

## Annual Report 2016



Annual Report 2016 Copyright © WWF-India 2016 WWF-India, 172-B, Lodi Estate, New Delhi 110 003 Tel: +91 11 4150 4814 www.wwfindia.org

Published by WWF-India
Any reproduction in full or part of this publication must mention the title and credit the mentioned publisher as the copyright owner.

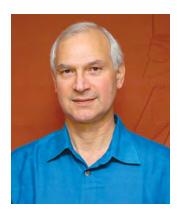
#### **ACKNOWLEDGMENT**

WWF-India would like to acknowledge the support of all its partners including the National and State Governments, State Forest Departments, Ministries, enforcement agencies, technical and educational institutions, local and other national NGOs, companies, businesses and industries, corporate organizations, civil society groups, local communities, media and the international network of WWF offices. These collaborations play an instrumental role in implementing conservation initiatives and achieving impact on ground.

## **Contents**

PRESIDENT'S NOTE	11
MESSAGE FROM THE SG & CEO	iii
NTRODUCTION	iv
Species & Landscapes	6
Forests	10
Oceans & Coasts	14
Rivers & Wetlands	18
Sustainable Agriculture	22
Climate & Energy	26
Centre for Environmental law	30
Policy, Research & Innovation	32
ΓRAFFIC India	34
Environment Education	36
Together, We Can	38
Corporate Support	44
Publications	46
Financial Statement	48

### President's note



Jamshyd N. Godrej President, WWF-India

The vision for WWF-India's conservation programme is that India moves towards a development pathway which conserves biodiversity, values ecosystems and contains its ecological footprint. The road towards this ambitious vision is paved with numerous challenges. Nonetheless, it is critical for India to undertake sustained efforts in order to preserve its natural heritage, revered across the world for its diversity of forests and species alike.

The team at WWF-India recognizes the odds it is working against and invests proportionate efforts towards demonstrating practical solutions on-ground while also influencing policies to achieve long term impact. This Annual Report showcases some of the major successes achieved through the commitment and dedication our teams, but is by no means exhaustive. The organization continues to make contributions with consistency every day in addressing India's environmental concerns.

I take this opportunity to congratulate the team at WWF-India and wish them well for future endeavours.

Jamshyd N. Godrej

#### **BOARD OF TRUSTEES**

Mr. Arun Maira Mr. Arvind Wable Ms. Chanda Singh Mr. Jamshyd N. Godrej Mr. N. Kumar Mr. Ravi Singh (ex-officio) Mr. Shyam Saran

#### ADVISORY BOARD

Dr. Divyabhanusinh Chavda Mr. Tarun Das Mr. Nitin Desai Mr. Sudhir Vyas Mr. Ratindra Puri Mr. Brijendra Singh

### From the SG & CEO



Ravi Singh Secretary General & CEO, WWF-India

This has been a productive year for WWF-India and I am proud to share with you our achievements of 2016. At the heart of all our initiatives has been the vision to deliver impact at scale. Our work has focused on demonstrating innovative and scalable pilot projects, forging strategic partnerships with various stakeholders, as well as influencing policy to ensure long term solutions to the country's growing environmental challenges.

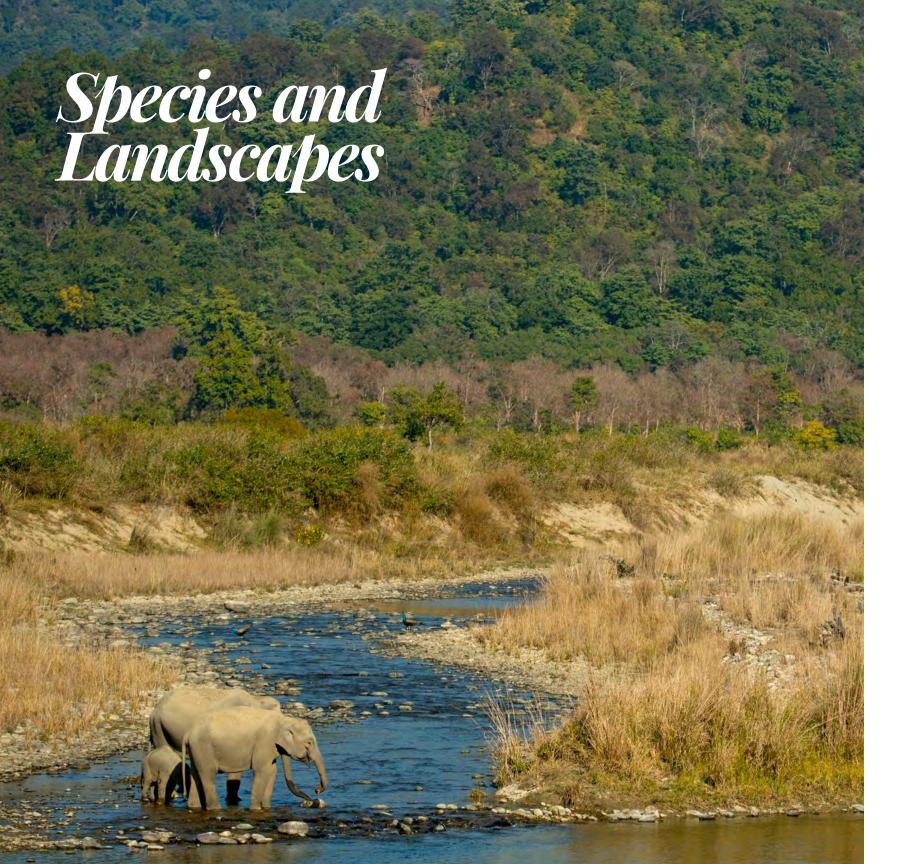
Our wildlife conservation programme continues to be a strong focus area, with tiger conservation leading within it. Our work towards conserving key wildlife corridors by addressing pressures from linear infrastructure projects, mining, urbanization and agriculture is delivering measurable results as our recommendations and solutions are being accepted by State Governments and other partners. Research on land use and forest cover changes is being used to influence development plans for districts near wildlife habitats. Our community led conservation projects are steadily gaining traction and influencing forest dependent villages to voluntarily participate in conservation action. Fishing and farming communities are showing increasing interest in adopting sustainable practices and working with us to acquire certifications. We are investing in developing innovative technology solutions to address human wildlife conflict and reduce use of water and other inputs in cotton cultivation, all aimed to achieve impact at scale. Engagement with various stakeholders towards conserving the Ganga and Ramganga is yielding results, with tanneries and metalware industries working with us to reduce industrial pollution. Our work on conservation of wetlands in selected areas, including high altitudes, persists and this experience extends to urban and peri-urban wetlands.

Shifts towards sustainability are visible in the palm oil, pulp and paper sectors as a result of continuous engagement with key players. Corporate partnerships to support conservation projects have also grown, as the business sector is recognizing the importance of environment preservation. It has been encouraging to witness the response from the masses towards our awareness campaigns, outreach events and environment education activities which have witnessed record breaking participation – an indication of a growing movement for the environment.

These achievements are a direct result of the dedication, hard work, passion and vision of our teams. I would like to take this opportunity to thank my colleagues and congratulate them for the great work.

Ravi Singh





WWF-India is working towards the conservation of key species and wildlife habitats by addressing threats and building on opportunities at the landscape level. This includes conserving wildlife corridors and influencing impacts from mining, industrialization, urbanization, agriculture, power generation and linear infrastructure projects on critical wildlife habitats. Engagement with local communities through strengthening local institutions, augmenting sustainable livelihoods and mitigating and managing human wildlife conflict is also an important area of work.

highlights

## SMART GREEN INFRASTRUCTURE IN WILDLIFE HABITATS

#### INDO-NEPAL BORDER ROAD

The Public Works Department has formally included WWF-India's recommendation to realign this road at two locations within Dudhwa National Park and Katerniaghat Wildlife Sanctuary to avoid habitat fragmentation.

#### NH 125

The Uttarakhand Government has requested the National Highway Authority of India to include WWF-India's recommendation

of constructing a 1.2 km vehicle flyover with animal underpasses to enable safe wildlife movement in the Kilpura-Surai-Khatima corridor.

#### NH 54E

WWF-India is monitoring

the implementation of specialized engineering structures on this highway passing through Lumding Reserve Forest in Assam, which were previously suggested to help maintain wildlife connectivity in this critical corridor. The use of these structures by wildlife is also being monitored to assess its effectiveness.

## PROTECTING TIGERS BEYOND BORDERS

WWF-India is assisting the Rajasthan Forest Department in developing the State Wildlife Action Plan and prioritizing the conservation of wildlife corridors connecting Ranthambhore National Park to adjoining forest areas, thereby enabling safe dispersal of tigers across a larger habitat and ensuring long term survival of the species in the region.



## REDUCING MINING PRESSURES IN CORRIDORS

A joint restoration and mitigation plan is being prepared to address mining pressures in the northern part of the Satpuda-Pench wildlife corridor through engagement with Western Coalfields Ltd. and Chhindwara Forest Division (Madhya Pradesh Forest Department). The aim is to integrate biodiversity conservation in mining practices by restoring abandoned mining sites, minimizing impacts of active sites and providing guidance on mine location and siting to maintain habitat and landscape integrity.



Lansdowne Forest Division, amongst the 9 Forest Divisions from Uttarakhand to register under CA|TS, has been approved to receive CA|TS Accreditation, indicating optimum level of conservation management.

WWF-India and the Global Tiger Forum played an instrumental role in promoting the adoption of CA|TS in India, a set of criteria to assess the management standards and practices of tiger bearing forest divisions to promote management excellence.



# INNOVATIONS IN HUMAN WILDLIFE CONFLICT MANAGEMENT

#### 100+

livestock have been insured in one village which records more than 35 livestock depredation cases per year, located near the Corbett Tiger Reserve. The Uttarakhand Government is exploring to scale up the insurance scheme to cover more than 1,00,000 animals in high conflict zones of the state.

70

predator proof corrals have been constructed in 30 villages in Ladakh, ensuring zero livestock predation by snow leopards and no retaliatory killing of snow leopards by villagers.

WWF-India is developing and implementing innovative humanwildlife conflict management solutions in its priority landscapes to safeguard livelihoods, reduce economic losses and human casualties among local communities, thereby creating an enabling environment for co-existence between wildlife and people.

In the Terai Arc Landscape, India's first 'pro-conservation' livestock insurance scheme has been launched with the aim of encouraging a behavioural shift amongst livestock owners that will reduce numbers of cattle entering forest areas and vulnerability to depredation by large carnivores. In parallel, existing government and private ex-gratia mechanisms are being optimized through digitization to ensure faster payments to communities facing economic losses due to wildlife conflict.

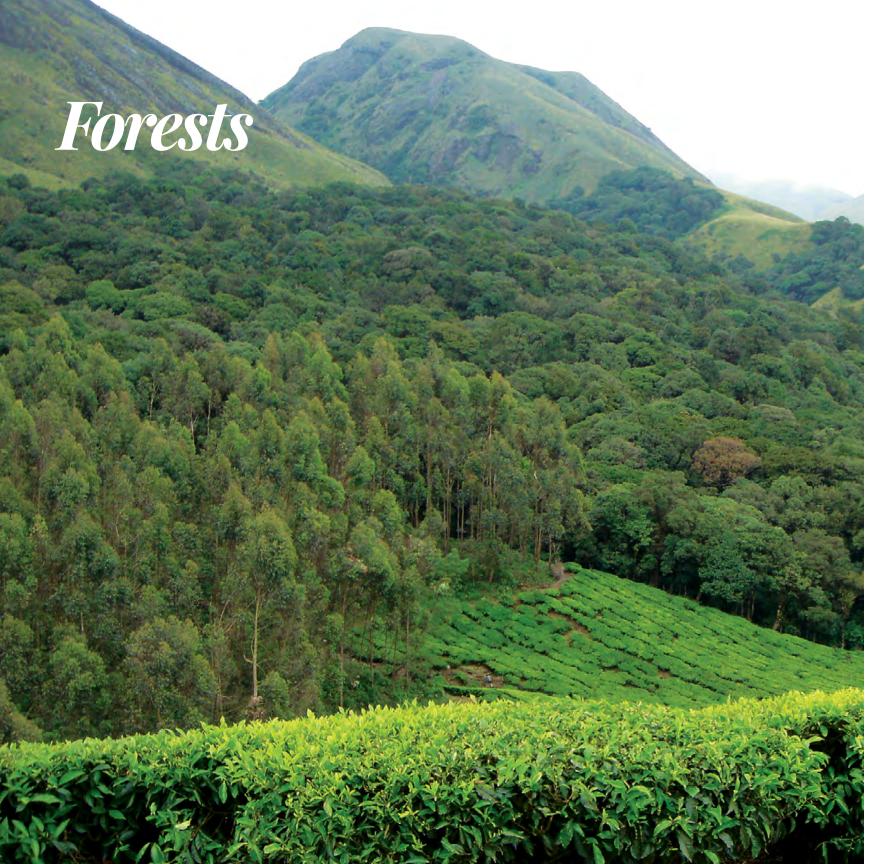
In the Sundarbans Landscape, studies are being conducted to assess the feasibility of producing honey using domestic bees and apiary boxes instead of collecting wild honey inside forests. This could reduce human injury and mortality due to tiger attacks associated with the traditional activity of honey collection.

Innovations in low-cost electric fencing technology are successfully reducing crop raiding and property damage incidents by large herbivores across the Terai, Central India, North East and Western Ghats landscapes.

The overall objective of these mitigation measures is to demonstrate the social and financial sustainability and encourage uptake by State Governments and other stakeholders for wider impact.







WWF-India is working on forest conservation at the local, national and international levels. Local communities are engaged towards natural resource governance, community based forest conservation and reduction in forest dependence through the adoption of alternative livelihood opportunities and clean energy solutions. Nationally, forest conservation efforts are focused at the field and policy level. Globally, key businesses and industries are engaged to address impacts of global deforestation linked to the trade of high footprint commodities such as palm oil, natural rubber, timber, pulp and paper.

highlights

#### **COMMUNITY CONSERVED FORESTS**

1200+ sq km of prime red panda habitat is now under community led conservation management in western Arunachal



Pradesh, with the declaration of two new Community Conserved Areas this year.

WWF-India is building the capacity of civil society and local NGOs to expand this model across larger areas.

Encouraged by the success of the Kadar community receiving their Community Forest Rights title over  $400\,\mathrm{sq}$  km in Vazhachal Forest Division in Kerala, six villages have come forward to work with WWF-India for a similar title over a  $102\,\mathrm{sq}$  km area being accessed by them in Parambikulam Tiger Reserve.



## NATIONAL FOREST CERTIFICATION IN INDIA

WWF-India is providing critical inputs to the Network for Certification and Conservation of Forests (NCCF) to ensure the development of a strong and equitable PEFC-endorsed National Forest Certification system for India, which will promote sustainable management of forest resources.



## ASSESSING CHANGES IN FOREST COVER

A study has been conducted to predict the expected forest loss in the Tawang district of Arunachal Pradesh from 2025 to 2035 based on the rate of forest loss and changing forest composition over the last two decades. These findings, as part of a detailed Landuse and Land Cover change study, will be presented to the Arunachal Pradesh Government for informed and better district development.

A similar study has been conducted for the Eastern Himalayas region covering India, Nepal and Bhutan to estimate forest loss, degradation and fragmentation and impacts on water resources due to developmental activities. This will also be used to influence future development policy directions.

### TOWARDS DEFORESTATION-FREE COMMODITY SUPPLY CHAINS

WWF-India conducted new research that revealed India to be amongst the world's largest importers of wood-based products, natural rubber and palm oil, with a majority of these imports coming from tropical countries that have reported the highest annual forest loss in the last five years. This reinforces the issue of India's growing dependence on imports of natural resources and its adverse impact on global priority forests.

WWF-India's engagement with key industry players is making significant progress towards addressing these impacts. In the palm oil sector, three leading companies made time-bound commitments to sustainable sourcing. A low-cost tool has been developed to enable companies to identify sustainable palm oil producers in their supply chain without reducing profit margins, thereby addressing the cost barriers of supply chain certification and promoting greater uptake of sustainably produced commodities.

Similar progress is being witnessed in the pulp and paper sector, with major companies like ITC and International Paper continuing their commitment towards certified sustainable supply chains. Efforts to develop forestry standards suited to the Indian context are also progressing and WWF-India is involved in technical working groups of the Forest Stewardship Council and the Network for Certification and Conservation of Forests. In the timber and rubber sector, two of India's largest manufacturers have deepened their engagement with WWF-India on sustainable sourcing practices.

22

Indian companies are now RSPO certified – a rise from just one in 2013 - indicating a significant shift towards sustainability in the Indian palm oil sector.

40%

of India's palm oil imports are used by companies who have now made time-bound commitments towards sustainable sourcing to the Roundtable on Sustainable Palm Oil.







WWF-India is working with fisher communities, governments and local NGOs to promote better management of marine areas and sustainable practices in fishing and marine tourism to reduce impacts on key marine species such as turtles, sharks, dolphins and coral reefs. To ensure sustainability across the fishing supply chain, WWF-India engages with fisher communities of priority fisheries, aquaculture farms, exporters and retailers to promote international standards of certification while also raising the demand for sustainably sourced seafood amongst end consumers.

highlights

## SUSTAINABILITY IN SHARK FISHERIES

WWF-India is working towards protecting the livelihood of fisher communities while also protecting threatened sharks species by initiating a pan India project to distinguish between critical species whose trade should be banned and species with sustainable stocks that can be fished and traded. In parallel, WWF-India is providing critical inputs in the development of a National Shark Management Plan.



FARMED RESPONSIBLY **ASC** 

## ASC CERTIFIED SHRIMP FARMS

7 shrimp farms have received Aquaculture Stewardship Council (ASC) certification and three are in the assessment process.



200 small and large scale shrimp farms along the coast of Andhra Pradesh are being encouraged to

adopt sustainable farming practices and reduce their impact on mangrove and coastal habitats.

## ONE STEP CLOSER TO MSC CERTIFICATION

A Fisheries Improvement Action
Plan has been prepared
for the traditional Pole &
Line skipjack tuna fishery in
the Lakshadweep Islands and
community engagement is underway for
its implementation. This is a step
towards the fishery obtaining
Marine Stewardship Council
(MSC) certification, paving the
way for it to become the second globally certified fishery
in India after the Ashtamudi clam fishery which was
certified in 2014.

#### **CHOOSE WISELY!**

25 restaurants in 11 ITC hotels now offer only sustainably sourced seafood to its customers, having phased out overfished and threatened fish species from their menu as part of their engagement under WWF's Choose Wisely campaign, aimed at raising awareness about sustainable fish choices amongst consumers.

## SUSTAINABLE MARINE TOURISM IN GOA

A multi-pronged outreach and engagement strategy targeting the local media, boat operators, government and other stakeholders in the marine tourism sector of Goa resulted in a much needed break-through towards the adoption of sustainable tourism practices to reduce impacts on endangered species such as the humpback dolphin and coral reefs while providing long term benefits to the industry and a better experience for tourists.

WWF-India engaged with the local media to highlight the adverse impacts of current tourism practices on these species, which prompted key stakeholders to acknowledge and address this growing concern. Draft guidelines on best practices for marine tourism were prepared and distributed in three major dolphin operating jetties through a series of capacity building workshops. To ensure adherence to guidelines, the Forest Department is regularly patrolling the waters of the three tourism hotspots and identifying defaulters who are further being involved in more intensive awareness programmes.

For sustainable and lasting impact, WWF-India is working towards ensuring the adoption of these guidelines across the state to secure marine dependent livelihoods while reducing their impacts of flagship species.



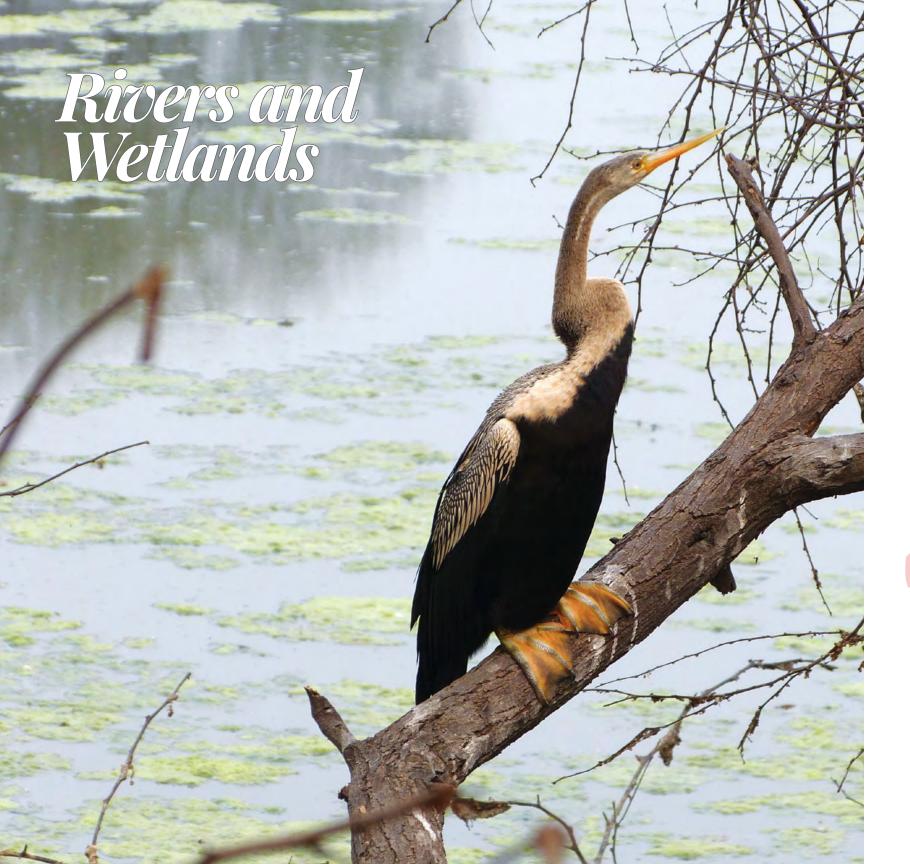
leading Goan newspapers and magazines provided extensive coverage to highlight the issue of unsustainable marine tourism, influencing key stakeholders to acknowledge this growing concern.

40%

of boat operators in three dolphin operating jetties participated in the awareness workshops and showed interest in adopting the sustainable tourism guidelines.







WWF-India is working towards restoring the ecological health of the Ganga and its major tributary - the Ramganga. A multi-disciplinary and multi-stakeholder approach is implemented towards conserving and reviving freshwater biodiversity, addressing impacts of growing industrial and urban pollution and advocating for the maintenance of environmental flows. Identifying and promoting the protection of the remaining wild rivers and river stretches in the Himalayan region is an emerging focus area. WWF-India also works towards the conservation, management and restoration of wetlands with high biodiversity values as well as urban and peri-urban wetlands under threat.

highlights

#### TOWARDS A LIVING GANGA

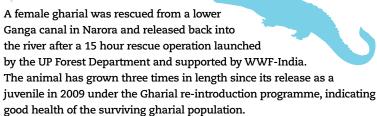
40 tanneries in Kanpur have undergone clean technology assessments and 10 are working closely with WWF-India to implement better environmental practices, thereby improving chances of acquiring Leather Working Group Certification.

500 metalware SMEs have been trained in clean technology solutions to reduce industrial pollution flowing into the Ganga.

The in-situ turtle conservation programme, with the involvement of riparian communities, has expanded from a stretch of

 $60\ to\ 255\ km\ {\rm along\ the\ river\ Ganga\ covering\ five}$  districts in Uttar Pradesh upon the recommendation of the Uttar Pradesh Forest Department.





The National Government's report, "Swachch Bharat and Ganga Rejuvenation – People's Involvement and Sustainability' has incorporated WWF-India's recommendations on stakeholder engagement and public awareness such as conducting river health assessments and preparing report cards; setting up Ganga chaupals, sabhas and sansads and district level review and monitoring committee.

## BRINGING BACK BIRDLIFE IN WETLANDS

ZERO accidental electrocution of birds was recorded in Koklebellur wetland, a globally recognized IBA (Important Bird Area), in Karnataka this year after Chamundeshwari Electricity Supply Company insulated power lines around the wetland with an investment of INR 45 Lacs, as a result of

WWF-India's engagement with stakeholders.



605 pelican nests, highest in the last decade, were recorded in villages around Koklebellur, a testimony to the commitment of the local

communities and stakeholders of the area.

In 2016, the Keoladeo Ghana wetland recorded the **highest waterfowl count** in a decade - a true conservation success story, fuelled by good rains and persistent efforts of multiple stakeholders.

## LETTING WILD RIVERS FLOW

Nearly two thirds of India's hydropower projects are planned in the Himalayan region, where a few rivers are still flowing in their natural state. WWF-India is working towards developing a holistic conservation framework for identifying and prioritizing the preservation of high conservation value river stretches and offering them legal protection. The premise is to maintain key river stretches in their pristine form rather than first causing extensive damage and then trying to restore them.

In a significant step forward, a definition of wild rivers was formulated for the first time in India, through a multi-stakeholder platform facilitated by WWF-India, comprising environmentalists, scientists, academicians, civil society representatives and government officials.

A methodology to assess wild rivers is being developed which will be used to map and assess rivers in Uttarakhand and further engage with the state government to declare stretches of rivers identified as wild and implement pro-active conservation measures for their protection.



#### A WILD RIVER IS...

"A river that, despite human influences, continues to retain its character and capacity to maintain natural river processes, in all their seasonal variations; sustains aquatic and riparian species diversity; and provides ecosystem functions and services for present and future generations of all life forms."





WWF-India is working with cotton and sugarcane farmers across major production belts in the country to promote sustainable agricultural practices that reduce their water and carbon footprint across the supply chain while also improving crop productivity. Linking organic and certified agriculture production with priority conservation landscapes is an emerging strategy to see if this can help increase returns for farmers and prevent land use change. Testing and promoting climate resilient agricultural practices to reduce climate vulnerability and ensure long term livelihood security is also a key strategy.

highlights

## TECHNOLOGY INNOVATIONS IN COTTON CULTIVATION

An automatic irrigation system is being developed for cotton cultivation v

**System** is being developed for cotton cultivation which will calculate and release the exact amount of water required for a cotton crop at various stages of its life cycle, thereby assisting farmers in reducing water wastage. The technology is being piloted in two villages in Jalna distict of Maharashtra and upon testing, will be made available to 40,000 cotton farmers.



Crop Doctor, a web and android smartphone application is being developed to provide information to cotton farmers through a user-friendly interface on the

precise requirement of water, nutrient and pest control in their fields, enabling them to reduce excessive use of water and chemicals. The back-end technology will geo-tag fields and make customized calculations for farmers on the basis of weather parameters, satellite imagery, soil moisture and insect population.

#### **BETTER COTTON INITIATIVE**

40,000+ farmers across major cotton cultivation districts of Gujarat, Maharashtra and Telangana are now implementing Better Management Practices and growing Better Cotton in more than 74,000 hectares, thereby reducing environmental impacts of large scale agriculture.

#### **MULTIPLE CERTIFICATIONS IN AGROFORESTRY**

WWF-India and ITC are working together to demonstrate an agro-forestry model which implements two sustainability standards – Forest Stewardship Council and Better Cotton Initiative – in the same area. This is through the production of Better Cotton amongst 5000 cotton farmers in ITC's agro-forestry plot in Telangana, where it also grows FSC certified pulp.

The long term vision is to define a common certification standard for pulp and cotton cultivation to reduce costs and management protocols associated with certification.



#### **CLIMATE SMART AGRICULTURE**

23,000+ farmers are being engaged at various levels and 6000+ farmers are implementing sustainable agriculture practices across 39 villages in 6 districts of Uttar Pradesh.

In a significant step, the District Administration of Bareilly has initiated a pilot project across 15 villages to implement the recommendations outlined by WWF-India in a framework for climate smart agriculture and water management practices.

## WILDLIFE CORRIDOR GOES ORGANIC

The Chhindwara district of Madhya Pradesh falls within the critical wildlife corridor connecting Satpuda and Pench Tiger Reserves. Here, WWF-India's pilot project to promote organic cotton cultivation is making significant advances, with more than 2000 farmers across 22 villages growing scope certified organic cotton in an area of more than 500 acres. They have been registered with a Farmer Producer Company who is building their capacity to produce their own organic cotton seeds, meeting 20% of their total requirement. Women members of the farmer families are being involved in setting up micro-enterprises to produce organic fertilizers and pesticides and ensure self sustenance of the project.

To develop market linkages, WWF-India is engaging with Neutral - a Danish garment company - that will procure the organic cotton produced by the farmers, thereby encouraging sustainable agricultural practices. Neutral supplies garments for the management staff of Kolmaren National Park in Sweden, providing a strong conservation link for the project.

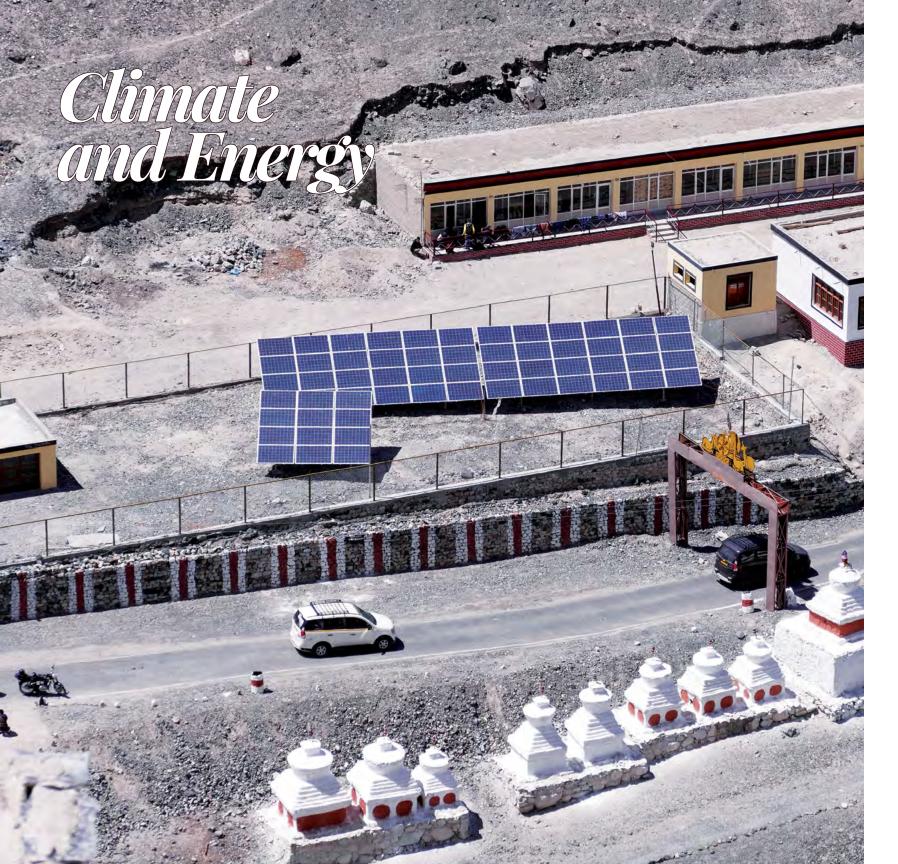
Moving forward, WWF-India is exploring multiple certifications for major crops in critical wildlife habitats and has enrolled soyabean farmers from 25 villages in the Satpuda-Pench wildlife corridor with the Roundtable on Responsible Soya.



#### 2000+

farmers are growing organic cotton in 22 villages within the Satpuda-Pench wildlife corridor, eliminating chemical inputs, reducing adverse impacts on biodiversity and natural habitats and enhancing livelihoods.





WWF-India is working to promote the uptake of renewable energy solutions for enhanced energy access in ecologically sensitive areas by implementing community based decentralized energy generation projects in priority conservation landscapes. To mainstream low carbon growth into development planning, WWF-India is working to increase acceptability of renewable energy (RE) based solutions through public engagement, stakeholder consultations, technical studies to address barriers to large scale uptake and promotion of innovative solutions.

highlights

## PROMOTING INNOVATIVE LOW CARBON SOLUTIONS

15 Small and Medium Enterprises (SMEs) have been awarded for their cutting edge clean energy solutions over the last four years through Climate Solvers – WWF's global innovation platform.

This is contributing to their growth by providing opportunities to market and promote their innovations and become agents of transformative change.

Moving forward, the Climate Solver +
programme will focus on greater regional
engagement with SMEs to provide assistance
in developing robust business plans and better
networking opportunities as well as handholding them
to enable scaling up of the innovative solutions.

## ADDRESSING BARRIERS FOR RENEWABLE ENERGY UPTAKE

Two workshops, specifically focussed on discussing the role of public-private partnerships and the business sector, were organised to facilitate discussions amongst key stakeholders and contribute to the discourse on addressing cost barriers toward the uptake of renewable energy by identifying innovation financing mechanisms.

## BALANCING RENEWABLE ENERGY SCALE UP AND BIODIVERSITY CONSERVATION

With the objective of understanding the impacts of scaling up renewable energy projects on biodiversity in ecologically sensitive areas, a stakeholder meeting was organized in Gujarat in partnership with GEER Foundation. A state-level mapping and zoning assessment will be jointly undertaken with GEER Foundation to enable ecologically sustainable scaling up of renewable energy projects.

## TOWARDS ONE PLANET - CLIMATE SMART CITIES

#### 20 Indian cities across 12 states

have participated in the global Earth Hour City Challenge since 2012, designed to encourage cities to make substantial long term commitments towards sustainability and climate resilience. The platform is enabling cities to monitor progress towards their sustainable actions, plans and greenhouse gas inventories as well as exposure to global best practices adopted by leading sustainable cities.



## RENEWABLE ENERGY SOLUTIONS FOR THE SUNDARBANS

With the objective of achieving large scale impact and demonstrating the success of renewable energy solutions in remote off-grid locations, WWF-India has launched Project Sahasra Jyoti – an initiative to provide clean and sustainable electricity to 1000 households in the Satjelia island of Sundarbans. This is the largest non-government energy access initiative in the Satjelia island, where more than 95% households do not have access to any energy services. It is supported by Bank Of America as Principal Partner, Schneider Electric India Foundation as Technical Partner, as well as other corporate partners.

Under the first phase, an 8.4 kW DC micro grid system has been constructed in Annpur hamlet located at the fringes of the Sundarbans Tiger Reserve and will benefit 69 households and 25 shops. To ensure sustainability, an Energy Committee comprising community members has been formed for maintenance and day to day operations of the system. Three to four similar micro grids will be constructed to connect the remaining households, thereby contributing to the sustainable development of the Satjelia island while also balancing environment conservation.

Sundarbans is a stronghold for WWF-India's energy access projects and Project Sahasra Jyoti is an attempt to showcase scalability and feasibility of this technology for ecologically fragile regions.

#### 3000+

people in the Satjelia island are direct beneficiaries of WWF-India's renewable energy projects including micro-solar grid systems, solar charging stations, solar street lights and lanterns. With the completion of Project Sahasra Jyoti, 8000 individuals will benefit from clean energy access and experience an improved quality of life.



## Centre for Environmental (170)

The Centre for Environmental Law (CEL), established in 1993, serves as an enviro-legal think tank for research in national, regional and international contexts and a resource centre for building awareness on environmental laws and procedural aspects. The Centre supports WWF-India's conservation goals through effective implementation and use of legal processes and legislations as well as building legal capacity of Civil Society Organisations and environmental lawyers to deliver projects that test and improve legal tools.

highlights

#### THINK LEGAL!



To strengthen conservation arguments through legal research, CEL is building the capacity of WWF-India's teams and Civil Society Organizations to effectively use legal tools and processes for achieving conservation outcomes. Research support is being provided on key issues such as environmental impact assessment of infrastructure

and development projects, new laws, notifications and government orders, mine restoration and wildlife corridors.

#### E-LAW ONLINE **KNOWLEDGE BASE**

An interactive online platform is being developed as a repository for all environmental law resources in India for legislative or informative use by a wide range of audience. The objective is to provide solutions to environmental issues in a simplified and comprehensive manner on a single platform.



#### FORMAL AWARENESS ON E-LAWS

750+ participants have successfully graduated over the last five years from the three PG Diploma Courses on environmental subjects conducted in collaboration with National Law University, Delhi and are making notable contributions towards environment conservation. A formal mainstream LLM progamme is being explored with a leading private university in India.

#### **LEGAL BRIEF SERIES** AND RESEARCH



The Centre regularly prepares legal briefs to provide an overview and a non-partisan legal analysis on issues of environmental law and policy in India. Several research projects are being implemented in partnership with external organizations and results are positioned to effectively support enforcement of laws and policies.

feature story

### **JUDICIAL SUPPORT FOR ENVIRONMENT** CONSERVATION

3000 FOREST AND WILDLIFE CASES

pending in Jammu and Kashmir are expected to be fast-

tracked through a special environment bench being set up by the State High Court to support environment conservation.

> The Centre's efforts towards sensitizing the judiciary in supporting environment conservation led to a significant achievement this year with a senior Judge of the High Court of Jammu & Kashmir committing to set up a special bench to prioritize the disposal of pending forest and wildlife cases in the State.

> This was a result of a judiciary orientation organized by CEL in collaboration with Legal Initiative for Forest and Environment (LIFE) for the State's senior judiciary as well as legislators, practicing environmental lawyers, media and senior forest officers. The orientation focused on various environmental legislations and their real world impacts, followed by a field visit to Nandini Wildlife Sanctuary to observe the ground realities of environmental challenges facing natural habitats. In the programme, the Forest Department highlighted the issue of slow progress on environmental matters within the judicial system and emphasized on the positive impact that could be achieved through the expeditious disposal of such cases. Understanding the urgency of the issue, a senior Judge of the J&K High Court announced setting up of the special bench and requested the involvement of CEL in analyzing environmental cases along with the J&K Judicial academy.

### Policy, Research and Innovation

WWF-India is developing and implementing strategies to increase policy influence through evidence based research, landmark publications, informed public discourse, networking and alliance building, and sustained stakeholder engagement. The vision is to define a development paradigm for India which is just, sustainable, equitable and one which respects natural and ecological boundaries. The focus of this work is on four thematic areas - climate adaptation, infrastructure and extractives, urbanization and land use planning, and ecological economics.

highlights

#### **CLIMATE ADAPTATION**

Embedding climate adaptation strategies –both as the planning and policy level – in key vulnerable areas such as the Himalayas, Sundarbans and the Ganga Basin with the objective of making them 'climate proof' is a key focus area. Efforts have been successful in influencing policy at the district and state level in western Uttar Pradesh for climate smart agriculture and West Bengal for revisiting administrative set up in light of climate related hazards.

In the Sundarbans, continuous research and advocacy action over years has encouraged the Government of West Bengal to work with a WWF-India facilitated consortium towards exploring possibilities of accessing international climate adaptation finance to enhance resilience in host sites in and around the Sundarbans to facilitate ecosystem regeneration.

#### INFRASTRUCTURE AND EXTRACTIVES



WWF-India provides viable solutions that address the impact of infrastructure and extractive projects on biodiversity in its conservation landscapes through stakeholder engagement. In the Satpuda-Pench wildlife corridor, engagement with the Western Coalfields Ltd. and Chhindwara Forest Division is progressing

towards the preparation of a joint restoration and mitigation plan to address mining pressures in this critical corridor.

#### **ECOLOGICAL ECONOMICS**

With the aim of embedding environment conservation strategies in the framework of India's development model, WWF-India is providing economic expertise at different levels, offering fact-based alternative development policies and practices that take into account the values of ecosystem services and biodiversity. A number of key studies have been undertaken this year such as cost benefit analysis of ecosystem service loss due to linear infrastructure, valuation of environmental flow in the Upper Ganga, an ecological economic framework for the Terai Arc Landscape and a valuation of ecosystem services of Kunigal Wetlands.





A view of the Terai Arc region highlighting the scale of urbanization over a decade.

feature story

# IMPACTS OF URBANIZATION & LANDUSE CHANGE IN LANDSCAPES

India is one of the most rapidly urbanising countries and inadequate planning is leading to cities expanding beyond capacity, with severe impacts on resources and biodiversity. WWF-India is undertaking studies on growing cities, small towns and peri-urban areas in and around its conservation landscapes to understand the drivers of urbanizations and land use changes.

In the Terai Arc Landscape, urbanization trend studies indicate that there are 12 Class I cities, of which 4 cities have grown from Class II to class I in last decade. These are growing at 39%. Studies are underway in Pilibhit, Dehradun, Hardwar-Rishikesh, Haldwani, Pantnagar and Rudrapur to understand the rate and direction of growth as well as the drivers of change. In the Satpuda Maikal Landscape, studies indicate that Nagpur, Amravati and Jabalpur districts have recorded the highest urban growth rate and studies are underway for fast growing cities. In the Western Ghats Landscape, studies on the urban growth of Coimbatore city and an assessment report on linear infrastructure passing through critical corridors has been completed. In the Sundarbans, a conceptual plan has been developed for SMART settlements to facilitate movement from vulnerable areas to lesser vulnerable areas. In western Arunachal Pradesh, a comprehensive landuse study with growth projections for Tawang district is being used as an advocacy tool.

The findings of these studies are being used to engage with policy makers towards the need for balancing urban and regional growth plans and conservation through suitable landuse allocation and development guidelines.

## TRAFFIC India

The Wildlife Trade Monitoring Network, TRAFFIC, is a strategic alliance of WWF and IUCN. In India, it operates as a programme division of WWF-India with an aim of monitoring and investigating wildlife trade and providing information to key stakeholder that can help tackle the illegal trade in wildlife products.

highlights

#### SNIFFER DOG PROGRAMME

With the training of 16 new dog squads this year, sniffer dogs are now deployed across

13 tiger bearing states, working to strengthen anti-poaching and anti-trafficking measures of the State Forest Departments to curb poaching and illegal trade in wildlife parts.



These sniffer dogs have helped in solving at least

26 wildlife crime cases in 2016.

#### **CAPACITY BUILDING TRAININGS**

Two trans-boundary training programmes were organized for officials of the Forest Department, Customs Department and para-military forces of India and Nepal serving near the border sharing forests of Katerniaghat Wildlife Sanctuary in Uttar Pradesh and Valmiki Tiger Reserve in Bihar.

More than 125 participants were trained in identification of species and specimens in wildlife trade, modus operandi and judicial procedures and use of new tools and techniques in wildlife crime.



#### **WILDLIFE TRADE** INTELLIGENCE NETWORK

TRAFFIC'S informers network spread across

collects vital intelligence on illegal wildlife activities and shares it with enforcement agencies to act upon the information for seizures, arrests and aversion of poaching cases.

 $85_{\text{successful}}$ cases of seizures and arrests including 7 poaching and wildlife crimes averted.



605 live animals rescued, including 525 birds, **→ 37** monitor lizards and



feature story

## ON CAPACITY BUILDING

With the objective of enhancing knowledge and skills on wildlife law enforcement and bringing together representatives from various enforcement agencies across the country, TRAFFIC India organized the first National Workshop on Capacity Building for Combating Wildlife Crime in partnership with the Tamil Nadu Forest Department, Tamil Nadu Forest Academy, Wildlife Crime Control Bureau (WCCB) and WWF-India.

Senior officials representing 20 State and Union Territories and enforcement agencies such as State Forest Departments, Border Security Force Police, Sashastra Seema Bal, Indo-Tibetan Border Police Customs, Indian Coast Guards and Directorate of Revenue Intelligence were trained in skills and knowledge for curbing poaching and illegal wildlife trade in their capacities and areas of jurisdiction. This workshop was a significant break-through towards creating a common platform for these diverse stakeholders collaborate amongst each other and understand their role in addressing the growing threat of illegal wildlife trade, particularly in trans-border regions.

Moving forward, TRAFFIC India will continue engaging with these stakeholders towards the development of a national level strategy and protocol for combating wildlife crime that is focused on better cooperation and coordination towards a common mission.

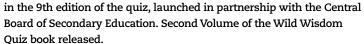
States and Union Territories have been trained in combating wildlife crime

### **Environment** Education

#### **WILD WISDOM ASIA'S BIGGEST QUIZ ON WILDLIFE**

Record breaking participation of

50,000 students across



#### EK PRITHVI – CONSERVATION LEADERSHIP THROUGH EDUCATION

Ek Prithvi aims to promote sustainability in schools and conservation leadership amongst students through action oriented innovative learning approaches as well as influence policy makers to embed this approach in the State Education System.

1900+ students across 40 schools have been engaged in hands-on environment activities such as setting up greening school campuses, clean up drives, awareness campaigns and more.

100+ teachers have been trained in innovative teaching methodologies to facilitate effective learning of sustainable practices amongst students.

Environment education is an integral part of WWF-India's conservation efforts with a reach across 20 Indian states, engaging with rural and urban audiences across age groups and backgrounds - from pre-primary school students to retired senior citizens. Through innovative and engaging programmes such as Ek Prithvi, Eco-Trails, One Planet Academy, WWF volunteers and Wild Wisdom, WWF-India aims to build environmental awareness and knowledge and develop skills and capacities to enable action for conservation and sustainability.

highlights

#### **ECO TRAILS – A RENDEZVOUS WITH NATURE**

 $400 + {\scriptstyle \text{students have visited urban forests}}$ to connect with nature and observe biodiversity - birds, butterflies and plant life - on guided eco-trails.

Young Birders Forum for children between 8 to 18 years has been set up to encourage a deeper interest in bird life and nature through an experiential learning cycle.



#### **ONE PLANET ACADEMY**



This is a one-of-its-kind digital platform which hosts engaging and interactive content for teachers and students to help plan environment activities in schools across the country. The website hosts games, stories, lesson plans and much more engaging content that aims to make learning fun and interesting.

Expected to be launched in early 2017, this will be the first ever one-stop shop for any information and content on environment



feature story

## PEOPLE FOR PLANET

WWF-India actively engages with citizens across the country through various channels to raise awareness about environmental causes and inspire conservation action. This year, efforts were intensified to deepen engagement with the masses by launching a focused Volunteers Programme that provides a variety of opportunities for individuals from all walks of life to join hands with WWF-India in taking forward the cause of environment and wildlife conservation. Depending on their interest, skills and commitment, individuals can support projects in communication, design, management, outdoor campaigning, outreach events, nature trails and more. Projects are hosted on a digital platform which has received more than 7000 registrations since its launch in 2016.

The vision for WWF Volunteers is to build a strong community of inspired and empowered individuals who feel a sense of responsibility towards the planet and its future. These individuals can become agents of change who work towards influencing the society at large to adopt sustainability lifestyle choices for the benefit of people and the planet.

37 education related activities.

# Together, We Can

A growing mass movement for environment conservation is visible across the country, evident from the response to our awareness campaigns and events. Increasingly, individuals, corporate organizations, media, civil societies and governments are lending their support in varying capacities to spread the message and further the cause of conservation.

People reached through digital platforms and on ground events

110

**Media Stories** covering our work

220+

Public awareness **events** with schools, colleges and communities.

Corporate partners

supporting a variety of conservation projects



hat aims to bring to wetlands, an resource whose rapid to acute water crisis in human dwellings!

PRESENTLY, IS UNDERGOING HIGH TO EXTREMELY HIGH

T 2475 - EARTH HOUR !! Put all the

EARTH .. I AM doing it

◆ 547 **13** 994 **9** 8.2K

lights off for 1 hour .. from 8:30 to 9:30

pm toniight .. NOW .. DO IT SAVE THE

A national campaign

2500+

7 million

people reached

through digital and

on-ground events.

160+ events -

cyclothons, walkathons

candle marches, musical

concerts, film screenings

street plays, green fairs,

school competitions.

580+ corporate

participated.

digital channels.

individuals calculated their water footprint through the online water footprint calculator.



pledges online to be

and more.



#### 15000+

water wise.

8th year running since 2009,

Solar savings calculator

electricity and

cost savings it

rooftop solar.

mass outreach.

1.25 Crores

media value for 100

with Dainik Bhaskar.

individuals adopt

on the website estimating

240+ media stories for

outdoor hoardings through

national print partnership

inspiring millions across

carbon lifestyle

the country to adopt a low

Volunteer engagement to improve health of wetland in 4 cities – clean up drives, water and soil quality testing, plantation



#### **WORLD ENVIRONMENT DAY** AND WILDLIFE WEEK, UDAIPUR

 $\mathsf{L100}$  + individuals - school and college students, young professionals, retired professionals and home-makers - participated wareness rallies to sensitize the masses about urban environmental issues such as air pollution, waste disposal, disappearing urban birdlife, illegal wildlife products and more.



#### SAY "NO" TO PLASTIC, BHOPAI

Tackling a rapidly growing urban issue of excessive use of non-biodegradable plastic undreds of students organized mini awareness campaigns in residential colonies and market places to discourage use of plastic districts - Thiruvananthapuram, pags and distributed 500 cloth bags for free. Kollam and Pathanamthitta.

VARENESS. BENGALU

100+ students participated in nature trails

nside urban forests to learn about and observe

mportance for the overall health of cities and

ırban biodiversity, particularly butterflies,

with the objective of understanding their

150+ volunteers participated in a clean-

waste dumped by locals and commuters

vaste disposal.

up in Thane Creek to remove excessive solid

ravelling past the Mulund-Airoli bridge as

well as raise awareness about responsible





KANHA-PENCH WALK,

This walk to raise awareness about

conserving the critical wildlife corridor

of Kanha and Pench is rapidly gaining

traction from wildlife and nature lovers

experts and individuals alike. Organized

for the second consecutive year in 2016

participants walked 70 kms over 8 day,

interacting with villagers living in and

around this corridor to garner suppor

for wildlife conservation.





This awareness campaign aims to promote

zero tolerance for illegal wildlife trade,

an issue of growing concern for iconic

and endangered species. Organized at

the Raahgiri event in Connought Place by

TRAFFIC India in partnership with other

were engaged in film screenings, wildlife

quizzes, skits and cultural programmes.

NGOs and government agencies, individual

NATURE CAMPS,

300 students and teachers from

schools in Gosaba and Sagar

eco-trails, classroom sessions,

recycling workshops and quizzes

Student volunteers and artists came together to raise awareness about Assam's biodiversity through art by painting walls at important public places. The aim of the initiative is to rekindle the interest of citizens towards wildlife and convey a stron message for environment conservation.



WWF-India and CMSR Foundation organized Shimla's first ever environment and wildlife film festival, showcasing 45 films on a range of environment subjects. More than 2000 students attended the film screening over 3 days and participated in awareness drives at the Shimla Ridge to reach out to a wider audience.

Recognizing the need to garner public support and

formally adopted the World Elephant Day launched

TRAFFIC India, WWF-India and CMS Vatavaran joined

hands with the Ministry of Environment, Forests and

Climate Change to inaugurate this day with a support

march attended by more than 400 school students.

WWF-PATA BAGH MITRA AWARDS

conviction towards tiger conservation, the WWF-PATA

Conservation Foundation (Maharashtra) and Mr. Ashish

Twari, Katerniaghat Wildlife Sanctuary. By facilitating

good and impactful work, WWF-India hopes to inspire

dedication and commitment amongst individuals and

organization towards tiger conservation.

Bagh Mitra Award was presented to Pench Bor Tiger

In recognition of their persistence, courage and

raise awareness for elephant conservation, India

globally on 12th August in 2012.



## NWF helps locals calculate **Better Forests** Mean

Forests. For businesses, the day comes as a friendly reminder of the

importance of forests and how paper companies can

62 | www.papermart.in / February - March, 2017

## **Better Business**

environment conservation.

वन विभाग को भी कॉल डिटेल लेने का अधिक

ार्धनिक तकनीक वन्यजीव अपराध अन्वेषण पर कार्यशाला आयोजित 60 अधिकारियों ने भाग लिय

1100+ conservation stories covered in leading Indian

national and regional newspapers and magazines - Times

of India, Hindustan Times, Business Standard, The Hindu

**40,000**+ seconds of pro-bono airtime on Star TV

for WWF-India's film 'I Matter' to inspire positive action for

ल्युडब्ल्युएफ की पहल, जानकार व चनाधिकारियों ने लिया सहभाग

Deccan Chronicle, Dainik Bhaskar and more.

#### 'Need to augment knowledge of field-level functionaries to control wildlife crimes'



#### १४ से २५ अवदूबर तक चलाया जा रहा गणना एवं जागरूकता अभियान गंगा में होगी डाल्फिन की गिनती

#### मुरादाबाद के सिकन्दरपुर पट्टी गांव में बनी पहली नदी तटीय कछुआ हैचरी

#### State Judicial Academy organizes two days orientation programme Judiciary can play vital role in nature conservation: Justice Kotwal

നാടുവർത്തമാനം സം

Make the Sale

## Corporate Support



















WWF-India engages with corporate organizations with a focus on securing funds for conservation projects as well

as driving sustainable business practices. These partnerships are aligned to the company's CSR policy, philanthropic, sustainability, marketing and communications strategies. The last few years have witnessed a sharp increase in corporate support on a range of conservation projects –iconic and lesser known wildlife species, rivers and wetlands, community engagement, energy access and more. This encouraging shift is an indication of a growing movement for the environment.



Ram Jethmalani Foundation























































































To partner with us, visit: www.wwfindia.org/corporatepartnerships

Registered with:

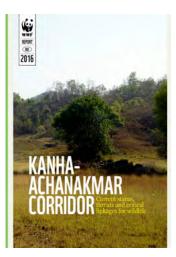




45

## **Publications**

#### KANHA ACHANAKMAR CORRIDOR



The Pench-Kanha-Achanakmar complex holds a functional meta population of tigers in Central India and are connected through forested corridors which are crucial for the long term survival of this tiger population. This report evaluates the status of the Kanha Achanakmar corridor, specifically focusing on establishing functionality by identifying vulnerable and threatened linkages which need immediate mitigation measures for maintenance and restoring connectivity.

#### THE GREATER ONE-HORNED RHINO: PAST, PRESENT AND FUTURE



This is a comprehensive report on the greater one-horned rhinoceros put together by a team of expert scientists and conservationists from India, Nepal and Bhutan. The report delves into the history of the species across its global range, addresses its present status and distribution, and elaborates on the conservation actions necessary to secure its future. The report aims to help and guide researchers, managers and conservationists working towards the preservation of this species.

#### **BRIDGES TO A SUSTAINABLE FUTURE**



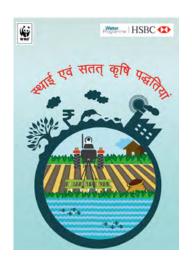
This handbook for 21st Century
Schools sets the context for
environment education in India
by highlighting the inter-linkages
between survival among various
elements of nature, importance of
conservation and role of education
in building a sustainable future.
It is a manual that provides
practical solutions for embedding
environment education in schools
through activities and practices to
transform them into green entities.

#### BIRDS AND BUTTERFLIES OF DELHI – A FIELD GUIDE



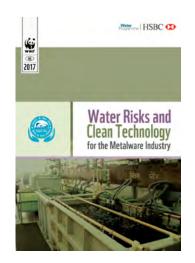
These two publications are part of a series of field guides being produced for WWF-India's environment education programme Eco-Trails. Their attractive and innovative designs make them a handy, compact and user-friendly field tool that help budding naturalists and environment enthusiasts in observing biodiversity on trips into urban forests. Currently focusing on birds and butterflies of Delhi, the series aims to cover other elements of nature such as plants, trees, flowers, small mammals and more.

#### **CLIMATE SMART AGRICULTURAL PRACTICES - A BOOKLET**



This booklet contains a description of the various Package of Practices promoted amongst farmers across the Ganga Basin to encourage a shift towards climate smart agriculture for three major crops – rice, wheat and sugarcane. Published in Hindi, the booklet is an easy-to-use guide for farmers to understand the environmental impacts of large scale agriculture and provides simple and cost effective ways of addressing them.

#### CLEAN TECHNOLOGIES FOR WATER CONSERVATION - TRAINING MANUAL



This is a training manual for the metalware industry on the various water saving technologies, including counter current mechanism that can be adopted by electroplating units to reduce the use of water and chemicals. The manual is being used to engage with the electroplating units in metalware cluster of Moradabad in an effort to reduce environmental pollution in the Ramganga.

#### UNDERSTANDING THE PEAFOWL FEATHER TRADE IN INDIA



This report highlights the findings of a comprehensive study conducted across 448 Protected Areas in 18 Indian states to understand the presence of peafowls in these forests, assess the volume of trade in its tail feathers, estimate illegal killings and extend of threats to its conservation. Conducted by TRAFFIC India on behalf of the National Tiger Conservation Authority, the study provides policy recommendations for improved protection of the species by augmenting existing conservation laws in India.

#### AN OUNCE OF PREVENTION: SNOW LEOPARD CRIME REVISITED



This report highlights the findings of a one of its kind massive exercise to understand and estimate crimes related to snow leopards across its global range in 12 countries. It addresses a major gap in information concerning the link between retaliatory killing of snow leopards due to livestock depradation and poaching for illegal trade in its body parts. Published by the networks of TRAFFIC and WWF offices, the report has been accepted by the Global Snow Leopard & **Ecosystem Protection Programme to** devise future conservation actions to reduce snow leopard crime in range countries.

## Financial Statement

For the year ended 31st March 2016

INCOME AND EXPENDITURE	(Rs.000's)
------------------------	------------

INCOME	31 MARCH 2016	31 MARCH 2015
Donation & subscription	27,642	24,332
Project Grants	463,945	407,485
Other Income	100,776	89,703
Total Income	592,363	521,520

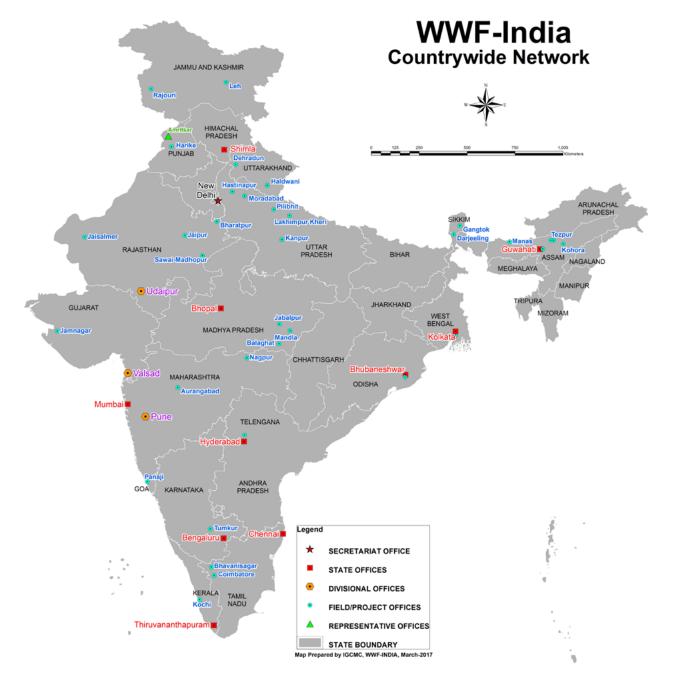
EXPENDITURE		
Conservation expenditure on objects of the trust	478,625	434,502
Fundraising expenses	38,937	40,485
Admin & Finance expenses	30,493	35,925
Operating costs	34,055	25,700
Total Expenditure	582,110	536,612

#### **BALANCE SHEET**

FUND AND LIABILITIES	31 MARCH 2016	31 MARCH 2015
Trusts funds and corpus	167,2 <del>4</del> 2	147,202
Earmarked and other funds	22,282	22,464
Grant balances - projects	235,261	220,508
Current and other liabilities	48,669	53,578
Total	473,454	443,752

#### PROPERTY AND ASSETS

Total	473,454	443,752
Current assets and Bank balances	265,369	253,918
Investments	196,188	176,787
Fixed assets	11,897	13,047



#### Photo credits:

Cover: D. Ghose Pg 13-14: S. Worah iv-v: J. Vattakaven Pg 16: D. Kasana Pg 6: D. Ghose Pg 17: WWF-India Pg 9: J. Jena Pg 18: S. Worah Pg 10: S. Worah Pg 12: James Morgan/WWF-International Pg 21-22: S. Worah

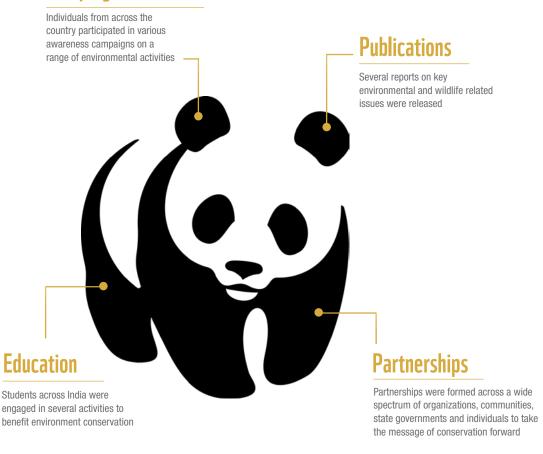
Pg 24-25: WWF-India Pg 26: S. Worah Pg 28: Eagle Eyes Pg 29: S. Sen Pg 31: WWF-India

Pg 33: S. Worah

Pg 35: TRAFFIC India Pg 37: Nidhin Davis/WWF-India

Design: C. Jain

#### **Campaigns & Events**





#### Why we are here

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

www.wwfindia.org

© 1986 Panda Symbol WWF-World Wide Fund For Nature (Formerly World Wildlife Fund) WWF-India Secretariat 172-B Lodi Estate New Delhi 110003

Tel: 011 4150 4814 Fax: 011 4150 4779

