Analysis: Community forest of Friesenheim

1. Friesenheim „before Lothar“
2. „Lothar“ direct and indirect effects
3. Prognosis of the development of Friesenheim in the mid-term

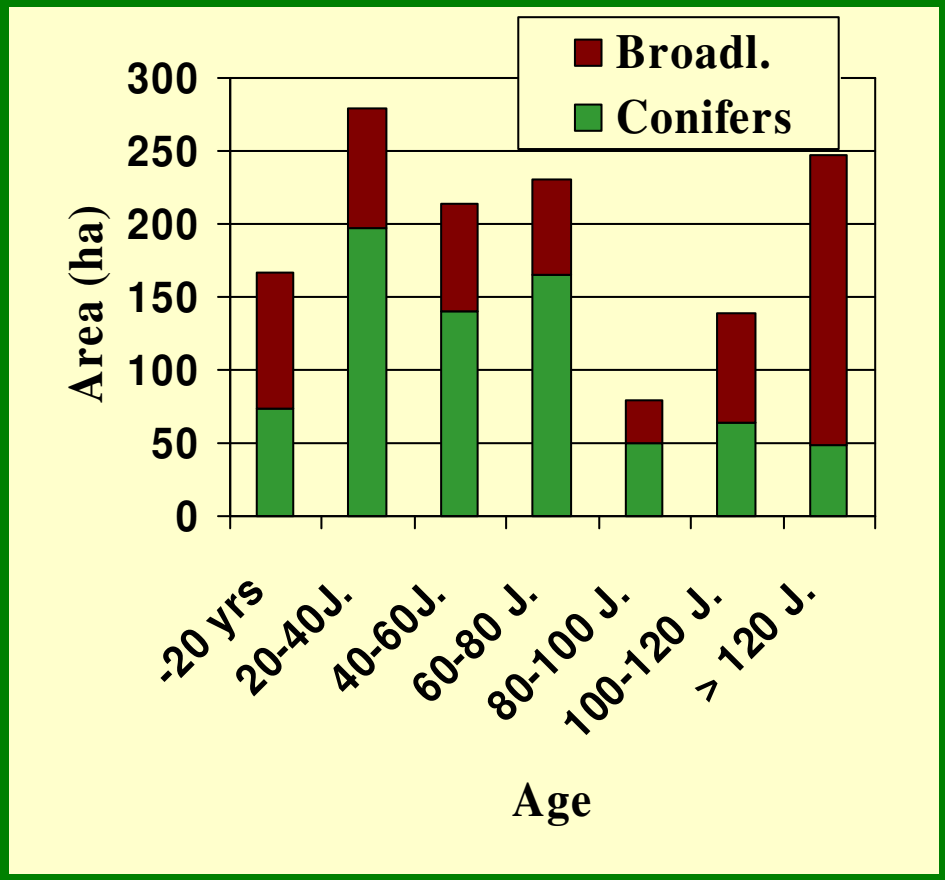
1: Short characterization of the Community of Friesenheim „before Lothar“

Goals of forest management:

- **Production goals**
  - timber production
  - protective function: drinking water!
  - recreation function
- **Financial goals**
  - break even, positive operating profit if possible („black zero“)
- **Social goals**
  - delivery of employment
  - employ existing workforce
- **Nature-protection goals**
  - „close-to-nature forestry“

Friesenheim „before Lothar“

- Forest area ca. 1420 ha
- Site adapted stands
- 58 % conifers
- richness (13 tree species)
- Excellent site conditions
- Old valuable beech forests
- Young coniferous stands with high volumes



Relevant factors and indices

- Since the storm 1990 (Vivian/Wiebke) – decrease in timber price
- Structure of personal
  2 foresters, 7 workers
- Citizens of Friesenheim have the right to recieve timber from the forest („Bürgergarbholz‘“)
- High standing volume, necessity for thinnings
- High storm risk
- Good infrastucture, good connection to public traffic roads, high degree of accessibility

Economic results

- Constant increase of revenues until „Lothar“ (1999: 450 €/haH): felling of conifers
- Constant decrease of costs in the years before „Lothar“:
  - Rationalization
  - Increase of labour productivity
  - reduction of costs (natural regeneration instead of planting)
  - increasing share of contractors
  - positive development on the timber market
    (pulp and paper/economic cycle for construction)

⇨ since 1997 positive operational results due to rationalization & external effects

Economic results

Weaknesses / Risks

- Dependence on timber productioin, no of other forest products
- Cost of administration 25%, increasing
- Storm risk

Strengths / Chances

- natural conditions (sites, except slopes)
- Compact forest area (boundaries realigned)
- Self-administration of the community
- Identification of the citizens with „their“ forest

Summary of the characterization of Friesenheim „before Lothar“

- ideal natural conditions
- Intensively managed forest enterprise
- Successful business management due to distint rationalization

➔ Ideal initial situation for successful forestry

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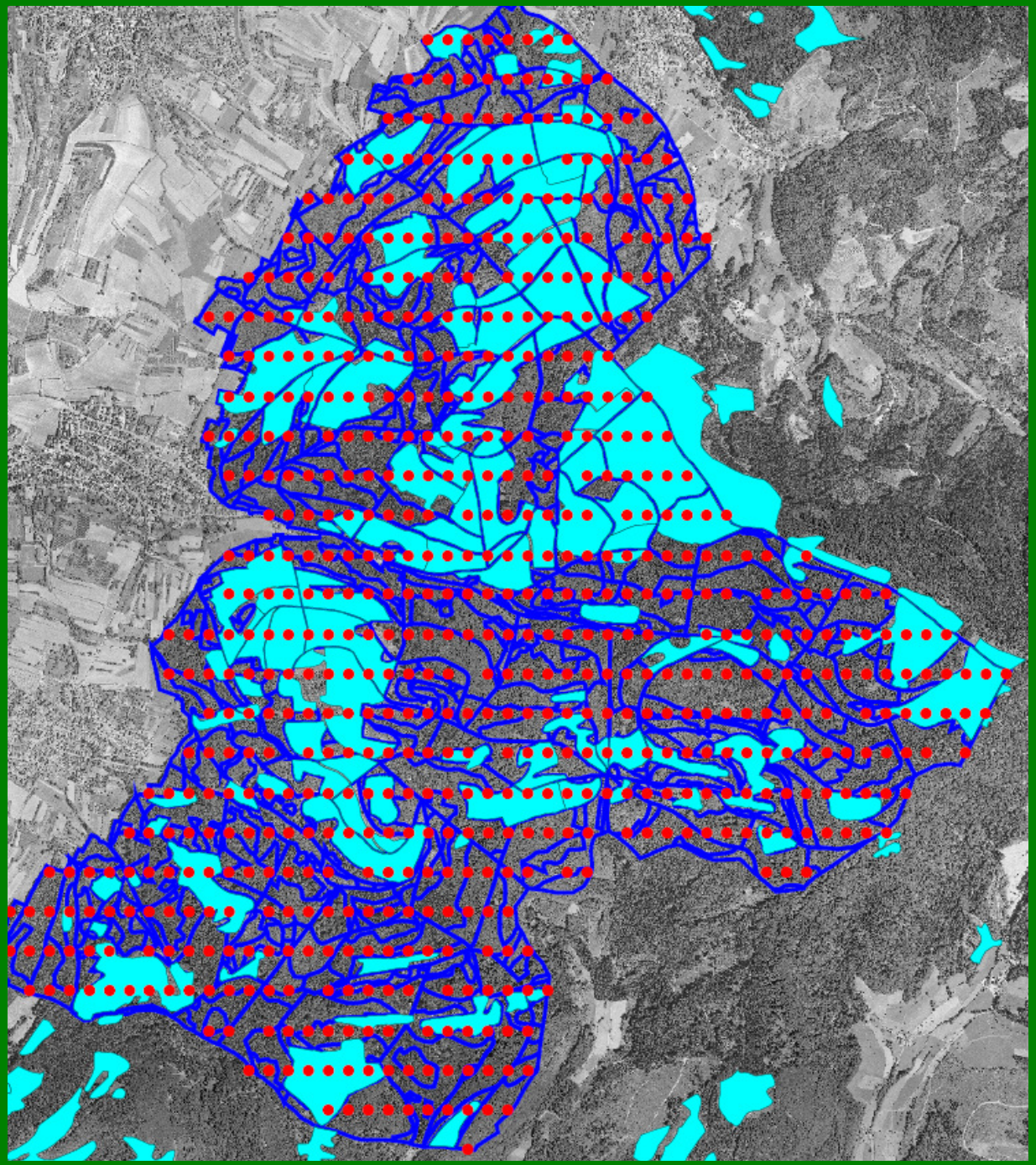
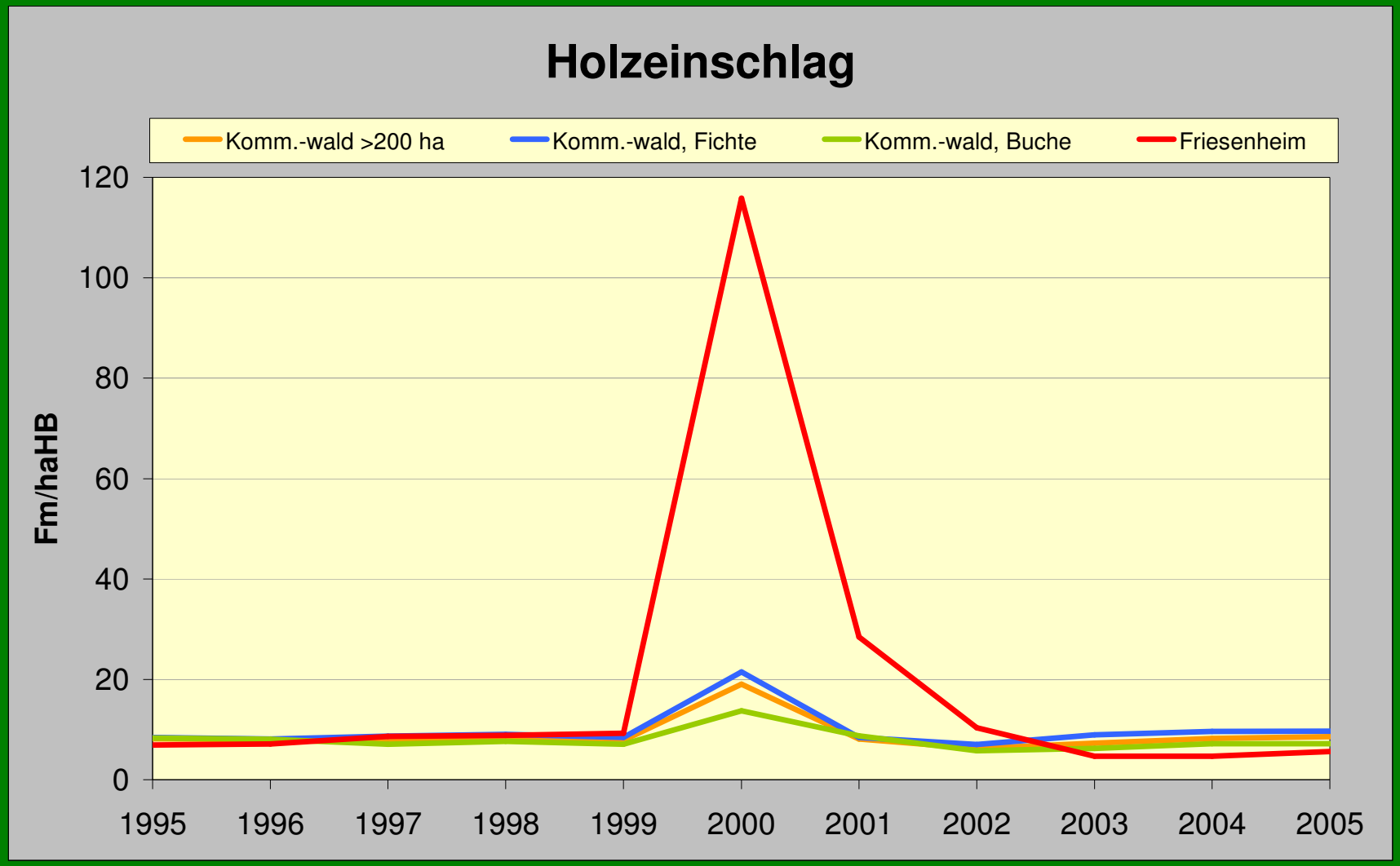
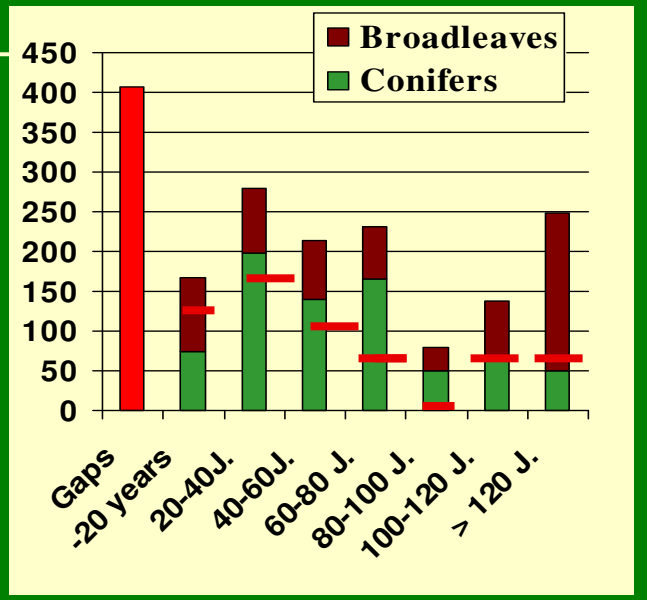


„Lothar“ in Friesenheim



2: Friesenheim after „Lothar“



A) Direct effects

- 33 % of the total area clearfelled
- ca. 240.000 m3 salvage cuts (25-times annual cut)
- Loss of 50% of the standing volume
- Loss of 2/3 of the value (beech old growth)
- Additional scattered damage on the area
- Annual cut decreased by 40% (from 8.5 to 4.8)

2: „Lothar“ : Indirect effects

b) Indirect effects

- Instable forest stands (follow-up damage)
- Increased risk of calamities (bark beetles)
- Large areas of young growth (cost of tending)
- Unfavourable structure of the enterprise
- 150 ha or more to be replanted
- Loss of income and increase of costs for the next decades

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3. Effects of the catastrophy on the mid-term development of the enterprise

New economic initial situation:

- ca. 33 % of the area clearfelled (average size 3 ha)
- Many „open“ stands („disseminated damage“)
- Standing volume per ha reduced by 50%
- Reduced annual cut: ca. 4,8 m^3/ha/a (plan 1999: 8,5 fm/ha/a)
- Large areas to be replanted (min. 150 ha)
- Huge follow-up costs due to necessary young growth tending

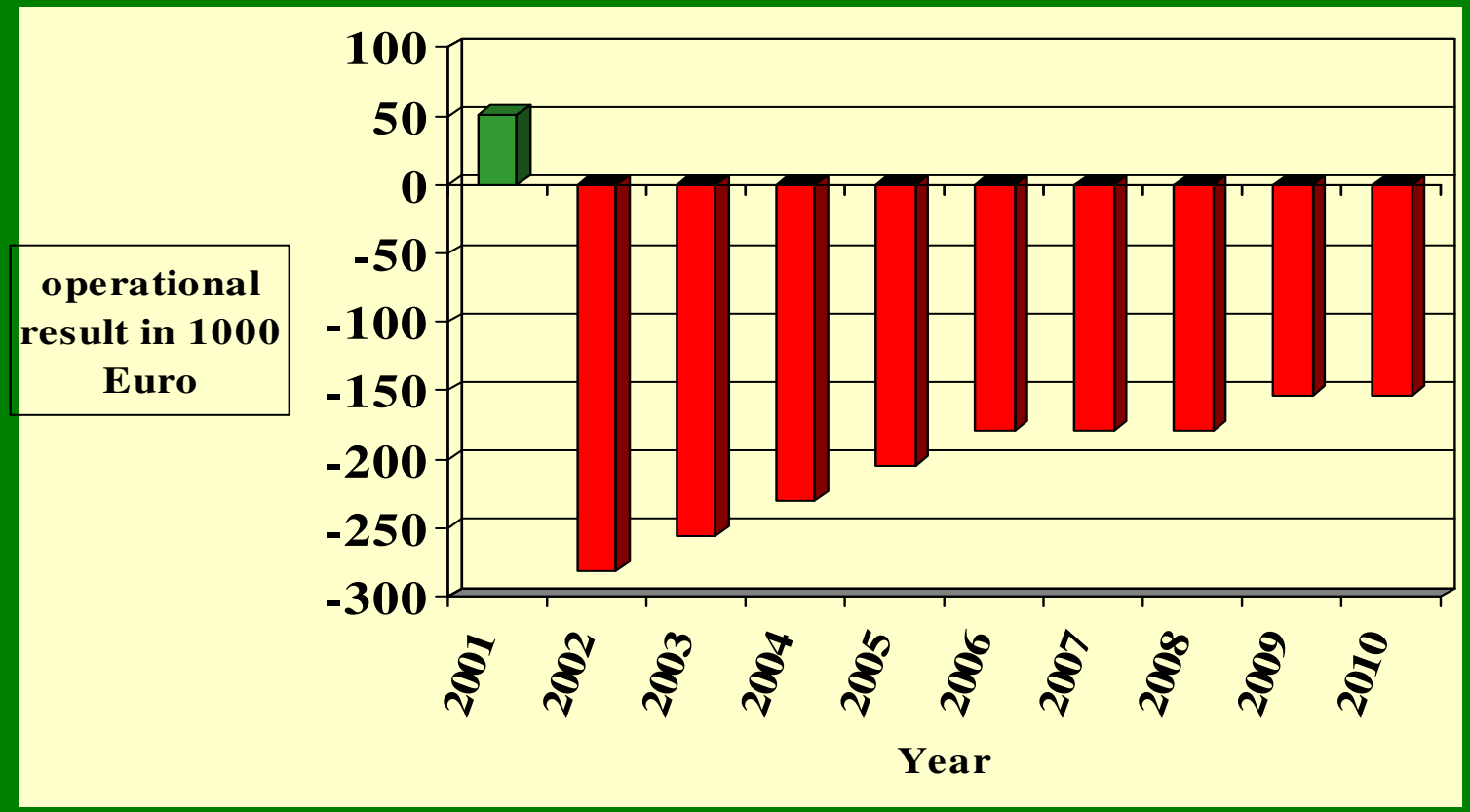
Mid-term development of the net revenue (in €)

Scenario:

„Year“ 2006

type of cost	Income	Cost		Benefit
			calc.costs	/subsidy
Timber Harvesting	299.106	193.013		106.093
Planting		33.234		-33.234
Forest protection		6.136		-6.136
Young gr. Tending		48.573		-48.573
Forest roads		11.248		-11.248
Social function		4.857		-4.857
Machines		9.459		-9.459
other costs		19.429		-19.429
cost of for.workers			1.534	-1.534
administration		150.320	0	-150.320
cost for other parts	20.247	20.247	0	
cash-effective sum	319.353	496.516	0	-177.163
calculated costs			1.534	-1.534
operational result	319.353	498.049		-178.697

mid-term prognosis for the operational results strategy: business as usual



Deciding factors

- Follow-up damage ?
- Development of personal ?
- Market situation ?