Multifunctional Mountain Forestry

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Land use in Tyrol

Land use

Area of Tyrol = 12.647 km²

- 515,000 ha forest (41%)
- Alpine meadows (23%)
- Unproductive (24%)
- Agriculture (10%)
- Roads and building area (2%)

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Cultural landscape since many centuries
Forest area

Forest area in Tyrol
1961-2002

anual increase of forest area about 800 ha

Quelle: ÖWI
Forest area in the Stubai Valley 1952
Forest area in the Stubai Valley 1996
Forest Development plan
Tyrol

- **protective function**: 70%
- **water&climate function**: 1%
- **recreational function**: 1%
- **economic function**: 28%

*Datenstand WEP: Sept. 2002*
Forest-development plan of Tyrol

key functions
Productive function of forests
Potentiale im Privatwald werden zunehmend genutzt

Timber and fuelwood production

Timber production in tyrolean forests

increment: 1.7 Mio efm/a
Protective function of forests
| "small country" | less than 12% of the land area is suitable for permanent settlement |
| "dangerous country" | 2,400 torrents and 1,700 avalanches |
| "high density" | three times more inhabitants than 130 years ago |
| "tourisme industry" | more than 40 billion overnight stays in one year |
| "sportive land" | 1,200 cable cars and ap. 160,000 ski runners per day are on the tyrolean ski runs |
Water and climate function of forests
facts
functions
forest condition
challenges
Recreation and forestry
Recreation and forestry

facts
functions
forest condition
challenges
Forest condition

- bark beetle
- forest pasture
- air pollution
- sport
- damage by game
- decreasing vitality and health
Development of crown conditions in Tyrol

Vitality of tyrolean forests

- facts
- functions
- forest condition
- challenges

[Graph showing development of crown conditions in Tyrol from 1984 to 2002, with categories for production forest and protection forest, and different shades indicating levels of damage.]
mixed stands increasing

Distribution of tree species

- spruce
- fir
- larch
- pine
- beech
- P. cembra
- WL
- HL
- Sträucher

Waldfläche [%]

86/90 92/96 00/02

facts
functions
forest condition
challenges
Influence factors on the young growth in the northern alps 2007

- Damages on the young growth
- Factors:
  - Biotisch
  - Waldbaulich
  - Abiotisch

Categories:
- Others
- Game and livestock
- Game
new predators

• If new predators (like wolf and bear), with large living areas will be reestablished in a multi-functional used living space, it is very important to think about the consequences for other landusers.

• Maybe problems with other land users will arise (for instance tourism)! A cooperative communication is absolutely necessary.

• Small predators (as lynx) can be an enrichment for the Alps (as regulators), but only when the hunting community will adapt their rules.

• It is very important to discuss and cooperate with all land users!