

How to improve integrative planning and land use instruments in cultural landscapes?

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Overview

- General strategies of nature conservation in cultural landscapes
- Segregative / Integrative instruments
- Landscape Planning (LP) and Codes of Good Farming Practice (GFP)
- Procedural approaches
- Results
- Conclusion



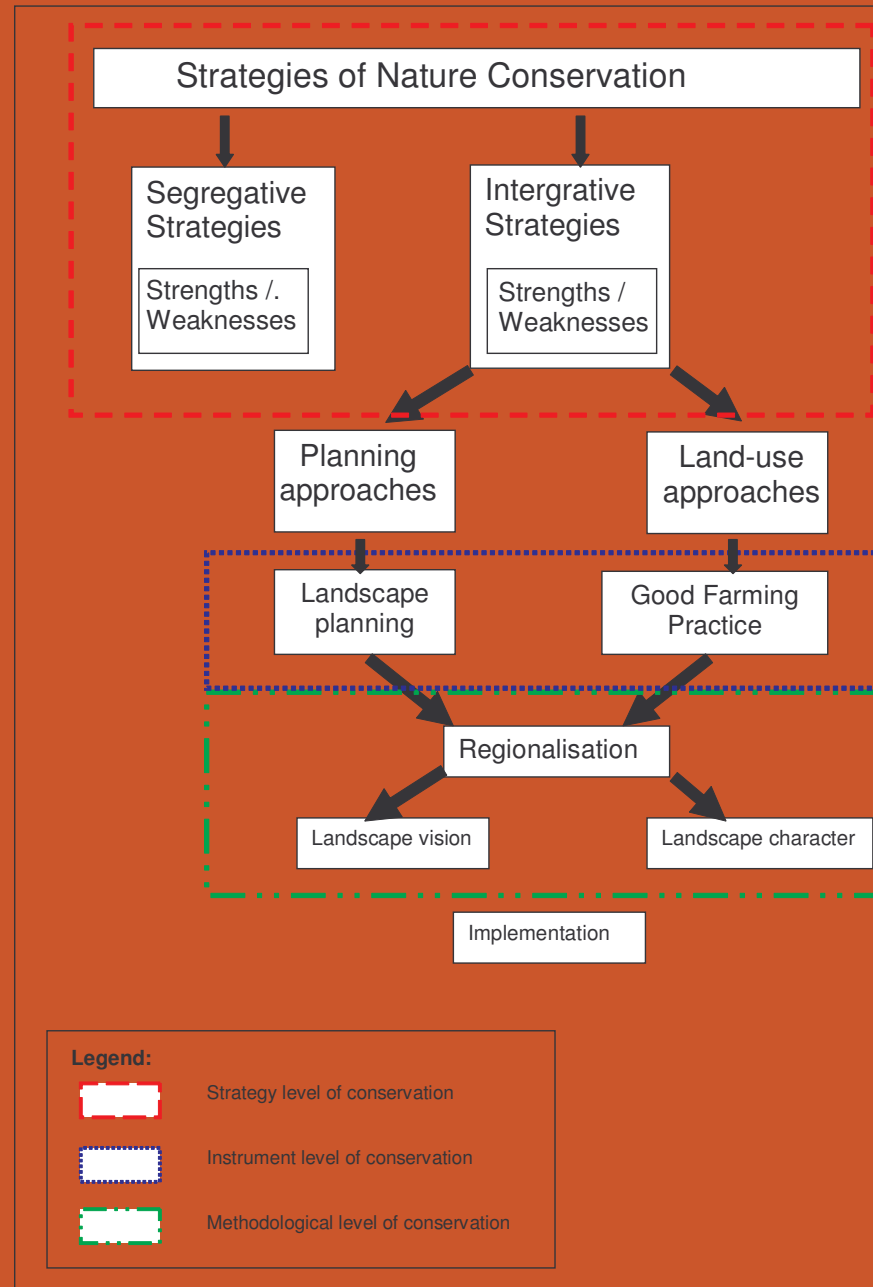
General strategies of nature conservation in cultural landscapes

- *“The future of nature protection lies in integrating biodiversity considerations into sectoral and environmental policies and maximising the utility of existing protected sites” (EEA 2004)*

Segregative / Integrative Strategies

- Segregativ: establishment of protected areas (exclusion or restriction for types of use that might threaten biodiversity)
- Integrativ: Consideration of conservation objectives in other sectoral policies / land use forms (conservation is not the primary issue here).

In Europe (and other parts of the world too) there is still a dominance of segregative approaches and strategies, although their effects in cultural landscapes are limited.

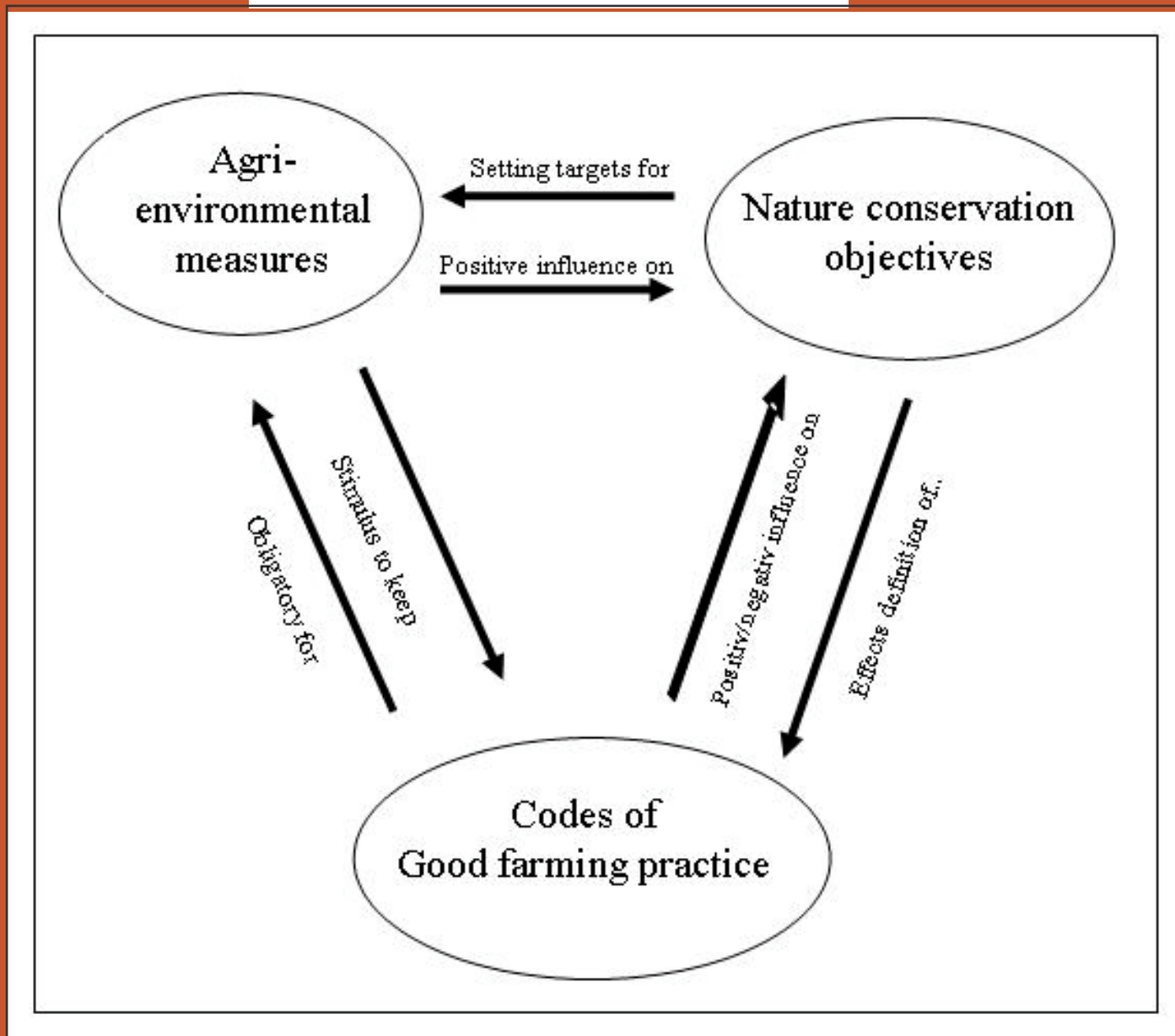


Why Landscape Planning (LP) and Codes of Good Farming Practice (GFP)?

Relevance:

- LP is the most appropriate planning instrument in use to cope with the conflicting land-use interests
- LP is the main pro-active instrument for the realization of an area-wide nature conservation strategy
- GFP reflects the juridical relation between agriculture and nature conservation
- The GFP codes fix the “mode of operation “, what is the key factor to achieve a more sustainable form of agriculture (FAO 2001).
- **Both instruments are established throughout Europe**
- **Both instruments face considerable deficiencies**

Interactions



Deficiencies

Quality of landscape planning in Germany (after GRUEHN & KENNEWEG 1998).

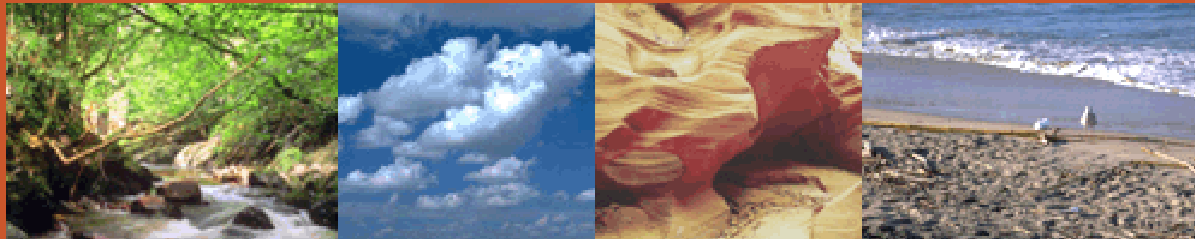
Quality of landscape plan	percentage (n = 164)
„excellant“	3,0 %
„good“	28,7 %
„satisfying/sufficient“	30,5 %
„insufficient/poor“	26,2 %
„unsatisfactory“	11,6 %



Deficiencies of current GFP

- high share of definitions belong to the area of recommendations or technical advice
- the codes use formulations such as: “adverse effects are to be avoided” or “natural endowment may not be impaired more than necessary”
- the codes are laid down in many different sources
- criteria underlying the codes are sorted on a medial basis (water, air, soil + specific regulations for fertilisers and pesticides,but no ecosystem/functional approach).
- there is no direct link to Agri-Environmental Schemes
- Implementation level is unclear, due to random control on low level

**Urgent need for
improvement of the
instruments, adaptation to
the current political
premises and the state of
knowledge !**



Procedural approach

Having in mind, that for the acceptance of new methodological standards you like to introduce in an established instrument, it is not only relevant “what” you select, but also “who and how” you set the potential standards.

- We have chosen to work with expert groups, consisting of 28 (LP) and 15 (GfP) persons, to elaborate proposals of new standards / criteria.
- The LP-group met three to four times per year, while the GfP-group met once for a workshop and several times for consultation “in the field” (iterative process).

Screening phase

1. Screening of an overall need of standards for nature conservation and deficits in landscape planning.
2. Evaluation of already existing approaches of standardisation in other topics.
3. Establishment of an interdisciplinary group of experts
4. Deduction of the relevant topics of landscape planning that are suitable for standardisation.

Involvement of a wider public

5. Involvement of a wider scientific public within the scope of a first conference
6. Publication of preliminary results as basis for a broader scientific discussion.

Appointment of standard proposals in different topics by working groups

7. External contractors and members of the working groups elaborate draft versions of standards.
8. Presentation and discussion of the draft version in the expert group.
9. Incorporation of notations from the expert group members

- 10 Working groups elaborate draft versions for „Gelbdrucke“(yellow prints).
- 11 Presentation and second discussion of the draft version in the expert group.
- 12 4 weeks time period to add supplementary notations in written form.
- 13 Incorporation of notations in the final version of the „yellow prints“.

Involvement of the scientific public

- 14 Sending of "yellow prints“ to external specialist (ca. 35 persons per topic).
- 15 4 weeks time period to add notations in written form.
- 16 Positioning of the "yellow prints" in the internet.
- 17 Incorporation of notations

Resolution of the expert group

- 18 Presentation and final acceptance of the revised version of the "yellow prints" by the expert group

Involvement of a wider public

- 19 **Presentation and discussion of the final results in a terminal conference**

- 20 Publication of the draft-standards

Results for Landscape planning

Characteristics of the „yellow prints“

	No of pages	No of involved specialists	Total No of standards	No of Definitions
Fauna	152	35	75	24
Flora/Vegetation	72	33	60	25
Biotope*/ Ecosystems	60	32	26	8
Evaluation	57	35	34	23
Landscape visions	58	36	35	19

*The term "biotope" is used in German terminology equivalent to the term "ecosystem" in English literature

Overview of the thematic and procedural scopes in landscape planning.

	Ecological and resource issues of landscape planning					
	Biotic segments			Abiotic segments		
Procedural steps	Flora	Fauna	Biotope/ Ecosystem	Soil	Water	Climate
1. Scoping and important guidelines						
2. Analysis and data sampling						
3. Analysis and edition of data						
4. Nature conservation assessment						
5. Evaluation of conflicts and synergies						
6. Development of landscape vision and environmental quality targets						
7. Implementation measures						

Yellow print	Typ of standard	Standard	Annotation (abbreviated)
Vegetation	P	<u>Actuality of existing data</u> In general, existing data is regarded as actual, if they are not older than 5 years and there has not been any significant change in the spatial composition since the time of the survey.	If data is older than 5 years a: it shall be verified in the field by random sampling. b: if this is not possible they can be used to compare but should not be used in the context of the actual state of nature.
Biotope	P	<u>Data sampling</u> The first-time surey has to be done area wide. The following surveys can be done for spatial extracts but the reasons for the specific selection has to be documented. The reasons for choosing a specific methodology has to be given and is to be documented. Non-scientific reglementations for the reduction of quality or quantity of the analysis has to be documented.	Volume and quality of the data sampling has strong implementation for analysis and evaluation of the results. Therefore, thoroughly dealing with it should be obligatory.
Evaluation	P	<u>Documentation of the synopsis of different evaluation criteria</u> Deriving the rules for the synopsis of different evaluation criteria or values have to be documented as well as scientifically and logically derived. the ratio between single criteria/values has to be documented.	The synopsis of different evaluation criteria or different values is an essential working step of nearly every evaluation prodedure. There often exist correlations between different criteria, that have to documented, because they vitally effect the evaluation result.

Database with GFP criteria

- 62 criteria (**database sheets**) exist, categorized according main land use types (arable fields, grasslands, special cultivations,) farm specific objectives and landscape ecological criteria.
- Information** about justification, direct/indirect effected objectives, spatio/temporal priorities, and standards , tasks, indicators and evaluation information are given for GFP **parallel** to AES are given.
- The database is in a **permanent review** process and for some criteria the information is still in-complete.
- The database should be understood as **basis for a regionalized set of GFP criteria** and not as endpoint of development.

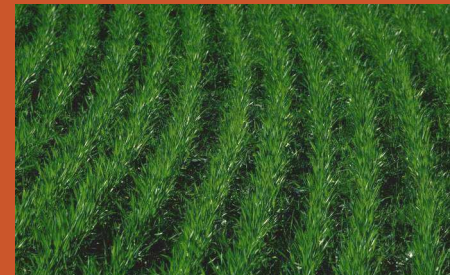
NQT	A20	
(objective)	Consideration of migrating amphibians on arable fields and pastures	
Land-use-category	Arable fields and pastures	
Directely effected media	Populations of Amphibia	
Indirect effected media	Self regulating processes for the control of pests; biodiversity	
Scientific justification (shortened)	Arable fields are part of the annual habitats of many amphibians who are migrating between different habitat types seasonally. The populations of this species are seriously affected close to temporary water filled depressions and during the migration period through agricultural activity. Some amphibians like <i>Pelobates fuscus</i> use fields throughout the year.	
Juridical justification	German Nature Conservation Law (BNatschG) §1 No.3; §2 (1) No.9; §5 (4) No.3; §39 (1) No.1; §42(1) N0.1; Habitat directive, annex II. 3 (1); article6 (2); article12 (1).	
Spatio/temporal priorities	Fields and pastures close by ponds, temporary water filled depressions and area with changing ground water level close to ground.	
Good farming practice	Additional tasks (to be reimbursed)	
Standard: Considering of habitat requirements of the effected amphibians, if they can be considered “economical acceptable”(less than 2 percent losses of crop).	Standard: enhance reduction of mortality of amphibians due to improvements of habitats and enhancement of connectivity between temporary habitats.	

<p>Task: substitution of highly acidly fertilisers by less harming once (e.g. Plantocote-fertiliser. Keeping of minimum distances to ponds and water filled depressions that might be considered spawning areas.</p>	<p>Task: Exclusion of migrating zones from N-fertilising, particular Phosporus and Kalkammon-salpeter between 15.02-15.04 and 01.09.-15.10. or general reduction of 50% of fertilizer application; or complete exclusion of fertilizing and mowing in the migration periods.; buffer zones of minimum 50 meters around ponds/ water filled depressions</p>
<p>Indicator: Counting of dead amphibians with transect methodology.</p>	<p>Indicator: Counting of dead amphibians with transect methodology.</p>
<p>Evaluation/control: field specific documentation of fertiliser application, spot test on field, problem Awareness of farmers. Evaluation: good: average No. Carcasses per 10m transect below 0,5 less good: average No. Carcasses per 10m transect between 0,5 to 1,5. average: average No. Carcasses per 10m transect between 1,5 to 3 bad: average No. Carcasses per 10m transect above 3.</p>	<p>Evaluation/control: control of specific contracts Evaluation: good: no fertilizing and mowing in the migration periods average: exclusion of main migration corridor from mowing and fertilizing bad: Fertilizing and mowing in the migration area and during migrationperiode.</p>
<p>Sources:</p>	<p>Günther, R. (1996). "Die Amphibien und Reptilien Deutschlands." Gustav Fischer Verlag, Liczner, Y. (1999): Auswirkung verschiedener Mahdmethoden auf Amphibien, Diplomarbeit; RANA Sonderheft 3: Amphibien in der Agrarlandschaft (1999) Schneeweiss, N. & Schneeweiss, U. (1997): Amphibienverluste infolge</p>

Procedure to define a regionalized GFP

Based on:

- Proto-database
- Landscape vision (s)
- Landscape character
- General development options



Implementation

- Certification (5 year terms) of GFP compliance should be in the responsibility of land user (farmer).
- Auditing (certification) should be done by private consultancies.
- Certification of GFP will be main access criteria for the participation in AES.
- thresholds for indicators should be set in form of tolerance margins
- Certification per farm maximum 1-2 days.
- a combined certification for 2 and more farmers with land in the same ecological unit is recommended.

Conclusion

- It is possible to set methodological quality standards for nature conservation instruments by expert panels
- In principles the approach of other applied disciplines can be kept
- The results have a higher credibility than “ordinary” suggestions
- The process itself must be transparent and open involving different disciplines.
- The development of draft standards /normative standards is very time consuming.
- The development of normative standards can only be the first step of mandatory standards (if considered necessary and suitable)
- thresholds for indicators should be set in form of tolerance margins

Thank you very much for your attention !



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