WILDLIFE CONSERVATION TRUST
ANNUAL REPORT
2020-21
Dear friends,

It is with a heavy heart that I pen this message. I sincerely hope that each one of you and your family are healthy, safe, and vaccinated against COVID-19. All of you are in my thoughts and I am confident that we will get through this difficult time and emerge stronger, kinder, and wiser.

The COVID-19 virus, we mustn’t forget, has its origins in wild animal hosts and managed to cross the species barrier to infect humans due to human’s own exploitative practices in the form of wet markets and unsustainable wildlife trade. Many such dangerous infectious diseases that have emerged in the recent past have had zoonotic origins. Experts have time and again illustrated that rampant biodiversity loss; hunting and poaching of wildlife for the nefarious pet trade, traditional medicine in Asia, bushmeat, decorative and status symbolic items made from animal derivatives, religious practices, etc.; and the unhygienic and brutal captive conditions in which wild animals are kept and bred in, are all toying with the natural systems and destabilising ecological machinery beyond repair. Scientists predict that there will be more such emerging infectious diseases to watch out for in the future due to the increasing unnatural proximity between humans and wildlife.

COVID-19 has sounded a warning bell, loud and clear, demanding we change our nature-damaging ways and seek to rewild degraded wild habitats, and conserve what remains.

WCT has continued to work towards securing forests and landscapes in India, even through the pandemic, while strictly following the COVID-19 containment protocols. We have always strongly espoused the ‘One Health’ rationale. The scientific understanding of the intrinsic connection between the health of humans, forests and the planet has always motivated our conservation strategies and research. We promise to keep working committedly towards securing India’s key wildernesses and safeguarding wildlife and ecosystems to mitigate climate change.

I urge you all to take this pandemic very seriously. Let us all, in our own way, try to give back to mother nature and the human society. Strengthening our natural ecosystems and providing health-support to the millions of affected families is the best way forward. Let’s act now.

Warmly,

Hemendra Kothari

Trustees
Mr. Hemendra Kothari
Mr. Bhitu Sahgal
Ms. Aditi Kothari Desai
Ms. Shuchi Kothari

Advisory Board
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Dr. Thomas Kaplan
Mr. Alok Kshirsagar
Mr. Anshu Jain
**PRESIDENT’S MESSAGE**

**Dear Patrons,**

All of our lives in the year 2020 have been fundamentally and irrevocably touched by the COVID-19 pandemic. It has become imperative to rethink and reimagine the way we function individually, and as a society. Governments have been forced to contend with the reality of the direct link between human health risks and biodiversity loss, as well as wildlife trade. This pandemic year can be viewed as a pivotal moment of reckoning and rectifying our ecologically destructive ways. Future generations will judge us on how we respond to this pandemic, and whether we decide to stand on the right side of history by turning the tide of climate, ecological and human health crises.

WCT, too, has had to improvise and rework some of the organisation’s processes. Several important programmes and projects which involve field work and collaborations have had to be temporarily put on hold, entirely or partially, in accordance to the containment rules and regulations set by the government in those sites. WCT’s highest priority has been the health of the WCT team members, as well as the villagers and Forest Department personnel with whom we work closely.

Despite the setbacks, the WCT team has seen a reasonably productive year as most departments were able to reconfigure their working style to overcome limitations presented by the prevailing challenges. The Wildlife Law Enforcement Training (WLET) team, despite not being able to conduct too many training programmes for the forest staff, invested this time in creating a useful and exhaustive database of relevant court judgements from the district and high courts in Maharashtra and is in the process of translating this information into a mobile application for the benefit of the frontline forest staff. The team has also compiled various Government Regulations pertaining to wildlife and forest conservation in Maharashtra that will prove helpful to the frontline forest staff when dealing with legal matters related to wildlife.

The Human-Wildlife Interface Management (HWIM) team has soldiered on through the pandemic and has continued to provide technical assistance to the Maharashtra and Madhya Pradesh Forest Departments in human-wildlife conflict matters; and in radio-collaring tigers in Sanjay-Dubri and Satpura tiger reserves, and leopards in the Sanjay Gandhi National Park. The team also organised a vital on-site training programme for forest staff in VHF (Very High Frequency) tracking techniques; and assisted the Madhya Pradesh Forest Department in investigation of several cases of tiger mortalities and injuries. Apart from that, the important work of disease surveillance in collaboration with the Madhya Pradesh Forest Department and Animal Husbandry Department continued unabated. The team also reported an outbreak of Lumpy Skin Disease in livestock and engaged in crucial and systematic efforts with government agencies to contain the outbreak in the buffer zone of Bandhavgarh Tiger Reserve. Similar work has also been extended to the Sanjay-Dubri Tiger Reserve in Madhya Pradesh.

The Conservation Research team utilised the time by analysing camera trap data collected over the past five years on leopards and other co-predators. Despite the roadblocks in the otter ecology and hydrology research due to the pandemic, the team has resourcefully focused on setting the stage for efficient fieldwork by gathering the necessary permissions, training, equipment, and installing water-flow and level meters in forest streams. They have also completed pilot camera trap-based surveys along three major mountain streams in the Satpura Tiger Reserve. The pangolin project also witnessed reasonable progress as the field team successfully rehabilitated two female Indian pangolins that were rescued by the Madhya Pradesh Forest Department from poachers. This is the first time that rehabilitated Indian pangolins are being monitored using radio-telemetry to ensure a higher success rate and gain more information about the species in the wild. Additionally, one resident adult female was also radio-tagged in Pench Tiger Reserve, Madhya Pradesh. Data from these tags are being received by the team remotely even during the lockdown.

The Communications team has very astutely amplified WCT’s digital and online presence through good awareness and outreach activities, online events and creation of compelling conservation and natural history content for the social media platforms and website, as well as other publications. Two exciting new developments involved the launch of regular online short film screening that provides platform for wildlife filmmakers to showcase their films through WCT portals, which further accentuates our conservation awareness efforts; and the second one being an engaging Instagram interview series called “Talking Conservation” in which various WCT experts are being interviewed. They have also produced excellent short documentaries on our sustainable water-heating solution (bumbb) project and the Conservation Dogs Unit. Both documentaries were well received on social media and have contributed in popularising conservation.

The Health team has proactively led the WCT COVID-19 Task Force and developed important content with respect to COVID-19 for the WCT staff, frontline forest and also the general public. The team has also published several papers in peer-reviewed scientific journals during the past year.

The Conservation Behaviour team’s exemplary interdisciplinary efforts to arrest forest degradation in the human-dominated landscape of the Brahmapuri Forest Division in Maharashtra bore fruits through the successful introduction of the biomass-fired water heater or bumbb (in Marathi), which has been widely adopted by several villages. Most importantly, every family paid 25 per cent of the cost of the heater. Orders for more water heaters have been pouring in from nearby villages as well as tiger reserves in Maharashtra and Karnataka. This project will go a long way in reducing forest degradation while minimising human-wildlife conflict. It will also improve the air quality and hence the health of the people using it.

I am happy to share the WCT Annual Report 2020-21 with you to showcase the work that was achieved in this financial year despite the prevailing pandemic.

I wish you and your near and dear ones the best of health during these testing times.

Warmly,

[Image 452x698 to 559x805]

Dr. Anish Andheria

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OUR BACKBONE

DEPARTMENTS

OUR DONORS

CSR Donations/Project Grants:

ASTRAL FOUNDATION
BNP PARIBAS
CAF Foundation
BF Foundation
MacArthur Foundation
SCHWAB CHARITABLE
DSP ADIKO HOLDINGS PRIVATE LTD
DSP HMK HOLDINGS PRIVATE LTD
ILLUMINATI TRADING PRIVATE LIMITED
VAP TRADING PRIVATE LIMITED
VINATI ORGANICS LIMITED

General Donations:

**OUR REACH**

- **160 National parks and sanctuaries**
- **23 States**
- **24% of 655 National parks and sanctuaries**
- **82% of 51 tiger reserves**

**Protection**
- **4,500** Anti-poaching camps equipped with 650 Motor Vehicles and 15 Boats
- **1,750 sq. km.** Forest area camera trapped
- **100,000 sq. km.** Forest area surveyed using GIS and remote sensing
- **14,057** Guards trained
- **33** Protected Areas

**Conservation Research**
- **232** Training Programmes
- **7,196** Livestock blood samples
- **45,000** Livestock immunised
- **447** Health Camps

**Health**
- **16,888** Beneficiaries
- **400** Health Camps
- **1,374** Beneficiaries
- **38** Training programmes

**Human-Carnivore Interface Management**
- **15** Rescue of wounded/ injured/displaced tigers
- **38** Tiger Mortality Investigations

**Wildlife-Livestock Disease Interface Management**
- **260** Villages
- **10,000** Households
- **650+** Livestock
- **2,500** Psychosocial well-being of forest staff

**Abbreviations and Acronyms**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACF</td>
<td>Assistant Conservator of Forests</td>
</tr>
<tr>
<td>APC</td>
<td>Anti-poaching camp</td>
</tr>
<tr>
<td>APMC</td>
<td>Agricultural Produce Market Committee</td>
</tr>
<tr>
<td>CAMPA</td>
<td>Compensatory Afforestation Fund Management and Planning Authority</td>
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<tr>
<td>CIL</td>
<td>Central Indian Landscape</td>
</tr>
<tr>
<td>CR</td>
<td>Conservation Reserve</td>
</tr>
<tr>
<td>CRC</td>
<td>Cluster Resource Centre</td>
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<tr>
<td>EFI</td>
<td>Ecological Functionality Index</td>
</tr>
<tr>
<td>GTL</td>
<td>Greater Tadoba Landscape</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>HWI</td>
<td>Human-Wildlife Interface</td>
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<tr>
<td>IUCN</td>
<td>International Union for Conservation of Nature</td>
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<tr>
<td>MoEFCC</td>
<td>Ministry of Environment, Forests, and Climate Change</td>
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<tr>
<td>MH</td>
<td>Maharashtra</td>
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<tr>
<td>MP</td>
<td>Madhya Pradesh</td>
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<tr>
<td>NCBS</td>
<td>National Centre for Biological Sciences</td>
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<tr>
<td>NH</td>
<td>National Highway Acronyms</td>
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<tr>
<td>NP</td>
<td>National Park</td>
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<tr>
<td>NTCA</td>
<td>National Tiger Conservation Authority</td>
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<tr>
<td>PA</td>
<td>Protected Area</td>
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<tr>
<td>RFO</td>
<td>Range Forest Officer</td>
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<tr>
<td>TNC</td>
<td>The Nature Conservancy</td>
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<tr>
<td>TR</td>
<td>Tiger Reserve</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>VHF</td>
<td>Very high frequency</td>
</tr>
<tr>
<td>WCT</td>
<td>Wildlife Conservation Trust</td>
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<tr>
<td>WII</td>
<td>Wildlife Institute of India</td>
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<tr>
<td>WLS</td>
<td>Wildlife Sanctuary</td>
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<tr>
<td>WHO</td>
<td>World Health Organisation</td>
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<tr>
<td>WTO</td>
<td>World Trade Organisation</td>
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OUTREACH DURING THE COVID-19 PANDEMIC

RELIEF WORK DURING CYCLONE AMPHAN

In the aftermath of the Cyclone Amphan that made landfall on India’s east coast in May 2020, the Sundarbans suffered the worst effects. Thousands lost their homes and livelihoods and were in urgent need of help and support to resurrect their lives. Thankfully, the mangrove forest was largely unaffected by the storm. It acted as a shield and absorbed much of the shock.

The Sundarbans-based wildlife organisation SHER and the management of Sundarbans TR, with financial support from WCT carried out relief work on ground zero of the cyclonic disaster, especially in and around the fringe villages of Sundarbans TR. In Phase I and II of this relief work, several materials including vegetables, clothes, drinking water, first aid kits, and tarpaulin sheets were distributed through the Joint Forest Management Committees to the affected villagers. The operation was supervised and guided by the frontline staff of Sundarbans TR. WCT also supported the relief work carried out by the Wildlife Protection Society of India (WPSI) in the Sundarbans.

DEVELOPMENT OF REFERENCE/RESOURCE MATERIALS

The WCT COVID-19 Task Force, headed by the staff from WCT’s Health vertical, developed and compiled reference material for the staff of WCT and State Forest Departments. These easy to follow, pictorial guides were designed to disburse critical information about COVID-19, methods of prevention, risk-factors, etc. All materials were made available on WCT’s website as open access files. Some of them were also translated into Hindi to enable greater use by WCT’s personnel and frontline forest staff.

COVID-19

WCT set up its ‘COVID-19 Task Force’ on March 13, 2020, in anticipation of the virus outbreak. With our conservation teams spread across a vast landscape, we feel it is important that they receive timely, consistent, unbiased, and scientifically verified information. Headed by our President and Chief Medical Officer, along with representatives across teams, the task force provides unambiguous information on COVID-19 and ways to manage one’s life in the wake of this unprecedented health crisis, keeping in mind WCT staff members, their families, and our partners across all sectors comprising forest departments, rural communities, technical collaborators, WCT Small Grant awardees, donors and donors. We encourage you to look at the meticulously compiled information and share it with people within your networks.

We believe that despite the current threat to human life, the resulting economic slowdown and the rise in poaching pressure on wildlife, the world will emerge wiser than before and understand the immense role of undisturbed natural ecosystems in stabilising our planet.

WCT COVID-19 Task Force Members:

Dr. Chetan Trivedy, Dr. Vishal Gadre, Dr. Prashant Deshmukh, Ms. Purva Varlyar, Ms. Sheetal Navgire, Dr. Vijay Tate, Mr. Aditya Joshi, Mr. Vivek Tumare, Ms. Rituja Dhamale and Dr. Anish Andheria

Important Information Related to COVID-19

- COVID-19 Overview (Last updated on March 25, 2020)
- COVID-19 important information in Hindi (Last updated on March 26, 2020)
- How to promote positive mental health (Last updated on March 30, 2020)
- Social distancing (Last updated on April 02, 2020)
- Fighting novel coronavirus with clean hands (Last updated on April 08, 2020)
- Taking care of our animal companions in the time of COVID-19 (Last updated on April 08, 2020)
- Get familiar with your immune system (Last updated on April 11, 2020)
- Curbing the media pandemic (Last updated on April 12, 2020)
- Shopping essentials: Safety protocol (Last updated on April 23, 2020)
- Learn about homemade face covers (Last updated on April 25, 2020)
- The impact of COVID-19 on the elderly (Last updated on May 1, 2020)
**HIGHLIGHTS**

Most of WCT’s field-based activities were severely impacted due to the COVID-19 pandemic. Keeping in mind the safety of employees, forest staff, villagers, and wildlife, WCT halted fieldwork temporarily and recalled our field teams to their home bases on March 16, 2020. Where possible, teams continued to work on several programmatic activities during the lockdown, including creating systems and project tools needed for swift recommencement of fieldwork. The field teams resumed work as soon as the Forest Department allowed entry in the tiger reserves with proper permission from the relevant authorities and with due diligence to ensure health and safety of all. Consequently, due to unhindered fieldwork between October 2020 and mid-March 2021, WCT projects got back on track and were completed on schedule.

- WCT’s conservation biologist, Girish Punjabi is part of two committees formed by the Maharashtra Forest Department for management planning and to draft a 10-year management plan respectively, for the Tilari CR. After five years of deliberations, this forest area of 29.53 sq. km. in the southernmost Sindhudurg District of Maharashtra was declared a PA under the *Wild Life Protection Act, 1972*, in June 2020 by the State Government of Maharashtra. It protects a vital corridor between forest habitats in three states, viz. Goa, Karnataka and Maharashtra.

- Five more Conservation Reserves were notified in the Sahyadri-Konkan corridor landscape of the Western Ghats in March 2021 by the Govt. of Maharashtra. These five CRs include, the Chandgad CR, Dodamarg-Amboli CR, Panhalgad CR, Vishalgaad CR, and Jon-Jambhil CR which together protect 513.41 sq. km. of forest in the corridor. WCT is working with the Forest Department to draft the Management Plans of these new PAs as well.

- WCT’s Economist, Aniket Bhatkhande, addressed a webinar on ‘Environment and Climate Change: An Economics Perspective’ at IISM, University of Mumbai. He also addressed a webinar on ‘Careers in Development Studies’ at Ramnarain Rula Autonomous College, Mumbai.

- WCT’s GIS Specialist, Sheetal Kolhe, is coordinating a working group for the CIL on forest change for a global-level meta-study group called Forests 2030. For this, she is working on a draft paper with ecologists from Ashoka Trust for Research in Ecology and the Environment, Columbia University, Forest Survey of India, and Forest Research Institute.

- WCT’s Communications team produced and screened two feature documentaries – Heater of Hope, and WCT’s Conservation Dogs – Breaking New Grounds, showcasing WCT’s respective projects.

- The response of the villagers from seven pilot villages to the sustainable individual biomass-fired water heaters (*bumbbs*) as an alternative to firewood use for water heating, systematically introduced and implemented by the Conservation Behaviour team, has been extremely positive. There has been additional demand from the pilot villages as well as other nearby villages to adopt more *bumbbs*. Melghat, Pench and Tadoba TRs in Maharashtra and Bandipur TR in Karnataka too have placed orders for *bumbbs* to introduce the concept in the villages in the respective buffer zones of the PAs. WCT has so far distributed 500 *bumbbs* in the reporting period alone.

- The Conservation Research team successfully rehabilitated two female Indian pangolins that were rescued by the Madhya Pradesh Forest Department from poachers. This is the first time that rehabilitated Indian pangolins are being monitored using radio-telemetry to ensure a higher success rate and gain more information about the species in the wild.

- The Conservation Research team continued camera trap deployment in Satpura Tiger Reserve and were able to document the first ever evidence of breeding Eurasian Otters in India.

- The Road Ecology team undertook a project on analysis of over 40 coal blocks which were proposed to be put up for auction by the Central Government in the Central Indian and Eastern Ghats Landscape. The work assisted the process of removal of five coal blocks by the Government from the auction list in Chhattisgarh and one in Maharashtra, impacting 89.39 sq. km. of forest area and securing vital tiger and elephant corridors.

- The work done by the Road Ecology team has resulted in a huge conservation outcome, i.e. a significant court order in favour of the corridors connecting Tadoba-Andhari TR. The team had been pursuing the matter for the last six years and worked closely with NTCA and other agencies to monitor the litigation process and provided recommendations and site-specific inputs.

- Following the reports of an outbreak of Lumpy Skin Disease in livestock, the Human-wildlife Interface Management team held a systematic prophylactic and awareness drive for Government agencies to help contain the outbreak.

- WCT was part of the committee formed by the government to suggest solutions for reducing human-wildlife conflict in Vidarbha, Maharashtra.

- The Health team led the WCT COVID-19 Task Force in the development of content for COVID-19-related guidelines for the organisation staff, frontline forest staff, and the general public.

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**WCT’S CONSERVATION DOGS**

**BREAKING NEW GROUNDS**

A WCT feature documentary poster
WCT partnered with the Maharashtra Village Social Transformation Foundation two years ago. As part of this multi-sectoral programme WCT ran an interdepartmental project, with experts from its Conservation Behaviour, Conservation Research and HWIM verticals. Currently, this programme has three major focus areas - development of alternatives to firewood consumption; creating awareness on conflict management in schools and communities; and prevention of crop depredation.

**Alternatives to Firewood Consumption**
- WCT has collected data from nearly 2,100 households across 49 villages located around Ghodazari WLS. Findings from the study were used to design an intervention for addressing forest degradation due to firewood consumption. To provide the most effective alternative for water heating, two different systems were identified for the pilot programme viz. efficient biomass-fired water heaters (bumbb) for individual households, and solar water heaters at the community level.

**CONVERGENCE PROJECT: VILLAGE SOCIAL TRANSFORMATION PROGRAMME**

We received orders for the bumbb from 38 percent of the households in seven pilot villages under the programme and are pleased to report that challenges which had been anticipated were overcome and all deliveries took place following strict COVID-19 protocol. The villagers’ response was extremely positive despite the financial stress and there is additional demand from existing target villages as well as new villages in the vicinity. The team has distributed 500 bumbbs in the current financial year. A total of 653 bumbbs have been distributed as part of the project.

- Melghat TR bought five units of the bumbb and WCT conducted village demonstrations in three villages in this area.
- Tadoba-Andhari TR will be rolling out the scheme in the buffer zone. WCT donated 12 bumbbs and conducted awareness demonstrations in designated villages in two out of the six buffer zone ranges of Tadoba-Andhari TR before activities were stalled due to the second wave of COVID-19.
- Junglescapes, an NGO working around the Bandipur TR in Karnataka, reached out to WCT and is now expanding the scheme in the buffer zone of the Bandipur TR. It is rolling out the scheme in 10 villages around Bandipur. An order for 96 bumbbs has been placed by them in the first round. Junglescapes has also shown an interest in providing the water heater to anti-poaching camps in Bandipur TR.
- Pench TR, Madhya Pradesh, also has requested WCT for four units to check the feasibility of rolling out the bumbb in buffer villages.
- WCT devised an end-line survey to understand the efficacy of the bumbb intervention. Training and data collection for the same have been completed.

**Conservation Education**
- Programme Officer, Rutuja Dhamale, conducted online sessions on conservation education for the students of four schools and colleges in the city of Pune and Bangalore during the pandemic.
- The team managing the village school education component developed improved games and educational content for seventh and eighth grade students. They also conceptualised workshops to create better understanding of the processes for filing for compensation in human-wildlife conflict-related cases.
- As a part of community outreach programme, WCT held a play based on the issues identified during the focused group discussion with the communities on problems faced by them due to interactions with wildlife. This play was conducted in three villages - Kitadi bor, Ghodazari and Govindpur. The response was positive. However, due to the lockdown, it was not feasible to collect detailed feedback about the programme from these villages.

**Conflict-resistant Farming**
- WCT has developed an intervention based on conflict-resistant farming and generation of fodder in degraded forest/community grazing areas. The team handling this work has begun research on other interventions and has designed a survey to gather information on existing farm practices and produce grown in the intervention sites. For this, they collected data from Krishi Vigyan Kendras, APMCs, oil mills, tehsils and blocks, and six villages in Maharashtra. They carried out discussions with farmers to understand their perspective and to assess their willingness to adopt new cropping patterns. The team also carried out discussions with local NGOs working with farmers and farmer associations in the region, and identified potential partner organisations.
Currently, the programmes under this vertical are being implemented at four major sites across India – CIL, Western Ghats, the North East, and Uttarakhand (northern India). Each site has its own set of projects and field teams that look at various aspects of habitat and species protection.

The CENTRAL INDIAN LANDSCAPE

I. Large Carnivore Monitoring Project:

- The team created a central cloud-based database of the camera trap images gathered under the project. During the lockdown, team members were able to remotely access and continue the sorting of the large volume of camera-trap images collected during multiple sampling seasons.

- With the aim of creating a data-driven policy report to identify the key ecological drivers of human-wildlife conflict in the Greater Tadoba Landscape, the team collected conflict-related data from various forest ranges of the Chandrapur Forest Circle and examined spatial patterns and trends in conflict.

- The field teams conducted training of the field staff while deploying camera traps in the field. The beat level field staff from the respective ranges were trained in the use of camera traps and the basic concepts of tiger monitoring. They also trained the frontline forest staff on site-selection and camera trap deployment for tiger monitoring. Additionally, GPS troubleshooting sessions were conducted for the staff to ease the usage of handheld GPS units in the field.

- To study prey-selection and dependence of tigers on livestock, the team carried out diet analysis from scat samples. In all, 78 tiger scat samples were collected from Balaghat and Bawanthadi forest blocks where camera trapping was carried out. Additional scat samples from other forest blocks of the Chandrapur Forest Block are being collected along with ongoing camera trapping surveys.

- The team carried out camera trap surveys in a spatially explicit capture-recapture framework to monitor tiger populations in the forest blocks of Bawanthadi, Kalmeshwar-Kondhali, Balaghat, Junona and Kanhalgaon. Despite COVID-related slowdown, a total of 2,250 sq. km. of forest area was surveyed between October 2020 an March 2021.

The main objective of the Large Carnivore Monitoring project is to carry out long term, fine-scale camera trapping sampling in areas outside PAs, corridors, connecting forest blocks and key PAs to provide reliable data on tiger estimates and densities. Such a long-term study from multiple sampling seasons is crucial for making informed conservation suggestions to the Forest Department. This project offers crucial insights into large carnivore conservation in multiple use landscapes while stressing the importance of looking beyond the confines of Protected Areas.

II. Indian Pangolin Project:

- In the first year of the project, the team successfully rehabilitated two Indian pangolins in Satpura TR. These were confiscated by the Madhya Pradesh Forest Department from poachers. These two radio tagged pangolins provided a wealth of information about the ecology of the species. Unfortunately, the radio tags on both of the animals stopped functioning as the team was not allowed to access these individuals due to the COVID-19 travel restrictions. In July 2020, the team initiated a painstaking search operation to locate them, and was able to locate and re-tag one of them.

- The team also tagged a wild pangolin female with a young one in Pench TR. This particular breeding female will provide valuable insights into the key factors essential for successfully raising young ones and thus, identify sites suitable for breeding.

- The team successfully rehabilitated one more pangolin in Pench TR which was confiscated from poachers. Hence, of the four pangolins, the team is currently monitoring three – one in Satpura and two in Pench TR, Madhya Pradesh.

- The team has trained two of WCT’s conservation dogs on pangolin detection to help find pangolin burrows and scat.

- The team has setup camera traps at multiple burrows indicated by the dogs to monitor pangolin presence and activity in Pench TR. These surveys have been carried out in undulating terrain where it is difficult to detect burrows using conventional methods.
One of the long-term objectives of WCT’s Indian pangolin project is to establish a pangolin rehabilitation centre for the treatment and rewilding of rescued or confiscated pangolins. When captured by poachers, pangolins are kept in very poor conditions and are starved for want of their exclusive diet of ants. Such animals require proper medical care and housing in order to recover and be successfully released in the wild. WCT hopes that the data from this project will lay the foundation for a proper pangolin rehabilitation programme.

During the surveys, the team collected several pangolin scat samples, which will be used to determine the pangolin diet and for this, the team is currently exploring DNA metabarcoding techniques.

On World Pangolin Day, WCT and Madhya Pradesh Forest Department jointly released a video showcasing the work that is being done under this project.

Monitoring of rivers and reservoirs will help WCT in understanding the complexities of hydrological systems, which govern in-stream water availability and how it might affect the distribution of associated wildlife. This long term dataset will help understand the influence of forest and other land-cover and land-use on stream hydrology and ecology.

### III. Otter Ecology and Hydrology Project:

- The team selected 29 sites for camera trapping of streams based on their varying order, elevation gradient, and spatial distribution. Both perennial and non-perennial streams were chosen. This exercise has provided the team with vital information on the best locations to carry out intensive radio-tagging efforts. The team continued camera trap deployment and were able to document the first ever evidence of breeding in Eurasian Otters in India.

- The team began monitoring seasonal river water level changes, which is one of the most critical parameters. The data collected will help build correlation with otter occupancy and to identify critical areas of otter breeding and seasonal movement.

- The team has also installed rain gauges at key sites to measure rainfall. Multiple season data from water level recorders (WLR) and rain gauges will help calculate various parameters such as water discharge, evapotranspiration index, etc., which are key factors for studying forest hydrology.

- The team initiated collection of otter spraint (faeces) samples for diet/genetic analysis.

- They also initiated fish sampling to identify the prey species of otters in the river systems. For this, fish are carefully handled, photographed, and released back into the stream. So far, there has been zero fish mortality due to handling. Identification of the fish is done with photographs clicked on the field.

- The team has designed an otter harness to fit a radio tag on the otter. Four trapping sites are being monitored for otter activity. Attempts for radio-tagging will be initiated in coming months. Unfortunately, COVID-related delays have led to shifting of tagging deadlines.

One of the long-term objectives of WCT’s Indian pangolin project is to establish a pangolin rehabilitation centre for the treatment and rewilding of rescued or confiscated pangolins. When captured by poachers, pangolins are kept in very poor conditions and are starved for want of their exclusive diet of ants. Such animals require proper medical care and housing in order to recover and be successfully released in the wild. WCT hopes that the data from this project will lay the foundation for a proper pangolin rehabilitation programme.

One of the learnings from the last year’s pangolin rehabilitation work was about the role of transportation in the effective rehabilitation of rescued pangolins. Pangolins are rare animals and most of the time, upon being seized or rescued, the local forest staff do not have any means of safe housing and transporting the animal. As a makeshift arrangement, they are generally housed in cages meant for civets. This results in excessive stress and injuries to the pangolin. To deal with this, WCT designed and fashioned pangolin transportation boxes that can be used by the Forest Department staff to securely transport pangolins. WCT donated these transportation boxes to key forest divisions.
THE WESTERN GHATS

- In 2020-21, fieldwork resumed for the on-going project in the Sahyadri Tiger Landscape to assess the present distribution (occupancy) status of four large carnivores, the tiger, dhole, sloth bear, and the leopard. The project also aimed to assess the change in occupancy of these flagship species over the last decade.

- The team assessed site-occupancy status of these four large carnivores along the entire Sahyadri-Konkan Corridor. In the first phase 5,076 sq. km. of habitat was surveyed for these carnivores, their prey species, and anthropogenic activities.

- Surveys were resumed by the end of September 2020. A total area of 8,272 sq. km. was surveyed of which the forest area constituted 4,800 sq. km. A survey walk effort of 866 km. was completed during 2019-20. This study revealed that the tiger occupies 61 percent, the dhole 81 percent, the sloth bear 65 percent, and the leopard 96 percent of this surveyed landscape. The tiger and sloth bear are severely affected by fragmentation of the corridor and need drastic interventions to allow natural colonisation to occur.

- In terms of occupancy dynamics, both the tiger and dhole have increased in occupancy in 2019-20 compared to 2010-11, while occupancy for the sloth bear and leopard has not significantly changed during the same period.

- The conclusions from this work point towards the need for improving the protection levels for large carnivores in the existing Protected Areas, especially the Radhanagari Wildlife Sanctuary and Tillari-Chandgad Conservation Reserves, by declaring them as satellite core areas of the Sahyadri Tiger Reserve. There is also a need to consolidate the corridor and adequately fund management of newly-declared conservation reserves.

NORTHEAST INDIA

WCT and local NGO partner, Conservation Initiatives, have been working towards regional conservation planning of the wide-ranging and endangered Asian elephant (Elephas maximus). This involves a landscape-scale approach that encompasses distribution of the species, conflict mapping, and connectivity modelling.

- By April 2020, the team had surveyed around 8,500 sq. km. of elephant conservation landscapes, and had interviewed more than 1,400 farmers and conservation stakeholders across five districts of Assam, adjoining forests of North Garo Hills, and Ri-Bhoi districts of Meghalaya.

- From this survey, the team has collated 413 records of elephant use of heterogeneous lands in a 3,275 sq. km. area (38 percent of the surveyed region). Of these, the team was able to corroborate reports on 74 occasions by documenting elephant dung or footprints. In addition, the effort led to 381 reports of human-wildlife conflict, mostly crop raids of paddy, a widely grown food crop in the region.

- Using reports of elephant space-use, the team parameterised landscape resistance based on environmental covariates, reflecting the permeability of the landscape to elephant movement. Resistance was influenced by vegetation cover, distance to forests and human population density. This resistance map, in combination with movement models, provides insights into elephant connectivity across a larger 26,296 sq. km. region.
The survey also provides information on current and past distribution of elephants. This data analysis is ongoing. Further, based on questionnaire data obtained in previous years, the team is assessing stakeholder perspectives on human–elephant conflict and its mitigation. The survey covers more than 2,000 respondents, 87 per cent of whom have experienced human–elephant conflict in the past 5 years, and 7 per cent of whom have seen loss of life or injury from interactions with elephants in their immediate family. Consequently, 99 per cent of respondents think a solution to conflict is urgently needed. The team assessed perspectives towards commonly used techniques, including chasing, compensation, and barriers (e.g., fencing), and preliminary analyses indicate that respondents do not see any of these strategies as long term solutions to conflict. Analyses on this data is ongoing.

This project involves assessment of the distribution and threats, and conservation of king cobras in the Kumaon region of Uttarakhand in northern India. WCT initially funded this project under its Small Grants Programme. The collaboration between the research team and WCT has since grown and the study has been brought under WCT’s Conservation Research umbrella.

In 2020, Jignasu and his team were able to monitor two king cobra nests from the Kumaon foothills. At one of the nests, they found that the female king cobra had been at guard for two months (mid-June to mid-August 2020) – the longest period they have recorded so far.

They found the second nest less than 50 yards from a small village temple. The team barricaded the nest area with the help of locals and the Forest Department staff to avoid any untoward incident for the snake and/or villagers. They managed to successfully protect both the nests in situ, the outcome of which was 41 healthy king cobra hatchlings which they released in the forest.

In mid-March 2021, the team also learnt of a previous season’s nest, which went unreported in 2020. This untouched nest served as a ‘control’ for the study, and it allowed the team to investigate in detail, for the first time, the intricate structure of a king cobra’s nest.

As part of the outreach component of this project, project lead Mr. Jignasu Dolia, conducted several snake-awareness-cum-rescue training programmes in early 2021 for various Forest Department staff, a local NGO, and a school.

Most recently, his team monitored and helped protect a pair of adult king cobras, which had taken up temporary residence near a small village. This was the first time in over 15 years that the team had witnessed mating and post-mating behaviour of this elusive snake species. With the consent and support of the Forest Department, the team installed three CCTV cameras to remotely monitor the snake pair for a week. As a result, they were able to collect significant information on their behavior.

A female king cobra sits on top of her nest. King cobras are the world’s only snakes to build aboveground nests to lay eggs in
This vertical is focused on the research of several socio-economic and psychological factors affecting conservation of forests and wildlife. Currently, the projects are based on the following key areas: a) arresting forest degradation using a sustainable alternative to fuelwood for water-heating; b) the study of fiscal principles as an impetus to natural capital; c) the work motivation of forest guards; and d) the prevention of human-wildlife conflict using Artificial Intelligence (AI). The latter is being run in collaboration with the Google AI for Social Good programme. In addition, the team lends support and assistance to other WCT teams for their projects involving statistical data analysis.

Fiscal Principles Project

In India, current policies implemented by the Finance Commission mark devolution of funds based on forest cover. There is no incentive for any state government, local bodies, communities, and individuals to conserve other equally critical ecosystems like grasslands, wetlands, deserts, coral reefs, and other marine ecosystems. If replaced by a more holistic index based on ecosystems functionality, it would incentivise different states to protect other ecosystems apart from forests. WCT in collaboration with H T Parekh Foundation is undertaking a unique flagship project titled ‘Fiscal Principles: An Impetus for Natural Capital’. Through this project, WCT will provide evidence-based and scientifically robust policy recommendations to the Finance Commission on fund devolution that incentivises environmental protection and promotes it as an allied objective.

- The current criterion of devolution for the forest and ecology grant is tree canopy cover. Improvising on this to include other ecosystems will make it more inclusive. Such a criterion will be critical to ensure fair and equitable devolution of funds to all ecosystems. Prof. Abhay Pethe, Member, Fifth State Finance Commission of Maharashtra, is mentoring the project. Under his guidance, the team has conceptualised an adoptable Ecological Functionality Index (EFI) and a framework for its creation.

- Satellite data is being used to understand income inequity at the village, district and state-level, which in turn will provide insights for the inequities faced by local communities in preservation of various ecosystems.

- The team has designed and piloted the psychology questionnaire for household data collection after an expert review. Additionally, questionnaires for community and gram panchayat level data collection were also designed.

- The pilot survey for the questionnaire was carried out at Kawadshi Deshmule village in Chandrapur district in Maharashtra. The sample size for the survey was 330 households. This data will be used to analyse the efficacy of the questionnaire.

Preventing Human-Wildlife Conflict using AI

- The team created AI-based models for conflict-related human behaviours like applying for compensation in case of cattle loss and crop depredation.

- The team presented the project to the Chief Conservator of Forests, Chandrapur, and consequently, was granted permission to access historical data and collect primary data.

- AI-based models to predict conflict were developed with WCT’s partners at Singapore Management University and Google to produce predictive spatial models.

- Primary data was collected on incidences of herbivore attacks on farms between October and December 2020 for a cluster of seven villages. This will be used to test the field accuracy of the AI-based models.

Work Motivation of Forest Guards

- Final reports on the studies concluded earlier were handed over to the Field Directors of Melghat and Tadoba-Andhari TRs. The former has already implemented some of the recommendations from the report.

Analysis of Wildlife Case Judgments

- Along with the WLET team, the CB team undertook analysis of data from over 529 judgements pronounced for cases filed under the Wild Life (Protection) Act, 1972, from 31 districts of Maharashtra to understand whether any legal procedural differences exist between wildlife crime cases which resulted in a conviction and those with an acquittal.
The work done by WCT’s Road Ecology team has resulted in a significant conservation outcome, i.e. a court order in favour of the corridors connecting Tadoba-Andhari TR. The team had been pursuing the matter for the last six years and worked closely with NTCA and other agencies to monitor the litigation process and provided recommendations and site-specific inputs. The campaign and research study involving camera traps culminated in an order in the month of June 2020 where the National Green Tribunal asked the infrastructure development agencies to implement almost 26 mitigation structures along six roads for reducing the negative impacts. These six roads cut through corridors connecting Tadoba-Andhari TR to other tiger habitats in all four directions and would have ended up isolating tiger and other wildlife populations. These mitigation measures also help the newly declared Kanhalgaon and Ghodazari WLSs as the Bamni-Navegaon road passes through Kanhalgaon while Nagbhil-Mul road cuts through the corridor connecting Ghodazari with the Brahmapuri Forest Division. We are happy to report that construction work on mitigation structures has already begun at some of these sites.

Analysis of Data on Statutory Clearances

- The team amped up work on its major project of collecting data on infrastructure development for the databases on wildlife and forest clearance that it is developing from across the Central Indian and Eastern Ghats landscapes, Western Ghats, Teral Arc, and Northeast India.
- The work on data collection and analysis also received a major push in the form of updated data on forest and wildlife clearances released by the MoEFCC which was not available earlier. This was a result of lobbying with the NTCA and the MoEFCC over the previous year.
- The team utilised the lockdown period by collating relevant data sources such as the minutes of the various statutory processes, including the National Board for Wildlife, Forest Advisory Committee, and the Regional Empowered Committees in addition to the data on forests clearances that was being done earlier. The addition of these data sources is expected to help improve the landscape-wise analyses and is also helping with advising other conservation groups across the country with whom WCT collaborates.

Coal Blocks and Wildlife Corridors

- The team also undertook a project to analyse over 40 coal blocks which were proposed to be put up for auction by the Central Government in the Central Indian and Eastern Ghats Landscape. The work assisted the process of removal of five coal blocks by the Government from the auction list in Chhattisgarh and one in Maharashtra, impacting 89.39 sq. km of forest area and securing vital tiger and elephant corridors.

Chandrapur Roads

- The team continued camera trapping on the Chandrapur-Mul Road to document animal movement for the larger part of lockdown with the help of local staff from Chandrapur.

Understanding Movement of Animals along Mitigation Measures on the Railway Line in Balaghat

- The team also started work on analysing the effectiveness of mitigation measures built along the Gondia-Jabalpur railway line in the Balaghat district. This railway line cuts through two of the largest forest blocks in the CIL - Chandrapur and Balaghat. While the section of the railway line passing through Chandrapur has no mitigation measures, the section passing through Balaghat has employed mitigation measures that were recommended in 2012.

Satpura-Meilhat Corridor

- The team continued to monitor the construction work of the Betul-Obeidullaganj Highway to detect unplanned development.

Forests 2030

- WCT’s GIS Specialist, Sheetal Kolhe, is coordinating a working group for the CIL on forest change for a global-level meta-study group called Forests 2030. For this, she is working on a draft paper with ecologists from Ashoka Trust for Research in Ecology and the Environment, Columbia University, Forest Survey of India, and Forest Research Institute.
Human-Wildlife Interface Management division of WCT studies different types of interactions between humans and wildlife, and provides technical assistance to the Forest Department in dealing with negative or potentially negative human-carnivore interactions. Whereas, the livestock-wildlife disease interface component employs strategy of long term surveillance of diseases at the human-livestock-wildlife interface.

The Human-Carnivore Interface Management

- The team continued to provide technical assistance to the committee constituted to monitor human-tiger conflict in Madhya Pradesh. The team also imparted on-site training to the field staff of Sanjay-Dubri and Satpura TRs in VHF tracking techniques.

- WCT veterinarian Dr. Prashant Deshmukh, assisted the Madhya Pradesh Forest Department in four tiger rescue operations, which involved capture, translocation, and rehabilitation of the tigers. He also assisted the Madhya Pradesh Forest Department in collaring, monitoring and rehabilitation of four tigers, one in Sanjay-Dubri TR and three in Satpura TR.

#### Interventions Involving tiger rescue, capture, translocation and rehabilitation that WCT assisted the Forest Department with

<table>
<thead>
<tr>
<th>Month</th>
<th>Species</th>
<th>Animal History</th>
<th>Intervention</th>
<th>PA</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2020</td>
<td>Tiger</td>
<td>Injury/distress</td>
<td>Collaring and monitoring</td>
<td>Satpura TR</td>
<td>Tigress released in the wild</td>
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<tr>
<td>June 2020</td>
<td>Tiger</td>
<td>Injury/distress</td>
<td>Capture and translocation</td>
<td>Pench TR, Madhya Pradesh</td>
<td>Tiger relocated to Kanha TR</td>
</tr>
<tr>
<td>Dec 2020</td>
<td>Tiger</td>
<td>Human-tiger interface management</td>
<td>Capture and translocation</td>
<td>Beohari Territorial Division</td>
<td>Tiger relocated to Sanjay Dubri TR</td>
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<tr>
<td>Dec 2020</td>
<td>Tiger</td>
<td>Human-tiger interface management</td>
<td>Capture and translocation</td>
<td>Beohari Territorial Division</td>
<td>Tiger relocated to Bandhavgarh TR</td>
</tr>
<tr>
<td>Feb 2021</td>
<td>Tiger</td>
<td>Injury/Distress</td>
<td>Immobilised and treated</td>
<td>Bandhavgarh TR</td>
<td>Tiger released in Bandhavgarh TR</td>
</tr>
<tr>
<td>Feb 2021</td>
<td>Tiger</td>
<td>Human-tiger interface management</td>
<td>Capture and translocation</td>
<td>Harda Territorial Division</td>
<td>Tiger relocated to Van Vihar National Park for treatment</td>
</tr>
<tr>
<td>Feb 2021</td>
<td>Leopard</td>
<td>Research</td>
<td>Capture and collaring</td>
<td>Sanjay Gandhi NP</td>
<td>Leopard captured for collaring and released</td>
</tr>
<tr>
<td>Feb 2021</td>
<td>Leopard</td>
<td>Research</td>
<td>Capture and collaring</td>
<td>Sanjay Gandhi NP</td>
<td>Leopard captured for collaring and released</td>
</tr>
<tr>
<td>Feb 2021</td>
<td>Tiger</td>
<td>Injury/Distress</td>
<td>Immobilised and treated</td>
<td>Van Vihar NP</td>
<td>Tiger released in enclosure at Satpura TR</td>
</tr>
<tr>
<td>March 2021</td>
<td>Tiger</td>
<td>Injury/Distress</td>
<td>Immobilised and treated</td>
<td>Van Vihar NP</td>
<td>Tiger released back at Van Vihar NP</td>
</tr>
</tbody>
</table>

Livestock-wildlife Disease Interface Management

- WCT held a vaccination programme in collaboration with the Madhya Pradesh Forest Department and the Animal Husbandry Department in 64 villages, where 13,331 livestock were vaccinated covering 67 percent of the current livestock population in these villages.

- Following the reports of an outbreak of Lumpy Skin Disease in livestock, the field team held a systematic prophylactic and awareness drive for Government agencies to help contain the outbreak.

- The disease surveillance programme was carried out at wildlife-livestock interface in Bandhavgarh and Sanjay-Dubri TRs. Whole blood samples were actively collected for screening livestock population for Foot and Mouth Disease and Bovine Tuberculosis.

- In Sanjay-Dubri TR, 673 whole blood samples from livestock (71 buffaloes, 398 cattle, and 204 goats) were collected across 50 villages for Foot and Mouth Disease Surveillance. From Bandhavgarh TR, a total of 452 whole blood samples were collected from livestock of 32 villages for Foot and Mouth disease surveillance; and a total of 629 whole blood samples were collected from livestock of 34 villages for Bovine Tuberculosis surveillance.

- The team identified two hotspot villages in the buffer area of Bandhavgarh TR for Bovine Tuberculosis infected herds and established the baseline prevalence of this disease in livestock in this area. It has led to the development of a disease surveillance model at the human-wildlife-livestock interface.
The Conservation Dogs Unit (CDU) provides services across a range of WCT’s conservation projects including pangolin detection and linear infrastructure ecology, the latter being a first for India. The team also assists Forest Department in snare detection and human-wildlife conflict situations. In the short time since it first became operational, the CDU, comprising four highly trained dogs and well-qualified trainers, has become an integral part of WCT.

Despite heavy restrictions through the ongoing COVID-19 pandemic, the WCT dog handlers have kept the conservation dogs engaged with regular exercise and detection training routines. Regular drills and regimented training ensured that the dogs were kept physically fit, motivated, stimulated, and their skills honed.

**Human-wildlife Interface/Conflict**

- In December 2020, the Divisional Conservator of Forest, Solapur, sought the services of WCT’s conservation dogs in tracking down a problem leopard in a serious human-leopard conflict case in Karmala, Maharashtra. The CDU successfully tracked the leopard in a highly challenging terrain that was human-dominated and largely covered in banana and sugarcane plantations making the search operation all the more challenging. The unit scanned almost 150 sq. km. in a span of two weeks.

**Assisting with Pangolin Detection and Tracking**

- Two specially trained conservation dogs were deployed by WCT’s Conservation Research team in Satpura and Pench TR to assist the researchers in detecting Indian pangolins which are rare, shy and elusive animals, and otherwise difficult to detect. The keen olfactory sense of the canines helped in detecting pangolin burrows and other tracks and signs such as scat and feeding locations.

**Mobile Kennel Vehicle**

- The team developed a prototype of a Mobile Kennel Vehicle bearing in mind specific field requirements and ensuring maximum comfort for the dogs. Often times, there is dearth of adequate accommodation for the dogs while assisting in field projects. Now, we have a self-sufficient unit with four kennels and seating capacity for four people, which will allow for speedy and convenient deployment of the dogs.
Currently, WCT is implementing and monitoring the government-mandated, patrolling-based MSTrIPES application in Melghat TR, Dnyanganga WLS, Katepurna WLS, Karanja-Sohol WLS, Tipeshwar WLS, and Painganga WLS amounting to a total area of 3,614.50 sq. km. In Melghat TR, the patrolling efforts of 386 forest guards, 110 round officers, and 107 special tiger protection force members are being monitored. Even through the pandemic, the frontline staff members completed their patrolling targets. In addition, the team conducted a total of nine refresher training programmes for 145 frontline staff.

On the lines of handing over of the MSTrIPES project and data analysis to the managements of Satpura TR, Pench TR, Bor TR, Nawegaon-Nagzira TR and Umred-Pauni-Karhandla WLS, respectively, WCT is planning to do the same with the Melghat TR management with the necessary hand holding that is required for the smooth transition of the project. This will conclude WCT’s LEM programme.

- The LEM team has successfully handed over the MSTrIPES project and analysed data to the Management of Pench TRs (Maharashtra and Madhya Pradesh), Bor TR, Nawegaon-Nagzira TR, and Umred-Pauni-Karhandla WLS.

- An official MSTrIPES report was submitted to the Field Director of Nawegaon-Nagzira TR, and a presentation on the implementation and recommendations was made.

- Also, the MSTrIPES project in Satpura TR, along with the collected data, was handed over to the tiger reserve management during the reporting period. Till the time it was initiated by WCT in 2018, a total patrol efforts of 4,40,162 km. was achieved by the forest staff of Satpura TR.

- The monthly aggregate report has been prepared and shared with Melghat Tiger Reserve authority.

<table>
<thead>
<tr>
<th>No.</th>
<th>Training place</th>
<th>Year</th>
<th>Number of trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kalsubai Harishchandragad WLS, MH</td>
<td>2020</td>
<td>35</td>
</tr>
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<td>2</td>
<td>Sanjay Gandhi National Park, MH</td>
<td>2020</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Navegaon NP, MH</td>
<td>2021</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>Balaghat Circle, MP</td>
<td>2021</td>
<td>38</td>
</tr>
<tr>
<td>5</td>
<td>Kanha Tiger Reserve, MP</td>
<td>2021</td>
<td>28</td>
</tr>
<tr>
<td>6</td>
<td>Seoni Circle, MP</td>
<td>2021</td>
<td>39</td>
</tr>
<tr>
<td>7</td>
<td>Pench Tiger Reserve, MP</td>
<td>2021</td>
<td>37</td>
</tr>
</tbody>
</table>

The WCT training programmes at Forest Training Institutes (FTIs) have been a regular feature of the vertical since 2013. So far, WCT has conducted 74 training programmes in FTIs in Maharashtra and 84 programmes in FTIs in Madhya Pradesh. A grand total of 11,088 forest guards have been trained under WCT’s FTI programme module between 2013-2021. Till date, WCT has organised 232 training programmes in 34 Protected Areas and trained nearly 14,000 forest officials and guards. Owing to the pandemic, the WLET training programmes at the FTIs in Madhya Pradesh and Maharashtra were suspended for the entire year.

### Mobile Application for Maharashtra Forest Staff

- In collaboration with WCT’s Conservation Behaviour team, the WLET team built a database of 529 cases booked under the Wild Life (Protection) Act, 1972, curated from courts across Maharashtra. They have catalogued these cases and have developed a mobile application called *Wildlife Judgements Database*, which is now available on Google Play Store. This application will enable the Maharashtra forest staff to access important case judgements at a click of a button.
WILDLIFE FORENSICS

Training and Capacity Building

- The team conducted an online training on wildlife forensics for the forest staff serving on Tamil Nadu Forest Department’s Elite Force – a special task force created to tackle wildlife crime and coordinate wildlife rescues.

- Department Head, C. Samyukta, held a webinar on the use of wildlife forensics for Sanctuary Nature Foundation’s Mud on Boots project leaders.

- She delivered a talk at the ‘International Conference on Wildlife Forensics, Its Laws and Conservation’ organised as an e-event by Legal Desire Media and Insights.


- She held an online training programme for the Madhya Pradesh State Judicial Academy on ‘Wildlife Crimes and Their Evidential Appreciation’ for over 85 Sessions Court Judges.

- She delivered a two-day, part-time, online masterclass titled ‘Wildlife Forensics: From Crime Scene to Court’ for International Institute of Forensic and Security Studies (IIFSS), Lucknow. The participants included retired forest officers, lawyers, NGO workers, and students.

- Samyukta conducted training sessions on wildlife forensics and evidence collection for frontline forest guards of Manas TR as part of the three-day training co-organised by The International Rhino Foundation, Aaranyak, and WCT.

- Samyukta delivered a guest lecture on Wildlife Legislation and CITES for the students of the Wildlife Honours Programme at St. Xavier’s College, Mumbai. She also delivered a lecture on wildlife forensics for the students pursuing the Diploma in Forensic Science at St. Xavier’s College.

- She represented WCT at the Pacific Environmental Security Forum (PESF) 2021 held virtually and participated in deliberations on Illegal Wildlife Trafficking in South Asian region.

- She participated as a judge on the two-day, mock-UN style online competition titled School Conference of Parties Expo -SCOPE 2020, hosted for international students by the Gems Education Group, Dubai. The purpose of this event was to “empower students with high levels of climate change awareness, climate change research, and collaborative global problem-solving skills”.

Moot Court Competition

- WCT organised the second edition of the National-level Wildlife Protection Moot Court Competition in collaboration with the Government Law College, Mumbai. The event was held online over Zoom and hosted 16 law college teams from across India. The final rounds were judged by three Hon’ble Judges of the Bombay High Court.

- As part of this event, an online panel discussion on the central theme of ‘Forests v/s People (Traditional Dwellers)’ was also organised. The panel discussion was led by Mr. Rushikesh Chavan and the panelists included Mr. M.S. Reddy, Field Director, Melghat Tiger Reserve; Ms. Manju Menon, Senior Fellow, Centre for Policy Research; Ms. Rita Banerjee, conservation filmmaker and founder, Green Hub Project; and Mr. Praveen Bhargava, lawyer and founder, Wildlife First.

2nd Wildlife Protection Government Law College National Online Moot Court Competition

November 27-29, 2020

Campaigns

- The team continued to engage on the ongoing online campaign titled #StopFundingOverfishing to lobby action by the World Trade Organisation to end harmful subsidies for fisheries and worked with WCT’s Communications Department to create engaging social media and website-based awareness material. To date, this campaign has received support from over 160 organisations globally.
WCT COVID-19 Task Force

- The team led the WCT COVID-19 Task Force in the development of content for COVID-19 related guidelines for the organisation staff, frontline forest staff, and the general public.

Ranger Welfare Charter

- The team contributed to development of a Ranger Welfare Charter to be presented to the Ministry of Environment, Forest and Climate Change (MoEFCC) for the zero draft on frontline staff welfare.

- Dr. Chetan Trivedy, WCT’s Chief Medical Officer, made a presentation to the Additional Director General of Forest and Member Secretary, NTCA, regarding the proposed mobile application for health and welfare of frontline forest staff, which is conceptualised as a ready reference tool for them to access health and safety information while working in remote areas.

- The team has completed data entry for the “Voices from the field” report and have started the analysis.

Contribution to national programme

- The team has contributed to discussions in the Echo Network’s ‘Changemakers’ initiative to develop multi-stakeholder solutions in conservation and One Health.

Mobile Health Unit

- The Mobile Health Unit (MHU), implemented by the Urvi Ashok Piramal Foundation, supported by the Tadoba-Andhari TR and funded by WCT, provided primary healthcare to 3,147 people living in 29 buffer villages during the reporting period.

Urvi Ashok Piramal Foundation in joint collaboration with WCT and Forest Department, Chandrapur, is providing basic healthcare services, through its MHU, to certain remote communities in the buffer zone of Tadoba-Andhari TR. The MHU was launched on September 2019 with special focus on providing door-step healthcare services to the 29 villages in the buffer zone of Tadoba-Andhari TR. In the one year since its launch, the MHU has managed to reach a population of 22,000, with over 10,000 beneficiaries availing medical services for various health conditions. The MHU conducts general screening, deworming, distribution of iron and folic acid tablets, and basic pathological investigations in all the villages. The MHU team also organises regular health check-up camps for the employees of the Forest Department.

Primary healthcare services provided by the mobile health unit in buffer villages around Tadoba-Andhari Tiger Reserve, Maharashtra

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Social Media Outreach

- The team launched Twitter accounts in Hindi and Marathi language in an effort to expand WCT’s reach to regional audiences. WCT members from various other departments including Anukrti Sharma (consultant), Dr. Vishal Gadre (Health), Sanjay Thakur (WLET) and Rovhin Todankar (Conservation Research) lent their language translation skills for this.

- On the occasion of International Tiger Day (held each year globally on 29th July), the team launched an Instagram interview series called ‘Talking Conservation’ in which various conservation practitioners from WCT were interviewed.

- WCT engaged in virtual collaboration for the global #StopFundingOverfising campaign asking World Trade Organisation to end harmful fisheries subsidies. WCT also engaged in several other online collaborations such as for the Cities of Tomorrow campaign with Worldview Education Services; and Salim Ali Nature Quiz with BNHS and Delhi Bird.

- The team conducted intensive online outreach for the second edition of the National-level Wildlife Protection Moot Court Competition that WCT organised in collaboration with the Government Law College, Mumbai.

<table>
<thead>
<tr>
<th></th>
<th>April 1, 2020</th>
<th>March 31, 2021</th>
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<td>17,527</td>
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</tr>
<tr>
<td>Twitter</td>
<td>5,490</td>
<td>8,937</td>
<td>63</td>
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<tr>
<td>Facebook</td>
<td>20,501</td>
<td>22,170</td>
<td>8</td>
</tr>
<tr>
<td>Linkedin</td>
<td>4,890</td>
<td>34,926</td>
<td>614</td>
</tr>
</tbody>
</table>

WCT’s Social Media statistics for the reporting period

Films/ Videos

- The team launched special online short film screening events to encourage wildlife filmmakers to showcase their films through WCT portals. These include:
  - a day-long event on the occasion of World Environment Day 2020, during which short films made by young and upcoming wildlife filmmakers were showcased and viewed by over 2,000 people.
  - a week-long event during the National Wildlife Week in October 2020 during which seven short films made by several upcoming as well as established wildlife filmmakers were screened, including WCT’s ‘Tiger Matters’ film on WCT-USAID project.


- The team launched two series of short educational videos for the popular Instagram Reels format – ‘Marvels of Evolution’ and ‘Talking Conservation’. Over 35 reels were produced during the year, covering varying topics such as Camera Traps, Snares, Crocodile Scutes, Scent Marking by Tigers and Gecko’s Tongue. Collectively, these garnered over 10,000 views.

- The team produced and screened two feature documentaries showcasing WCT’s projects. ‘Heater of Hope’, showcasing WCT’s sustainable water heating solution project, was released in English, Hindi, and Marathi, and has been viewed by over 28,000 people. The other film titled ‘WCT’s Conservation Dogs: Breaking New Grounds’, showcasing the work of WCT’s Conservation Dogs Unit, was also released in three languages, and has been viewed by over 7,000 people.

Publications

- The team published six articles in the Sanctuary Asia magazine on a variety of conservation issues, including forest fires, the impact of One Health on conservation, natural ecosystems, and wildlife in the time of the pandemic. WCT’s Conservation Writer, Rawan Mithawala also authored a full-page guest article for Mumbai Mirror, based on WCT’s health needs assessment of forest guards.

- The team published 26 articles on the WCT blog, covering a wide range of conservation and natural history topics.
India. A manuscript revised based on reviewer comments has been submitted to the journal *Diversity and Distributions*.

- Dr. Chetan Trivedy was a guest editor for a special One Health themed issue of the *American Journal of Primatology*, due to be published in June, 2021. Further, a guest editorial titled ‘Solving the One Health puzzle’ authored by Dr. Chetan Trivedy has been accepted for publication in the ‘One Health and Conservation’ themed issue of *Journal Biodiversity* by Taylor & Francis.

**Reports**

- Report titled ‘Understanding work motivation of forest guards: Meilghat Tiger Reserve’, was authored by Vivek Belhekar, Prachi Paranjpye, Aniket Bhattachande and Rushikesh Chavan of the Conservation Behaviour team for WCT’s Internal Publication.
- Report titled ‘Understanding work motivation of forest guards: Tadoba-Andhari Tiger Reserve’, was authored by Vivek Belhekar, Prachi Paranjpye, Aniket Bhattachande and Rushikesh Chavan of the Conservation Behaviour team for WCT’s Internal Publication.


**Research Papers and Posters**

- The Conservation Behaviour team published two papers:

- Girish Punjabi, Conservation Biologist, led a cross-institutional peer-reviewed study co-authored by 29 other researchers and conservation practitioners to evaluate the adequacy of Environment Impact Assessments for three linear projects planned in the Bhagwan Mahavir WLS and NP in Goa. The manuscript was submitted to the *Journal of Threatened Taxa* in September 2020 and was published in December 2020 in Issue 12, Vol. 18, Pg. 17367-17454.

- Divya Vasudev, from the Conservation Research department, co-authored a manuscript on flood-driven movement of an assemblage of herbivores in the Kaziranga landscape, Assam, Northeast India. The manuscript titled ‘Coupled effects of climatic forcing and the human footprint on wildlife movement and space use in a dynamic floodplain landscape’ was published in the international peer-reviewed journal *Science of the Total Environment*, in March 2021, authored by scientists from Conservation Initiatives, Centre for Wildlife Studies and WCT.

- Divya Vasudev and co-authors developed a method to quantify connectivity, and identify limits to connectivity, based on empirical data on species use of heterogeneous landscapes. The manuscript, titled ‘Detecting dispersal: A spatial dynamic occupancy model to reliably quantify connectivity across heterogeneous conservation landscapes’, was published in *Biodiversity* in March 2021, and was co-authored by scientists from Conservation Initiatives, the University of Florida, Centre for Wildlife Studies, and WCT.

- Divya Vasudev and co-authors have used empirical data on elephant use of heterogenous lands to parameterise landscape resistance, or the permeability of the landscapes to elephant movement, as a function of various environmental covariates. This, in combination with recently developed movement models, has allowed co-authors to map elephant connectivity across a 26,296 sq. km, region in Northeast India. A manuscript revised based on reviewer comments has been submitted to the journal *Diversity and Distributions*.

- Dr. Chetan Trivedy was a guest editor for a special One Health themed issue of the *American Journal of Primatology*, due to be published in June, 2021. Further, a guest editorial titled ‘Solving the One Health puzzle’ authored by Dr. Chetan Trivedy has been accepted for publication in the ‘One Health and Conservation’ themed issue of *Journal Biodiversity* by Taylor & Francis.
Popular Articles

- An article titled 'The Impact of One Health on Conservation- Lessons from the COVID-19 pandemic’ with contributions from the One Health team (Health and Human-Wildlife Interface Management teams), and Dr. Anish Andheria was published in Sanctuary Asia’s August 2020 issue.
- Articles titled ‘Addressing the “Elephant” in the Room’ authored by Aniket Bhatkande, and ‘A “Bamboo”zing Claim’ co-authored by Aniket Bhatkande and Pooja Dewoolkar, were published in Moneylife, an online financial news resource.
- An article titled ‘Natural Ecosystems – Foundation of All Life On Earth’ authored by Dr. Anish Andheria, President, WCT, was published in the April 2020 issue of Sanctuary Asia.
- Article titled ‘Mind Over Forest Matter’ authored by Purva Varia, WCT’s Conservation and Science Writer, in collaboration with the Conservation Behaviour team, was published in Sanctuary Asia June 2020 issue.
- WCT’s Conservation Writer Rizwan Mithawala, in collaboration with the Health team, authored an article titled ‘The Impact of One Health on Conservation- Lessons from the COVID-19 Pandemic’ that was published in Sanctuary Asia’s August 2020 issue.
- An Article titled ‘Conflagrations’ authored by Rizwan Mithawala, was published in the Sanctuary Asia’s October 2020 issue.
- Rizwan Mithawala authored a guest article titled ‘The eyes of the jungle’ for the Sunday Mumbai Mirror that was published on January 17, 2021
- Purva Varia, in collaboration with the Conservation Behaviour team, authored an article titled ‘The Human Mind, Societies and Wildlife Conservation’ that was published in the Sanctuary Asia’s February 2021 issue.

• WCT President, Dr. Anish Andheria, was invited to be a part of the panel for a webinar on ‘Technology and Innovation for Managing Habitats’ organised by Balipara Foundation in June, 2020.
• Dr. Anish Andheria was invited as a guest speaker by DCP Expeditions LLP for their webinar focused on Conservation Photography on June, 2020.
• He was also invited on the panel for the CMS Vatavaran Webinar series on Environmental Filmmaking in July, 2020.
• Anish Andheria was invited to speak at the Hindustan Times Environment Conclave Session in January 2021
• Anish Andheria was invited to moderate a talk on Natureonomics™ Dialogues on Redefining Rural Futures: Building Local Natural Capital Economies by Balipara Foundation
• Dr. Anish Andheria gave several interviews as follows:
  - to WorldAtlas for their article titled ‘Road-construction Spree in Asia Could Mean the End of the Road For Tigers’ published in May, 2020.
  - to WorldAtlas for article titled ‘How India Is Conserving Endangered Tigers In A World Where Wildlife Is Fast-Disappearing’
  - to Sanctuary Nature Foundation for an episode of ‘Seek Sanctuary – Reboot the Planet’ published in April, 2020.
  - to ListenIn organised by Sunaparanta – Goa Centre for the Arts on the occasion of International Tiger Day on August 1, 2020.
  - to the YouTube channel Fomonome for episode 8 of ‘Big Cats – The Inside Story’ by Latika Nath organised in August 2020.
  - for episode 10 of LEO talks organised by VIT Leo in August, 2020.
  - for World Wildlife Day to Grace Farms Nature Initiative on Protecting Tigers
• WCT’s Conservation Psychologist, Prachi Paranjpye, was interviewed on ‘The Role of Psychology in Conservation’ by The Psychology Nook for their series on applications of psychology across various fields in September, 2020.
• WCT’s forensics specialist, C. Samyukta, was interviewed on the scope of wildlife forensics as a career option by The Interview Portal, a website that seeks to offer career guidance from industry experts to students from all walks of life. She was also interviewed by a Spotify-based podcast titled ‘The Big Fat Indian Ghotala’ for an episode on wildlife smuggling.
The WCT Small Grants programme was instituted in 2017 to provide financial aid for conservation of lesser known species, critical habitats, and addressing conservation issues, by supporting local organisations, motivated individuals, and researchers from across India. This programme creates opportunities for budding and practicing conservationists to pursue their passion of conserving endangered species and their habitats. We have so far granted funding support to some exceptional conservationists, researchers and organisations for crucial projects which involved research and conservation of diverse species and habitats such as the critically endangered Asian brown tortoise and Jerdon’s Courser, endangered humphead wrasse, and the neglected coastal plateau habitat among several others.

Owing to the COVID-19 crisis that has impacted the inflow of funds, WCT did not award new research grants in the year 2020-21.
### PROJECT FUNDING

<table>
<thead>
<tr>
<th>Funding Support for Organisation/Individual</th>
<th>Project/Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation Initiatives</td>
<td>Region-wide conservation planning for the Asian elephant in Northeast India</td>
</tr>
<tr>
<td>Sanctuary Nature Foundation</td>
<td>Sanctuary’s Muds on Boot Programme created to empower the grassroots conservationists and supporters of wildlife and wilderness</td>
</tr>
<tr>
<td>Dakshin Foundation</td>
<td>Production of their magazine Current Conservation for the year 2020-21</td>
</tr>
<tr>
<td>Society for Heritage and Ecological Researches</td>
<td>Cyclone Amphan relief work in areas in and around the Sundarban Tiger Reserve</td>
</tr>
<tr>
<td>MP Tiger Foundation Society-Ex-Gratia</td>
<td>Financial assistance provided to Mrs. Anju Rana, wife of Deepu Singh Rana, Forest Beat Guard, Sanjay (north), Ghaligaon Forest Range, Gwalior who died in the line of duty</td>
</tr>
<tr>
<td>MP Tiger Foundation Society</td>
<td>COVID relief to safari drivers and guides employed with the following tiger reserves in Madhya Pradesh – Kanha, Bandhavgarh, Pench, Panna, and Satpura TRs</td>
</tr>
<tr>
<td>Wildlife Protection Society of India</td>
<td>Cyclone Amphan relief work in areas in and around the Sundarban Tiger Reserve</td>
</tr>
<tr>
<td>Tadoba-Andhari Tiger Reserve Conservation Foundation</td>
<td>COVID relief through gainful employment for the safari drivers and guides</td>
</tr>
<tr>
<td>Tiger Research and Conservation Trust</td>
<td>Wildlife Conservation and Monitoring Co-existence of Humans and Large Carnivores in the Landscape of Tadoba-Andhari Tiger Reserve</td>
</tr>
<tr>
<td>Titt® Foundation</td>
<td>Mitigating human-wildlife conflict in Pauri, Uttarakhand</td>
</tr>
<tr>
<td>Ranthambhore Foundation</td>
<td>General support for forest protection activities</td>
</tr>
<tr>
<td>Sathyamangalam Tiger Reserve – Ex-Gratia</td>
<td>Financial assistance to the family of Thiru P. Muthu Prabhakara Cherandiyalan, a volunteer who was trampled by a wild elephant in the line of duty</td>
</tr>
<tr>
<td>Urvi Ashok Piramal Foundation</td>
<td>Funding support towards health intervention in Tadoba-Andhari TR.</td>
</tr>
</tbody>
</table>

### SUPPORTING THE RESTORATION OF RIPARIAN AREAS OF THE RIVER NARMADA

Originating at the meeting point of the Vindhya and Satpura ranges, on the crest of Amarkantak, River Narmada runs a picturesque course to meet the Arabian Sea. The river and its basin have significantly rich biodiversity, and religious, social, economic and historical values. Close to a third of the river’s 23-million acre basin is forested and is home to more than 4,000 floral species, 276 birds, 76 mammals, 50 snakes, 150 butterflies and 118 fish species. Like other rivers of India, Narmada too faces pressures, with degradation of its catchment and riparian areas being one of the major ones. WCT is supporting a riparian restoration project in Hoshangabad district of Madhya Pradesh with its implementing partner, Indian Grameen Services. This coalition is implementing a pilot project on restoring government riparian land in two sites/villages, finalised in consultation with the district administration. We have protected and are restoring 24 hectares across two sites. We planted 5,150 saplings, with a survival rate of 65 percent in the first year, despite the heavy rains and floods in August 2020. We also leveraged 1,048 man-days through MG-NREGS. These sites are demonstration sites for science-based restoration. To help scale-up restoration in Hoshangabad and adjoining districts, we have developed a restoration guide. The project has ended and the Indian Grameen Services now works independently to continue to protect these sites and are expanding to other sites identified by the Hoshangabad district administration.
SUSTAINING THROUGH THE PANDEMIC: A JOURNEY IN ITSELF

The COVID-19 pandemic posed several challenges on several fronts. Its impact on industry and the economy has had a ripple effect on the channelisation of global charity funding. India witnessed one of the highest fund mobilisations in the health sector to help both the victims and the medical community cope with the pandemic. Migrants, daily-wage workers, and many who lost their jobs were supported by funding from various organisations on an unimaginable scale. The advent of cyclones only added to further diversification of funds. However, in the not-for-profit sector, the pandemic caused an ebb in funding from many streams and set up new challenges in organisational sustainability. WCT is proud to report that, in spite of such compelling circumstances, we have retained all staff at full remuneration and have extended additional financial support to them in the initial days of the lockdown.

Conservation work has never been regarded as low hanging fruit by corporate CSR. To counter this, WCT has over the past couple of years fine-tuned its systems and processes to create a sound platform to sustain its programmes. Combined with WCT’s result-oriented management approach, this enabled us to initiate budgeting and resource planning from as early as January 2020. As a result, WCT had several funding commitments for the financial year 2020-21, well before the national lockdown was imposed in March 2020. As the weeks rolled by, many of the donors upheld their commitments. Several were, understandably, not able to do so. WCT took these challenges in its stride and capitalised on the work-from-home employment model. Through the lockdown and unlock phases alike, all our teams ensured that donor project reports for year ending were rolled out on schedule, and that their internal reviews continued unhampered.

As several of our projects are primarily field-based and budgetary forecasts depend upon execution of planned activities, we worked tirelessly to constantly review project activities and budgets during the lockdown. This enabled us to revise our overall activities and budgets accordingly. WCT also took the opportunity to review ongoing project status with donors and explore fresh sources of support for projects in which corporates were unable to honour their funding commitment.

As the year progressed, WCT was able to meet more than 75% of its costs through interest yields and mobilisation of external donor funds through CSR donations and international grant funds. The silent safety net provided by our Chairman and the dedication of the WCT staff has allowed us to soar the skies even with clipped wings.

WCT teams resumed field work in August-September following necessary COVID-appropriate protocols and precautions. Consequently, due to unhindered fieldwork between October 2020 and mid-March 2021, project commitments and timelines could be adhered to, and funds were utilised in accordance with the proposed project activities.

Financial Statements for the year ended 31 March 2021

<table>
<thead>
<tr>
<th>ABRIDGED INCOME &amp; EXPENDITURE ACCOUNT</th>
<th>amount in ‘000</th>
<th>amount in ‘000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
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<tr>
<td>2020-21</td>
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<td>2019-20</td>
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<tr>
<td>Donations in Cash or Kind</td>
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<td>76,152</td>
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<tr>
<td>Grants</td>
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<td>Surplus/Deficit for the year</td>
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<tr>
<td><strong>Total Income</strong></td>
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<td>1,56,106</td>
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<td><strong>EXPENDITURE</strong></td>
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<tr>
<td>Establishment Expenses</td>
<td>32,230</td>
<td>39,922</td>
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<tr>
<td>Depreciation</td>
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<td>11,807</td>
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<td>Expenditure on Objects of the Trust</td>
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<td>92,359</td>
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<tr>
<td>Surplus/Deficit carried over to Balance Sheet</td>
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<td>12,018</td>
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<tr>
<td><strong>Total Expenditure</strong></td>
<td>92,635</td>
<td>1,56,106</td>
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</table>

<table>
<thead>
<tr>
<th>ABRIDGED BALANCE SHEET</th>
<th>amount in ‘000</th>
<th>amount in ‘000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUNDS AND LIABILITIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020-21</td>
<td></td>
<td>2019-20</td>
</tr>
<tr>
<td>Corpus Funds</td>
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<td>4,73,171</td>
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<tr>
<td>Earmarked Fund (CSR Grants)</td>
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<td>39,693</td>
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<td>Provision for Expenses</td>
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<td>1,977</td>
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<tr>
<td>Income and Expenditure A/c</td>
<td>61,093</td>
<td>49,075</td>
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<tr>
<td>Surplus/Deficit for the year</td>
<td>-15,002</td>
<td>12,019</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,55,573</td>
<td>5,75,935</td>
</tr>
<tr>
<td><strong>PROPERTY AND ASSETS</strong></td>
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</tr>
<tr>
<td>Fixed Assets</td>
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<td>Investments</td>
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<td>4,048</td>
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<td>Outstanding Interest</td>
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<td>Receivables and others</td>
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<td>Deposits with Banks</td>
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<td>1,59,950</td>
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<tr>
<td>Cash/Bank Balances</td>
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<td>39,077</td>
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<tr>
<td><strong>Total</strong></td>
<td>5,55,573</td>
<td>5,75,935</td>
</tr>
</tbody>
</table>

Summarised from Financial Statements audited by M/s. Gunderia and Co., Chartered Accountants Dated : 27 December 2021