



THE SCHOOL
FOR FIELD STUDIES

Himalayan Forests & Gross National Happiness SFS 3181

The School for Field Studies (SFS)

Ugyen Wangchuck Institute for Conservation and Environmental Research (UWICER) and Bhutan
Ecological Society

Centre for Himalayan Environment and Development Studies

Paro, Bhutan

This syllabus may develop or change over time based on local conditions, learning opportunities, and faculty expertise. Course content may vary from semester to semester.

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COURSE CONTENT SUBJECT TO CHANGE

Please note that this is a copy of a recent syllabus. A final syllabus will be provided to students on the first day of academic programming.

SFS programs are different from other travel or study abroad programs. Each iteration of a program is unique and often cannot be implemented exactly as planned for a variety of reasons. There are factors which, although monitored closely, are beyond our control. For example:

- Changes in access to or expiration or change in terms of permits to the highly regulated and sensitive environments in which we work;
- Changes in social/political conditions or tenuous weather situations/natural disasters may require changes to sites or plans, often with little notice;
- Some aspects of programs depend on the current faculty team as well as the goodwill and generosity of individuals, communities, and institutions which lend support.

Please be advised that these or other variables may require changes before or during the program. Part of the SFS experience is adapting to changing conditions and overcoming the obstacles that they may present. In other words, the elephants are not always where we want them to be, so be flexible!

Course Overview

Bhutan is internationally famous for its development concept of Gross National Happiness (GNH). GNH, which has its underpinnings in the Buddhist philosophy of the Middle Path, is the guiding principle of development in Bhutan, and is understood to have four pillars: good governance, cultural protection and preservation, sustainable development, and environmental conservation.

GNH and a leadership committed to conservation has led to Bhutan having more than 70% forest cover and about 50% of its land area under formal protection. Bhutan's forests which fall within the eastern Himalayan region is characterized by extensive and numerous mountains and valleys, hosting some of the world's highest peaks and a diversity of vegetation and wildlife. Bhutan's natural landscapes host an estimated 770 species of birds and other diverse fauna, including the takin, snow leopard, golden langur, blue sheep, and tiger. Ecosystems range from subtropical broadleaf forests in the south, to subalpine conifer forests, alpine shrub, and high-mountain meadows. The highest elevations comprise rock and ice.

These forests and natural landscapes are integral to Bhutan's development, and key to ensuring food, water and energy security.

Over four weeks, students will learn about the interplay between GNH, resource use and development. Through travel to various parts of the country, students will be exposed to the culture and history, religious traditions, environmental issues, and conservation policies. Students will stay in Bhutanese villages and trek across Himalayan landscapes to experience and understand rural livelihoods and their connection to the natural environment. Academically, students will develop skills in assessing environmental problems, designing socio-economic surveys, conducting resource assessments, and communicating results. Students will be guided to appreciate the complexities and challenges involved in meeting development goals while simultaneously ensuring the adequate conservation of natural resources in a rapidly changing region.

SFS partners with the Ugyen Wangchuck Institute for Conservation and Environment Research (UWICER), an international research and training facility in Bumthang, Bhutan and the Bhutan Ecological Society (BES), a Civil Society Organization promoting environmental sustainability in Bhutan. SFS students and faculty will collaborate with UWICER and BES to advance its research agenda in several priority areas, including forest management, community resource assessment, and development policy.

Learning Objectives

There are multiple topical themes in this course: Gross National Happiness and its impact of Bhutan's development with a particular focus on conservation and natural resources management; culture and religion of Bhutan; conservation and development policy; forest and resource management; local knowledge systems; and changing rural livelihoods. These will be addressed through classroom lectures and discussions, field lectures, and field research in the form of Field Exercises (FEX). Classroom and field lecture topics will include essential background information, and field exercises will be used to reinforce key concepts and provide students with field-based experiences. Extended field trips will enable students to examine ecological and cultural elements across the landscape and cultivate a deeper understanding of the social, religious, political and environmental characteristics of Bhutan.

Following this course, students should:

- 1) Be familiar with the concept of GNH and its implications on Bhutan's development.
- 2) Develop a critical appreciation of the role which forests play in Bhutan's overall development trajectory, particularly in relation to rural livelihoods, food, water and energy security.
- 3) Understand basic concepts of environmental governance, forest management, conservation, rural development, community resource management, forest-based livelihoods and environmental sustainability, as well as the practical application of those concepts.
- 4) Have an enhanced appreciation and awareness of the important (and often underestimated) societal factors that affect development and conservation.
- 5) Be able to recognize several vegetation types according to elevation, and to identify threats to ecosystems and conservation strategies to maintain them.

Assessment

The evaluation breakdown for the course is as follows:

Assessment Item	Value
A Review of GNH & Sustainable Development Goal Indicators	20
FEX Report: Forest Resource Assessment	20
FEX Report: Forests & Livelihoods	20
SLD: Can Forests be A Driver of Economic Growth?	20
A Reflection on Forests, GNH and Bhutan's future	20
TOTAL	100

Description of Assignments

A Review of GNH & Sustainable Development Indicators

Students will prepare a 3 – 5 page group report on GNH and the UN SDG indicators, and present their results to class. They will examine commonalities and identify potential shortfalls in these indicators and how far Bhutan has reached in terms of achieving these goals. They will assess the role which environmental conservation (i.e. forests) plays in meeting these development goals.

FEX: Forest Resource Assessment

In groups, students will conduct a forest resource assessment. They will identify species, count standing stems and estimate growing stock (volume). Students will also estimate *annual allowable cuts*. Grading will be based on group presentations explaining methods used, results obtained and how such results may be used for forest management.

FEX: Forests & Livelihoods

Student groups will design and implement an interview or questionnaire related to livelihoods and forests. Students will develop survey questions in small groups, administer the survey, apply basic methods to summarize and analyze qualitative (and quantitative) data. Grading will be based on group presentations explaining rationale, methods used, results obtained and what it means.

SLD: Can Forests be a Driver of Economic Growth?

Students will work in groups to examine government data and public statements calling for more use of Bhutan's forests. In groups, students will prepare presentations to either support or refute the calls for more use of Bhutan's forests. Students will be graded on the strengths of their arguments and their ability to use data and facts to support their case.

A Reflection on Forests, GNH and Bhutan's Future

Each student will write a 2 – 3 page paper examining the linkages between forests and development within the framework of GNH. The paper will reflect on the challenges and opportunities for forest management and conservation considering Bhutan's rapidly changing socio-economic conditions.

Grading Scheme

A	95.00 – 100.00%	B+	86.00 – 89.99%	C+	76.00 – 79.99%	D	60.00 – 69.99%
A-	90.00 – 94.99%	B	83.00 – 85.99%	C	73.00 – 75.99%	F	0.00 - 59.99%
		B-	80.00 – 82.99%	C-	70.00 – 72.99%		

General Reminders

Plagiarism, using the ideas and material of others without giving due credit, and cheating will not be tolerated. A grade of zero on the assignment will be given for plagiarism or cheating or aiding another person to cheat either actively or passively. Plagiarism cases may be reported to the student's home institution and may be grounds for further academic disciplinary action.

Deadlines for assignments are established to promote equity among students, to allow faculty enough time to review and return comments and grade before other assignments are due; and to avoid clashes with other activities and courses. Therefore, deadlines are firm and extensions will only be considered under extreme circumstances. Unapproved late assignments incur 10% penalty per day and assignments will not be accepted after three days.

Course Content

Type - L: lecture and discussion, **GL:** guest lecture, **FL:** field lecture, **FEX:** field exercise,
SLD: student led discussion; **SGP:** Student graded presentation

Readings in **bold** are required; others are optional supplementary reading.

****Note: Syllabus items and course content are subject to change***,*

No	Type	Class title	Hrs	Reading
TBD	L,D	Academic Orientation & Expectations Setting	1.5	
TBD	L	Introduction to Bhutanese Language & Culture	3	
TBD	L,D	Introduction to Buddhism	1.15	

No	Type	Class title	Hrs	Reading
TBD	L,D	Biogeography of Himalayas	1.15	Singh 1987 (pages 84-87) Pandey 2015
TBD	L,D	Political History of Bhutan	1.15	Phuntsho 2013 Ardussi 2004
TBD	L	GNH & The Middle Path	1.15	
TBD	L,D	Conservation and Buddhist Culture	1.15	Kuyakanon 2014 Pommaret 2004
TBD	L,D	SDGs, Bhutan and the Region	1.15	
TBD	SGP	A Review of GNH & Sustainable Development Goal Indicators	1.15	
TBD	L,D	Bhutan – The Last Himalayan Biodiversity Refugia	1.15	
TBD	FL	Elevation, Gradients & Forests	6	
TBD	L,D	Natural Resources Management Systems in the Bhutan Himalayas (1)	1.15	Siebert, 2014 Dorji,2006 Wangdi, 2018
TBD	L,D	Natural Resources Management Systems in the Bhutan Himalayas (2)	1.15	
TBD	FEX	Natural and Cultural Landscapes I & II	6	Allison 2015 Skog, 2016 Diaz,2015 Karmapa,2011
TBD	L,D	Local Land Use Practices in Bhutan	1.15	Pandey, 2015
TBD	L,D	Conservation and Development (Eco-tourism)	1.15	Peet & Hartwick 2009 (Ch1)
TBD	L,D	People and Forests: Changing Socio-economic & Political Dimensions	1.15	Rinzin, 2009 Wangchuck, 2015
TBD	GL	Community Forests & Rural Incomes	1.15	Moktan,2010 Moktan,2015 Phuntsho, 2011 Agrawal, 2008
TBD	GL	Impact of Human Wildlife Conflict on Rural Livelihoods	1.15	Wangchuk & Siebert 2013
TBD	FL	Discourse in Wildlife: Looking at Bhutanese Forests	3	Tempa et al. 2013
TBD	FEX	Forests & Livelihoods	6	Plieninger 2015 & Bhattacharjee 2012 (pages 113-129) Gordon, 2007
TBD	SGP	Forests & Livelihoods Presentation	1.15	Bhattacharjee 2012 (pages 113-129)

No	Type	Class title	Hrs	Reading
TBD	FL	Ecosystem Services of Himalayan Forests & Biodiversity	1.15	Costanza, 1997 Sharma, 2010 Schroeder, 2014
TBD	L	Forest Resource Assessment (Concepts)	1.15	
TBD	L	Forest Resource Assessment (Methods & Tools)	1.15	
TBD	FEX	Forest Resource Assessment	6	
TBD	SGP	Forest Resource Assessment – Methods & Applications	1.15	
TBD	L,D	Forest Management: Institutions, Governance & Capacity	1.15	Blaikie & Muldavin, 2004
TBD	GL	Forests, Watersheds & Hydropower in Bhutan	1.15	Wangdi et al. 2014 Panday, 2015
TBD	SGP	Can Forests be a Driver of Economic Growth?	3	
TBD	D	Wrap-up: Making Sense of it All	1.15	
		Total	60.95	

Readings

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