



ANNUAL
REPORT

BHUTAN

2012

On the trails of the Ghost of Himalayas

WWF-Bhutan Program



Prepared by WWF-Bhutan Program

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MESSAGE FROM THE COUNTRY REPRESENTATIVE

Adapting to a changing environment.



Kinzang Namgay

It is becoming increasingly challenging to conserve Bhutan's pristine natural environment as it sets out on a path to development.

On one hand, the healthy and fragile ecosystems need protection from various development initiatives while on the other hand, communities living within these ecosystems have equal right to development and modern amenities. Challenges mount as we aim to strike a balance between conservation and development.

It is to maintain this balance, that WWF-Bhutan has taken a step forward to involve communities in conservation based on Bhutan's Gross National Happiness philosophy of sustainable development.

We believe that unless the communities develop a strong sense of ownership for the environment around them, external efforts alone may not suffice.

Towards this, WWF-Bhutan has been actively engaged in working with communities living in and around protected areas initiating sustainable livelihood programs that reduce pressure on natural resources.

It is our belief that such initiatives will help inculcate a strong sense of conservation ethics in these communities.

In the last 12 months, WWF-Bhutan has been through some major events.

A survey was commissioned to study some of the most critically threatened biological corridors. Issues that surfaced from this study were effectively used to lobby with the government to consider a more conservation-friendly development planning.

Sighting of a tigress with two cubs in a critical corridor confirmed that these corridors are functional. Intensive camera trapping exercise in Royal Manas National Park, one

of Bhutan's most important biodiversity hubs, has shown that this park is home to some 25 Tigers. This, we believe, does not stop here.

Likewise, WWF's Snow Leopard work in Wangchuck Centennial Park, in Northern Bhutan, has confirmed a healthy population of this elusive cat.

In a study area of 632sq km representing 13% of the park surface area, a total of nine different individuals were identified with a healthy population density of 2.31 Snow Leopards per 100 sq km.

This year, WWF-Bhutan has also been able to highlight its role in the international and regional conservation scenario. WWF played a major role when the Royal Government of Bhutan hosted the Climate Summit for a Living Himalaya bringing together leaders from India, Bangladesh, Nepal and Bhutan.

It culminated into a framework of co-operation among these countries. WWF has also been instrumental in getting the government to join the Ramsar Convention on Wetlands.

As in the past, 2012 was a wonderful year for conservation work in Bhutan. I would like to thank the Royal Government, especially the Ministry of Agriculture and Forests, Department of Forests and Park Services for all their support.

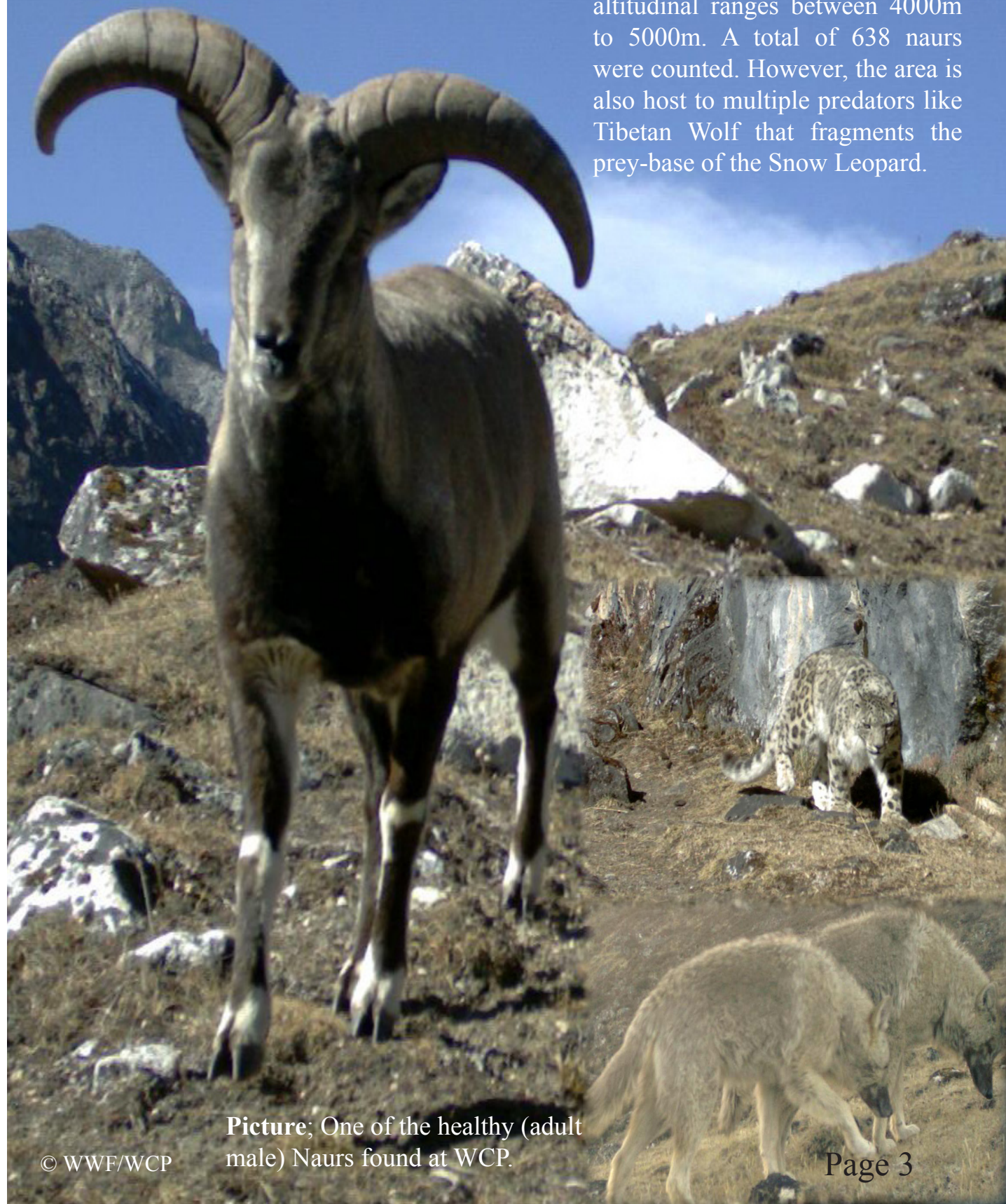
More so, without the support of the WWF network, and other conservation partners and supporters, our work would not have made any headway. Thank you one and all. We look forward to another great year ahead.


COUNTRY REPRESENTATIVE

Species

Snow Leopard prey-base survey

A growing population of Naur was found in Wangchuck Centennial Park (WCP) mainly distributed at altitudinal ranges between 4000m to 5000m. A total of 638 naurs were counted. However, the area is also host to multiple predators like Tibetan Wolf that fragments the prey-base of the Snow Leopard.



Picture; One of the healthy (adult male) Naurs found at WCP.

Three adult Snow Leopards on camera

Along with it, some rare species such as the Pallas' Cat was also sighted.



© WWF/WCP

For the first time in camera trapping surveys, three adult Snow Leopards were captured in a single frame, walking in a row, at the heart of the Wangchuck Centennial Park.

The three Snow Leopards were first caught on camera in December 20, 2011. The group was again sighted on March 10th and March 17th this year.

Camera traps were stationed at an elevation of 3975 m as a part of a prey-base field survey of Snow Leopards supported by WWF Bhutan Program.

The second phase of camera trapping survey will uncover more about the Snow Leopard presence, distribution and individuals in WCP.



© WCP/WWF

Camera traps also captured the first live pictorial evidence of the *Pallas' Cat* in northern-central WCP.

The International Union for Conservation of Nature (IUCN) has enlisted it as "Near Threatened" because globally, the Cats are disappearing from most of their former ranges.

According to WWF conservation Scientist Rinjan Shrestha, this could probably be the first report on the occurrence of *Pallas Cat* in the Eastern Himalayas.

Safeguarding Tiger habitat in face of development

One of the major challenges that Thrumshingla National Park (TNP) faces today is the proposal to build three additional roads which fall within the core park area. This may impinge on dispersal of large carnivores like tigers.

The Proposed 36 km road from Bumthang, Ura to Ungar, Lhuntse was extensively debated within the government after a joint petition was submitted by the Bhutan Ecological Society, Royal Society for Protection of Nature and WWF-Bhutan to the Prime Minister on 19th August, 2011.

The petition expressed environmental concerns over the proposed road, a core habitat for the *Royal Bengal Tigers*. Finally, the government agreed to carry out an Environmental Impact Assessment to be presented to all concerned agencies including NGOs for further deliberations. A clear zonation plan for the park has also been proposed.

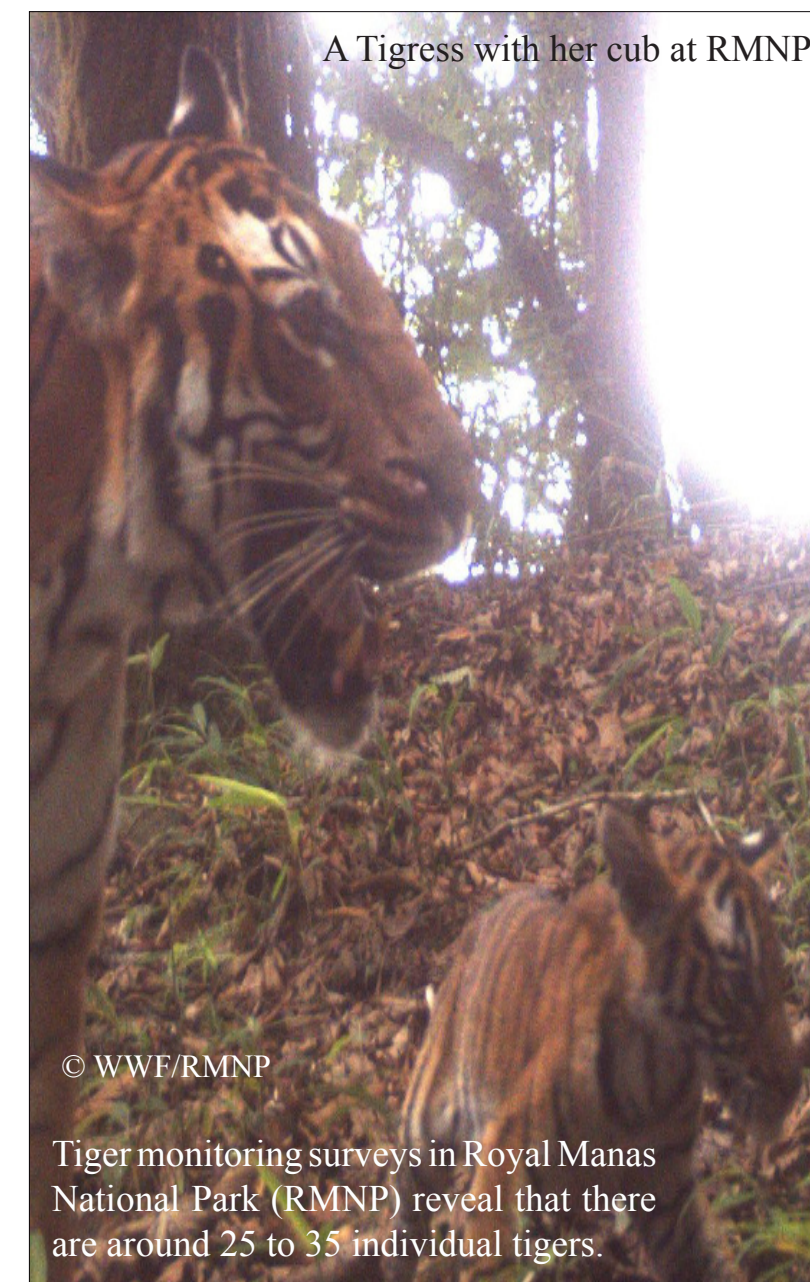
Tiger spotted at a Snow-Laden JDNP mountain

© WWF/JDNP

Meanwhile, 20 Thrumshingla National Park (TNP) staffs were trained on Tiger and its prey-base monitoring. They are now able monitor Tigers independently using camera traps.

Although TNP was the first Park in Bhutan to have photographic evidence of Tigers, tigers were not captured during the recent camera trap survey done from September 2011 to June 2012. However, some 18 mammals and six rare species including vulnerable or little-known species have been recorded.

Rare species such as the Clouded leopard (*Neofelis nebulosa*), Common Leopard (*Panthera pardus*), Marbled cat (*Pardofelis marmorata*), Golden cat (*Catopuma temmincki*), Leopard cat (*Prionailurus bengalensis*), Asian Black Bear (*Ursus thibetanus*), Yellow-throated Marten (*Martes flavigula*) and Asiatic wild dog (*Cuon alpinus*) were recorded during the survey. These are among the first photographic evidences of some species at TNP.



A Tigress with her cub at RMNP

© WWF/RMNP

Tiger monitoring surveys in Royal Manas National Park (RMNP) reveal that there are around 25 to 35 individual tigers.

A biological corridor survey of Royal Manas National Park (RMNP) and Phibsoo and Khaling Wildlife Sanctuaries brought forth issues like corridor fragmentation due to resettlement programs, industrial development and poaching.

The findings were made known to concerned authorities which helped relocate rehabilitation programs in the corridor to ensure some natural forest is kept aside for wildlife movement.

Preliminary survey results indicate that the corridor joining RMNP and Phibsoo is ecologically vibrant as the sign surveys found out presence of tigers. This was authenticated by camera traps which have captured a tigress with two cubs.

Landscape

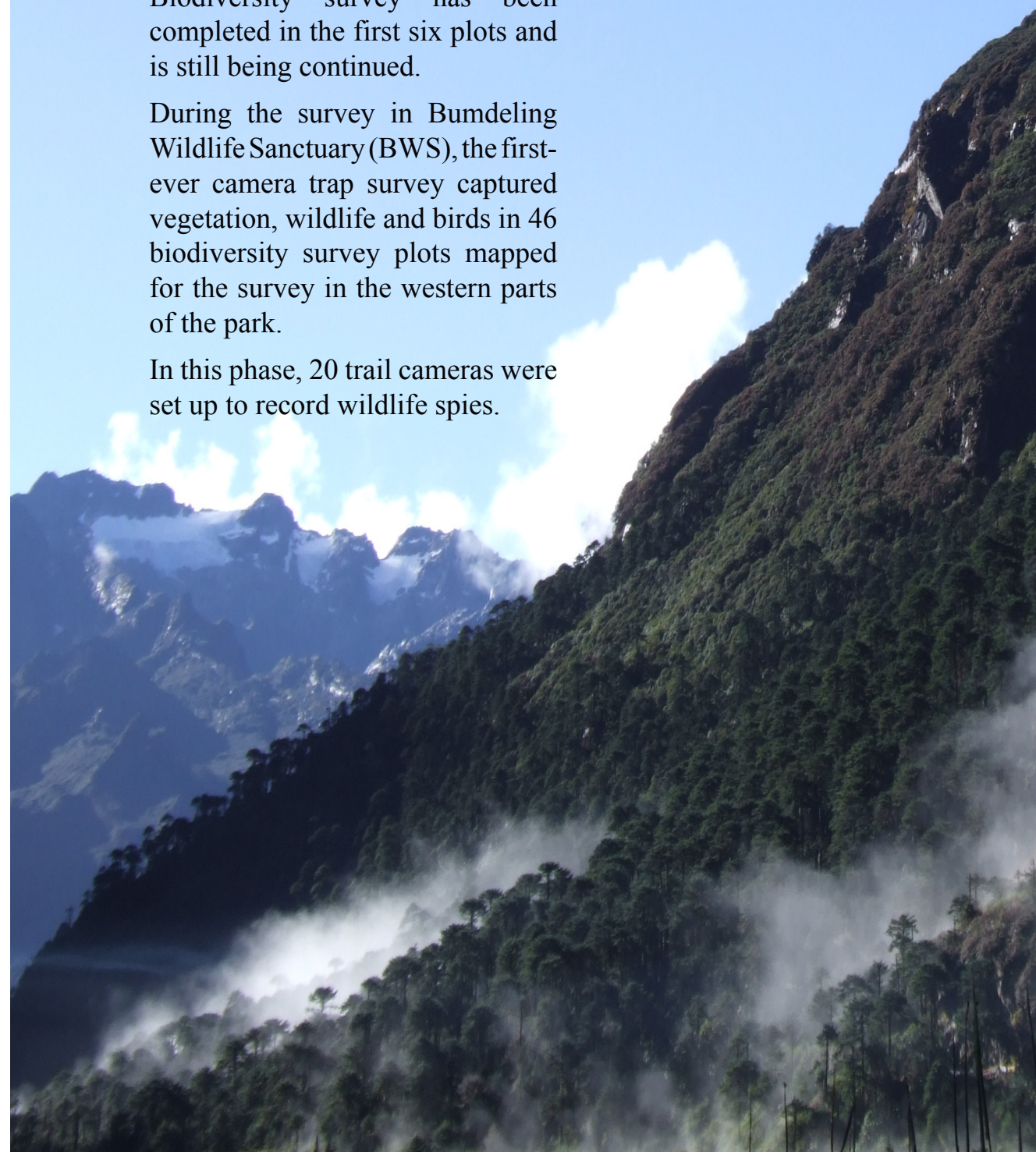
© WWF

Northern Protected Area Complex (NPAC), Bumdeling

Biodiversity survey has been completed in the first six plots and is still being continued.

During the survey in Bumdeling Wildlife Sanctuary (BWS), the first-ever camera trap survey captured vegetation, wildlife and birds in 46 biodiversity survey plots mapped for the survey in the western parts of the park.

In this phase, 20 trail cameras were set up to record wildlife spies.



BWS staff during the survey

© WWF/BWS

Seven officials from Bumdeling visited Thailand's protected areas for capacity building. Through the visit, participants were provided opportunity to experience and learn protected area management strategies and interact with officials and local communities in and around the protected areas.

Staff training has enhanced the capacity to conduct surveys independently and stakeholder consultations prior to the survey have helped inform local communities about the project activities in the area.

Conservation of Northern Protected Area Complex, Jigme Dorji National Park



Around 12 camera traps were set up at various ecological zones in Jigme Dorji National Park (JDNP), particularly in Snow Leopard habitats of Soe, Lingzhi, Laya, and Lunana.

Field workers were trained on rapid survey of predators and prey, setting up and monitoring camera traps, collecting dung and scat samples and gathering other wildlife evidences.

Preliminary surveys of trails, boundaries and ungulate distribution with respect to distance from human settlements were also conducted for management zoning.

Some 1,200 park residents were educated on sustainable natural resources management which engendered in them a sense of ownership of resources.

Park rangers who visited protected areas in Thailand are now committed to incorporate ideas such as developing interpretive signage and implementing smart patrols in JDNP.

Park rangers have also learnt lessons on tiger research and population monitoring using of radio collars and satellite transmitters.

Securing ecological connectivity between NPAC & Greater Manas



This year, the project management has been able to initiate biodiversity and socio-economic surveys which will serve as the basis for developing a conservation management plan.

As number of hydropower projects and farm roads are proposed in Jigme Singye Wangchuck National Park (JSWNP) area, the park staffs are now equipped with technical knowledge to carry out Environmental Impact Assessments for proposed projects.

This will enable the park to provide relevant advice and guidance to contractors and help reduce potential threats to the park.

A climate change vulnerability assessment that was successfully done in Wangchuck Centennial Park is now being replicated in JSWNP as well.

A livestock insurance scheme has been started in Korphu Geog, which has the maximum households in the geog.

Biodiversity and bird surveys were carried out. A mammal survey was also designed and directed in the field by an

expert from the Wildlife Conservation Division of the Department of Forests and Park Services.

The survey was carried out in four phases covering all ecosystem types found within the park. The findings of the biodiversity survey are being compiled and will be one of the main inputs for preparing conservation management plan for the park.



Climate and Biodiversity

Climate Change

WWF was a major partner when Bhutan hosted the Climate Change Summit for Living Himalayas. Environment ministers from Bangladesh, India, Nepal adopted a framework of cooperation.

The framework aims at implementing regional cooperative actions to build resilience to climate change in the southern watersheds of the Eastern Himalayas.

To achieve climate stability and protection of biodiversity and livelihoods, WWF has made it a priority to initiate climate change programs.

As a part of this, the Climate Change Vulnerability Assessment for Wangchuck Centennial Park (WCP) has been completed. The study looks at resource settings in and around the park, assesses the vulnerability of each resource to climate change and recommends appropriate adaptation measures.

The park has 1061 households, 693 different vascular plants, 41 mammals species and 250 different birds. Further, WCP's streams and rivers form the headwaters that feed four major rivers in Bhutan.

Deterioration of ecosystem connectivity and increasing habitat fragmentation are identified as major sources of vulnerability for both terrestrial and aquatic ecosystems.



Study of ecology and values of High Altitude Wetlands (HAW) and their vulnerability

With support of WWF-Bhutan, the Water Resource Department of the Ugyen Wangchuck Institute for Conservation of Environment (UWICE) is now equipped with basic scientific equipments to study limnological characteristics of water. This will enable UWICE to enhance capacity and undertake studies in future.

WWF-Bhutan also conducted a field visit to Noob Tshona Patra in Haa. Noob Tshona Patra has a cultural significance to the people of Haa besides its ecological significance of regulating water flow and the environment. A considerably large area of grazing land near the lakes is used by the migratory Yak herders.

© WWF/UWICE

Freshwater Biodiversity survey

© Phurba

A pilot survey of the Freshwater biodiversity in Wangchuck Centennial Park (WCP) was carried out for macro-invertebrates and fish. The study was conducted in four rivers and their tributaries including Nikka Chu, Mangde Chu, Chamkhar Chu and Kuri Chu.

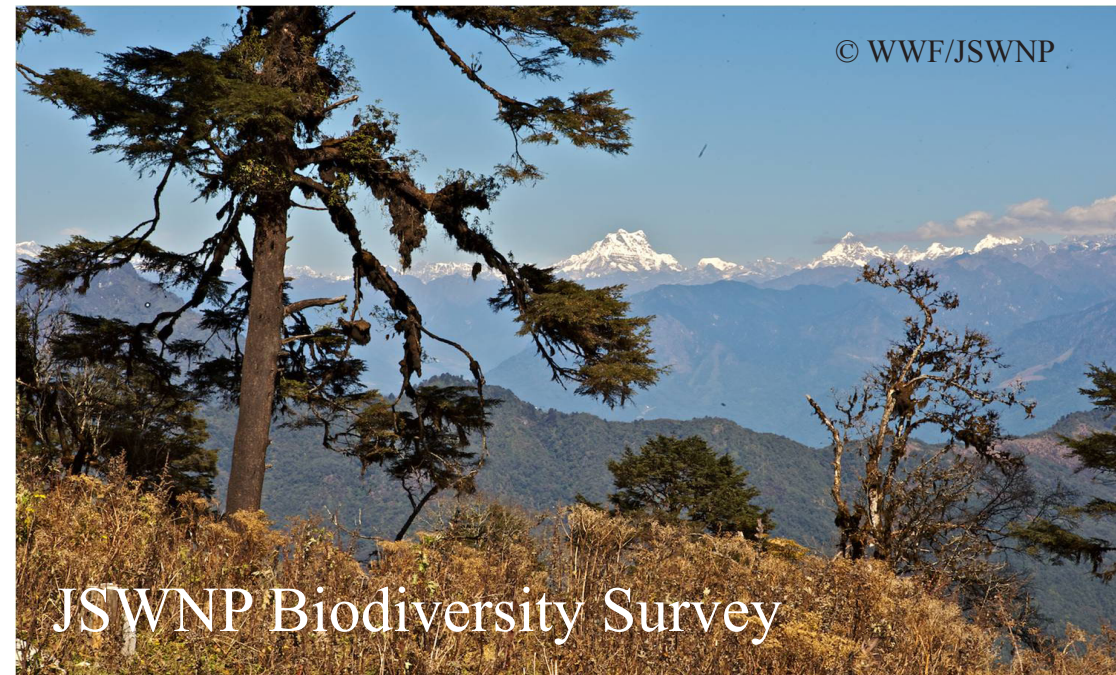
The study consisted of 18 sampling sites from where 1107 insect specimens belonging to nine orders were encountered. Most of them are aquatic larval forms along with accidental occurrence of some semi-aquatic adults.



The overall ecosystem health was found to be sustainable as evident by the rich and diverse *macroinvertebrate* community mainly aquatic insects, since they form the most important links in the aquatic food chain by maintaining a balanced nutrient recycling within the aquatic system.

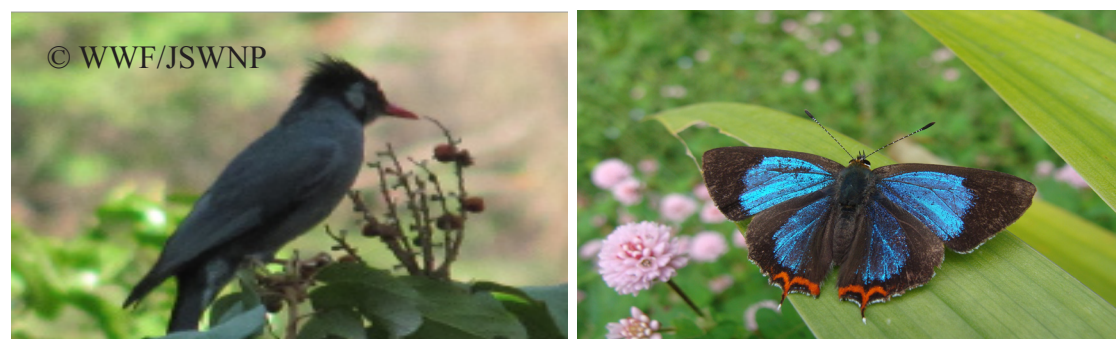
However, long-term monitoring of the diversity and environmental parameters will ensure maintenance of the pristine ecosystem within the park and it can be idealized for future monitoring programs in other protected areas.

This study will help draw appropriate management interventions to protect freshwater biodiversity for future to adapt to emerging threats of climate change and water pollution.



Findings show that Jigme Singye Wangchuck National Park (JSWNP) has 12 major forest types and around 200 different species of birds.

Some 165 families and 518 plant species were recorded which comprises of 85 trees, 153 shrubs and 280 herbs and 139 butterfly species. Thirteen of the 139 butterfly species are rare. Survey on butterflies was done for the first time in the park.



Human-wildlife Conflict

Cattle attacked by Asiatic Bear



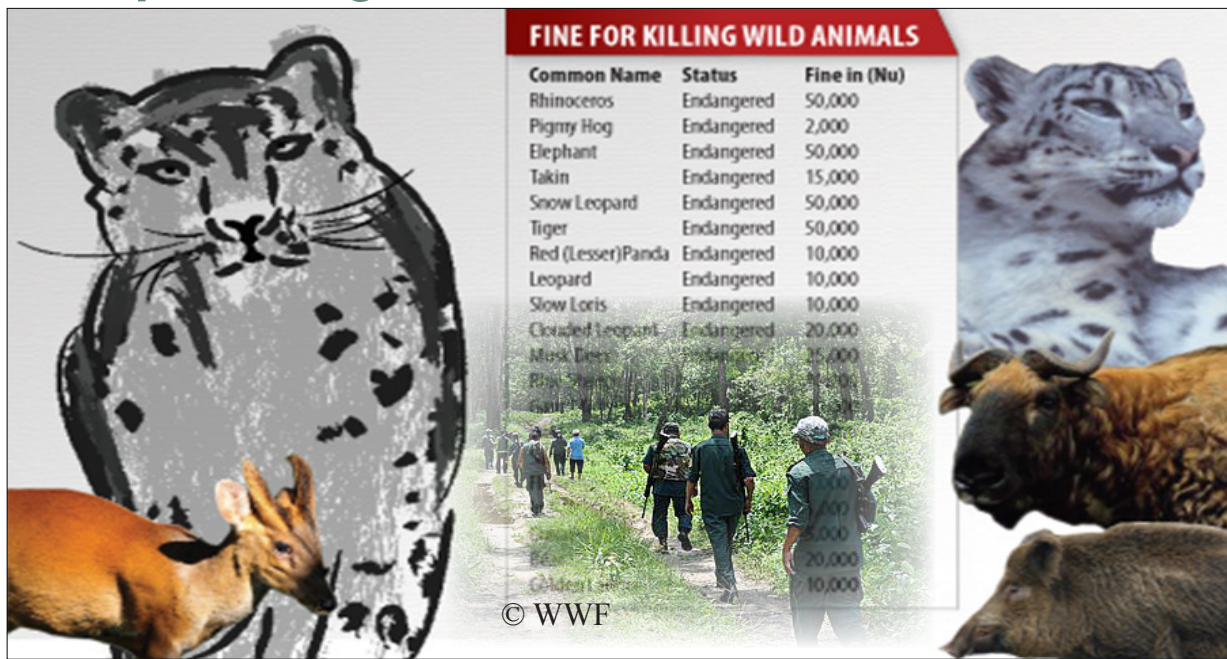
In Wangchuck Centennial Park (WCP), Bumthang, the Human-Asiatic bear conflict study has been completed in two of the four *Gewogs* sampled for study.

On the other hand, to enable Tiger conservation in Greater Manas, a livestock compensation scheme was provisioned in three gewogs. Preliminary information from different communities guided the site selection for the scheme. Livestock compensation schemes were introduced in Tashibi and Pantang under Phankhar *Gewog* and Jigmecholing *Gewog* covering Khatoe, Khamar and Sankhara villages.

A livestock Insurance Program covering 200 households (which is 40% of the park residence) was initiated at Jigme Singye Wangchuck National Park. A total seed money of Nu. 0.3 Million was given to the Korphu Geog Environmental Conservation Committee as per the livestock Insurance Program followed nationwide.

Cattle grazing impact survey has also been conducted in the park. The summer movement of the cattle has been completed while the winter migration and movement is yet to be documented. Similarly, summer grazing rights are now documented while winter grazing rights need to be surveyed and documented for understanding the grazing pressure in the park.

Anti-poaching



In Jigme Dorji National Park (JDNP), a check post has been constructed at the entrance of the Dodeyna-Barshong park road. The check point regulates visitors, controlling outflow of resources and monitoring poachers.

Four informants, who are ex-poachers, were recruited in Paro, Haa, Thimphu and Wangdue Dzongkhags owing to which successful apprehensions in illegal wildlife trade were made.

Three long-time Bhutanese poachers were apprehended in connection with illegal transaction of Tiger and Leopard parts on March 26th, 2012. Similarly, in January, forest officials apprehended three poachers with body parts of Musk Deer and Monal Pheasant.

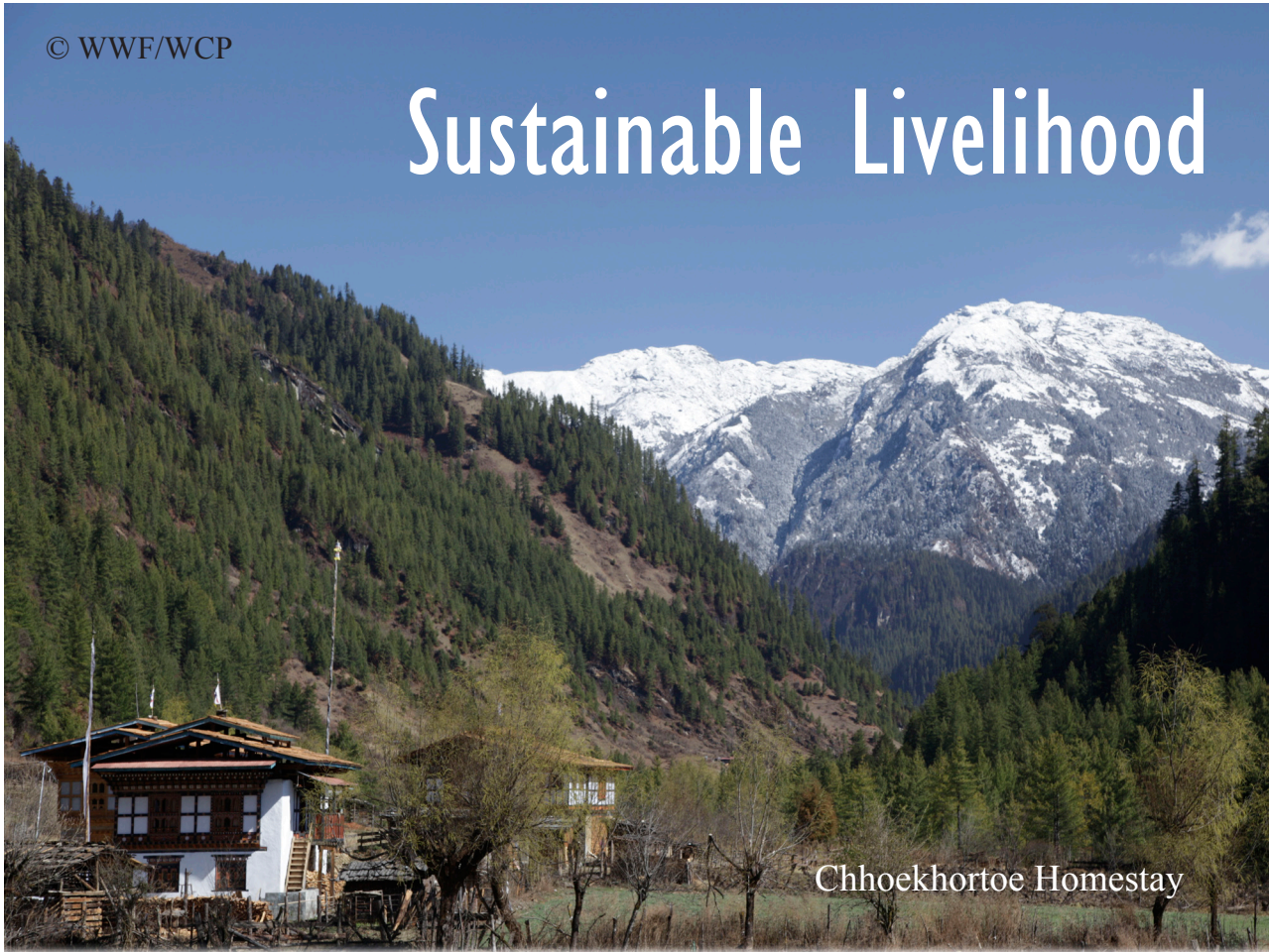
The Bhutan Forestry Enforcement Database (BHUFed), an online database which will serve as the standard repository of all illegal wildlife trade offences, has also been initiated.

Through the system, forestry data managers from across the country can file in reports of illegal wildlife trade. Some 32 field staffs have now been trained on the system.

Cross border meetings were held between forest officials, politicians and WWF to exchange staff capacity and start joint patrolling.

To address issues of poachers taking advantage during summer, when trails are difficult, Royal Manas National Park formed large patrol teams for high risk areas. The team seized bullock carts loaded with timber.

Meanwhile, a watchtower construction is also underway for smart patrolling.



With WWF-Bhutan’s support, Alpine Organic Farmhouse, a co-operative with 20 farm house operators in Chhokhortoe geog under Wangchuck Centennial Park (WCP) was started.

The Co-operative works toward equitable distribution of dividends from eco-tourism to improve community livelihood. Homestays have also been started in Tang Gewog.

Some 14 school leavers, majority of them girls, were trained in basic hospitality and 14 households were supported to construct modern toilets and showers.

During the project, trainees from the Chumey Institute of Civil Engineering were also temporarily employed for plumbing and sanitary works.

The institute and the park can collaborate

in future to implement such projects in the eastern range.

There are ongoing dialogues with the Institute of Traditional Medicine Services (ITMS), Thimphu, for piloting sustainable harvesting and cultivation of medicinal and aromatic plants in the high altitude areas in Central WCP.

The Tourism Council of Bhutan, Association of Bhutanese Tour Operators and travel agencies also helped in popularizing farm houses.

Works on ecotourism camp at Kitzom, Tang have started and will be completed by December this year.

Support for farm house establishment in Kurtoe and Gangzur Geogs, in the eastern range has been provided to farm house operators.

Dorjibi Weaving Centre

This year, the Dorjibi Weaving Centre was successfully completed and inaugurated on 14th August. The centre now has proper water supply, store with additional rooms for pantry and tailoring.

The centre was started as a measure to reduce human-wildlife conflict in the area. People living in Dorjibi, mostly farmers, were increasingly losing their crops to wildlife.

So far, the centre has sold weaves worth Nu. 250,000 which gives the people living in the area an additional source of income instead of depending solely on farming.

An additional Nu. 100,000 was handed over to the group as a top up fund since the revolving fund was found insufficient to procure raw materials, chiefly wool and cotton threads.

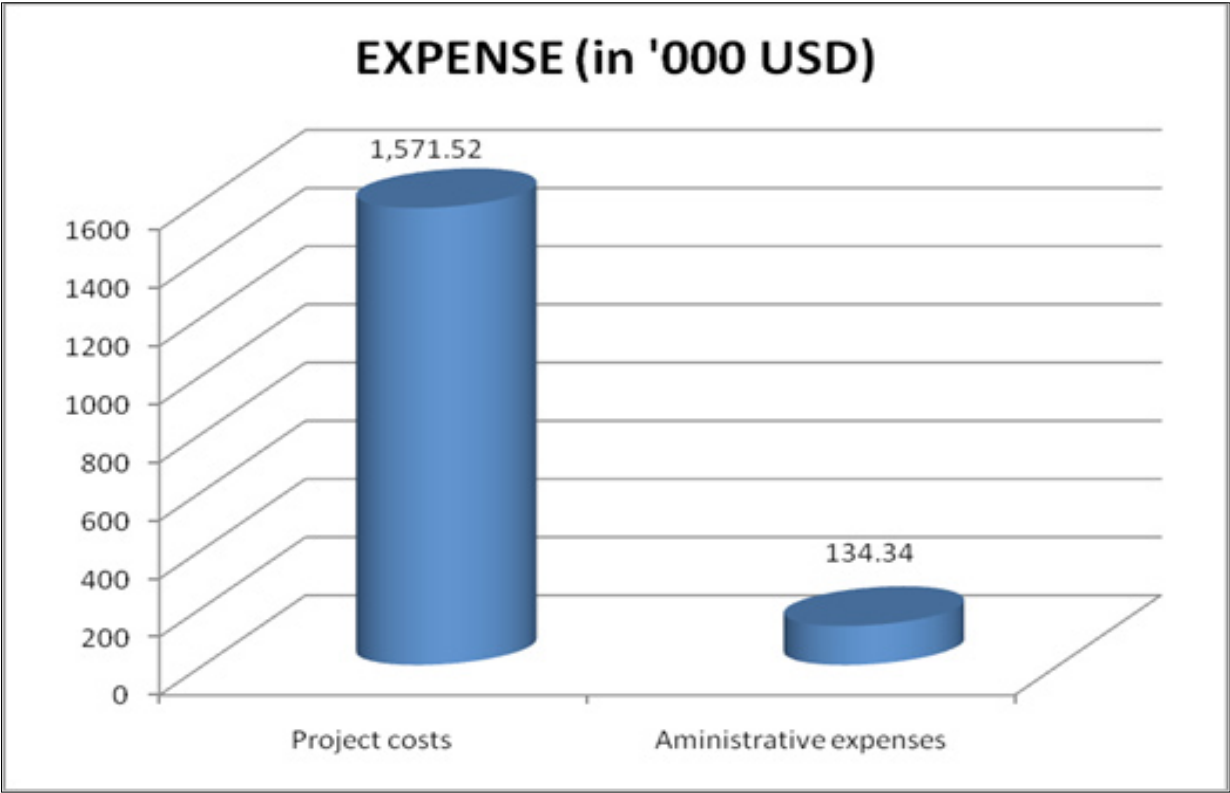
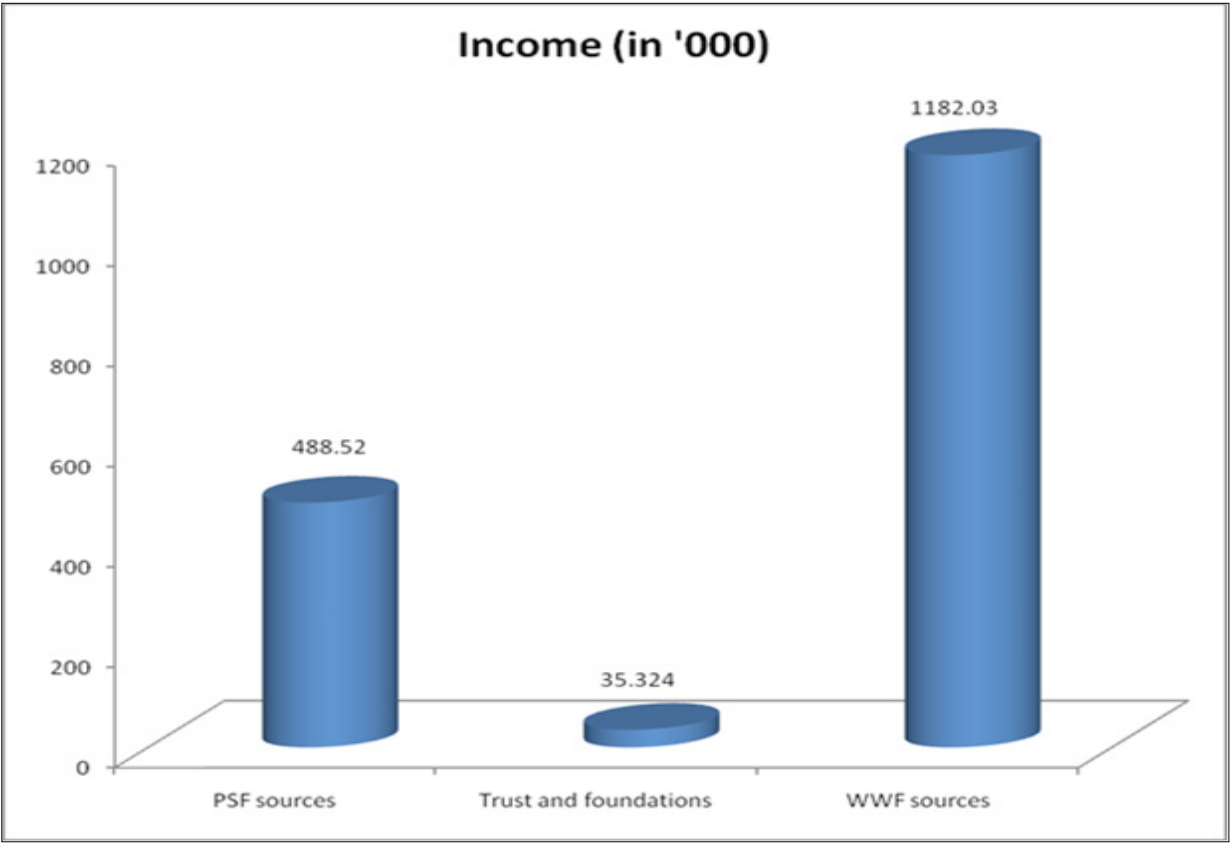
The electric dyeing machines are now fully functioning after the weavers were given demonstrations by the suppliers. The weavers are well adapted and trained to weave using improved looms.

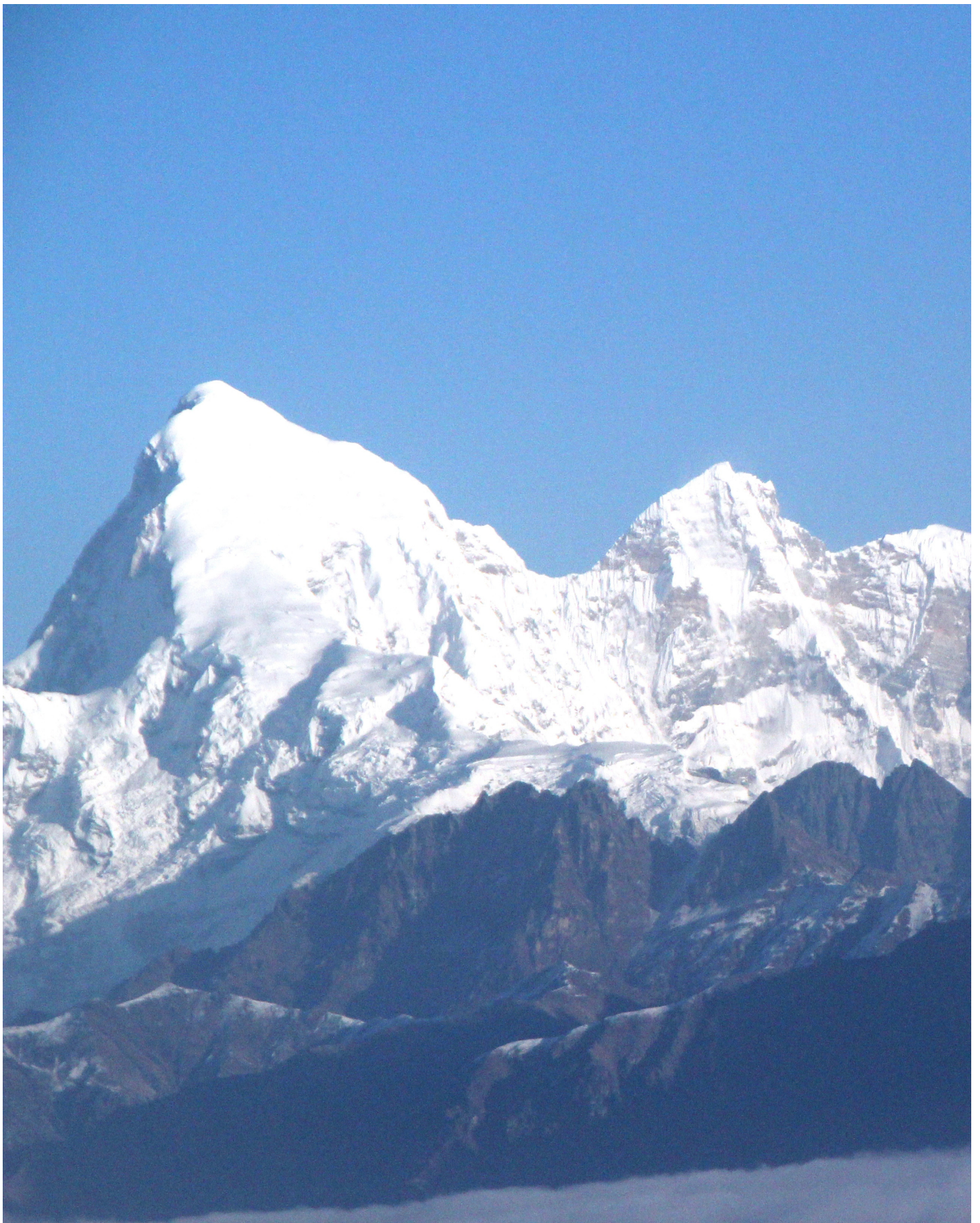
Through this initiative, beneficiaries are now aware that conservation activities help them in enhancing their livelihood and that it is their duty, in return, to ensure that continuity and sustainability is maintained.

The relationship between the beneficiaries and Park and between beneficiaries and WWF has improved after the project started.



Financial Report for FY 2012





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