Acknowledgement

WWF-India would like to acknowledge the support of all its partners including the National and State Governments, State Forest Departments, educational institutions, NGOs and CBOs, corporates and industry bodies, local communities, media and the international network of WWF offices.

These collaborations play an instrumental role in helping us implement conservation initiatives and achieve impact on ground.

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Cover Image
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Picture of a Redfiddler crab
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We live in a time where the world’s wildlife has more than halved in less than fifty years, and oceans, rivers and forests are struggling to cope with our growing pressure on them. But this is also a time when individual awareness is at an all-time high, business innovations are becoming mindful of their impact on the environment and governments are making tangible commitments to the cause. Technology is driving this commitment, along with people with an ear to the ground – local stakeholders, NGOs, government bodies and private players.

In the last couple of years, WWF-India has worked to actively engage these stakeholders in the country’s conservation to cover lost ground and create new opportunities for the environment to thrive. As the organisation works towards the development and implementation of long-term practical solutions to protect and preserve the ecological balance, significant milestones have been achieved – a glimpse of which you will find in this Annual Report.

I congratulate the WWF-India team for their consistent efforts in environment conservation, and commend them for their dedication and hard work.

*Arvind Wable*

*President, WWF-India*
The last two years have been difficult for us, for society as a whole—given the challenges of the COVID-19 pandemic, the disruptions that followed and the revival to normalcy. The WWF-India team rose to the challenges with courage, compassion and a high degree of organisational response.

This Annual Report is a fraction of the work of the WWF-India team and the contributions of its staff and supporters. The optimisation of networking and technology were the underlying features of this period, but none substituted the human connect; the ability to reach out to affected families and communities and the tremendous effort required to continue our conservation programme. Coordination with and supporting government initiatives in various states was one of the key factors.

New initiatives in wildlife conflict management, managing and preventing plastic pollution, working with communities to restore natural flows of rivers, restoration of wetlands and in Nature-based solutions were taken forward by the WWF-India team.

During this period, a conservation programme for raptors of India was initiated. This will hopefully be expanded and taken forward in WWF-India’s landscapes and the knowledge on these avian species disseminated to citizens and young conservationists.

This report highlights the consistency of our work in India which has been possible with the support of the Forest Department, government agencies, supporters and partners of WWF-India and our team.

*Ravi Singh*
*Secretary General & CEO, WWF-India*
This Annual Report covers a period when the world seemed to hit the “pause” button due to the spread of COVID-19. While WWF-India’s work was initially disrupted, we along with our partners, soon found ways to overcome the challenges posed by the pandemic and new ideas, approaches and methods were born. We learnt to conduct trainings online and to collect data remotely. We continued to engage with community partners through WhatsApp groups and with government partners through virtual meetings. Remote business meetings became the norm and travelling for short meetings has now been replaced forever.

The report highlights new areas of work that we focused on during this period - whether it was within our priority landscapes or in finding ways to deploy technology for conservation. Plastics and circular economy became an emerging area of work while we deepened our focus on Nature-based solutions. Our flagship work on rivers & wetlands was mainstreamed across thematic areas – as a key element of Nature-based solutions, engaging businesses on water quality, or conserving priority freshwater species.

The Spotlight on Species section highlights our work with wildlife in addition to our larger species conservation programmes which focus on global flagship species such as Tigers, Elephants and Rhinos. Here, we highlight our work on Snow Leopards, River Dolphins, Sharks and Raptors.

We also used this period to further deepen our commitment to working with local and indigenous communities as partners in conservation. This was done not only through greater engagement on the ground but by strengthening our social policies and grievance mechanisms, allowing communities to reach out to us in case of any issues related to our work or our partners.
WORKING THROUGH A PANDEMIC

The pandemic introduced new challenges to the conservation work of WWF-India, halting many regular operations – but triggering several innovative approaches in the process.

Covid circumstances encouraged us at WWF-India to rethink remote working, use technology, and redesign ways of working. Training programmes shifted online, data collection was done remotely, technical support was provided via WhatsApp, and we realised that most stakeholders, including those in rural areas, were also making the shift.
The onset of the COVID-19 pandemic and subsequent lockdowns presented unprecedented challenges in the inter-state and inter-district movement for the WWF-India team involved in the Karula River rejuvenation. It is an initiative to bring the Karula River back to life through the adoption of better management practices in agriculture and irrigation. Such restrictions initially led to barriers in critical interactions with the 300 farmers and other community members engaged in this rejuvenation programme.

WWF-India, the Uttar Pradesh Irrigation and Water Resources Department, and the local communities devised a mechanism to connect and stay engaged remotely through one-on-one communications over online community meetings. The meetings ensured engagement and continuity of agriculture, irrigation management and river health monitoring. Farming communities were empowered and supported with timely and frequent advice on efficient approaches to agriculture.

These activities ensured that, during the pandemic phases, essential fieldwork did not come to a halt and contributed to savings of over 70 million litres of water in agriculture, which was released into the Karula River.
Farmers monitoring the Karula River hydrology
WWF-India has been working with stakeholders to conserve the Harike Wildlife Sanctuary and the Beas Conservation Reserve, India’s only River Dolphin habitat.

Unable to visit the field site of dolphins in the Beas River due to COVID-19 restrictions, our teams turned to their eyes and ears on the ground – Dolphin Mitras. These friends of the river dolphin are local community stakeholders who are the guardians of the dolphins.

The Dolphin Mitras were trained to undertake dolphin monitoring surveys by recording photographs and specific information in a simple phone format, including the time of the day, river flow, environmental conditions and the total number of dolphins. This data recorded by the Dolphin Mitras ensured that conservation work continued during the pandemic.
WWF-India worked with the Uttar Pradesh Forest Department to form a team of Bagh Mitras to assist with human-wildlife conflict management and raise awareness amongst communities. The Mitras include community members from peripheral villages who are voluntarily working to curtail conflict within their communities. These Bagh Mitras came to the rescue, when the WWF-India team was unable to visit the field. With travel restrictions in villages, it became crucial to train the Bagh Mitras and keep them involved and connected through training programs.

MOBILE COMMUNITY TRAINING

The WWF-India team identified the Mitras adept at digitalisation and taught them online. With the help of WWF field staff, this small team trained other Bagh Mitras online. And thus, we were able to continue our interactions with most of the Bagh Mitras.

During a time of uncertainty, the community training of over 200 Bagh Mitras led to the active management of the field staff and activities on-ground.
Tiger in a sugarcane field in the Terai Arc Landscape

Briefing of Bagh Mitras
Community consultations in UP to discuss the One Health Programme

Community consultation near the Manas National Park, Assam
The COVID-19 pandemic has exposed the vulnerability of human beings to zoonosis. With wildlife habitats becoming increasingly fragmented, the boundaries between human and wildlife use areas are rapidly disappearing.

WWF-India is adopting the One Health approach, an integrated research approach to help prevent future pandemics.

Cattle health monitoring at Haldwani

The process includes environmental and animal health as two of its three pillars, along with human health. The approach assists with systematic surveys of diseases, identifying transmission risks and helping the government establish a strong disease surveillance network. Disease and health surveillance is one of the pillars of this approach.

Four sites in Assam, Madhya Pradesh and Uttar Pradesh have been identified for testing these strategies.
WILDLIFE POACHING IN INDIA DOUBLED DURING THE LOCKDOWN

The findings showed a significant increase in the hunting of wild animals in the country during the lockdown period, including species such as leopards, pangolins, bears, ungulates, small mammals, reptiles and several species of birds. Ungulates, targeted mainly for meat, recorded the most significant increase in the total reported poaching cases, from 22 per cent during pre-lockdown to 44 per cent during the lockdown.

WWF-India reached out to rural communities through 60 health centres across 37 districts in 13 states, engaging with the district administration, community leaders, gram panchayats, local NGOs, and medical officers to provide emergency relief and access to healthcare during the peak of the pandemic.
LANDSCAPE CONSERVATION IN ACTION

WWF-India’s priority terrestrial landscapes span a range of ecosystems—from the Western Himalayan cold-desert areas in Ladakh to rainforests in the Nilgiris and from the arid scrublands of western India to the cloud forests of western Arunachal Pradesh. Our landscape conservation work is multi-faceted and increasingly brings together various streams, including climate adaptation, river basin and wetland management, sustainable agriculture, business engagement and local community governance. Here, we highlight three cross-cutting areas of work within the landscapes.
A farmland forest mosaic in the Terai Arc Landscape
STRENGTHENING CONNECTIVITY

WWF-India has been implementing conservation programs for over two decades in the Central India Landscape, focusing efforts on maintaining the functionality of the vital wildlife corridors in the landscape.

One such critical area is the Satpuda-Pench Wildlife Corridor in the Chhindwara District of Madhya Pradesh, which connects the Satpuda and Pench Tiger Reserves. The corridor faces various threats, often leading to land use change, which will impact the functionality of the corridor.

Recognising the importance of forest-farmland mosaics that enable wildlife movement, WWF-India is working with farmers to maintain agricultural practices while building a constituency of farmers actively supporting wildlife stewardship. This will be based on strengthening links between a sustainable and profitable farm economy and conservation.

Forest and tea gardens along the Kaziranga-Karbi Anglong connectivity.
To minimise negative environmental impacts, the development of linear infrastructure in ecologically sensitive areas needs to be sustainable – an end towards which WWF-India works by providing alternatives that support multiple scenarios. We have adopted a multi-pronged approach involving direct engagement and dialogue with stakeholders, including government agencies, research institutions and development authorities. This will help reduce the adverse impacts of linear infrastructure projects on wildlife and their habitats in our landscapes.

The Terai Arc Landscape, made up of diverse forests and grasslands, provides a vital habitat for tigers, elephants and rhinoceros. It is situated on the international border between India and Nepal. The landscape has seen a significant push for road and railway expansion, where some will inevitably pass through critical wildlife habitats and movement corridors.

WWF-India worked with the Uttar Pradesh Forest Department, and the Wildlife Institute of India and provided solutions, and suggested mitigation measures for a proposed highway being constructed in the Uttar Pradesh part of the Terai along the Indo-Nepal border. We also continue actively supporting the ‘greening’ of other linear infrastructure projects in the landscape.
Vehicle overpass and animal underpass in a section of the Kansrau-Barkot corridor in Uttrakhand
The Moyar River passing through Mudumalai Tiger Reserve in Nilgiri district
The Noyyal and Bhavani River Basins, originating in the high-altitude Shola Grasslands of the Western Ghats, are lifelines for the region’s aquatic and terrestrial wildlife. These rivers also support much of the downstream industrial and agricultural economy. But both rivers face threats from over-abstraction, degradation of the catchments, loss of connectivity due to dams and barrages, and urban and industrial pollution.

WWF-India initiated a river basin conservation programme to work with multiple stakeholders towards reducing the impacts of agriculture, urbanisation and industries on these river basins.

Along with restoring degraded river catchments and forests invaded by exotic plant species, the programme also helps assess and secure environmental flows in the Moyar River and its key tributaries.

Rejuvenation of the Noyyal and Bhavani River Basins in the Western Ghats-Nilgiris Landscape will lead to greater water security for people and biodiversity in the Western Ghats Landscape and further downstream.
WWF-India works with governments, businesses and people to design and implement solutions to address climate change vulnerability, food insecurity and biodiversity loss. Nature-based solutions harness the power of nature and natural processes to boost ecosystems, biodiversity and human well-being, addressing major environmental and social issues, including climate change.
CLIMATE-PROOFING THE SUNDARBANS

The Sundarbans is home to over 4.5 million people. It is the only mangrove tiger habitat in the world, but the Sundarbans’ lush mangrove forests are under pressure from various fronts today. Global warming poses severe threats, and the region is experiencing rising sea surface temperatures, increased frequency of intense cyclones, land loss due to sea level rise, and coastal erosion.

The Climate Solutions Partnership with HSBC aims to demonstrate Nature-based solutions (NbS) for the Sundarbans by helping to build climate-resilient landscapes that support community livelihoods, biodiversity, ecosystem services, and sustainable development. Mainstreaming the integration of adaptation and nature-based approaches into plans and policies will help ensure community resilience into the future.

Some of the activities being piloted include cage fisheries culture in natural watercourses and disaster shelters for freshwater fish, which will address the loss of fish populations due to natural calamities like cyclones. Mangrove regeneration using innovative technologies is also being undertaken.

Mangrove regeneration using innovative technologies
Mangrove forests of the Sundarbans are critical for enhancing climate resilience
Vegetative barriers in the Jalna district
Over the last two decades, the cotton-growing region of Jalna district in Maharashtra has faced dwindling rainfall and periodic droughts, which has harmed the yield and quality of cotton grown by local farmers. As the rain has dwindled, groundwater use in the area has increased from 48% in 2009 to 55% in 2017. The daily evaporation rate from surface water ranges between 3 and 8 mm/day. This, combined with low precipitation, affects groundwater availability.

In 2021, WWF-India worked with the farmers to raise vegetative barriers in the seasonal water streams to rejuvenate them. The vegetative barriers are made up of rows of Napier grass, a fast-growing grass species grown locally, and bamboo saplings planted across the water stream at intervals of 50 metres. They are designed with an understanding of climate fluctuations and the local topography, and local knowledge. This Nature-based solution has increased groundwater recharge potential by lowering stream runoff velocity and has benefitted over 13,000 farmers in Jalna.
Conservation and restoration of wetlands is being increasingly recognised as one of the most effective strategies for adapting to the impacts of climate change.

In Bengaluru and peri-urban Karnataka, wetland degradation has led to water scarcity and increased urban flooding.

WWF-India has initiated a multi-stakeholder programme to demonstrate how Nature-based solutions can help build climate-resilient urban-scapes that support community ecosystem services and sustainable development. This programme aims to collaborate with stakeholders in enhancing the health of 350 hectares of lakes (including Madiwala, Yelahanka-Puttenahalli and cascade lakes in the Arkavathy River Basin).
Madiwala Wetland
Technology can help us gain advanced perspectives and insights into various aspects of conservation. Engineers, data analysts, statisticians, and other specialists working with conservationists and social scientists can help develop a multifaceted approach to wildlife and landscape.

WWF-India’s conservation efforts today are more data-driven than ever, allowing us to augment and apply our understanding of the interdependent factors that can help nature thrive. Some examples of technology for conservation that was applied in our work during this period are shared ahead.
With the onset of spring, forest fires begin in Uttarakhand. During this time, the trees shed dry leaves, and the soil loses moisture due to a temperature rise. Location-enabled information assessment systems use spatiotemporal scales (that measure changes through time and space) to analyse and predict risks posed by forest fires. These predictions can reduce the impact on wildlife, natural resources, utilities and infrastructures.

WWF-India conducted an assessment to understand the impact of forest fires within the state of Uttarakhand. This analysis assisted in building simulations of the reason for fires and computing fire risk based on geography.

The analysis results were shared with the forest division and landscape personnel to aid in developing an action plan.
Utilising location-enabled information to analyse the risk of forest fires
Map showcasing coverage of villages in Moradabad, Uttar Pradesh by select Government schemes in a year.
INTEGRATING SUSTAINABILITY INTO DISTRICT PLANNING

Briefing the state and district authorities on the SDG localisation process

Eliminating poverty and conserving the planet’s natural resources go hand-in-hand. The Sustainable Development Goals (SDGs) are vital to achieving equitable and environmentally sustainable economic development.

In collaboration with the Uttar Pradesh State Government, a study was undertaken in selected districts to analyse government schemes and programmes and assess their contribution towards the SDGs. This exercise aimed to evaluate the contribution of SDGs while also identifying gaps in allocating resources for enhancing sustainability aspects within different government schemes.

Over 350 schemes were assessed, and around 40 schemes with disaggregated village-level data were used to geo-reference and develop an interactive web application. This will enable district authorities and the state to build synergies within government departments and support SDG-integrated district planning.
Climate Solver is a global WWF initiative to promote widespread use of innovative low-carbon technologies. The platform provides an interface between low-carbon technology innovators, industry associations, investors, the government, incubation centres and the media. Since its inception, WWF-India’s Climate Solver programme has identified and recognised 30 climate solvers.

**Four Climate Solvers**

1. Log 9 Materials Scientific Pvt Ltd has developed a unique battery solution which allows rapid charging of electric 2Ws and 3Ws.

2. Pluss Advanced Technologies developed Phase Change Materials (PCMs) for cold chain applications, which increases the temperature retention ability of coolers by up to 16 hours during power outages and reduces energy consumption by 25%.

3. Sabjikothi, developed by Saptkrishi Scientific Pvt Ltd, is a portable and cost-effective solution that extends the shelf-life of fruits and vegetables for 3-30 days, preventing food wastage.

4. The technology developed by Neochlorus Energy Solutions Pvt Ltd is a decentralised solar dryer solution with thermal energy storage to dry agricultural produce efficiently and provide space heating in the high-altitude region of India.
Micro-climate storage solutions for horticulture perishables

Phase Change Materials (PCMs) for cold chain applications
A farmer checking the cotton quality
MAKING AGRICULTURE MORE SUSTAINABLE

A farmer using the Cotton Doctor app

Maharashtra is India’s largest cotton-producing state, but limited irrigation facilities, unsuitable soils, increasing pest incidents and weather uncertainty have put cotton farmers in a difficult situation. WWF-India’s Cotton Doctor app was developed to help farmers use data instead of relying only on local knowledge and intuition to determine the water and other input requirements that can help enhance yields.

Cotton Doctor app is an Android, web-based Decision Support System (DSS) offered free to farmers in the Jalna district of Maharashtra. This agri-tech tool alerts farmers about weather vulnerabilities and empowers them with timely information on soil moisture levels, rainfall, and current market prices to fetch the best deal. The app also allows farmers to upload photos for a virtual diagnosis of crops infested with pests.
Radiotelemetry is a powerful tool for wildlife research and conservation. It can significantly ease data collection from remote areas, challenging field and weather conditions and enabling round-the-clock wildlife monitoring.

To strengthen our on-ground conservation efforts, WWF-India engaged with the Uttarakhand and Uttar Pradesh Forest Departments in the Terai Arc Landscape (TAL) and the Assam State Forest Department in the Brahmaputra Landscape (BHL) for radio-collaring tigers and elephants in 2021-2022.

In a joint effort with the respective forest departments, three tigers and an elephant were fitted with radio collars and are currently being monitored. The information obtained will help better conservation of the species and manage conflict.

WWF-India’s ground teams use remote (satellite-based) and ground-based monitoring (VHF). VHF monitoring is labour-intensive, has limitations in challenging weather and terrain conditions to triangulate, and has difficulty obtaining multiple locations in a short period with certainty.
An elephant moving away after the process of collaring

©Rangjalu Basumatary
PROMOTING CIRCULARITY IN PLASTICS

Plastic has altered people’s lifestyles but also has a severe downside, especially when raw material use and waste disposal are not managed sustainably. India generates 3.46 million tonnes of plastic waste per year, which makes India the fifth largest plastic waste generator in the world.

Working towards the global WWF vision of “No Plastics in Nature by 2030”, WWF-India has been engaging in multiple initiatives encouraging good practices and sustainable consumption across sectors.
Abandoned, Lost and Discarded Fishing Gear (ALDFG) at sea, commonly known as ‘Ghost Gear’, results in ghost fishing— with abandoned fishing nets sinking to the bottom of the sea, where they continue to capture and entangle marine life. They also smother and damage sensitive habitats such as coral reefs.

WWF-India is working to address the impact of ghost gear through a baseline study that will understand the current level of ALDFG removal, the frequency of abandonment of such nets, and practices involving their discard. WWF-India engages with local communities to upcycle their local ghost nets using skill-intensive handcrafting techniques. We are also encouraging the return of ghost gear by fishermen. These initiatives are spread along the coast and islands, including Lakshadweep, Goa, Maharashtra, Kerala, Gujarat, Andhra Pradesh and Tamil Nadu.
WWF-India team conducting a Ghost Gear survey in Lakshadweep
WWF-India team collecting the plastic waste thrown underwater
The India Plastics Pact (IPP) is an ambitious collaborative initiative that brings stakeholders across the plastics value chain to set time-bound, target-based commitments to transform the current linear plastics system into a circular plastics economy.

The India Plastics Pact envisions a world where plastic is valued and doesn’t pollute the environment - by its adherence to four time-bound targets to eliminate, reuse, or recycle plastic packaging across the plastics value chain.

The India Plastics Pact is the first of its kind in Asia and joins a global network of 13 plastic parts across the globe. Thirty-two businesses have signed the pact, with more showing interest.
WWF-India continues to work towards conserving India’s threatened species, focusing on those that get less attention, those that are representative of critical ecosystems or endemic. These include bird, mammal, plant, fish and reptile species such as the gharial, Nilgiri tahr, red panda, otters, mahseer, rhododendrons, freshwater dolphins and sharks. Here we highlight our work on the conservation of five key species.
Raptors, particularly vultures, are often vilified due to their ostensibly vicious appearance and role in the food chain. This undermines their importance in the ecosystem as apex predators and scavengers that control the spread of diseases from decaying dead animals.

India has 107 species of raptors, of which 15 are threatened.

The Raptor Conservation Programme initiated by WWF-India envisions promoting raptor-safe habitats based on scientific research, landscape-level raptor conservation actions, and capacity building in collaboration with the stakeholders.

The programme also encourages citizen science to improve the quality and quantity of data on raptors’ presence in the country. During the year, about 280 citizen birders were trained to identify and record raptor sightings scientifically on the eBird portal. Vulture nest monitoring was also carried out at five central and western India locations.
The smallest of the big cats of the genus Panthera, the iconic snow leopard occupies the slopes of some of the world’s highest and most rugged mountains. Perfectly adapted to thrive in its rock and snow home where temperatures often plummet to 40 degrees Celsius below zero, snow leopards are the undisputed monarchs of the high mountains.

WWF-India’s snow leopard conservation programme aims at partnering with local communities across the Himalayas to protect these big cats and their high-altitude rangeland habitat, ensuring that people and snow leopards thrive together. As part of the Government’s National Snow Leopard Population Assessment, we are assessing the status of this species in Arunachal Pradesh and Sikkim, where we have set up camera traps at 233 locations.

*PROTECTING THE GHOST OF THE MOUNTAINS*

*A snow leopard negotiating deep snow in a Western Himalayan winter*
India is home to 160 species of sharks and rays. The country also ranks third highest globally for total shark landings - sharks caught and landed in fishing harbours across the country.

With the mechanisation of fisheries and increased demand for shark commodities, such as shark fins and Mobulid Ray gill plates, there has been increased fishing of sharks and rays. At the same time, juvenile sharks are often brought in as non-targeted bycatch.

However, shark bycatch needs to be better documented. The lack of reliable data makes the overfishing of sharks challenging to manage. Since 2018, WWF-India has been working on the coast of Gujarat to understand the species diversity, catch composition, and susceptibility of the juvenile shark bycatch in trawl nets. A Bycatch Reduction Device (BRD) has been fabricated and is tested in offshore waters.
A thriving population of river dolphins indicates a healthy river ecosystem. Of the six species of freshwater dolphins found worldwide, three are found in India—the Ganges River Dolphin, the Indus River Dolphin and the Irrawady River Dolphin.

Ganges River Dolphins (the National Aquatic Animal of India) are found in the Ganges–Brahmaputra River system, and Indus River Dolphins (State Aquatic Animal of Punjab) are found in the river Beas in India.

Dolphins face numerous threats ranging from diversion and over-abstraction of water, fragmentation of rivers, indiscriminate fishing, bycatch, pollution, and navigation, leading to a declining population. WWF-India works with national, state and basin stakeholders to conserve river dolphin populations and their habitat through scientific research, innovation, community-led conservation, monitoring, and outreach.

WWF-India and the Department of Forest and Wildlife Preservation, Punjab have launched a programme to actively engage local stakeholders, Dolphin Mitras, along the Beas. Information shared included the first records of migration of the Indus River Dolphins 50 km upstream of their regular habitats and in the Sutlej River—the first recorded sighting of dolphins in the Sutlej in several decades. WWF-India is also working with the Uttar Pradesh Forest Department and local stakeholders in 225 km of the Upper Ganga, where 210 Dolphin Mitras from 16 villages have been enrolled and trained.
WWF-India is the leading NGO partner of National Tiger Conservation Authority (NTCA) and state forest departments for the 2022 All India Tiger Estimation (AITE) at 19 sites across six conservation landscapes and has provided logistics and training support for the state forest departments during the tiger estimation exercise.

WWF-India and the Uttar Pradesh Forest Department collared two tigers that were involved in conflict with people in the Terai. The analysis of the tiger movement data from these collars has been crucial in studying the behaviour of these individuals, one of which was found to have its entire territory in sugar-cane farmlands. This will help prepare future strategies for managing tigers that disperse into the farmlands.
ENVIRONMENT EDUCATION: BUILDING FUTURE CONSERVATION LEADERS

Through 2020 till 2022, the classroom has shifted from school to home and back to school. It is only fitting that the world now recognises the need for nature to have a seat in the classroom. WWF’s Environment Education programmes engage rural and urban audiences, across age groups, in over 20 Indian states, intending to raise awareness and responsibility towards nature at an early age.
ANNUAL REPORT 2021-22 | ENVIRONMENT EDUCATION

**ONE EARTH ONE HOME**

One Earth One Home is a 10-week digital journey that requires only 30 minutes a week from students and teachers to complete virtual nature trails through urban forests, peruse digital story books and watch videos about waste segregation, composting and kitchen gardening – and all for free! These resources are available in 10 languages.

**MODEL CONFERENCE OF PARTIES**

Never before has the voice of the youth been more crucial in the discussion of environmental conservation. Inspired by this vision, WWF-India initiated the Model Conference of Parties – an annual simulation of the Convention on Biological Diversity’s (CBD) Conference of Parties (COP) for the students of India to understand the goals under the Convention on Biological Diversity’s Vision for 2030.

**TIDE TURNER CHALLENGE**

Focusing on the role of young people as leaders in the fight against plastic pollution, the United Nations Environment Program (UNEP) introduced a global campaign called the Tide Turners Plastic Challenge. The campaign’s goal was to educate young people about the dangers of single-use plastic, equip them with a basic understanding of advocacy, and motivate them to put their knowledge into action in their communities. WWF-India and CEE are the two implementing partners in India, where over 4 lakh youth have been continuously engaged to join the challenge.
One Planet Academy is a digital learning destination for environment and sustainability, combining expertise in the environment and nature education knowledge into a modern digital platform.

One Planet Academy offers thoughtfully tailored courses to students, youth and educators. Each system has been developed to ensure easy understanding, thorough engagement and quick implementation. The courses are categorised as Teach for Nature and Learn for Nature. With the shared vision of Capgemini India and WWF-India, One Planet Academy was jointly conceptualised and first launched in 2017. It has over 100k users.

A group of young people representing the local community took action to promote sustainable development in their village. The youth group, in 2021 analysed the situation and developed a plan to engage the local community in Sustainable Apiary. WWF-India initiated the programme to provide a sustainable livelihood source to the local community members by cultivating bees and harvesting high-quality organic honey which can be sold locally and in nearby towns.

In 2021, the Dragonfly Festival included a first-of-its-kind citizen science project to monitor odonates across 21 wetlands of India. Two hundred and fifty volunteers were trained and involved for three months in the wetland monitoring surveys, which have generated valuable data on wetland ecology, quality and odonata diversity. This is a long-term monitoring program to help examine insect dynamics as a function of habitat and weather changes.

A group of young people representing the local community took action to promote sustainable development in their village. The youth group, in 2021 analysed the situation and developed a plan to engage the local community in Sustainable Apiary. WWF-India initiated the programme to provide a sustainable livelihood source to the local community members by cultivating bees and harvesting high-quality organic honey which can be sold locally and in nearby towns.
Together,

2200+ media stories covering our work
We Can

A growing mass movement for environment conservation is visible across the country, evident from the response to our awareness campaigns and events. Individuals, corporate organisations, media, civil societies and governments are lending their support in varying capacities to spread the message and further the cause of conservation.
The Karnataka state office organised a clean-up drive in Mysore and Karwar on International Volunteers Day on 5th December 2021, raising awareness about the importance of volunteering in nature conservation. Mysore District Health Minister, Shivshankar, interacted with the young volunteers, applauding their effort. In total, 515 kg of waste was collected and handed over for proper disposal to the authorities.

Mission Eeyarkai is a student-led environment education programme initiated by WWF-India, in association with the Department of School Education, Tamil Nadu, to encourage students to engage in nature conservation. The WWF-India team, including the CEO, met the Honorable Chief Minister of Tamil Nadu Thiru. M. K. Stalin and discussed with him the Mission Eeyarkai Programme. The programme focuses on green homes, schools, and communities and encourages students to engage in nature conservation and protection.

As a part of a wildlife awareness programme, WWF Volunteer artists painted murals on the walls of the WWF Ek Prithvi Model School, the Lokapriya GNB Secondary School, and a stunning dragonfly lifecycle mural at the Government School, Digboi, near the Maguri Beel wetland. Murals like these give locals and tourists a reason to celebrate and delight in the natural beauty of species and raise awareness of the need for their conservation.

In Madhya Pradesh, WWF-India launched an e-waste campaign on International Volunteer Day 2021 to raise awareness and encourage better handling and disposal of electronic and electrical waste. Volunteers helped set up e-bins in schools and colleges across Bhopal, and as a result, 95 kg of e-waste was collected over 15 days, safely recycled and disposed of through Unique Eco Recycle, Indore.
WWF-India launched a project to conserve tigers in the Eastern Ghats of Andhra Pradesh and Telangana, covering an area of approximately 16000 sq. km. The first comprehensive plan of its kind dedicated to this region; the project aims to reduce threats to tigers by training frontline staff of the forest department as well as providing sustainable livelihoods to forest communities. So far, over 500 forest staff have been trained in data collection.

The Magical Mangroves campaign was launched through the joint efforts of WWF-India and Godrej & Boyce to raise awareness about the importance of mangrove conservation. In September 2021, this volunteer-driven campaign entered its second phase, spreading across nine states with over 120 dedicated volunteers actively participating in the programme. A total of 250 webinars have been conducted, engaging over 17000 attendees.

Sparrows are known to live in backyards in urban areas. But in the last two decades, their population has declined in almost every city. The Gujarat state office of WWF-India has been distributing sparrow nests to citizens to set up around their homes to encourage a rise in the number of these birds.

In 2021, 5000 nests were distributed successfully with a consistent 40% sparrow survival ratio, and awareness programmes about the importance of sparrows in the ecosystem were held.

Following heavy floods in Kerala in 2018 and 2019, the Kerala state office began understanding the impact of the floods on birds, butterflies, frogs and odonates in the region. Part of a broader series of studies commissioned by the Kerala State Biodiversity Board, the findings were presented to members of the Biodiversity Management Committees and other stakeholders, followed by discussions and deliberations to encourage conservation action.

Under WWF-India’s Echo programme to find and enable the country’s young conservation leaders, in 2021, a youth group developed a mechanism that allows small-scale farmers to store perishable foods for extended periods. The Vegerator is an eco-friendly, cost-effective tool that holds raw fruit and vegetables where electricity is unavailable. The device is made of readily available raw materials like bamboo, mud, gravel, sand and hay. The tool is also pollution free.
Launched in 2007, Earth Hour is the world’s most extensive grassroots campaign for the environment, uniting millions of people worldwide in a simple, symbolic action. Every year since 2009, India has joined the world in switching off non-essential lights for one hour to raise awareness about climate change and committing to take action for Nature.

Since the COVID-19 pandemic began, people have been supporting the campaign digitally.
In the News

- **2200+** media clips, including metros and Tier II and III cities and towns
- Pan India media presence in 10 languages
- **40%** of the total volume of coverage was in four languages: Hindi, Marathi, Bengali, Telugu
- Exclusive media tie-ups - Dainik Jagran, The Hindu, Down to Earth, 92.7 BIG FM, All India Radio
- First-ever engagement with Community Radios in India in eight languages with a reach of **10 lakh+** listeners in 8 cities and towns
PUBLICATIONS

**Status, Ecology and Distribution of Red Panda in Sikkim**

The report opens a window into our understanding of the status of the Red Pandas in Sikkim and the details about their conservation challenges, including vital future recommendations.

**Lagga Bagga-Tatarganj-Barahi Corridor**

The report provides valuable information on this corridor’s geography, ecology and conservation challenges. It also outlines opportunities and strategies to advance the conservation of tigers and other wildlife.

**Field Manual for managing Human-Elephant Conflict**

WWF-India, Wildlife Institute of India (WII) and Project Elephant compiled the ‘Field manual for Managing Human-Elephant Conflict’ with details of best practices for minimising human-elephant conflict.

**Elephants: The Super Creatures**

*Super Creatures* demonstrates how fascinating elephants are by describing their natural history, physiology, ecology, intelligence, and social behaviour. *Super Creatures* also explains the status of elephant conservation and what readers can do to help.
Status of tigers and prey in Valmiki Tiger Reserve

The report provides an overview of tiger monitoring studies undertaken in Valmiki Tiger Reserve, highlighting critical conservation issues, threats, challenges and opportunities for the recovery of tiger populations.

Bandhavgarh-Sanjay Corridor: Habitat use by Tigers, Leopards and functionality

This report acknowledges the importance of connectivity in this region and aims to inform proposed development plans because of securing wildlife movements in the Bandhavgarh Sanjay corridor.

Wetland awareness posters

Four awareness posters, namely Wetlands for Urban Securities; Water; Wetlands and Life, Water and Urban Wetlands; Water and Wetlands were released on the occasion of World Wetlands Day jointly organised by NMCG and WWF-India.

Integration of environmental risks in infrastructure investments in India

The report necessitates the involvement of financial institutions at the early stages of an infrastructure project’s life cycle. It is to help identify, assess, and suitably mitigate environmental risks to catalyse a paradigm shift towards sustainable infrastructure investments in the country.
**Green Recovery through Renewables**
The pandemic has revealed economic vulnerabilities and risks in the conventional energy supply chain. This report focuses on clean energy, the environment and sustainability to spur the country’s economic recovery.

**Clean energy policy landscape**
The report analysis the gaps, challenges, current state and the opportunities for bringing about decarbonisation of the SME sector in India.

**Climate risks and vulnerability of cotton growing areas of Maharashtra**
Maharashtra has the largest area under cotton in the country. This report is a first attempt of its kind to develop a cotton specific vulnerability index based on responses and adaptation measures at the farm level in the state of Maharashtra.

**Climate Solver- WWF’s climate innovation platform**
Climate solver is a flagship programme of WWF-India which aims at creating a conducive environment for exponential growth in clean sector startups in India, contributing to climate mitigation targets.

*Through these two years, we have released several other publications that are available on our website.*
## ANNUAL FINANCIAL SNAPSHOT

### INCOME AND EXPENDITURE

<table>
<thead>
<tr>
<th>Description</th>
<th>31 March 2022</th>
<th>31 March 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Grants</td>
<td>726,350</td>
<td>624,035</td>
</tr>
<tr>
<td>Donations &amp; Other Conservation Receipts</td>
<td>170,885</td>
<td>140,871</td>
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<tr>
<td>Other Income</td>
<td>32,779</td>
<td>40,122</td>
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<tr>
<td><strong>Total Income</strong></td>
<td><strong>930,014</strong></td>
<td><strong>805,028</strong></td>
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<table>
<thead>
<tr>
<th>Description</th>
<th>31 March 2022</th>
<th>31 March 2021</th>
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<tbody>
<tr>
<td>Project Expenditure on Objects of the Trust</td>
<td>721,074</td>
<td>621,105</td>
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<tr>
<td>Fundraising &amp; Other Conservation Expenses</td>
<td>82,537</td>
<td>71,927</td>
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<tr>
<td>Admin &amp; Operating Cost</td>
<td>99,982</td>
<td>74,914</td>
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<tr>
<td><strong>Total Expenditure</strong></td>
<td><strong>903,593</strong></td>
<td><strong>767,947</strong></td>
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### BALANCE SHEET

#### FUND AND LIABILITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>31 March 2022</th>
<th>31 March 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust Funds &amp; Corpus</td>
<td>187,604</td>
<td>187,584</td>
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<tr>
<td>Earmarked &amp; Other Funds</td>
<td>28,310</td>
<td>38,683</td>
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<tr>
<td>Grant Balances-Projects</td>
<td>384,133</td>
<td>458,444</td>
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<tr>
<td>Current &amp; Other Liabilities</td>
<td>190,517</td>
<td>200,855</td>
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<td><strong>Total</strong></td>
<td><strong>790,564</strong></td>
<td><strong>885,566</strong></td>
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#### PROPERTY AND ASSETS

<table>
<thead>
<tr>
<th>Description</th>
<th>31 March 2022</th>
<th>31 March 2021</th>
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</thead>
<tbody>
<tr>
<td>Fixed Assets</td>
<td>16,256</td>
<td>18,307</td>
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<tr>
<td>Investments</td>
<td>225,750</td>
<td>230,750</td>
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<tr>
<td>Current Assets &amp; Bank Balances</td>
<td>548,558</td>
<td>636,509</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>790,564</strong></td>
<td><strong>885,566</strong></td>
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</tbody>
</table>
BOARD OF TRUSTEES

Mr. Arvind Wable, President
Mr. N. Kumar, Vice President & Trustee Treasurer
Mr. Jamshyd N. Godrej
Mr. Anil Kumar V Epur
Ms. Mridula Ramesh
Mr. Srijoy Das
Mr. Ravi Singh, Secretary General & CEO and (Ex-Officio) Trustee
ADVISORY BOARD

Dr. Divyabhanusinh Chavda
Mr. Tarun Das
Mr. Nitin Desai
Mr. Sudhir Vyas
Mr. Brijendra Singh
Ms. Chanda Singh
Mr. Arun Maira
Mr. Shyam Saran