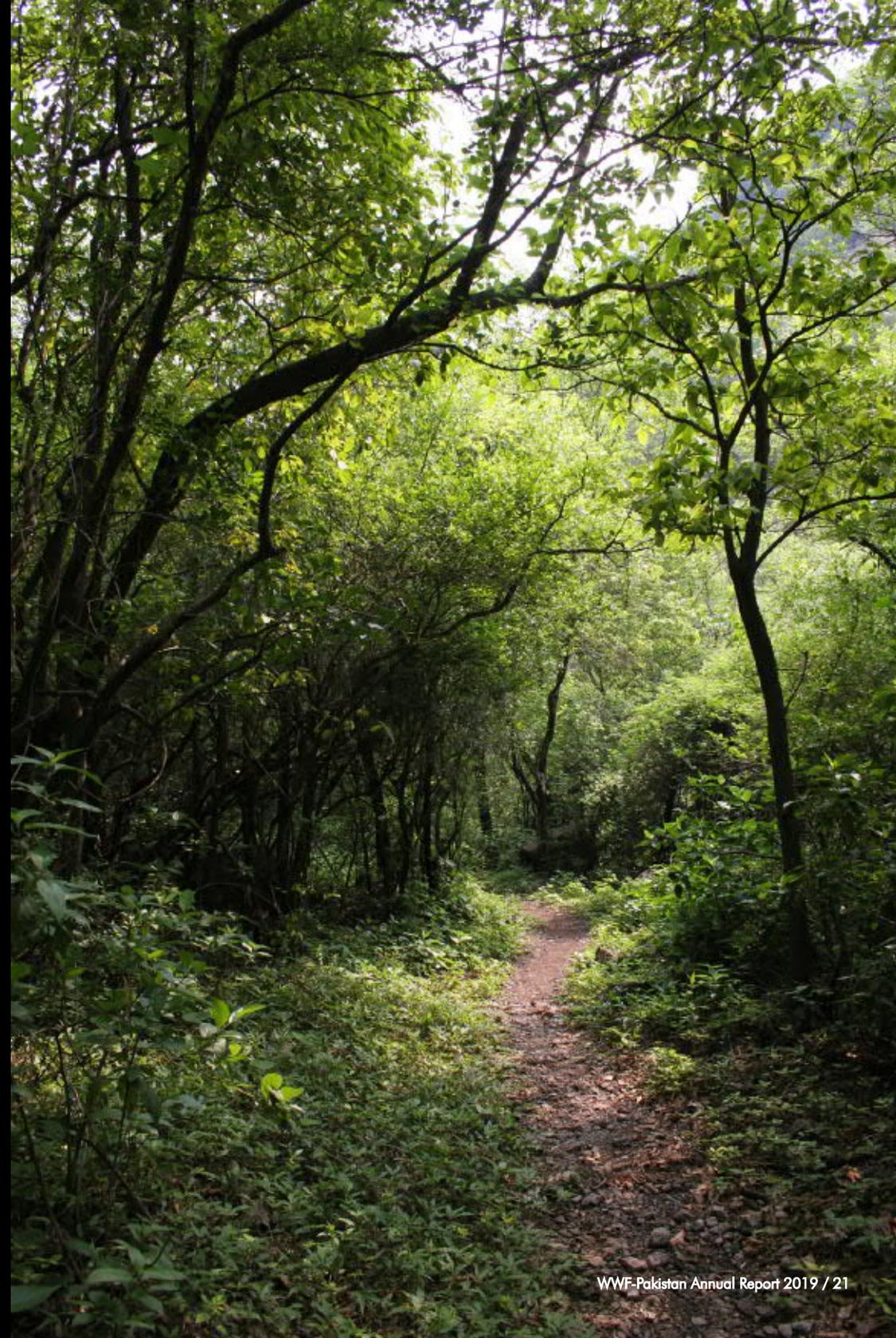
Compared to the poor quality timber, the pine nuts that Chilghoza trees produce have better market worth. Previously as local people did not have marketing linkages and were not organized, they were reliant on middlemen for the sale of pine nuts and earned a small fraction of their actual market price.

The tribal communities in the target areas are highly conservative and restrict open interaction with outsiders. Despite considerable barriers, WWF-Pakistan, through numerous consultations and negotiations with the tribes, ensured that separate women and men organizations were established in the area that were fully representative of the sub-tribes. The Kasa Ghar Cluster Community Based Organization (CBO) of Suleiman Range comprised of representatives from six village organizations (VOs) and two women groups (WGs). WWF-Pakistan provided support to the cluster organization with trainings on value addition and marketing of Chilghoza nuts, and diversification of livelihoods. In addition, nature clubs were established to involve students and youth in the interventions.

The Kasa Ghar Cluster, with the support of WWF-Pakistan, brought about 260 hectares of forest under improved management, e.g. local community based *pargor* management system. The CBO cluster coordinated trainings on agricultural practices and better harvesting, post-harvesting, processing, and marketing of Chilghoza nuts. Two processing units were established for roasting, packing, and labelling Chilghoza nuts. A total of 300 Chilghoza nut harvesters were provided toolkits and trainings for improved harvesting and processing techniques. Since the CBO was established there has been reduced wastage of nuts (12 per cent from 40 per cent), 28 per cent increase in Chilghoza regeneration, 25 per cent reduction in cutting of green trees, 18 per cent increase in income, and improved gender and social inclusion.

These interventions, along with organizing the communities into CBOs to enhance ownership and sustainability of these interventions, have improved self-sufficiency, resilience, adaptability, and development of local communities.

In 2019, the Kasa Ghar Cluster was one of 22 community groups from across the world to win the prestigious Equator Prize 2019. The Equator Prize, organized biennially by the United Nations Development Programme's Equator Initiative, recognizes outstanding local community and indigenous people initiatives from across the world that are advancing innovative on-the-ground solutions to climate change, environment and poverty challenges.



FOOD AND MARKETS



Pakistan's economy is primarily dependent on agriculture, accounting for 20.9 per cent of GDP and 43.5 per cent of employment. Key industries such as textiles, sugarcane, rice and dairy rely on agricultural production for the provision of raw materials. Issues regarding sustainable production and consumption go beyond the farm; most supply chains and allied processing and manufacturing industries adversely impact the environment through pollution, effluents, resource use inefficiencies, and high energy consumption. Through the Market Practice, WWF-Pakistan works with major commodity producers and their supply chains to change the way key commodities are produced, processed, consumed and financed to reduce their environmental and social impact while improving their sustainability.

The agricultural sector of Pakistan is also responsible for producing staple crops and food commodities for the country. Per capita food supply is 2,428 (kcal/capita/day) but 7.8 million people are particularly vulnerable to food insecurity while 3.6 million people live in highly food insecure areas. WWF's Food Practice aims to address the issue of food loss and wastage. There is significant scope to influence public opinion on the need to reduce food waste and focus on reducing food loss in Pakistan's enormous and booming food industry.

SUSTAINABLE COTTON PRODUCTION

WWF-Pakistan has been building the capacities of farming communities for innovation, dissemination of economically efficient ecological farming solutions and technologies since 2004. Through its Better Cotton Initiative projects, it is building the capacity of over 180,000 smallholders in seven districts in Punjab and three districts in Sindh for the implementation of the Better Cotton Standard System (BCSS) at the field level to minimize footprint of growing cotton by producing Better Cotton.

21%

**WATER
CONSERVED
DURING BETTER
COTTON
PRODUCTION**

9%

**MORE YIELD
AS COMPARED
TO THE
CONTROL PLOT**

Science-based ecological farming solutions and specific crop management decisions over an area of 0.5 million hectares have resulted in a 27 per cent reduction in fertilizer usage, 36 per cent reduction in pesticide usage and 24 per cent reduction in use of irrigation water and at the same time increasing gross margin by 21 per cent. WWF-Pakistan also engaged the Agriculture Extension and Adaptive Research departments of the governments of Punjab and Sindh as local implementing partners under this project.

PROMOTING ORGANIC COTTON CULTIVATION WITH SMALL AND MARGINAL TRIBAL FARMERS IN PAKISTAN

WWF-Pakistan's Organic Cotton Production project aims to improve livelihoods of smallholders and marginal tribal cotton farmers. So far the capacity of 4,000 farmers has been built through Farmer Field Schools on specific practices leading to organic cotton production. Pakistan's first certified organic cotton bale was produced in 2019 under the project in Balochistan.

MORE CROP PER DROP

WWF-Pakistan is working to reduce the distribution losses of the irrigation system, and improve water equity among shareholders leading to reduction in carbon emissions and groundwater abstraction. The More Crop Per Drop (MCPD) project has demonstrated locally feasible scientific solutions among farming communities and relevant stakeholders to improve water use efficiency. On-farm, the project has built the capacities of farming communities to adopt water efficient practices such as laser land levelling, laser grading, ridge and furrow sowing, fermenter technology, soil and groundwater analysis, and optimum water usage based on the physical symptoms of the crop. Additionally, the project has engaged relevant stakeholders to reduce water distribution and conveyance losses, from the irrigation network to the farm-gate. Overall, water efficient practices have enabled farming communities to conserve an average 22 to 25 per cent irrigation water in crop production on their farms. Likewise, through irrigation infrastructure improvements, conveyance and distribution efficiency from irrigation networks to the farm-gate have improved up to 15 to 17 per cent.

COTTON VALUE CHAIN DEVELOPMENT

The cotton value chain is by far the largest source of export earnings for Pakistan. However, this important product faces a loss of at least 10 to 15 per cent of its true commercial value at different transaction points in the supply chain. It is estimated that an annual loss of USD 1.4 billion occurs due to mixing of trash and contaminating particles with natural cotton fibre. WWF-Pakistan is, therefore, building the capacity of all supply chain actors from farm to gin to prevent contamination, trash abatement and to preserve fibre quality. During the cotton season (2018-2019), by adopting sustainable harvest and post-harvest practices, beneficiaries produced 5,500 MT of lint with 6 to 7 per cent trash and contamination, while the general trading trend in Pakistan is 8.5 to 9 per cent trash and contamination.

FOOD LOSS AND WASTE STUDY

WWF-Pakistan conducted a study to learn about losses and wastage of food in various cities so that awareness campaigns and consumer education toolkits can be designed. Under the study, four major cities were selected and data collected on losses in the tomato and rice supply chains, and on food waste in the hospitality sector and consumer households. Customized survey instruments were used to collect data from farmers, retailers at farmers markets, convenience stores and the hospitality industry. The study shows that tomato shelf-life is highly dependant on the time of the year and varies significantly with an average of 12 per cent wastage across the supply chain. At the household level the study showed that vegetables and fruits made up more than 70 per cent of household food waste.

THE WAY FORWARD

- 1 DEVELOP A TRACEABLE, COMPLIANT AND CLIMATE RESILIENT COTTON VALUE CHAIN ENSURING A POSITIVE SOCIAL AND ENVIRONMENTAL IMPACT ON COMMUNITIES TO REDUCE ENVIRONMENTAL IMPACTS BY PROMOTING WATER STEWARDSHIP, ENHANCING BIODIVERSITY, IMPROVING AGROFORESTRY AND LAND-USE AND MANAGEMENT PRACTICES, AS WELL AS REDUCING GHG EMISSIONS.**
- 2 PROMOTE ORGANIC AGRICULTURE FOR ENVIRONMENTAL BENEFITS AND SOCIO-ECONOMIC LIVELIHOODS IMPROVEMENT AMONG RURAL AND FARMING COMMUNITIES.**
- 3 MAINSTREAM SUSTAINABLE COTTON PRODUCTION IN PAKISTAN UNDER BETTER COTTON STANDARDS SYSTEM IN COLLABORATION WITH PROVINCIAL AGRICULTURE DEPARTMENTS AND RELEVANT SUPPLY CHAIN ACTORS.**
- 4 INCORPORATE E-SMART SOLUTIONS FOR FARMERS' CAPACITY BUILDING, INFORMATION SHARING, DATA COLLECTION, ANALYSIS AND WIDESPREAD DISSEMINATION.**

SUCCESS STORY

Whether it is food, water or agricultural terrain, women from communities around the world manage most of the planet's critical natural resources. Empowering and educating these women and engaging them in environmental conservation can be incredibly useful. WWF-Pakistan works with women from farming households to develop additional sources of income.

Growing trees on farmlands supplement a farmer's income without additional efforts or expenses. Trees provide fodder, fuel, small timber, shade, shelter and protection. But buying plants from commercial nurseries in cities and towns is costly due to commercial prices and transportation costs involved for delivery to rural communities. The availability of high quality material within the proximity of farmers at affordable prices is, therefore, necessary for the uptake of on-farm tree cultivation. This led the WWF-Pakistan team to the idea of establishing small-scale nurseries run by rural women that can produce saplings for resource-poor farming communities.

Considering this, the Climate Resilient Crop Production (CRCP) project provided women from local communities with seeds, tools, and equipment to run small nurseries with a focus on growing saplings of indigenous trees, which may grow slower than exotic trees, but are far better for the overall agro-ecosystem.

"I was never seen as someone who could earn an income; rather, I was thought of as someone who loves to look after her family, cook food, and take care of livestock, which were my prime responsibilities," says Abida, a 32-year old woman from Khanewal district. She adds, "Now I feel proud of my effort. At the time when I participated in this activity, my sister was getting married and I was able to buy a gift for her from the money I earned selling plants from my nursery."

Micro-nurseries are run by rural women, who are provided seeds of indigenous trees and bags to plant them in. They grow and look after seedlings for a period of three months before selling 75 per cent of the stock back to the WWF-Pakistan team at a price of PKR 10 per sapling, for further distribution among rural communities. The remaining stock is replanted by the nursery owner on her family's farmland. So far four micro-nurseries have been successfully established, which produced 40,000 tree saplings this year.

Women's participation in agriculture production is significantly high, yet they are usually only involved as workers. They are not the owners of the land or produce, even if they have cultivated the crop. The profits are usually passed on to the male head of the family. Allowing rural women to establish micro-nurseries enables them to earn additional income not only for their households, but also contribute to nature conservation.

40,000

**TREE SAPLINGS PRODUCED
FROM FOUR MICRO-NURSERIES**





OCEANS

By-catch, the incidental capture of non-target species such as dolphins, whales, and turtles, is a serious challenge in small-scale driftnet fisheries. To address this issue, WWF with the support of local fishers, strives to mitigate by-catch of endangered, threatened and protected as well as CITES listed species in gillnet fisheries in the Northern Indian Ocean (NIO). To fill the data gaps, the organization collects information on catch and by-catch on tuna driftnet fisheries and suggests robust methods for the improved management of tuna fisheries in the NIO.

SAFE RELEASE OF MARINE ANIMALS

WWF-Pakistan's crew-based observer programme engages with 75 fishermen who provide invaluable information about tuna and large pelagic species catch. The programme has been adopted by the Indian Ocean Tuna Commission (IOTC) as an alternative data collection mechanism, particularly for tuna fisheries. From 2012 to 2018, a total of 103 whale sharks, 82 mobulidae, 74 sunfish, nine dolphins, five whales, seven masked booby, 45 sea snakes and thousands of sea turtles were safely released by the trained fishermen. WWF-Pakistan's work on by-catch has been recognized by more than 60 fisheries scientists. After the success of the programme, other regional countries intend to adopt it in their marine waters.

To develop a robust data collection mechanism in the region based on a participatory and co-management approach, a successful Regional Observer Scheme-II was initiated. Under this scheme, a capacity building workshop was held in Karachi in December 2018, which was attended by around 39 representatives from six regional countries of the Indian Ocean.

PROMOTING INNOVATIVE TECHNOLOGY FOR MARINE CONSERVATION

Pakistan is home to 134 shark and ray species. These species are caught as by-catch in tuna gillnet fisheries by approximately 700 gillnet vessels from both Sindh and Balochistan, which mainly target tuna and tuna like large pelagic species in coastal and offshore waters of Pakistan. These fishers catch significant quantities of sharks and rays, mainly shortfin mako shark, thresher sharks, silky shark and hammerhead sharks, and pelagic stingray and mobulids in pelagic gillnets. To reduce shark mortalities in the Arabian Sea, WWF-Pakistan introduced improved Conservation Management Measures (CMMs) and is fostering regional cooperation in the Indian Ocean. In this regard, a regional workshop was organized in February 2019 to develop a Regional Plan of Action (RPOA) for shark conservation in the Northern Indian Ocean. The workshop was attended by three regional coastal countries and 10 shark experts from different organizations. Participants developed a roadmap for the conservation of shark and rays in the Northern Indian Ocean (NIO).

Critical hotspots of sawfish, considered to be locally extinct, have been identified along the coast of Pakistan. To confirm the presence of the species, WWF-Pakistan collected almost 70 eDNA samples of seawater from 13 known hotspots of sawfish and sent them to James Cook University for analysis. WWF-Pakistan jointly works with the university on assessing the presence, distribution and abundance of the sawfish in Pakistan.

WWF also conducted trials of LED lights as a by-catch mitigation tool in the drift gillnet fisheries in Pakistan. The trials from January to March 2019 along the eastern coast of Pakistan, showed that boats equipped with LED lights recorded less turtle entanglements while boats without LED lights recorded a considerably higher number of entanglements in the fishing nets. All entangled green turtles were later released back alive into the sea.

STUDYING ECOLOGICAL HOTSPOTS

To identify new ecologically and biologically significant areas and new potential marine protected areas in Pakistan, an ecological assessment field and underwater survey was conducted of Churna Island, a small uninhabited island located around 9 km from the coast of Karachi. Further, WWF-Pakistan in collaboration with provincial fisheries departments, Pakistan Maritime Security Agency, Pakistan Navy, Ministry of Climate Change and Maritime Affairs will undertake field surveys to develop a comprehensive knowledge base about Astola Island. Both Churna and Astola islands are hotspots rich in marine life and this data will be instrumental in developing their management plans.

THE WAY FORWARD

- 1** IMPROVE TUNA FISHERIES MANAGEMENT AND PROMOTE SUSTAINABLE FISHERIES IN THE NORTH INDIAN OCEAN BY GEAR TRANSFORMATION OF GILLNET VESSELS IN PAKISTAN.
- 2** IMPROVE MANAGEMENT OF MARINE PROTECTED AREAS NETWORK IN PAKISTAN.
- 3** STRENGTHEN BY-CATCH MITIGATION MEASURES BY SCALING UP MITIGATION TOOLS TO REDUCE THE MORTALITY OF THE ENDANGERED, THREATENED AND PROTECTED AND CITES LISTED SPECIES IN THE INDIAN OCEAN.

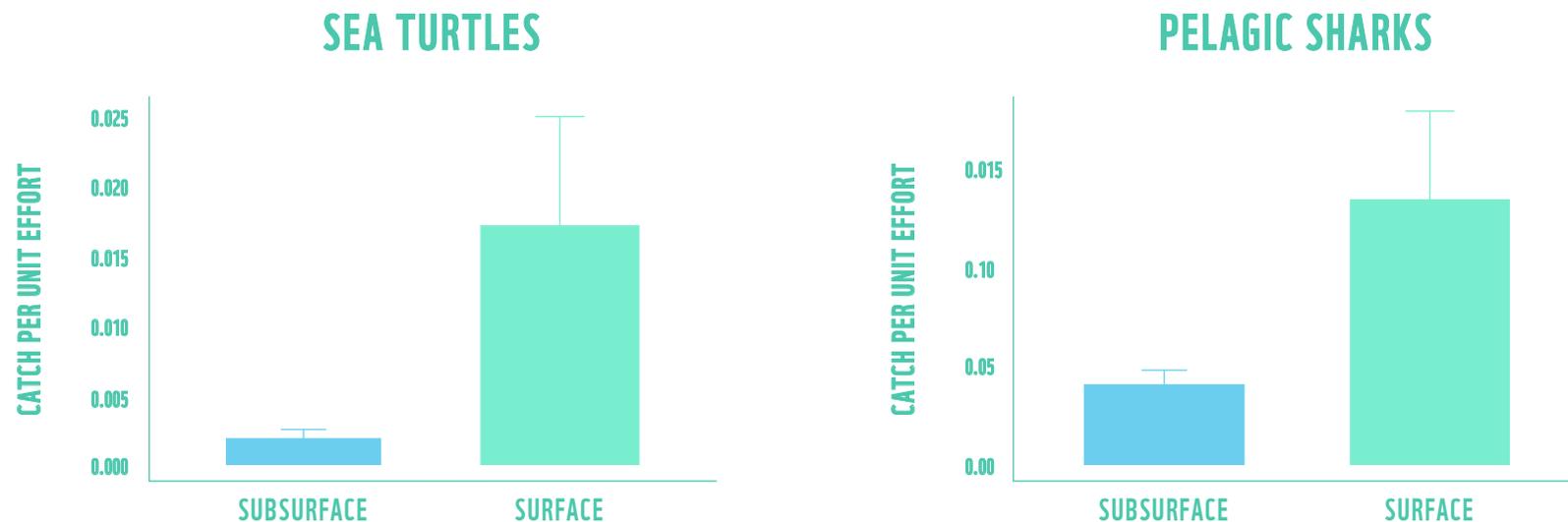


SUCCESS STORY

Gillnetting is a popular fishing method used to catch tuna and tuna like fish, mostly by small-scale fishermen off the coastal states of the Indian Ocean. Pakistan has a fleet of over 700 gillnetters, catching about 70 thousand tonnes of tuna fish annually. An estimated 12,000 cetaceans (whales and dolphins) and 29,000 sea turtles were being entangled every year in the gillnet fisheries of Pakistan alone.

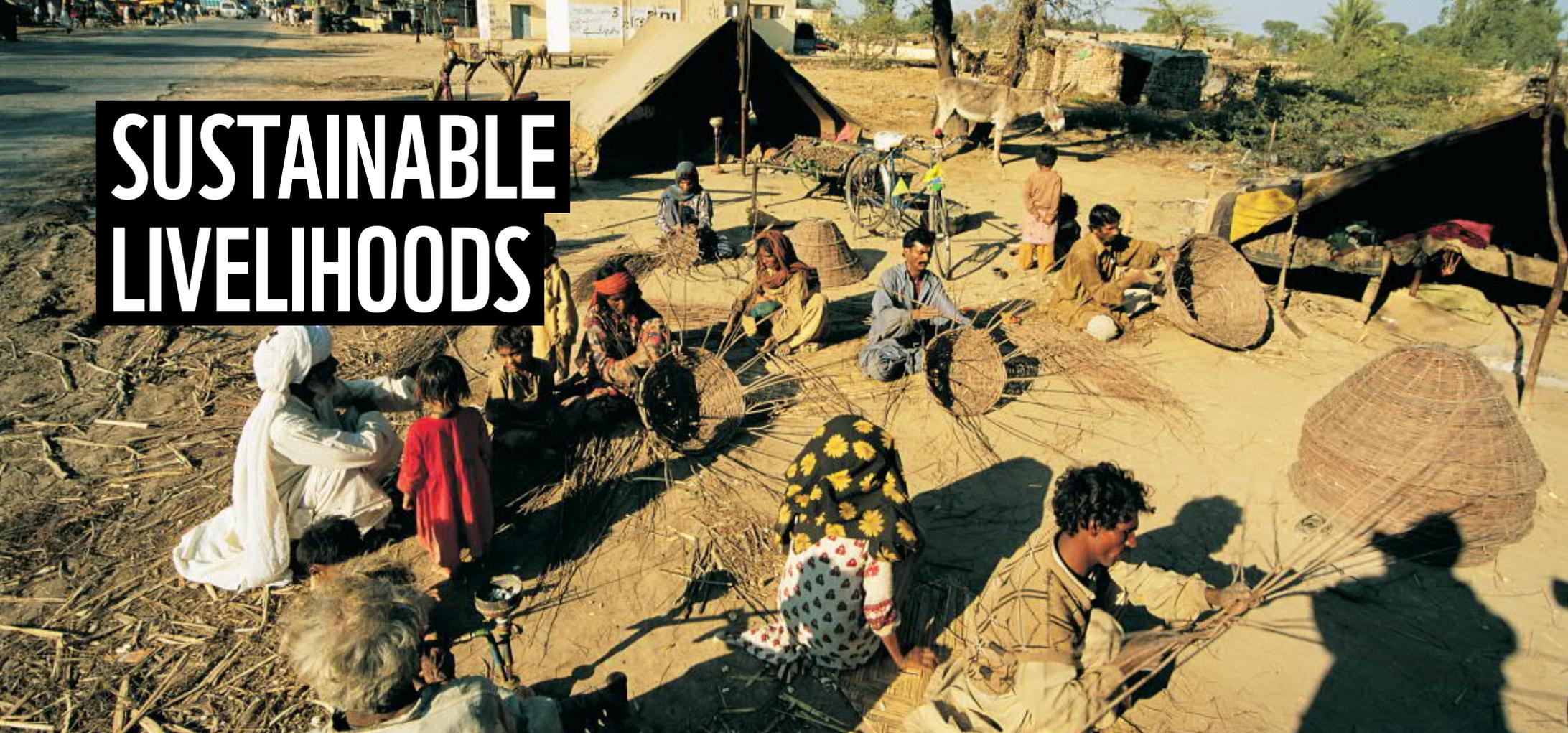
Considering the high by-catch of endangered, threatened and protected (ETP) and CITES listed species in gillnets fisheries, WWF-Pakistan introduced subsurface gillnetting to tuna fishers in the Arabian Sea, where nets are placed at a depth of two metres in the sea from surface water, as a technique to combat entanglement and accidental mortality of cetaceans. Subsurface gillnetting not only reduced by-catch and resultant accidental mortality of ETP species by more than 95 per cent but also resulted in a 30 to 40 per cent increase in target catch of tuna and tuna like species. There was a record reduction in the entanglement and mortality of marine dolphins by almost 98 per cent in subsurface gillnets.

The subsurface gillnetting technique is simpler, lower in cost and easier to operate as compared to surface gillnets. It allowed fishermen to save a considerable amount of time, effort and energy without compromising the target catch or harming any endangered species, particularly sea turtles and pelagic sharks. As a result, almost the entire gillnet fleet of Pakistan has switched to subsurface gillnet fishing after WWF introduced it in 2015-2016.



ENTANGLEMENT AND MORTALITY OF MARINE TURTLES AND PELAGIC SHARKS IN TUNA SURFACE AND SUB SURFACE GILLNETS (2018)

SUSTAINABLE LIVELIHOODS



Owing to its geopolitical location, Pakistan is home to diverse ethnicities and cultures, varied ecosystems, and rich biodiversity and natural resources. But it faces numerous economic, environmental, and social challenges that are exacerbated by its rapidly increasing population – currently around 207 million and estimated to cross 300 million by 2050. It has a Multidimensional Poverty Index (MPI) headcount of 38.3 per cent, with around 29.5 per cent of people living below the poverty line according to the Ministry of Planning and Development’s figures from 2016. Pakistan was ranked 152 out of 189 countries on the Human Development Index (0.560) in 2018, which is below the average of 0.634 for countries in the medium human development group, and 13 per cent below the average for countries in South Asia. The World Economic Forum’s 2018 Gender Gap Report ranks Pakistan at a dismal 148 out of 149 countries, just one position above Yemen.

Approximately 64 per cent of the country’s total population, and 80 per cent of those living below the poverty line, reside in rural areas and are mainly dependent on natural resources for their livelihoods and daily needs. There are, thus, strong linkages between poverty and the environment. The rural population often live in areas of high ecological vulnerability and relatively low levels of biological or resource productivity with limited access to land and other natural resources. Most of these vulnerable communities are, hence, stuck in a cycle where unsustainable use of an already declining natural resource base that they depend on, e.g. groundwater, trees, pastures, and fish, exacerbate the depletion of resources and perpetuate poverty. As poverty and environmental degradation are closely associated and causally interlinked, it is imperative that they are addressed together to achieve more effective outcomes under conservation, sustainable development, and poverty reduction initiatives.

WWF-Pakistan has made considerable efforts to understand these poverty-environment linkages in the country, working with communities at the core of all its initiatives. Its efforts on sustainable livelihoods include addressing equitable access to resources, promoting sustainable use and management of resources, introducing alternate income

generation options to build resilience, and skills development and market linkages support for women and men from project communities to ensure more income generation opportunities of vulnerable households.

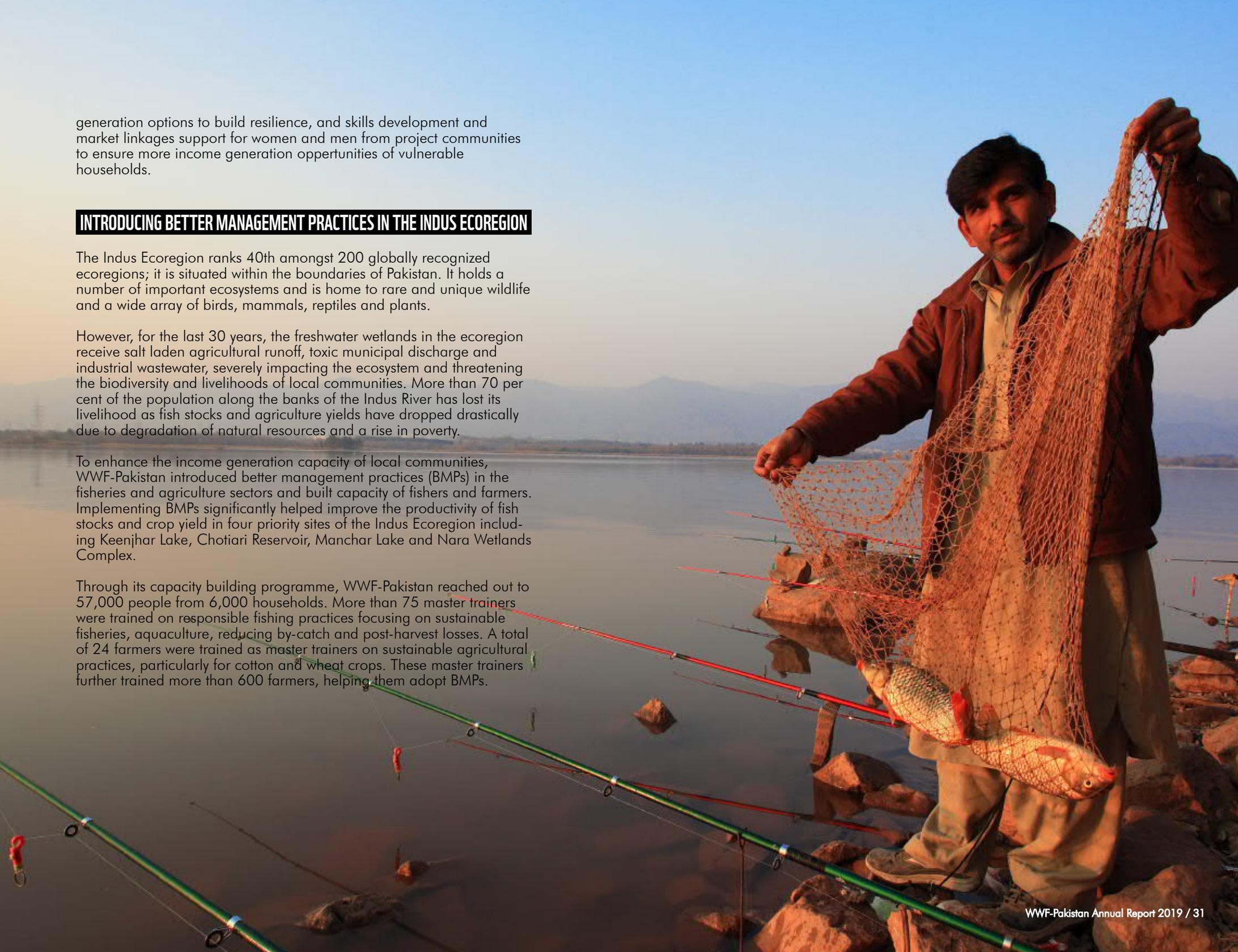
INTRODUCING BETTER MANAGEMENT PRACTICES IN THE INDUS ECOREGION

The Indus Ecoregion ranks 40th amongst 200 globally recognized ecoregions; it is situated within the boundaries of Pakistan. It holds a number of important ecosystems and is home to rare and unique wildlife and a wide array of birds, mammals, reptiles and plants.

However, for the last 30 years, the freshwater wetlands in the ecoregion receive salt laden agricultural runoff, toxic municipal discharge and industrial wastewater, severely impacting the ecosystem and threatening the biodiversity and livelihoods of local communities. More than 70 per cent of the population along the banks of the Indus River has lost its livelihood as fish stocks and agriculture yields have dropped drastically due to degradation of natural resources and a rise in poverty.

To enhance the income generation capacity of local communities, WWF-Pakistan introduced better management practices (BMPs) in the fisheries and agriculture sectors and built capacity of fishers and farmers. Implementing BMPs significantly helped improve the productivity of fish stocks and crop yield in four priority sites of the Indus Ecoregion including Keenjhar Lake, Chotiari Reservoir, Manchar Lake and Nara Wetlands Complex.

Through its capacity building programme, WWF-Pakistan reached out to 57,000 people from 6,000 households. More than 75 master trainers were trained on responsible fishing practices focusing on sustainable fisheries, aquaculture, reducing by-catch and post-harvest losses. A total of 24 farmers were trained as master trainers on sustainable agricultural practices, particularly for cotton and wheat crops. These master trainers further trained more than 600 farmers, helping them adopt BMPs.



To provide alternative livelihood options to communities, various trainings were conducted, which helped increase income. These trainings taught useful skills to electricians, particularly mobile repair technicians, resulting in a significant increase in their household income. After the completion of mobile repair training, an increase in income of 236 per cent was recorded in Nara, 139 per cent in Keenjhar, and 51 per cent in Manchar from 2018 to 2019.

Additionally, 40 women received block printing and stitching training. Newly set up craft centres at three sites gave these women the opportunity to create and display their work, thus providing a new source of income for 40 households.

As part of the provision of assets to improve alternate livelihood opportunities, 24 bakeries plus general stores were established and two boat safaris were set up in two project sites to promote ecotourism in the area, which are owned by the local community based organizations (CBOs).

REVIVING INDIGO FARMING

The indigo crop is mainly used for dyeing fabric and traditional clothing items such as *ajrak*, *jandi* and *kashi*. It is a drought-resistant plant and its benefits include increased crop yields with reduced fertilizer costs. Indigo is also a nitrogen fixing plant, which enhances the fertility of soil. It also helps reduce weed population in crop yields.

To revive the indigo crop, which had significantly decreased in demand due to the use of artificial dyes over the last few decades, WWF-Pakistan established 15 plots, covering 28 hectares in Keenjhar Lake, Chotiari Reservoir and Nara Canal. In collaboration with the Sindh Agriculture University, Tando Jam, research on the agronomic aspects of the plant are underway to understand the nitrogen fixing value of the crop. WWF is also collaborating with the textile sector to standardize the dye extraction process by studying the strength of pigmentation.

PROVIDING ALTERNATE ENERGY OPTIONS

Due to a lack of basic amenities, communities are dependent on natural resources to meet their fuel requirements. To decrease this dependence, 300 gasifiers were distributed in Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan. These gasifiers use agricultural and forest waste, as an alternative fuel source, to meet domestic energy requirements of communities. To build the capacity of the local communities in fabricating gasifiers, 30 master trainers were trained who are now working as technicians in the target areas.



SUCCESS STORY

WOMEN EMPOWERMENT AND NATURE CONSERVATION

Women make up almost half of Pakistan's population, yet their potential to contribute to society is often underestimated. Rani and Ghulam Fatima were expected to remain at home, however, an initiative taken by WWF-Pakistan gave these women support through employment and awareness of their rights to contribute towards a more gender-balanced society.

In Hyderabad, a four-day training session was conducted in which 78 men and women, from various villages in Manchar, participated. The dynamics of a *tanzeem* (organization) were explained to the trainees who also learned about the role of community based organizations (CBOs) as an advocacy platform, their hierarchy and purpose. Rani, along with several other women from her village, participated in the training. After a few months of training, Rani formed a *tanzeem* for the support of women and their rights in her village.

When they raised their voices, women like Rani, were met with resistance. But the women fought back.

"We are just trying to address our issues. We will not vote for people who are not willing to be held accountable," responded a woman.

"These matters should be handled by men only. Women should listen to the men. Have you no shame?" shouted a man.

This argument took place between the men and women of Sajan Mallah when members of a political party came to the village to ask for votes. The men immediately agreed, but the women demanded that the political party first provide clean drinking water, hospitals and schools. While the men tried to impede the women, Rani, along with other women, by then successfully running the women's organization, had the confidence to stand up and speak not just about their own rights but also the rights of the rest of the community. "Had it not been for WWF's training, we wouldn't have known our rights; let alone practised them."

With a similar goal in mind, WWF-Pakistan set up three bakeries at Nara Canal, Chotiari Reservoir, Keenjhar Lake and Manchar Lake. The bakeries created a source of food through local enterprise, while also providing employment opportunities for many women, as seen at Farhat Bakery in Sonhari village, Keenjhar Lake. The bakery employed six women, including the bakery operator, Ghulam Fatima. The workers were trained to manage the bakery, maintain a logbook and make fresh baked goods such as pastries and biscuits. The bakeries provided an alternate livelihood in fishing villages where fish catch has declined. The workers can now earn PKR 2,000 to PKR 3,000 each day, which is an additional source of income for women who were previously unemployed.

Before setting up the bakery, Ghulam Fatima ran a school for 80 children in her village. Her commitment encouraged education and lowered the rate of illness amongst the children by keeping them off the streets. Her hard work was recognized, and she was nominated by the local CBO for the position of bakery operator. Ghulam Fatima was an example for her community, and by putting her in charge of the bakery, WWF-Pakistan encouraged other women to follow in her footsteps and pursue employment.

The path to success is a long road, but with determination and hard work these enterprises are now beginning to thrive on their own. They are creating opportunities for women who formerly had no employment and depended on their families for monetary support. These new opportunities give them independence and encourage them to be more vocal about their rights.



CLIMATE AND ENERGY

Pakistan's contribution to global warming and climate change across the planet is negligible, accounting for only 0.5 per cent of the world's carbon emissions. However, it continues to be in the top ten countries most affected by climate change with communities along the coast to those in mountainous regions facing the harshest impacts. Extreme weather events such as sea storms and cyclones in the south, and glacial lake outburst floods and floods in the north are becoming more frequent and severe, disrupting the livelihoods of people. In recent years, the impacts of climate change were also seen in urban centres of Pakistan.

WWF-Pakistan implements projects on climate change mitigation as well as alternate energy solutions. It ensures that interventions are climate smart, promoting adaptation and disaster risk reduction for the citizens of Pakistan.

CLIMATE CHANGE MITIGATION AND ADAPTATION IN AGRICULTURE

The Strengthening Climate Resilient Cotton Production (CRCP) project enhances the climate resilience of the farming sector by building the capacity of farmers to adopt climate smart agricultural practices such as crop protection, conservation tillage, soil health improvement and water conservation. Along with climate resilience, CRCP also enhances farmers' economic resilience through adoption of alternate income generation sources.

Under the project Crop Residue Management for Reduction in Air Pollution and Soil Health Improvement, WWF devised a package of technological interventions to provide ground level support to local communities in sustainable management of rice residue. WWF-Pakistan also explored solutions to add economic value to agriculture residue as well as use crop residue to produce bio-manure to enhance soil fertility.

Finally, the AWARE project promotes the use of agro and forestry waste as alternate fuel sources for domestic energy requirements in Punjab, KP and Gilgit-Baltistan. More than 300 gasifier units were distributed among rural families in selected areas. This is paving the way to not only strengthen collective efforts to reduce pressure on natural resources but is also helping reduce greenhouse gas emissions.

REDUCING OFFICE CARBON EMISSIONS

The WWF Green Office Initiative (GOI) is a family of 70 offices in Pakistan working towards the common objective of reducing carbon emissions, cutting energy costs, reducing wastage and water consumption while making better procurement choices. This year, the network added 10 more companies, which includes Unilever Pakistan Limited (Lahore sales office), Comfort Knitwear Private Limited, Rajby Industries, Nazran Private Limited, Pakistan Red Crescent Society, Fauji Fertilizer Bin Qasim Limited (head office and plant office), Fauji Meat Limited (head office), Fauji Foods Limited (Lahore), Nurpur Fauji Foods Limited (Bhalwal), Masood Textile Mills Limited, Engro Polymer and Chemical Limited (Lahore regional office) and Tetra Pak Limited (Saudi Arabia).

During the reporting period, different Green Offices reduced approximately 2,700 Mt of CO₂ emissions. More than 1,000 employees participated in 20 environmental training workshops conducted in various companies across the country. The Annual Green Office Conference 2018 titled 'From Fog to Smog: A Deadly Transition' was held in Islamabad. The aim of the event was to develop a consensus between the public and private sectors to improve air quality in Pakistan. Awards and certificates of appreciation were presented to companies which showed substantial reductions of carbon emissions through the programme.

THE WAY FORWARD

- 1 INTEGRATE NATURE BASED SOLUTIONS (NBS) IN ALL PROJECTS RELATED TO WATER, FOREST, WATERSHED MANAGEMENT, SUSTAINABLE AGRICULTURE, COASTAL AND RIVERINE FLOODS. RECHARGE PAKISTAN IS ONE SUCH EXAMPLE, CURRENTLY IN ITS DEVELOPMENT STAGE WITH THE GOVERNMENT OF PAKISTAN (MINISTRY OF CLIMATE CHANGE, AND MINISTRY OF WATER RESOURCES).**
- 2 PROMOTION OF ALTERNATIVE AND ENERGY EFFICIENT OPTIONS, WITH A LOWER ENVIRONMENTAL FOOTPRINT, SUCH AS BIOGAS, FUEL-EFFICIENT STOVES, AND SOLAR OR HYBRID SOLUTIONS.**
- 3 BUILD UP SUSTAINABLE AND RESILIENT CITIES INITIATIVE BY INTEGRATING WASTE MANAGEMENT, PLASTIC REDUCTION, WATER MITIGATION, WATER CONSERVATION AND URBAN FORESTRY PROJECTS ACROSS CITIES IN PAKISTAN. ENCOURAGE BUSINESSES TO LOWER THEIR ENVIRONMENTAL FOOTPRINT BY SCALING UP THE GREEN OFFICE INITIATIVE.**

WILDLIFE



WILDLIFE PLAYS A CRITICAL ROLE IN MAINTAINING THE INTRICATE BALANCE OF NATURE AND NATURAL SYSTEMS. ITS PROTECTION IS ONE OF WWF'S KEY GOALS.

Pakistan is blessed with rare and unique species of wildlife, ranging from the Arabian humpback whale off the coast of Balochistan to the snow leopard in the high Himalayan mountains in Gilgit-Baltistan. Anthropogenic pressures such as poaching, habitat destruction, illegal trade, human-wildlife conflict and climate change impacts are amongst the key challenges to the survival of wildlife. Losing any species will not only be tragic, but also catastrophic as wildlife plays a critical role in maintaining an intricate balance of nature and natural systems. Its protection, therefore, is one of the key goals of WWF-Pakistan.

SAVING THE PANGOLINS

The Indian pangolin is one of the world's most trafficked mammals, primarily due to increasing demand for its scales and meat. The pangolin is nature's pest controller and eats around 70 million insects per year, while also improving the quality, porosity, aeration and fertility of soil. From October 2017 to September 2018, WWF-Pakistan initiated the project Saving the Pangolins of Pakistan, a conservation initiative to combat poaching and illegal trade of the Indian pangolin through research and management focusing on priority habitats in the Potohar Plateau and Azad Jammu and Kashmir (AJK). Under the project, field research and market surveys were conducted to understand the animal and its habitat range, status of its populations, threats, and scale of its illegal trade. Data collected helped WWF's team find solutions to fill knowledge gaps concerning the scale and scope of the pangolin's poaching in the region. A component of the project also included educating local communities about the value of conserving this harmless anteater.

As part of the project, six pangolin protection zones were established in Jehlum, Chakwal, Rawalpindi, Attock, Mirpur, and Kotli, and a community based watch and ward system was introduced for protection of the mammal in its natural habitat within these zones. At the policy level, a national consultative workshop was organized to discuss and draft recommendations for the Pangolin Conservation and Management Plan of Pakistan. Rescue guidelines were also developed and shared with wildlife experts for review. Through this work, WWF established a strong baseline for future conservation actions to support informed policymaking for the effective conservation and protection of the species. Local communities, especially youth engaged through awareness campaigns under the project, will become stewards of pangolin conservation in future.

GUARDIANS OF NATURE

Wildlife rangers in Pakistan, like many other intense poaching locations, face tremendous threats, lack of training and logistical issues. Following the murder of three wildlife rangers, one in Islamabad and two in Punjab, in the last two years, WWF-Pakistan initiated the Ranger Perception Survey in 2018 to identify challenges faced by rangers in the line of duty in the country. As a follow up to the survey, in collaboration with the Department of Psychology, University of Karachi, WWF conducted another study to understand the stress levels associated with working conditions of these guardians of nature. The first of their kind studies will be instrumental in filling knowledge gaps critical for informed policymaking.

CONSERVING THE SNOW LEOPARDS

In collaboration with the Gilgit-Baltistan Forest, Wildlife and Environment Department and Islamabad Wildlife Management Board, WWF-Pakistan organized the first training workshop on the adoption of Spatial Monitoring and Reporting Tools (SMART) - a technology based wildlife monitoring and reporting system, in selected national parks of Pakistan. The workshop was part of a pilot project to establish a SMART patrolling system in the Khunjerab National Park (KNP) and Margallah Hills National Park focusing on big cats and other priority species' conservation for the first time in the conservation history of the country.

RESTORING THE VULTURE POPULATION

For the past 12 years, WWF-Pakistan has worked to restore the critically endangered *Gyps* vulture population in the country. The programme focuses both on *ex-situ* initiatives, i.e. vulture captive breeding centre in Punjab, and *in-situ* actions, i.e. community led conservation by establishing a vulture safe zone in Sindh and setting up a potential vulture safe zone in Azad Jammu and Kashmir. WWF-Pakistan is also working with the Sindh Wildlife Department to declare the Karoonjhar Hills area in Nagarparkar a vulture sanctuary.

Currently, the captive breeding facility in Changa Manga has 22 oriental white-backed vultures including 15 adults and seven juveniles. Another success of the programme is the restricted distribution of Ketoprofen and Aceclofenac, nonsteroidal anti-inflammatory drugs (NSAIDs) that are the leading cause of decline in the vulture's population, by the government of Sindh in 2018.

SIX

COMMUNITY BASED PANGOLIN PROTECTION AREAS ESTABLISHED



THE WAY FORWARD

- 1** INITIATE AN INTEGRATED LANDSCAPE LEVEL LARGE CARNIVORE CONSERVATION PROGRAMME TO BRING TOGETHER SCATTERED WORK ON CARNIVORE SPECIES LIKE THE SNOW LEOPARD, COMMON LEOPARD, BEAR, AND THEIR ASSOCIATED PREY SPECIES IN PAKISTAN.
- 2** ESTABLISH A NATIONAL WILDLIFE CRIME AND TRADE MONITORING NETWORK (NWCTMN) TO IMPROVE COORDINATION AND CAPACITY TO COMBAT POACHING AND ILLEGAL TRADE OF WILDLIFE IN PAKISTAN.
- 3** SCALE UP VULTURE CONSERVATION INTERVENTIONS, INCLUDING EXPANSION AND LEGALIZATION OF VULTURE SAFE ZONES AND BANNING NSAIDS, IN THE REMAINING POPULATION HOTSPOTS OF PUNJAB, SINDH, AND AJK.
- 4** CONDUCT RESEARCH TO FILL KNOWLEDGE GAPS, ENHANCE AWARENESS, AND BUILD CAPACITIES AMONG STAKEHOLDERS TO ADDRESS THREATS TO THE SPECIES HIGH ON POACHING AND THE ILLEGAL TRADE LIST OF WILDLIFE IN PAKISTAN, SUCH AS INDIAN PANGOLIN, FRESHWATER TURTLE, BIRDS ETC.
- 5** DEVELOP AND IMPLEMENT A ZERO POACHING FRAMEWORK, SAFE SYSTEMS APPROACH, AND SPATIAL MONITORING AND REPORTING TOOL IN PRIORITY HABITATS AND PROTECTED AREAS TO DEMONSTRATE AT SCALE THEIR EFFECTIVENESS FOR WILDLIFE PROTECTION AND MITIGATION OF HUMAN-WILDLIFE CONFLICT IN SHARED HABITATS.

SUCCESS STORY

SAVING THE INDUS RIVER DOLPHINS

Nazir Mirani has spent well over 25 years serving the Sindh Wildlife Department and rescuing dolphins in the lower Indus River, which hosts the highest dolphin population.

The Indus River dolphin is the second most endangered freshwater dolphin in the world. In 2001, WWF-Pakistan conducted the first Indus River dolphin survey and the chances of its survival were bleak. That year, only 1,200 individuals were counted. What followed were concerted efforts by WWF-Pakistan, provincial wildlife departments and communities to protect the dolphin.

Almost fifteen years later, the latest population survey shows that these

conservation efforts were successful and close to 2,000 dolphins were counted, showing a population increase for the first time. This survey is a sign of hope and a reminder to continue our efforts to protect the dolphin and explore innovative solutions for its conservation.

RESCUE OPERATIONS ARE DIFFICULT

According to Mirani, rescuing dolphins can be a tricky job, evident from the numerous dolphin bites on his hands from rescue operations, but he cannot imagine a life without this mammal and the Indus River. An excellent swimmer, Mirani is part of a team that locates trapped dolphins in shallow water bodies. After a dolphin is spotted, he ensures its safe translocation to the main river channel in a soundproof ambulance. More than a hundred dolphins have been rescued in the past few years.



CHALLENGES

Stranding of dolphins in canals is amongst the key threats this mammal faces. When canal gates are closed, the level of water drops and these canals turn into small ponds. Dolphins become trapped, unable to swim back, left with only a limited food supply.

A 24-hour rescue hotline allows communities to report strandings of dolphins to WWF and the Sindh Wildlife Department. The rescue team then arrives in a dolphin ambulance.

WHAT DOES A DOLPHIN RESCUE LOOK LIKE?

WWF, along with local communities and the Sindh Wildlife Department, has been involved in the safe rescue and release of dolphins for over three decades. Additionally, other community watchers work with the Wildlife Department in monitoring but rangers work with limited resources. Their jobs involve patrolling the Indus River to look for illegal fishing activities, which can cause dolphin entanglement in nets and lead to mortality.

Once the team arrives and has assessed the situation it manually lifts the stranded dolphin out of the canal, places it on a stretcher and takes it to the ambulance. The Indus dolphin is a sensitive mammal, which relies on its highly developed sonar and hearing to navigate. It can experience stress during the rescue and translocation process due to the sound and movement of the vehicle. Therefore, the specialized soundproof ambulance is equipped with a shower and water tank to keep the dolphin's skin moist to ensure its well-being and safety.

The dolphin rescue network includes representatives of the Sindh Wildlife Department, Sindh Irrigation Department, Sindh Forest Department, Sindh Fisheries Department, Sindh Environmental Protection Agency and local community activists, who monitor the Indus River as well as its adjacent canals and tributaries to rescue any stranded dolphins.



FRESHWATER

**THE GOAL OF THE PROGRAMME IS
TO PROTECT FRESHWATER ECOSYSTEMS
AND THEIR SERVICES TO SUSTAIN
PEOPLE AND NATURE.**

Pakistan is a water-stressed country, with per capita water availability of only 930 cubic metre per annum. Rapid industrialization and urban development, along with increasing irrigation needs, are depleting both the quantity and quality of the country's water resources, negatively impacting agricultural output and the health of the population.

WWF-Pakistan's Freshwater Programme focuses on promoting integrated water resource management. The goal of the programme is to protect freshwater ecosystems and their services to sustain people and nature. Through its water stewardship approach, WWF helps people understand that water is a shared resource and risks and opportunities are likewise shared. The programme has a strong focus on Sustainable Development Goal (SDG) 6: Clean Water and Sanitation, SDG 9: Industry, Innovation and Infrastructure and SDG 12: Responsible Consumption and Production.

WORKING WITH INDUSTRIES

WWF-Pakistan's International Labour and Environmental Standards Application in Pakistan's SMEs (ILES) project integrates environmental protection with industrial growth. The project helps the leather and textile industries implement environmental standards to improve their competitiveness, and strengthens the capacity of the public sector to implement multilateral environmental agreements (MEAs) and national environmental laws and standards in Pakistan. To date, 90 leather and textile Small and Medium Enterprises (SMEs) were mobilized for environmental audits in Karachi, Lahore, Sialkot and Faisalabad. Out of these 90 SMEs, 55 were audited and 16 post-audits were conducted to ensure compliance with recommended Smart Environmental Management Practices (SEMPs).

As knowledge partner on the Revitalization of River Ravi project, WWF-Pakistan documented and assessed ecosystem characteristics and the industrial pollution situation in the river basin, and recommended water quality and pollution control knowledge management and data sharing systems. Additionally, it undertook multi-stakeholder visioning exercises and trainings to support the planning process to revitalize the river basin.

WWF-Pakistan also provided inputs to the revitalization and resilience plan for the basin, focused on industrial pollution planning and nature-based pollution control.

The organization is also developing a hydrological modelling tool to estimate the water balance as well as supply and demand in the Ravi catchment under the Basin Assessment Scenario Intervention Tool (BASIT) project. The BASIT tool will help identify and assess future potential sites for water replenishment.

DEVELOPING WATER CONSERVATION STANDARDS

WWF-Pakistan worked on the implementation of the Alliance for Water Stewardship (AWS) standards in the country in order to integrate them in industrial processes through stakeholder engagement, and by promoting an understanding of better water management techniques within company operations. So far nine SMEs signed commitments to implement AWS at their sites.

90

**LEATHER AND TEXTILE
SMEs WERE MOBILIZED
FOR ENVIRONMENTAL
AUDITS**



THE WAY FORWARD

- 1 DEVELOP GUIDELINES FOR GREEN FINANCING OF WATER STEWARDSHIP INTERVENTIONS IN WATER INTENSIVE SECTORS, SUCH AS LEATHER AND TEXTILE INDUSTRIES, IN PAKISTAN.**
- 2 COLLABORATE WITH PUBLIC AND PRIVATE SECTOR PARTNERS ON REVITALIZING AND RESTORING DEGRADED RIVERS, THROUGH INITIATIVES LIKE THE BASIN AREA SCENARIO INTERVENTION TOOL AND THE KNOWLEDGE PARTNERSHIP ON RIVER RAVI'S REVITALIZATION PLAN.**
- 3 PROMOTE INVESTMENT IN WATER RECYCLING AND REPLENISHMENT, RAINWATER HARVESTING, WASTEWATER TREATMENT, AND WATER FILTRATION INTERVENTIONS BY THE PRIVATE SECTOR AND OTHER PARTNERS.**
- 4 IMPLEMENT ECOSYSTEM-BASED ADAPTATION AND NATURE-BASED SOLUTIONS THROUGHOUT THE INDUS BASIN AND THE INDUS DELTA, UNDER INITIATIVES SUCH AS RECHARGE PAKISTAN, RESILIENT ASIAN DELTAS, AND ASIAN FLYWAYS, THAT RESTORE AND PROTECT FRESHWATER ECOSYSTEMS AND BIODIVERSITY.**

SUCCESS STORY

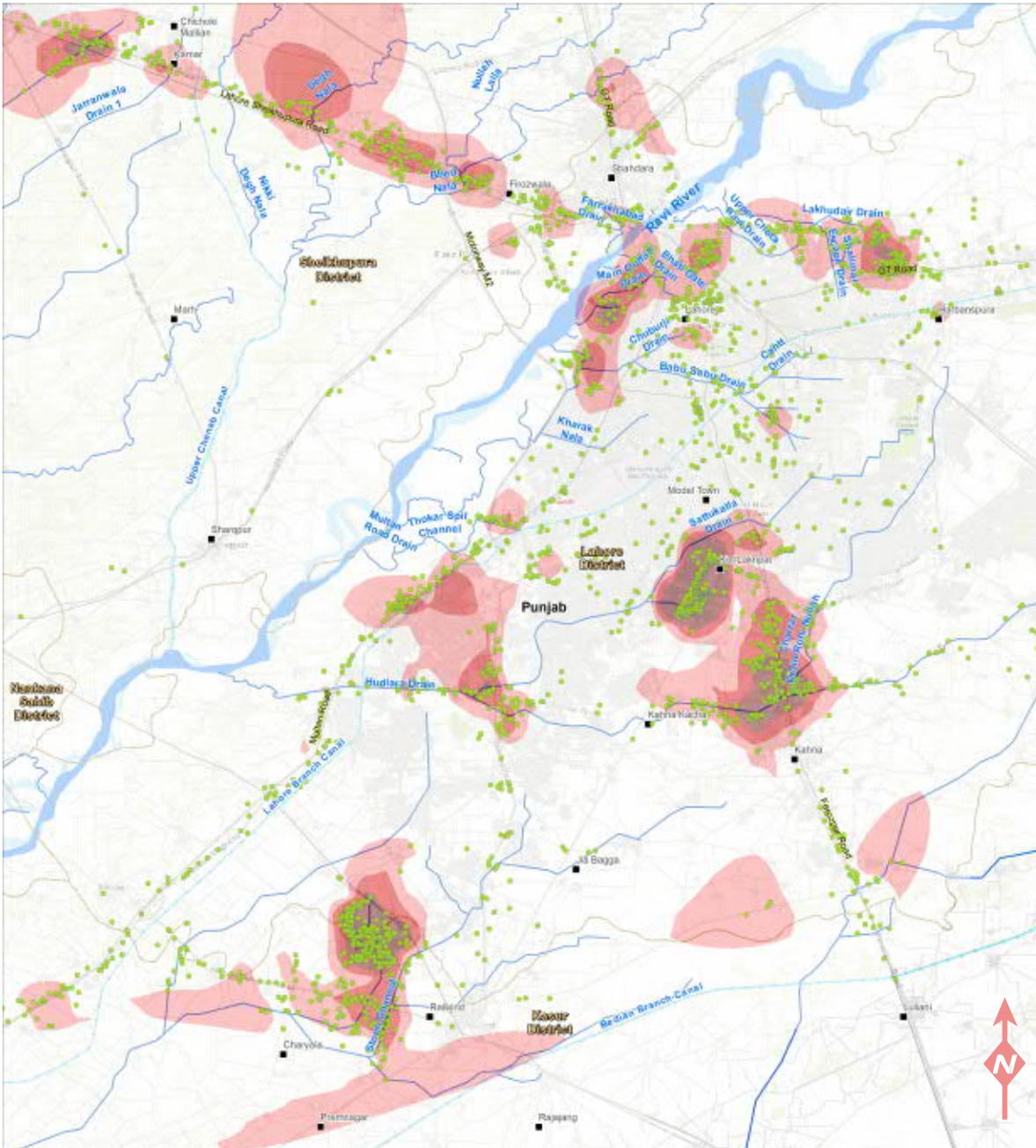
Faisalabad is an important industrial city of Pakistan but at the same time, it is an example of how rapid industrialization has caused severe environmental issues. Discharge of untreated industrial effluents in the city's water sources are polluting water bodies and leading to soil contamination, which is harmful for the environment and people's health.

Klash Private Limited (KDH) is a leading dyeing and finishing textile unit in the city. It agreed to improve its environmental performance by investing in environmentally friendly practices, following the first visit of the ILES project team to its facilities in July 2017. The team identified that water consumption practices at KDH had high savings potential, which could be achieved through monitoring and benchmarking of water consumption at source.

The management invested PKR 0.35 million to monitor daily water intake to the plant, which enabled a reduction in water consumption by 100 m³/day, equivalent to the drinking water requirement of 50,000 people per day. The reduction in water consumption also resulted in savings of 24 kWh of electricity on a daily basis. Through process optimization, the batch processing time was reduced by 80 minutes, which resulted in savings of 16m³ of water, 1,162 kg of steam and 33 kWh of electricity. Klash Private Limited also controlled various leakages in its processes, which led to savings of PKR 8,000/day.

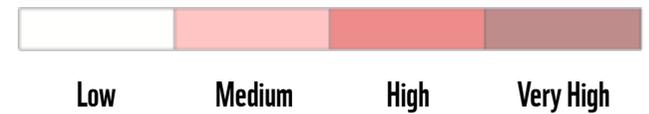
The company has also invested around PKR 1.0 million in energy efficient lighting and thus reduced electricity consumption of approximately 200,000 kWh on an annual basis by investing in nature.

INDUSTRIAL POLLUTION HOTSPOT INDICATOR MAP OF LAHORE



- Industry
- Locality
- Road
- Canal
- Drainage
- Province Boundary
- District Boundary
- Ravi Basin
- River

POLLUTION LOAD INDEX



As an outcome of the industrial wastewater pollution assessment for River Ravi, pollution hotspot mapping of Lahore showed sections of the city where highly toxic untreated industrial wastewater is contaminating local water bodies, impacting human health and damaging the entire ecosystem, including local flora and fauna.

PARTNERING WITH THE PANDA



ENVIRONMENT EDUCATION THROUGH SPELLINGS

Spellathon, one of WWF-Pakistan's flagship campaign, kicked off for another year in September 2018, and received an overwhelming response from schools across the nation. Each year, participating students from early years to grade 8 learn spellings from storybooks covering local environmental issues. This year, close to 40,000 students registered from more than 400 educational institutes across the country including 9,600 students under Early Years. Sponsors this year included Morinaga, Seasons Oil, Tetra Pak, PTCL, Oxfam Pakistan and Sui Southern Gas Company (SSGC). A total of 1,000 students from Mashal Model School and Pehli Kiran School, Islamabad participated in the Spellathon campaign with the financial support of PTCL, with the aim to educate less privileged students who have limited knowledge of nature conservation. More than 12,500 students from Thatta and Karachi districts also participated in Spellathon and learned about the importance of mangroves under an Oxfam supported activity.

With the aim to digitize the now more than 20 year-old Spellathon campaign, WWF-Pakistan signed an agreement with Micronox to develop a web-based application to conduct the test to ensure efficiency, accessibility and reduction in paper consumption. With e-Spellathon, WWF-Pakistan aims to enhance knowledge and create environmental awareness on an even larger scale.

CLIMATE DIPLOMACY DAY

For the past three years, the European Union Delegation to Pakistan has partnered with WWF-Pakistan to raise awareness among the diplomats of European states, which fall under the jurisdiction of the union, on climate change. This year, Climate Diplomacy Day was celebrated in October 2018 and kicked off with a cycle ride from the Pakistan National Council of the Arts (PNCA) as a symbolic gesture to raise awareness to curtail the growth of greenhouse emissions by promoting eco-friendly modes of transportation. This was followed by the screening of a documentary and an art competition.



EARTH HOUR 2019

Earth Hour, celebrated on the last Saturday of March 2019, is a worldwide movement organized by WWF, to encourage individuals, communities, and businesses to take action to tackle climate change with a symbolic commitment for the planet.

The event was celebrated at the National Assembly of Pakistan in Islamabad, Sindh Assembly in Karachi, WAPDA House in Lahore as well as various offices of WWF-Pakistan including Bahawalpur, Khanewal, Faisalabad, Quetta, Peshawar, Nathiagali, and Sukkur where students, families, members of civil society organizations, corporates and representatives of government departments participated.

PROJECT 91

In order to provide safe drinking water to communities of Sonehri and Abdullah Gandhro villages in Thatta district, WWF-Pakistan and Titans Autographs and Memorabilia collaborated to set up two ultra-filtration water plants. Both villages, with a population of 9,870 individuals, have benefitted from these facilities, which not only provide safe drinking water to local communities but have helped improve their health.

5S SUSTAINABLE CITY: CLEAN AND GREEN DRIVE

WWF-Pakistan and Indus Motor Company collaborated this year to promote Karachi as a sustainable city by implementing the 5S methodology and creating awareness among 100,000 young citizens by running cleaning drives, reducing plastic pollution and planting trees. Under this programme, 100,000 saplings are being planted throughout the city by engaging students and encouraging them to plant trees in their schools.



GLOBAL PERSPECTIVE AND ECO TRAVEL

Students of different ages took part in nature trips across Pakistan. These exposure trips included practical information sessions in the Margalla Hills National Park, Khanpur, Nathiagali, beach cleaning and turtle watch activities at the WWF-Pakistan Wetlands Centre Karachi, Keenjhar Information Centre, Somiani Lagoon and Changa Manga Forest in Lahore. A total number of 5,000 students from different partner schools have benefited through these exposure trips.

ENCOURAGING THE YOUTH TO BE CUSTODIANS OF THE ENVIRONMENT

WWF's Youth Development Programme encourages students to become environmental stewards and positive influencers for a sustainable planet. This year, the Eco-Internship Programme and the Nature Leadership Programme advocated a broader perspective on environmental conservation.

The Eco-Internship Programme (EIP) trains, empowers, and mobilizes youth on environmental issues through interactive workshops and community action projects. Around 3,200 individuals from close to 100 schools, colleges and universities graduated from the programme this year. As part of EIP, students completed projects on natural resource conservation, waste minimization, green entrepreneurship, footprint reduction, climate change, food wastage and loss, water conservation, and green energy.

The Nature Leadership Programme (NLP), in collaboration with Dandelion Outdoor Education, educated participants on nature and field knowledge. As part of its first chapter, a batch of 20 students from Cadet College Hasan Abdal were taken to Shogran, Siri Paye Meadows, and Makra Peak in order to teach them the basics on conservation, wilderness survival and ecotourism.

TACKLING PLASTIC POLLUTION

WWF-Pakistan initiated a national Green Innovation Challenge (GIC), which was a three-stage start-up competition aimed at supporting technology-oriented solutions to mitigate plastic pollution. Ayesha Chundrigar Foundation, a non-profit organization rescuing and rehabilitating stray injured animals, won the challenge and was provided seed funding to implement their idea to make leashes, ropes and donkey harnesses from discarded plastic ghost nets recovered from the sea.

WWF-Pakistan initiated a baseline study to outline the current production, consumption pattern, collection and recycling rates of PET. The study surveyed Lahore, Karachi, Islamabad, Peshawar, Gilgit, Rahim Yar Khan, Murree, Faisalabad, Gujranwala and Multan. Stakeholders included players in the PET supply chain, formal and informal waste management companies, scavengers, junk dealers, recyclers as well as household consumers, hotels, restaurants and educational institutes. A coastal cleanup drive activity was also organized at Sea View, Clifton, Sandspit and Hawksbay beaches in Karachi. More than 800 participants including academia, students, volunteers and concerned citizens joined the activity. A total of 500 bags and 1,032 kg of garbage were collected by participants from a 10.5 km stretch of the beach.

Additionally, two one-day consultative workshops were held in Lahore and Karachi to bring all stakeholders together to discuss issues in the current process of PET collection and recycling. Participants also discussed how to reduce the occurrence of plastics from the environment, behavioural changes to segregate waste at source in addition to engaging all relevant sectors to formulate a practical strategy to lift scavengers from poverty and improve their health.

ACTIVITY-BASED ENVIRONMENTAL EDUCATION

The Green School Programme, which engages students in an annual awareness programme, worked with a total of 19 different schools throughout the year in order to foster a sense of individual responsibility towards nature conservation. The programme engaged over 4,000 students from different branches of Roots Millennium Schools, Beaconhouse School System, DHAI Education System, The City School, Lawrence College Ghora Gali, Murree, Froebel's International School and Sheikh Zayed International Academy. Students were given insights in environmental challenges faced at a global and regional level. Additionally, the Green Student Habit Tracker allowed children to develop more environmentally friendly habits. Students were also encouraged to take care of nature around them through nature walks and by teaching them about the importance of areas such as Margalla Hills National Park. Students participated in advocacy for the environment through different activities, the most successful of which was The Panda Challenge 2019. A total of 16 schools participated from Islamabad, Rawalpindi, Lahore and Gujrat, leading to 140 finalists who were selected from approximately 3,000 talented students. The finalists competed on a national level in different categories such as poster making, speeches, debates and creative writing.

RUNG DO PAKISTAN

Pakistan lost an average of 43,000 hectares of forests (equivalent to half the size of Islamabad) every year between 2000 and 2010. In response to the urgent need to increase forest cover of the country, WWF-Pakistan launched its Rung Do campaign on 14 August 2018 with its goodwill ambassadors Call the Band to plant 1.4 million native tree species across the country. A music video, which showcased the diversity of Pakistan, encouraged individual action to plant trees.

Partners included PTCL, JS Bank, Habitt Home Store, Adam Smith International, Lilly Pharmaceuticals, Samba Bank, Ibex Global, HUBCO, International Steel Industries, K-Electric, Toyota (Indus Motor Company) and Crescent Steel and Allied Products. The ride hailing service Careem operated a special Rung Do ride from 14 August to 30 September where customers were able to directly donate to WWF while booking a ride.

The campaign not only focused on plantation but on post-care for the initial three years that saplings are planted, which is critical for their survival. WWF-Pakistan is also monitoring and ensuring proper maintenance so that plantations have a measurable and real impact. WWF-Pakistan surpassed its target and successfully planted approximately 1.7 million trees throughout the country.

SMALL GRANTS PROGRAMME



Since 1986, WWF-Pakistan's Small Grants Programme (SGP) supports grassroots level organizations and research-based institutions, in enhancing their capacity to strengthen nature conservation efforts in Pakistan. An independent Scientific Committee of eminent scientists from various backgrounds administers the Small Grants Programme.

DURING THIS YEAR

- Syed Rizwan Mehboob took over the chairmanship of the Scientific Committee.
- Three new Student Grants projects were funded.
- 106th Project Review and Scientific Committee meetings were conducted.
- Final reports of three projects were submitted and one project was successfully completed.

CORPORATE DONORS

DIAMOND MEMBERS

WWF-Pakistan's Diamond Members give donations of PKR 500,000 and above.

1. Beaconhouse School System

GOLD MEMBERS

WWF-Pakistan's Gold Members give donations of PKR 200,000 to 499,000.

2. Hilton Pharma
3. JDW Sugar Mills
4. Naveena Export Limited
5. The Bank of Punjab

SILVER MEMBERS

WWF-Pakistan's Silver Members give donations of PKR 50,000 to 199,000.

6. Bestway Cement
7. Chiesi Pharmaceuticals
8. Ibrahim Fibres Limited
9. Kingcrete Builders
10. Mirpur Khas Sugar Mills
11. Pharmagen Limited
12. Sufi Group of Companies

BRONZE MEMBERS

WWF-Pakistan's Bronze Members give donations of up to 49,000.

13. Anis Ahmed & Brothers
14. Artistic Milliners

15. EFU Life Assurance Limited
16. ICI Pakistan
17. International Brands Limited
18. International Industries Limited
19. JS Bank
20. Jubilee General Insurance
21. Tariq Glass
22. Mitsubishi Corporation
23. Naurus (Private) Limited
24. Oxford University Press
25. Pakistan Cables Limited
26. PCI Automotive
27. Tapal Tea
28. Thal Limited-Pakistan Papersack Division
29. The Hub Power Company Limited
30. ZIL Limited
31. BASF Pakistan
32. Century Paper Board Mills Limited
33. Fauji Fertilizer Company Limited
34. KAPCO
35. Malik Auto & Agriculture Industries
36. Mukhtiar Engineering
37. Murrree Brewery Company Limited
38. Pak Kuwait Textiles Limited
39. Seasons Edible Oil Limited
40. Siddiq Leather Works (Private) Limited

BALANCE SHEET

AS AT JUNE 30, 2019

FUNDS	2019 RUPEES	2018 RUPEES
General Fund	113,214,512	99,321,992
1001 The Nature Trust ⁽¹⁾	15,003,983	15,003,983
Scientific Committee Fund ⁽²⁾	2,470,524	3,239,233
Restricted Funds ⁽³⁾	49,080,747	50,486,889
Endowment Funds ⁽⁴⁾	5,835,882	5,896,026
TOTAL FUNDS	185,605,648	173,948,123
REPRESENTED BY		
Fixed Assets ⁽⁵⁾	70,421,882	53,169,067
Investments ⁽⁶⁾	12,195,579	98,015,647
Current Assets	742,059,210	442,054,835
TOTAL ASSETS	824,676,671	593,239,549
Current Liabilities	599,138,823	387,572,340
Employee Retirement Benefits	39,932,200	31,719,086
TOTAL LIABILITIES	639,071,023	419,291,426
TOTAL	185,605,648	173,948,123

Based on accounts audited by Deloitte Yousaf Adil, Chartered Accountants, a member firm of the Deloitte Touche Tohmatsu Limited.

- 1001 The Nature Trust is an endowment fund.
- The Scientific Committee Fund is a small grants fund for researchers, scientists and community-based organizations. Money raised from national fundraising is used to fund different small projects with a maximum funding of PKR 300,000 annually per project.
- Restricted funds are received from various donors such as Government and Aid Agencies, the WWF Network, Corporates and Trusts and Foundations to execute specific projects.
- Endowment funds are maintained to carry out conservation activities.
- 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 are the money set apart and kept unutilized, invested in financial institutions in long term investments. Investments are stated at cost. Income from investments is recognized when the right to income on such investments accrues.

INCOME AND EXPENDITURE

FOR THE YEAR ENDED JUNE 30, 2019

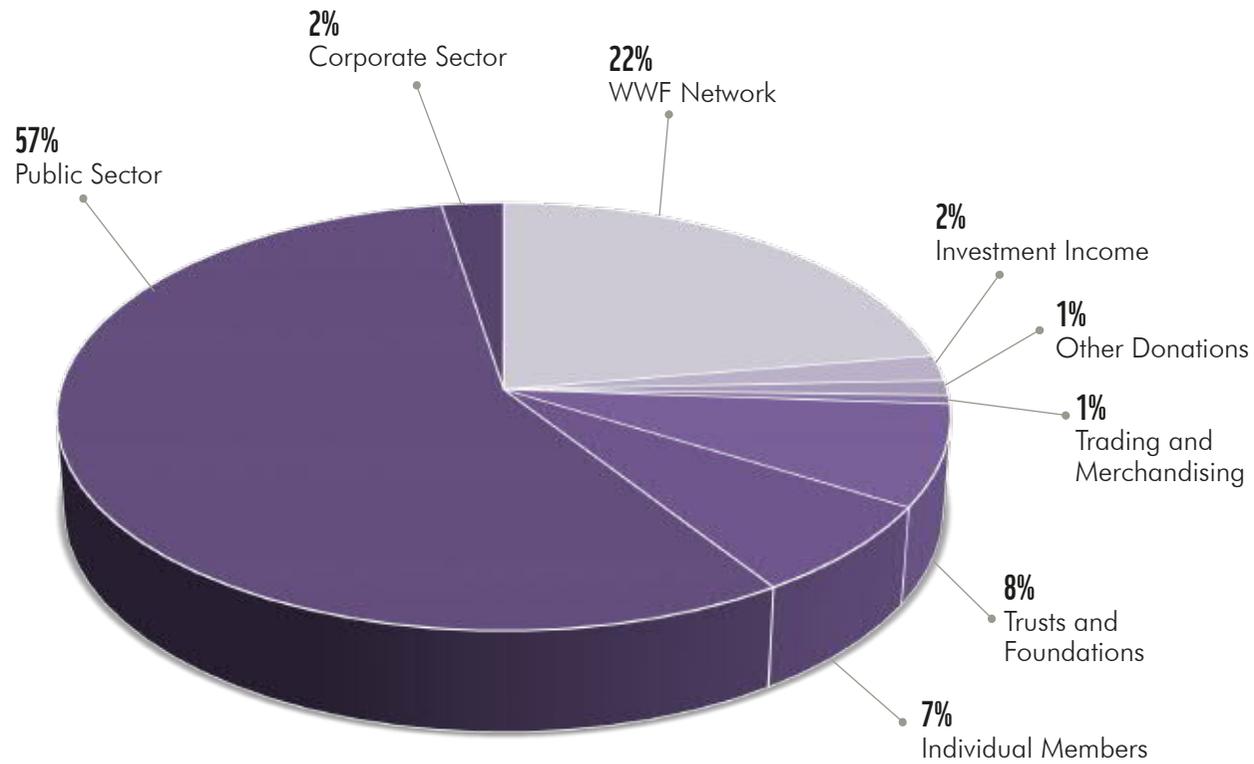
INCOME	2019 RUPEES	2018 RUPEES
Project support from various agencies ⁽¹⁾	851,745,052	609,131,941
National Fundraising and Others ⁽²⁾	97,959,568	100,907,304
Return on Investments	15,733,070	10,532,430
TOTAL INCOME	965,437,690	720,571,675
EXPENDITURE		
Global Programme Framework⁽³⁾		
Species	26,287,443	32,094,551
Freshwater	40,404,680	21,137,733
Commodities	269,840,752	193,478,307
Energy / Carbon	41,888,640	13,707,033
Places	184,161,794	100,955,190
Others	170,216,424	167,043,535
Non Global Programme Framework⁽⁴⁾		
Conservation, Information, Education and Public Policy	64,265,158	54,913,913
Fundraising	81,292,146	62,515,423
Administration	50,428,841	57,723,604
Depreciation	13,508,084	9,465,390
TOTAL EXPENDITURE	942,293,962	713,034,679
SURPLUS FOR THE YEAR	23,143,728	7,536,996

Based on accounts audited by Deloitte Yousaf Adil, Chartered Accountants, a member firm of the Deloitte Touche Tohmatsu Limited.

1. Project Support from Various Agencies includes funds accrued from donors such as Government and Aid Agencies, WWF Network, Corporates and Trusts & Foundations during the financial year.
2. National Fundraising and Others 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. It also includes the funds received for management of services.
3. 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.
4. Non Global Programme Framework reflects the expenditures incurred on projects initiated to address the national conservation priorities.

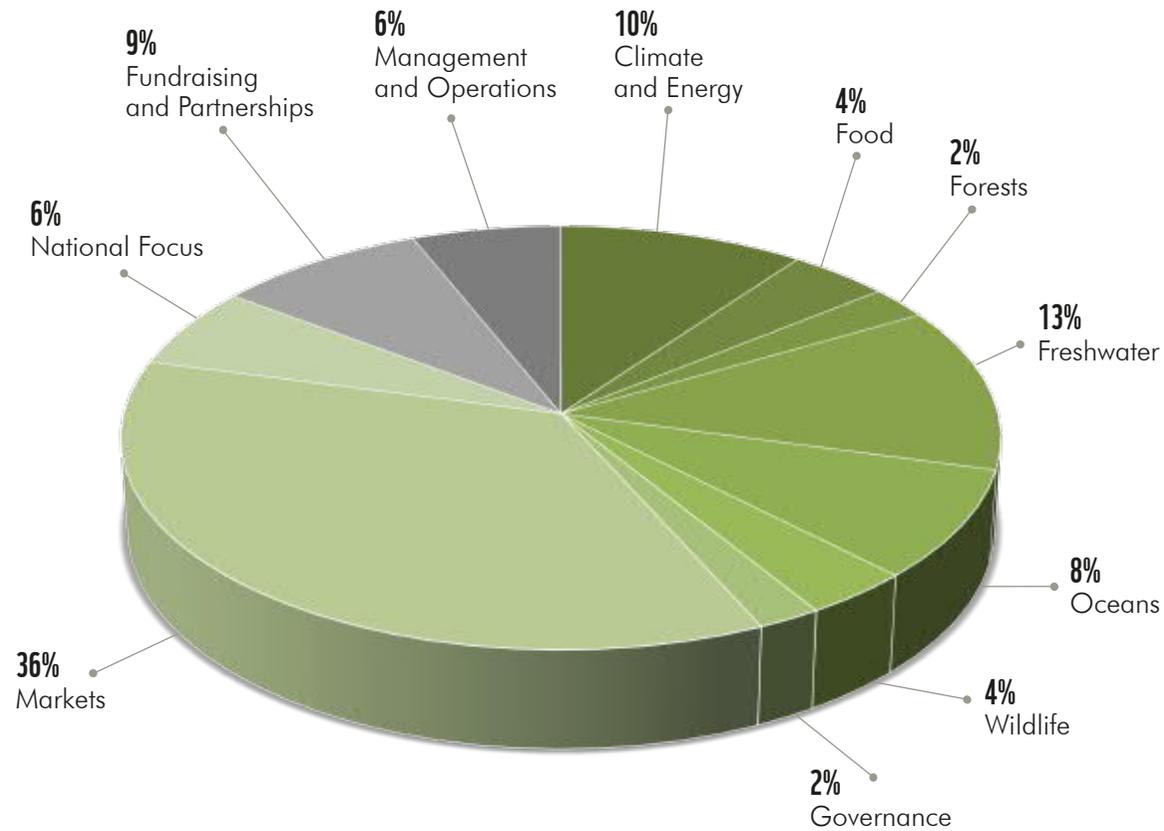
INCOME

FOR THE FINANCIAL YEAR 2019



EXPENDITURE

FOR THE FINANCIAL YEAR 2019



1970

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

300+

The organization works through 30+ offices, including five regional offices, and a team of over 300 dedicated staff members.

FUTURE GENERATIONS

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.

GLOBAL GOALS

WWF-Pakistan carries out conservation work according to six Global Goals which includes wildlife, oceans, freshwater, food, forests and climate and energy.

INCOME

WWF-Pakistan has an average annual income of USD 6 Million.



Working to sustain the natural world for the benefit of people and wildlife.

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