

# Annual Report 2019



**BHUTAN ECOLOGICAL SOCIETY**

# Content

Sl No	Topics	Page No
1	Mission	1
2	Signage Along Taktsang Trail	2
3	Enabling an Energy Efficient Built Environment in Bhutan	2
4	BLISS	3
5	JSW-OESA	4
6	Annual Research Symposium and Environmental Fair	4
7	Hosting Student Study Abroad Program from the US	5
8	Climate change adaptation and responses of high-altitude schools	6
9	Conservation Assured Tiger Standards (CA TS)	7
10	Auditors Report	8
11	Audited Financial Statement	9
12	Board of Director's Report	9

## *Mission*

### ❖ MISSION

- a science and policy advisory to inform and guide policy makers, government and citizens on current and emerging environmental issues in Bhutan;
- a platform for promoting conservation research and sharing of ecological knowledge in Bhutan, through research symposia and conferences, the internationally peer-reviewed journal Proceedings of BES, and trainings and seminars; and
- programs to engage, educate and inspire youth and the public to discover nature and protect their natural environment.

## *Project Spotlight 1.*

### *Signage Along Taktsang Trail*

The project is initiated to disseminate information regarding the ages of a select few trees and the surrounding birdlife along the Taktsang Trail to visitors by placing infographic signages. The prime objective of the initiative is to enable visitors to appreciate the natural world along one of Buddhism's most sacred trails.



*Paro Dzongda unveiling the signages*

The forest around the trail to Taktsang Monastery in Paro is home to five plants and 33 bird species. The Bhutan Ecological Society has put up signage of the species.

Precisely, there are 14 boards that have information about the species that can be seen on the hike. The signage was inaugurated on Wednesday. The World Wildlife Fund (WWF) supported the initiative. The tree species are rhododendron, blue pine, hemlock, populus and brown oak. Of the 33 species of bird, 10 are residential and others migratory.

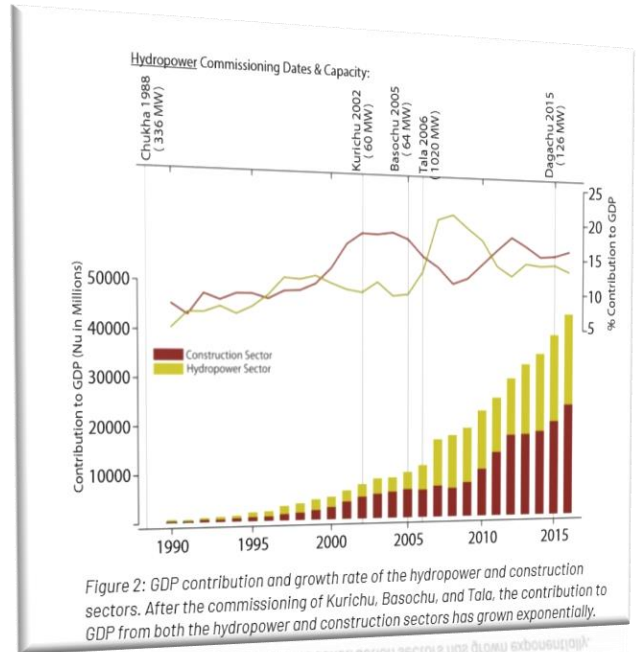
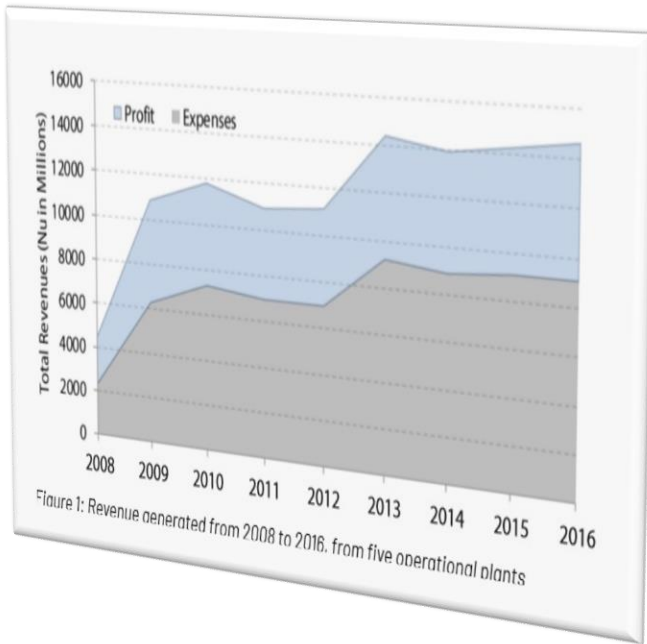
## *Project Spotlight 2.*

### *Enabling an Energy Efficient Built Environment in Bhutan*

Over the last two decades, the construction sector in Bhutan, along with the hydropower sector, has witnessed exponential growth. As of 2017, the construction sector employed over 3,866 contractors, generated 15.87% of Bhutan's GDP, and employed 3.2% of the labour force (fig.1 & 2). Thimphu has trebled in size from only about 8 km<sup>2</sup> in 2002 to almost 26 km<sup>2</sup> at present, and over a thousand new buildings have been approved for construction since 2011. By 2018, Thimphu had an estimated total of 5295 houses. Similar growth in the number of buildings is also noted in rural areas; over 3500 applications were filed for subsidized timber allocation for new constructions in the five western Dzongkhags of Wangdue, Punakha, Thimphu, Paro and Haa between 2013 and 2017.

The building sector alone in Bhutan accounted for almost 42% of domestic electricity consumption in 2014. However, similar to the rest of the world, adoption rates of energy efficiency measures are not keeping pace with the growing number of

buildings and floor size. Globally, buildings and construction together consume close to 36% of all energy use and generate nearly 39% of all energy-related GHG emissions.



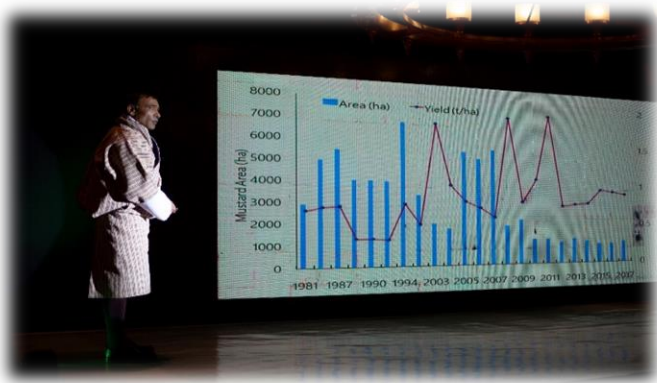
As per Bhutan’s draft National Energy Efficiency & Conservation Policy, implementation of energy-efficient measures can realize annual savings of up to Nu. 621 million (300 million kWh). Such measures, according to the draft Energy Efficiency Roadmap of 2018, will also save energy consumption to the tune of 0.4 million TOE and reduce GHG emissions of up to 2.3 Million tCO<sub>2</sub>e over the next 15 years. This incisive report proposes following way forwards:

1. Kickstart A Sustainable Building Initiative
2. Target Mega Buildings & New Townships
3. Build Capacity, Networks, and Knowledge Sharing
4. Support Innovation and Technology Enhancement throughout the Supply Chain
5. Establish an Energy Endowment

### Project Spotlight 3.

#### BLISS

The Bhutan Lectures on Innovation, Science & Society (BLISS) is an initiative of the Bhutan Ecological Society (BES) to bridge the information gap in the country. Our prime objective is to bring transformative ideas to the fore and thereby help raise public awareness and knowledge. By presenting it in the form of a public lecture, employing the power of imaginative storytelling, the society wishes to inform, educate, empower and inspire Bhutanese and global citizens.



*Dr. Yadu Nath Bajgai and Thorsten Chlupp speaking during the first BLISS Lecture Series*

The lectures series will happen every four months to bring transformative ideas, plans and policy initiatives to the forefront and help raise awareness.

By presenting it in the form of a public lecture, the program will be a platform to offer ideas, solutions and possibilities to conserve the environment.

### *Project Spotlight 4.*

#### **JSW-OESA**

Bhutan is increasingly regarded as a Champion of Environmental Protection. Under the farsighted leadership of His Majesty the Fourth King, Bhutan has crafted a visionary constitution which accords the protection of our environment the highest priority. To honour the legacy of His Majesty, the Jigme Singye Wangchuck Award for Outstanding Environmental Stewardship is conferred once every two years to individuals, institutions and communities who have gone beyond the call-of-duty to protect and conserve our environment. The 5<sup>th</sup> JSW-OESA is conferred to Late Dr. Sangay Wangchuk

Late Dr. Sangay Wangchuk was born in Jamkhar, Trashiyangtse in the early 1950s. He served in the Department of Forests and Park Services for over 40 years and as the head of the Nature Conservation Division under the Department of Forests and Park Services, he was instrumental in establishing the current system of Protected Areas in Bhutan. He also led and oversaw the design and designation of Bhutan's widely admired network of biological corridors. The 3360 km<sup>2</sup> corridors were offered as a gift to the Earth by Bhutan in 1999. Dr. Sangay Wangchuk also mentored a generation of conservationists and was widely regarded in Bhutan's conservation field.

### *Project Spotlight 5.*

#### **Annual Research Symposium and Environmental Fair**

he Bhutan Ecological Society (BES) successfully hosted its 5<sup>th</sup> Annual Research Symposium on 2-3 December in Thimphu, Bhutan. The symposium drew researchers from universities, government agencies, CSO's and schools.

Her Royal Highness Ashi Chimi Yangzom Wangchuck, the Royal Patron of BES opened the program with a keynote address emphasizing the importance of being connected to ecology and environment in this technological era to aggrandize our pursuits for prosperity, peace and wellbeing. During the Inaugural Ceremony, the 5<sup>th</sup> Jigme Singye Wangchuck Outstanding Environmental Stewardship Award (JSW-OESA) was conferred to late Sangay Wangchuk (PhD). Late Dr. Sangay Wangchuk served in the Department of Forests and Park Services for over 40 years and as the head of the Nature Conservation Division under the Department of Forests and Park Services, he was instrumental in establishing the current system of Protected Areas in Bhutan. The Bhutan Ecological Society launched the 3<sup>rd</sup> issue of the Journal of the Society, showcasing the work of Bhutanese authors from across the country. A report on Enabling an Energy Efficient Built Environment in Bhutan was also launched during the event.



*A Bhutanese researcher presenting his findings during the symposium*

The two-day research symposium featured talks by 30 covering presentation from species conservation, sustainable livelihood, waste management, water, climate and agricultural productivity. The program also included a presentation by School for Field Studies (SFS) and poster session as part of the event. The proceeding from the symposium is expected to be useful for decision-makers. The environmental fair showcased various information booths and innovative models related to conservation or environmental protection.

Research symposium is an annual event for the society initiated with a hope to discourse researcher from different sectors to discuss and promote ecological integrity while promoting economic development in the country. The Sixth Annual Research Symposium and Environmental Fair will be hosted in 2019.

### *Project Spotlight 6.*

#### *Hosting Student Study Abroad Program from the US*

BES hosted a group of 22 undergraduate students from different universities/colleges from the United States of America (USA). The Ugyen Wangchuck Institute for Conservation and Environmental Research (UWICER), Bumthang, the Bhutan Ecological Society (BES), Thimphu, and the SFS head office based at Massachusetts, USA jointly host this interdisciplinary field-based course in Bhutan. During the program, the students studied three main courses on i) Political and Socioeconomic

Dimensions of Environment; ii) Mountain Ecology; and iii) Land Use, Natural Resources, and Conservation and also on Bhutan's basic religion and culture.



*Introductory session with the new SFS students*

SFS is a not-for-profit corporation based in the USA. SFS organizes field-based environmental education and research programs for undergraduate students to develop environmentally literate citizens, and to promote sustainability of the world's natural resources. SFS organizes its programs in ten different countries all over the world. The program in Bhutan was started in 2010.

### *Project Spotlight 7.*

#### *Climate change adaptation and responses of high-altitude schools*

The project is an initiative to create a better learning environment for the student of high-altitude school in responses to their harsh climatic condition. Initially, the project is implemented in Merak Primary School (3500 msl) and will be expanded to other five schools located in the alpine region. Project implemented site: Merak Primary School (3500 msl) While ensuring a better place for student, the project also enhances sustainable uses of scarce alpine forest resources through modern intervention by introducing electric utensils and appliances. The project was implemented after consultation with the ministry of education, after having found out that the development of schools in the alpine area was challenging due to limited resources.

The project is supported by the Karuna Foundation based in the USA.





*Wooden paneling and electrical retrofitting of classrooms in Mera Primary School*

### *Project Spotlight 8.*

#### ***Conservation Assured Tiger Standards (CA|TS)***

The Conservation Assured Tiger Standards (CA|TS) is an accreditation scheme that encourages tiger conservation areas to meet a set of standards and criteria, created by an international group of experts and protected area managers that assures effective and long-term tiger conservation. CA|TS is a partnership between governments, NGOs and tiger conservation areas to define and implement these conservation standards. Becoming part of CA|TS provides countries, individual tiger conservation areas or networks of areas with the opportunity to demonstrate a commitment to, and success in, protecting wild tigers. CA|TS mission is to secure safe havens for wild tigers and to ensure enough spaces for tigers to live and breed to increase populations.

Three national parks in Bhutan, Royal Manas National Park (RMNP), Jigme Singye Wangchuck National Park (JSWNP) and Jigme Dorji National Park (JDNP) are in the process of registering with CA|TS. As a leading NGO for CAITS reviewing site, Bhutan Ecological Society visited those three parks to collect evidence on tiger population, conservation and monitoring methods. The team analyzed and submitted the findings to the national and international verification team for approval as tiger sites in the world.



*BES team with RMNP staff*

**Auditors Report**

**AUDITORS' REPORT ON THE FINANCIAL STATEMENTS OF BHUTAN ECOLOGICAL SOCIETY FOR THE PERIOD 1 JUNE 2017 TO 31 DECEMBER 2018**

**Opinion**

We have audited the accompanying financial statements of **Bhutan Ecological Society, Thimphu** which comprise the Receipts and Payments Statement and schedules forming part of the financial statements for the period from 1 June 2017 to 31 December 2018, as required under the Audit Act of Bhutan 2018 and as per the Terms of Reference issued by the Royal Audit Authority (RAA) vide letter Ref. No.RAA (OSA-10)/AC/2019/699 dated 19/03/2019.

In our opinion, the financial statements are prepared, in all material respects, in accordance with Financial Rules and Regulation 2016.

**Basis for opinion**

We conducted our audit in accordance with International Standards of Supreme Audit Institutions (ISSAIs). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the audit of Financial Statements section of our report. We are independent of **Bhutan Ecological Society, Thimphu** in accordance with RAA's Code of Ethics, and we have fulfilled our responsibilities in accordance with the requirements outlined in this code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Responsibilities of Management and Those Charged with Governance for the Financial Statements**

Management is responsible for the preparation of the financial statements in accordance with the Financial Rules and Regulations 2016 and for internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Those charged with governance are responsible for overseeing the Bhutan Ecological Society's financial reporting process.

**Auditors' Responsibility**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISSAIs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are



**Appendix - I**

**Auditor's Responsibilities for the Audit of the Financial Statements**

As part of audit in accordance with ISSAIs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omission, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Bhutan Ecological Society's internal control.

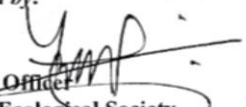
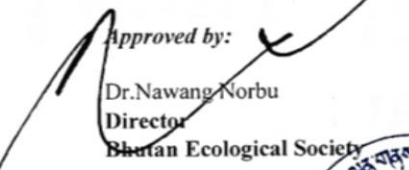

We communicate with the management, among others, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during the audit.




**Audited Financial Statement**

RECEIPTS AND PAYMENTS STATEMENT for the Period: 01.06.2017 to 31.12.2018						
Amount in Ngultrum						
Receipts	Schedules	2018	2017	Payments	Schedules	2018
<b>A. Opening Balances:</b>				<b>C. Operation Expenditures:</b>	3	12,478,927.08
a. Cash in Hand		0.26		<b>D. Programme Expenses:</b>		
b. Cash at Bank		183,998.09	604,913.42	a. Energy & Climate Adaptation of		
c. Advance with Officials	1	321,000.00	-	High Altitude School		686,425.00
d. Advance with private parties	2	994,000.00	-	b. Professional Services (SFS)		252,845.00
<b>Sub-Total (A)</b>		<b>1,498,998.35</b>	<b>604,913.42</b>	c. Symposium and Award (JSWOESA)		472,871.00
<b>B. Fund Received during the Year:</b>				<b>Sub-Total (D)</b>		<b>1,412,141.00</b>
a. Bhutan Foundation		3,967,115.00	2,827,000.00	<b>E. Purchase of Assets</b>	4	<b>80,200.00</b>
b. Bhutan Telecom Limited		15,000.00	-	<b>F. TDS</b>		<b>31,575.22</b>
c. Bhutan Trust Fund		250,000.00	-	<b>G. Closing Balances:</b>		
e. Revenue & Customs		541,300.00	-	a. Cash in Hand		0.26
f. RSPN, Thimphu		50,000.00	-	b. Cash at Bank		5,104.92
g. UNDP		100,000.00	-	c. Advance with Officials	1	435,000.00
h. WWF, Thimphu		725,655.00	-	d. Advance with private parties	2	994,000.00
i. SFS, USA		8,214,688.91	9,308,157.31	<b>Sub-Total (F)</b>		<b>1,434,105.18</b>
j. Interest Earned		30,744.80	37,147.06			
<b>Sub-Total (B)</b>		<b>13,894,503.71</b>	<b>12,172,304.37</b>			
<b>C. TDS to RRCO</b>		<b>43,446.42</b>	<b>31,575.22</b>			
<b>Grand Total (A+B+C)</b>		<b>15,436,948.48</b>	<b>12,808,793.01</b>	<b>Grand Total (C+D+E+F)</b>		<b>15,436,948.48</b>

<p><i>Prepared by:</i></p>  <p>Ugyen Finance Officer Bhutan Ecological Society Bhutan Ecological Society</p>	<p><i>Approved by:</i></p>  <p>Dr. Nawang Norbu Director Bhutan Ecological Society</p>	<p><i>Certified by:</i></p>  <p>Jigmi Rinzi FCCA (ACCA Membership No. 02) Managing Partner JIGMI Audit &amp; Financials</p>
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**Acknowledgement**

**Board of Directors**

- Dasho Paljor J. Dorji, President of BES
- Dasho Nidup Dorji, Vice-chancellor, Royal University of Bhutan
- Kesang Choden Dorji, Director General, Department of Adult and Higher Education
- Phento Tshering, Director, National Environment Commission
- Mewang Gyeltshen, Director, Department of Renewable Energy