



WWF®

BHUTAN  
2017

40 YEARS  
OF CONSERVATION

# FOUR DECADES OF PARTNERSHIP

STRENGTHENING BHUTAN'S COMMITMENT TO CONSERVATION SINCE 1977



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“There cannot be enduring peace, prosperity, equality and brotherhood in this world if our aims are so separate and divergent, if we do not accept that in the end we are people, all alike, sharing the Earth among ourselves and also with other sentient beings, all of whom have an equal role and stake in the state of this planet and its players.”

*His Majesty The King Jigme Khesar Namgyel Wangchuck*



# FOREWORD

**T**his year marks four decades of WWF's unique partnership with the Royal Government and people of Bhutan in supporting the nation's commitment to conservation and sustainable use of natural resources.

It was in 1977 that we first set foot in this beautiful country through the WWF US office, extending support to early conservation champions. I won't soon forget the first time I visited Bhutan myself: the harrowing flight between impossibly high mountains, the exquisite polychrome architecture at every bend in the road, the rhododendron trees that weren't like anything I knew from home. Not to mention the glorious culture and traditions, and the bedazzling Himalayan monals and tragopans and sunbirds. But more than anything, what feeds my soul and what touches my heart in Bhutan are the people.

WWF has been blessed with partnerships in Bhutan – with the government, communities, the Prime Minister, all inspired by the wise and farsighted leadership of His Majesty the King. We are privileged and fortunate to be partnering with the Royal Government and other development partners in the management of the national parks and most unique network of biological corridors, which today make up more than half the country. We are also pleased to have extended our support in the creation of the first Environment Trust Fund in the world, conceived and initiated by the Fourth King of Bhutan.

Conservation is thriving in Bhutan in large part because of its extraordinary enabling conditions, from its constitutional requirement that 60 percent of the nation remain under forest cover, to its Gross National Happiness development philosophy. And, of course, because of the profound conviction of the great Monarchs, Bhutan will not only steward its nature for the good of its people, but will also be a seat of innovation and invention in solving the greatest problems of our day.

Despite the successes, there are emerging challenges in securing Bhutan's conservation vision into the future and increasing development pressures to meet the needs of the local people. Hence, WWF supported the Royal Government in launching 'Bhutan for Life', an innovative funding initiative that will allow Bhutan to finance its extraordinary parks in the long term. In doing so Bhutan is helping to articulate the full role of forests in stabilizing the climate, supporting its people in maintaining watersheds, and ensuring that the part of its economy devoted to hydroelectricity can continue into the future.

I'm filled with admiration and pride in all that Bhutan and WWF have accomplished together, and I look forward to continuing our partnership to secure lasting conservation in one of the most extraordinary places on this planet.

Carter Roberts,  
President and CEO  
WWF-US



**W**WF first set foot in Bhutan in 1977 to offer a hand of friendship and support to train the new generation of conservationists. Four long decades have passed since, and our friendship and partnership continues to grow, from strength to strength. There are many stories of achievements, tribulations and celebrations- some are more personal in nature and others are institutional. The trademark Panda logo has weathered the sub tropical jungles of the Royal Manas National Park and the frigid temperatures of the elusive Snow Leopards. We have beautiful memories of our close and profound partnership in protecting and saving one of the most important heritage and resource of Bhutan- the environment. The farsighted conservation vision of the great Monarchs of Bhutan continues to inspire us and our entire global network of offices based in over 100 countries to keep pushing the boundaries of thought and scale impacts on the ground, so that collectively we can take care of this beautiful planet and leave behind a world worthy to be admired, cherished and nurtured by future generations. With the world changing at a swift pace and the threats of climate change looming ever closer, we must now look to the future with great care and foresight. A future where we learn from the lessons of the past and strive to ensure that we protect our natural capital for future generations.

Development and progress bring with it new ways to rediscover our connection to ecosystems, in ways that can improve livelihoods and build economies with minimum ecological footprints. The creation of meaningful green and sustainable jobs for people residing in the protected areas should continue to be enhanced. Meaningful conservation programs must combine idealism and realism for countries like Bhutan.

WWF Bhutan will continue to support conservation efforts in Bhutan through our wide area of expertise and rely on the guidance and partnership with the Royal government, civil society and the private sector in addressing the greater challenges of conservation and realizing the opportunities for sustainable development.

On behalf of our entire global network and supporters worldwide, I would like to once again thank the Royal government and people of Bhutan for the most amazing opportunity and privilege to work in a nation endowed with great resources, blessed with profound values and vision, not just for Bhutan but for the entire global community.

#TogetherPossible

Tashi Delek

Dechen Dorji  
Country Representative  
WWF Bhutan





# Introduction

**T**his year marks 40 years of partnership between the royal government and WWF, Bhutan's oldest conservation partner.

Since 1977, WWF has assisted the royal government in strengthening and operationalising Bhutan's conservation vision.

This has meant training a cadre of Bhutanese professionals to carry out conservation work, mobilising resources for conservation programs and providing access to its global network of experts.

In 1992, WWF established a permanent presence in Bhutan with the opening of a country program office.

WWF's partnership with the royal government is mirrored in the evolution of the country's park system. Today, it consists of 10 protected areas connected by biological corridors that allow wildlife to roam freely in five million acres of pristine forests and rivers.

WWF Bhutan also works on various programs that include research, education, sustainable livelihoods,

freshwater systems, human wildlife conflict, illegal wildlife trade and climate change.

To mark four decades of this partnership, WWF Bhutan is coming out with a coffee table book that highlights, through stunning pictures and short text, milestones of this successful and meaningful partnership.

The publication attempts to capture, through 40 events, how this relationship has evolved into a long-standing partnership defined by innovative approaches to conservation that has become a model the world over.

It is hoped the publication will provide greater understanding and awareness of this exemplary collaboration and also serve as tribute to many actors that have contributed immensely to strengthening and keeping alive Bhutan's commitment to conservation.

WWF would like to express its gratitude to the royal government and people of Bhutan for the opportunity to partner in Bhutan's conservation efforts.

# 1977

## A STRATEGIC PARTNER

The enduring partnership between WWF and the royal government began in the late '70s when Bhutan was still emerging from centuries of geographic isolation.

Less than two decades had passed since Bhutan began building its first roads, schools and hospitals and emphasis was shifting to increasing national revenue from agriculture, animal husbandry, forestry and small industries.

But even in the rapidly changing national context, Bhutan's conservation vision was clear, built on the long tradition of protecting the natural environment, a vital national Buddhist value.

Protected areas had been created in the early '60s by royal decree just as Bhutan embarked on planned development. A rudimentary forest department had been formed, a Forest Act passed in 1969 and a forest policy drafted in 1974 to demarcate and manage forests.

But trained manpower to manage forests and protected areas were literally non-existent and human-wildlife conflict was a major issue with livestock falling prey to big cats such as the royal Bengal tiger.

### Protected areas in the 1970s



- 1 Unprotected Areas
- 2 Jigme Dorji National Park
- 3 Black Mountain
- 4 Thrumshingla
- 5 Namgyel Wangchuck
- 6 Manas
- 7 Shumar
- 8 Dungsam
- 9 Khaling
- 10 Phipsoo
- 11 Pochhu
- 12 Sinchula
- 13 Zoshing
- 14 Neoli

## INITIAL SUPPORT

WWF support to the royal government's conservation efforts began in 1977 following the first ever visit of a WWF official to Bhutan.

Cat experts were brought in to conserve the cat families and also help resolve the widespread problem of human-wildlife conflict without killing wild animals.

Heeding to the King's aspirations to build Bhutanese capacity in terms of researchers, scientists and park managers, two scholarships were offered to train Bhutanese conservation staff.

WWF support also looked at managing protected areas in the context of communities living in the buffer zones.

In absence of a formal working relationship, support remained modest and focused on capacity building.

“ In 1969 there was a rudimentary forest department for the southern regions only. In two-thirds of the country there was no forest department, or trained foresters to carry out conservation activities.

WWF came in the late '70s basically to train people, strengthen institutions, and develop human resource expertise. In particular, they were trying to see the correlation between the park management vis-à-vis the buffer zone communities.”



LYONPO CHENKYAB DORJI, CHAIRMAN OF PRIVY COUNCIL, who became forest director in 1976

Bhutan has more than 72 percent forest cover  
PHOTO CREDIT: WWF BHUTAN

## PARTNERSHIP PICKS PACE

Following a brief interlude since its appearance in the late '70s, WWF's story in Bhutan picked pace in 1986. The journey thereon defined a thriving friendship that crystallised WWF's role and presence in the country.

It started with a visit of the then vice president of WWF Asia Pacific program Dr. Bruce Bunting, also in-charge of WWF Nepal then.

"Bhutan, even then, was known as the environmental jewel in the region," he said. "Guided by a great monarch and great leaderships in the government, laws and policies ensured developments were carried out without compromising natural resources. No other country had that."

Priority was set. In pursuing intelligent



“

While WWF came and helped build capacity, bring financial resources and draw institutional linkups, Bhutan was so ahead in terms of conservation when I came here. Led by the fourth King, you had it all figured out and knew exactly what you were doing.

WWF came in at a crucial time when Bhutan was starting to open up and many international agencies were coming in. In a way, WWF never really asked government to do this, or that. They presented ideas and suggestions that government could consider. Bhutanese government always respected WWF as a good partner. All in all, WWF in Bhutan has done an incredible job.”

**DR BRUCE BUNTING, DIRECTOR OF BHUTAN FOUNDATION**  
The then vice president of WWF Asia Pacific

environment and conservation policies, requisite of the time was to have Bhutanese specialise and take charge in the field. Government was also strapped for financial and technical assistance.

Things were happening quick through WWF's assistance. Young Bhutanese were flying abroad on scholarships to study conservation and wildlife. Within the country, training programs started and individuals were mentored. Equipment and gears were flown in. Works to transform Manas in the south into the first national park of international standards took off.

Need for an independent entity with focus solely on protecting Bhutan's biodiversity was felt and in time came the Royal Society for Protection of Nature, the country's probably, first non-government organisation.

Conservation of Bhutan's forests and its inhabitants was a process long-term, requiring capital as lasting. For the first time, together with WWF-US, a trust fund for endowing long-term preservation of Bhutan's forest and environment was initiated.

All of that happened as a program the WWF-US was operating in Bhutan, until its permanent presence in the early '90s as WWF Bhutan.



Dr Bruce Bunting (right) with Dashed Paljor J Dorji (Benji)  
PHOTO CREDIT: WWF BHUTAN

1987

## FIRST NGO ESTABLISHED

In 1987 the royal government, with WWF assistance, established the country's first non-governmental organisation, the Royal Society for the Protection of Nature (RSPN), to support conservation.

Founded as a citizen based non-profit, the society started with small grants to conduct nature camps and provided tents, binoculars, inexpensive cameras to nature clubs to get young people interested.

Since its establishment, RSPN has promoted environmental education and has been active in research and conservation of endangered species. It has also initiated projects to promote ecotourism, alternative energy, waste management, wetland conservation, climate change, organic farming and sustainable livelihoods. The society also introduced environmental education in teacher training colleges and monastic schools.

RSPN today, is a registered public benefit organisation and an active partner with WWF Bhutan.

RSPN has actively promoted environmental education and conservation of endangered species

PHOTO CREDIT: YESHEY DORJI

“ Bhutan needed such an organisation in the '80s because others were misrepresenting Bhutan and its conservation scenario in international meetings. It was also an era when anything that came from government was looked upon with suspicion.

RSPN began in the summer of 1985 as a one-man show. WWF provided assistance to set up a small office and organise art and essay competitions.”

**DASHO PALJOR J DORJI (BENJI),  
ADVISOR TO THE NATIONAL ENVIRONMENT COMMISSION**



 1988

# STORY OF THE TIGER

One Bhutanese legend tells of Guru Rinpoche, a Buddhist saint, riding a tigress to a rock face in Paro and meditating in caves that were homes to tigers.

That was in the eighth century. Today, etched on the rock face is a world-known Buddhist site, Taktsang, or the tiger's nest.

Elders in the family would narrate anecdotes of how tigers were hunted to protect their cattle. Then there were others, back in the days, offering tiger hides to chieftains and Kings.

Myth, or otherwise, the stories all point to one conclusion - tigers prowled the Bhutanese heights - always.

But in an effort to go beyond narratives, World Wildlife Fund (WWF) brought in a tiger expert to partner with a local specialist to bring out the first researched paper on tigers in Bhutan.

In 1988, coauthored by environmentalist Dasho Paljor J Dorji (Benji) and a wildlife

biologist from Sri Lanka, Dr Charles Santiapillai, the first record was published in Biological Conservation, a leading international journal on environment.

At the time, the tiger population was assumed to be in the range of 80-240.

Alongside, conservation efforts lead off. Giving impetus to it since day one was WWF that helped groom locals on the subject, rendered assistance to agencies and institutes in hatching plans and strategies towards saving tigers. It also introduced new technologies enabling accurate data and information gathering.

Among others, with WWF support, camera trapping began in 1998. This made possible digitally photographing tigers for the first time in April, 2000 around Thrumshingla National Park. It was a major breakaway from earlier methods based on eyewitness accounts, pug marks and other indicators from the field.

# TIGER TIMELINE

1988-2015

FROM  
**78**  
TIGERS ESTIMATED  
IN 1998, THE TIGER  
POPULATION HAS  
INCREASED TO  
**103**  
IN 2015

**1988**  
First publication  
on tiger in  
Bhutan



**1995**  
Forest and  
Nature  
Conservation  
Act categorised  
tiger as "fully  
protected"

**1996**  
Department  
of Forests  
and WWF  
Bhutan  
initiated  
Tiger  
Conservation  
Program

**MAY  
1998**  
National Tiger  
Conservation  
Strategy  
for Bhutan  
developed

**1998**  
Tiger sign  
survey, 78 tigers  
estimated in the  
country

**APRIL  
2000**  
First camera trap  
photograph of a  
tiger in Bhutan  
captured in  
Thrumshingla  
National Park



**2006**  
Tiger action  
plan drawn

**2011**  
Tiger survey  
conducted  
by UWICE in  
Royal Manas  
National Park



**2012**  
Bhutan hosts  
2nd Ministerial  
Conference  
on Tiger  
Conservation



**MARCH  
2014-2015**  
National  
Tiger Survey  
conducted, 103  
tigers confirmed

## BUILDING BHUTANESE CONSERVATIONISTS

Many Bhutanese professionals playing critical roles in conservation and other environmental organisations today, have one thing in common. They have graduate certificates from Yale University, US.

So far, more than 20 Bhutanese have pursued post-graduate programs in the University's school of forestry and environmental studies.

The link up with the University was in fulfillment of one of WWF's first commitments to Bhutan, and in keeping with the fourth King's aspiration, creating a pool of Bhutanese conservationists.

Since his first audience with the fourth King in May 1986, the then Vice President of WWF program in Asia Pacific, Dr. Bruce Bunting, said His Majesty emphasised the need for Bhutanese biologists, ornithologists, ecologists and other scientists.

"As a WWF representative, he asked if I could focus on creating a professional cadre of Bhutanese scientists to become leaders in conserving Bhutan's natural heritage," he said.

Since the link up between Bhutan and Yale in the early '90s, one made possible with WWF board member Edward Bass's help, Bhutanese continue to go to Yale even today.

But much before that, WWF supported a number of young Bhutanese to study in other institutes.

Dr Bruce Bunting himself arranged for the then warden of Manas Wildlife Sanctuary to pursue conservation management at Smithsonian Institution's facility in Virginia, United States.

Still way before that, in the late '70s, WWF international sponsored two young foresters to study wildlife management in Canada, making them the first two Bhutanese to receive WWF scholarships.

### WWF's first scholar

As he settles down from a brisk walk one winter afternoon, his granddaughter quickly hinges on him and curls up on his lap.

The walk complemented by the granddaughter's snuggles helps keep his diabetes in check.

Patting his granddaughter's head and back, TB Mongar, who retired four years ago, struggles to recall his early years in the civil service. He peers into the ceiling straining the wrinkles around them and its Eureka.

"It was a whole new exposure to conservation," the 62-year-old said, talking »

First two WWF scholarship recipients with  
Dasho Paljor J Dorji(center) in Phobjikha

PHOTO CREDIT: WWF BHUTAN/  
DR. BRUCE BUNTING





“ ... but we draw satisfaction from the fact that we guarded our natural heritage in all possible ways.”

**TB MONGAR**

about his year-long stint in Canada as the first Bhutanese to receive a WWF scholarship.

It was in 1979, he was a young trainee officer with the forest department. He was looking after Phibsoo and Manas wildlife sanctuaries.

Except for a few Bhutanese, TB Mongar said Indian foresters on deputation occupied top positions in the department. Thus, the timing was perfect for him to specialise in the field.

With WWF sponsorship, he went to the University of Calgary to study wildlife management. He was introduced to subjects like administration of parks, scientific studies on wildlife and different methodologies involved in such researches.

“It was totally different from the way things were in Bhutan, where modern concept of conservation was just starting,” he said.

On returning and over the years that he served in the department, mostly out in the field, TB Mongar said the one-year exposure shaped his perspective and broadened his career outlook.

“With growth in population and the kind of education people received over the years, things have changed, for better or worse,” he said. “But we draw satisfaction from the fact that we guarded our natural heritage in all possible ways.”

**TB Mongar worked in the field of environment and conservation for 33 years**



**Government and WWF representatives formalise BT FEC**  
PHOTO CREDIT: WWF BHUTAN

## WORLD'S FIRST ENDOWMENT FUND FOR CONSERVATION

In 1991, WWF helped the royal government establish the world's first endowment fund, the Bhutan Trust Fund for Environment Conservation (BT FEC).

An endowment of USD20M was initiated as an innovative mechanism to finance conservation programs over the long term. Donors to the fund include

the World Wildlife Fund and the Global Environment Facility, the governments of Bhutan, Denmark, Finland, the Netherlands, Norway and Switzerland.

Today, it is an effective conservation grant-making organisation, autonomous of the government and financing numerous conservation projects and higher

studies for Bhutanese conservationists.

Since 1992, the fund has spent over USD6M to build institutional and human capacity in Bhutan's national parks and related central government agencies. This includes recruitment of 189 field staff, training 24 post-graduate specialist degrees and at least 389 short scientific courses.

1992

# A PERMANENT PRESENCE

Conservation was important for Bhutan. It had policies to guide its forest and biodiversity conservation and laws to protect them. However, it was in need of resources and expertise to manage and maintain its natural wealth.

Bhutan Trust Fund for Environment Conservation was established for the purpose and for WWF, an effective conservation organisation, to be able to make any difference, a local WWF program had to be instituted.

Although, WWF's involvement in Bhutan began since the late '70s, actual fundraising for conservation began only in 1992 with the establishment of a field office.

Functioning from a rented two-storied private residence at Chubachu, just above present day City Mall, it set off with four Bhutanese staff. Country representative for Nepal, late Mingma Norbu Sherpa was also the head of Bhutan field office.

Budget set aside to run the office varied between USD 200,000 and USD 300,000 a year, a major chunk of which came from the MacArthur Foundation, US.

Since the opening of local WWF office in Thimphu, functional management plans for Jigme Dorji National Park and Royal Manas National Park was established. Capacity building of Bhutanese conservation officials began along with introduction of environmental studies curriculum in the only college then, Sherubtse.

One of the main achievements was the creation of four national park systems, four wildlife sanctuaries and one strict nature reserve in 1995.

Funds began flowing in, the number of activities grew and the office expanded. It was decided sometime in 1998 that Bhutan have its own country office headed by a Bhutanese country representative.

Kinlay Dorjee, who today is the FAO representative in the Kyrgyzstan Republic, was the first WWF Bhutanese country representative.

Following his resignation a year later, Kinzang Namgye took over as the country representative. Having served in this capacity between 2003 and 2013, he was the longest serving country representative.

## 1992

FUNDRAISING FOR COUNTRY'S BIODIVERSITY BEGAN

## 1995

FOUR NATIONAL PARK SYSTEMS, FOUR WILDLIFE SANCTUARIES AND ONE STRICT NATURE RESERVE CREATED

## 1998

PLAN FOR A WWF BHUTAN OFFICE HEADED BY A BHUTANESE COUNTRY REPRESENTATIVE



Late Mingma Norbu Sherpa was the first country representative

On November 29, 1997, Bhutan's WWF country representative Mingma Norbu Sherpa was honored with the Order of the Golden Ark Award for his services to nature conservation. The 250th person to receive the award, the ceremony was held at the Soestdijk Palace in the Netherlands.

1993

## A NATIONAL SYSTEM OF PROTECTED AREAS

Every protected area in Bhutan is a representative sample of a unique eco system.

In 1993 the country's protected area network, established by royal decree in the 1960s, was revised to make it more representative of the major eco systems in the country and for realistic management.

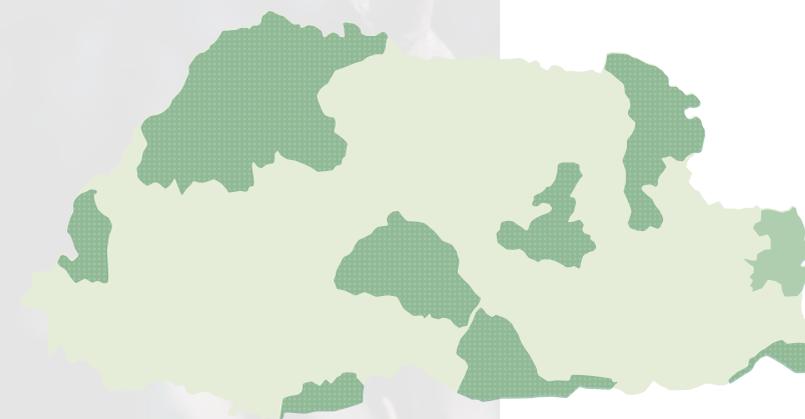
WWF provided technical assistance in the revision of the park system, which increased the protected areas from 15 percent to 26 percent of the land area. The revised system included four national parks, four wildlife sanctuaries and a strict nature reserve.

WWF also supported the royal government in developing management plans for the Royal Manas National Park (RMNP) and the Jigme Dorji National Park (JDNP) besides training Bhutanese to operationalise and manage the protected areas.

The revised system encompassed habitat for many species such as the Golden Langur, One horned rhinoceros, Asian elephant, Bengal tiger, Hornbill, Snow leopard, Blue sheep, Red panda, Himalayan black bear, Takin and Marmot.



Revised network of protected areas in 1993



Manas is home to many rare species

1993

## NATURE CONSERVATION DIVISION ESTABLISHED

In 1993 the royal government, with WWF support, established the Nature Conservation Division to specifically look after the management of the country's recently revised protected area systems.

The existing office divisions of the northern and southern wildlife circles were merged to form the new division with a clear and specific mandate. WWF helped establish the office. It provided trainings to its staff and necessary equipment. Through Bhutan Trust Fund the division started sending Bhutanese for professional studies so they could join as park managers with technical backstopping from the head office.

“ At that time the main focus was upgrading our human resources and WWF played a major role in supporting the government to develop a cadre of Bhutanese conservation professionals to manage the protected area systems”

DR SANGAY WANGCHUK, FIRST HEAD OF NCD



“ The anti-poaching program began in Royal Manas on an ad hoc basis. Today, it has evolved into a dedicated section in the HQ to backstop field squads. It is now known as SMART patrol with WWF assisting in terms of software and data processing”

DR SANGAY WANGCHUK

1994

## ANTI-POACHING PROGRAM

The anti-poaching strategy implemented as a national program in all parks today first began in 1994 at the Royal Manas National Park, Bhutan's oldest protected area.

As part of the management plan for Manas, WWF helped the royal government initiate the anti-poaching program by supporting staff training, equipment provision and financing travels.

Located on the foothills of the Indo-Bhutan border and adjacent to the Manas Tiger Reserve in India, Manas contains many fauna species threatened with extinction elsewhere in the Himalayas.

With WWF support, the royal government established basic park infrastructure such as guard posts, patrol trails and watch towers. It also procured field equipment including boats and vehicles.

WWF also assisted in developing a project to monitor and mitigate poaching and illegal wildlife trade in Bhutan. Anti-poaching squads composed of experienced forest guards helped by local residents. WWF funded field gear and radio sets.



# POVERTY ALLEVIATION THROUGH CONSERVATION

Integrated conservation and development programs (ICDPs), key to management plans of protected areas align suitably with sustainable development.

ICDPs were introduced in 1996, and as of now, of the 10 protected areas, except for Jomotshangkha wildlife sanctuary, nine have conservation management in place.

Development programs not only protect natural resources, but engage local communities, recognised as part of the ecosystem, and bring in their development into conservation strategies and planning.

In Bhutan, the practice is unique. Local communities are not relocated to buffer zones. Communities continue living in protected areas where a degree of human activities and use of natural resources are allowed. Certain core zones are exclusively kept for protection and research.

This practice helps protect and conserve Bhutan's rich biodiversity, promotes sustainable use of resources and alleviates poverty.

As part of sustainable development practices, WWF also initiated women in

environment program in collaboration with National Women's Association of Bhutan.

In 1993/94 rural credit schemes were introduced with focus on women participation. Low-interest loans were provided to women in Panbang for purchase of agricultural tools and weaving materials.

Women were also taught traditional weaving practices to develop skills for alternative income.

Environmental conservation was also integrated in non-formal literacy program, which has high women enrollment.



Locals are allowed to use natural resources for livelihood  
PHOTO CREDIT: WWF BHUTAN

# FIRST BHUTANESE TO HEAD WWF BHUTAN

In a significant development for WWF Bhutan program, for the first time, its reigns were handed over to a Bhutanese in April, 1998.

Dr Kinlay Dorjee, Royal Society for Protection of Nature's executive director, took over as the first Bhutanese country representative from late Migma Norbu Sherpa, who was to return to the US as director for Asia Pacific region.

At a ceremony marking the event, Migma Norbu Sherpa had told local media that it was a landmark decision to have a Bhutanese country representative, who would know what was best for Bhutan, run the WWF Bhutan office.

Dr Kinlay Dorjee, who is today the Food and Agriculture Organisation representative based in Kyrgyzstan Republic, in an email interview said it was a huge honour and privilege for him to

serve as WWF Bhutan's first Bhutanese country representative.

"We had a small team of nine people and implemented our projects entirely through RSPN and government agencies," he said.

Some of the significant activities carried out during his tenure were in establishing Bhutan program with a systematic linkage to the regional and international programs as part of WWF international network and raising long term funding for priority conservation programs.

Assisting RSPN become a viable NGO based on membership and a trust fund for its core services in close association with the education ministry, getting the government to declare the Biological Corridors and assisting in starting city bus service were some of the other success stories.

## CHALLENGES THEN

“ In the early years, there were more opportunities as well as challenges. The challenges were more related to learning how to deal with the internal bureaucracy of the WWF network.

Otherwise, the government and people were more supportive of WWF Bhutan initiatives. The office received overwhelming support from His Majesty the fourth King, ministers, dzongdas, down to the level of gups.

DR KINLAY DORJEE, FAO REPRESENTATIVE, KYRGYZSTAN REPUBLIC



Dr Kinlay Dorjee with WWF US president PHOTO CREDIT: WWF BHUTAN

 1999

# GIFT TO THE EARTH

Representing an innovative vision and the first of its kind in the world, the royal government established, in 1999, a network of biological corridors connecting all protected areas in the country.

The strategy was to enable the free movement of wild animals within protected areas, thus promoting gene flow for all species and providing a buffer against climate change.

The network of biological corridors added another 3,800 sq kms under the protected area system. This increased the protected areas to 35 percent of the total land mass.

WWF assisted the royal government in designing a corridor management framework and the movement of the tiger was initially used as the basis to design the corridors.

The corridors were presented as a Gift to the Earth on November 2, 1999 by Her Majesty Queen Mother Ashi Dorji Wangmo Wangchuck from the people of Bhutan coinciding with His Majesty the Fourth King's Silver Jubilee celebrations.

## THE PROTECTED AREA NETWORK AND BIOLOGICAL CORRIDORS IN 1999



# ECO-TOURISM FOR SUSTAINABLE DEVELOPMENT

Eco-tourism facilitates sustainable development. It brings tourists close to nature, promotes economic status of a community and has less impact on the natural resources and environment.

To promote livelihood of those living in park areas and to manage resources of the protected areas, a national eco-tourism strategy was developed in 2001 by the department of tourism, with assistance from WWF.

It was also expected to bring down human-wildlife conflict incidents with communities engaged in operating, or providing eco-tourism services experiencing a boost in local economy.

In 2012, over 20 homes, all of which were located within the Wangchuck Centennial National Park in northern Bhutan opened to tourists. Under the livelihood development program, initiated by the government in partnership with WWF, the homestay eco-tourism concept was introduced.

Homestays are expected to not only mitigate rural-urban migration but also provide economic opportunities to those living within park areas and decrease pressure of tourism on the environment, including human-wildlife conflict.



A room of a home-stay spruced up for tourists



Over 20 homes were opened to tourists in Wangchuck Centennial National Park  
PHOTO CREDIT: WWF LIVING HIMALAYAS JACKSON

# PARTY TO CITES

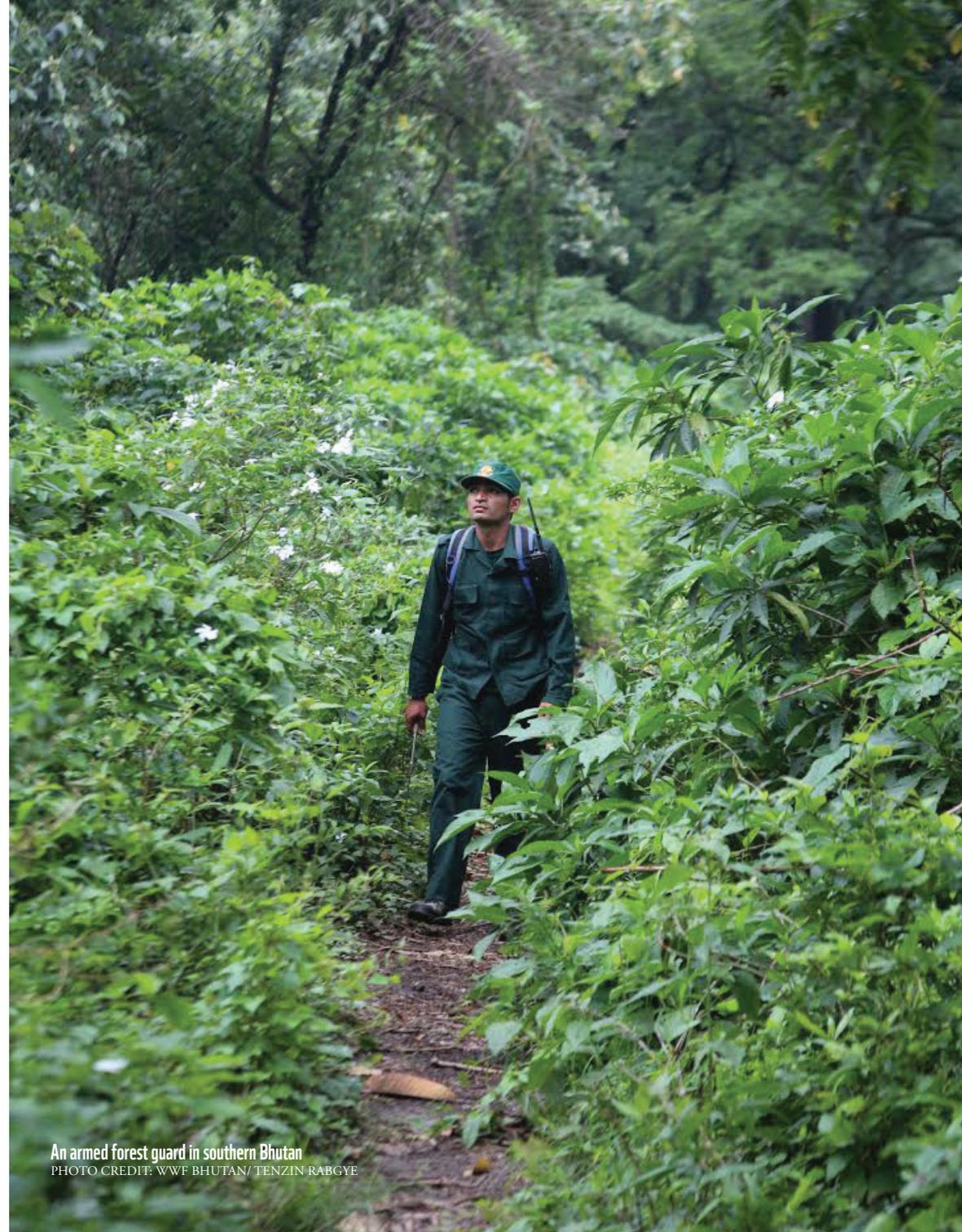
Although illegal trade of wildlife and plant specimens is not as rampant in Bhutan, porous southern borders and lucrative northern markets returns always fostered tempting prospects for Bhutanese.

In a move to counter that, Bhutan signed up for CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) in 2002. The international agreement ensured trading wildlife and plant specimens did not threaten their survival.

Conservation specialist Dr Sangay Wangchuk said at a time when Bhutan was weighing the pros and cons in partying to CITES, fearing it could lead to awkward implications, WWF Bhutan convinced the government to make the move.

“In fact WWF paid for the entry,” Dr Sangay Wangchuk said. He led the first team to attend the CITES convention in Santiago, Chile, in 2002.

Following that, Bhutan had to commit to certain obligations, besides submitting reports on poaching and trading every year. In essence, it helped monitor trade of flora and fauna species that would serve as basis to respond accordingly.



An armed forest guard in southern Bhutan  
PHOTO CREDIT: WWF BHUTAN/ TENZIN RABGYE

# COMPENSATION SCHEMES OVER TIME

While realising the importance of wildlife, keeping them off the farm and away from livestock had always been a challenge for the country’s rural folks.

This led to farmers retaliating and hunting down preying animals, which, in the process, hurt the conservation efforts of endangered wild animals.

Numerous attempts from the government to ensure peaceful coexistence between farmers and wildlife failed as adequate and timely compensation for the losses farmers suffered was the only way out.

Among numerous initiatives, in December 2002, the Tiger Conservation Fund ensured compensation for livestock killed by tigers. Within a year, about 23 farmers were compensated for 37 cattle lost to tigers.

But the fund being tiger-specific posed more complications. It was thus modified into a scheme that compensated for livestock lost to tiger, snow leopard, Asiatic black bear and common leopard.

The scheme appeared “short term” and benefited only a few individuals and neglected a larger section. Thus came into effect the Human-Wildlife Conflict Endowment Fund Scheme that forest and park services department launched in 2010.

A ground up approach, the scheme was operated through a Gewog Conservation Committee with the gup as chairman, and was provided with a seed money ranging from Nu 300,000 to Nu 500,000.

In the entire process, WWF Bhutan worked closely, especially in terms of providing financial assistance. WWF Bhutan handed over a fund of Nu 2M to Wildlife Conservation Division for the endowment fund in March 2012.



Nu 2M

CONTRIBUTED BY WWF  
BHUTAN TOWARDS  
ENDOWMENT FUND,  
WILDLIFE CONSERVATION  
DIVISION IN 2012

A farmer in eastern Bhutan guards her fields against wild animals



 2003

## ENHANCING LIVES OF PARK RESIDENTS

Ardent pursuit of biodiversity conservation should not be at the cost of improved lives of people residing within protected areas. A complementary mechanism had to be thought through.

Towards striking a balance at that, a new UNDP-WWF global partnership to combat poverty and environmental degradation through protection of existing corridors was agreed on in 2003. The five-year project was called LinkPA (Linking and enhancing Protected Area).

Global Environment Facility (GEF) of UNDP, the world's main funding agency that deals with global environmental threats, provided USD 792,000 to the USD 1.8M project. The Bhutanese government and WWF jointly made up the rest of the total amount. Realising the project's scheme, management of Bhutan's existing corridors have contributed to long-term conservation of the country's forest and mountain ecosystems, home to the endangered Bengal tiger and other species threatened by human activities.

At the same time, it has also provided ecologically friendly development opportunities for Bhutanese through alternative energy sources, improved health services and cottage industries like cheese-making, honey production and non-timber forest products. It was WWF Bhutan's first major collaborative project with another in-country donor agency. Within the country, it was the first multi-million dollar project.

Highlanders collect cordyceps, the highly valued medicinal fungus, in JDWNP  
PHOTO CREDIT: WWF BHUTAN

# A SUM OF ALL PARKS

Who would have thought a concept like Bhutan Biological Conservation Complex (B2C2), which the country devised and gifted to the earth in 1999, would catch on with the world.

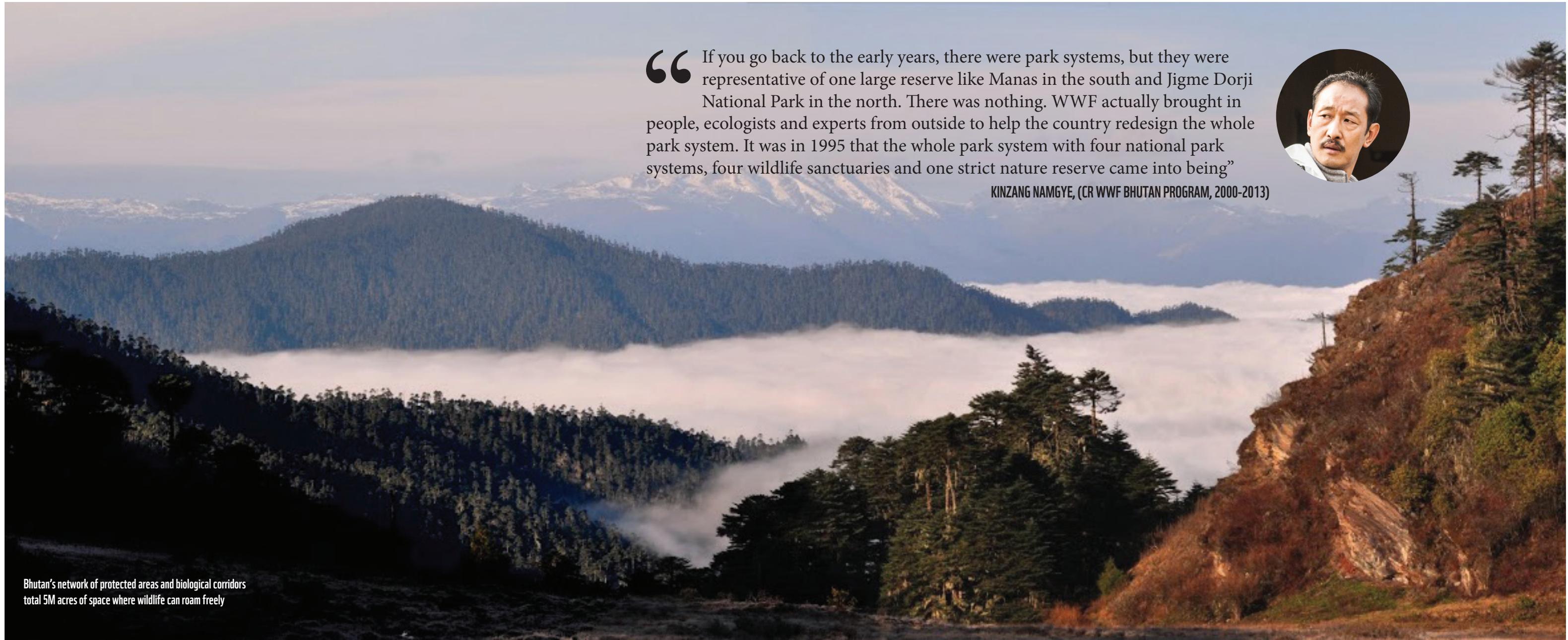
Initially the idea of conservation was associated with species in an ecosystem. Protecting species was not enough, their habitats had to be secured. Habitats secured for every species that were protected gave rise to parks, or protected areas.

Bhutan has nine protected areas spread across the country, covering its various ecological regions of subtropical along southern foothills, temperate forests forming the middle strip and alpine meadows up north, all of which make up 26 percent of the national landmass.

The last piece to the puzzle was to link these parks, with biological corridors, which made up an additional nine percent of the landmass for species to freely move laterally from one end of the country to another.

B2C2 is the sum of all protected areas linked by biological corridors, a biodiversity conservation at a landscape, or eco-regional level comprising ecosystems of all types existing in Bhutan.

Of late, this concept is being applied across borders to allow animals to freely move from one country to another.



“ If you go back to the early years, there were park systems, but they were representative of one large reserve like Manas in the south and Jigme Dorji National Park in the north. There was nothing. WWF actually brought in people, ecologists and experts from outside to help the country redesign the whole park system. It was in 1995 that the whole park system with four national park systems, four wildlife sanctuaries and one strict nature reserve came into being”

KINZANG NAMGYE, (CR WWF BHUTAN PROGRAM, 2000-2013)



Bhutan's network of protected areas and biological corridors  
total 5M acres of space where wildlife can roam freely



## TAMING THE TUSKERS

One reason places along the southern foothills appear in the news almost every year is because of the lumbering giants that tromp the sub-tropical forest floors.

Asiatic elephants found in the dense jungles of Samdrupjongkhar, Sarpang, Tsirang, Samtse and Gedu, are often a nuisance to local farmers whose crops and homes they damage.

In defense, villagers are sometimes forced to kill the animal. Even otherwise, poaching for their tusks and habitat loss with increased human activity are looming threats to elephants that roam the Indo-Bhutan borders.

Since early 2000, the government, with WWF Bhutan assistance, has engaged in protection of its elephants through a number of anti-poaching projects and strengthening border patrols.

Management plan that includes conservation of elephants was also implemented in the Royal Manas

National Park. For years, Wildlife Conservation Division and WWF Bhutan worked closely to maintain co-existence of wild elephants and humans.

In 2009 and 2010, the division also initiated an Asiatic Elephant Conservation project with financial support from WWF Bhutan to provide immediate Human-Elephant mitigation measures in priority areas.

Elephant experts from WWF-International and Wildlife Institute of India (WII) were hired to train focal persons from the field in data collection and analysis methods for elephant conservation.

Following the training, a survey to assess current elephant population was carried out in Samtse, Sarpang and Phipsoo in June and May 2010. Samtse alone has about 110 elephants, while Sarpang Range and Phipsoo Wildlife sanctuary together have about 380.

### NATIONWIDE SURVEY

In May 2016, WWF Bhutan launched a nationwide elephant survey to understand the animal better, their home range, migration patterns and habitat use. The findings were expected to serve as basis for generating innovative solutions for human-wildlife conflict.

Asiatic elephants are found along the southern foothills  
PHOTO CREDIT: SIMON RAWLES/WWF-UK

# HOME TO MOST OF FEW HERONS

The white-bellied heron population in the world today was confirmed at 60, contrary to the International Union for the Conservation of Nature's (IUCN) earlier estimate of 250.

The numbers were reached following respective surveys carried out in their known range countries of Bhutan, China, India and Myanmar.

Of the 60 birds on the verge of extinction, 28, the most, were found in Bhutan, followed by Myanmar that recorded 23 and the rest in India.

Globally, a species population of less than 250 is considered critically endangered, meaning immediate measures and conservation efforts have to be upped.

At just 60 today, it rings alarm bells.

Tagging young herons with satellite tracking devices to understand their dispersal and threats is one of the studies being proposed besides considerations for captive breeding of the birds to learn of their behaviour and biology.

Reduction of manmade threats like damming of rivers, road constructions, sand and stone quarries, fishing and overhead power-lines, require immediate policy interventions.

Collusion with transmission conductors and electrocution claimed three of 10 heron lives between 2008-2015.

# 28

WHITE-BELLIED  
HERONS FOUND  
IN BHUTAN



PHOTO CREDIT: WWF BHUTAN/ KARMA JIGME

# TIGER ACTION PLAN

Bhutan's grand story on tiger conservation over the years was based on a script written more than a decade ago.

In September, 2004, Bhutanese as well as international tiger experts sat together to sketch out a plan that would set directions leading to protection and growth of the solitary cat in the coming 10 years.

Approached through three main focus areas, the Tiger Action Plan 2006-2015 looked at achieving the goals through the species conservation, protection of habitat and management of human-wildlife conflict. It also highlighted creation of an environment that would help achieve the intended outcome.

Among others, there were components of ecological studies to be carried out in Royal Manas, Jigme Singye Wangchuck and Jigme

Dorji National parks.

Propping up the Department of Forest in this major milestone of tiger conservation journey was WWF Bhutan, rendering assistance in all manifestations. Besides financial support, experts with the program contributed to discussions, development of materials, refining content and providing photographs.

The 2006-2015 tiger action plan having expired, a new 10-year plan (2017-2026) has been recently drawn up with focus on maintaining a viable interconnected population of breeding tigers in Bhutan by 2026.

The new action plan adopts a landscape approach to tiger conservation in the country and envisions inclusion of all potential tiger habitat, many going beyond protected area system.



PHOTO CREDIT: DOPPS, RGOB

# BLACK-NECKED CRANE POPULATION SOARS

Every winter, the country looks forward to its winged visitors from the north. It bemoans their departure at the onset of spring. But celebrated they are, annually through a festival named after them.

In Bhutan, the cranes are believed to be reincarnations of some high Buddhist monks. It is a belief borne out of the tradition of the cranes going around the Gangtey monastery in Phobjikha, Wangduephodrang thrice as they enter the valley in winters and thrice as they return before spring to the wintry grounds of the Tibetan plateau.

The black-necked cranes have struck a chord in the Bhutanese hearts. Perhaps it has to do with the cultural belief that has played a critical role in protection of these birds.

Its growing numbers is an indication.

Since the first time the country began maintaining records of the crane population by counting each individual from a vantage point in the late '80s, with financial assistance from WWF, the number of cranes flying into the country has been on a steady rise.

From just 370 cranes between 1986 and 1987, the number has soared to an impressive 609 in 2016. In the last 30 years of counting, its population has grown by almost 240.

PHOTO CREDIT: WWF BHUTAN/ CHENING DORJI



HABITAT AND DZONGKHAG	ADULT	JUVENILE	TOTAL
Phobjikha, Wangduephodrang	403	54	457
Khotokha, Wangduephodrang	14	0	14
Bumthang (Tang and Chumey, Chokhor)	22	3	25
Lhuntse (Dungkar)	2	2	4
Bumdeling (Trashiyangtse)	98	9	107
Gangkha (Trashiyangtse)	2	0	2
<b>TOTAL</b>	<b>541</b>	<b>68</b>	<b>609</b>

2007

# A WORLD-CLASS ENVIRONMENTAL INSTITUTE

With a good number of publications and research works to its name, Ugyen Wangchuck Institute for Conservation and Environment (UWICE) in Bumthang is today, the country's centre for research and policy dialogue in conservation and environmental sciences.

But to get here, the institute saw some of the grueling early days since its establishment in 2004.

Although it bore immense historic significance being established in one of the residences of the first King Ugyen Wangchuck in Bumthang and to be commemorated in celebration of 100 years of monarchy, the challenge was immense.

Structures were falling apart, the land remained unregistered and finding right people to build the team was daunting as government held on to "good" people. But the biggest challenge was fund raising.

Coming to the rescue then was WWF Bhutan program that assisted the institute in connecting with MacArthur Foundation, which donated USD 1M.

The structures were rebuilt, institutional collaborations began, faculty was trained and facilities, along with one of the best libraries in the

country, were put in place.

Since then, besides a number of researches and some of their subsequent publications, capacity in Bhutanese environmental researchers greatly improved. The institute also offered a yearlong certificate course in environment, forestry and conservation, among others.

Founding director of UWICE, Dechen Dorji, who is now the WWF country representative, said they started with aspirations for the institute to become world-class environmental centre, in the region to begin with.

He said an institute like UWICE can position Bhutan as a conservation leader in the world.

"In terms of conservation vision, Bhutan is far ahead," he said, adding within that vision there had to be certain policies that must keep evolving and for that to happen, good data and information were imperative.

"So UWICE is one place that would fit well in offering solid information and data," he said.



UWICE staff assessing high altitude wetland biodiversity  
PHOTO CREDIT: UWICE BHUTAN

2008

# CO-MANAGING THE LARGEST PARK

Bhutan's largest protected area, the Wangchuck Centennial National Park established in 2008 as a tribute to the Wangchuck Dynasty, is the first park in the country to be co-managed by WWF.

WWF played a key role in the formation of the park, Bhutan's 10th protected area, considered a microcosm of the country's rich biodiversity, abundant water resources, varied geographical features and immense cultural wealth.

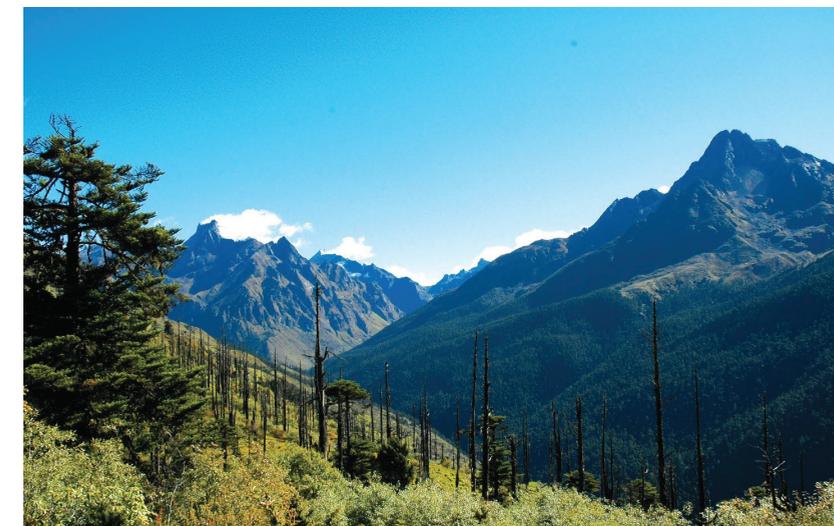
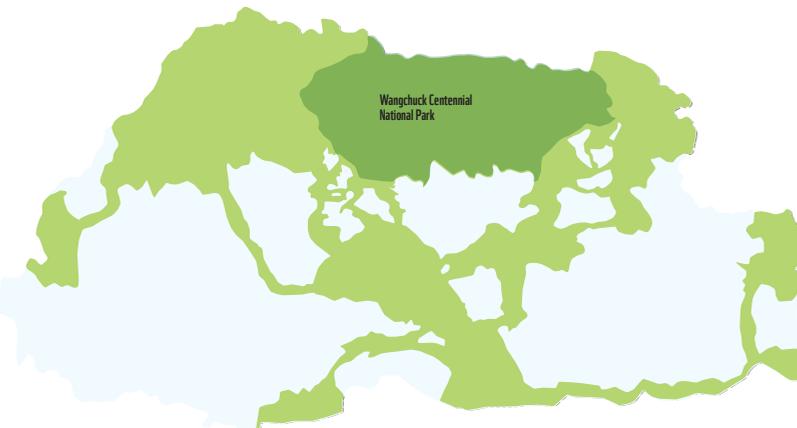
Spanning 4,914 sqkm across Bumthang, Lhuentse, Wangdue and Gasa, a total of 693 species of vascular plants, 39 mammal species, 250 bird species and 42 species of butterfly, which are rare, endangered and endemic to the region, have been recorded in the park.

It also contains the headwaters of the country's four major river systems of Punatsangchhu, Mangdechhu, Chamkharchhu and Kurichhu and various middle Himalayan ecological biomes, ranging from blue pine forests to alpine meadows at altitudes 2,500m to 5,100m.

The co-management of the park is focused on conserving the high altitude wetlands and water towers, preserving its unique faunal and floristic biodiversity and preserving and promoting the culture, tradition and livelihoods of nomadic herders.

Co-management has provided an opportunity for the royal government to draw on the expertise in the WWF network to fill in capacity gaps. Eco tourism initiatives have been undertaken with local communities and in research, one major achievement was the study of the snow leopard population. Also, for the first time, climate change was integrated into park management plan.

Wangchuck Centennial National Park



# TONING DOWN THORTHORMI

Climate change poses new challenges to existing approaches to biodiversity conservation, in terms, especially of habitat loss to alter species distribution within protected reserves.

Preempting such challenges in future, going beyond their traditionally prescribed boundary of conservation of Bhutan's ecosystem, WWF Bhutan recently initiated a new program – WWF's Climate Change – with focus on mitigation, adaptation and primarily mainstreaming climate change adaption into conservation planning.

As part of its mitigation program, one of the projects WWF Bhutan engaged in was providing infrastructural support to technical team responsible for lowering Thorthormi Lake in Lunana in 2009.

Silently swelling some 4,500 metres above sea level at the country's northern

fringes, the climate-induced disaster was an impending threat in the making for farming communities living by the river banks of Phochhu, downstream.

The government then had decided to lower the burgeoning glacier-fed lake by at least five metres, which entailed mobilising 360 people from across the country for almost three months to manually drain water and clear debris from the lake for Nu 500 a day.

The end of the work that began in 2009 reduced Thorthormi water levels by 3.68m. More than 6,000 cubic metres of boulders were excavated and removed from the lake.

Catching them young, WWF also initiated education programs on impacts of Climate Change through youth related activities.

Locals engage in mitigating Thorthormi lake in Lunana



PHOTO CREDIT: WWF BHUTAN

2011

# TRANSBOUNDARY CONSERVATION

One of the great trans-boundary conservation models in Southeast Asia, the Trans boundary Manas Conservation Area (TraMCA), was conceptualised in 2011 as a larger space connecting protected areas of southeastern Bhutan with that of northeastern India.

The Indian Manas Tiger Reserve and Bhutan's Royal Manas National Park form the core of this 6,500 sqkm space in the eastern Himalayas, home to tigers, elephants, rhinos,

pygmy hog, bengal florican and more than 1,500 other species of mammals, birds and vascular plants.

In 2012 WWF brought together stakeholders from Bhutan and India to develop a joint vision and action plan to address threats of long-term conservation in this trans-boundary space. Some key objectives were to reduce human-wildlife conflict by 2018, halt all wildlife habitat loss and stabilise

wild population of priority species by 2020.

In the past few years, the area of cooperation has extended to Phibsoo Wildlife Sanctuary, Jomotsangkha Wildlife Sanctuary and Sarpang Forest Division on the Bhutan side. On the Indian side, it extends to Ripu Chirang Reserved Forest in the west to Khalingduar Reserved Forests in Eastern Assam.

Royal Manas National Park in the southern foothills  
PHOTO CREDIT: WWF BHUTAN/PHURBA LHENDUP



2012

## THREE RAMSAR SITES FOR BHUTAN

Scenic marshland that carpets the Gangtey and Phobji valley in Wangduephodrang was put on the map once again, as it became country's third and the largest Wetlands of International Importance (Ramsar Sites) in June, 2016.

The site that is known for being winter home to almost 300 vulnerable black-necked cranes accommodates diverse species of shrub and herbs well moistened by passing brooks. Other globally threatened species are also known to exist in the valley, which holds the important water source for villages within and downstream.

With this, the total surface area of Ramsar Sites in the country is 1,225 hectares. It includes the first two in Bumdeling, Trashiyangtse and Khotokha, Wangduephodrang demarcated in 2012, the year Bhutan ratified its entry into the convention.

Ramsar Convention is a mission geared towards protection of wetlands, recognised as the most diverse and productive ecosystem.

In working towards the country's accession into the convention, WWF Bhutan worked closely with Watershed Management Division, Ministry of Agriculture and Forests, the agency that took the lead.

WWF Bhutan was involved in expediting the process as it supported the division with a series of stakeholder meetings and wetland researches.



Phobjikha valley is the third Ramsar site

1,225  
Ramsar sites in hectares



Red Pandas are hunted for their fur  
PHOTO CREDIT: WWF BHUTAN/DOFPS

## DATA BANK OF ILLEGAL ACTIVITIES

The Bhutan Forest & Wildlife Enforcement Database (BhuFED), an online database of illegal forest and wildlife trade and activities in Bhutan was developed with assistance from WWF.

The website, managed by the forest and parks services department, is a standard reporting system for all field offices. It provides information on types of illegal activities, place of occurrence, list of offenders and penalties levied.

The database steps away from the conventional management of forests and other natural resources and provides easy access to information and data. The database is crucial in identifying areas that need enhanced monitoring to bring down occurrences of illegal activities and also helps craft policies and decision-making, critical to conservation efforts in the country.

2012

# MANAGING WATER RESOURCES

While understanding that water resources was imperative to flourishing biodiversity, food security and development, it was the first time in 2012 that a plan was drawn for a river basin management in the country.

WWF Bhutan worked with the government and Prince Albert II Foundation (PAIIF) to develop an Integrated River Basin Management (IRBM) Plan for Kholongchhu in Trashiyangtse, Eastern Bhutan.

The plan ascertained a practical approach that ensured participation of community, local leaders and key stakeholders to discuss, implement and manage freshwater resources.

In the process, it helped maintain and improve water availability as well as quality of drinking water for local communities. It was also evident that water management boosted forest covers, nourished habitats of birds, mammals and other life forms.

WWF Bhutan, PAIIF and Living Himalayas Initiative also worked together for forest officials and community leaders to share experiences and draw lessons from Nepal, a country that had success stories to share since it embraced the approach in 2008.



Kholongchhu in Trashiyangtse, where an integrated river basin management plan was drawn up in 2012

PHOTO CREDIT: WWF BHUTAN/ TENZIN RABGYE

 2013-14

# INVENTORY FOR INVERTEBRATES

Despite making up the most of biodiversity sphere, researches and documents on invertebrates are few in the country.

Lack of information on the taxonomic groups such as spiders, insects, worms and mollusks presented a sketchy picture of Bhutan's biological reserve.

Realising the need to record the species, Ugyen Wangchuck Institute for Conservation and Environment (UWICE), Bumthang and National Biodiversity Centre (NBC), Thimphu, came together to work towards it.

Series of trainings, funded by WWF Bhutan, began since 2012 to instill interest, develop capacity and build inventory for invertebrates.

In 2014, stakeholders were brought together to prepare for the national invertebrates inventory. Methodology, site selection, taxonomy groups and post inventory activities were discussed.

The project amounting to Nu 9.576M will be implemented from November 2014 to June 2017.



 2014

# TIGER OF THE RIVER

The golden mahseer, best represented as *sernya* in Bhutan, is one among eight auspicious signs.

This golden fish supposedly symbolises a state of fearlessness and freedom as it migrates from one place to another freely and spontaneously.

In the serene rivers of Bhutan and free of indiscriminate fishing, such has been the story of this game fish in the country until the mega hydropower projects happened.

The last decade has been about harnessing 10,000MW of the country's hydropower, especially in view of receding glaciers believed to be triggered by climate change and an eager market in India. A project undertaking of such proportion, conservationists believe, poses potential threat to the fish that swim up Bhutanese rivers in winters to spawn.

Imagine the impending threats to the fish in terms of habitat fragmentation and degradation when dams are actually constructed along Bhutanese river systems.

This has prompted the country's first scientific study on the conservation status of the golden mahseer population in the country.

The omnivorous freshwater fish is said to be an important conservation indicator of the overall health of the river systems.

With WWF funding, forests and park services department of the agriculture ministry began a scientific remote radio telemetry study on the fish to understand its habitat, migratory patterns and establish a baseline data for the mahseer population.

More than fifty golden mahseers have been surgically implanted with radio transmitters and released into the Manas river basin that covers Mangdechhu and Dangmechhu rivers.

Just so the fish is not rendered a mere symbol, the outcome of the study, it is hoped, will guide preparation of Bhutan's first conservation strategy for the fish and draw up ways to increase its population in the Bhutanese river systems.



# FIRST NATIONWIDE SNOW LEOPARD SURVEY

As polar bears are to the western nations, snow leopards are to the Himalayas. They are a representation of some of the highest places on earth.

Likewise, as it is for the polar bears, climate change is one of the biggest threats to the snow leopards. The floors beneath them are melting and with it their habitats.

A scientific monitoring of the snow leopard is crucial to timely inform adaptive strategies that call for partnership among agencies operating beyond geographical boundaries.

To begin with, it was important to have an estimate of the snow leopard population, especially in the country, as it is in any other countries they are found. Their presence indicates the health of the high-mountain ecosystem.

Wildlife Conservation Division initiated the nation-wide snow leopard survey in August 2014 to develop a baseline data on key species in the country.

The survey was first of the two phases that focused on study of the animal's population through its signs and its main prey base, the blue sheep.

The Bhutanese government-supported survey was co-financed by World Bank, WWF, Bhutan Program and KLCDI-ICIMOD, in the hope to draw up a landscape-level conservation management for the big cats found in the country.



The phantom of the passes in JDNP

# REIGNING THE PEAKS

In Bhutan, accounts of encounters with snow leopard are as rare as the elusive big cat itself.

Roaming the country's untamed peaks, the snow leopard is sometimes referred to as the "phantom of the passes", seldom spotted within human habitation. Little wonder it is that cases of livestock predation by the cat in the northern communities is yet to be heard of.

Given this highly elusive disposition of the animal, combined with their habitat – distant and frigid – gaining a more accurate population estimate of the snow leopard has always been a challenge, until recently.

In 2016, the country conducted its first

nationwide snow leopard survey using camera traps in addition to the sign and prey base ones. In the outcome that was announced on the day celebrating the cat, sometime in October 2016, the country recorded 96 of the endangered big cats roaming the country's northern rims between 3,400m and 5,000m above sea level.

A team from forest and park services department conducted the survey, which was funded by WWF and other global players in the field. It entailed more than a month of surveying snow leopard tracks and taping 221 camera traps in some of country's highest and farthest peaks.

Two female snow leopards were also collared in Jigme Dorji National Park with locals helping the team determine best spots the cats were likely to be found. WWF-Bhutan and Finland provided the financial support for the first ever collaring of the snow leopards.

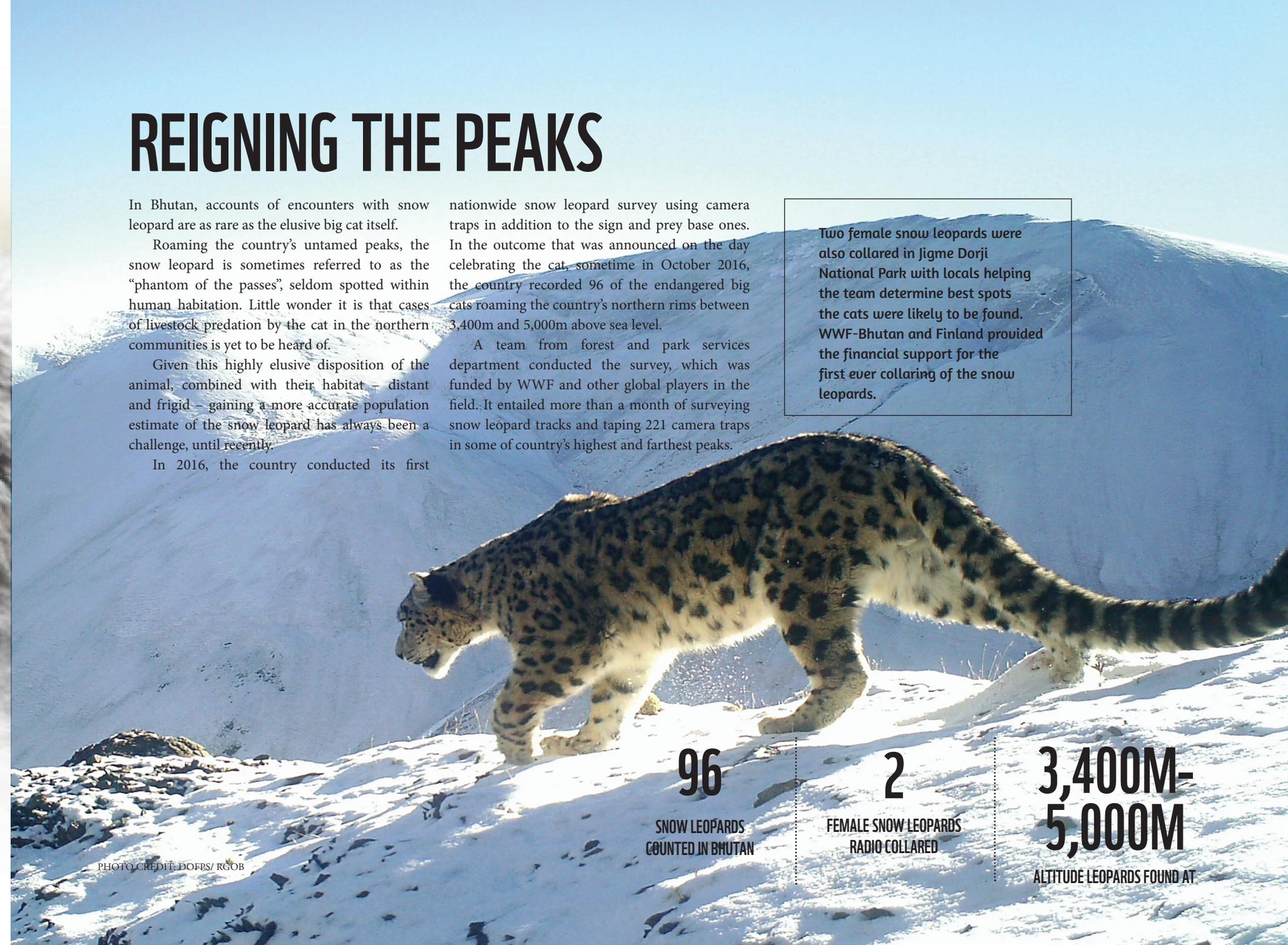


PHOTO CREDIT: DOFBS/ RGOB

96

SNOW LEOPARDS  
COUNTED IN BHUTAN

2

FEMALE SNOW LEOPARDS  
RADIO COLLARED

3,400M-  
5,000M

ALTITUDE LEOPARDS FOUND AT

## DOING IT SMART

Accompanying forest rangers across the country in protecting wildlife from those that mean harm is one loyal weapon that has proven amicable and handy over time.

It is a critical anti-poaching tool called SMART (Spatial Monitoring and Reporting Tool) introduced in all field offices starting June 2016.

Before that, the tool had proven its worth in the Royal Manas National Park, where it was first experimented through WWF support in 2013.

“When you go on a patrol, you punch in data from where you are, of what you have seen, the details of species and other indicators,” conservation specialist Dr Sangay Wangchuk said. The report generated was logged in on a Global Positioning System (GPS).

“It took right information into the hands of those fighting on the frontline at the shortest time,” he said. “For rangers, it is about doing the same thing but in a digitalised and much effective way.”

Besides helping curb poaching, it identified priority areas to place scarce resources.

Following the success in the Manas park, SMART was launched in all protected areas and territorial divisions through an executive order from Ministry of Agriculture and Forests.

Foresters are introduced to the SMART anti-poaching tool  
PHOTO CREDIT: WWF BHUTAN/ TENZIN RABGYE



# CLIMATE SMART VILLAGE

It is pertinent for far-flung communities to adapt to climate change so they increase resilience and continue living in a sustainable manner.

As part of a climate smart villages initiative, Shawa in Lhuentse was adopted as a pilot in December 2015.

The village situated at an elevation of 2,175m and consisting of 26 households belonging to 250 inhabitants, demonstrates climate smart technologies and activities that are relevant to the community.

The focus of the program was on climate features such as weather, precipitation, land use pattern, crop production and sustainable water management.

As part of the initiative, Shawa village built a six-kilometer electric fence, three poly house, a community forest and a fence around its only water source. Within the 0.5-acre space around the source, plantation was carried out for stability and protection.

The poly houses were built so the community could produce vegetables during off-season. These houses produce vegetables on a large scale and help fetch additional income for farmers.

For the community forest, a seven-acre barren land was fenced for plantation of trees that have economic value, such as champ, walnut, betula and cypress.

To reduce incidents of human-wildlife conflict, the agricultural fields were electric-fenced.

The climate smart technologies and activities are to be replicated in other villages.



Villagers construct a poly house at Shawa, Lhuentse  
PHOTO CREDIT: WWF BHUTAN

# A ROARING 103 TIGERS

About 103 tigers (*Panthera tigris tigris*) were wandering the wilderness of Bhutan two years ago.

They covered vast areas from the southern foothills of about 150 metres to northern peripheries of 4,000 metres. While they were mostly concentrated in north-western, central and south-central regions, only four reigned the whole of eastern region.

It was also the time when tigers were found for the first time in protected areas like Sakteng, Jomotsangkha, Phibsoo Wildlife Sanctuaries and Wangchuck Centennial National Park. Beyond, forests in Tsirang, Gedu, Bumthang and Samdrupjongkhar also sheltered tigers.

Of the districts, Zhemgang with 17 adults and three cubs had the highest number of tigers.

These were confirmed by the National Tiger Survey, which Department of Forest and Park Services carried out from March 2014 to March 2015. WWF Bhutan was one of the major partners that made the survey of that scale possible for the first time.

The figure arrived at is 25 tigers up from the last survey carried out in 1998, which revealed 87 tigers. The national team that carried out the survey using Spatial Capture-Recapture estimation method, fixed 1,129 cameras across the country.

Wildlife officials said recounting the tigers was a crucial step towards taking appropriate actions to protect them, more so because earlier figures appeared exaggerated in absence of advanced methodologies and equipment.

The completion of the survey was expected to prompt better understanding of the habitat patterns, learn about recent threats and causes that need to be tackled.



© Department of Forests and Park Services

# FIRST ZERO POACHING SYMPOSIUM

At a time when illegal wildlife trade is growing better organised, more sophisticated and still expanding, to leave the responsibility of combating it to wildlife and forest authorities alone is inadequate.

It calls for better coordination among agencies, who should be in a position to handle the cases together, to put an end to poaching and subsequently illegal trade.

Realising the importance, in September, 2016, WWF Bhutan brought together experts and partners from the government, IGOs, NGOs and civil society for the country's first-ever zero poaching symposium.

It intended to develop National Zero Poaching Strategy that would address the

growing threats of poaching and illegal wildlife trade in the country and beyond.

At the symposium, experts highlighted the zero poaching toolkit developed using six key pillars of assessment, technology, capacity, community, prosecution and co-operation.

Experts also covered in detail country's wildlife poaching scenario, gaps in achieving zero poaching, priority sites in Bhutan and best practices including latest technology like SMART, that could prove effective in achieving the goal.

The two-day symposium succeeded in bringing all stakeholders on one page, while striking an understanding of the need to work together.

The most commonly poached animal the Musk Deer  
PHOTO CREDIT: WWF BHUTAN/ DOPPS





 2016

## YOUNG AND GREEN

Getting youth interested in a cause can go a long way and WWF Bhutan has, since its inception, worked on generating interest and engaging youth in conservation works.

Sherubtse College's Singye Karm nature club was introduced with that notion during the early years of WWF Bhutan. Singye Karm continues to be a popular club, involving and educating students about garbage, afforestation, bird watching and conservation. Club members often visit the habitat of the endangered black-necked crane in Bumdeling, Trashiyangtse. They also help in the rehabilitation of crane roosting grounds the monsoons damage almost every year.

In recent years, WWF has vigorously reached out and networked with youth, nurturing them to become green citizens.

A science centre was introduced in Dungkhar primary school, Lhuntse. Children can learn and discuss climate change and understand the importance of co-existing and interdependence in an environment.

In September 2016, Young Bhutanese Birders (YBB), the first national youth birding club was launched. Children between 11 and 18 years connect with bird experts and nature enthusiasts to learn about Bhutan's rich biodiversity and its conservation values.

To support youth interest in environment, conservation and climate change, while also building capacity, the Russell E Train Education for Nature Program (EFN) scholarship, provides scholarships to study environmental science at the Royal Thimphu College.

Young Bhutanese at birding  
PHOTO CREDIT: WWF BHUTAN/ CHENING DORJI

# SAFE RESOLVE TO AN ANCIENT CONFLICT

Livestock predation and crop damage by wildlife and their resultant tension with farmers in remote villages of Bhutan has always been a staple.

Although this continuing conflict can be seen as an indication of the country's success in its conservation efforts, it has occasionally led to loss of life of animals.

While there were no methodical approaches to resolve the issue in the past, the strategy sketched out in 2008, following growing instances of human-wildlife conflicts across many far-flung farming communities, had shortcomings.

According to agriculture officials in the field, responses to human-wildlife conflict were ad hoc, and reactive, meaning it lacked preventive measures, while responses followed long after the issues had emerged and gone. Rooted to isolated focus on the symptoms of conflict, the measures lacked coherent long-term direction.

Under WWF supported Human Wildlife Safe Systems, a concept designed by Dr Ashley Brooks of WWF Tiger Alive Initiative, the approach considers long-term goals of ensuring safety of human and their assets, while securing wildlife habitat and the animals.

The first phase of the safe system project, which began and ended in 2016, saw 65km of solar/electric fencing spanned, covering 231 households in 12 villages under six gewogs in Mongar, Trongsa, Wangduephodrang and Zhemgang for Nu 3.9M.

The next phase, which will launch on an ambitious scope of going nation-wide will begin in 2018.

First phase of Safe system was carried out for Nu 3.9M  
PHOTO CREDIT: WWF BHUTAN/ SITHER TENZIN

## Among many, safe system looks at:

- **Creating response teams to instantaneously act in the face of potential, or actual conflict situation. This ensures no, or little risk to safety of animals, people and their assets**
- **Reducing conflict through asset management to improve systems of maintaining barriers for crops, livestock and wildlife**
- **Insurance schemes to protect people living near protected areas from financial loss from conflict**
- **Alternative livelihoods to offer people options for income to reduce possibility of conflict**
- **Innovation funds to help foster new thinking and local ideas around alternative livelihoods and solutions to reduce risk, while offering local people opportunities**
- **Conflict mapping to determine areas with highest conflict to prioritise rolling out of the safe system approach**

**65km**  
OF SOLAR/ELECTRIC FENCING

**231**  
HOUSEHOLDS COVERED

# ASSESSING MANAGEMENT OF PROTECTED AREAS

A tailor made self-assessment tool, Bhutan Management Effectiveness Tracking Tool plus (METT+) was initiated in 2014 to carry out a system wide assessment of its protected areas, the results of which were launched on August 29, 2016.

The results showed that all 10 protected areas, amounting to 51.44 percent of the country, were well managed. Some of the limitations identified were resources, both financial and technical, and gaps in monitoring and research data.

The information gathered will give, for the first time, a detailed and definitive picture of the status, trends and management needs of Bhutan's protected areas system.

These gaps limit the ability to understand the impact of conservation in Bhutan, react to changing conditions and to adapt management to improve efficiency and effectiveness.

Bhutan METT+ also provides government with an information base about each protected area from which progress towards Bhutan for Life can be measured. It can also help provide background data for future implementation of conservation assured ITiger Standards (CAITS) accreditation approach.

Bhutan METT+ was initiated in partnership with the Bhutanese government through technical expertise from Equilibrium Research (UK). The Bhutan Trust Fund for Environmental Conservation also provided assistance.



PHOTO CREDIT:  
WWF BHUTAN/ DECHEN DORJI/WWF BHUTAN

# APPRECIATING ECOSYSTEM SERVICES

Throughout history, Bhutan has been known for its natural capital, the benefits of which its people have been reaping for generations.

Although benefits derived from the country's rich natural resources have been tacitly acknowledged, a real value of, what is called, the ecosystem services (basically benefits people profit from ecosystems) remain unquantified.

A study on ecosystem services that Bhutanese benefit from was long overdue and the first one was undertaken in May 2015 by WWF Bhutan, to be told through watershed management in Chamkharchhu basin, Bumthang. A study of the sort was most relevant for supporting a hydropower PES (payment for ecosystem services) scheme, an analysis of which would help identify priority areas for conservation and restoration activities that are of particular interest to hydropower facilities.

Chamkharchhu was identified for study considering ongoing works on developing a management plan in one of its watersheds and also considering the planned hydropower project in its sub-basin.

A preliminary assessment of the study

revealed that all watersheds in Chamkharchhu basin were in conditions either pristine or natural. Additional studies, it is believed, would provide more information for development agencies and policy makers to use with regard to ecosystem goods and services that watersheds provide. An informed planning in future, especially in terms of identifying management interventions and areas for development, is what the study is intended to contribute towards.

Similar studies carried out in countries within the region have spurred radical changes in areas of development.

Myanmar is using this information to develop a green economy approach for sustainable use of natural resources, now integrated into the country's plans and policies. Indonesia has also embarked on spatial planning for some of its critical landscapes to protect key species and watershed.

Valuation of natural capital following such studies in India and Nepal has resulted in development of payment for ecosystem services (PES) mechanisms for watershed protection in Himachal Pradesh and parts of Nepal.



All watersheds in Chamkharchhu basin are in conditions pristine or natural  
PHOTO CREDIT: WWF BHUTAN



# BHUTAN FOR LIFE

To maintain and protect for perpetuity Bhutan's five million acre network of parks and wildlife corridors, the royal government, in partnership with WWF, launched Bhutan For Life (BFL) in July 2014.

Bhutan For Life is an innovative funding scheme that aims to provide a sustained flow of finance for a certain number of years (around 14) until the Bhutanese government takes over the cost without foreign assistance.

It will involve a variety of donors and the current fund raising goal is USD 35M to USD 45M. The royal government and WWF lead the fund raising effort for BFL.



The initiative comes at a time when outside aid to Bhutan is decreasing, while pressure to develop is increasing.

Bhutan For Life will strengthen enforcement and management of protected areas, diversify eco-tourism activities, protect and monitor wildlife and biodiversity and support people in protected areas through job creation and income-generating opportunities.

Potential sources for internal funding have been identified as green tax on vehicles, payment for eco system services from hydropower and revenue from eco-tourism in protected areas.

The ultimate goal of Bhutan For Life is to allow Bhutan to maintain its commitment to conservation and sustainable development in a self-sustaining way.



Prime Minister Tshering Tobgay speaks at TED Bhutan For Life at Vancouver TED talk in August, 2016



PHOTO CREDIT: WWF BHUTAN/ KARMA JIGME

# IN TIMES TO COME

WWF would like to convey our immense gratitude to all our partners in the government, for their inspiration and unwavering support and friendship, and giving WWF the unique privilege to be a part of Bhutan's conservation journey.

WWF's relationship with Bhutan began with a "small engagement" - Manas.

That was in the '80s.

In the course of a developing partnership, this relationship expanded into several national parks, the last being the Wangchuck Centennial National Park in 2008, the largest, in celebration of nation's 100 years of monarchy.

Since 2013, it has been and will continue to be about securing the parks for eternity – Bhutan For Life – as the slogan speaks for itself.

To that avail, WWF Bhutan is considering support to addressing some pressing issues in conservation today and those impending ones.

WWF country representative Dechen Dorji said the government had already made policies and regulations and the challenge now was really to make a difference at that level, in education, in economy and sustainable development.

The organisation will play a more important role in supporting Bhutan's sustainable economic growth through strategic partnerships and investments for the purpose of protecting the country's natural capital.

In a democracy, priority on conservation will hit the floor when resources are divvied up among

politicians for individual constituency developments, gauging from the trend, roads, water supply and irrigation taking precedence.

"We will make sure conservation does not suffer, so that we continue to protect our animal species and our environmental heritage by bringing funds and expertise," so affirmed Dechen Dorji the country's commitment to conservation.

The country's longstanding strife to changing the traditional outlook of "human-wildlife conflict to human-wildlife co-existence" particularly in protected areas, the country representative believes, can be resolved through innovative designs, technology and strategic investments.

"Modernity and global collaboration offers new ways to rediscover our connection to ecosystems, in ways that can improve livelihoods and build economies with minimum ecological footprint," he said.

In mind, for now, can be through creation of meaningful jobs – green jobs – for people residing in the parks. "Parks can be drivers of growth," Dechen said.

A national WWF office, but with global network will also be what WWF Bhutan program vies for in the years to come. The organisation today, is a program office under the aegis of WWF US office, a development partner with the government.

Engaging youth, civil society organisations and private sector in addressing climate change will be another areas of focus. A green economy is in picture.

# The Team 2017







**WWF<sup>®</sup>**