The masters course in Mountain Forestry – a global contribution

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MOUNTAIN FORESTRY MASTER PROGRAMME

Since 2002: 160 students from 25 countries

Why dealing with mountains
and mountain forests?

Why dealing with mountain forests

Mountain rap:

24% of the worlds land surface are covered by mountains

25% of the world’s forests are in mountain regions
28% of the worlds closed forests are in mountain regions

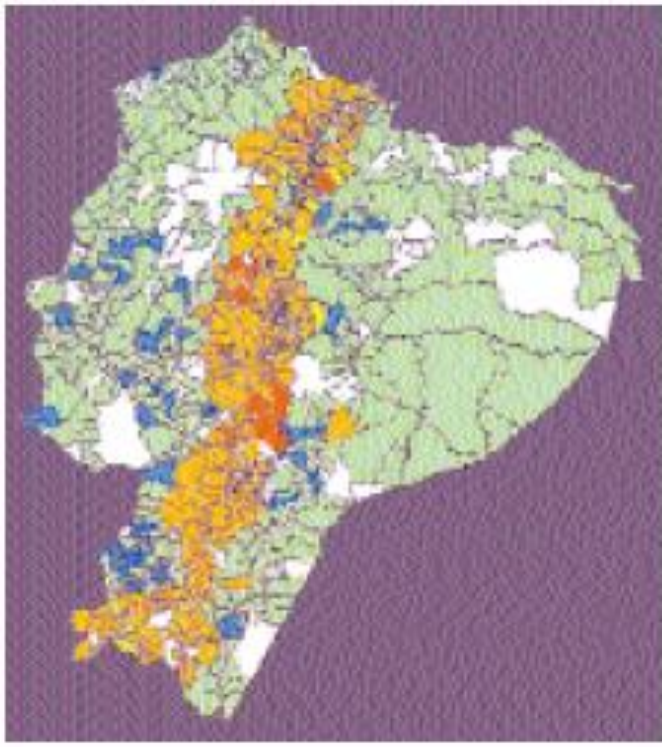
1/8 of the world’s population in mountain regions

BUT:

90 million mountain people live in poverty (Millennium Ecosystem Assessment 2005)
90% of mountain people live in rural areas in developing countries

% of population malnourished

- < 40
- 40 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- insufficient data



Source: Glenn Hyman, CGIAT-CIAT, using information from the National Statistics and Census Institute (INEC) and the National Development Council (CONADE), Ecuador

Where do we find mountain forests?

On land which is / was unsuitable for agriculture

3% of the areas with good or high suitability for agriculture occur in mountain regions

Areas of high forest cover tend to be characterized by a high poverty rate (but low poverty density) (Sunderlin et al. 2008)

Image: G. Heidorn

Why dealing with mountain forests

Mountain forests are frequently coined **poverty traps**:

- poor infrastructure, less market access
- frequently protected – restrictions for management
- poor political participation and representation
- Higher number of conflicts

25 out of 34 of the world's biodiversity hotspots are situated wholly or partially within mountains regions

Half of the protected areas in the world are in mountains

Image: G. Glatzel

Why dealing with mountain forests

More than half of the world's population relies on the fresh water that accumulates in mountains.

60-80% of the freshwater is from mountains

(Viviroli et al. 2007)

Message 1:

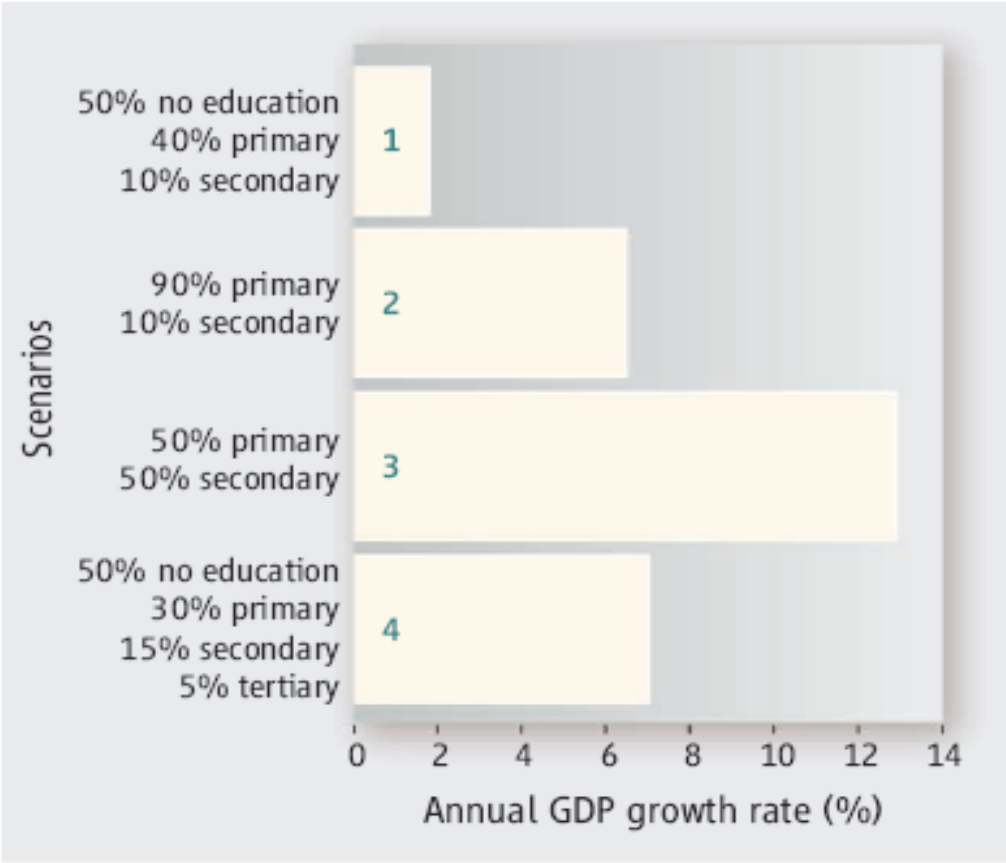
Mountains and mountain forests are of overproportional global importance

They are often poverty traps

The Education Index:

Africa	0.445
Latin America and the Caribbean	0.687
Asia	0.564
Europe	0.847
Oceania	0.829
Northern America	0.938

Education pays off…



Annual GDP growth rates according to the four alternative educational attainment distributions (see text).

Lutz et al. 2008

www.sciencemag.org SCIENCE VOL 319 22 FEBRUARY 2008

Message 2:

Education works…

Education in sustainable management of mountain forests provides a lever for increasing sustainability and reducing poverty.

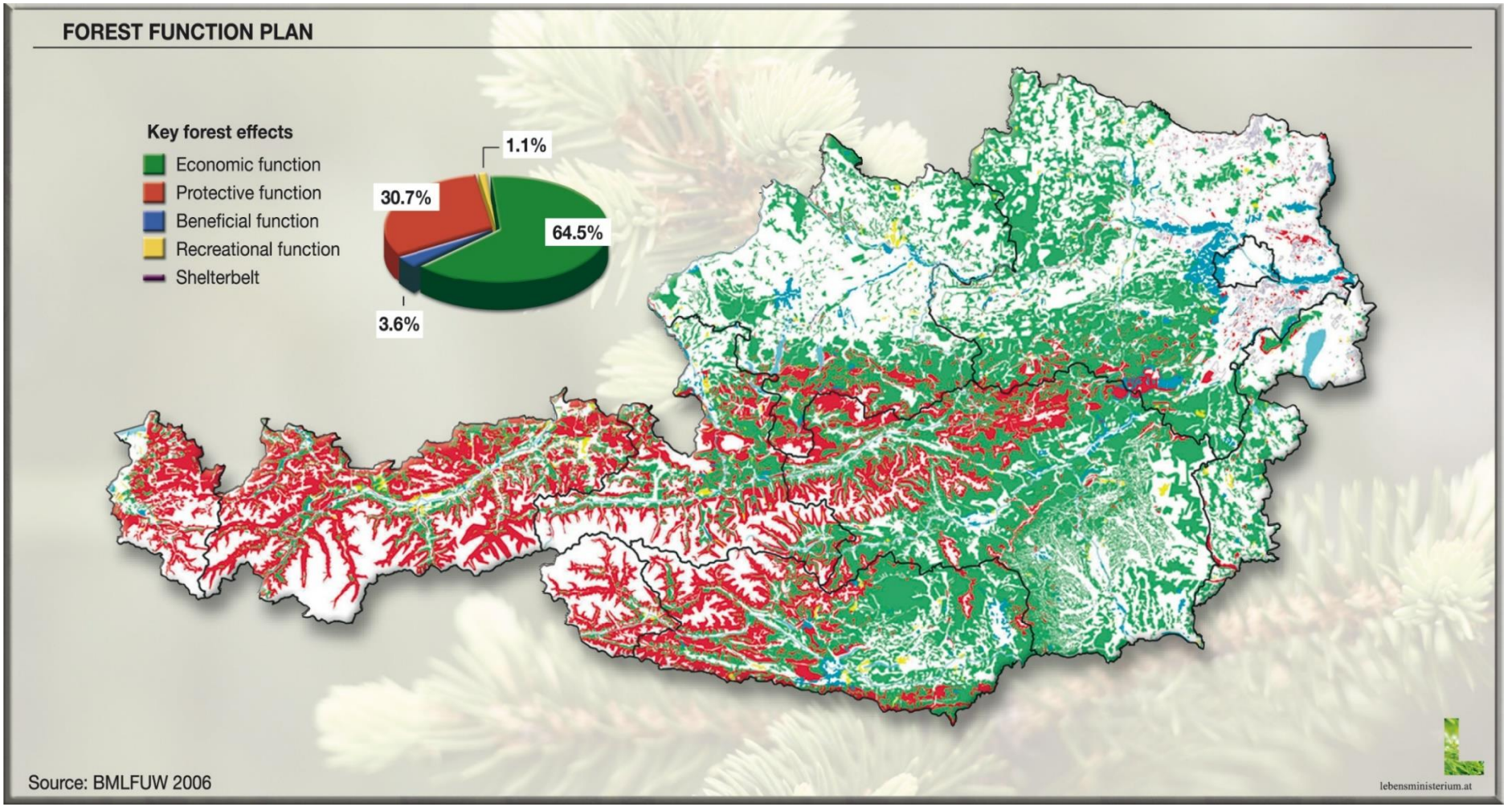
Mountain forestry – why BOKU?

Fodder collection in the Alps

Lopping in the Alps

Mountain forestry – why BOKU?

Mountain forestry – why BOKU?



Mountain forestry – why BOKU?

Mountain Forestry

a sustainable, science-based management

of forests and woodlands in mountain areas,

taking specific ecological, ethical, technical, social, economical

and political conditions of complex mountain systems into consideration

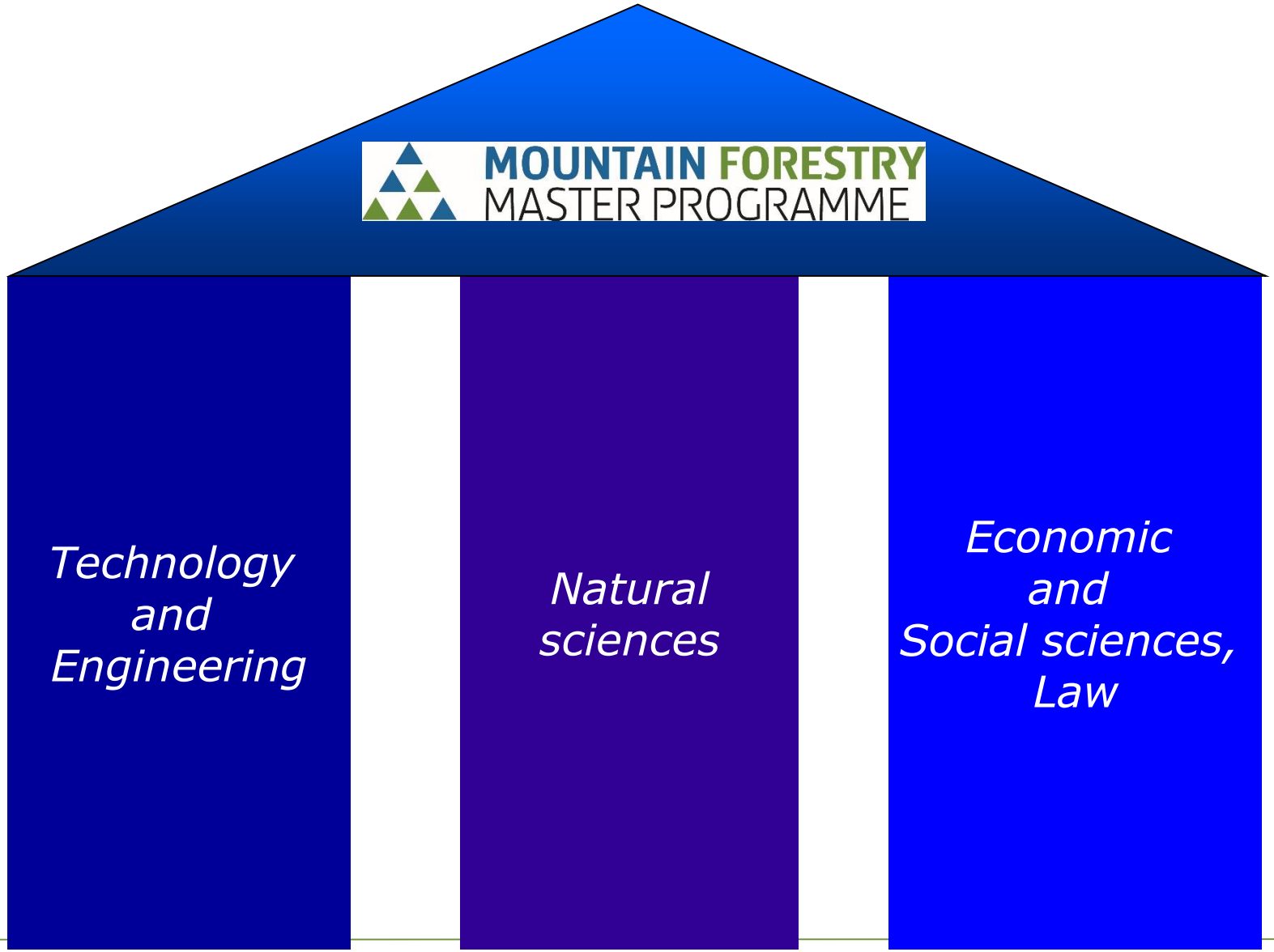
Objectives of the study program

provide a focused and specialised education in managing mountain forest resources with a global perspective

teach students to recognise and solve problems that occur in forest management and conservation in mountain regions

strengthen interdisciplinary approaches in mountain forestry, integrate aspects of engineering, socio-economics, natural sciences and other subject-specific fields in mountain forest management

Mountain forestry master curriculum



Contents

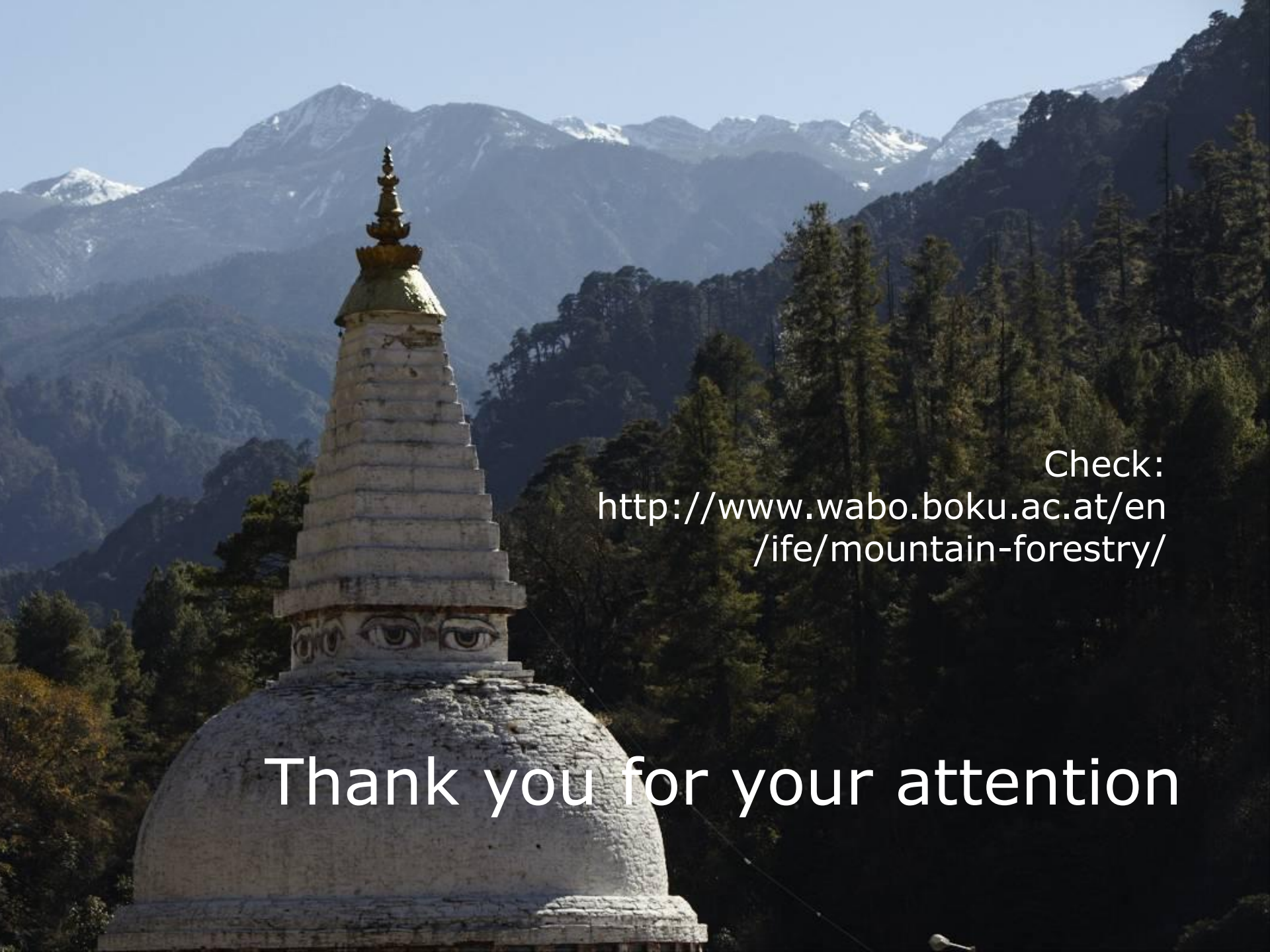
Compulsory courses	58 ECTS credits
Master`s thesis	30 ECTS credits *(excl. Master seminar)*
Master seminar	2 ECTS credits
Elective courses	20 ECTS credits
Free electives	10 ECTS credits

Compulsory courses: 58 ECTS credits (see § 4)					
Introduction to mountain forestry and scientific skills	Ecology of Mountain Forests	Economic and social dimensions in mountain forestry	Inventory and Monitoring	Forest Management for goods and environmental services	Forest Engineering

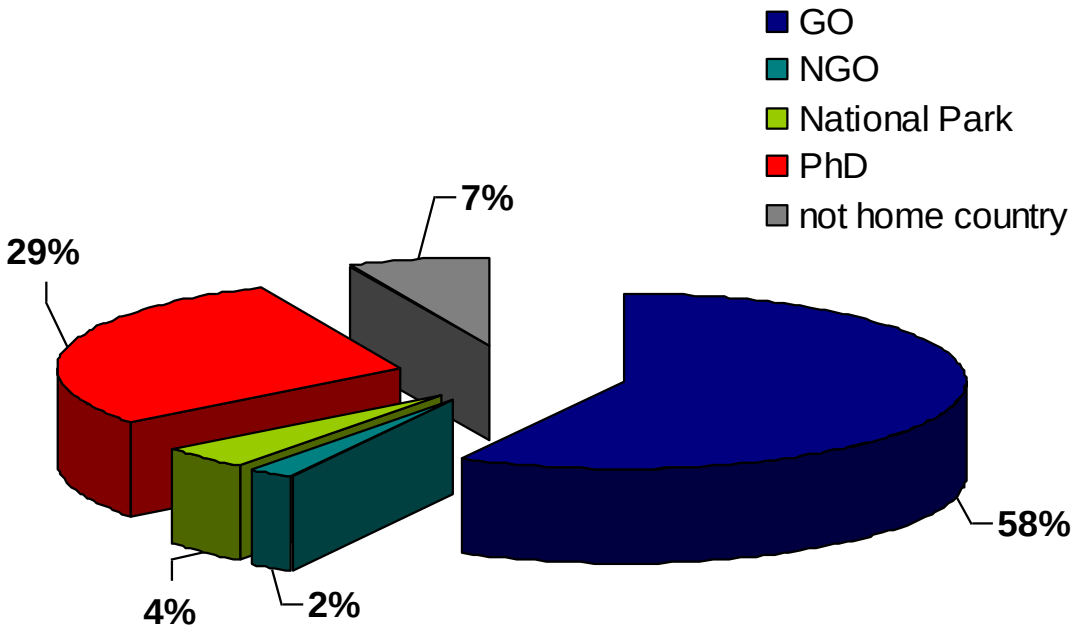
Elective courses: total of 20 ECTS credits (see § 5) **10 ECTS credits out of one Module, 10 ECTS credits out of at least two additional Modules**				
Ecology of Mountain Forests	Economic and social dimensions in mountain forestry	Inventory and Monitoring	Forest Management for goods and environmental services	Forest Engineering

The mountain forestry master curriculum:

- has trained students from 25 countries, many of which are among the poorest countries
- does not cause brain drain in the source countries but has a return rate of more than 90%
- has more than 90% of alumnis working in their field of expertise
- maintains an information and exchange network with the alumnis


Check:
http://www.wabo.boku.ac.at/en
/ife/mountain-forestry/
Thank you for your attention

Mountain forestry master curriculum – the alumnis



Ecosystem Services of Mountain forests: Provisioning services

Timber

Compared to Forests in lowlands, mountain forests have:

- lower increments
- Higher harvesting costs
- Less infrastructure

} Lower profitability

But:

working income per hour or day achieved in forestry often exceeds the respective level of agriculture (e.g.by factor 2.7 in Austria, Sekot 2008)

- Hence, mountain forestry provides a lucrative alternative / addition to mountain farming

Why dealing with mountain forests