

# Royal Society for Protection of Nature



ANNUAL REPORT  
1 JULY 2011 - 30 JUNE 2012





*The Kingdom of Bhutan is blessed with an exceptional and largely intact natural environment. I have joined RSPM in its mission to raise awareness of the challenges that faces us now. We must all accept our individual responsibility to conserve the rich diversity of Bhutan's plant and animal species for the benefit of both the natural world and our children's future.*

*His Majesty the King  
Jigme Khesar Namgyel  
Wangchuck  
(On the occasion of  
assuming the patronage of  
RSPM in 1999)*



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# Message from the Chairman

**Dasho Sangay Thinley**

The establishment of the Royal Society for Protection of Nature in 1987 was sparked by the simple desire of its founder Dasho Paljor J. Dorji to enable people like him to participate in environmental conservation. Today, it has become even more imperative under the present democratic regime to preserve Bhutan's rich natural resources with vigor and dedication. There is a need for constant efforts to accelerate environmental conservation through education and research oriented activities and to help pursue Bhutan's developmental plan with minimal damage to natural resources.

As an organisation dedicated to promoting and supporting environmental conservation, the Board of Directors are always aware of the important participatory role played by the citizens of Bhutan. The proper management of resources at the local level is essential for achieving the goal of sustainable development and to realize the philosophy of Gross National Happiness. RSPN must continue to work towards greater understanding of the multiple dimensions of participation and to promote active involvement by all in the preservation of Bhutan's natural resources.

Bhutan's national policy for the environment incorporates the management of natural resources and biodiversity conservation and therefore the Royal Government of Bhutan is actively involved in all aspects of environmental protection. RSPN's complementary role focuses on implementation and advocacy through eco-friendly practices, and necessitates the involvement of partners at all levels. RSPN has a long history of building bridges and close coordination between communities, local bodies, government agencies and stakeholders, a role that has become more important in Bhutan's new democracy.

As you mark the 25 years of your service in environmental conservation, on behalf of the Board of Directors, I wish RSPN a Happy Silver Jubilee and good wishes for all future endeavors and conservation efforts.

Tashi Delek!



# Executive Summary

**Lam Dorji, Ph.D**

As Bhutan consolidates its successful transition to democracy, the year 2011 - 2012 has proven to be another exciting one at the Royal Society for Protection of Nature. Besides seeing the completion of many projects and celebrations, including the marking of 25 years of RSPN's dedicated service to environmental conservation, RSPN finally has a home and shifted our office to our newly-built environment-friendly building in Kawajangsa.

In Bhutan, where harmony and the pursuit of happiness are greatly prized, a healthy environment is a necessity to uphold Gross National Happiness (GNH). RSPN, in supporting the Royal Government of Bhutan, plays a complementary role through programmes like environmental education and advocacy, conservation and sustainable livelihoods and research.

Our conservation and sustainable livelihoods programme had note-worthy successes in the captive breeding of the critically endangered White-bellied Heron, and in maintaining the Black-necked Crane roosting sites in Phobjikha that saw the annual Black-necked Crane count increase 20% from the previous year.

The success of our environmental education and advocacy programme is visible through the nature clubs that are established in all schools in Bhutan. Two more Local Conservation Support Groups (LCSG) have been established in Paro and Phuntsholing bringing the total number of LCSGs to six. Initiatives to improve the environmental education curriculum in the two colleges of education have been our priority and have been successful. As well, with the help of RSPN, environmental education at monastic institutions has increased considerably. The Bhutan Water Partnership (BhWP), a consortium of water professionals and concerned individuals from various sections of the society working towards achieving the goals of Integrated Water Resource Management (IWRM), is now housed at RSPN.

The research programme is already partnering with International Centre for Integrated Mountain Development (ICIMOD) to conduct climate vulnerability assessments in Bhutan. Research Programme is also instrumental in implementing a number of the green technologies included in the new headquarters, such as the solar-grid connect system.



Much work was also done in preparation for the opening of the Environmental Resource Centre. Books, journals and databases were procured and a new integrated library system with an online interface was purchased to ensure nationwide access to the new library which will open next year.

In our endeavour to conserve environment, we were well supported by many well-wishers and philanthropists both from within and out side Bhutan. We were able to secure assistance from the Royal Government of Bhutan, individuals members, business communities and other organisations.

RSPN looks forward for constant support from all the well-wishers. On behalf of the Board of Directors and staff, I would like to thank all the supporters and the Royal Government of Bhutan for their continued cooperation.

Tashi Delek!!!



## Vision

Future generations of Bhutan will live in an environmentally sustainable society.

## Mission

To inspire personal responsibility and active involvement of the people of Bhutan in the conservation of the Kingdom's environment through education, research and sustainable livelihood opportunities.

## Core Values

RSPN's core values are statements based on clear, concise, and shared beliefs of the organization that will contribute towards achieving its mission in the long run. Its core values are to:

- provide leadership in conservation
- promote innovative technologies and methods
- be proactive towards environmental issues
- be accountable and transparent
- be efficient and effective in delivering programmes

## History

The Royal Society for Protection of Nature (RSPN) was established in 1987 as a not-for-profit organization primarily to complement the Royal Government of Bhutan in environmental conservation activities. In absence of a competent authority, RSPN was registered under the Company's Act of Bhutan, 1989 until 2010 when it was registered under Civil Society Authority Act of Bhutan, 2007 as a public benefit organization. RSPN enjoys the patronage of His Majesty the King of Bhutan from where it draws our inspiration and motivation to keep striving for excellence when it comes to environmental conservation activities.

It is further supported by a team of dedicated Board of Directors who advises the Executive Director for day-to-day management of the organisation. The Board of



Directors meets to approve the work plans, proposals, budgets and policy related issues. RSPN approaches its programme planning and implementation with professionalism and respect for complements and collaboration with relevant organizations. Its activities are geared towards achieving the goals and objectives outlined in the five-year strategic plan. RSPN truly believes in maintaining and practicing transparency, accountability and efficiency in all its activities, which in turn has helped RSPN gain credible recognition in terms of addressing environmental issues at various levels of our society.

## Human Resource

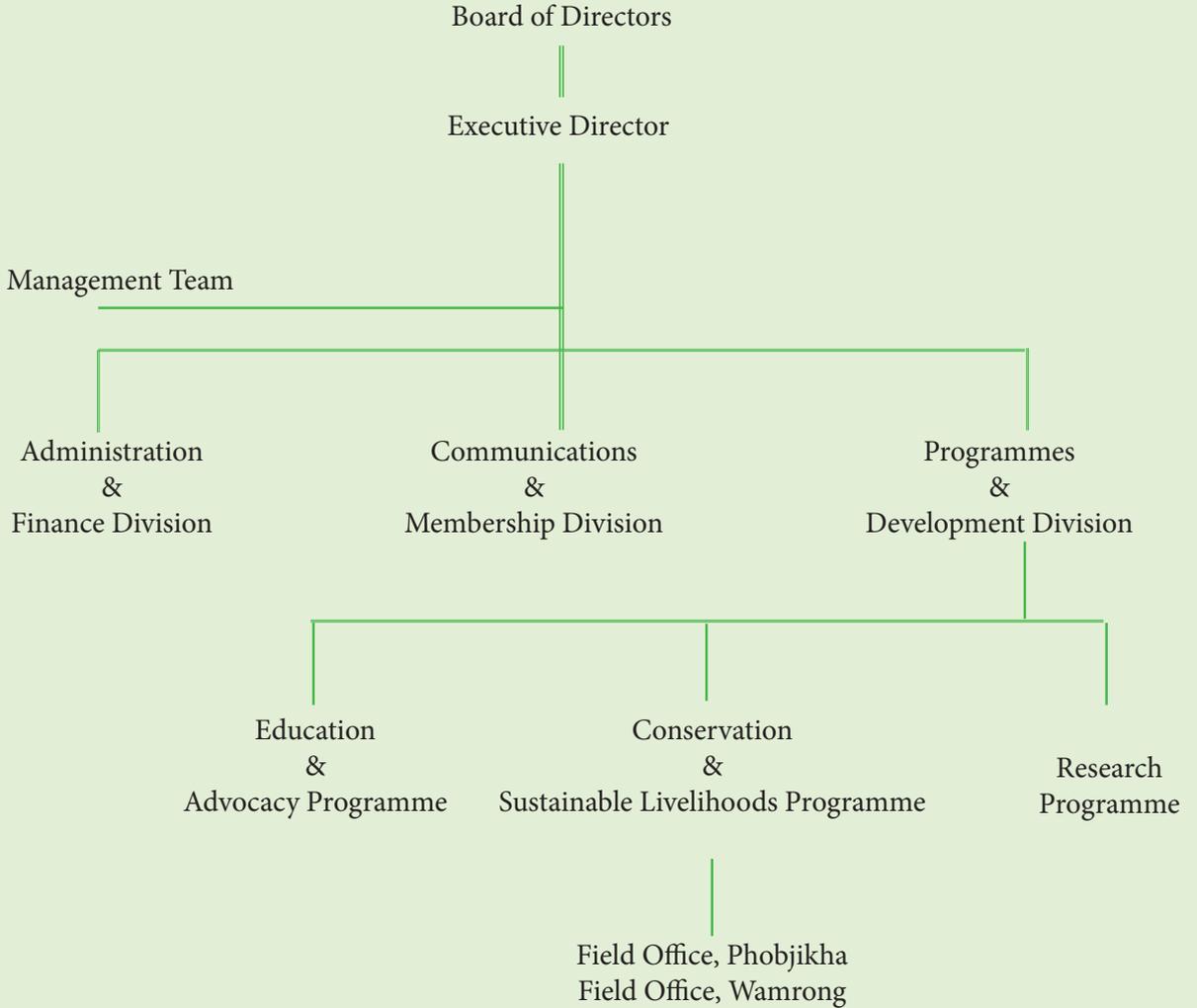
The organization has Programmes and Development Division, Communications and Membership Division, and Administration and Finance Division. To facilitate and meet the mandates of the organization, Programmes and Development Division is further bifurcated into Environment Education and Advocacy Programme, Conservation and Sustainable Livelihoods Programme and Research Programme. As of 30 June 2012, there were 29 staff including 1 volunteer and 2 interns.



*RSPN's new head office with attached Environmental Resource Centre, Kawajangsa*



# Organizational Structure



## Networking and Membership

The importance of networking and membership programmes cannot be overlooked for the success of an organization. RSPN is a member of several regional and international organizations such as Climate Action Network South Asia (CANSAs), South Asian Forum for Responsible Business (SAFORB), South Asian Youth for Environment Network (SAYEN), South Asia Consortium for Interdisciplinary Water Studies (SaciWATERS), International Crane Foundation (ICF), International Union for Conservation of Nature (IUCN), CLACC, IIED and ICIMOD.

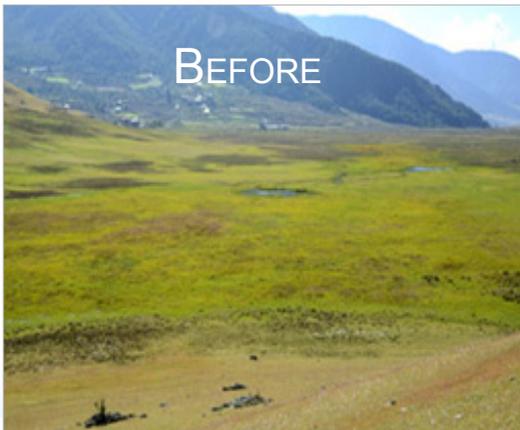


RSPN also firmly believes in membership programmes that are based on Bhutan's constitution, which states that protection of the environment is the fundamental duty of every citizen. As a non-political organization, RSPN has recruited volunteer members from all walks of life irrespective of gender, trade, race and ethnicity, who shares a common interest in conserving the environment. RSPN welcomes all individuals, institutions and organizations to join our membership programme and support us in environmental conservation.



## Conservation and Sustainable Livelihoods Programme

For the last 25 years, RSPN has given special attention to the conservation of endangered species outside the protected areas of which the Black-necked Crane and White-bellied Heron are two avian species under exclusive study and research aimed at boosting their declining population.



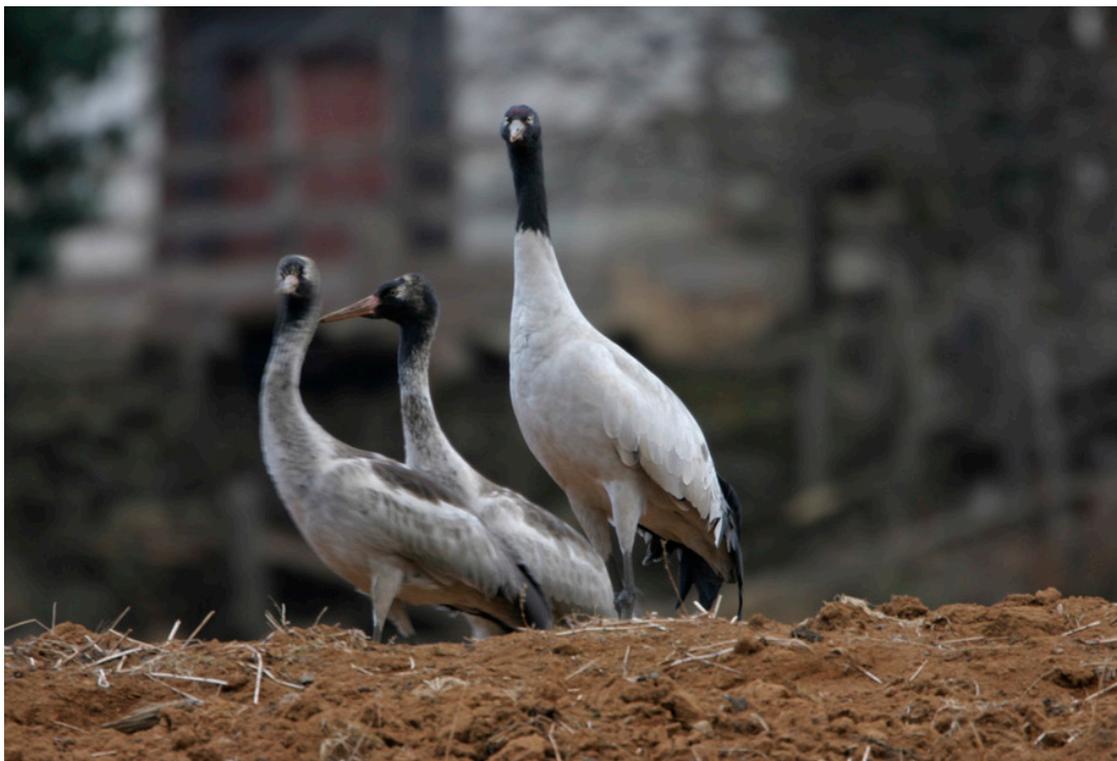
*Roosting site for Black-necked Cranes, Phobjikha*

As usual, the annual maintenance of the roosting sites for Black-necked Cranes in Phobjikha were carried out professionally just before their arrival. To accommodate the migrating birds, an area measuring 40m X 50m had been added to the existing roosting areas and expected to accommodate around 300 cranes at a time all together.



## **Black-necked Crane (BNC) Population in Bhutan (1986 to 2012)**

The annual nation-wide Black-necked Crane (BNC) count for 2011-2012 was conducted at 6am on the 16th of January 2012. Simultaneous counts were made in all the major roosting sites of Bhutan with the support of Department of Forest and Park Services. Phobjikha recorded the highest count with 335 BNCs (including 51 Juveniles) followed by Bumdeling (102) and Bumthang and Khotokha (5 each). Paro, Lhuentse and Gelephu received 12 BNCs altogether.



*Black-necked Cranes in Phobjikha*





*Khabertse, Letogshing -More than 45 black-necked Cranes were seen feeding in wetland paddy field in the morning of 09.01.2012 at lower Bayling in Trashiyangtse (Picture Courtesy: T.Phuntsho)*

Beginning from 1986-1987 to 2011-2012 winter (26 winter periods) the annual average BNC arrival in Bhutan was about 407 BNCs. With only 370 BNCs visiting Bhutan in 1986-1987 winter periods to 447 BNCs visiting Bhutan last winter (2011-2012 winter period) there has been an increase of 20 % growth. The average growth rate of BNCs visiting Bhutan has increased by 0.8 % annually in the last 26 years.

This would roughly translate into 3 BNCs per year. BNCs visiting Bhutan has steadily increased over the past two and a half decades. However, there have been changes in the number of BNCs visiting various places within Bhutan. Bumdeling which used to receive the highest numbers of BNCs in the late 1980's and early 1990's was gradually experiencing decreasing number of BNCs visiting the valley. On the other hand Phobjikha received more BNCs year after year.

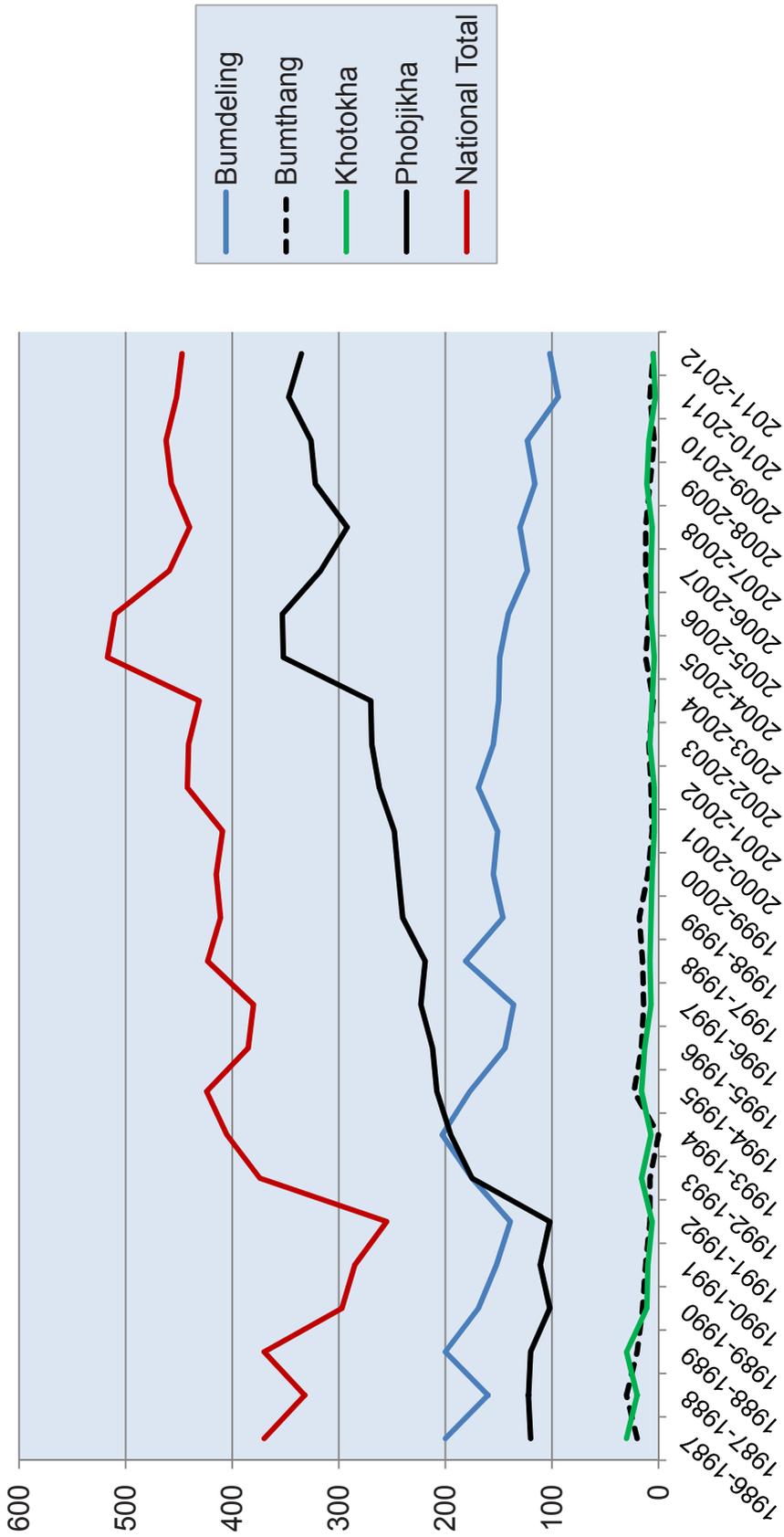
Phobjikha valley received only 120 BNCs during the 1986-1987 winter period but 10 years later it received 223 BNCs (1996-1997 winter period). Again after 10 years, in 2006-2007 winter period, the valley received 317 BNCs. For Phobjikha, there has been an increase in about 179 % growth percentage in the last 26 years with an annual growth percentage rate of 7 %. BNCs visiting Phobjikha has increased with an average of 8 BNCs per year. The highest BNC count in the last 26 years was recorded in 2004-2005 winter period with 517 counts. While the total BNCs visiting the country has been slightly consistent, BNCs visiting the various major habitats shows ups and downs.



In the past two years RSPN has been reportedly informed about sighting of BNCs in various places in Bhutan. Four BNCs (2 Adults and 2 Juveniles) were seen in Karbithang - 200 meters away from Mau Khola- in Gelephu in November 2010 and in 2011 November, eight BNCs were sighted in Dawathang and upper Karbithang in Gelephu. Similarly a lone BNCs was sighted in Kangpara on 14th December 2011 and three BNCs in Tshekhathang in the early hours of 16th December 2011. BNCs were also reportedly sighted in different places in Thimphu- Kabisa & Ramtokto- in December 2011. Though no scientific inquiry has been made on this unusual trend, it is assumed that BNCs might be looking for new habitat or were lost during their flights. It could also be because of the increase in awareness and reportings.

RSPN would like to thank the respective Department of Forest and Park Services offices across the country and volunteers who took part in the simultaneous count of Black-necked Crane in Bhutan and also those individuals who took pains in observing and reporting of BNCs in various parts of the country. We look forward for a yet another exciting BNC Annual count in the winter of 2012-2013.





Graph showing Black-necked Crane population in Bhutan from 1986 to 2012 winter periods.

# Research Programme

## Species Conservation

In Bhutan, the term 'Captive Breeding' is not very common, however with technical assistance provided by San Diego Zoo, USA, through Mrs. Debra Keiko Marlow and Mr. Donald J. Sterner, RSPN research team was successful in rearing White-bellied Heron under captivity and construct a make shift hut which they called 'Captive Rearing Site'. The project was supported by Felburn Foundation, USA and Punatshangchu Hydroelectric Project, Bhutan.



*WBH Captive Breeding Research Team*



## Captive Breeding Process – White-bellied Heron



*WBH Chick being hatched*



*4 days, 59.7 grams.*



*12 days, 265.3gm*



*37 days, 1.9 kgs*



*juvenile WBH released  
after 134 days on 17 september  
2011 at around 7:58 morning,  
it weighed 5.6 kg.*



*Captive breeding site*



## Research Support

2011 was a banner year for research on the critically endangered White-bellied Heron (*Adrea insignis*). In addition to captive breeding programme, the research by Mr. Jigme Dorji, a B.Sc. student from the College of Natural Resources on WBH's habitat and people's perception towards its protection had been very educative.

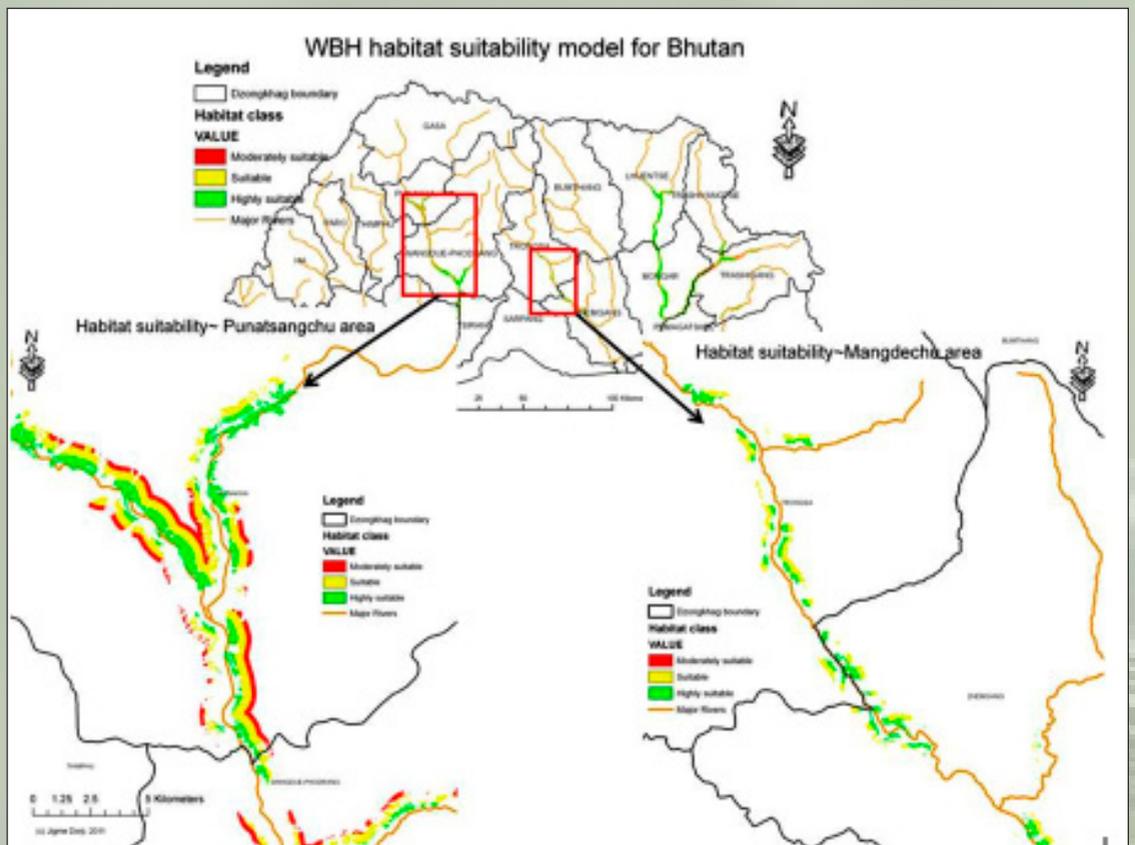
Mr. Jigme Dorji's research on the WBH "Protecting White-bellied Heron Habitat: Extent of anthropogenic threats and people's attitude towards their conservation in Bhutan" was conducted for Punatsangchu and Mangdechu basins.

### Study Findings

- White-bellied herons are sighted between the altitudinal ranges of 600-1294 masl during monsoon season.
- Matured chirpine forests are preferred for nesting.
- Habitat suitability model (GIS model), projects that an area about 347.95 km<sup>2</sup> is available as suitable habitat for the WBH, accounting for 0.9 percent of the total geographical area.
- Based on this model, the study suggests that Kurichu and Mangdechu basins could support some WBH population.

The Punatsangchu basin was projected to have more significant threats than Mangdechu basin possibly due to the fact that the former basin has a higher population density, closer proximity to agricultural land and the construction of hydropower plants. Riverbed quarry and livestock grazing were listed as two major causes for current habitat degradation. The study also suggests that the local people view this bird as a rare and endangered water bird but without much social or cultural value, however people are very supportive of the conservation of the bird.





## Study Recommendation

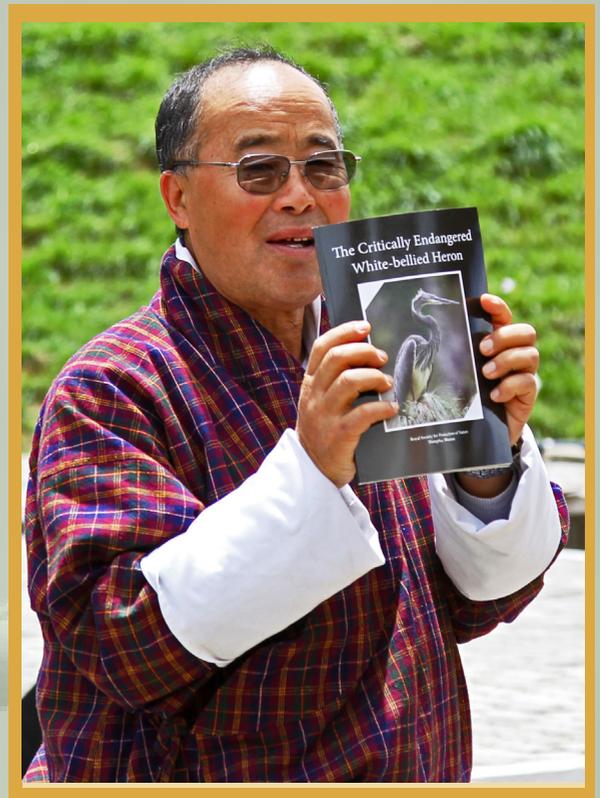
Jigme's study findings have recommended the need to re-assess the country wide presence of WBH bases on the projected habitat model, particularly in Kuichu and Drangmechu basins. Further, the findings also recommended the need to follow up with the government to enlist WBH under schedule I of the Forest and Nature Conservation Act of Bhutan, 1995.

## Book Released

The Chairman of the Royal Society for Protection of Nature Dasho Sangay Thinley officially released the book on *'The Critically Endangered White-bellied Heron'* on 29 July 2011 coinciding with the Global Tiger Day. The book is a result of research initiative taken by RSPN's since 2003 and provides an overview of the white-bellied Heron population, distribution and status in the country. Apart from information, the book provides some of the rare pictures of WBHs taken in the Phochu area in Punakha, Bhutan.

The studies have found that about 26 white-bellied herons of a total global estimate of less than 200 are in Bhutan. Like any other species, its conservation are increasingly becoming a challenge due to socio-economic development and anthropogenic threats that looms round the clock. In the case of White-bellied Herons in the Punatsangchu River Basin, hydro power projects have been a major concern and challenge for its habitat conservation and preservation.

The study over the years has been supported by Felburn Foundation, WWF-Bhutan Programme and Punatshangchu Hydropower Project with technical support from International Crane Foundation and San Diego Zoo, USA.



*Dasho Sangay Thinley, Chairman, RSPN*



# Environmental Education and Advocacy Programme

## Local Conservation Support Groups

Local Conservation Support Groups (LCSG) at the grassroots level are groups of individuals who are genuinely concerned for the environment and support conservation through local actions. They are environmental ambassadors to their community. LCSGs provide a platform for the local communities to voice their concerns, to address environmental issues in their locality and to promote sustainable livelihoods, as well as develop solutions to the local environmental issues.

In 2011 two new groups were established in Paro and Phuentsholing. As a part of their local action, environment friendly recreational areas were developed both in Phuntsholing and Paro towns. These areas are now extensively used by children and adults at all times. Such areas have now created opportunities for people to come together and spend time meaningfully. Some of the environment friendly components like rain water harvesting and plantations are also done in these areas.

Bhutan Water Partnership (BhWP) is a consortium of water professionals and concerned individuals from various sections of the society working towards achieving the goals of Integrated Water Resource Management (IWRM). It is a non-profit entity affiliated to Global Water Partnership (GWP).

After a long unsteady position of BhWP, in accordance to the executive order - NEC/Secretary/Water/2011/2010 dated 12 September 2011 issued by the National Environment Commission, beginning 2012, the Bhutan Water Partnership has been hosted in RSPN.

To revitalize the partnership a new group of steering committee members were identified. Dr. Lam Dorji (Ph.D), Executive Director of RSPN has been unanimously nominated as the Chair, Mr G. Karma Chhopel of NEC as the Regional Council member and Mr. Ugyen Lhendup of RSPN as the Country Coordinator. There are six members from various sectors as a steering committee member.

Water Source Protection, water harvesting, awareness and education on IWRM principles and advocacy on SODIS technology are some of the programmes that BhWP is currently working on.

## **Bhutan Joins the Global Communities to celebrate the World Water Day 2012**

Bhutan Water Partnership in collaboration with the Ministry of Education celebrated the World Water Day 2012. The purpose of the programme was to create public awareness on water and its related issues and at the same time to bring some actions on the ground for positive changes. While the ceremonial functions were carried out, followed by an exhibition and performances presented by over a thousand students and teachers from 16 schools, simultaneously, eight schools also went into action by adopting a number of streams and a section of the main river flowing through the heart of the capital city. After the official adoption of the river and the streams, the students, teachers and local community members conducted cleaning of the stream and public awareness activities. The schools presented a good mix of well thought presentations on themes that were adopted for the day such as: Water for Sanitation, Water for Hygiene, Water for Drinking and Water for the Environment.



A number of government agencies that have a stake in water participated in the programme either as silent observers or as actors to create public awareness. The Opposition Leader Tshering Tobgay, who was the Guest of Honour, rightly pointed out in his key note address that - “We have to be judicious while using water, and that’s the only way we can conserve water.” One of the Principals of a school who was present during the celebration said that - “Conservation of water should be everyday realization and not just a reminder on this particular day.”

## **Environmental Education for Religious Institutions**

With the introduction of Environmental Education programme for the monastic schools and institutions, the monks and nuns have developed a better understanding of their local environment. Waste management, landscaping, greening of the surroundings, water management, environmental education and awareness. were some of the environmental issues identified. Based on these issues, the monks and nuns have prepared action plans. Currently a number of action projects are being implemented to address some of these issues.

RSPN had developed and distributed Environmental Education hand book and trained 19 monks and 5 nuns on how to manage environmental clubs and conduct conservation activities in the monastic schools and institutions. Gardening tools were also supplied.

In due course of time, RSPN expects monastic schools and institutions to mainstream environmental concerns into their plans and programmes.



## Emerging Issues-Community Based Waste Management



*Dasho Dzongrab and JICA Representative inaugurate the waste management, Phobjikha*

The Royal Society for Protection of Nature (RSPN) as conservation and development partner to the Phobjikha valley initiated a community based solid waste management project for Phobjikha valley with objectives to keep the valley clean, free from waste and to make the place environment friendly.

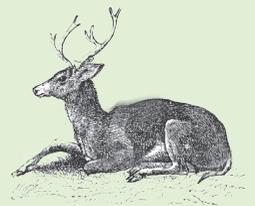
The project was funded by JICA office in Bhutan and was officially handed over to the local communities of Gangtey and Phobji Geogs on 25th September 2011. Phobjikha Environment Management Committee (PEMC), a committee representing both the gewogs will be the local custodian to effectively manage the project. RSPN provided Nu. 100,000 as seed money for the management of the project, however, day to day expenses of the waste management will be borne by the business communities and local residents of Gangtey and Phobji Geogs.



# Baseline Survey on Integrated Solid Waste Management



RSPN and SKAT Consulting Ltd. Switzerland are conducting the Integrated Solid Waste Management baseline survey in the Dzongkhags of Mongar, Bumthang, Paro, Phuntsholing and Thimphu. The overall objective of the assignment is to assist the National Environment Commission (NEC) of the Royal Government of Bhutan (RGoB) in developing strategies and strengthening the regulatory and organizational framework for Integrated Waste Management.



## Mechanism for Human-Wildlife Conflict (HWC) management

In order to deal with the issue of HWC in the targeted villages of Kangpara Gewog, RSPN developed a mechanism based on the principles of sustainability and equity with components of insurance, research and ownership.



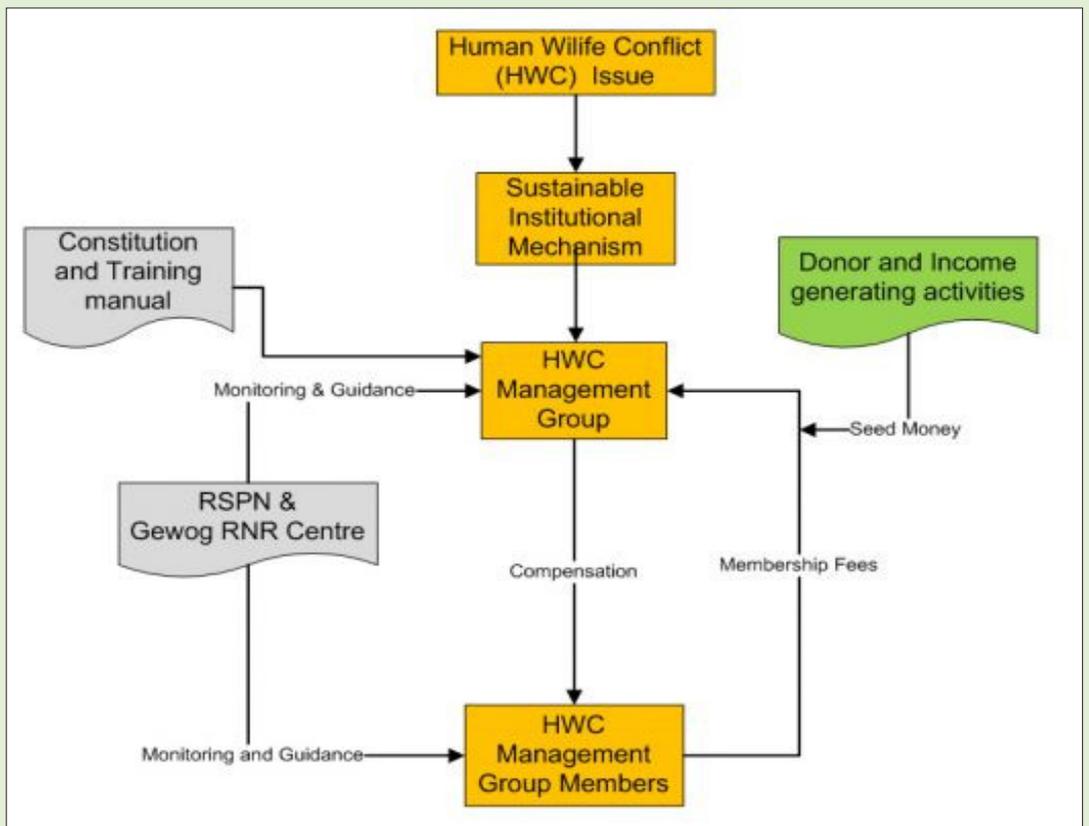
The sustainable institutional mechanism (SIM), was developed in close consultation with the communities and national stakeholders such as Department of Forest and Park Services (DoFPs), Department of Livestock (DoL), Department of Agriculture (DoA), Wildlife Conservation Division (WCD) and UNDP. The SIM is a mechanism which requires the formation of groups with executing committee which will be guided by a constitution. The constitution has prescribed ways in which the HWC affected households will be compensated based on the accepted formulae to calculate the loss and the equivalent compensation in monetary figures.

The Fund for the compensation is being provided by the project and RSPN jointly for the initial start up but later the fund has to be sustained through membership fee collection, donor contribution and income generating activities by the members. The overall compensation, roles of the members, fee collection etc. will be guided by the Constitution developed for the group. A training manual for the group was also developed for the purpose of operating the SIM. RSPN will be closely monitoring the functioning of the HWC management group and the SIM through the field office based in Wamrong.



*Wild-life watch tower, Kangpara*





*Sustainable Institutional Mechanism: A schematic representation of a functioning human-wildlife conflict(HWC) Management group*



## Climate Change Vulnerabilities Assessment, Kangpara



*Passangphu, Kangpara Gewog, Wamrong (Photo: Tshering Phuntsho)*

Under the Joint Support Programmeme (JSP- UNDP, UNEP and DANIDA), funded through Gross National Happiness Commission, RSPN conducted an assessment of Climate Change Vulnerability for the communities of Kangpara Gewog, Trashigang.

The study was carried out using both primary and secondary data sources through different methods including structured questionnaire interviews, focus group discussions, literature review and field observations. Secondary data were collected through review of past studies on climate change, Bhutan's Initial National Communication (INC) submitted in 2000, National Adaptation Plan of Action (NAPA), second National Communication of Bhutan, 2011, the RNR Census data, relevant National Plans and Policies and reports and documents of RSPN about Kangpara. The primary data was collected through administration of a structured survey questionnaire at household level.

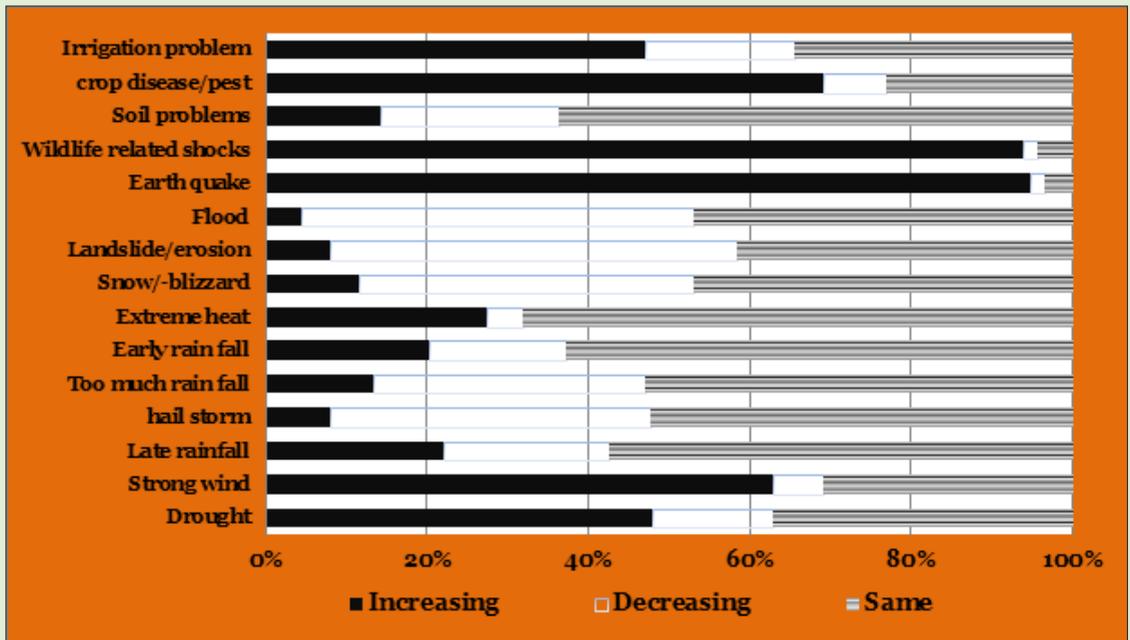


The survey comprised of collection of information on socio-demography, livelihood strategies, health, water and natural resource situation of the Gewog besides compiling local people's perceived observation of climate change, its impacts and trends. Kangpara is one of the remotest gewogs in Trashigang with 383 households, most of whom are dryland based subsistence farmers. Bamboo product is a major source of cash income. While 51.6% of population comprised of females, only about eight percent of all households at the gewog level were headed by females. The Gewog has a literacy of 48% and about 98.2 % of children under 16 years attend school. The socio-economic problems in the Gewog are labour shortages, low market prices, occurrence of debt at household level, water related conflicts, poor access to market and certain level of unemployment as issues related to the economic environment. Other problems include lack of access to quality seeds, fertilizer availability and irrigation.

The analysis of the survey data was done in context of exposure and sensitivity to the process of climate change the adaptive capacity of the local communities and the environment to adapt or withstand these changes. The gewog is exposed to natural and climate related disaster such as drought, strong wind, late rainfall and early rainfall, temperature variations, hailstorm, frost, flooding and earthquake in recent times. These events have affected agricultural activities to larger extent. The graph illustrates the percentage of household which reported their agriculture activities to have been affected by different factors in the last 12 months.

The recommendations of the survey are provided in the form of action plan that are formulated based on the analytical results of information from the survey. The action plan identifies actions in the areas of gender equity, literacy, improving the farm labour shortage situation, livelihood income diversification, enhancing social support system, improving human health, drinking water management, nature conservation and environment management. Priority areas for these action areas have also been identified in the action plan based on severity and spatial distribution of problems faced by the communities.



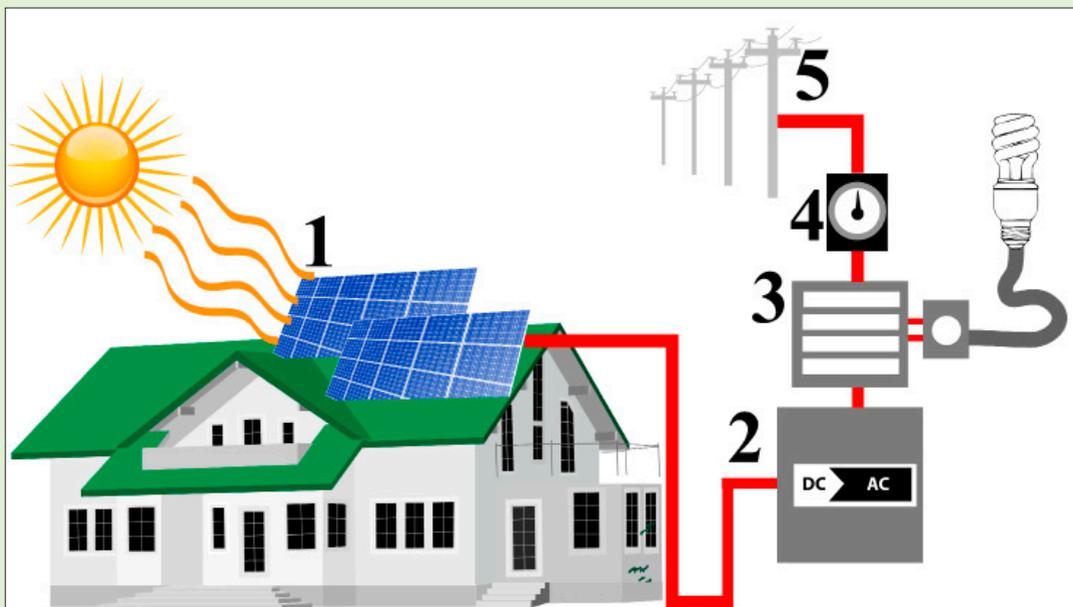


*Percentage of Households reporting trend in event of high severity*

Replication of this study in the same location over time might provide information about how the exposure, adaptive capacity, and sensitivity of gewog changes as adaptation practices are initiated. Future work might include refinement of the Social Networks sub-components in order to more accurately evaluate social bonds. Additionally, this approach could be tested at the different community level in order to compare vulnerability among communities within a district. Overall, it is hoped that the study will provide a useful tool for development planners to evaluate livelihood vulnerability to climate change impacts in the communities in which they work and to develop programmes to strengthen the most vulnerable sectors. In order to facilitate it, this study provides a rich repository of data.



## Demonstrating Grid Connect Solar System



The modern Grid Connect Solar concept and technology offers immense opportunity for Bhutan to benefit economically while contributing to mitigation of Climate change. As a Himalayan country, Bhutan has good exposure to solar radiation especially during the autumn, winter, and spring seasons. During these seasons and especially during the winter, when the hydropower plants generate the least amount of electricity, the Grid Connect Solar technology appears suitable for Bhutan to optimize the environmental and economic benefits of solar energy.

As part of the project, a 3 Kilowatt Grid Connect Solar System is being introduced in the RSPN building in Kawajangsa, Thimphu on pilot basis with the aim to introduce, demonstrate, and advocate options for environmental and economic benefits through use of eco-friendly building materials and technologies.

The system is integrated into the normal grid supply and supplements the power consumption in the building. The building is also connected to a solar based water heating system with a capacity to heat and store up to 1000 liters of water. The heated water is connected and is available throughout the day.



## Some details of the project activity are listed below:

- Installation of 3 KW 'Grid Connect Solar' system in RSPN's head office.
- Installation of 1000 liter Solar Water Heating system
- Demonstrate the functionality and study the viability of this system, including the need for 'rebates' in Bhutan
- Advocate the appropriate options and potentials of Grid connect solar with the Royal Government of Bhutan, for the benefits outlined above.
- Work with relevant international climate change and energy agencies to foster up-scaling of this system.

## Technical details : Solar Power Generating System performance till date

Over a period of five months, 1772 KWh of solar energy has been harvested and used in the building. The data will be collected and compiled to study the impact of the system on a continuous basis and if found viable, the system will be advocated for usage by institutions and keen environment friendly communities.

System type	Solar Photovoltaic Power Generating System (Solar Power Pack)
System Solar array capacity	3.15 Wp (3150 Watt power) @ standard test conditions
System input DC voltage	125-700 V DC, PCU rating: 4500W, 100-700 VDC input
Output	196-253 V AC, 50 Hz



## Grid connect solar lighting system, RSPN

■ Solar energy harvested (KWh)



The project is implemented in collaboration with Department of Energy, Ministry of Economic Affairs and Bhutan Power Corporation Ltd. with financial support from USAID /SARI Energy.





## Un-Audited Financial Report

Although RSPN's accounts are audited on an annual basis by the Royal Audit Authority of Bhutan, the financial statement provided in the Annual Report 2011-2012 is un-audited as the audited reports are not available.

The un-audited statements reveal a total receipt of Nu. 66,501,109.78 and US \$ 709,622.96 for the fiscal year 2011-2012. The cash and bank balance as of 30 June 2012, RSPN is Nu.14,782,946.82 and US \$ 128,590.79 In addition, RSPN's Endowment Fund maintained with the Bhutan Trust Fund for Environmental Conservation (BT FEC) is valued at US \$ 12,07,048.84 This excludes the accrued interest, if any, for the fiscal year 2011-2012. On the whole, RSPN's entire resources including assets and capital fund amounts to Nu. 2,55,68,676.71 i.e. the overall worth of RSPN as of June 30, 2012.



**ROYAL SOCIETY FOR THE PROTECTION OF NATURE**  
**STATEMENT OF AFFAIRS (BALANCE SHEET) AS AT JUNE 30, 2012 (UN-AUDITED)**

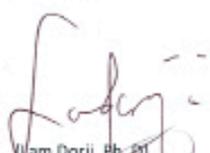
	For the year ended June 30, 2012			
	(A)	(B)		(A+B)
	NU.	US\$	Equivalent NU.	TOTAL (NU.)
<b>Assets</b>				
<b>Fixed Assets (Net Block)</b>				
Furniture & Fixture	13,50,417.16			13,50,417.16
Office Equipments	32,65,471.37			32,65,471.37
Trekking Equipments	1,70,751.38			1,70,751.38
Vehicles	13,97,903.45			13,97,903.45
Communication/Other Equipments	1,00,986.35			1,00,986.35
Building (Observation Center)	13,57,612.61			13,57,612.61
Accrued Interest	2,90,830.57	-	-	2,90,830.57
Endowment Fund	90,18,000.00	-	-	90,18,000.00
Investment with BTFEC	-	12,07,048.84	6,78,96,497.25	6,78,96,497.25
<b>Total Fixed Assets</b>	<b>1,69,51,972.90</b>	<b>12,07,048.84</b>	<b>6,78,96,497.25</b>	<b>8,48,48,470.15</b>
<b>Current Assets</b>				
Cash	479.03	59.50	3,346.88	3,825.91
Bank	1,47,82,467.79	1,28,531.29	72,29,885.06	2,20,12,352.85
Receivables & Prepayments	31,23,507.47	3,566.00	2,00,587.50	33,24,094.97
Stock Balance	77,465.00			77,465.00
<b>Total Current Assets</b>	<b>1,79,83,919.29</b>	<b>1,32,156.79</b>	<b>74,33,819.44</b>	<b>2,54,17,738.73</b>
<b>Less: Current Liabilities</b>				
Recoveries/Remittances	3,19,701.56	-	-	3,19,701.56
<b>Total current Liabilities</b>		-	-	<b>3,19,701.56</b>
<b>Total Assets</b>	<b>3,52,55,593.75</b>	<b>13,39,205.63</b>	<b>7,53,30,316.69</b>	<b>11,05,85,910.44</b>
<b>Financed by:</b>				
<b>Capital Fund</b>	2,55,68,676.71	(6,69,498.04)	(3,76,59,264.75)	(1,20,90,588.04)
(Surplus Income)				
Opening Accumulated Fund	96,86,917.04	20,08,703.67	11,29,89,581.44	12,26,76,498.48
<b>Total Accumulated Fund</b>	<b>3,52,55,593.75</b>	<b>13,39,205.63</b>	<b>7,53,30,316.69</b>	<b>11,05,85,910.44</b>

Note: Dollar equivalent calculated at exchange rate of USD 1= Nu. 56.25 as of June 30, 2012(Bhutan National Bank Limited)

Prepared by:

  
 (Yangchen Lhamo)  
 Admin. Finance Coordinator  
 Royal Society for Protection of Nature

Verified by:

  
 (Nam Dorji, Ph. B)  
 Executive Director  
 Royal Society for Protection of Nature

  
 (Dasho Sangay Thinley)  
 Chairman



## OUR SUPPORTERS

1	AUSTRIAN DEVELOPMENT COOPERATION
2	ASIAN DEVELOPMENT BANK (ADB)
3	ASSOCIATION OF BHUTANESE TOUR OPERATORS (ABTO)
4	BHUTAN FOUNDATION
5	BHUTAN TRUST FUND FOR ENVIRONMENTAL CONSERVATION (BT FEC)
6	CIVIL SOCIETY ORGANIZATION AUTHORITY, BHUTAN
7	CRITICAL ECOSYSTEM PARTNERSHIP FUND (CEPF)
8	EMBASSY OF FINLAND, NEW DELHI
9	EMBASSY OF NETHERLAND
10	EMBASSY ON CANADA, NEPAL
11	FELBURN FOUNDATION, USA
12	FOOD AGRICULTURE ORGANIZATION (FAO)
13	GEF SMALL GRANTS PROGRAM
14	HELVETAS
15	INTEGRATED WATER RESOURCE MANAGEMENT INSTITUTE, SRI LANKA
16	INTERNATIONAL CENTRE FOR INTEGRATED MOUNTAIN DEVELOPMENT (ICIMOD)
17	INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT (IIED)
18	JAPAN ENVIRONMENTAL EDUCATION FORUM (JEEF)
19	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) , BHUTAN
20	JOINT SUPPORT PROGRAMME (JSP)
21	KEIDANREN NATURE CONSERVATION FUND, JAPAN
22	LIAISON OFFICE OF DENMARK, THIMPHU (DANIDA)



23	MACARTHUR FOUNDATION
24	NETWORK EARTH VILLAGE, JAPAN
25	PARTNERS IN CHANGE, INDIA
26	PHILANTHROPIC FOUNDATION
27	PROGRAM FOR SOUTH-SOUTH COOPERATION
28	PUNATSHANGCHU HYDRO POWER PROJECT AUTHORITY (PHPA - I)
29	SOUTH ASIA CONSORTIUM FOR INTERDISCIPLINARY WATER RESOURCES STUDIES (SACIWATERS), INDIA
30	SOCIETY FOR PROMOTION OF JAPANESE DIPLOMACY (SPJD)
31	SARI ENERGY SMALL GRANTS PROGRAM/USAID
32	SKAT CONSULTING LTD.
33	SNV NETHERLANDS DEVELOPMENT ORGANIZATION, BHUTAN
34	SOCIETY FOR PROMOTION ON INTERCULTURAL EDUCATION FOR CHILDREN, JAPAN
35	SOLAR ELECTRIC LIGHT FOUNDATION, USA (SELF)
36	START AND BANGLADESH CENTRE FOR ADVANCED STUDIES (BCAS)
37	THAI OLYMPIC FIBRE-CEMENT COMPANY LTD., THAILAND
38	THIMPHU CITY CORPORATION
39	UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)
40	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)
41	UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)
42	EUROPEAN UNION
43	WHITLEY FUND FOR NATURE
44	WORLD HEALTH ORGANIZATION (WHO)
45	WORLD WILDLIFE FUND (WWF)
46	WWF BHUTAN PROGRAM





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