



# **IUCN Asia Members Annual Report 2016**



Mount Everest and Amadablam © Amit Poudyal/IUCN Nepal

## Message from the Asia Regional Members Committee Chair and the Regional Director IUCN Asia

IUCN Members, whether they are State or Government Agencies, NGOs or scientific and academic institutions, bring a wealth of knowledge and resources to IUCN. In Asia, 2016 saw a substantial increase in Membership with 10 new NGOs joining from Bangladesh, China, India, Indonesia, Nepal and Thailand. We welcome all our new Members from these countries.



This past year has been fundamentally important for us here at IUCN, with the contribution of our Members to the 2016 IUCN World Conservation Congress (WCC) being of particular note. Out of the 10,000 participants of the Congress, 2,144, were from IUCN Member organisations and 391 of those – the highest number ever from our region to participate in any WCC – came from Asia.

At the Congress, the IUCN Membership unanimously adopted the Union's results-based programme for 2017-2020, which is aligned with the United Nation's Sustainable Development Goals (SDGs). The programme provides the framework for planning, implementing, monitoring and evaluating the conservation work undertaken by the Commissions and the Secretariat, with and on behalf of IUCN Members, and will underlie all of the projects and activities undertaken by IUCN over the next three years.

In addition to adopting IUCN's new programme, the Congress also provided a platform to assert IUCN Asia's commitment to working with – as well as bringing together – all Member States in the Asian region to support progress on key sustainable development targets and to assist with the adoption of the SDGs framework at regional and national levels. We saw that, when it comes to regional cooperation of Members, Asia is well on its way to becoming the example that other regions can follow. In order to fulfill this potential and strengthen our collaboration as part of this Union, we call upon our Members to prioritise regular communication and leverage one another's networks, knowledge and expertise.

Another important Members' event which was held prior to the Hawai'i Congress in July 2016 was the Asia Regional Members' Committee (ARMC) meeting in Beijing, China. Besides helping to prepare Members for the Hawai'i Congress, the meeting, which was graced by IUCN President Mr Zhang Xinsheng, also explored ways to promote joint efforts among IUCN Members in Asia and strengthen cooperation between secretariat and special committees. The meeting was attended by Member representatives from 12 countries in Asia, including Bangladesh, China, Cambodia, Japan, Korea (DPRK), Korea (RoK), Lao PDR, Mongolia, Nepal, Pakistan, Philippines and Singapore.

In our specific regional context, the ARMC has been instrumental in providing strategic guidance to IUCN in Asia, particularly with regard to the new programme's ecosystem-based approach to conservation and development. IUCN Asia has continued to work closely with its Members to implement the type of initiatives that effectively utilise the natural functions of ecosystems to combat and mitigate the effects of climate change, while at the same time furthering socio-economic development goals. In the past year, IUCN has also worked with a number of Member countries to re-emphasise and implement their commitments to the Bonn Challenge, specifically in relation to the restoration of forests.

These substantial contributions deserve to be recognised to the fullest, which is why it is our pleasure and honour to present the IUCN Members Annual Report for 2016, the first of its kind to be published in the history of IUCN Asia. Notable among these contributions is the community engagement initiative to empower women in conservation efforts in the Sundarbans; the establishment of the China Biodiversity Observation and Research Network; the Great Indian Bustard public engagement conservation initiative; and the restoration of mangrove forests in Quezon, the Philippines.

We extend our gratitude toward our Members for adopting the IUCN Programme 2017-2020, and express our sincere appreciation to those who contributed to this report. As we strive to ensure that all our Members have the opportunity to highlight their achievements, we have included inputs from those who have responded to our request for contributions. We hope that our Members will continue to proactively highlight the significance of their contribution to IUCN's trajectory and remain committed to collaborate for the resilience and effectiveness of our Union.

We sincerely thank all of our Members who have diligently played their part in our efforts over the past year, and acknowledge Members' contribution to the implementation of IUCN Programme. The ARMC is ever-ready to provide support to our Members and to foster a collaborative environment that will allow IUCN to carry forward our conservation and development agendas.



**Keping Ma**  
Chair, IUCN Asia Regional Members  
Committee



**Aban Marker Kabraji**  
Regional Director, IUCN Asia

## About IUCN

The International Union for Conservation of Nature (IUCN) is a membership Union uniquely composed of both government and civil society organisations. It provides public, private and non-governmental organisations with the knowledge and tools that enable human progress, economic development and nature conservation to take place together.

Created in 1948, IUCN has evolved into the world's largest and most diverse environmental network. It harnesses the experience, resources and reach of its 1,300 Member organisations and the input of some 16,000 experts. IUCN is the global authority on the status of the natural world and the measures needed to safeguard it. Our experts are organised into six [commissions](#) dedicated to species survival, environmental law, protected areas, social and economic policy, ecosystem management, and education and communication.

The ability to convene diverse stakeholders and provide the latest science, objective recommendations and on-the-ground expertise drives IUCN's mission of informing and empowering conservation efforts worldwide. We provide a neutral forum in which governments, NGOs, scientists, businesses, local communities, indigenous peoples groups, faith-based organisations and others can work together to forge and implement solutions to environmental challenges.

By facilitating these solutions, IUCN provides governments and institutions at all levels with the impetus to achieve universal goals, including on biodiversity, climate change and sustainable development, which IUCN was instrumental in defining.

Combined, our knowledge base and diverse membership make IUCN an incubator and trusted repository of best practices, conservation tools, and international guidelines and standards. As the only environmental organisation with official United Nations Observer Status, IUCN ensures that nature conservation has a voice at the highest level of international governance.

IUCN's expertise and extensive network provide a solid foundation for a large and diverse portfolio of conservation projects around the world. Combining the latest science with the traditional knowledge of local communities, these projects work to reverse habitat loss, restore ecosystems and improve people's well-being. They also produce a wealth of data and information which feeds into IUCN's analytical capacity.

Through their affiliation with IUCN, Member organisations are part of a democratic process, voting Resolutions which drive the global conservation agenda. They meet every four years at the IUCN [World Conservation Congress](#) to set priorities and agree on the Union's work programme. IUCN congresses have produced several key international environmental agreements including the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species (CITES), the World Heritage Convention, and the Ramsar Convention on wetlands. We continue to help these conventions strengthen and evolve so that they can respond to emerging challenges.

### **IUCN Asia Regional Office**

The IUCN Asia Regional Office (ARO) based in Bangkok, Thailand, was established in 2002, building on projects and initiatives implemented in the region since the early 1980s.

Since 1999, the Asia programme has initiated and overseen both Regional and Country Programmes and projects in over 20 countries across Asia.

Today, IUCN's Asia Regional Office is the heart of IUCN's operations in South, East and Southeast Asia, overseeing 11 country offices (Bangladesh, Cambodia, China, India, Lao PDR, Nepal, Pakistan, Sri Lanka, Thailand, and Viet Nam) from Bangkok, Thailand.

IUCN Asia also has programme presence in Myanmar and initiatives in other countries such as Afghanistan, Bhutan, Brunei Darussalam, Indonesia, Japan, Democratic People's Republic of Korea, Republic of Korea, Malaysia, Maldives, Mongolia, Philippines, Singapore, and Timor-Leste.

## Overview of Members in Asia in 2016

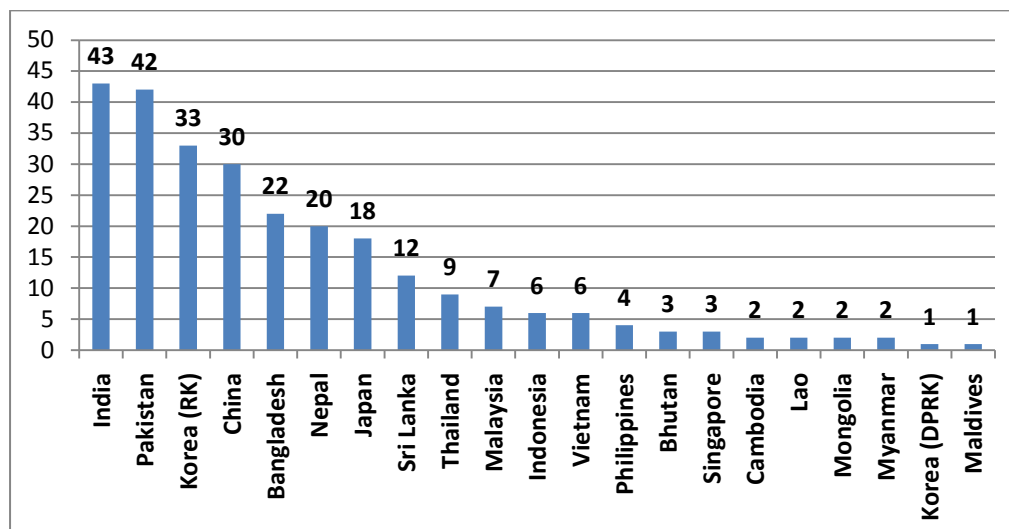
In 2016, IUCN membership increased up to 268 Members from 21 of the 23 countries in South and Southeast Asia which comprise the scope of the IUCN Asia Regional Office.

Among the Members, 14 were State Members, 28 government agencies, 217 national NGOs, five international NGOs, and four affiliates.

IUCN Asia, in close collaboration with the Union Development Group at the IUCN global headquarters in Gland, Switzerland, coordinates Membership and constituency-related matters in the Asia region.

### Country-wise IUCN Membership statistics

Country	State	Govt. Agency	NGO	Int'l NGO	Affiliate	Total
Bangladesh	1		21			22
Bhutan	1		2			3
Cambodia			2			2
China	1	1	25		3	30
India	1	5	37			43
Indonesia		1	4		1	6
Japan	1	1	16			18
Korea (DPRK)			1			1
Korea (RoK)	1	5	26	1		33
Lao PDR	1		1			2
Malaysia	1	3	3			7
Maldives			1			1
Mongolia	1		1			2
Myanmar			2			2
Nepal	1		18	1		20
Pakistan	1	7	33	1		42
Philippines			4			4
Singapore			3			3
Sri Lanka	1	5	6			12
Thailand	1		6	2		9
Vietnam	1		5			6
<b>Region total</b>	<b>14</b>	<b>28</b>	<b>217</b>	<b>5</b>	<b>4</b>	<b>268</b>



### Regional / National Committees in Asia

Committee	Chair
<b>South and East Asia</b> Regional Committee	Prof. Ma Keping Secretary General, Biodiversity Committee of Chinese Academy of Sciences, China
<b>Bangladesh</b> National Committee	Mrs. Hasna Moudud President, Coastal Area Resource Development and Management Association
<b>Indian</b> National Committee	Secretary (Mr. Ajay Narayan Jha), Ministry of Environment & Forests, Government of India Permanent position
<b>Japan</b> National Committee	Mr Tsunao Watanabe Japan Wildlife Research Centre
<b>Nepal</b> National Committee	Mr. Yogendra Chitrakar Executive Director, Environmental Camps for Conservation Awareness
<b>Pakistan</b> National Committee	Mr. Amjad Rashid Chief Executive Taraqee Foundation
<b>Korea (ROK)</b> National Committee	Prof. Youngbae Suh Professor, Natural Products Research Institute, Seoul National University
<b>Sri Lanka</b> National Committee	Mr. Anura Sathurusinghe Conservator General of Forest, Forest Department
<b>Thailand</b> National Committee	Dr. Prasert Sornsathapornkul Department of National Parks, Wildlife and Plant Conservation
<b>Viet Nam</b> National Committee	Dr. Hoang Van Thang Director, Central Institute for Natural Resources and Environment Studies

# IUCN Programme

## What is the IUCN Programme?

The IUCN Programme provides the framework for planning, implementing, monitoring and evaluating the conservation work undertaken by the Commissions and the Secretariat with and on behalf of IUCN Members.

The IUCN Programme 2013–2016 was driven by two features: Global production and consumption patterns are destroying our life support system – nature – at persistent and dangerously high rates. And people, communities, governments and private actors are underutilizing the potential power of nature and the solutions it can provide to global challenges in fields such as climate change, food security, social and economic development. IUCN terms these nature-based solutions.

The aim of IUCN Programme 2013–2016 was to mobilize communities working for biodiversity conservation, sustainable development and poverty reduction in common efforts to halt biodiversity loss and apply nature-based solutions to conserve biodiversity, enhance resilience, strengthen equity, reduce poverty and so improve the wellbeing of people on this planet.

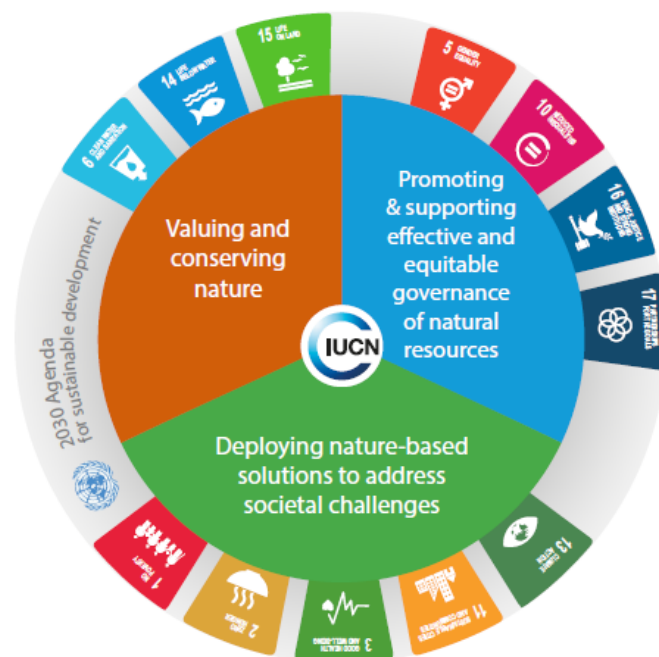
IUCN Programme 2013-2016 focused on three Programme Areas:

1. **Valuing and conserving nature** enhances IUCN's heartland work on biodiversity conservation, emphasizing both tangible and intangible values of nature.
2. **Effective and equitable governance of nature's use** consolidates IUCN's work on people-nature relations, rights and responsibilities, and the political economy of nature.
3. **Deploying nature-based solutions to global challenges in climate, food and development** expands IUCN's work on nature's contribution to tackling problems of sustainable development, particularly in climate change, food security and social and economic development.

The IUCN Programme 2017-2020 was approved by Member organizations at [IUCN's World Conservation Congress](#) in September 2016 in Hawaii, USA. It was developed as a result of a nine-month consultation process across IUCN [Members](#) and [Commissions](#).

## Working for people and nature

Our work in 2017-2020 will be guided by the IUCN Programme 2017-2020 which has three priority areas:





- **Valuing and conserving nature** enhances IUCN's heartland work on biodiversity conservation, emphasising both tangible and intangible values of nature.
- **Promoting and supporting effective and equitable governance of natural resources** consolidates IUCN's work on people-nature relations, rights and responsibilities, and the political economy of nature.
- **Deploying nature-based solutions to societal challenges** expands IUCN's work on nature's contribution to tackling problems of sustainable development, particularly in climate change, food security and social and economic development.

The Programme is implemented through the combined force of the Secretariat working together with six IUCN [Commissions](#), with more than 16,000 members who provide critical knowledge for Programme implementation.

Under the One Programme Charter adopted by Council in May 2011, the 1,300 State, government and NGO Members of IUCN contribute where there is alignment with the IUCN Programme. The Programme relies on impact indicators for biodiversity, people and nature, and nature and development.

Members work in Asia, contributing to the implementation of the above three IUCN programme areas of work in 2016, is presented in the next section.



# Valuing and conserving nature

## Bangladesh

### Nature Conservation Management (NACOM)

NACOM facilitated and aided 240 ha of natural regeneration and sowed of 36 ha of forest land with seeds of timber and fruit yielding trees. The organization also planted 10 ha of sand dune vegetation, under agroforestry plantation scheme planted 16 ha in homestead and institutional areas, and planted 4500 seedlings in homestead areas with indigenous non-timber, but useful plants. Lastly, in order to reduce GHG emissions NACOM promoted 483 ICS and 800 Retained Heat Cookers Bags

### WildTeam 2016-17

A look back to 2016 shows a great diversity of WildTeam's focused activities to secure a bright future for the Bengalese Tiger and strengthen national efforts for safeguarding the rich biodiversity of the Sundarbans. Under the programmatic implementation, as a Prime implementer of USAID's Bengal Tiger Conservation Activity (BAGH), WildTeam conducted field researches in the Sundarbans for relative abundance of tigers and tiger's prey, occupancy of tigers, and change detection in land cover in Katka-Kachikhali. WildTeam has also launched an extensive camera trap survey in November to monitor tiger population in 1,500 square kilometers area of the Sundarbans. With support from local communities and VTRTs, WildTeam field staff rescued and set free 125 wild animals to the forest in 2016.

### Biotechnology & Environmental Conservation Centre (DEBTEC)

DEBTEC worked towards empowering women and harnessing research on conservation and sustainable utilization of biological resource including climate change.

DEBTEC has been engaged in many activities such as developing a tissue culture virus free plantlets for potato seed production, or supporting the commercialization of tissue cultured potato seeds to rural farmers including women in North West Bangladesh. Research has also been a top priority for DEBTEC, where the organization has undertaken a research project for Biotechnology based resource development for Oggro Dairy to develop the Dairy sector, and has researched into salt tolerant agricultural products for Alternative Income Generation in South West Bangladesh.

### Prokriti O Jibon Foundation (POJF)



POJF—together with other organizations—also arranged the Nature Fair, Butterfly Fair, Bird Fair and other programs to involve mass people and to spread conservation messages.

In 2016 POJF (Nature and Life Foundation) started its work on the conservation breeding program for Northern river terrapin *Batagur baska*, with partner organizations like Turtle Survival Alliance and Zoo Vienna. A 'Coastal Waterbird Census' was also carried out by POJF in the coastal region together with Bangladesh bird club. In addition, throughout the span of a year POJF produced and telecasted a total 30 episodes of 'Prokriti O Jibon' (Nature and Life) TV series and 12 TV Talk Shows that discuss various nature and climate related issues. For more publicity,

POJF has always been committed to nature conservation works and will remain so in future in order to ensure "Better Life in Balanced Nature". Precisely, the organization's plan for 2017 is to dedicate more time and resources towards research works, unveil the richness of the country's biodiversity, fight illegal wildlife trafficking, educate people about the adaptation and mitigation processes of climate change impacts and continue awareness building campaigns to conserve biodiversity, environment and nature of the country.

## China

### Biodiversity Committee, Chinese Academy of Sciences (BC-CAS)

#### Species 2000 China Node

BC-CAS supported and managed the construction of species 2000 China node, a non-profit 'federation' of 158 database organizations of global species launched in 2006, whose goal is to create a uniform and validated index to the world's known species. Since 2008, the project compiles and publishes electronic version of the annual checklist of the Catalogue of Life China.



BC-CAS also organized the Catalogue of Life China 2016 Annual Checklist edition, published by Science Press (Beijing) and compiled by Species 2000 China Node. In line with the Species 2000 data standard, each species page includes the scientific name, synonym, common name, literature, classification system, distribution and Chinese name with Pinyin (pronunciation in Chinese). A new website ([www.sp2000.org.cn](http://www.sp2000.org.cn)) was additionally launched in August 2016, and is currently maintained by the IT technical service team of the project. The new site provides a global database biological species, with an added function that allows retrieval by scientific name, common names and distribution, user registration, and statistics by year and distribution.

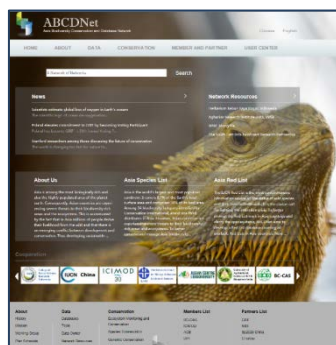
#### Compiling a print version of Species Catalogue of China



CAS initiated and sponsored the project *Species Catalogue of China* in 2013. The goal is to compile 33 issues in three volumes, i.e. plants, animals and fungi, and to update it electronically. The Catalogue will not only provide authoritative and comprehensive species information for protection, monitoring, and sustainable use of China's biodiversity resources, but also provide scientific support for the Chinese government to fulfil and implement Convention on Biological Diversity (CBD). The manuscript for 13 issues of both plant and animal volumes, as well as the drafts for all 6 issues of fungi volume are completed.

#### Asia Biodiversity Conservation and Database Network

Asia Biodiversity Conservation and Database Network (ABCDNet) is the first biodiversity informatics project in Asia initiated by China. Through the project, BC-CAS aims to build a platform for sharing biodiversity information in Asia, and to be an important regional cooperation project in the field.



The Asia Species Database, Asia Species Red List Database, and biodiversity related network resources have made great progress. The databases include Chinese species list with 86,575 records from 33 Asia countries/areas of BirdLife, 59,278 national species red list records from 15 Asia countries/areas and 400 websites. All information is available at [www.abcdn.org](http://www.abcdn.org). The website has about 1400 visitors per day. Following major projects are carried out by ABCDNet:

- Mapping Asia Plants (MAP)
- Southeast Asia Plant Biodiversity Information Infrastructure (SEADiv)

- 100 most threatened plants species list in Asia

#### Global Biodiversity Information Facility (GBIF) CAS Node

The GBIF is the biggest and the most influential network for biodiversity information service, which holds a significant place in the field of biodiversity informatics. CAS has worked for decades in the field of biodiversity informatics, and the collaboration between CAS and GBIF is very important for the research and conservation of biodiversity in China. On behalf of CAS, BC-CAS is in charge of building and maintenance of GBIF-CAS Node.



GBIF-CAS node uses GBIF integrated publishing Toolkit (IPT), posting 1101,617 species records on the GBIF website, with three types of data. These data are then integrated with existing data of China on GBIF effectively, which allows much more people to know and understand biodiversity in China better. The data set can be freely obtained from the GBIF's official website (<http://www.gbif.org>) or GBIF-CAS website.

GBIF-CAS node will continue to cooperate with other related platforms, introduce GBIF's technology and huge datasets to Chinese users and publish data to the GBIF global network. This will greatly improve the current weak data situation about China in GBIF network. It will also make the research based on GBIF data in China more reliable.

## India

### Technology, Education, Research and Rehabilitation for the Environment (TERRE) Policy Centre

TERRE Policy Centre in India implemented a project in Maharashtra, India to enable cities, with the support of their regional and national governments, to move along waste hierarchy in a coordinated and cohesive manner to mitigate methane and black carbon emissions. TERRE developed an action plan and submitted to Climate and Clean Air Coalition (CCAC) for further implementation on Municipal solid waste in Panvel city.

- Total Population – 195,000
- Waste Generated – 49.83 MT/Day
- Waste Collection – 18,188 MT/Year
- Waste Disposal – 5,820 MT/Year
- Recycling – 3,638 MT/Year
- Organic Waste Treatment – 6,366 MT/Year



The Urban Forestry project of TERRE Policy Centre covered total 16-hectare of barren waste hill land where up till now more than 10,000 plants with 8-9 feet height were planted. In collaboration with Maharashtra Forest Department and CSR partners TATA Motors and Persistent Foundation TERRE made a great progress in developing this waste hill barren land in urban forestry / a theme park / green land in the centre of the Pune City. With this, TERRE also received individual support of citizens and planted / adopted tree in Smritivan area in the memory of loved ones as well as some of them also emerged the bones of their love ones in the roots of tree to keep remembering their memories. After one year of plantation 50 birds and 300 insects diversity was identified in the tree planted area. Plantation also helps reduce carbon foot print of the city.

TERRE Policy Centre on Van Mahotsav or Forest Day, 1st July 2016 planted saplings at Urban Forestry, Warje Malwadi, Pune. The State Government executed the planting of two crore trees in the state, including 9.5 lakh saplings in Pune district.

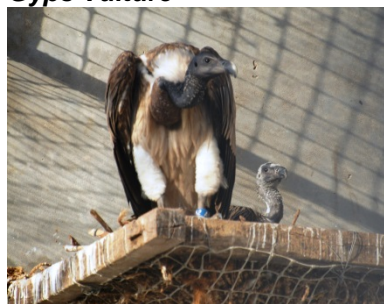
As a part of Tree Plantation activity, TERRE Policy Centre organized a campaign of tree plantation on 23rd July 2016 at Nande village near Balewadi Stadium. Around 25 participants from CSR Team of Persistent Foundation volunteered the program. Around 110 variety of Tree saplings were planted by the volunteers.





## Bombay Natural History Society (BNHS)

### Gyps Vulture



BNHS has worked on three main resident *Gyps* Vultures in the breeding centres of BNHS in Haryana, Assam, West Bengal and Madhya Pradesh continues to meet success. Some of the projects currently at hand are the study of genetic diversity of the captive *Gyps* vulture populations at the Vulture Conservation Breeding Centre (VCBC), Pinjore; application of molecular sexing at all the VCBCs for managing vulture populations in captivity; vulture conservation breeding and validation of a field-based 'Dipstick' method for the detection and quantification of diclofenac residues in cattle liver samples.

### Giant Clams

In India, Giant Clams, the largest living bivalves, are found only in Lakshadweep and Andaman and Nicobar Islands. These charismatic creatures, listed as Vulnerable in the IUCN Red List of Endangered Animals, face extinction owing to overexploitation and bleaching of coral reefs, their natural habitats. BNHS's on-going studies have created a baseline information on the distribution, density, breeding population, recruitment, substrate, anchorage and other ecological parameters and status of Giant Clam *Tridacna* sp. in Lakshadweep and Andaman and Nicobar. During 2016–17, BNHS continued to assist Ministry of Environment, Forest and Climate Change's (MoEFCC) ongoing Giant Clam species recovery plan through regular scientific inputs.

### Green Avadavat

An endemic bird species of India, the Green Avadavat *Amandava formosa* is on a rapid decline owing to habitat loss and degradation, and cage-bird trade. Their best population is reported in certain pockets of Madhya Pradesh, Odisha, Maharashtra and Rajasthan. To help the species, BNHS initiated a one-year project in May 2016 to study its distribution and population along with ecological studies, and to monitor the illegal trade through undercover investigations. The latter meant interviews with traditional bird trappers. A detailed report is soon to be prepared on the current status, distribution, the prevailing threats and steps towards conservation.



### Indian Skimmer



Listed as a 'Vulnerable' species, its population is declining rapidly due to widespread degradation and disturbance of lowland rivers and lakes. The National Chambal Sanctuary (NCS) is among the very few locations in India that hosts significant breeding populations of Indian Skimmer *Rynchops albicollis*. The ongoing BNHS study on this bird species aims to identify the current nesting sites of the Indian Skimmer in the sanctuary and understand the ecological and anthropological factors that make these sites favourable for the species. The goal is to fill in the

existing knowledge gap about the ecology and habitat use of this species, and the effects of anthropogenic disturbances on its distribution.

### Yellow Weaver

This bird species, endemic to India, has the fame of being rediscovered by Sálim Ali in 1959. Today the Yellow Weaver or Finn's Weaver *Ploceus megarhynchus* faces rapid decline owing to the loss and degradation of Terai grasslands, its main habitat. BNHS conducted field surveys in selected areas of Uttar Pradesh and Uttarakhand from August to September 2016, to coincide with their breeding season. BNHS also conducted surveys in winter when the birds roost in large flocks. While a report on the same is scheduled to be completed by March 2017, a full-fledged long drawn research project is a crucial need of the hour to chalk out conservation methods for their survival.

### **Kondana Soft-furred Rat**

BNHS has been studying this critically endangered species endemic to Sinhgad and Pune in Maharashtra since 2012, and has contributed to the discovery of three new populations of the species near Sinhgad. During 2016–17, the focus was on landscape-level investigation for a broader picture of the Kondana Rat and rodent communities at Sinhgad, Raigad and Torna Fort. Students were involved in the study and were trained in handling and sampling habitats of small mammals.'

### **Grassland programme**

Grassland habitats are mostly viewed as wastelands but human neglect and degradation have led to the loss of habitat for grassland species such as the Bengal Florican *Houbaropsis bengalensis*, Lesser Florican *Sypheotides indicus* and Great Indian Bustard *Ardeotis nigriceps*. One of the goals of BNHS, under strategy 2016–26 is the revival and conservation of these grasslands. One such project addressing this goal is Prevention of Extinction Programme, with focus on Bengal and Lesser Florican habitats.

### **Wildlife conservation and monitoring programme, Solapur**

What started as biodiversity survey in January 2011, with special focus on the conservation of the Great Indian Bustard (GIB) in the 10-km radius of the National Thermal Power Corporation's power plant in Solapur has now been extended to cover the entire Maharashtra's Deccan Plateau region, where the Critically Endangered bird species is found. With help from the Pune Wildlife Division, BNHS conducted state-wide grassland surveys from July to October 2016, especially to document the status of obligatory species. The impact of pesticides on the food chain of GIB is another important component in the research process. The BNHS team is also part of the management plan for the GIB Sanctuary from 2016 to 2026.

### **Satpuda Landscape Tiger Programme (SLTP)**

SLTP, a programme with multiple partners, is run from Nagpur, gateway of tiger land. With Maharashtra Forest Department as the main partner, BNHS is monitoring tiger movement in Bor Tiger Reserve buffer area through camera trapping under the two-year Integrated Habitat Conversion and Eco-development in Vidarbha Tiger Landscape project; the aim is to map the presence and distribution of wildlife and the threats they face, and recommend a management plan.

### **Bird migration studies**

Around 53 bird species were ringed at the Bird Migration Study Centre, Point Calimere, Nal Sarovar, Gujarat; Mahanadi River, Odisha; Pong Dam, Himachal Pradesh and Mumbai, Maharashtra are some of the other sites in India where the Centre has undertaken bird ringing.

In addition to the traditional methods of marking birds with metal rings, the more recent methods of colour-flagging and neck-colouring studies that BNHS undertook over the last three years has yielded interesting results on waterbird movement and established link between migratory birds wintering in India and the East Asian-Australasian Flyway (EAAF) population.

Chilika lake in Odisha is the only lake in the country to be monitored for waterbirds systematically in relation to habitat features. The temporal and spatial changes in the waterbird population have been documented to assess the habitat quality. Based on these studies, the biogeographical population of several migratory species were revised by the Wetlands International.

A Bird Migration Atlas, showing important wintering and breeding sites of several migratory species from Central Asian Flyway and East Australasian Flyway in India, is in progress and is soon to be published by BNHS.

### **Identifying EBSA**

Using the Ecologically and Biologically Significant Marine Areas (EBSA) criteria laid down by Convention on Biological Diversity (CBD), seven Ecologically Important Marine and Coastal Biodiversity Areas were identified across Maharashtra coast. Surveys were carried out to evaluate and analyse habitats and their species' assemblage. The surveys threw up several issues that are hampering or destructing important habitats and their associated fauna, signaling the need for an immediate conservation plan. The report was published during COP 13, Mexico. District-level report for Ratnagiri, Thane and Palghar are being prepared.

### Conservation education centre (CEC)

Oldest among BNHS CECs, the Mumbai centre continued its emphasis on imparting conservation education to underprivileged children. A new project started in December 2016 to train school children to prepare projects based on environmental themes has covered 4150 school children.

Under the online courses conducted by CEC, ornithology, herpetology and leadership course in biodiversity were wrapped up in July 2016, January 2017 and February 2017 respectively.

At the Nagpur Rajbhavan centre, as many as 4000 students visited the biodiversity park this year. BNHS, however, has been closely associated with school students in the Satpuda landscape for 12 years now through mobile environmental education unit (MEEU). From 30 schools in three protected areas in 2005, it has grown to 100 schools from eight regions. Last year 67 visits were made to various parks with 1220 students and 127 teachers.

CEC Delhi, located at the Asola Bhatti Wildlife Sanctuary, saw a footfall of 10832 visitors in 2016–17, of which 3252 were school students and 1266 were college students.

### e-Mammal India

The first phase of this project, where school children were involved in using camera traps to document animal population size and habitat use, saw a successful participation from three schools in Maharashtra. In the second phase, BNHS plans to add 20 more schools from Konkan and northern Western Ghats.

### World Wildlife Fund (WWF) India

#### Human Elephant Conflict (HEC) mitigation

HEC management training was provided to more than 1000 frontline staff of forest department and members of anti-depredation squads (ADS) in Sonitpur, Lakhimpur, Dhemaji and Nagaon districts at the fringe of Kaziranga NP.

As a result, in North Bank Landscape (NBL) WWF has been able to save about 200 ha of paddy (worth more than USD 1,50,000) near Gahpur (Sonitpur), across 30 villages, for the last two consecutive years with the help of low cost power fence erected by villagers with partial support from the organization. WWF could touch the lives of about 2,00,000 marginalised communities through scaling up of its low cost power fence model (adopted by different forest divisions and a tea estate in Assam). The low cost power fence runs 12 km in Panpur, 3 km in Monabari, 10 km in Dhemaji and 4



km in Majuli Tea Estate. During 2016 Sonitpur recorded 6 elephant and 11 human deaths, which were less than 11 and 19 respectively in 2015, showing the effectiveness of continuous engagement by stakeholders and support to the forest department (including four *kunki* elephants) during the HEC season.

In Western Ghats Landscape (WGL), electric fence with low cost energizer were installed. Elephant visits to the villages and damage to the fence and crops have been monitored and recorded. As a result of the fencing, herds are hardly coming to the crop fields. In Vedar Colony, the fence has also been effective in warding off 27 elephant attacks. In these cases, it was mostly the single male elephant (19 times) and herd (8 times) that were repelled.



### **Human Wildlife Conflict (HWC) Management**

In Terai Arc Landscape (TAL), the government's ex-gratia payments for livestock kills provide a maximum possible amount of 50% of the price. Bringing a change in the livestock management practices to address HWC is being piloted at one location for first time in TAL. The scheme ensures that the owner gets the entire market price of the livestock in case of death, including depreciation by carnivores. WWF has been successful in providing insurance coverage to 104 livestock units owned by 66 farmers. The beneficiaries, in turn have agreed to give up unguarded livestock grazing and restrict grazing to buffer area of Corbett Tiger Reserve, and reduce chance encounters with carnivores. The state government of Uttarakhand has shown interest to take this scheme further and implement it in the Corbett landscape. In addition, various means of improving green fodder in other sites are being tested. One such alternative is restoration of village common land and develop community based mechanisms for sharing the fodder. The plan is being supported by the Forest Department of Uttarakhand and has in principle support from the district administration.

### **Reducing poaching and illegal wildlife trade of tigers, rhinos and elephants**

The role of WWF in reducing poaching and illegal trade has been very specific and limited. It extends technical trainings and equipment/logistic support to strengthen overall protection infrastructure. In NBL, the patrolling efficiency in Manas NP has improved due to the strengthening of SMART patrolling. During the half of 2016, WWF organized one SMART orientation program for 30 newly recruited frontline forest staff in Bansbari Range of Manas NP. These programs included issues such as capacity of villagers and encouraging them to be volunteers for conservation. In addition, one awareness program about rhino conservation and issues related with it was organised in a school and more than 100 students were involved.

In WGL, the strengthening of capacity of the frontline staff for effective wildlife protection and management continues. During, the second half of 2016, 539 forest guards and anti-poaching watchers from 12 Forest Divisions were trained in wildlife monitoring techniques, law enforcement, wildlife disease, post mortem, wildlife rescue, conflict management, patrol planning, first aid, animal behaviour and community engagement. WWF also provided winter jackets, patrol shoes, backpacks and sleeping bags for APWs of Sathyamangalam TR along with two adjacent forest divisions, Erode and Nilgiri North and a pickup truck that doubles up as a water supply vehicle for anti-poaching camps and watering holes as well as a patrol vehicle to Hasanur Division. WWF has also set up solar-powered fences around two anti-poaching camps to secure these against wildlife attacks.



Regular engagement with National Highway Authority of India (NHAI), Forest Department and local stakeholders in WGL has led to an agreement for construction of 1.2 km flyover for vehicle movement in the Kilpura-Khatima-Surai corridor. WWF's constant engagements with NHAI and the Forest Department has speeded up the construction of flyovers in Chilla-Motichur and Kansro-Barkot corridors and is expected to be completed by the end of 2017.

The proposed border road in TAL is passing through different wildlife habitats of Pilibhit and Dudhwa Tiger Reserve. The engagement with Public Works Department (PWD), Forest Department and Shasstra Seema Bal (SSB), a paramilitary force posted on Indo-Nepal border has resulted in realigning certain critical sections of this road outside the Dudhwa National Park and Katerniaghat Wildlife Sanctuary.

Mapping the road network in the WGL has been completed. The mapping knowledge was used to inform the authorities about the locations on several highways where animals cross, and to discuss mitigation measures at the government inter-department meeting convened by us in July. The Highways Department has agreed to put speed regulators in place along a key stretch of the Kotagiri Highway.



In Satpura Maikal Landscape (SML), a Working Group including officials from Chhindwara Forest Division, Western Coalfields Ltd (WCL) and WWF-India has been formed for a collaborative approach for minimizing mining impacts & ecological restoration in Satpuda-Pench wildlife corridor. This Working Group is conducting regular meetings and planning a joint research study for achieving the objective. Presently, three phase study is being structured and is planned to kick-off on the ground by End of February, 2017.

#### **Maintaining the functionality of priority tiger corridors:**

The Agriculture Department of Govt. of Madhya Pradesh endorsed the WWF-India's crop damage mitigation strategy using solar fences and approved a project to cover 250 villages around Kanha-Achanakmar corridor in SML with a budget allocation of INR 4 crore. Presently, WWF-India is providing technical support to the forest department in identification of the villages to install the fence and also the location of the fence with dual objectives of reducing conflict as well as maintaining corridor connectivity.

To strengthen the community institutions like Paryavaran Vikas Samity (PVS), set up earlier by WWF-India, these samities and hence their villages were supported to avail Government Schemes. In first of the achievements, PVS in the village Turur, located in Kanha – Pench Corridor was able get facilities installed in the village to enable the irrigation of 31.28 acre of agricultural land, benefiting 7 households. In another instance, PVSS of village Kalimati in Kanha-Pench corridor, leveraged with Government Department and received Rs. one lakh twenty thousand as the corpus fund for sanitation related activities.

#### **The Corbett Foundation (TCF)**

With the primary objective of facilitating the harmonious coexistence of man and nature, TCF works in and around the tiger reserves of Kanha (Madhya Pradesh), Bandhavgarh (Madhya Pradesh), Corbett (Uttarakhand) and Kaziranga (Assam) and The Greater Rann of Kutch (Gujarat) with tribal and other forest-dependent communities. Activities that fall under the sphere are conservation research and awareness, rural medical outreach and awareness, training and capacity building, veterinary care, sustainable livelihoods and sustainable rural development initiatives.



#### **Reforestation at Bandhavgarh-Sanjay Dubri Corridor**

For the long-term conservation of tigers in Bandhavgarh, it is crucial to conserve the corridor between Bandhavgarh Tiger Reserve and Sanjay Tiger Reserve. However, anthropogenic activities of the local community have continuously degraded the habitat, therefore initiatives to conserve this corridor are urgently needed. TCF has planted 3000 saplings of indigenous plants species over a five ha plot of land, protected by a five-foot high chain-link fence to

protect the saplings from grazing local livestock, in order to gradually revive this corridor.

#### **Village Wildlife Guardians (VWG)**

TCF, supported by TOFTigers, Steppes Travel and The Tribes Foundation has appointed six individuals from the Garhi, Samnapur and Khapa ranges of Kanha Tiger Reserve as Village Wildlife Guardians (VWG). A week-long training programme was organized to educate them on the importance of wildlife and habitat conservation focussing on tiger conservation, legal wildlife and forest-related offences, wildlife traps and other such man-made interferences. They work closely with TCF and the Forest Department to monitor human activity in the vicinity of the reserve, regularly patrolling forested areas and keeping alert for suspicious activity that undermines conservation efforts in Kanha. Till date, the VWGs have informed authorities about several cases of illegal wood felling, Lac collection, and snares deployed by locals to trap wildlife.



### Interim Relief Scheme (IRS)



Currently in Uttarkhand, community losses have occurred due to frequent cattle and livestock depredation by tigers and leopards. The procedural and financial delays in compensation have unfortunately built frustration and resentment in the community against wildlife, leading to revenge killings of the responsible predator by poisoning the carcass it returns to. To mitigate this human-wildlife conflict and the grave threat to big cat conservation, TCF and WWF-India, since 1995 have been providing ex-gratia financial assistance to villagers whose cattle have been killed by a tiger or leopard in the buffer zone of CTR, by way of an Interim Relief Scheme (IRS). This alliance has been

extended to Kanha Tiger Reserve as well, as of June 2016. With nearly 100% reporting of cattle kills, TCF promptly responds to kill-reports, providing immediate effective monetary assistance and medical treatment to the injured. This scheme has reduced the antagonism of locals towards wildlife. Between April 2016 and January 2017, 145 depredation incidents from Kanha and 587 incidents from Corbett were reported. A total amount of approximately ₹9, 11,280 was disbursed as compensation.

### Vaccination and treatment of cattle and livestock

TCF's veterinary team regularly vaccinates cattle across its divisions against diseases like Black Quarter (BQ), Haemorrhagic Septicaemia (HS), and Foot and Mouth Disease (FMD). This keeps the cattle disease-free and prevents the spread of disease to wildlife through this thin interface. In Kaziranga (Assam), the aftermath of severe floods has severely affected wildlife, domestic livestock and local communities by injuries and disease outbreaks. TCF's veterinary team provided clinical services to 187 such affected livestock through mobile veterinary camps along National Highway 37 and attended door-to-door calls in flood-affected villages. 995 cattle were treated for FMD in a few forest-fringing villages where an FMD outbreak occurred. TCF Corbett organized de-worming drives for the cattle of the pastoral semi-nomadic *Van* Gujjar community, administering nearly 2900 cattle with anthelmintic drugs for gastrointestinal worms and liver fluke. TCF Kutch vaccinated 3808 livestock and cattle against FMD. TCF Kanha's Livestock Inspectors have provided veterinary treatment to over 1003 livestock this year.



### Vulture conservation – Meloxicam Distribution, awareness and community-based conservation



Local Livestock Inspectors (LIs) are the primary caregivers of domestic cattle in and around critical wildlife habitat. The use of Non-Steroidal Anti-Inflammatory Drug (NSAID) diclofenac in cattle treatment is fatal to vultures scavenging on cattle carcasses, thus primarily responsible for pushing vultures to the brink of extinction. Despite a Government ban on its use, illicit use of human-dose vials for cattle treatment still persists. TCF has continued its consistent awareness programme for LIs across its divisions, explaining to them the dangers of diclofenac use and the safe alternative

drug meloxicam that TCF distributes regularly. In 2016-17, TCF distributed 665 meloxicam vials in all to LI's in villages and hamlets in Kutch, Gujarat. As a community-based conservation approach in Kaziranga, TCF has identified seven villagers who have undertaken to protect vulture nest-bearing trees in their farms and premises, and presented each with a certificate of appreciation and a bicycle, honouring them as 'Vulture Sentinels.'

### **Animal Birth Control Programme**

Kutch Ecological Research Centre (KERC), a division of TCF at Kutch and the Kutch (WEST) Forest Division implemented an Animal Birth Control & Anti-Rabies Vaccination Programme as a joint initiative in the Kutch district to protect the local communities from rabies and the Great Indian Bustard (GIB) from stray dogs. The intense two-week program included the capture of stray dogs followed by post-surgical care and release. During this programme more than 200 dogs from 14 villages were spayed/ neutered.

### **Wildlife Conservation Trust (WCT)**

#### **Conservation Research**

WCT believes that one of the key benefits of research is the creation of better conservation policies at both national and state levels. To achieve this, WCT combines conservation genetics and GIS to study tiger dispersal and to identify critical tiger corridors for focused conservation inputs. The conservation research focuses on the Central Indian Landscape (CIL) comprising important tiger breeding areas and critical corridors.

WCT has Intensively surveyed 5,460 sq.km of forest area using camera traps, and the persistent camera trapping exercise led to discovery of the Eurasian Otter (*Lutra lutra*), a species listed as 'Near Threatened' by IUCN. This finding extends the known geographical range of Eurasian Otters to Central India and provides their first ever photographic evidence from India. WCT has also assisted the Madhya Pradesh Forest Department in radio-collaring two tigers in the Satpura Tiger Reserve as part of its conflict management strategy.

In addition, the paper titled "Photographic Records of Eurasian Otter *Lutra lutra* from the Central Indian Landscape" has been accepted by the IUCN Otter Specialist Group and published under IUCN/SCC Otter Specialist Group Bulletin, Volume 33 Issue 2 (October 2016).

#### **GIS / Remote Sensing**

Critical habitats in India, which have been identified as tiger conservation landscapes of global priority, have witnessed large-scale land use modification fuelled by increasing urbanisation and infrastructural projects including mining and expansion of highways. Forest degradation, fragmentation and human-induced changes in 'Land Use and Land Cover' (LULC) patterns are some of the key factors influencing large carnivores and their habitats. In a developing economy like India, with high anthropogenic pressures, it becomes even more vital to periodically assess the status of forests. WCT extensively uses GIS and remote sensing to a) determine the LULC for critical tiger landscapes in Central India, b) delineate natural corridors critical for conservation interventions and c) develop models for prioritisation of community based conservation efforts based on spatio-temporal changes in forests and wildlife occurrence

Achievements for 2016

WCT has remotely sensed and analysed about 100,000 sq.km of forest area in Central India. It is currently estimating the negative changes in forest cover due to encroachment and detrimental developmental infrastructure.

#### **Wildlife Law Enforcement Monitoring (LEM)**

Foot patrols are the fundamental unit of protection within a tiger reserve. However, in most tiger reserves, foot patrolling is conducted in an ad hoc or reactive manner. WCT has partnered with the Wildlife Institute of India (WII) and the state forest departments to implement the LEM programme in some of the important tiger bearing PAs of central India. The programme works towards ensuring systematic and tactical patrolling by the frontline forest staff to maximise spatial and temporal coverage of the PA, with an ultimate aim of improving detection of or reducing illegal activities inside PAs.

WCT interventions are helping in a) improving effectiveness of patrolling, b) creation of smarter patrol routes to ensure maximum spatial coverage, c) increasing the detection probability of illegal activities and d) discouraging prospective offenders from committing forest-related offences.



The total patrol effort analysed by WCT is a whopping 261,370 km., covering 17,984 sq.km across five PAs of India namely Pench (Maharashtra), Pench (Madhya Pradesh), Bor, Umred-Karhandla and Nawegaon-Nagzira.

## **Korea (DPRK)**

### **Nature Conservation Union of Korea (NCUK)**

Six people from the NCUK, including protected area, animal, and plant experts, participated in the Northeast Asia Regional Capacity Building Workshop on Protected Area Management and IUCN Red Listing, held in Beijing, China. The workshop provided a better understanding of global standards, ensuring PA designation, management, and Red Listing in DPRK on higher level. A project team, with the participants to the workshop as the backbone, was later formed in June to carry out survey and prepare the Red Data Book of DPRK (Comprehensive Edition) in line with the IUCN red list criteria. The Red Data Book covers 260 species of animals (20 mammals, 50 birds, 10 amphibians and reptiles, 20 freshwater fish, 110 insects, 50 mollusks), and 210 species of vascular plants.

Working together with Pukoroko Miranda Naturalists' Trust of New Zealand, NCUK has also carried out 10-day joint survey of migratory birds in the west coast of Korea in April. During the survey, the organization counted over ten thousand shorebirds including bar-tailed godwit (*Limosa lapponica*), Eurasian curlew (*Numenius arquata*), and thousands of waterbirds including gray heron (*Ardea cinerea*), black-headed gull (*Larus ridibundus*), and common shelduck (*Tadorna tadorna*), concluding that the west coast of Korea is an internationally significant region for migratory birds in that it provides resting and feeding site in their migration. The survey report is included as an attachment (2016 migratory bird survey report).

In addition, a team consisting of experts from plant, animal, and water conservation associations under the NCUK was formed for the assessment of biodiversity in Mt. Kumgang. For the last ten years, the team undertook the survey and assessment of biodiversity of the entire nature park in Mt. Kumgang, which was completed last July. The surveyed area consists of 4 types of ecosystems where forest ecosystem takes up most of the area. Coastal ecosystem is also one of the major ecosystems of the nature park for its rich biodiversity and landscape.

A separate biodiversity assessment was carried out in the provinces of North and South Pyongan, of which a total of 16,590 individuals of 26 shorebird species were counted. Two species, Bar-tailed Godwit and Far Eastern Curlew, occurred in numbers that met the 1% population criterion used by the Ramsar Convention to identify internationally important wetlands. In addition, 4,513 Dunlins were counted.

## **Korea (ROK)**

### **DaeJayon**

#### **The Protection of Environment by Fostering Environmental Leaders**

DaeJayon has fostered environmental leaders with environmental knowledge by providing professional environmental education to internal and external university students. DaeJayon has also supported university environmental club students in a various way so that they could carry out environmental movements in their campus. Furthermore, the organization has changed university students' recognition of environment, and tried to save energy and resources wasted in campus by developing environmental movements.

Domestically, DaeJayon has initiated a new green campus movement called "Green Art Campus," which utilizes a nudge effect. Through this activity, the group has fostered 12 teams and 110 university environmental leaders, developed 20 Green Art contents, and conducted Green Art Campus Campaign 12 times, ultimately improving saving-energy consciousness of university students and inducing their participation. Abroad as well, DaeJayon supported activities of 52 environmental clubs and 366 students, and organized Green Campus activities 250 times through "Design your campus GREEN", a joint response project against global warming. On November, under the slogan of "Go Global Green Campus!", DaeJayon held the 15<sup>th</sup> Environmental Forum for International University

Students 2016. Key personnel such as Suh Young-bae (IUCN councilor), Ilyas Asaad (senior advisor to the Minister of Environment of Indonesia), and Kilaparti Ramakrishna (director of the East And North-East Asia Office of United Nations Economic and Social Commission for Asia and the Pacific), and about 250 university students participated to the forum. Deajayon also contributed towards the development of internal and external environmental clubs by hosting the Eco League finals among 4 remarkable environmental clubs around the globe. The competition specifically involved experts' topic presentation and a panel discussion.

Through these activities, Daejayon held 5 professional environmental education sessions, 262 internal and external Green Campus Campaigns, and fostered around 730 university students environmental leaders who will soon be the future of environment preservation.

## Nepal

### Hoste Hainse



Hoste Hainse's goal is to purify the well water in order to obtain clean water for daily life. With help from the company "Smart Paani," Hoste Hainse has devised a practical solution to conserve water by using existing well water. The solution to obtain clean water involves a two-step approach with two filtration tanks. Within the two tanks there are bios and filters, which remove both bacteria and dirt. After the process is completed the purified water can be used in the households for various activities, such as cooking, sanitation, etc.

Biogas is an alternative energy source to propane gas, petrol, etc. To amplify its effect, one member from Hoste Hainse built a biogas dome to produce the sustainable energy for private use. This unique biogas dome is underground brick masonry with the capacity to store gas in the upper area. The gas can therefore be transported into the house through a pipe where it can be used for heating, cooking and or electricity.

Hoste Hainse is also running schools in different parts of Nepal. A major aim is to raise environmental awareness among students and demonstrate the importance of trees. The trees planted are utilized as educational tools to show how crucial clean air is and the advantages of local forestry. Additionally, the building itself is an epitome of energy efficient architecture, as air barriers between the outside and inner walls keep the temperature at the same level throughout the year, resulting in reduced heating loss and decreased costs for fuel and electricity.

### Nepal Forum of Environmental Journalists (NEFEJ)

NEFEJ has continually been raising issues related to nature and environment conservation through its outlets. In 2016, the longest video magazine, '*Aankhijhyal*' TV program, produced 52 episodes with related topics: wildlife protection, climate change and its adaptation, biodiversity, policies and plans related to environment and its components and so on. Along with this, many related video PSAs were also produced. Specifically, it covered reports on the conservation of *Himalayan Ghoral*, solar energy, organic farming, forest farming, climate change adaptation, the rule of law in central zoo, plastic pollution, management of lakes, rivers and conservation of hills, forest policies and stakeholders, forest fire, environment and sustainable development, air pollution, nature laws, natural disasters, human-wildlife conflict, nature and indigenous rights and so on.

Similarly, Radio Sagarmatha is the first independent community radio in South Asia operated by NEFEJ to promote public service broadcasting in Nepal. With 18 hours transmission, Radio Sagarmatha, has regularly been including the related issues in its news content, program and current affairs. It produces a special program called 'Batabaran Dabali' which is a platform to discuss on different environmental issues. Altogether 52 episodes of this program were aired last year. Apart from this, 6-7 radio PSAs related to nature and environment are also featured every day through the station.

NEFEJ also publishes monthly Nepali magazine *Haka-Haki* and English bi-monthly magazine *Face to Face*. 12 issues of Haka-Haki magazine with its regular features and columns were published in 2016. The cover story and special report covered in-depth environment and sustainable development issues. In addition, the world report featured international environmental issues and efforts, nature style section told the story of the relationship between man and nature, nature travel captured its beauty in beautiful pictures, and nature wildlife provided reports on different wild animals. Alongside such features, interviews with experts as well as public concerns on the mentioned issues are also published in the magazine. Some of the reports—rainwater harvesting, climate change, renewable energy, the endangered Red Panda, environment friendly brick kilns, GLOFs, coastal flooding, tiger farming, air pollution, COP21, whale hunting and so on.

## Save the Planet Nepal



Save the Planet Nepal has been undertaking several programmes. Under the “School Green” project that has been launched, the aim is: to make schools a green zone -- 5000 green zones within ten years; 5000 scholarship for deserving environmental higher study students; 5000 environmental library, 500,000 young environmental activists, and 10,000,000 plants.

Love The Nature is an environmental philosophy having an aim to establish globally within 2020. Save

the Planet Nepal has started this project in 2009. The project focuses on speech campaign, Art campaign, Signature Campaign, Clean & Green (Sanitation & Plantation) Campaign and Media Campaign. Under this campaign, signature campaign has been launched to collect commitments of 100,000 within 2020 which will be submitted to UNEP.



## Pakistan

### The National Vulture Conservation Strategy project



The National Vulture Conservation Strategy project was jointly implemented by Baanhn Beli and IUCN Pakistan with support from the Ministry of Climate Change, Sindh Wildlife Department and United States Agency for International Development (USAID). The jurisdiction of the project is Nagarparkar, Tharparkar, a south-eastern district of Sindh province of Pakistan; Nagarparkar is part of the Rann of Kutch Wildlife Sanctuary in Tharparkar district.

Of the nine species of vultures found in Asia, eight species are recorded in Pakistan. Among the nine, three are critically endangered species.

The project has thus developed a national vulture conservation strategy and action plan based on a baseline study that was conducted. The project focused on raising awareness and capacity of local communities and other stakeholders in vulture conservation, as well as about the ecological and socio-economic importance of the species.

Under the project a symposium was organized in Pakistan that brought together regional vulture experts to learn about the conservation of these essential birds in the Asia Region. Representatives of the government, media and academia, as well as local and regional species and vulture experts from India, Bangladesh, Thailand and Nepal attended the Symposium.

The regional experts who shared their experiences in vulture conservation suggested measures, if adopted in Pakistan, can further speed up efforts towards arresting the decline. They also strongly highlighted the urgent need for trans-boundary Vulture Safe Zones to conserve vulture populations in the wild.

The project experience was also shared at the international level through a workshop at the IUCN World Conservation Congress held in September 2016 in Hawaii, USA. Over 70 attendees of the Workshop included several delegates from Pakistan, other South Asian countries, African countries, Europe and the USA. Several participants expressed their appreciation for the content and quality of the Workshop.

## **Philippines**

### **Haribon Foundation for the Conservation of Natural Resources, Inc.**

Haribon, through its Rainforestation Organizations and Advocates or ROAD to 2020 movement, is committed to bring back the Philippine rainforests by engaging partners at all levels. Over 700 Haribon volunteers planted the future forests of Rizal and Laguna provinces in 2016 covering at least 12 hectares of land and using more than 15,000 native seedlings. Livelihood incentives including 1,655 fruit trees were also granted to a local community in Nagcarlan, Laguna.

Buhay Punlaan is a living laboratory for native trees and biodiversity conservation. It is a two-hectare nursery of native trees nestled in the Caliraya Watershed in Laguna, a province in the Luzon island. In 2016, 14,985 native trees with 23 different species were produced and maintained. A total of 600 volunteers from 24 different partners joined the different Buhay Punlaan activities including rainforestation training, seedling production and improvement of nursery structures.

The Preventing Extinctions Programme – Philippine Eagle aims to improve understanding on the status and habitat requirements of one of the most threatened species in the world and the country's national bird – the magnificent Philippine Eagle. Specifically, it focuses on the Important Bird and Biodiversity Areas in the Sierra Madre Mountain regions. In 2016, two Philippine Eagle nesting territories were identified and 26 wildlife enforcement officers were deputized. Three local government units jointly signed a covenant for the protection of Mount Mingan. A municipal resolution on establishing Philippine Eagles as flagship species has been passed while a municipal ordinance on establishing critical habitats is ongoing.

The Strengthening the Marine Protected Areas to Conserve Marine Key Biodiversity Areas in the Philippines (SMARTseas) project is funded by the Global Environmental Facility and the United Nations Development Programme (UNDP) with the Biodiversity Management Bureau of the Department of Environment and Natural Resources. Since 2015, this project has helped improved the management of 16 marine protected areas (MPAs) in Lanuza Bay, Surigao del Sur in Southeastern Philippines.

### **Foundation for the Philippine Environment (FPE)**

From January 2016 to January 2017, the Foundation for the Philippine Environment (FPE) has supported 63 project grants that directly promote the conservation of key biodiversity areas and priority conservation sites. These grants amounted to a total of Php27,698,180 spread across its five grant strategies, namely Sites (12 project grants), Constituency-Building (26 project grants), Advocacy (15 project grants), Research (2 project grants); Environmental Defense (2 project grants), and Institution-Building (7 project grants).

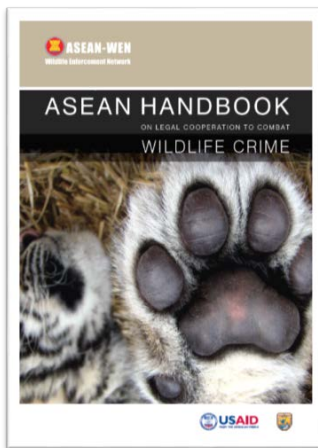
FPE works in six Key Biodiversity Areas (KBAs) identified for strategic grant focus, namely, Kalbario-Patapat Natural Park in Ilocos Norte, and Sibuyan Island in Romblon (Luzon); Gigantes Islands in Iloilo, and Mount Nacolod in Southern Leyte (Visayas); and, Agusan Marsh in Agusan del Sur, and Ligawasan marsh in SK Pendatun, Maguindanao (Mindanao). In Mt. Nacolod, a conservation management planning using the high conservation value areas (HCVA) concept was piloted and 13 HCVA barangay plans were crafted. This is supported by four municipal resolutions expressing support for the project.



Another priority conservation site is the Northern Palawan Corridor where FPE teams up with the Foundation for a Sustainable Society (FSSI) and the Peace and Equity Foundation (PEF) for the second phase of the Palawan Center for Appropriate Rural Technology, Inc. (PCART)'s project Expanding the Habitat and Scaling Up the Social Enterprise or Star Trek Project. Now on its third year, the project aims to preserve and protect the remaining natural resources in the San Vicente-Taytay-Roxas, Palawan, one of the remaining forest blocks (covering 40,000 hectares) by developing social enterprises as alternative livelihoods for communities in order to reduce the indiscriminate use and extraction of biodiversity and other resources.

## Singapore

### Asia-Pacific Centre for Environmental Law (APCEL)



APCEL was invited by Freeland & ASEAN-WEN to Collaborate on the 'CITES Project,' and at 2016 launched the "ASEAN Handbook on Legal Cooperation to Combat Wildlife Crime" during a workshop in Jakarta, Indonesia.

The Handbook is the first of its kind, compiled in collaboration with ASEAN Wildlife Enforcement Network (ASEAN-WEN). The conception and publication of this Handbook was a joint effort led by Freeland, in collaboration with its partners which included APCEL, as part of the implement of the USAID/USFWS funded "ASEAN Legal Studies and Support Program to Combat Wildlife Crime". APCEL kicked off the first Regional Stakeholders Workshop on Law and Policy on Wildlife Crime under this program by jointly organizing the workshop with Freeland and hosting it at the National University of Singapore, 8- 10 December 2014.

APCEL also carried out a Research Project on the Biodiversity and Wildlife Protection Laws of ASEAN, examining its National and Regional Legal Frameworks. The aim is to identify relevant parts of the national laws of each ASEAN member state in relation to the protection of its biological diversity and wildlife. This would encompass examining its laws on protected areas and nature reserves, forestry laws, wildlife trade, and the general laws that have an impact on the protection of biodiversity in each country (e.g. EIA laws, planning laws, pollution control laws).

Apart from the aforementioned activities, APCEL has convened a Joint Workshop with World Resources Institute & Freeland at the 2016 IUCN World Conservation Congress in Hawaii, USA. In the same year, APCEL presented a paper on "The *Kuala Lumpur Declaration on Combating Transnational Crime: Illicit Wildlife Trade and Effective Governance—Whither ASEAN and the World?*" at the 1<sup>st</sup> IUCN World Environmental Law Congress held in Rio de Janeiro, Brazil.

### Wildlife Reserves Singapore (WRS)

With slightly over 21,000 specimens representing 984 species, WRS holds a valuable living collection. Of the species the organization cares for, 21% are listed as threatened according to the IUCN Red List of Threatened Species.

WRS actively collaborates with zoos around the world and participates in seventeen Managed Species programmes to help save severely threatened species such as Goodfellow's tree kangaroo, Red panda, Sloth bear, and many more. These programmes are coordinated efforts to care for assurance populations of endangered species around the world.

WRS is also holding assurance colonies for critically endangered southeast Asian turtle species. Collaborative efforts with Wildlife Conservation Society and Rotterdam Zoo resulted in the arrival of ten Roti Island snake-necked turtles (*Chelodina mccordi*) 17 Annam leaf turtles (*Mauremys annamensis*) and 24 Burmese roofed turtles (*Batagur trivittata*). All these individuals are genetically diverse and when bred will contribute to reintroduction programmes in their range countries.

In addition, WRS has been working towards environmental sustainability by associating itself in a variety of fields: conserving local biodiversity, conserving regional biodiversity, Asian Species Action Partnership, IUCN SSC, and Conservation capacity building.

Specifically, through its engagement with ASAP, WRS is committed to supporting ASAP species conservation and currently supports conservation projects covering 17 ASAP species. WRS actively engaged in raising the profile of ASAP and ASAP species conservation with a focus within the ex-situ conservation community, presenting at the European Association of Zoos (EAZA) Conservation Forum in May 2016, at the World Association of Zoos and Aquariums (WAZA) Congress in October 2016 and at the South East Asian Zoo Association (SEAZA) Conference conservation workshop in October 2016. Additionally, WRS presented on ASAP at the IUCN World Conservation Congress in September 2016 and participated in the ASAP jointly organised conservation campus on Driving up standards for species recovery programmes.

For the field Conservation capacity building, WRS actively hosts, supports, and conducts various capacity building workshops and conferences both in Singapore and in the region to prevent lack of conservation capacity from becoming a serious limitation for effective action across most countries in southeast Asia. The capacity building covered a diverse range of skill development from workshops on animal management and veterinary skills to training on IUCN red listing and conservation strategy planning. Key events that were organized by WRS in 2016 are listed in Table2 below.

## **Thailand**

### **International Network of Engaged Buddhists (INEB), Thailand**

#### **The Inter Religious Climate & Ecology (ICE) Network and INEB's engagement at the IUCN World Conservation Congress (WCC) *Planet at the Crossroads*, 1-10 September, 2016, Honolulu, Hawai'i.**

The ICE Network / INEB participation in the IUCN World Conservation Congress in Hawai'i in September 2016, proved to be a valuable engagement, widening circles of discourse across conservation and climate action communities around the planet. This engagement brought to light a spiritually-rooted articulation of inspiring and catalysing values for conservation and climate action. It also found a platform to share models of demonstrated practical applications and collaborative solution building in answer to the vulnerable and loss created by ecological degradation and the greater uncertainties of the Anthropocene epoch. ICE Network affiliates connected to others engaged in complementary efforts, those interested in ICE Network's sacred ecology approach to conservation and climate action, and developed new friendships with Hawaiian Sangha, and Hawaiian indigenous sacred earth activists.

The two main workshops held were "*Knowledge Café Dealing with the Value of Nature*" and "*Ethics & Ecology Faith-based Models for Reconnecting with All Sentient Beings*," followed by an approval of voting membership for IUCN through INEB, as well as a panel drawn together of local communities, including Hawaiian indigenous representation (Shamanic), Hawaiian Buddhist and interfaith Sangha.

## **Vietnam**

### **Central Institute for Natural Resources and Environmental Studies (CRES)**

CRES – VNU published a book titled "Human Ecology and Sustainable Development" by Prof. Le Trong Cuc, as well as a book compiled of all the papers written by Prof. Vo Quy titled "Environment and Biodiversity". In partnership with Japanese organisations, the company planted approximately 15 ha of forest in the highland area of Ba Vi, as well as 42 ha of mangrove forest in Quang Ninh province. CRES – VNU also undertook multiple projects, such as "In search of the Edward's Pheasant (*Lophura edwardsi*)" in the Annamese Lowlands of Vietnam funded by CI (Conservation International Foundation), and "Urban Climate Resilience in South East Asia" funded by IDRC.

## **ECO-ECO**

ECO-ECO focused on Eco-village establishment in the sliding areas of An Lac commune, Son Dong, Bac Giang from 2014 to 2017. The company organised 6 training workshops for local authorities and communities on environmental protection and eco-villages, and supported 73 households in 3 hamlets to install centralised clean water tanks for daily use. ECO-ECO also carried out International cooperation activities, organising a study tour for 12 specialists in the area of forestry and medicine to share their experiences on protecting and developing rare medicinal plants and natural mountainous ginseng in Korea. It also received a Korean delegation visiting Viet Nam; the two countries exchanged experiences on the development of rare medicinal plants and natural mountainous ginseng in Soc Son, Ha Noi, Quang Ninh and Lao Cai.

## **Center for Environment and Community Research (CECR)**

CECR developed a restoration and conservation plan for the Bung Cu stream, together with authorities of the Tan Phuoc Khanh Ward, Tan Uyen District, Binh Duong Province. The plan is supported by the Binh Duong Department of Natural Resources and Environment. It also organised a training program on mentorship, leadership, teamwork, practical communication and CCA concepts for 250 young adults from Ha Noi, Thai Binh, Nam Dinh and Hai Phong, helping them acquire the knowledge and skills to develop, own and lead CCA initiatives. CECR is now empowered and able to incorporate this contribution into the comprehensive local-level CCA planning and implementation. 70 initiatives were also promoted from young adults at Hai Phong, Thai Binh, and Nam Dinh and supported their implementation.

# Promoting and supporting effective and equitable governance of natural resources

## Bangladesh

### Coastal Area Resource Development and Management Association (CARDMA)

CARDMA has been consistently working since 1987 on protecting natural and human resources of coastal areas in Bangladesh through education and awareness programs among the mass as well as participating in policy advocacy towards importance of conservation and sustainable development as set by United Nations both at the national and international stage.



The organization supported young girls by providing them education and empowers elderly women by engaging them in cottage industry. For example, the *Pati Pata* (grass leaf mat) project has driven the surge of plastic mats out of market having significant impact on the life of women as well as on the environment.

CARDMA also been active in teaching the villagers in coastal areas to care about wild animals and fish catch, engages volunteers to stop hunting in the mangrove forest, and with the help of its sister organization NARI planted more

trees in Noakhali coastal area and Cox Bazar with the aim to create awareness about valuing trees as a solution to climate change.

### Bangladesh Centre for Advanced Studies (BCAS)

Bangladesh Centre for Advanced Studies (BCAS) is implementing a number of Natural Resources Management and Biodiversity Conservation related project in Bangladesh and South Asia. The activities in relation to NRM and conservation that BCAS has performed in last year (2016) are described below as project wise:

- Bengal Tiger Conservation Activity (BAGH) project:
- Climate Resilient Ecosystems and Livelihoods (CREL)
- “Investing in Hilsa Fishery as Economic Infrastructure for Bangladesh” under EcoFish<sup>BD</sup> Project (IIED-BCAS Component)
- “Economic Incentive to Conserve Hilsa Fish in Bangladesh” project
- Ecosystem based Approaches to Adaptation: Strengthening the Evidence and Informing Policy – BCAS (IIED-BCAS-BMUB)
- River conservation through Himalaya Adaptation, Water and Resilience Research (HI-AWARE) project
- Forest conservation through Himalaya Adaptation, Water and Resilience Research (HI-AWARE) project:
- Wetland Research and Training Centre (WRTC)
- Collective Action to reduce Climate Disaster Risks and Enhancing Resilience of the Vulnerable Coastal Communities around the Sundarbans in Bangladesh and India (CCDRER) project

### Nature Conservation Management (NACOM)

NACOM, in the process of implementing the Climate Resilient Ecosystem and Livelihoods Project, supported by the USAID, is engaged in establishing co-management in 8 forest Protected Areas (PAs) in the South-eastern part of Bangladesh. In the year 2016, NACOM has been engaged in consolidating the co-management practices introduced a number of years ago involving government and non-government stakeholders and local resource users. NACOM's activities included ensuring

the effective participation of local community and local forest department, capacity building of co-management committees for their organizational management and improved governance of the forest PA, contributing to the PA based Management Plan development and addressing the issue of equitable benefit sharing and reducing risk to PAs.

### **WildTeam 2016-17**

Engaging communities and empowering women have been among WildTeam's key priorities for sustaining the conservation efforts in the Sundarbans periphery. 14 women volunteers were included in five Village Tiger Response Teams (VTRTs) for the first time in September 2016. A National Tiger Awareness Campaign launched in February, the tiger-shaped TigerCaravan visited 47 districts to raise mass awareness about tiger conservation. A total of 258,000 people visited the TigerCaravan and the activation reached around 2.08 million people on social media (Facebook). Honorable Prime Minister of Bangladesh, Sheikh Hasina also showed her support to the noble cause by visiting the TigerCaravan during a function at Bangabandhu National Stadium marking the Independence Day. WildTeam's knowledge hub Noazesh Knowledge Centre raised awareness among over 500 members by organizing events and participating in events, circulating conservation messages via email & social media platforms.

Besides, a Sundarbans Education Center was established in Khulna to create a conservation knowledge hub accessible to local students. Also, as part of Bagh's sustainability agenda that focuses on setting the grounds for sustaining the tiger conservation efforts beyond the timeframe of the Project, a public-private partnership dialogue titled 'Greater Dialogue for a Greater Cause' was held on 3 December to harness active support from the private sector.

### **Bangladesh Unnayan Parishad (BUP)**

BUP, the Palli Karma-Shahayak Foundation and the NGO Forum for Public Health jointly hosted a joint National Water Convention on 28 December, 2016. The National convention was titled Sustainable Water Regime in Bangladesh. The convention involved top water experts, sector professionals and policy-makers to review and rework directions for overcoming the water-stresses and excesses in Bangladesh in line with the relevant 2030 Agenda for Sustainable Development (SDGs). To sensitize policy-makers, civil society actors and the media, BUP arranged a series of policy dialogue and roundtable discussion to address different goals SDGs. BUP was also intensively involved with the process of formulation of Framework for Agenda 2030 through arranging various policy dialogue and consultation meetings involving sector experts, professionals and policy-makers of national and regional tiers.

## **China**

### **Biodiversity Committee, Chinese Academy of Sciences**

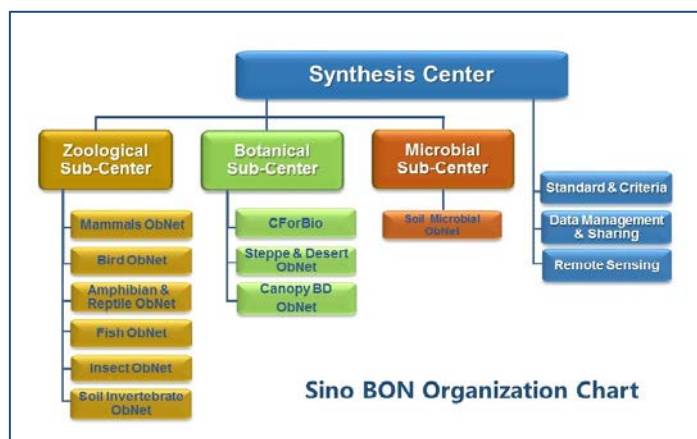
#### **China Biodiversity Observation and Research Network (Sino BON)**

Sino BON was established by the Chinese Academy of Sciences following the basic principle of "sound planning and unified layout". It was a priority project supported by the Twelfth Five-year Plan and Thirteenth Five-year Plan as an observation platform at the academy level. Sino BON was later accepted by GEO BON as a formal member.

For now, the organizational structure of Sino BON includes the zoological diversity network, the botanical diversity network, the microbial diversity network and synthesis management center. Six thematic networks belonging to the zoological diversity network are as follows: the mammal diversity observation network, the bird diversity observation network, the amphibian & reptile diversity observation network, the insect diversity observation network, the fish diversity observation network, and the soil invertebrate diversity observation network; three networks belonging to the botanical diversity network are as follows: CForBio, the steppe & desert biodiversity observation network, and the forest canopy biodiversity observation network; the soil microbial observation network belongs to the microbial diversity network.



The synthesis management center would take charge of standards & criteria formulation, data management & sharing, and remote sensing.



### Chinese Forest Biodiversity Monitoring Network (CForBio)



The Chinese Forest Biodiversity Monitoring Network (CForBio) was established in 2004. It is a research base for the dynamics of biodiversity of forest ecosystems in China, and also an important part of the global forest biodiversity monitoring network (CTFS/ForestGEO). It covers major forest vegetation types in different climatic zones in China, including boreal forest, coniferous and broadleaved mixed forest, deciduous broadleaved forest, deciduous and evergreen broadleaved forest, evergreen broadleaved forest and tropical rainforest. After the network's establishment, by the end of 2016, 13 permanent forest dynamics plots and 61 associated plots with the size over 1 ha have been set up for CForBio. The total plot area is over 360 ha, which accounts for 1/4 of forest biodiversity monitoring network ForestGEO across

24 countries and regions around the world.

CForBio attaches great importance to long-term monitoring. Besides the survey every 5 years, monitoring on seed rains, seedlings, litter-falls, functional traits, radial growth, herbs, soil, logs, and wildlife have been carried out. In the past ten years, the monitoring of the population structure and dynamics of plants, animals and microbes, their interactions, and the exploration of their internal mechanism allowed CForBio to become the most influential and the fastest-growing regional research platform. Currently, the rapid development of CForBio has also stimulated the ministry of forestry, environmental protection and education to carry on monitoring biodiversity.

### All-China Environment Federation (ACEF)

The 10-year (2007-2017) China Biodiversity Partnership and Action Framework (CBPF), aims at building China's bio-diversity partnership, integrating China's overall advantage, formulating bio-diversity protection strategy and realizing concerted action of bio-diversity protection around China under the drive of the Global Environment Fund (GEF). During the GEF-4 period, China has gained 9 GEF-supported CBPF projects, each of which is an independently-implemented and included in CBPF framework at the same time, jointly serving 27 items of 5 key themes under CBPF framework.



In 2016, ACEF produced a *Synthesis Report of Achievements & Outcomes Summary for 9 GEF-supported Projects under China Biodiversity Partnership and Action Framework (CBPF)* based on the CBPF project progress investigation and project data collected. It is the first report in China

summarizing and thematically analyzing project outcomes and achievements, experiences and lessons, implications as well as projects' contributions to the five key themes under CBPF framework of all projects in China of a whole GEF period (GEF-4). The Report is also of high value in listing the existing problems and experiences in GEF- CBPF project design implementation and management, such as knowledge management, project implementation process control, etc., and has also come up with constructive suggestions for more effective and fruitful GEF-CBPF project implementation in the future.

## **Agriculture, Fisheries and Conservation Department, Hong Kong SAR Government**

Located at the fringe of the Indo-Burma Hotspot, the biodiversity of Hong Kong is impressively rich, even though this small territory is among the most highly urbanised and densely populated cities in the world.

Since 2013, the Government of the Hong Kong Special Administrative Region embarked on an exercise to formulate the first city-level Biodiversity Strategy and Action Plan (BSAP) in an open and participatory process. A series of public engagement and educational activities were held to promote biodiversity and facilitate an informed discussion on the formulation of BSAP, including a series of public lectures, engagement forums, and biodiversity festivals. An advisory committee was set up to discuss issues relevant to local biodiversity and make recommendations to the Government for preparation of the BSAP, and a public consultation exercise was carried out in early 2016 to seek views from stakeholders from different sectors of the society.

After the extensive and participatory public engagement process, Hong Kong's first BSAP was launched in December 2016 (<http://www.afcd.gov.hk/bsap>). This comprehensive document outlines a five-year strategy for conserving biodiversity and supporting sustainable development in Hong Kong for 2016-2021, and sets out an action plan of 67 specific actions under four major areas: 1) enhancing conservation measures, 2) mainstreaming biodiversity, 3) improving our knowledge and 4) promoting community involvement.

## **India**

### **Centre for Media Studies (CMS)**



#### **Green Voice Quarterly Newsletter**

The CMS ENVIS News Centre, which is sponsored by Ministry of Environment, Forests and Climate Change, Government of India, released a newsletter on Plastic Reduction in 2016 that describes eco-friendly packaging measures and plastic waste preventive measures according to the life cycle stage. The newsletter brings together pieces of information available from various websites and media reports on plastic use and its consequences. The report also includes media analysis of news channels' coverage of Environment and Wildlife issues during that year.

The study found that the news channels lacked motivation to cover environmental issues. The viewers are up-to-date with news on politics, entertainment, crime and corruption, but very less is known about conservation of the environment. The report brought to the fore the urgency to increase the coverage of environmental issues or policy-driven news so that awareness reaches the farthest corners of the country.

#### **Trend Analysis in Print Media on Air Pollution**

Respiratory diseases are on a sharp rise in Delhi which is predominantly contributed by the dangerous level of air pollution in the city. While some attribute this to the careless use of firecrackers during Diwali, other factors could be burning of solid waste in and around Delhi, vehicular emissions, dust by the roadside and around construction sites in Delhi and stubble burning in Punjab and Haryana. In this regard, the CMS ENVIS Centre, designated by Ministry of Environment, Forests and Climate Change (MoEF&CC), and Government of India sought out to analyse the trend in print media regarding the coverage of





environment specifically on air pollution. The study revealed that demonetization was the centre of attraction for media at the cost of efficient coverage on air pollution.



### **Trend Analysis in Print Media on Swachh Bharat Abhiyan**

October 2nd, 2016 marked the second anniversary of the Swachh Bharat Abhiyan (SBA), a national campaign launched by the Prime Minister of India. The program broadly aims at achieving cleanliness standards in public places including academic institutions, health institutions, government offices, etc. In this study, CMS ENVIS analysed extensive role of print media in spreading the need of the cleanliness drive. The data showed that the coverage has not been in any forms other than news reports and advertisements. It was found that SBM related topics which were disseminated through advertisements and merely on topics such as, 'keeping lanes surroundings clean', 'curbing open defecation', 'propagating use of toilets', 'discouraging the practice of littering in public places' etc.

### **Trend Analysis in Print Media on COP 22**

Over 1,500 journalists from across the world covered the 22nd Conference of the Parties (COP 22) to the United Nations Framework Convention on Climate Change, which took place in Marrakech until November 18, 2016. In this study, CMS ENVIS Centre analysed the convention related coverage in English and Hindi newspapers. The study focused primarily on how the Indian newspapers covered the crucial CoP-22 which was a follow up for the historic Paris Agreement. The monitoring of news dailies was done for the month of November 2016. The focus and the issues covered were important parameters of the analysis.



After the thorough analysis of the news media coverage, it was concluded that COP 22 was poorly covered by the media. The new concept of Demonetization had taken the Indian subcontinent by stride and the issue was sold like a hot pancake. Most newspapers did not see the Climate Change discussions as a potential topic to be brought into the limelight.

## **The Corbett Foundation (TCF)**



### **Watershed Management**

To improve soil and water management and enhance water availability and agricultural productivity of the community around Bandhavgarh Tiger Reserve, TCF initiated a watershed management project in five villages Dadraudi, Kudar, Bardauha, Majhgawan and Saraswahi on the periphery of Bandhavgarh Tiger Reserve (Manpur block of Umaria district) in November 2015. This two-year long project is supported by The Coca-Cola Foundation, and aims to store 3, 17,861 cubic meter of water. Under this project, 1 check dam, 2 village ponds and 12,666

running meter field bunding of 29 have been constructed to prevent soil erosion and conserve rain water. 5,189 residents of these 5 villages will benefit from this project.

### **Smokeless Stove construction and energy-efficient stove distribution**

The forest habitat in the Bandhavgarh-Sanjay Dubri Corridor faces steady degradation and is under much pressure from heavily forest-dependent local communities looking for firewood. To reduce this dependence, TCF constructs smokeless 'Sakhi' stoves in village households that require smaller sizes and reduced quantities of firewood and expel stove emission from the kitchen. Supported by Born Free Foundation, TCF has constructed a total of 85 stoves till date since April 2016 for households in villages Khichkidi,



Patpariya and Makra in Bandhavgarh. Since December 2016, TCF has initiated activities to reduce the forest dependence of local communities in and around Tansa Wildlife Sanctuary (Thane district, in Maharashtra) as well, located around 100 km from the city of Mumbai. With support from JSW Group, 443 energy-efficient stoves have been distributed to households here, to improve women's health and reduce the daily quantity of firewood consumed.



### **Hydroponics for fodder cultivation**

TCF Bandhavgarh started a Cattle Culture Programme in the village of Rakhi to reduce forest-grazing by domestic cattle, curb forest degradation and minimize conflict arising from cattle depredation by wild carnivores. TCF distributed high-yielding milch cattle to villagers on one condition that the cattle would not be grazed in the forest. To provide quality fodder in sufficient amount for these cattle, TCF has installed a hydroponics machine for the beneficiaries, which can produce 125 kg of green fodder daily. TCF Kanha has also donated 18 Gir bullocks to villagers in Kanha as a breed improvement measure, on condition that forest-grazing of the cattle be immediately discontinued. A hydroponics machine has also been set up at TCF's Kutch division with support from the Bombay Gowrakshak Trust.

### **Community-Based Natural Resource Management**

TCF is working with the Eco-Development Committee of Bakiguda village in the buffer zone of Kanha Tiger Reserve for conservation and management of natural resources in the village. The invasive weed *Lantana camara* has been removed, and 1500 saplings of indigenous trees such as Saja, Harra, Bahera, Arjuna, and Bamboo have been planted by TCF till date. The patch of re-planted land is enclosed by a fence to prevent the newly planted saplings from being trampled or grazed by cattle. This particular activity contributes to the improvement of the quality of adjoining forest, which is a crucial habitat for tigers and other wildlife.



### **Biodiversity and wildlife studies in Bandhavgarh and Corbett Tiger Reserve and Rampara Wildlife Sanctuary**

The Corbett Foundation began a two-year study on the dispersal routes of tigers and other wildlife species in the buffer zone of Bandhavgarh Tiger Reserve. The collection and study of data about the current status of wildlife, dispersal routes, and habitat and food resources is necessary to develop efficient management strategies for this important habitat. The study so far reveals promising findings for the long term conservation of tigers and other wildlife here, with the identification of 18 individual tigers and 21 individual leopards. A biodiversity study is also under way in Ramnagar Forest Division, adjoining Corbett Tiger Reserve. TCF Kutch has also received a project grant to study the biodiversity of the Rampara Wildlife Sanctuary in Saurashtra, Gujarat, and the most recent data collection being that of insect and reptilian diversity.

### **Bombay Natural History Society (BNHS)**

As part of its Climate Change project, BNHS has commenced work in the Himalaya. Besides studying the status and distribution of Pheasants and Finches outside protected areas in Central Himalaya, BNHS is also working towards appropriate strategies and policies to combat climate change.

One of the Climate Change projects focuses on the conservation of biodiversity hotpeck in Mishmi Hills, an area owned by the Idu Mishmi tribe. The aim is to establish People's Biodiversity Register and establish community governance mechanisms. In May 2016, stakeholders in the tribe were identified to form a Community Conserved Area, for which they even obtained a No Objection certificate from the concerned forest department.

Surveys were undertaken in Sikkim with regard to the on-going project on 'Status, distribution and conservation of Pheasants (Phasianidae) and Finches (Fringillidae) in the Central Himalayas.

Workshops were held at Kitam Bird Sanctuary and Barsey Rhododendron Sanctuary for the local people, with conservation as the main focus.

**Vulture Safe Zone:** Under this *in-situ* conservation study in Madhya Pradesh, strategic targeted awareness and advocacy programmes with various stakeholders including druggists and chemists and government officials were held over the year to make the zone safe for vultures. More than 70% of the decision makers took action by issuing instructions to concerned groups, such as private companies, under their jurisdiction.

## World Wildlife Fund (WWF) India

To strengthen Community Forest Resource (CFR) use area management in Vazhachal Forest Division in WGL, WWF facilitated capacity building of 19 indigenous people for ecological monitoring of their traditional resource use practices and traditional knowledge.

In addition, process for claiming Community Forest Resource (CFR) Rights claims in Parambikulam Tiger Reserve has been initiated by the FD and tribal communities with the final revalidation of resource use maps of six tribal settlements through Grama Sabha meetings. WWF has helped in preparing the resource use maps of the settlements



WWF has been invited by the government to replicate the Vazhachal and Parambikulam CFR process in Silent Valley National Park. Capacity building of forest staff as well as local community through resource use mapping and demarcation of resource use areas is being undertaken.

Community based HWC management mechanisms such as installation of solar power fences and organizing crop guarding efforts of farmers into groups called Anti depredation Squads or ADS has been initiated. The year 2016 witnessed an increased participation of community in HWC mitigation through financial support and physical efforts. Two solar fence installations near Amangarh (Corbett buffer) in Uttarakhand and Dudhwa National Park in Uttar Pradesh in TAL have had the community contributing significant amounts of money and effort both for installation and maintenance. In Dudhwa, the village community has contributed around 30% of the total cost of seven km long solar fence and has also put together fence maintenance fund. Similarly, Mokonia village on the southern boundary of Corbett Tiger Reserve has contributed significant amount of money to the fence maintenance fund.

### Community unites to protect a banyan tree Action

Kokkarebellur village in Mandya district of Karnataka owes its name and heritage to migratory birds- Painted Storks and Pelicans that have developed a symbiotic relationship with the local communities over centuries, so much so that when human habitation moved further away from the Shimsa river, the birds instinctively followed. Hejjarale Balaga or Friends of the Pelicans was formed by local communities years ago to protect the habitats of these birds. In recent times, this deep connection seems to be unfortunately fading away. The near felling of the last standing Banyan tree in the village highlights this disconnect with nature.

A collective timely effort by the local communities, members of Hejjarale Balaga and WWF-India saved the tree and managed to increase awareness on its critical role in supporting the region's biodiversity. This year the tree had 35-40 nests – proof of the wonderful things that can happen when people come together with strong purpose. The tree will not only continue to provide shade under its expansive canopy for people to rest and exchange stories but will also continue to support the habitats of the Painted Storks and Pelicans for many more seasons to come.



## **Korea (DPRK)**

### **Nature Conservation Union of Korea (NCUK)**

Public awareness activities for nature conservation and environmental protection have been under way by NCUK. The following subjects have been successfully addressed to the public through mass media, on the occasion of World Wetland's Day, Biodiversity Day, World Water Day, and other internationally significant days. Electronic version of illustration books "Aquatic Life and Human Life," "Biodiversity Reserves in DPRK," and "Protection of Marine Environment" were also published.

## **Nepal**

### **Nepal Forum of Environmental Journalists (NEFEJ)**

NEFEJ has continually been lobbying and advocating on laws, policies and plans related to sustainable use of natural resources. The organization not only participated in different interaction programs and discussions, but also conducted many itself in 2016.

On 7 November, a programme was organized by NEFEJ with Nepal's Ambassador to China, Leela Mani Paudyal and Nepal's Ambassador to India, Deep Kumar Upadhyaya so as to discuss the environmental issues between Nepal and China. The programme was not only instrumental in identifying the gaps, but also in finding ways to address the same.

Similarly, NEFEJ organized a joint event in the capital on 13 September to provide a platform of discourse among government officials, experts and concerned stake holders on the matters of Nepal's ratification process to the Paris Agreement. The event discussed on steps Nepal could take in expediting the ratification process as well as its role and responsibilities post the Paris Agreement. Apart from this, one of the pressing issues NEFEJ has continuously been lobbying is that of the Chure Hills, the youngest hills formed by the deposition of the river products around four crore years ago. These hills stretching from east to west of the country are a treasure trove of biodiversity, of which only few are aware of. After receiving information on the indiscriminate sand mining and boulder extraction in this region, NEFEJ started lobbying this issue in its media outlets and caused a stir among other media houses too. This issue is currently being deliberated by the government and concerned officials.

## **Philippines**

### **Foundation for the Philippine Environment (FPE)**

FPE has intensified its actions towards creating mechanisms to access financial benefits provided for under the law to include indigenous peoples (IPs), ensuring the definite and equitable share of IPs as host communities (under the Universal Charge – Environmental Charge and Energy Regulation 1-94) and including the effective participation of IPs in watershed management, rehabilitation and development.

One such action is the National Consultation on Sustainable Financing Mechanisms for Watershed Rehabilitation & Management on June 29 to July 1, 2016. The consultation, alongside the presence of National Commission on Indigenous Peoples, convened indigenous cultural communities and IPs from nine watersheds nationwide to discuss ways forward for sustainable financing mechanisms for watershed rehabilitation management in the country. While watersheds are the main source of energy of communities all over the country, one of the main gaps of the EPIRA (Electric Power Industry Reform Act), or so called Republic Act 9136—in particular the amended ER 1-94 and UC- EC—is the lack of enabling mechanisms for Indigenous Peoples (IPs) to access financial benefits. A critique on National Power Corporation's (NPC) watershed management plan was crafted out of the conference and presented to the NPC.

## Singapore

### Asia-Pacific Centre for Environmental Law (APCEL)

APCEL collaborated with IUCN WCEL, IUCN Environmental law Centre and Others, developing a project on Improving Effectiveness of Environmental Law. In this connection, a meeting will be held during the IUCNAEL Symposium, held in Cebu, 29 May to 3 June 2017 to discuss the following with inputs from team member countries, including Singapore:

- A brief summary of the major biodiversity priorities/challenges
- Ratification history and status of the CBD
- National approach to converting CBD principles to local law and local organisational arrangements (the broad implementation strategy for your country)
- The main policies and legislation that have been put in place to address each of the list of principles set out in the 9 January email to the team.
- The main organisations and administrative arrangements that have been put in place (in some cases perhaps trans-boundary as well) to implement these laws.
- National performance, both as reported under the series of national reports under the CBD, other scientifically credible reports, and other datasets.
- A summary statement: how effective is implementation of each CBD principle; what seems to be working overall, what does not seem to be working; is the CBD making the type of impact that you would expect it should?

Another on-going platform is the APCEL Climate Change Adaptation Platform established by the APCEL Specialist Group on Climate Change Adaptation. More information can be found through this link: [http://law.nus.edu.sg/apcel/cca\\_platform\\_publ.html](http://law.nus.edu.sg/apcel/cca_platform_publ.html)

## Thailand

### International Network of Engaged Buddhists (INEB), Thailand

#### ICE Network Project – Engaging Asian Religious Leaders in Climate Dialogue and Action

The ICE Network team has developed and completed a proposal for an innovative three-year project that aims to actively engage religious leaders and institutions throughout Asia in climate education, collective action, and policy change. The long-term objective of the project is to bring the wisdom of religious traditions and the moral influence of religious leaders and institutions into climate change dialogue and action. The overall goal of the project is to address the root causes of climate change and respond to the emerging effects of climate change in a peaceful, equitable, and sustainable way. There are four expected result components of this proposal: Awareness & Education, Climate Action, Local Networking & Advocacy, International Networking & Advocacy

## Vietnam

### Central Institute for Natural Resources and Environmental Studies (CRES)

CRES – VNU organised a national workshop on the Human Ecology and Sustainable Development, as well as an international workshop on the "Wildlife Trade in Indochina: Enhanced Enforcement through Collaborative Research". It also undertook regular supervision of the impacts on biodiversity of the Trung Sơn Hydro-electric Dam. For the following Programme area, CRES – VNU carried out projects "Biodiversity Conservation in Indochina: Integrating research and training to enhance wildlife trade management," funded by USAID, and the "Development of criteria and monitoring procedures to assess management effectiveness of Biosphere Reserves in Vietnam" funded by the Vietnam Government.

### Centre for Marine Life Conservation and Community Development (MCD)

MCD piloted the Ecosystem Approach for Fisheries Management (EAFM) in Binh Dinh province, located on the south central coast of Vietnam. A total of 50 key practitioners, managers, and stakeholders engaged in the EAFM at national and provincial levels received professional trainings on

the EAFM concept and are committed to take part in piloting it in Binh Dinh province. A draft of the EAFM guidelines and strategy has been developed, providing a tool for the local managers and stakeholders to implement the EAFM management plan of Locally Managed Marine Area (LMMA). The EAFM management plan (2016-2020) has been developed in LMMA Quy Nhon, which has recently been approved by the provincial People's Committee (official letter dated 24 October 2016) as a high political commitment. The adoption of the EAFM planning, in the mentioned LMMA Quy Nhon includes integrated objectives on ecological well-being, human well-being and governance issues. The piloting of livelihood practices and the engagement of the community groups in the protection and restoration of the coral reefs and other resources in the selected communes of the LMMA has demonstrated that small scale fishers, especially poor women and adolescents, are willing to work out options for diversifying their livelihoods, thus reducing pressure on fishing.

### **The Centre for Environment and Community Research (CECR)**

CECR's Initiative Advocacy for Water Pollution Control Act received high attention from National Assembly members. Three documents and two video clips were sent by CECR to the National Assembly and received good feedback from a National Assembly member.

# Deploying nature-based solutions to societal challenges

## Bangladesh

### Nature Conservation Management (NACOM)

Under the CREL Project NACOM facilitated the development of PA level Action Plan and Management Plan by the Co-management committees (CMCs). The organization also contributed in developing village level Action Plans on climate change adaptation. With support from CDKN (Climate Development and Knowledge Network), NACOM prepared Action Plans for three Government Sectors (Transport, Industry and Agriculture) and a Roadmap for reducing emission of GHG in these sectors.

### Unnayan Onneshan (UO)

Since 2007, the UO has been actively involved in the Sunderbans, the largest mangrove forests in the world, to enhance protection and restoration of vulnerable ecosystem through traditional knowledge of IPLCs and to strengthen ecosystem and community resilience to absorb, recover and reorganize to, and from, climatic shocks.



The UO pioneered the *Community-based Mangrove Aqua Silvii Culture (CMAS)* practice as a locally available nature-based adaptive solution to climate change. The CMAS Culture refers to the practice of integrated cultivation of some mangrove faunal species - crabs, oyster or fishes (e.g. Shrimps, Bhetki [*Lates calcarifer*] etc.) and floral species - Golpata (*Nypa fruticans*), Keora (*Soneratia apetala*), Goran (*Ceriops decandra*) etc. By conducting research, UO has also

showed that CMAS culture can be promoted as a long term community adaptation measure and as an alternative to commercial shrimp culture. The CBMS project (community-based management of Sundarbans) has also undertaken Community-based research, mapping, biodiversity surveying and monitoring.

## China

### All-China Environment Federation (ACEF)

In 2016, ACEF implemented and concluded the ACEF-UNEP Project on Developing Green Communities to Promote Sustainable Consumption (2014-2016), funded by Switch-Asia, which aims to guide community residents in choices of environmental-friendly goods and services as well as nature-based solutions for sustainable community development as a whole. During the Project, a Survey on the Current Status of Sustainable Consumption Patterns and Awareness of Community Residents in Beijing has been carried out. In addition, the *Research Report for Current Situation of Beijing Communities' Sustainable Consumption Patterns, Evaluation Standards and Index System for Beijing Community Sustainable Consumption Models*, and *Policy Recommendation for Promoting Sustainable Consumption for Beijing Communities* have been produced, submitted to the government agencies, and now work as valuable references or guidance for the public. Vivid video and brochure have been also developed to raise the community residents' awareness.

## India

### Technology, Education, Research and Rehabilitation for the Environment (TERRE) Policy Centre

A project dedicated to maximum utilisation of renewable or alternative sources of energy to light up lives of millions of families for whom darkness is an everyday reality. TERRE Policy Centre in India embarked on a mission to distribute solar lamps of 0.5 Watts in rural areas of the country where



electricity is scarce. These lamps were pre-installed with solar panels charged on exposure to the sun. Leaving them out the entire day enabled light supply for no less than 8 hours. TERRE distributed more than 2000 solar light in various districts of Maharashtra where there is no electricity.

## **Bombay Natural History Society (BNHS)**

### **Great Indian Bustard (GIB) conservation through public participation**



GIB is mainly found in crop fields and a way to conserve it is by involving the farmers. One such project, started by in June 2016, covers Chandrapur district and the adjoining areas in Maharashtra, where the BNHS team is assisting the Forest Department unit of Chandrapur in sensitising farmers about sustainable agriculture through workshops. Under the National Thermal Power Corporation Solapur project, workshops were conducted for farmers and a booklet was released for the promotion of bustard-friendly agriculture.

### **Rehabilitation of coral communities**

The project involves setting up of artificial reef in Sindhudurg district. Initially, the deployment of cement structure and transplantation of coral pieces had to be suspended owing to people's misconception of the task. But with the issues are now resolved after meetings with the locals and government support, the deployment activity is scheduled to resume at the earliest with assistance from the local communities.

### **Mangrove livelihood project**

One crab farm (Mhamai-Sonsakhali Khekada Samvardhan Prakalp) is active and has 300 crabs stocked. The first harvest is expected by end March. Construction of test cage for berried female crabs to collect crab larvae was completed. 4958 seedlings of *Rhizophora* and *Xylocarpus* were planted at degraded patches of Kasari and are growing steadily.

### **Satpuda Landscape Tiger Programme (SLTP)**

SLTP, a programme with multiple partners, is run from Nagpur, gateway of tiger land. As part of the programme, BNHS conducted a community sensitisation event, wherein 741 women from 40 fringe villages of Pench, Bor Tiger Reserves and Umred-Karhandla Sanctuary participated. Youth sensitisation programmes were also held at Umred, Bor, Navegaon and Nagzira sites with over 100 participants.

The guide training programme in protected areas, with emphasis on eco-tourism, covered Melghat, Pench and Tipeshwar Sanctuary. The BNHS gobar gas revival scheme now covers over 150 villages and 807 units are working from the fringe area of Kanha, Pench, Pench MS, Bor and Tadoba.

The bamboo craft livelihood programme, started by BNHS at Tadoba in 2015, has scripted a success story. A workshop now runs from Palagaon village, where 10 youth from six villages work and have formed a self-help group. BNHS is striving hard to find the craft a better market.

### **Important Bird Area (IBA) programme**

Several ecosystems are threatened by unsustainable demands for resources and bad management. The IBA ensures that such sites are identified and recognised as important bird areas. The IBA's Common Bird Monitoring Programme has met with much success, with more and more birdwatchers across the country joining the seasonal counts and engaging in scientific bird counting activities. Besides this, the department continued its task of identifying, documenting and advocating the protection and managements of sites important for bird species through various bird counts, advocacy workshops, projects and its newsletter *Mistnet*. Work on the State of India's Birds Report, a project funded by BirdLife International, is in progress.

## **World Wildlife Fund (WWF) India**

### **Promoting organic farming to maintain functionality of priority tiger corridors**

With the support of Agriculture department, 40 new vermi pits were constructed in the villages of Patwahi and Turur to promote sustainable agriculture in Kanha-Pench corridor in SML. This is part of

the effort to promote organic farming in the landscape. Training on seed treatment for paddy was also conducted in these villages. Moreover, four new village institutions in Patwahi, Khisi, Loghur and Polbattur villages have started partnering with WWF-India.

To combat the fast depleting NTFP yielding trees in the region, five hundred saplings of Mahua and Amla plants were distributed in the village Kharidih in the Kanha-Achanakmar corridor. The saplings were distributed to 71 villagers hailing from 7 different villages. Moving forward, WWF-India is exploring a landscape certification concept to promote sustainability in cultivation of multiple crops in critical wildlife habitats. Soybean farmers from 25 villages have been enrolled with the Roundtable on Responsible Soya.



An institutional mechanism has been created by forming Internal Control Group and registered with Agriculture Technology Management Agency (ATMA). The groups are registered with Producer Company called 'Chhindwada Organic Farmers' Enterprise' (COFE). The project is expected to receive scope certification, and has initiated producing almost 20% of the total seed requirement for the season 2017 -18 through COFE. It will procure seed cotton from the farmers, responsible for seed extraction from gin, screening and filtering of good quality seeds, storage, packaging and distribution of seed.

#### **Use of bio-fencing in Human Elephant conflict mitigation**

WWF-India worked more intensively with the tea garden workers (tea garden areas being more vulnerable to HEC cases), and the Tea garden management in some strategic locations of Sonitpur district in NBL. It completed 1km of bio fence using thorny bamboo (rhizomes) in one of the most vulnerable sections of a tea garden (Sessa TE). In addition, more than 9000 bamboo saplings were grown in collaboration with Apeejay Tea for further extension of the bio fencing. As of now, we have been maintaining the bamboo nursery for the last two years. This will continue for another one year and then the entire fencing and the nursery will be handed over to the Apeejay Tea authority.

#### **Alternate energy initiative reducing fuel wood dependencies**

Around 30 villages have been selected in the entire TAL to address the fuel wood dependencies in and around critical corridors situated in the Rajaji, Corbett, Pilibhit, Dudhwa and Valmiki Tiger tiger reserves. Over the last three years WWF has supported alternate energy options (LPG, FEC, Bio gas) to 1300+ Households directly. In addition, around 2300 bio-gas units were provided through the partner organization (INTERCOOP) in Nainital, Haridwar & Udham Singh Nagar Districts. The impact of alternate energy support is being monitored and evaluation is on. The recent results in seven villages around Pilibhit Tiger Reserve are exciting. The alternative energy support in Pilibhit has reduced an average of 69% of fuel wood consumption of beneficiaries.

#### **Promoting Better Cotton**

More than 40,000 farmers across the major cotton cultivation states of Punjab, Maharashtra and Telangana are now implementing Better Management Practices and producing Better Cotton, thereby reducing adverse environmental impacts of large scale chemical intensive agriculture. The project covers more than 74,000 hectares of cotton cultivation.

In its efforts to use reduce excessive use of harmful chemicals, WWF has developed a Web and Android based application called 'The Crop Doctor'. This application will inform farmers about the actual requirement of fertilizers and pesticides in cotton fields. The technology will geo-tag fields and make customized calculations for farmers on the basis of weather parameters, satellite imagery, soil moisture and insect population. The technology will be rolled out to 40,000 farmers in 9 districts of Gujarat.

#### **Amrit Pani (bio pesticide) initiative under Climate Change adaptation**

WWF-India, under the Climate Change Adaptation (CCA) initiative has been actively engaged in demonstrating sustainable agriculture practices to farmers and government. The major thrust of CCA

component has been on replacing chemical pesticides with a bio-pesticide, without compromising the production levels.

A biopesticide called AmritPani, which is primarily made from cow urine, cow dung, neem leaves, jaggery and gram flour was intensely promoted among stakeholders, particularly farmers. The impact of systematic spray of AmritPani followed by abandoning the use of chemical pesticide significantly positively impacted plant morphology, and subsequently production. Noticeable observations were significant reduction in crop related diseases, and better crop growth during vegetation phase and the economic benefit gained as compared to purchase of costly chemical pesticides. A positive externality of this initiative has been the reduction in agriculture runoff to the Ganga river, this was found very relevant in case of farmers involved in river bed farming. Training and demonstration to 6000 farmers has proved that the input cost can be reduced by at least 35%, and production can be increased by approximately 30%.

## The Corbett Foundation (TCF)

### Patrolling using solar lights

TCF provides clean, renewable energy-based illumination to villages without electricity in and around protected areas by distributing solar lights. From April 2016 till date, TCF Bandhavgarh has distributed 50 solar lighting units (comprising one fixed and one portable light) to forest check posts to strengthen patrolling efforts. 80 lights were also given to daily wage workers in Panpatha Wildlife Sanctuary, Bandhavgarh Tiger Reserve. In Kaziranga, one unit per household was distributed to 27 families in villages located on the periphery of Kaziranga National Park. In Kanha Tiger Reserve, 390 solar lights were provided to households from four villages while 167 units were distributed to locals in Pench Tiger Reserve. As a result, carrying out household chores even after sunset becomes easier for women, children can study after dusk, and villagers can protect their crops from crop-raiding wild animals. Mobility and safety after sunset is also improved and human-wildlife conflict can be averted and mitigated. Forest Department employees carry out physically tough work in the forest often in extreme and uncomfortable physical and weather conditions with a bare minimum of facilities. Distributing solar lights to them is to boost their efforts such as patrolling, and encourage and appreciate their continued contribution to conservation.

### Human-Elephant Programme (HELP) in Kaziranga



TCF initiated the Human Elephant Programme (HELP), a community-based initiative to mitigate human-elephant conflict in Kaziranga Tiger Reserve. As part of this, TCF has erected a 4 kilometer-long solar-powered fence, enclosing more than 991 acres of farms to protect standing crops from destruction by wild elephants. The villagers contributed labour and the bamboo posts required for this installment. The fences have yielded successful results, with a considerable reduction in crop-raiding incidents.

Once the crop has been harvested, the solar fences will be removed for safekeeping by the villagers, to be reinstalled the following season. The programme also includes the construction of 35 *tongis* or watch-posts for the residents of villages Dumjan, Bezgaon, Tinsukee, Sildubi (Geleki) for them to keep a watch for straying elephants. To further bolster this effort, each *tongi* is provided with a powerful rechargeable torch light.

### Combating crop raiding with alternative crops

Amotha and Amtoli are two of many villages in the Corbett landscape facing economic losses due to crop-raiding wild herbivores and delays in economic compensation. To mitigate crop damage here, TCF Corbett initiated a project on a pilot scale, aimed at replacing traditional agricultural crops with those that are unpalatable to wild herbivores and have a high economic value as well. Chamomile (*Matricaria chamomilla* L.) was selected as the alternative crop and cultivated in these villages, and the harvest results were positive, with a considerable crop-raiding reduction and lucrative income value



### Highland Construction and Community weaving Centre adaptation

As a flood relief measure and a gesture of for supporting TCF's conservation efforts, TCF has constructed Highlands and weaving centers as a refuge for the severely flood-stricken community in Kaziranga. In Borigaon, Difloopathar, TCF has constructed a Community Weaving Centre equipped with four handlooms, and has donated two handlooms to an existing weaving centre in Sukhanigaon, where women from the flood-affected community underwent training at no charge in handloom weaving the latest Assamese designs. TCF has also constructed a highland in Japoripathar, 60m x 20m and 1m high where villagers and livestock seek refuge from the deluge. A safety shed has been constructed on this highland, equipped with essential supplies, where villagers can congregate and take shelter when the low-lying areas begin to flood. The highlands and weaving centres have been extremely useful during the monsoon in 2016.

### Sustainable Livelihoods Programme PUKAAR

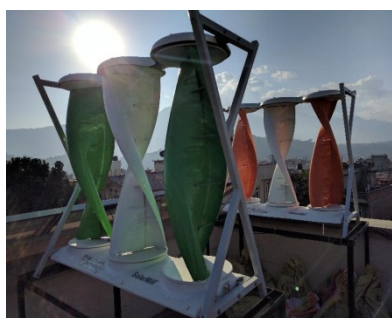


PUKAAR is a sustainable livelihoods and a flagship programme TCF initiated in 2012 supported by Axis Bank Foundation. Its aim is to reduce the traditional dependence of forest-dwelling communities on tiger reserves and protected forest areas for their livelihood. Through skills training and capacity building, TCF's objective is to train 3,550 individuals from tribal and forest-dependent communities by 2017. Training has been provided in around 40 trades, skills and vocations such as sustainable agriculture, poultry farming, crafting articles from bamboo and lantana, handloom weaving, fisheries, tribal art, incense stick making, candle making, sewing and tailoring, naturalist training and more. This programme also promotes responsible and sustainable

tourism, with finished handicraft products available for sale at local souvenir shops. TCF facilitates the marketing and sale of its brand of products 'Prakriti' at exhibitions, local shop outlets and on TCF's E-shop. Financially empowered rural communities, less dependent on the forest for livelihood resources are better enabled to support conservation efforts.

## Nepal

### Hoste Hainse



The use of alternative resources other than petrol is an important aim of Hoste Hainse. With the installation of biogas and windmills, Hoste Hainse is taking the first step for sustainable and independent livelihoods. Through biogas installations, organic kitchen waste like vegetables and fruits become the resources for producing bio-methane—a clean energy source that can be used for cooking. The windmills are another form of clean, free, and readily available form of energy that currently helps to produce roughly 1kw of electricity within a full rotation.

Besides using wind and biogas as an environmental friendly resource, Hoste Hainse is using the sun as an additional source of electricity. Through solar panels it is possible to create safe, clean, and sustainable energy. Solar power systems derive clean, pure energy from the sun. Installing solar panels in the organization thus helps to decrease the greenhouse effect and reduces the collective dependence on fossil fuel. Additionally, using solar power energy is cost-effective way in regards to energy expenses. The solar cooker is used to heat up water without using gas or fuels, meaning that using the sun to produce heat and energy sharply reduces costs of fuel and electricity—once again, corroborating the notion that solar energy is a sustainable resource to help the environment.



Since the launching of Hoste Hainse initiative, three eco-friendly vehicles (electric cars) have mainly been used by its associate members and companies (Formation Carpets, Lotusholdings). Therefore, it is projected to have less harmful impacts to the environment compared to those made by vehicles running on petrol or diesel. Moreover, Hoste Hainse is hoping that the increased usage of electric cars in the Kathmandu Valley will help reduce CO<sub>2</sub> concentration and pollution in the area.

## Nepal Forum of Environmental Journalists (NEFEJ)

Starting in 1994, NEFEJ recognized the increasing degradation of one of the holiest rivers of Kathmandu valley, Bagmati River. Bagmati River Basin (BRB), traversing along the Kathmandu valley, holds huge economic and cultural significance among the people there. Apart from being the major source of drinking water in the valley, the basin is also an important source for hydropower generation and irrigation. However, with the increasing population and the subsequent surge in demand, the basin has faced rapid degradation.

Recognizing this problem, NEFEJ has long been advocating on the clean-up and revival of Bagmati River Basin. It developed '*Bijog Bagmati*', a radio program aired through Radio Sagarmatha, which reported issues related to the exploitation of the Bagmati River. It has also produced an array of reports related to the basin's pollution in the TV program 'Aankhijhyal'.

Similarly, NEFEJ played a leading role in Bagmati Clean-Up Campaign and was the media partner. The campaign is now in its 200 weeks and has yielded visible improvements in the river quality. This positive change has further sped up campaigns in other rivers of the valley. Moreover, NEFEJ has been continually involved in lobbying as well as influencing government officials, policy makers and formulating relevant policies and acts related to the basin's pollution.

Apart from this, NEFEJ also organized field visits and transit workshop for journalists in different districts: Pokhara and Nawalparasi. The workshop, entitled 'Environmental Issues in Mass Media', acted as a learning platform for the journalists to engage with experts and broaden their understanding on various local issues and the initiatives taken in addressing the same. The program also helped in strengthening the information flow between the journalists and the media houses, providing journalists with a clearer idea on the burning environmental issues in that particular area and further to report such issues in a more effective way.

Similarly, through its channels, NEFEJ has been highlighting the need to protect and preserve aquatic biodiversity while designing a hydropower project. The burgeoning number of hydropower in the country further necessitates this initiative.

## Environmental Camps for Conservation Awareness (ECCA)

ECCA has been promoting different nature based solutions to adapt and mitigate the effect of climate change and social change in particular areas. During promotion of any technologies, ECCA helps local stakeholders on how to use the technology and provides technical training on repair and maintenance in the case of need. ECCA also provides support for entrepreneurship skill for youth on different alternative technologies and WASH technologies.



Here are some of the examples implemented in 2016:

### Solar Water Pumping System for Irrigation

ECCA has been promoting different alternative and renewable technologies in different parts of Nepal since its establishment at 1987. For example, in 2016 ECCA has promoted solar water pumping system for irrigation in Rupendehi and Kapivastu villages where approximately 30 ha of land are now irrigated with two systems, up scaling in 8 more villages. ECCA has supported to irrigate even in drought periods, which directly benefits the villagers' livelihood by promoting seasonal and cash crops.



### Solar Lamp Mass Charging Station



ECCA has also been promoting solar lamps and mass charging solar lamp station in villages to displace kerosene lamps, reduce indoor pollution, and improve healthcare and education for children. In 2016, ECCA has supported around 500 sets of solar lamps with mass charging station in schools so students can be benefitted for their education after schools and reduce harm from kerosene lamps. This initiation has helped the school to increase the students' attendance as the parents are entitled to send their children in school to recharge the lamps in school.

### Earth Bag System for the retention of slopes

After the earthquake in April 25, 2015, most of the hills and slopes were very fragile. Landslide became very common and human activities were significantly affected due to human casualties. Working with students, ECCA has promoted low cost earth bag technologies to stabilise the slope of schools so learning can be promoted in communities.



### Wireless Flood Early Warning System (WFEWS)

ECCA has promoted WFEWS in two flood sensitive areas: Beni and Tatopani located in the Myagdi District. The purpose of this warning system is to raise awareness among the community about adaptation technology, and to increase community resilience to climate change. ECCA prepared local stakeholders such as students, local youth, local organisations, hotels, shop keepers, and different government line agencies so that they understand the use of the warning system in case of flood or any other disasters.



### Promotion of Efficient Cooking Stoves

ECCA had promoted mud stoves to reduce indoor pollution during 1990- 2000 and increase health conditions among children and women. The development of stoves, however, did not stop there, as ECCA has nowadays been promoting superior stove models. Called 'Environ fit rocket stoves,' these stoves improve overall efficiency, reduce fuel / wood consumption, and shorten the time to cook. In 2016, ECCA has supported around 2000 cook stoves across different provinces in Nepal.

## Pakistan

### Haashar Association

#### Sustainable Energy Solutions for Rural Communities

Pakistan is one of those developing countries where power and energy is still deficient in many communities. At the same time, hillside areas with natural springs and sources of water have great potential to generate this environmentally friendly source of energy.

Haashar Association, a local NGO was given the task to accomplish series of Micro/Mini Hydel Power Projects in remotely located Battgram District of Khyber Pakhtunkhwa Province. Haashar Association, through financial support of Pakhtunkhwa Energy Development Organization (PEDO), completed three such projects within a span of 6-9 months in Shumlai of the Battgram district. The main purpose of the initiative was to generate low cost electricity for domestic consumption and to benefit large number of people of the rural community. In order to ensure sustainability, these projects have been handed over to the local community and residents of the area.

District Battagram, a remote area in Khyber Pakhtunkhwa, is currently deprived of electricity. Specifically, unscheduled power shortages spanning over days is the biggest problem faced by villagers. Requesting for help, the community forward a resolution of constructing a mini-hydel power in 3 villages, Bela Bala, Shagai and Beesa Khait of District Battagram. Haashar, in collaboration with the community organization, took prompt action and met the most pressing demand of the community. Construction and installation work on the proposed projects sites were accomplished within the limited time frame of one year. The social and technical aspects of the projects were met through community participation.

Now, all three micro powers stations—200 KW in village Bela Bala, 75 KW in village Shagai and 30 KW in village Beesa Khai—are operating successfully. The project is providing electricity to the population of 2250 based on 530 households.

The Project was inaugurated by the Chairman of the ruling party of the province *Pakistan Tehreek-e-Insaf*, Mr. Imran Khan. These initiatives have provided inexpensive and environmentally friendly electricity to consumers and communities of the area, especially helping children as they can now study without any problems.

## **Philippines**

### **Haribon Foundation for the Conservation of Natural Resources, Inc.**

Haribon's Restoration of Mangrove Forest in Infanta, Quezon project aims to rehabilitate 3 hectares of mangrove forest in partnership with the local government and people's organizations. In 2016, a total of 3,500 mangrove seedlings have been prepared and out-planted in the nursery. Environmental officers and forest wardens underwent an environmental law education and paralegal training. Meanwhile, livelihood training on fish trading and bagoong (fish paste and sauce) making was made available for fisher folks. This project was made possible by Ricoh Company Ltd. through BirdLife International-Tokyo.

## **Thailand**

### **International Network of Engaged Buddhists (INEB)**

#### **Eco-Temple Community Development Project**

The goal of this project is to initiate and realize holistic Eco-Temple Communities based out of Buddhist temples (and applicable to the centers of other religions) in the INEB and ICE network. INEB and ICE members have a wide variety of communities, resources, and needs. By working together to develop an Eco-Temple Community Design Scheme, an information base of best practices and available resources can be developed for each community's specific needs. The overall goal is to develop ecological human communities that are sustainably interconnected with the natural environment through the community center of a religious facility/temple.

The Eco Temple Community Design is a holistic development process that involves much more than simply putting solar panels on the roofs of temples. It involves a comprehensive integration of:

- 1) Ecological temple structure and energy systems
- 2) Economic sustainability
- 3) Integration with the surrounding environment
- 4) Engagement with community and other regional groups (civil society, business, government)
- 5) Development of spiritual values and teachings on environment, eco-dharma.

## **Vietnam**

### **Centre for Marinelife Conservation and Community Development (MCD)**

MCD built a model to to develop and implement an environmentally friendly aquaculture, combined with responsible tourism in the Vung Vieng site of Ha Long Bay (Quang Ninh province, Vietnam). This multi-stakeholder collaborative mechanism is engaged by state institutions, tourism businesses, the

fishing community and non-state actors at the local and national levels. The demonstration design has been approved by the provincial PC and put into implementation with the engagement of former floating villagers, local tourism businesses and provincial government agencies. As part of the legal corridor for the demonstration model to be enabled, a decision on issuing regulations and on allocating water surface to local farmers for aquaculture was made by the Ha Long City People's Committee. The 7 areas of water used by local aquaculture farmers participating in the demonstration model were approved by the Ha Long PC, with the necessary papers and certifications. A total of 7 floating aquaculture rafts, each with 12 cages, have been fully set up and handed over to the Local Demonstration Model Group, including the Van Chai Ha Long Cooperative and the selected aquaculture farmers. 300 yellowfin pomfret individuals were released into the cages for farming, using environmentally friendly processed food. A set of signboards and technical guidance boards on the project and the demonstration model was also designed and installed at the demonstration area in Vung Vieng.

## **ECO-ECO**

ECO-ECO executed a project on wetlands' research, conducting a pilot study on producing fibres from lotus branches, and developing 3 models on planting lotus with a total area of 500m<sup>2</sup>/model in 3 provinces: Plain of Reef, Ninh Xá – Thường Tín, Lý Nhân – Hà Nam. It also organised education visits to exchange ideas/experiences on fibre production and cloth production from coal, combined with lotus in Myanmar.

## **Center for Environment and Community Research (CECR)**

CECR greatly contributed in restoring the Bon Xa canal in Bac Ninh City. In 2016, CECR, together with the People's Committee and people in Khac Niem Ward, the Environmental Protection Agency and some enterprises (DABACO) committed to establishing the monitoring groups for Bon Xa canal. The group will monitor the environmental quality of Bon Xa canal and aim on improving water quality in Bon Xa canal in the future.

## **Action Center for City Development (ACCD)**

ACCD, also known as Action for the City, focused on developing school garden program. It includes setting up a school garden (native plants, herbs and vegetables) and developing an educational program for students in Hanoi and Hoi An. By the end of 2016, 9 schools with over 5000 students had great chance to learn and practice at their school garden. ACCD not only raised awareness about nature and the environment, but also changed its behaviour to be more sustainable (composting, saving water, energy, recycling). In addition, through its model, teachers, parents and students had interesting place for sharing and working together. ACCD has also supported Hoi An to develop organic farming, and developed service learning programs to exchange university students to participate in community projects in Hue, Da Nang and Hoi An.

## Members in Asia in 2016

### **BANGLADESH**

**No. of Members: 22**

#### **State Member**

Ministry of Environment and Forest

#### **National NGOs**

Bangladesh Centre for Advanced Studies

Bangladesh Environmental Lawyers Association

Bangladesh POUSH

Bangladesh Unnayan Parishad

BRAC

Brotee Samaj Kallyan Sangstha

Center for Environmental and Geographic Information Services

Center for Natural Resource Studies

Centre for Coastal Environmental Conservation

Centre for Sustainable Development

Coastal Area Resource Development and Management Association

Development of Biotechnology & Environmental Conservation Centre

Environment and Social Development Organization

Forum of Environmental Journalists of Bangladesh

Nature Conservation Management

Prokriti O Jibon Foundation

Shushilan

Unnayan Onneshan

WildTeam

#### **Indigenous Peoples' Organizations**

Bolipara Nari Kalyan Somity

Gram Unnayan Sangathon

### **BHUTAN**

**No. of Members: 3**

#### **State Member**

Ministry of Agriculture and Forests

#### **National NGOs**

Bhutan Trust Fund for Environmental Conservation

Royal Society for Protection of Nature

### **CAMBODIA**

**No. of Members: 2**

#### **National NGOs**

Culture and Environment Preservation Association

Mlup Baitong

### **CHINA**

**No. of Members: 30**

#### **State**

Ministry of Foreign Affairs

#### **Government Agency**

Agriculture, Fisheries and Conservation Department, Hong Kong Special Administrative Region



### **National NGOs**

All-China Environment Federation  
Beijing Forestry Society  
Biodiversity Committee, Chinese Academy of Sciences  
Centre for Biodiversity and Indigenous Knowledge  
Chengdu Bird Watching Society  
China Association for NGO Cooperation  
China Association of National Parks and Scenic Sites  
China Biodiversity Conservation and Green Development Foundation  
China Green Carbon Foundation  
China Mangrove Conservation Network (legal name: Putian Green Sprout Coastal Wetlands Research Center)  
China Wildlife Conservation Association  
Chinese Society of Forestry  
Eco Foundation Global  
Elion Foundation  
Friends of the Country Parks  
Friends of Nature  
Guangzhou Green City Environmental and Cultural Development Center  
Nanjing Institute of Environmental Sciences, Ministry of Environmental Protection  
Shan Shui Conservation Center  
Shangri-La Institute for Sustainable Communities  
Shenzhen Mangrove Wetlands Conservation Foundation  
Society of Entrepreneurs & Ecology  
The Jane Goodall Institute China  
Xiamen Green Cross Association  
World Wide Fund for Nature – Hong Kong

### **Affiliates**

Hong Kong Zoological and Botanical Gardens  
Institute of Botany, Chinese Academy of Sciences  
Mt. Huangshan Scenic Area Administrative Committee

### **INDIA**

**No. of Members: 43**

#### **State Member**

Ministry of Environment, Forest & Climate Change

#### **Government Agencies**

Attappady Hills Area Development Society  
G.B. Pant Institute of Himalayan Environment and Development  
Indian Institute of Forest Management  
National Board for wildlife, Ministry of Environment, Forests and Climate Change  
Wildlife Institute of India

### **National NGOs**

Aaranyak  
All India Disaster Mitigation Institute  
Applied Environmental Research Foundation  
Association for Rural Area Social Modification, Improvement and Nestling  
Balipara Tract & Frontier Foundation  
Bombay Natural History Society  
Centre for Environment Education - Nehru Foundation for Development  
Centre for Media Studies  
Conservation Action Trust  
COORG Wildlife Society  
Development Alternatives  
Foundation for Ecological Security  
Gujarat Ecological Education and Research Foundation

Gujarat Ecology Society  
Gujarat Institute of Desert Ecology  
Indian National Trust for Art and Cultural Heritage  
InsPIRE Network for Environment  
Institute for Integrated Rural Development  
International Society of Naturalists  
Jal Bhagirathi Foundation  
Keystone Foundation  
MSSRF - Biju Patnaik Medicinal Plants Garden & Research Centre  
MSSRF – Community Agrobiodiversity Centre  
Nature, Environment and Wildlife Society  
OMCAR Foundation  
Regional Centre for Development Cooperation  
Sahjeevan  
Salim Ali Centre for Ornithology and Natural History  
Society of Hill Resource Management School  
TERI's Forestry and Biodiversity Group  
TERRE Policy Centre  
The Corbett Foundation  
Wildlife Conservation Trust  
Wildlife Protection Society of India  
Wildlife Trust of India  
World Wide Fund for Nature - India  
Zoo Outreach Organisation Trust

## **INDONESIA**

**No. of Members: 6**

### **Government Agency**

Directorate General Ecosystem and Natural Resources Conservation, Ministry of Environment and Forestry

### **National NGOs**

Coral Triangle Center  
The Indonesian Biodiversity Foundation  
The Samdhana Institute Incorporated  
World Wide Fund for Nature – Indonesia

### **Affiliate**

Center for International Forestry Research

## **JAPAN**

**No. of Members: 18**

### **State Member**

Ministry of Foreign Affairs of Japan

### **Government Agency**

Ministry of Environment, Japan

### **National NGOs**

Japan Center for Human Environmental Problems  
Japanese Association of Zoos and Aquariums  
Kamehameha Okoku  
Keidanren Committee on Nature Conservation  
Nagashima-no Shizen-wo Mamoru Kai  
Nature Conservation Society of Japan  
Nihon Gan-wo Hogo suru Kai  
Nihon Umigame Kyougikai  
Ramsar Network Japan

Save the Dugong Campaign Center  
Seibutsu Tayosei Japan (Biodiversity Network Japan)  
Shizen Kankyo Kenkyu Senta  
The Asahi Glass Foundation  
Wild Bird Society of Japan  
World Wide Fund for Nature - Japan  
Yasei Seibutsu Hozenron Kenkyukai

**KOREA (DPRK)**

**No. of Members: 1**

**National NGO**

Nature Conservation Union of the Democratic People's Republic of Korea

**KOREA (ROK)**

**No. of Members: 33**

**State Member**

Ministry of Environment, Republic of Korea

**Government Agencies**

Cultural Heritage Administration  
Jeju Special Self-Governing Province, Bureau of Environment  
Korea Forest Service  
Korea Marine Environment Management Corporation  
Korea National Park Service

**International NGO**

Environmental Action Association

**National NGO**

Citizen's Institutes for Environmental Studies  
DaeJayon  
Gotjawal Trust of Jeju  
Jeju City Project 21  
Jeju Special Self-Governing Province Agenda 21  
Korea Association of Environmental Planning & Landscape Architecture  
Korea Environmental Education Network  
Korea Green Club  
Korea Society of Environmental Restoration Technology  
Korea Wild Animal & Plant Service  
Korean Association for Conservation of Nature  
Korean Environmental Law Association  
Korean Society for Atmospheric Environment  
Korean Society of Environment and Ecology  
Korean Society of Environmental Impact Assessment  
Korean Society of Nature Conservation  
Korean Society of Restoration Ecology  
Korean Wetlands Society  
Local Agenda21-Seogwipo City  
National Nature Trust  
Sah-dahn-beob-in Jeju Gukje Noksaek-Seom Forum  
Sustainable Environmental Education Center of Jeju Special Self-Governing Province  
The Ecological Society of Korea  
The Korean Society of Conservation Biology  
The Korean Society of Oceanography  
The Korean Society of Plant Taxonomists

**LAO PDR****No. of Members: 2****State Member**

Ministère des Affaires étrangères

**National NGO**

Lao Biodiversity Association

**MALAYSIA****No. of Members: 7****State Member**

Department of Wildlife and National Parks – Peninsular Malaysia

**Government Agencies**

Sabah Wildlife Department

Sarawak Forestry Corporation Sdn Bhd

The Sabah Parks Board of Trustees

**National NGOs**

Malaysian Nature Society

Marine Research Foundation

World Wide Fund for Nature- Malaysia

**MALDIVES****No. of Members: 1****National NGO**

Live &amp; Learn Environmental Education

**MONGOLIA****No. of Members: 2****State Member**

Ministry of Environment, Green Development and Tourism

**National NGO**

Hustai National Park Trust

**MYANMAR****No. of Members: 2****National NGOs**

Forest Resource Environment Development and Conservation Association

Friends of Wildlife

**NEPAL****No. of Members: 20****State Member**

Department of National Parks and Wildlife Conservation

**International NGO**

International Centre for Integrated Mountain Development

**National NGOs**

Association for Protection of the Environment and Culture

Bird Conservation Nepal/Nepal Panchhi Samrakchyan Sangh

Centre for Rural Technology



Environmental Camps for Conservation Awareness  
Green Governance Nepal  
Himali Prakriti  
Hoste Hainse  
Khoj Tatha Bikas Kendra, Nepal  
Manab Kallyantatha Batabaran Samrak Kendra  
National Trust for Nature Conservation  
Nepal Forum of Environmental Journalists  
Relief Fund for Wildlife Victims  
SAVE THE PLANET Mission2020 NEPAL Service, Empowerment, Positive Action and Applied  
Research for Communities in the Himalayas  
Wildlife Conservation Nepal  
Wildlife Watch Group  
Women in Environment/Mahila Batabaran Samooha  
Yuwa Jagaran Paryabaraniya Munch

## **PAKISTAN**

**No. of Members: 42**

### **State Member**

National Council for Conservation of Wildlife, Ministry of Climate Change

### **Government Agencies**

Government of Gilgit-Baltistan  
National Institute of Oceanography  
Planning and Development Department, Civil Secretariat FATA  
Planning and Development Department, Government of Balochistan  
Planning and Development Department, Government of Khyber Pakhtunkhwa  
Sindh Coastal Development Authority, Planning & Development Department, Government of Sindh  
Sindh Wildlife Department

### **International NGO**

Aga Khan Rural Support Programme

### **National NGO**

AWAZ Foundation Pakistan: Center for Development Services  
Baanhn Beli  
Balochistan Rural Support Programme  
Centre for Peace and Development  
H.E.J. Research Institute of Chemistry  
Haashar Association  
Health and Nutrition Development Society  
Human Resource Development Network  
Indus Earth Trust  
Institute of Rural Management  
Khwendo Kor  
Leadership for Environment and Development  
Legends Society  
National Rural Development Program  
New World Hope Organization  
Pakistan Institute of Labour Education and Research  
Participatory Village Development Programme  
Research and Development Foundation  
SACAN Foundation  
Sarhad Rural Support Corporation  
Scientific and Cultural Society of Pakistan  
Shehri: Citizens for a Better Environment  
Shirkat Gah - Womens Resource Centre  
Society for Empowering Human Resource  
South Asia Partnership – Pakistan Strengthening Participatory Organization

Sungi Development Foundation  
Sustainable Development Policy Institute  
Taraqee Foundation  
Thardeep Rural Development Programme  
Trust for Conservation of Coastal Resources  
Water, Environment and Sanitation Society  
World Wide Fund for Nature- Pakistan

## **PHILIPPINES**

**No. of Members: 4**

### **National NGOs**

Ecological Society of the Philippines  
Foundation for the Philippine Environment  
Haribon Foundation for the Conservation of Natural Resources  
World Wide Fund for Nature - Philippines

## **SINGAPORE**

**No. of Members: 3**

### **National NGOs**

Asia-Pacific Centre for Environmental Law  
Nature Society (Singapore)  
Singapore Zoological Gardens

## **SRI LANKA**

**No. of Members: 12**

### **State Member**

Ministry of Mahaweli Development and Environment

### **Government Agencies**

Central Environmental Authority  
Department of National Zoological Gardens  
Department of Wildlife Conservation  
Forest Department  
Ministry of Agriculture, Land, Irrigation, Fisheries, Animal Product & Health, and Agrarian  
Development (Western Province)

### **National NGOs**

Environmental Foundation Ltd.  
Federation of Wildlife Conservation  
Green Movement of Sri Lanka  
Sevalanka Foundation  
Small Fishers Federation  
Wildlife and Nature Protection Society of Sri Lanka

## **THAILAND**

**No. of Members: 9**

### **State Member**

Department of National Parks, Wildlife and Plant Conservation

### **International NGO**

International Network of Engaged Buddhists  
Regional Community Forestry Training Center

### **National NGO**

Freeland Foundation  
Good Governance for Social Development and the Environment Institute Foundation

Mai Khao Marine Turtle Foundation  
Seub Nakhasathien Foundation  
Thai Conservation of Forest Foundation  
Thai Society for the Prevention of Cruelty to Animals

**VIETNAM**

**No. of Members: 6**

**State Member**

Ministry of Natural Resources and Environment

**National NGO**

Action Center for City Development  
Center for Environment and Community Research  
Central Institute for Natural Resources and Environment Studies  
Centre for Marinelife Conservation and Community Development  
Viện Kinh tế sinh thái