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CANSA Climate Meeting held in Thimphu



It was attended by representatives from various South Asian NGOs.

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The Climate Action Network of South Asia (CANSA) and regional partners from Bangladesh, Bhutan, Nepal and India participated in a Sustainability in Living Himalayas in South Asia Stakeholder Consultation. The meeting was held on 16 November in Nazhoen Pelri, Thimphu, with about 200 participants from across the region.

The meeting aimed to bring experts from various sectors and areas together to discuss cross-cutting climate issues that affect the

region and to formulate trans-national climate policy. The regional conference strove to formulate a 10-year road map for climate change adaptation in the Eastern Himalayas that ensured food, water, and energy security while maintaining environmental quality. To do this, stakeholders were encouraged to cooperate by sharing skills, knowledge, and experience and promoting best practices being implemented at local and nation levels. Par-

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Back Again



Cranes in Phobjikha

The first group of 4 Black-necked Cranes (2 adults and 2 juveniles) arrived in Phobjikha at around 10 in the morning on 7 November 2011. By December 15, the count had increased to 305 in the valley, the largest population of Black-necked Cranes in Bhutan. The cranes have also been spotted in several other areas: 73 in Bomdeling, 4 in Nyisho, 8 in Gelephu, 2 in Bumthang, 1 in Kampara and 2 in Paro and their possibilities of staying the whole winter are yet to be studied. No cranes were reported from Lhuntse this year. The cranes will spend about four winter months in Bhutan before migrating back to their summer place. Reporting the arrival of 8 cranes in Gelephu

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CANSA Climate Meeting held in Thimphu

ticipants also worked to identify key gaps in existing policies at all levels, and brainstorm solutions that holistically addressed regional issues. Some work was also done in preparation for next year's Rio +20 in Brazil, whose theme is "Green Economy."

The consultation facilitated sharing of knowledge, skills and resources beyond geographic and political boundaries. Besides mobilizing proven experiences and lessons learnt from on-going climate initiatives, the meeting served to open official and unofficial communication channels among policymakers, allowing them to compare notes and consolidate positions before participating in international negotiations. This move towards common South Asian positions will strengthen the voice of our especially vulnerable region in international negotiations. The workshop helped to build trust among neighbors, moving towards a 'collaborative approach' to save the Himalayas from climate impacts, strengthening regional political ties, and enabling the joint research and data collection that will ensure informed decision making in future.

Event Summary

The Himalayan regions of South Asia are critically vulnerable to the effects of climate change due to their fragile ecosystems, unprecedented glacial melting, and large poor and remote rural communities. Many communities in the region have already experienced problems due to climate change such as Glacial Outburst Floods (GLOFs), intrusion of saline water, sea level rise and scientists predict a variety of detrimental conditions in the future.

Research and actions to study and mitigate the effects of the global change must be undertaken on the regional scale in order

to effectively combat the threats shared by neighboring nations. Recognizing the need for coordinated policy and priorities among SAARC nation and coinciding with the Bhutan Climate Summit for Living Himalayas, the Climate Action Network South Asia (CANSA) along with regional partners and the Royal Society for Protection of Nature (RSPN) in Bhutan scheduled stakeholder consultations to discuss climate change issues on November 16, 2011 in Thimphu, Bhutan. The meeting brought together experts and policymakers from across the Himalayan region, with the aim of opening channels of communication for sharing strategies, stimulating interdisciplinary and international discussion, and achieving consensus on the way forward. Objectives of the meeting were to share best practices among stakeholders, to identify and bridge key gaps in policies at local, national, and international levels, and to enhance regional cooperation towards a common vision of sustainable development for a vibrant economic, social and environmental future.

The conference featured a variety of lectures and opportunities for discussion. Some of these focused on the challenges and successes of a particular region, such as Bangladesh, Nepal and India. Others discussed specific concerns, such as energy, youth involvement, or implementing local strategies. A variety of suggestions were presented, with several resonating repeatedly as the most important take-away from the day's discussion. These included:

- Building local adaptive capacity based on rigorous assessment of the risk to each respective ecosystem and an understanding of existing livelihood in that area
- Need at the national level to mainstream attention to climate impacts so it is incorporated in planning, as well as de-

velopment of the best practices for resilience

- Regional cooperation in research and response as well as during global climate change discussions, such as the upcoming Rio +20
- Role of NGOs in delivery, advocacy, research, and capacity building; importance of coordination between various local groups as well as NGOs and their respective governments.
- Complex interdependence of sustainable livelihood with various environmental conditions that are inclined by global change for need for integrated, multi-disciplinary approach.
- Special vulnerability of the region's poor
- Importance of flexibility and long-term planning when dealing with climate change uncertainties
- Promote knowledge sharing, synergy, transparency, accountability and participation.

National and regional cooperation is the key to addressing the issues of climate change both in this part of the world and in global negotiations. The conference emphasized that while local and national concerns and strategies may vary, there must be a unified SAARC commitment to combating global change threats. With time running out, strong support and open discussion among stakeholders in the region is crucial to developing effective means of adaptation to keep the Himalaya and its people living.

RSPN also organized UNEP's Asia Pacific Action Network (APAN) two day stakeholder consultation to discuss climate change issues on November 16-17, 2011 in Thimphu, Bhutan. The meeting brought together experts and policymakers from across the region, with the aim of opening channels of communication for sharing strategies, stimulating interdisciplinary and international discussion, and achieving consensus on the way forward.

Nature Club Action Grant Summary, 2011

The 2011 Action Grant Program aimed to empower schools to utilize local knowledge and expertise to address specific local environmental issues. The project, initiated and coordinated by RSPN and funded by UNDP, supported activities in ten schools of different levels in eight Dzongkhags throughout Bhutan. Grants from Nu. 10,000 to Nu. 50,000 supported a range of projects deemed appropriate and necessary for the given area. These included stream cleaning, marshland conservation, and water catchment as well as waste management and recycling programs. All ten schools successfully implemented their proposed projects with demonstrated improvements to the quality of the local environment.

Bjoka Community Primary School in Zhemgang Dzongkhag suffered a multi-year water shortage that affected not only

the school but also the surrounding villages. Water quality and availability had declined significantly due to poor management and lack of protection of the source, leading to a community crisis that affected about 90 households in the two gewogs of Bjoka and Ngangla. To address the issue, the school, in conjunction with the local community, Gewog center, BHU and RNR center took three major steps. Over 1000 banana and fig saplings were planted in catchment areas with community awareness campaign aimed to educate the community on the importance of environmental sustainability in general and local water management in particular.

Sisina Community Primary School in Thimphu Dzongkhag used their action grant to clean the nearby Sisina stream. The stream had become and dump site and toilet area. It affected hundreds of students on their trip to

and from school. Nature club members thoroughly cleaned the stream, collecting over 5000 kilograms of garbage in routine cleaning activities over several months. With these initiatives, the area has ceased to be a dump site and remained clean.

Another successful stream cleaning project took place in Paro Dzongkhag, where *Shari Higher Secondary School* worked to revive Jela Rongchu, a stream that supports over 100 households in Dop Shari and Juka. Jela Rongchu's water is used for drinking, irrigation and other domestic purposes, but had recently been declined and polluted due to new settlements in the region. The school had a consultation meeting with a local leader and the community to propose their project. After receiving local support, the students worked in regular events to clean the stream and plant over one hundred saplings along the banks.

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Study Tour to Malaysia



Participants with counterparts in Malaysia

Twelve participants representing various sectors (Tourism Council of Bhutan, Association of Bhutanese Tour Operators, Nature Recreation and Ecotourism Division, Guide Association of Bhutan, Local Government (Phobji and Gangtey Gewog, Wangduephodrang), Phobjikha Environment Management Committee and RSPN) embarked on a four day study tour to various ecotourism destination in the outskirts of Kuala Lumpur, Malaysia from 15-18 November 2011. The program allowed participants to taste the tropical rain forest fruits and sea foods, feel the heavy afternoon convectional rainfall, and witness the successes and struggles of a very different eco-tourism experience.

The study tour was tailor-made for the Community-based Sustainable Tourism Development project (Phobjikha) for the Steering Committee Members and the local communities with two main objectives:

1. to gain practical knowledge / experience on community based sustainable tourism activities initiated by the local communities in Malaysia and

2. to learn practical experiences on eco-tourism that would help the SC members and the locals to implement back home. The study tour destination included, among others, the following places:

- a) Ulu Geroh, where Rafflesia, the world's largest flower and the Rajah Brooke Birdwing butterfly- Malaysia's national butterfly, a rare and protected species that can only be found in Peninsular Malaysia. Ulu Geroh eco-tourism program was initiated by Malaysian Nature Society (MNS an environmental NGO- www.mns.my) and the local indigenous people's group called the Sahabat Ekopelancongan Memulihara Alam Indah (SEMAI), (Friends of Ecotourism

and Conservation of Beautiful Nature). The eco-tourism concept is centred around the protection and conservation of Rafflesia and the Rajah Brooke Birdwing butterfly but at the same time economically benefitting the local people. The participants enjoyed watching magnificent butterfly and their strange and phenomenal behaviour, experienced local dishes, local dance and arts and crafts.

- b) Sungai Sireh in Kuala Selangor is eco-tourism destination which has gained its popularity for promoting and hosting tourists/guests as an agro-tourism destination with homestay experience. This eco-tourism program represents partnership between the local people and the government and it is centered around agriculture and local lifestyle.. With some financial support from the Ministry of Agriculture and the technical and promotional support from the Ministry of Tourism Sungai Sireh was promoted as an agro-tourism destination starting with the 15 households. Later as the homestay program gained popularity with the members earning income from it the number of members had starting increasing. Currently the number of homestay members is 60 households. The

registration for homestay is done through the agro-tourism homestay representative who makes sure that every household gets equal opportunity through equal distribution of guests. From the homestay package rate certain fee is included as management charge for the member representative office, for e.g. from the rate of MYR 50 charged per person per night MYR 35 is given to the homestay owner and MYR 15 is charged as the management fee.

Participants had opportunities to visit agriculture fields (sugarcane, bean, fruits) collectively owned by the community and stay at different homestays and experience the life-style of the Muslim community.

Gombak: Here the participants met with Mr. Raman- an indigenous Semai tribe and well experienced in local craft making from bamboos that he has learnt from his father. He aspires to preserve the culture and indigenous knowledge that he has gained from his forefathers and pass it down his children as well as to encourage the other members of his tribe to do the same. This is a case of individual initiative to promote eco-tourism and preserve and revive the indigenous culture.

Mr. Raman made a demonstration on how to make a blow pipe and nose flute from bamboo. He then played the flute along with the Sewang dance music played by the women in his family. During that time the group also enjoyed the delicious meal prepared by the women in an indigenous way by cooking rice in a cane and roasting chicken and fishes on open fire.

The participants had a great opportunity to see the various models of ecotourism operation in the outskirts of Kuala Lumpur namely; community-NGO partnership, Community-government partnership and individual initiative ecotourism programs, giving them the opportunity to look at the various aspects of eco-tourism management, conservation, agriculture and culture centered eco-tourism and the benefits of ecotourism to the local communities. The participants also visited the Tourism Malaysia Office (<http://www.tourism.gov.my/>) and the Malaysian Nature Society Secretariat. The MNS organised the entire study tour program in Malaysia in collaboration with Japan Environmental and Education Forum and RSPN.



Grid Connect Solar System



Solar panels installed on RSPN headquarter's rooftop

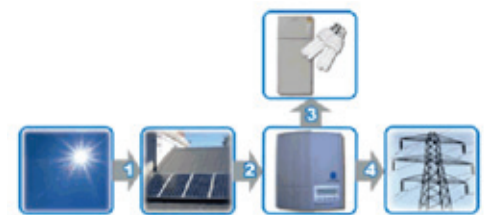
The modern Grid Connect Solar concept and technology offers immense opportunity for Bhutan to benefit economically while contributing to mitigation of Climate change. As a Himalayan country, Bhutan has fairly good exposure to solar radiation especially during the Autumn,

Winter and Spring. During these seasons and especially during the winter, when the hydro-power 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.

Technical details of the system: Solar Power Generating System

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

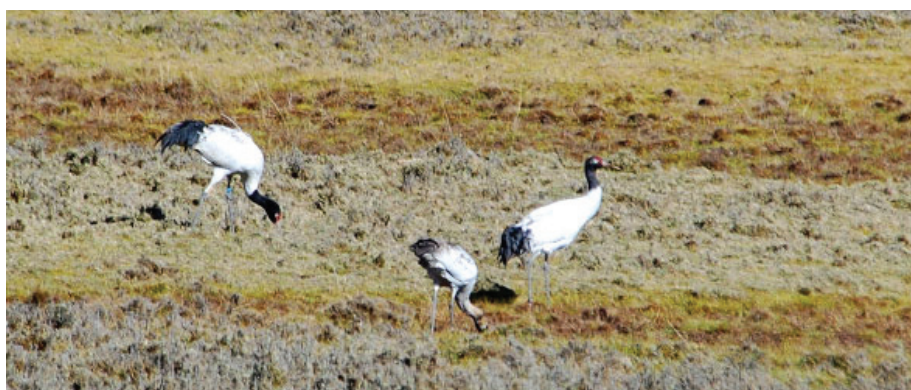
Project partners: Department of Energy, Ministry of Economic Affairs and Bhutan Power Corporation Ltd., SARI/E Small Grants Program.



featured song and dance by local students, community groups, and monks and has become an increasingly famous and popular event in and outside Bhutan. The success of Phobjikha's festival has inspired other areas that are home to the Black-necked Crane to take responsibility for and pride in their own populations.

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Banded cranes in Phobjikha

compared to 4 cranes last winter, Chuzagang gup Sangay Tshering said the presence of the birds "is a surprise because the Black-necked Cranes were considered to land only in places of higher altitudes," and that people were happy to see the rare bird in their home.

Meanwhile, officials from dzongkhags and local government offices across the coun-

try are taking additional responsibilities to educate and create awareness in the community on crane conservation.

Phobjikha valley's 13th annual Black-necked Crane festival was held this year on November 11 and attended by RSPN members, local community and students, and a large number of foreign tourists. The event

Banded Cranes

Two banded cranes are back in the Phobjikha valley. In the winter of 2010-2011, RSPN in collaboration with the Ugyen Wangchuck Institute for Conservation and Environment, Bumthang, banded four adult cranes with GPS Accelerometer in Phobjikha valley. Crane Gangtep, banded in the winter of 2005-2006 by RSPN is also back in the valley with a juvenile.

Data downloaded from the two cranes shows that the cranes travelled about 130kms from Phobjikha to their summer habitat, near a lake called Bamtsho in Tibet. The cranes used the route over Punakha, Gasa and Jomolhari Mountain to reach their summer habitat.

The successful tracking of these birds marks a major step in study of the Black-necked Cranes, about whose migration patterns little has been known until now.

Pilot project

RSPN has introduced this Grid Connect Solar System 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.

Project activity:

- 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 with the Royal Government of Bhutan for advocate with the Royal Government, the potential of Grid connect solar, for the benefits outlined above.
- Work with relevant international climate change and energy agencies to foster up-scaling of this system.

Nature Club Action Grant Summary, 2011



Nature clubs used grants for various activities.

To show their ongoing commitment to Jela Rongchu, the school formally adopted the waterway. Initial cleaning and planting programs have been successful and it is hoped that in the future the water quantity and quality will increase.

Drukgyal Higher Secondary School in Paro Dzongkhag was struggling with large quantities of garbage being dumped by tourists and travelers on the road side between Lango and Drukgyal due to high traffic and lack of awareness or facilities. The school conducted an education and awareness program for local people that also featured a cleaning campaign along the highway. More than two truckloads of garbage were collected during the event and brought for disposal at the dumpsite in Paro. The school adopted the stretch of highway between Satsam and Drukgyal Dzong for continued monitoring. They also created a few benches and waste containers at various sites along the road and in front of the school gate to encourage proper disposal of the wastes.

The over 1500 students and 55 teachers at *Damphu Lower Secondary School* in Tsirang Dzongkhag were facing problems with shortage of water due to the drying of the local water source. Water shortages led to sanitation problems and subsequent increase in disease among students and staff. With the action grant, the school identified a new source and enacted a transport and management system. The school fenced the catchment area to limit cattle, executed plantings for increased vegetation cover. They also constructed a water tank for storage, and installed a *Sachu Bumter*. The school and about 70 households now enjoy an abundant flow of water for drinking and other utilities.

Ura Middle Secondary School in Bumthang Dzongkhag initiated a massive cleaning campaign involving students, staff and local people. The campaign aimed to mitigate the waste generated by a growing population in

the valley and east-west national highway travelers dumping and defecating in the forest beside the road. Seven sets of waste bins were placed along the highway on a stretch of road adopted by the school, and two semi-permanent toilets were constructed at She-tangla with an information board. As a result of the project, local people and travelers use the garbage bins and toilets regularly, limiting litter and human defecation.

Tasbitse Higher Secondary School used their grant to start a paper recycling and waste water treatment project. A waste paper recycling plant was introduced to the school along with necessary equipment including buckets, blender and dryer. They now have designated bins for paper recycle, and the resulting products are used in various classroom activities. In addition, the school constructed a waste water filtration tank using locally available resources like pebbles, sand, stone, and grass. All wastewater from kitchen and dishwashing taps is collected, filtered, and then piped to toilets to be used for flushing. In the future, the school have plans to harvest rain water for

bathroom use.

Rain water harvest was successfully deployed to address water shortages at *Gomtu Middle Secondary School* in Samtse Dzongkhag. Gutters were fixed on the roof of the school toilets and a large storage tank was constructed. Rain water is now collected and pumped through the toilets, increasing sanitation and leaving other water available for drinking and other uses. The project educated students and staff on water conservation.

Water conservation measures were also implemented at *Namgay Choling Community Primary School* in Samtse Dzongkhag, which had long been suffering shortages, especially during dry seasons. The project aimed to protect the existing source and take advantage of monsoon rains to meet the water shortage. Using local materials like bamboo, the school constructed a rain water catchment system and storage tank on the roof of the staff quarter to harvest rainwater. The school also cleaned and fenced the local spring with plantation of saplings. These two actions have addressed the water shortage problem and increased sanitation in the school.

A project at *Dungna Lower Secondary School* in Chukha Dzongkhag aimed to mitigate the drying of the local marshland. The marsh was believed to be a lake in the past, but a man-made gully had been gradually broadening and draining the area, destroying important habitat. To control further deepening of the gorge and excessive loss of water from the marsh, the school constructed a check dam. Students also began to identify species of frog and fish found in the marshland. The marshland is currently in the process of reviving and the local community hopes to have a sustainable water source in a few years when the land is fully refurbished.

These ten projects have successfully addressed specific environmental concerns identified by each school and their community. With the support from UNDP, the grants have empowered students, staff and administrators to seek sustainable solutions to local problems, improving their environmental health and quality of life while inspiring and aiding the surrounding community.



Semi-permanent toilets constructed by Ura middle secondary school for high-way travellers

WORD SAFARI

In this edition, we have compiled elephants, primates and deer and the park they are found in. We will publish this data in series of our next Rangzhin editions. (Source: *Bhutan's Natural Heritage - A Legacy of the Monarchs*, RSPN, Thimphu)

Find and encircle the words which are **bold** and underlined. We have encircled one to help you get start with.

IUCN Status	Major Herbivorous Mammals		Protected Areas**									
	Common name	Latin name	J D N P	J S W N P	B W S	R M N P	T N P	S W S	P W S	W C P	T S N R	K W S
Endangered	Indian Elephant	<i>Elephas maximus</i>	X	X	X	X	X	X	X	X	X	X
Lower risk	<u>Pangolin</u> species	<i>Manis spp.</i>	X	X	X		X	X		X		
Enganhered	Golden Langur	<i>Presbytis geei</i>		X		X	X		X		X	X
Endangered	<u>Capped</u> Langur	<i>Presbytis pileatus</i>	X	X	X	X	X	X	X	X	X	X
Lower risk	Grey Langur	<i>Presbytis entellus</i>	X							X		
Vulnerable	Assamese <u>Macaque</u>	<i>Macaca assamensis</i>	X	X	X	X	X	X	X	X	X	X
Lower risk	Rhesus Macaque	<i>Maca mulatta</i>	X	X	X		X	X		X	X	
Data deficient	Slow <u>Loris</u>	<i>Nycticebus bengalensis</i>				X			X		X	X
Endangered	Bhutan <u>Shou</u>	<i>Druk shou</i>		X		X			X			
Vulnerable	Musk deer	<i>Moschus moschiferus</i>	X	X	X	X	X	X	X		X	X
Vulnerable	Spotted deer (Chital)	<i>Axis asis</i>	X	X	X	X	X	X	X	X	X	X
Lower risk	Sambar	<i>Cervus unicolor</i>	X	X	X	X	X	X	X		X	X
Lower risk	Hog Deer	<i>Axis procinus</i>				X			X			
	Barking deer (Muntjac)	<i>Muntiacus muntjak</i>		X		X			X		X	X

M	E	M	A	C	A	Q	U	E	N										
S	L	P	H	S	N	A	L	O	E										
W	E	A	Y	S	O	D	I	J	L										
I	P	A	N	G	O	L	I	N	I										
L	H	C	R	O	R	E	H	C	N										
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S	N	O	D	S	H	O	U	X	S										
E	G	T	L	D	E	N	E	O	E										
S	A	M	B	A	R	O	X	R	N										

** **JDNP**: Jigme Dorji National Park; **JSWNP**: Jigme Singye Wangchuck National Park; **BWS**: Bumdeling Wildlife Sanctuary; **RMNP**: Royal Manas National Park; **TNP**: Thrumshingla National Park; **SWS**: Sakten Wildlife Sanctuary; **PWS**: Phibsoo Wildlife Sanctuary; **WCP**: Wangchuck Centennial Park; **TSNR**: Toorsa Strict Nature Reserve; **KWS**: Khaling Wildlife Sanctuary

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