

Strengthening Regional Cohesion

Local Collaboration Networks and Sustainable in Swiss Rural Areas

Christian Hirschi
ETH Zurich

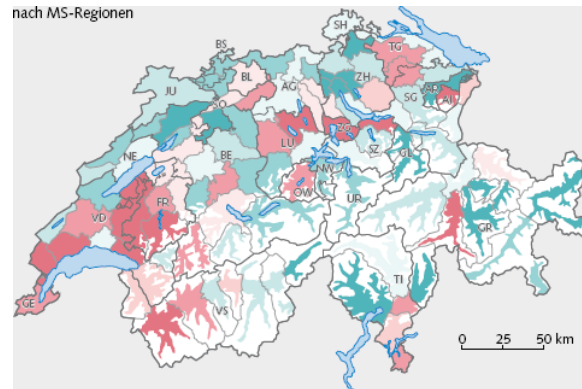


Overview

- Sustainable regional development
 - One particular instrument: Regional park policy in Switzerland
- Relational aspects
 - Cohesion and network closure
- Applied SNA
 - Actor structures of park projects in two regions

Rural Switzerland (1)

- Economic and social challenges
 - Negative employment trend
 - Formerly highly industrialized regions along the Jura mountains
 - Peripheral regions of the alpine Cantons of Valais, Uri, Ticino, Glarus, Grisons
 - Emigration
 - of economically active segments of society
 - Excessive aging of population
 - at quite constant overall population numbers
 - Tourism
 - as important economic factor



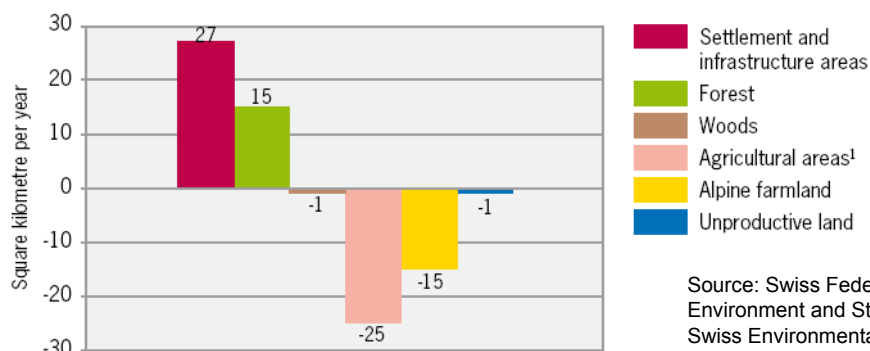
Employment Trend Switzerland, 2001/2005

Source: Bundesamt für Statistik (2008), Regionale Disparitäten in der Schweiz, p. 9.

Rural Switzerland (2)

- Ecological challenges
 - Preservation of natural and cultural landscapes not guaranteed
 - Agriculture declining
 - Other forms of land use with negative impacts on environment

Annual change in land use in Switzerland
Between the periods 1979/85 and 1992/97

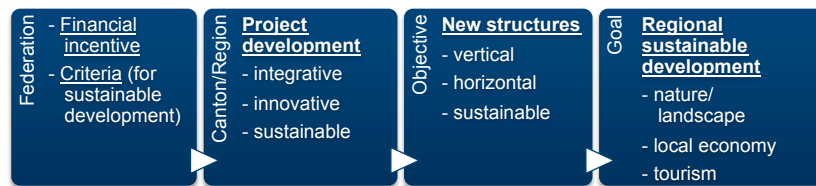


¹ Except alpine farmland.

Source: Swiss Federal Offices for the Environment and Statistics (2009), Swiss Environmental Statistics, p. 18.

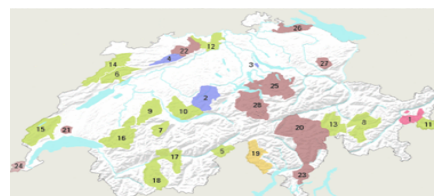
Regional Nature Parks (RNPs)

- Instrument among others (subsidies and financial compensation; new regional policy since 2008)
- Introduced in Dec 2007
- 'Theory'



Local/Regional Networks and Sustainable Development

- 'Sustainable Development' in Switzerland
 - Successful concept, but implementation widely lacking
 - More decentralization and participation
- Park policy as network form of governance
 - comprehensive and integrative
 - bottom-up and top-down
 - decentralized and participatory
 - instrument-mix



Parks projects in Switzerland,
Sep 2009

Source: NZZ /
Netzwerk
Schweizer Pärke
(2009)

Research Questions

- What actor network structures have emerged in the regions due to the setting-up of a Regional Nature Park?
- To what degree did the park project strengthen the cohesion between different actors at the local, regional and federal level?
- What effect could these actor structures have on more sustainable development of the regions?

Two Case Studies

- **Binntal** (Canton of Valais)

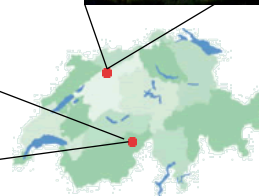


Picture: sf.tv

- **Thal** (Canton of Solothurn)



Picture: Regionaler Naturpark Thal

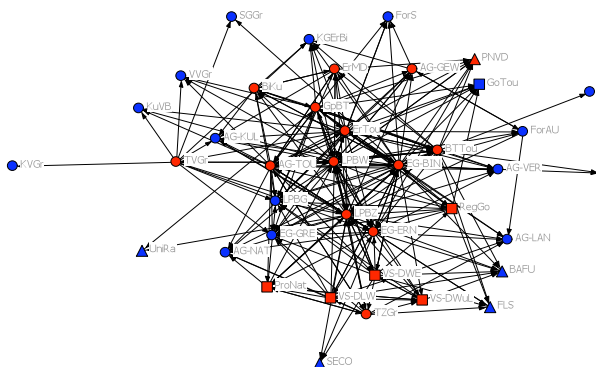


Survey

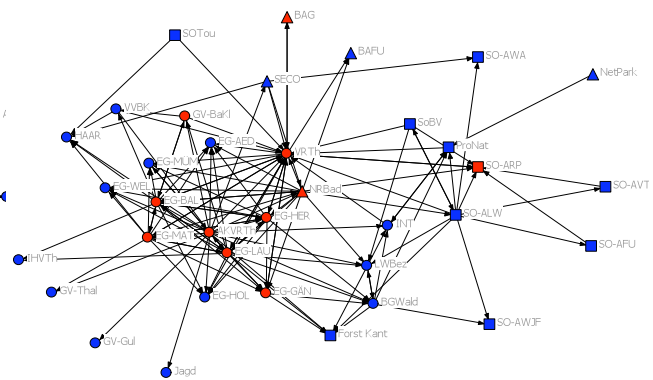
- Document analysis and exploratory interviews
- Standardized survey by regular mail
 - June 2008 (Binntal)
 - December 2007 / January 2008 (Thal)
- Response
 - Binntal project: 25/38 (66%)
 - Thal project: 32/36 (89%)
- Relationships
 - Collaboration
 - Information exchange
 - (Reputation)
 - (Project assessment)

Collaboration networks

■ RNP Binntal



■ RNP Thal



Actor involvement

Table 1: Vertical and Horizontal Actor Involvement

<i>Actor Involvement</i>		Binntal		Thal	
		Overall	Core	Overall	Core
Level	National	5 (13%)	1 (5%)	5 (14%)	2 (18%)
	Regional/Cantonal	6 (16%)	4 (21%)	10 (28%)	1 (9%)
	Local	27 (71%)	14 (74%)	21 (58%)	8 (72%)
Sector	Mainly Use (Econ.)	17 (45%)	7 (37%)	14 (39%)	1 (9%)
	Use and Protection	17 (45%)	11 (58%)	18 (50%)	10 (91%)
	Mainly Protection (Ecolog.)	4 (10%)	1 (5%)	4 (11%)	0 (0%)
Total	Absolute	38	19	36	11
	Percentage	(100%)	(100%)	(100%)	(100%)

Cohesion (1)

■ Binntal

Table 1: Tie Strengths between Administrative Levels, Binntal (close cooperation)

	Ties established before project				Ties established with project		
	Local	Regional	National		Local	Regional	National
Local	20	3	1	Local →	62	3	3
Regional	3	0	1	Regional	3	2	1
National	1	1	0	National	3	1	0

Table 2: Tie Strengths between Sectors, Binntal (close cooperation)

	Ties established with Project				Ties established with project		
	Use	Mixed	Protect.		Use	Mixed	Protect.
Use	0	7	0	Use →	6	19	0
Mixed	7	12	2	Mixed	19	28	3
Protect.	0	2	0	Protect.	0	3	0

Cohesion (2)

- Thal

Table 1: Tie Strengths between Levels and Sectors, Thal

	Ties established with Project			Ties established with project			
	Local	Regional	National	Use	Mixed	Protect.	
Local	26	1	2	Use	0	1	0
Regional	1	0	0	Mixed	1	30	0
National	2	0	0	Protect.	0	0	0

Network closure

- Binntal and Thal

Table 1: Network Closure

	Actors		Density		Reciprocity		Transitivity		3-Cliques	
	Est.	Proj.	Est.	Proj.	Est.	Proj.	Est.	Proj.	Est.	Proj.
Binntal	38	38	0.11	0.17	0.10	0.18	0.11	0.18	4	7
Thal	34	37	0.10	0.11	0.17	0.15	0.17	0.26	1	1

Discussion

- Different effects of the project
 - Improved interconnectivity -> local cohesion (Binntal)
 - More stable collaboration structures -> network closure (Binntal)
 - Dominant cohesive subgroup -> network stability (Thal)
 - Intergovernmental cooperation -> vertical cohesion (Binntal + Thal)
 - Sustainable regional development?
 - Network closure/stability -> normative environment that fosters cooperation (Coleman 1988; 1990)
 - Network cohesion/closure -> inflexibility and lack of adaptiveness (Burt 1982; 1992)
- ⇨ *Opposite predictions:*
network structure → ability to adapt to changes in environment

Further Research

- Temporal effects of social network structures
 - Different stages in sustainable regional development (temporal / levels)
 - Dynamic social network analysis
- *Follow-up study?*
- *New project:*

Land-use in Swiss mountain regions under climate change (MOUNTLAND Project)

- How do local communities adapt to changing climate conditions?
- How do network structures change due to climate change?
- How can network structures be improved to better cope with risks (seasonal changes, natural hazards, changes in biodiversity) associated with changing climate conditions?

Thank you!