

Management of Natural Disturbances

Human Resources Management

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Psychological Aspects

Psychological Aspects – Report

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History:

- Evaluation of the management of the storm catastrophe Lothar showed a discrepancy between technical management and psychological care for the employees
- Decision to undertake a fact finding and initiate a report on the psychological component of crisis management
- Carried out by Prof. Gert Sauer → Psychological psychotherapist

Psychological Aspects – Fact-Finding I

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Basic Findings:

- Members of forest administration feel a strong stewardship for forests
- Perception of the own role differs related to the individual framework conditions. The congruence of the goals is partially a fiction
- This leads to communicational disruptions
- Reorganisations in the nearer past stimulate uncertainties and vulnerability of the system
- The weaknesses were mostly compensated by idealism, but the energy required was missing in other places
- This dynexity resulted also in a decrease of communication and deficits in human relations, and **loss of pride in their work !!!**

Psychological Aspects – Fact-Finding II

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Reactions of the Employees:

The experiences with such kind of events is similar with the experience of the death.

Different courses of action:

Warriors:

Everybody who hinders a **fast** overcoming of the chaos is an enemy.
(Neighbours, colleagues, market-rules etc.)

→ Loss of competence

Unconscious:

Fear of failure, unplanned behaviour, finally risk of suicide.

→ Loss of competence

Fact-oriented workers:

Deal professionally with the problem, however loose care for themselves

→ Danger for the employees

Psychological Aspects – Fact-Finding III

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Problem statement:

Weaknesses:

- Communication (formal and informal – among colleagues) was problematic
- Objectives were not communicated properly
- Psychological and social handling of the event and the successive workload was imperfect
- Reflection of the psychological component differed widely between the regional offices and different departments
- Informal communication was mostly stopped, relations between colleagues and inside the families were endangered
- High skills to apply various types of technical infrastructure and tools, but variability of the psychological structure of people was missing
- No training offers for these aspects

Psychological Aspects – Fact-Finding IV

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Role Models (Extreme Postions):

Depressives: Take the problems as a personal problem, Hindrances endanger the feeling of self-worth:

Lone warriors: Work hard, but with a high risk to ignore the need for coordination. Not able to guide larger teams in times of crisis. The motivate working groups but reduce the coordinators to despair.

Intuitive persons: Fast, but sometimes right, sometimes wrong

Thinkers: Find good solutions but can fail to execute them

Empiricist: Good insight, but to much interested in details and therefore tend to be slow.

The art is to make people “playing” different roles work together

Psychological Aspects – Fact Finding IV

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Positive:

- Promote cooperation and communication
- Informal meetings
- Networks amongst colleagues
- Platform for exchange of information but as well as a forum for talks about personal aspects.
- Oral dissemination of information

It will “not happen” it must be organized actively

Negative:

- Missing of platforms for exchange
- Spirit of competition (who is the fastest)
- Written information, because most part belief that there's no time to read

Psychological Aspects – Recommendations / Measures

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- Training – programs in psychological care are needed
- Contact persons on each level of the enterprise
- Take care for positive experiences outside the daily work
- Look on success in overcoming the situation, not on problems to be expected
- Monitor the number of accidents and illness, an increase is a strong signal the there is an upcoming problem in the psychological and social dimension of disaster management

Examples:

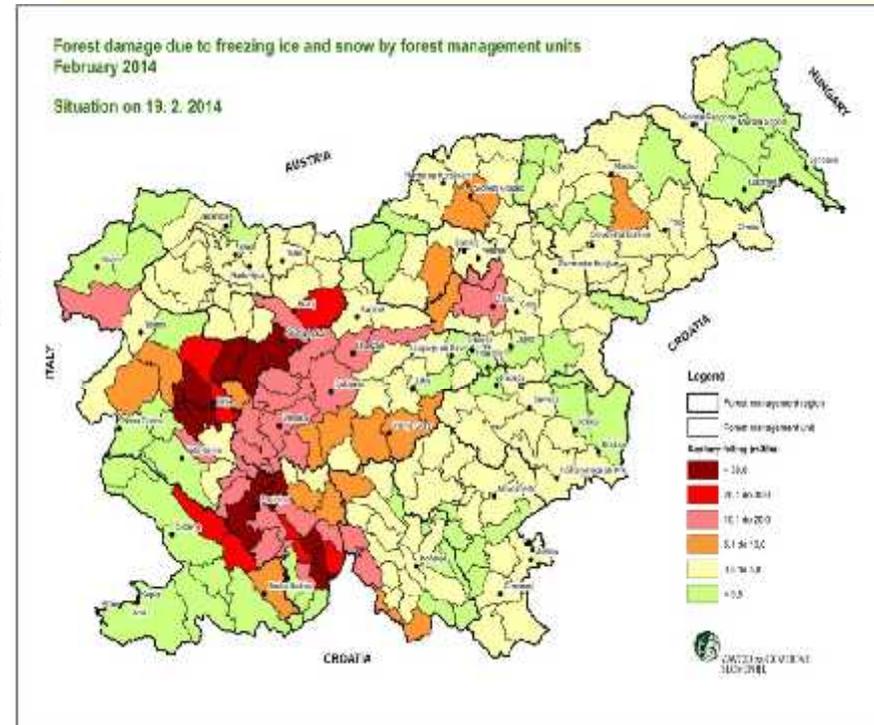
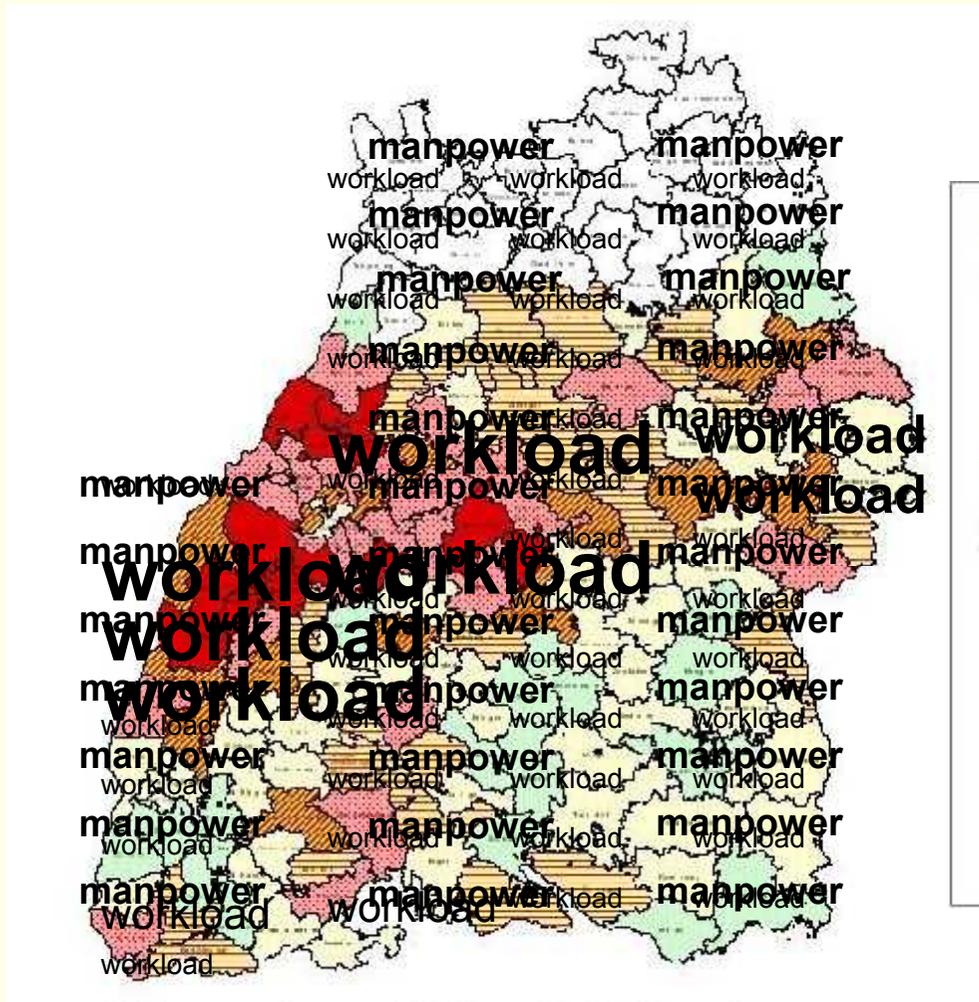
- Establishment of communication networks
- Special trainings for stress decompensating
- Team-Training
- Psychological task force

Proved „simple“ measures:

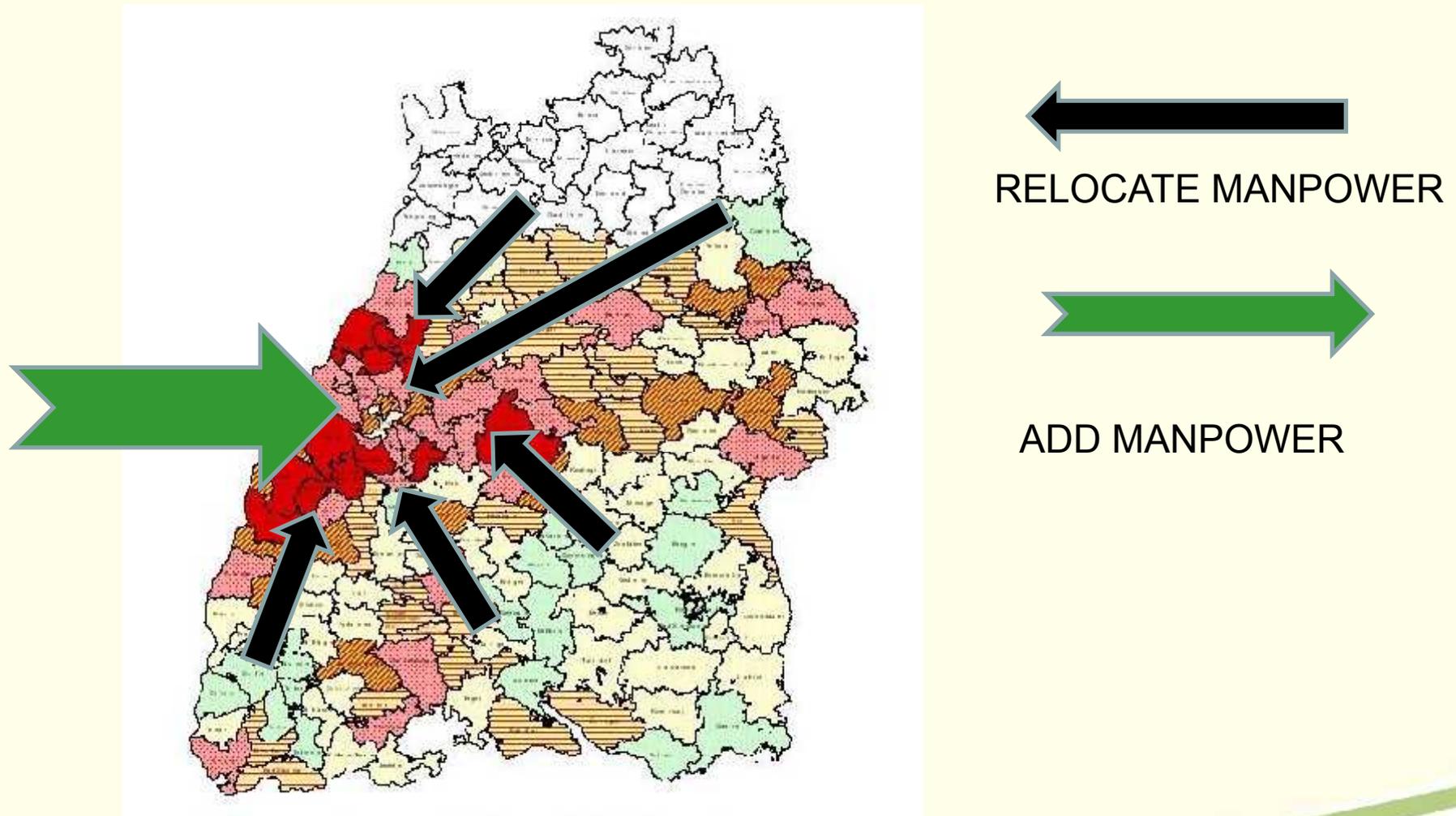
- Storm regulars table
- Joint leisure activities (bar, bathe)
- Participation of managers in work breaks

Technical Aspects

Technical Aspects – Problem Statement



Technical Aspects – Basic Concepts I



Technical Aspects – Basic Concepts

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Standard Manpower (1999)

- 1600 workers in State forest own workers
- about 50 contractors



RELOCATE MANPOWER

Additional Manpower

- 1000 additional workers from other states
- (but only for 3 to 4 month mostly)
- 200 contractors
- 70 additional district rangers
- 60 time contracts (managers, district rangers)



ADD MANPOWER

Technical Aspects – Relocate: Workers

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Relocated manpower forest workers [in h]

	FD Freiburg	FD Tübingen
2000	144.500	115.900
2001	146.400	89.300
2002	94.100 (geplant)	72.500 (vollzogen)
Summe	385.000	277.700

Conversion Factor: about 1200 – 1400 (productive) h = 1 worker
 1 worker → roughly 2000 m³

- Fast exchange of work forces was highly appreciated
- A relevant number of groups stay for month in the partnering regions
- High motivation in the first year
- Less motivation in the second year
- It was beneficial to relocate complete teams (district ranger together with his workers)

Technical Aspects – Relocate: Rangers, Administration

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Relocated manpower district ranger / administration [N and weeks]

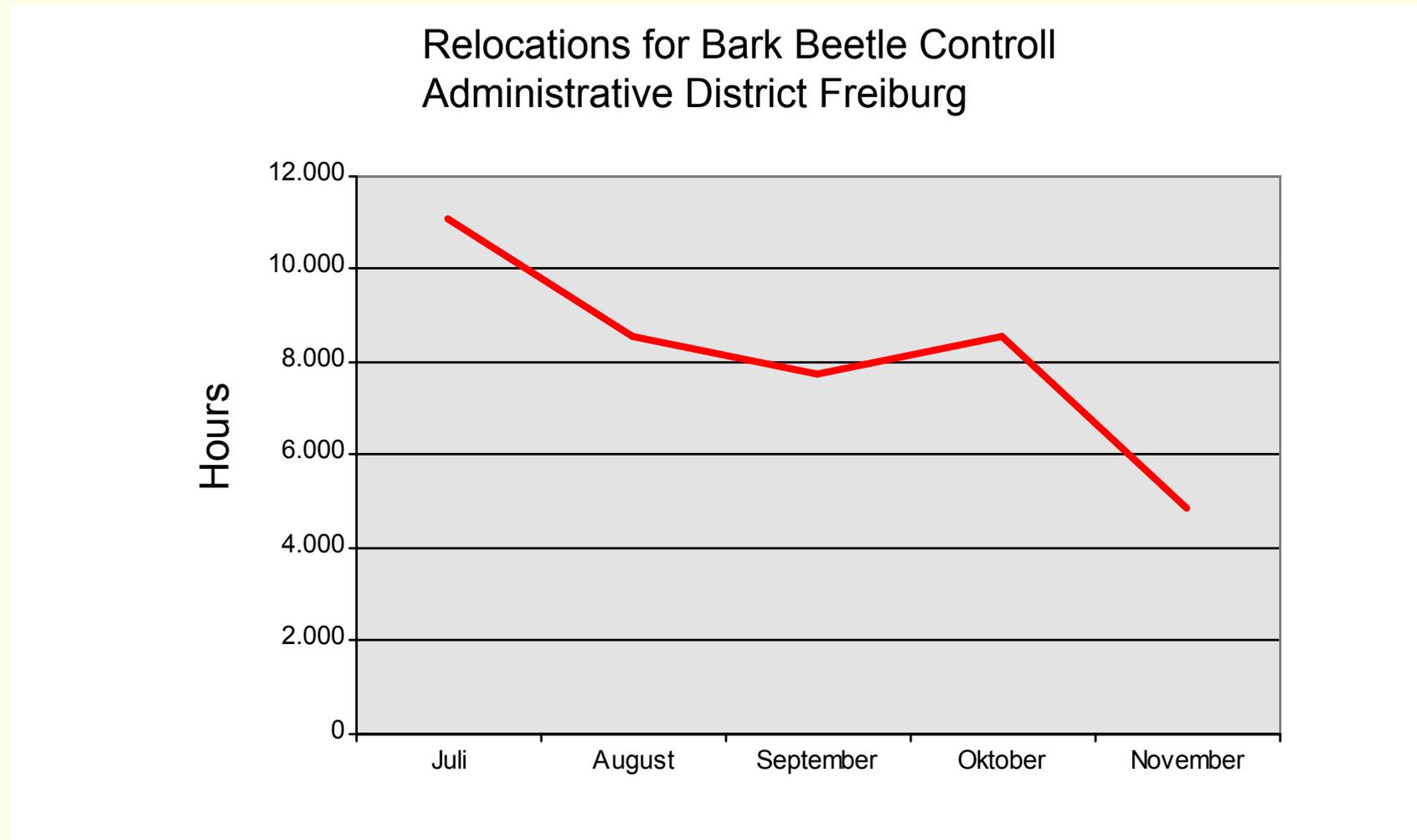
		2000	2001	Summe
Forstbeamte gehobener Dienst	Anzahl	50	22	72
	Dauer in Personen- kalenderwochen	231	77	308
Forstliche An- gestellte	Anzahl	3	2	5
	Dauer in Personen- kalenderwochen	57	22	79
Verwaltungs- Angestellte	Anzahl	3	-	3
	Dauer in Personen- kalenderwochen	10	-	10
Summe	Anzahl	56	24	80
	Personen- kalenderwochen	298	99	397

Technical Aspects – Relocate: Partnering concept

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Aufnehmendes FA	Partner 2000	Partner 2001	Entfernung	Fahrtzeit
Bad Herrenalb	Hardt, Schwetzingen	Schwetzingen	77 km	01:15
Bad Peterstal	FD Tübingen	Ettenheim	66 km	01:10
Bad Rippoldsau		Waldkirch	53 km	01:20
Bad Säckingen	St. Blasien, Lörrach	Waldshut-Tiengen	77 km	01:15
Baiersbronn	FD Tübingen, Alpirsbach	Schwarzach	149 km	02:40
Bühl	Weinheim, Philippsburg	Weinheim Karlsruhe	110 km 41 km	01:30 00:40
Calw	Buchen/Kirchzarten	Buchen, Kirchzarten	130 km 167 km	02:25 03:00
Donaueschingen	Furtwangen	Immendingen	28 km	00:30
Enzklosterle	Bad Wildbad	Bruchsal	69 km	01:15
Forbach	Philippsburg	Philippsburg	86 km	01:30
Freudenstadt	Alpirsbach	Alpirsbach	19 km	00:25
Furtwangen		Kenzingen	57 km	01:20

Technical Aspects – Relocate: Secondary damages



Technical Aspects – Relocate: Partnering secondary damages ¹⁹

Step 1: Stratification of regional districts into four groups

1. Potential Hotspot for Secondary damages with need for external support to execute monitoring and control
2. Potential Hotspot, however with sufficient staff for monitoring and control
3. Not to be predicted
4. Region with low potential for secondary damages

Criteria for stratification

Amount of damaged timber (coniferous were of special interest)

Forecast of susceptibility (climate, soil, amount of unregulated felling before storm)

And:

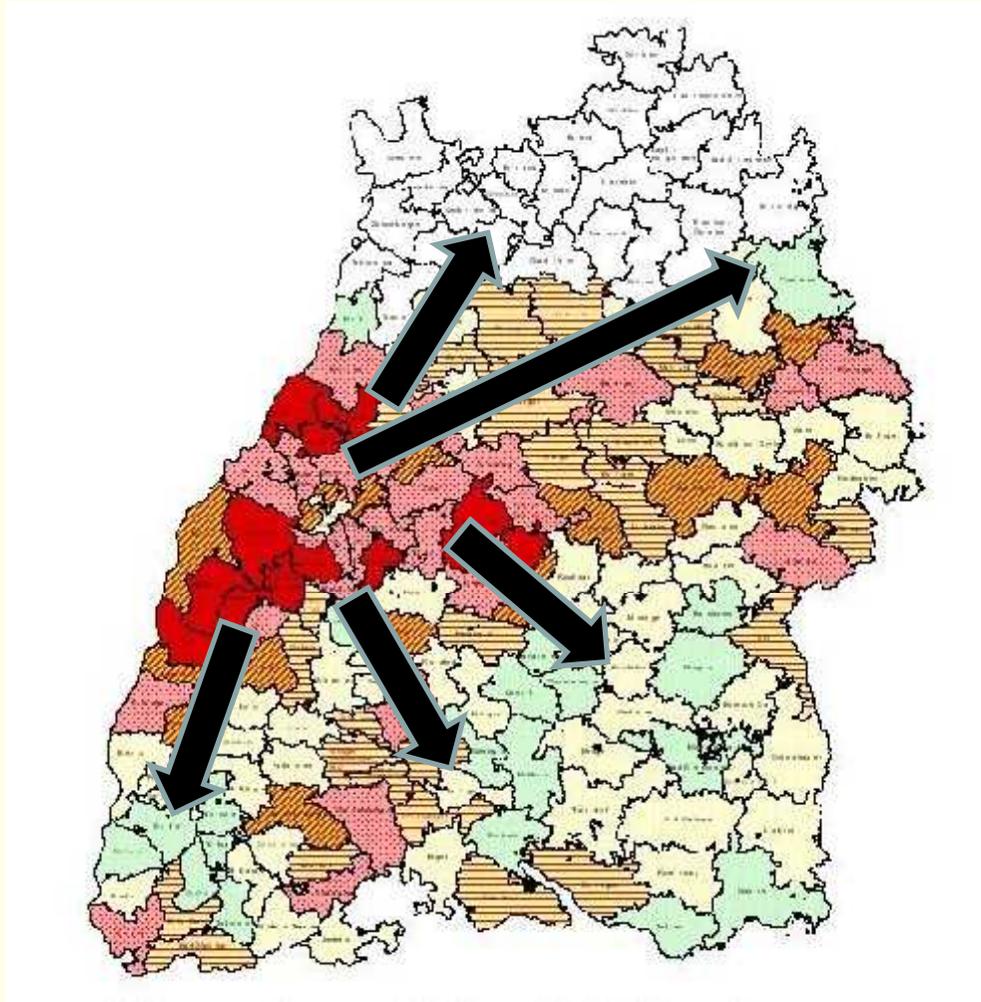
Number of workers who are available especially for control and monitoring

Step 2: Partnering concept secondary damages

Development of a partnering concept aligning districts of group 1 with those of group 4 and 3. The latter one only in case of severe problems

Technical Aspects – Relocating Work

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Some partnering districts developed another method of relocation:

Parts of the work was transferred to other regions

Feasible can be:

- Accounting
- Billing
- Hotline functions for privat forest owners (problem acceptance)
- Preparation of contracts

Payment I

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Introduction of a special payment scheme („Special Wage Storm“)

Normal (at that time)

Mixture of time wage and piece wage, with partially high share of time wage especially for felling activities.

→ Average wage depended widely on share of time wage

Storm

Monthly payment of the average wage.

Highly accepted by the workers as an effective measure to decrease the risk of accidents.

Payment II

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Reason for additional time	Time	Tariff-regulations
Overtime work EG 1-9		30 %
Overtime work EG 10-15		15 %
Work at night	21h-6h	20 %
Work on Saturday	13h-21h	20 %
Work on Sunday	0h-24h	25 %
24. December	6h-24h	35 %
31. December		
Bank holidays	0h-24h	135 %

Payment II – Successfactor for risk reduction

Work (Operational) health and safety (OSH)

	State Forest	Private	Communal	Contractors
Volume processed	7.400.000	4.230.000	10.560.000	
Minus share contractors	2.738.000	2.749.500	3.801.600	12.900.900,00
Accidents	409	2742	953	505
Persons killed	1	17		
m ³ / accident	6694	1003	3989	25546

The „ Special Wage Storm“ was seen as a effective means to reduce the risk of accidents.

Payment II – Weaknesses

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- Compensation for additional expenses (Travelling, accomodation) were – at least partially – to low
- No chance to pay for additional expenses at home, e.g. in case of secondary employment or part time agriculture

Care for Staff I: Time and overtime regulations

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- Priority: Compensation by free time after the salvage logging campaign.
- Whenever possible
- Heads of forest regions > 100.000 m³
- District Ranger (Revierförster) > 15.000 m³
- Forest officers: Plus 40 h / month are allowed for a six month time span
- However maximum 180 in total.
- Only written regulations → frequently much more overtime work was done **but not expected !!!**
- Overtime work calculated with time surplus (150 %)

Care for Staff II: Training

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Most part of regular trainings stopped. Focus on storm related trainings

Trainings 2000				
Trainings (examples)	Trainer	N State	N Communal	N Privates
Chainsaw Basics	Bonndorf	1	6	5
	St. Peter		8	1
	St. Märgen	3	3	6
	St. Peter	21		1
	St. Märgen			13
	St. Märgen			10
	St. Märgen	5		
	St. Märgen	41		
	Total		71	17
Chainsaw Short Training	St. Märgen		6	1
	St. Märgen		7	
	St. Märgen			8
	St. Märgen			
	Total		0	13

Organisational Aspects : Evaluation

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- Tremendous challenge. Situation was extremely stressing für all people involved
- Especially Rangers were extremely exhausted
- Private Forest Owners were very demanding – High Work-load
- Health Problems → Sleeplessness
- Compensatory free time does not work during slavage logging campaign. After the periode increased work-load
- Partially missing willingness to accept help offers
→ PARTIALLY ORDERS NEEDED
- Compensation with leisure time did not work really, as there was no measures taken to reduce the total workload
After return a tremendous amount of task „waited“
→ However breaks are seen being benefical.



Organisational Aspects : Summary I

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Timber Market

- Support for timber export
- Establishment of a solidarity concept

MLR

FD

FÄ

RL

(X)

X

X

X

Workload

- Slow down concept
- Framework for relocation must be improved
- Show solidarity
- External Communication about peculiarity of situation

(X)

X

X

X

X

X

X

X

X

X

X

(X)

Organisational Aspects : Summary II

	MLR	FD	FÄ	RL
Personal Support				
➤ Detailed planning of support			X	X
➤ Intense Briefing			X	X
➤ Partnering concept should be implemented state wide		X	X	
Contractors				
➤ Limited Number of Contracts			X	X
➤ Information about contractors		X	X	
➤ Manuals for different procedures	FVA	X		

Organisational Aspects : Summary III

	MLR	FD	FÄ	RL
OSH Issues				
➤ Training		X		Stützpunkt
➤ Visits of OSH experts		X		SiFa
Offices				
➤ Optimisation of Information Policy	X	X		
➤ Facilitation of accounting standards (temporary)	X	X		
➤ Relocation of work in the offices				X

Recommendations I

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- Workload has to be planned on a reasonable level
- Monitoring of workload and especially work time is essential
- Maximum level have to be defined and enforced
 - In case of need breaks or holiday have to be mandated

- Salvage logging is extremely exhausting. Change to easier task every 6 to eight weeks for one to two weeks
 - Reduction of susceptibility to accidents

- External communication, that the salvage logging campaign will take longer, but as a planned process, not due to laziness or slowness

Recommendations II

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- The use of relocation of employees and employment of additional workforce is essential
- A solidarity campaign within less effected regions can help
- Personalisation of help „Friend support Friends“ concepts
- Lone warriors should be convinced to accept help
- Safety experts should organize regular visits in the field in order to keep the awareness of OSH high
- In case of joint work of contractors and own employees a sufficient control intensity has to be organized
- In case of a violation of OSH rule by the contractor a dismissal of the contract is needed.

Recommendations III

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- Relocation or external workforces should be organized for longer periods (at least 4 to 6 weeks)
- A clear briefing concept is needed (a short as possible, but as intensive as needed)
- Full cost coverage for all expenses which are related to the relocation must be guaranteed.

- Special incentives for all those, who volunteer for relocation

- Support can be organized
 - Territorially
 - Related to special fields of duties (e. g. management of all contractors)
 - SpeCial activities (e. g. timber measurement and grading)

 - Mixed responsibility can lead to confusion