Field trip Community Forest Friesenheim

Forest foundation:

The community forest of Friesenheim first belonged to the monastery of Schuttern, which was founded in the year 603. After the secularization in the year 1803 the total property of the monastery went to the local government. First, it became a kind of co-operative forest, which was handed over to the communities Heiligenzell, Friesenheim, Oberschopfheim, Oberweier and Schuttern, proportional to the number of habitants. The citizens obtained the right to use the forest (usufruct), which partly exists until today (2 m^3 firewood/citizen/year). After the community reform in 1973-1975 the small communities were incorporated in the municipality Friesenheim (12.800 Citizens); and the individual forests were united.

Natural Data:

The forest of Friesenheim was divided in two local districts.
In October 2008 one of the foresters retired and Mr. Junele is now responsible for the whole area.
The personal staff consists of 6 lumberjacks and one trainee. Two of these lumberjacks are working during the summer in the community green area.
Skidders and other big forest machines are provided by special forest contractors.
The forest technical responsibility is by the forestry office in Lahr.
The total forest area has a size of 1424ha and a timber producing quantity of 1360 ha.
Since July 2007 we are also managing a private forest district (Earl of Westphalen) with 155 ha.
The forest of Friesenheim is at an altitude of 200 to 600 meters.
The average precipitation is between 800 and 1000mm and the average temperature is about 9,5 degrees celsius.
We have sand and clay soils, 2/3 are moderate fresh and 1/3 moderate dry.
The western exposed new red sandstone slopes are partly acidic.
The natural tree vegetation is an atlantics sub mountain beech, oak and fir forest.
Our forest area is good developed (infrastructure).We have 76 km forest roads and another 18 km trails.
30% of the total area cannot be used by skidders or other machines.
After the Hurricane in 1999 this number increased because of the root plates and big stones..

Forest species:

	before Lothar	after Lothar
Beech	34 %	39 %
Spruce	21 %	20 %
Fir	17 %	13 %
Douglas	9 %	10 %
Oak	7 %	5 %
Pine	2 %	1 %
Larch	1 %	1 %
Maple	1 %	4 %
Other leafy tr. *	5 %	6 %
Other conifers	3 %	1 %

*Wild cherry, sorbus torminalis, tree, chestnut, walnut, blacknut.....

The complete stock of timber has been 420 cubic metres/hectare in the year 1999. So without the big storm the total harvesting would have been 13.000 cbm divided in 50 % conifers and 50 % broad-leafed trees in the following 10 years.
Before hurricane „Lothar“ the average age of the trees was very high(over 100 years by beech trees). Therefore we had a great financial surplus until 100.000 Euros.

One feature is the big part of ground protective forest (366 ha) und water protective forest (434 ha). Particularly last one caused great interferences (lost of areas, prohibitition of insect spraying…), on the other hand, the community gains 90% of the drink water from our forest. Than we have to take into consideration 370 ha recovery forest and 27 ha forest biotope.

The community also joined the nature park „Mittlerer Schwarzwald“.
Main footpaths and mountain bike trails lead through our forest.
Seven cottages and one chapel have to be maintained.
Moreover, we take care of the trees at the camping place in Schuttern (roadworthiness).
Every year we have to bring maypoles, Christmas trees and silver fir branches to several churches, schools, clubs and other charities.
Education in environmental problems and forest education are another main point in our field of activity.
All these achievements are produced by the forest without being paid.

After „LOTHAR 2000“

On the 26.12.1999 the hurricane “Lothar” destroyed 420 ha of our forest (deforestation over 0,3 ha) another 800 ha have been damaged. (Partly wind blows until 0,3 ha)

The total amount of wind blown wood was 210.000 cubic metre of solid timber. (=20 years of normal lumbering).

We set up a wet storage with a capacity of 40.000 cubic metres.
Temporarily we had more than 100 lumberjacks from five nations.
In the years 2002 – 2004 we had another 35 ha clearings with a total amount of 10.000 cbm timber, cased by bark beetle, storms and dry summers.
The new stock of timber (FEE 2002) was after „Lothar“ only 250 cbm/ha.
Now the stock of timber is increasing 7,2 cbm/ha/year.

During the last years, we planted more than 700.000 young trees in an area of 250 hectares.
The greatest part of it were beech trees (70%) . The remaining areas should be reforestationed by natural processes.

How changed the framework?

With the same administrative machinery we have now only low amount of lumbering (6.300 cbm a year). High costs and small income. And we can only react if a forestry worker retires.
Also new are synergy effects by internal cooperative models.
Two forestry workers are working for the community during the summer.
Qualitative easy jobs can be awarded to private forest contractors.
At the same time we have 250 ha plantation and 150 ha natural regenerations to maintain. Therefore we have a lot of productive hours on the cost unit plantation but less hours on the cost unit timber felling.
In the following years we will have very high costs for the maintenance of the plantations (in 2008= 80 ha).
Climatic caused additional expenditure in the range of forest damage will charge our forest budget more than usual.

Dry summers in the years 2003-2006 led to strong drought damages to old beeches and firs. This timber we had to bring to market with bad prices.
The plantations had also problems with the dry weather.
In times of benchmarking and controlling, it is very difficult to compete with these economical figures.
Meanwhile the mayor and the district council verbally defined an aim system.
Protection and regeneration are as important as utility. Our forest shall meet all requirements clearly. Actually we invest a lot of money in our plantations.
These investments are said to increase the value of our forest in the future.

Risks in a forest enterprise

1. Political:

Forest law:	is a compulsory regulation existing?
Finances:	which financial scope has the enterprise?
Energy structures:	forest as an energy provider?
Protective forest:	FFH, nature parks, national parks….?

2. Personal

Qualification:	chief operating officer (study) , lumberjack (education 3years)?
Motivation:	business organisation , further training; payment
Structure of age:	Innovation, experience, excess of age

3. Technical:

Techn. Equipment:	machines (Harvester, forwarder, tractor, chainsaw) For example.: if the tractor is to heavy he can damage the ground And he is very expensive (high costs in maintaining) Another example :too much handwork causes high production costs.
Production standards:	careful harvesting

4. Environment:

Industrialization:	Emissions, acid rain (Erzgebirge), Ozone next to soil
Civilization:	residential area, traffic ways, gas and electrical lines..
Biological damage:	insects, fungi…?
Climate:	global warming

5. Climatical:

Geographical position:	temperature, rain, frost, precipitation

6. Silviculture:

Selection of trees:	mixed forest, habitat, marketing???
Reforestation:	mode (sowing, planting), plant distance, machine usage?
Maintenance:	mixture of trees, distance, quality, quantity …
harvest:	mode, quantity of felling, infrastructure? Clear-cutting, natural regeneration…?

7. Local ground variety:

Geology:	rock and soil texture (stability)?
Physiography:	slope gradient (traffic ability), frost, mixture of trees ?
Exposure:	wind direction, storm damage!!!!