APPENDIX 4 ASSESSMENT OF INSTRUMENTS

4.1 Definition of instruments

This table contains a list of the instruments that have been assess with a literature analysis and with the three surveys. Here are the definition which were given to the respondents of the surveys. There is also an indication concerning the Flemish or Walloon origin of the instrument.

AEM (Agro-Environmental Measures)	Fl + Wal
Beheersovereenkomsten	Mesures agri-environnementales
The agri-environmental premiums (MAE) are financial compensations that a farmer or forester can receive in exchange of an effort carried out in favor of the environment. The commitment is undertaken on voluntary basis, for a 5 years duration and goes beyond good practices.	
Voluntary	

Buying obligation	Fl + Wal
Koopplicht	Obligation d’achat
Obligation of the government to buy the property of an owner under certain conditions as stated in the Natuurdecreet and the Loi sur la Conservation de la Nature (LCN)	

Code of good practice	Fl + Wal
Code van de goede praktijk	
Code of good practice for nature management sets a framework for effective and efficient nature management with guidelines, goals and commitments for nature managers. Example : see Eco-conditionality in agriculture and forest management	
Regulatory + voluntary	

Cooperation with local government	Fl
Samenwerkingsovereenkomst (milieuconvenant)	Coopération avec le gouvernement (les autorités) local(es)
A voluntary cooperation between the Flemish Government and municipals or provinces concerning the sustainable development of the environment (broad sense). The local governments can receive a financial support for establishing local projects approved according the agreement. Total of 10 themes involved: 8th theme = Nature.	
Voluntary	

Declaration mechanisms	Fl + Wal
Meldingsplicht	Mécanismes de déclaration (de notification)
Administrative mechanism by which a person informs the authority of her will to carry out acts and work or to carry on an activity mentioned on specific lists or showing certain characteristics. Certain conditions can be applicable or imposed by the proper authority.	
Regulatory	

Eco-conditionality in agriculture and forest management		Fl + Wal
	Eco-conditionnalité en agriculture et gestion forestière	
It acts of a whole of rules concerning the maintenance of the permanent pastures, the good agricultural and environmental conditions and the lawful requirements as regards management that any farmer, perceiving of the direct payments, is held to respect under penalty of seeing itself applying a reduction or a removal of these payments.		
Regulatory + voluntary		

Environmental Impacts Assessment (EIA)		Fl + Wal
Milieueffectrapportage	Evaluation appropriée des impacts sur l'environnement	
Mechanism in virtue of which the projects showing a risk for the environment or one of its sectors must be the subject of an evaluation of the incidences (according to EU-directive 85/337/EEG). The projects for which the evaluation reveals that they deviate or are likely to deviate from a precise protection standard must be refused by the authority. Appropriate assessment has to be made for project within or in proximity of Natura2000-site.		
Regulatory		

Expropriation		Fl + Wal
Onteigening	Expropriation	
Expropriation is a procedure initiated by the Administration by which the owner of a real estate, realizing allowance, is obliged to give up his good with the profit of the State. Expropriation is authorized only for the realization of a recognized operation of public utility.		
Regulatory		

Forester management plan		Fl + Wal
Bosbeheersplan	Plan d'aménagement forestier	
Wallonia: The forest installation, written by the services of the Division of Nature and Forests, managers of the communal forests subjected to the DNF, is the document which governs, directs and organizes the various functions of the forests. It is composed of 3 principal parts: an inventory of the resource and various ecological conditions. On the basis of this report a discussion of the possible options and main trends which will be given to the forest. Lastly, on the basis of these choice, a planning of work as well as expenditure and receipts on ten years. *Flanders*: The Forest Management Plan is based on a forest inventory and indicates the future management of the forest. It depicts the ecological, economical, social, educative, environmental and scientific objectives to reach. It gives an overview of all the management actions necessary to realize those objectives. The Forest Management Plan is made for a time period of 20 years. All management actions described in an approved management plan need no further approval from the Bosbeheer-administration. Every public forest and every private forest of > 5 ha situated in VEN-area (Vlaams Ecologisch Netwerk) need an extended forest management plan (uitgebreid bosbeheersplan). This plan is subducted to the criteria for sustainable forestry, and thus involves an important ecological aspect.		
Regulatory		

Land arrangement	Fl
Landinrichting	<<Aménagement de la territoire>>
"Landinrichting" is established and carried out by the VLM (Vlaamse Landmaatschappij – Flemish Landcorporation) for the arrangement of the open space. Projects of Landinrichting want to arrange the terrains in a way that all aspects of the area (environment, nature, agriculture, recreation, culture, …) are able to fully develop. The arrangement aims to realise the destinations of the area as depicted by spatial policy (ruimtelijke ordening). Landinrichting tries to improve the quality and balance of the rural area by realising integrated solutions and by calibrating the programs of different sectors to improve the efficiency of the arrangement. The objectives of rural, spatial and environmental policy are taken into account. Landinrichting-projects are subducted to a specific procedure which envolves a public enquiry.	
Regulatory + voluntary	

Land consolidation	Fl (+ Wal)
Ruilverkaveling	Remembrement rural
The regrouping of the arable lands belonging to one or more farmers within a depicted area. The goal is to create adjacent, regular en easily accessible parcels which are situated close to the farm. This way, a profitable and sustainable agricultural exploitation is established. The objectives of rural, spatial, environmental and nature policy are integrated in the process of land regrouping to the maximum extent. In Flanders carried out by the VLM (Vlaamse Landmaatschappij, Flemish Landcorporation). Land regrouping is subducted to a specific procedure which involves a public enquiry. This instrument is not yet used in Wallonia for nature conservation goals.	
Regulatory + voluntary	

Land donation / heritage	Fl + Wal
Landdonatie/erving	Transfert de terrains par donation ou succession
The fact of voluntarily transferring property rights/ receiving the property rights as being the inheritant of the late owner	
Voluntary	

Land purchase	Fl + Wal
Landaankoop	Achat de terrains
Buying land	
Regulatory + voluntary	

Land renting	Fl + Wal
Huren van land	Location de terrains
Voluntary	

Land use zoning plans	Fl + Wal
Ruimtelijke uitvoeringsplannen	Plans d'affectation du territoire (plans de secteur ; plans communaux d'aménagement)
Document carrying out a zoning of the territory and assigning to each zone a certain use	

of the land, a certain destination. They have regulatory value.
Regulatory

Management and “protection” agreement	Fl + Wal
Natuurprojectovereenkomst / Management overeenkomst	Contrats de gestion et contrats de protection
A contract concluded between the owners and occupants from a site and the administrative authority. It includes the description of work, technical management measures and protection measures of which the owners and occupants engage to implement. A financial counterpart can be considered. *Flanders*: Natuurprojectovereenkomst (Nature project agreement) Within the area of VEN (Vlaams Ecologish Netwerk – Flemish Ecological Network), natuurverwevings’-areas, the green and forest areas and the areas with similar destinations in the spatial destination plans and within the special protected zones, a nature project agreement can be set up between the Flemish government and private owners or local governments, whereby compensations are reached out for local projects carrying out a “natuurrichtplan”, as far as there are no other subsidiary systems for that type of projects. Up to 90 % of the costs can be compensated in case of private ownership (50 % of costs for local governments).	
Voluntary	

Nature arrangement	Fl
Natuurinrichting	<<Arrangement/ aménagement de la nature>>
“Natuurinrichting” is an instrument which is established and carried out by the VLM (Vlaamse Landmaatschappij – Flemish Landcorporation) for the arrangment of areas in function of nature. By means of active interference, Natuurinrichting wants to create better circumstances for the development of nature in ares which were depicted therefore. Natuurinrichting-projects are subducted to a specific procedure which envolves a public enquiry.	
Regulatory + voluntary	

Permit for intervention in environment	Fl + Wal
Vergunning	Permis environnementaux
Administrative authorizations which any public or private person must obtain if he or she wants to carry out acts and work. Permits relate to a prohibition of certain (aspects of) activities.	
Regulatory	

Pre emption right	Fl + Wal
Recht van voorkoop	Droit de préemption
It is the right legally recognized to a person to be substituted for any other purchaser in the event of sale of the good.	
Regulatory	

Prevention of environmental damages	Fl + Wal
Zorgplicht	Prévention des dommages environnementaux
dir. 2004/35/EC	
Regulatory	

Protection regime	Fl + Wal
Bescherming bij wet	Régime de protection
Specific mechanism for the Natura 2000 sites subjecting to prohibition, authorization or notification activities or work likely to attack the integrity of the sites. Traditional nature conservation approach.	
Regulatory	

Protected zone	Fl + Wal
Beschermde habitat	Zones protégées
Sites that are protected through a protection regime like Natura 2000, natural reserve, Flemish Ecological Network, …	
Regulatory	

Regional Landscapes	Fl + Wal
Regionaal Landschap	Parc Naturel
A regional landscape is a sustainable cooperation entity, established on proposition of a province or at least 3 neighbouring municipals. Its aim is to promote – by means of discussion and cooperation with all involved stakeholders – the regional character, nature recreation and nature education, recreatif co-use of the area, nature conservation and nature management and the restoration, establishment and development of small landscape units. A regional landscape has to be approved by the Flemish Government according to the conditions applied in the Natuurdecreet. Enables delivery of firm-planners for AES, aid with elaboration of cooperation agreement projects, support and realisation of nature projects, the restoration, establishment and development of small landscape units.	
Voluntary	

Rivers agreements	Wal
	Contrats de rivières
"The « Contrats de rivière » are technical and financial agreements covering a whole of catchment area of one or several rivers. Water cleaning, fight against flooding, resource management and rivers revitalization are studied ; Goals are fixed and actions proposed. Each River Agreement is signed between involved local communities (investigator) and partners : the State, the Region, the Department, the Water Agency (depending on the State) and users (industrialists, farmers, fishers, nature conservation associations,…).	
Regulatory	

Species and biotopes direct protection	Fl + Wal
Bescherming van soorten en biotopen (uit Bijlage 4)	Protection directe des espèces et des biotopes
Protection regime in favor of a specified list of species (via Art. 12 of Habitat Directive). Applicable on all the territory, it can aim at the protection of the species in itself, its quietude, its habitat and in addition includes rules relating to the trade and transport.	
Regulatory	

Species protection plan	Fl + Wal
Soortenbeschermingsplan	<<Protection directe des espèces et des

	biotopes>>
Protection regime in favor of a specified species..	
Regulatory	

Voluntary private and public natural reserve / forest reserve	Fl + Wal
Natuurreservaat / Bosreservaat	Réserves naturelles domaniales, réserves naturelles privées volontaires et réserves forestières
Protected zones created with the request or with the agreement of the owner that aim at preserving indigenous species and habitats which are present in the zone. A protection and management regime are associated to these statutes.	
Regulatory + voluntary	

Water shed surface water protection measures	Fl + Wal
Integraal waterbeleid	Measures de protection des eaux de surface
The plan of hydrographic management of district is the tool for management integrated planning of the water masses, it comprises the following elements: • a general description of the characteristics of the district; • a summary of the pressures and incidences important of the human activity on the state of surface and underground water; • the identification and the cartographic representation of the protected zones; • a map of the inspection networks; • a list of the environmental objectives; • a summary of the economic analysis of the use of water; • a summary of the programs of measurement; • a register of the other programs and more detailed management plans relating to the under-basins; • a summary of the measurements taken for the information and the consultation of the public, the results of these measurements and the modifications made to the plans; • the list of the proper authorities; • the contact points and procedures to obtain the reference documents and information	

Deduction of successions taxes on natural assets	Fl + Wal
Aftrekking / vermindering successierechten	Déduction des droits de succession

Fiscal and economic incentives to sustainable forest management	Fl + Wal
Economische en fiscale stimulans voor duurzame bosbouw	Incitations fiscals et économiques pour la gestion forestière durable

Indemnities and compensation for land right restrictions	Fl + Wal
Schedevergoeding en compensatie voor beperkingen en verboden	Indemnités et compensations pour des restrictions de droits

Labels for biodiversity-friendly products/ certification	Fl + Wal

Labelling en certificering van natuurvriendelijke producten	Certification et labels pour les productions respectueuses de la biodiversité
Labeling and certification, aims to create a link between the demand and supply side of the market and establish an advantage for those who preserve biodiversity by labeling their products as such	

Life Nature	Fl + Wal
Life Nature	Life Nature
LIFE is the EU's financial instrument supporting environmental and nature conservation projects throughout the EU, as well as in some candidate, acceding and neighbouring countries. Since 1992, LIFE has co-financed some 2,750 projects, contributing approximately €1.35 billion to the protection of the environment (from http://ec.europa.eu/environment/life/)	
Voluntary	

Organic farming subsidies	Fl + Wal
Subsidies bio-landbouw	Subsides pour l'agriculture biologique

Subsidies for protected areas management	Fl + Wal
Subsidies voor beheer van beschermde gebieden	Subsides pour la gestion de sites protégés

Suppression of perverse incentives	Fl + Wal
for ex. urbanization fiscality	

Information campaign	Fl + Wal
Informatiecampagne	Campagnes d'information

Education program	Fl + Wal
Opleiding/educatie	Programmes d'éducation

Participation	Fl + Wal
Participatie	Participation
public enquiries and consultations; concertation The whole of the mechanisms which make it possible to the private individuals to influence, in a direct way but without decisional capacity, on the adoption, content and implementation of the unilateral administrative decisions.	

4.2 Typology of instruments

This typology was build and used in order to focus on some characteristics of the instruments that justify their use in this or this strategy.

- Regulatory instruments

Regulatory instruments are the instruments which impose restriction to any person who carries out an activity or a project aimed by the instrument.

  - Interdiction

Interdiction is the most constraining instrument. For the private individual, that implies an absolute prohibition to pose an act. It can be coupled with a mechanism of exemption which by principle would be granted only exceptionally.

Exemples:
Species protection regime
N2000 protection regime

  - Authorization

The mechanism of authorization is a control mechanism which makes it possible the authority to appreciate the project appropriateness, to authorize it, refuse it or to match it conditions. The authority has a certain “marge de manoeuvre” to make its decision. For the private individual that implies to carry out administrative procedures, the preparation of a file without having the certainty that the project could be carried out, delay, and costs to carry out the environmental impacts assessment.

The environmental impacts assessment is a mechanism in virtue of which the plans or the projects which show a risk for the environment or one of its particular sectors must be subjected to an evaluation of the incidences (according to the European directive 85/337/EEG). Within this evaluation, a specific part treats impacts on Natura 2000. In case of proven impact on the site or in case of doubt, the authority can authorize the project only within a strict procedure of exemption.

Exemples:
Urbanism or environmental permit
N2000 protection regime
Appropriate impact assessment

  - Notification

The notification is a mechanism of simple declaration to the authority which one will carry out an activity. The objective is to inform the authority so that it can intervene if necessary. For the private individual that does not imply great constraints.

Exemples:
Urbanism or environmental declaration
N2000 protection regime

- Voluntary instruments

One classifies here the instruments including protection or management measures for which the private individuals have the choice to engage or not. Without their willingness, the instruments will be without effects for them
=> with or without financial aids

- Negotiated procedure

Engagement can take the traditional form of the contract. In this case, the contents of engagement are negotiated between the various parts, the responsible authority and the private individuals. The measures to be taken are adapted according to the desideratas of the parts.

Exemples:
Management agreement
Rivers agreement

- Adhesion

Engagement can take the form of an adhesion contract. On this case, the contents are not negotiated. It is about specifications written by the administration to which the private individual chooses to subscribe or not.

Exemples:
Agri-environmental, sylvo-environmental Schemes

- Land property instruments

These are mechanisms that make it possible to transfer the property from a real estate to a public or private person so that this one implement the protection measures and adequate managements. There exist land instruments where the starting owner gives his assent to yield his property, of other where the transfer takes place in spite of its opposition.

- Dispossession

On this case, the owner is purely and simply dispossessed. He receives a financial counterpart, either the selling price, or an allowance calculated on the value of the good plus the expenses generated by this dispossession.

Exemples:
Voluntary : Buying
Non voluntary : expropriation

- Exchange

In this case, one carries out an exchange of grounds, either between two parts or via a procedure of refitting of the more total territory.

Exemples:
Voluntary : Exchange
Non voluntary : Land consolidation

- Economic instruments

One gathers here the mechanisms related to tax premiums or impositions and which allow an environmental appreciation whereas they are at the base completely independent. An environmental objective or a condition is added on an existing tool.

- Eco-conditionnality

Any farmer perceiving direct payments is held to observe agricultural and environmental good conditions (including the maintenance of the grounds devoted to the permanent pastures) as well as lawful requirements as regards management [regulation (EC) n° 1782/2003, title II, chapter 1].

- o Tax

They are tax incentives (exemption, reduction) which can be granted linked with lawful protection or management measurements, engagement in this direction or to encourage the private individuals to change their behaviours.

- Participation

One gathers here the tools which make it possible for the public to take share with the evolutions and the decisions relative to their environment.

Exemples:
Education
Information

4.3 Assessment of the instruments

Each team made an assessment based on some criteria's defined in linked with the ecosystem approach.

4.3.1 Legal

Assessment criteria's:

Equality and non-discrimination

The principle of equality and nondiscrimination is registered in articles 10 and 11 of the Belgian Constitution. « Les Belges sont égaux devant la loi (…) ». « La jouissance des droits et libertés reconnus aux Belges doit être assurée sans discrimination »

It is also devoted by article 14 of the European Convention of the humans right: " The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status."

If one were to express this principle in a sentence, one could affirm "with identical situation, identical rules". The rule of equality will be preserved if the same treatment is ensured in situations which can be regarded as identical, i.e. arranged in the same legal category. The immediate corollary is that if situations are fundamentally different, the law must treat them in a distinct way.

If the principle prohibits thus discriminations, it authorizes the distinctions with respect to certain rules[1] :
- an objective criterion of differentiation;
- the criterion must be regular, not constitute by itself a violation of the rights;
- it must be relevant, i.e. to be in relation to the public interest that the law which establishes the distinction intends to preserve;
- finally the distinction will be licit only if it has a reasonable width, it must be translated in measurements linked to the differences of which it aims to hold account.

Here are thus four key tests to control the respect of the principle of equality: objectivity, regularity, relevance and proportionality of the distinction between two legal categories.

[1] Voyez, F. DELPEREE, Le droit constitutionnel de la Belgique, Bruxelles, Bruylant, 2000, p. 202 et svt.

Within the principles of the ecosystem approach, the first principle states that « The objectives of management of land, water and living resources are a matter of societal choice. » It stresses a management of the ecosystems which must be done « in a fair and equitable way ».

One of the implementation guidelines states that « Ensure that all stakeholders have an equitable capacity to be effectively involved, including through ensuring equitable access to information, ability to participate in the processes, etc" (1.4)

From a legal point of view, the analysis of the instruments in bond with the principle of equality will have to be interested in their spatial, personal and temporal fields of application, and to evaluate if the delimitation of these fields of application complies with the rules of objectivity, regularity, relevance and proportionality.

Proportionality and property right

The deprivation of the property right - recognized in international law and by our Constitution (Article 16) as a basic right - can be imposed to an owner only within the respect of the procedures of expropriation, and the payment of a "equitable and preliminary allowance" (Article 16 of the Constitution). On the other hand, it is not the same for the restrictions brought to this right, which should be the subject of a compensation only when the legislator envisages it.[2] Recently, this "principle of not-compensation for the legal constraints of public utility" seems however called into question by the authors and the jurisprudence, which, less categorical, tend to prefer the principle of the "right balance" (proportionality) between the requirements of the general interest (nature conservancy) and the property right.

Thus in his review article of the conference on "the property right and Natura 2000" organized by the legal observatory Natura 2000[3], Michel Pâques releases two principal ways of articulating property right and nature conservation. The first consists of the establishment of a hierarchy between the rights and interests involved. The second, in the absence of this hierarchy consists for the legislator or the judge to manage the proportionality.

According to him, the implementation of the principle of proportionality is translated in four manners: the choice of the means of action, functional subsidiarity, compensations and procedural guarantees.

The first element is thus to have a sufficiently wide panel of instruments which allow the limitation of the property right to protect the environment. The application of these instruments will lead to more or less large attacks to the property right.

To carry out the choice between these instruments, it seems that one goes towards a kind of subsidiarity which could be connected with the functional subsidiarity which one will speak again later. In this direction one will privilege initially the tools consensual, contractual, those which attack the least the property before considering the instruments more restrictive than one will hold for the more "complex" situations.

Then the manner of compensating. It was said, the rule wants that expropriation is done with an equitable and preliminary allowance. Acting of the compensations for the limitations with the property right which do not constitute an expropriation, the report of the conference teaches us that the tendency is with the compensation. It can be done in equity, for the loss of pleasure, loss in value, loss of profit or compensation for the complete damage. The rule remains always the balance of the interests involved and a room of manoeuvre (???) is generally maintained for the proper authority.

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[2]. Sur ces questions, voyez M. PÂQUES, « Propriété et zonage écologique, compensation et indemnisation », *Le zonage écologique*, Bruxelles, Bruylant, 2002, p. 239 et s.

[3] M. PÂQUES, « Le droit de propriété et Natura 2000. Rapport de synthèse », Le Droit de propriété et Natura 2000, colloque de Volos des 19 et 20 mars 2004, Observatoire juridique Natura 2000, Bruxelles, Bruylant, 2005.

Lastly, about the procedural guarantees, we stress the rules of impacts assessment and the measures of participation which allow the expression of the interests in question.

Within the principles of the ecosystem approach, the principle 10 states that « The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity."

One finds thus there the fundamental concept of "balance" between the general interest to protect biodiversity and the interest more private of using the ecosystems.

The implementation guidelines insist on two important approaches which are linked to the respect of the property right: the participation and the economic instruments.

- Develop policy, legal, institutional and economic measures that enable the appropriate balance and integration of conservation and use of ecosystems components to be determined. (10.2)
- Promote participatory integrated planning, ensuring that the full range of possible values and use options are considered and evaluated. (10.3)

According to us, the evaluation of the respect of the property right must thus be carried out in close relationship to the evaluation of the participative procedure just as in combination with the evaluation of the economic instruments which can accompany the other instruments.

We will focus here our analysis on the application of the proportionality principle. From a legal point of view, one will identify how the instrument allows carrying out a balance between the public interest and the private interest, i.e. if the degree of constraint is adapted to the aim in view.

Subsidiarity

The principle of subsidiarity organizes the relationship between the public sector and the citizens and between the authorities themselves. [4] One can release two types of subsidiarity.

Subsidiarity is known as territorial when it leads a public authority to intervene only in second order compared to another public authority whose competences are more restricted in territory than them his. [5]

The idea is that the higher authority should not assume the tasks of a lower authority which is able to better achieve them as well if not better. [6] The principle is proclaimed in article 4, §3, of the European Charter of local self government: " unless the size or nature of a task is such that it requires to be treated within a larger territorial area or there are overriding considerations of efficiency or economy, it should generally be entrusted to the most local level of government.".

It is known as functional when it leads the public authority not to intervene, in a determined matter, that in second order compared to a private person

In this direction it would constitute a principle of regulation governing the relationship between the public authority and the private people as for the assumption of responsibility of a given activity. [7] It is mainly in the economic sphere of activities and the public services that the principle of functional subsidiarity finds its applications.

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[4] R. ZACCARIA, Principe de subsidiarité et environnement, in Rev eur envir 3/2000 p.255-280
[5] P. NIHOUL et B. LOMBAERT, « Belgique », in Droit administratif et subsidiarité, sous la direction de R. ANDERSEN et D. DEOM, XVIIes journées juridiques Jean Dabin, Bruxelles, Bruylant, 2000, pp 43-80.
[6] R. ZACCARIA, op. cit.
[7] P. NIHOUL et B. LOMBAERT, op. cit.

However, according to Chantal Million-Delsol, « la subsidiarité consiste à conférer davantage d'autorité et de capacité de décision à davantage de groupes issus de la société civile, agissant de manière autonome, donc libres par rapport à l'appareil étatique. » The principle of subsidiarity thus brings to turn to new actors not only institutional like the cities or the regions but also of the civil company. It brings back the citizen to the foreground, but also associations, and companies. [8]

Following M. Pâques who uses the concept of functional subsidiarity in environmental matter[9], one could, with regard to the implementation of an ecological network, study the instruments looking to the proper authority and also to his public or private characteristics.

The ecosystem approach state at principle 2 **:** Management should be decentralized to the lowest appropriate level.

Decentralized systems may lead to greater efficiency, effectiveness and equity. Management should involve all stakeholders and balance local interests with the wider public interest. The closer management is to the ecosystem, the greater the responsibility, ownership, accountability, participation, and use of local knowledge.

The implementation guidelines give different orientations :

2.1 The multiple communities of interest should be identified, and decisions about particular aspects of management assigned to the body that represents the most appropriate community of interest. If necessary, management functions/decisions should be subdivided. For example, strategic decisions might be taken by central Government, operational decisions by a local Government or local management agency, and decisions about allocation of benefits between members of a community by the community itself.

2.3 Good governance arrangements are essential, particularly:
- clear accountabilities
- accountabilities of the necessary authorities
- accountabilities of competent bodies or persons

Note that this is not a complete enough list, and there seems no good reason to particularly identify these.

2.4 Achieving an appropriate level of decentralization requires taking decisions at a higher level to create an enabling and supportive environment, as well as a commitment to devolve those decision-making responsibilities that are currently situated at too high a level.

2.5 In choosing the appropriate level of decentralization, the following are relevant factors that should be taken into account in choosing the appropriate body. .
- whether the body represents the appropriate community of interest
- whether the body has a commitment to the intent of the function
- whether the body has the necessary capacity for management
- efficiency (e.g. by moving the function to a higher level you may have sufficient work to allow maintenance of the necessary level of expertise to do the function efficiently and effectively).
- whether the body has other functions which represent a conflict of interest

Integration

Registered in several international, Community or national texts, the principle of integration constitutes the principal legal basis of the obligation of the States to hold account of biodiversity in their space planning.

[8] R. ZACCARIA, op. cit.

[9] M. PÂQUES, « Le droit de propriété et Natura 2000. Rapport de synthèse », op. cit.

The declaration of Stockolm precise in the 13th principle that "*In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population*". [10]

In Community legislation, it is new article 6 of the treaty that gives to him the character of general principle of Community legislation by prescribing that "*Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities referred to in Article 3, in particular with a view to promoting sustainable development.*"[11]

In national law, the legislation relating to the environmental impact assessment is generally presented like the mechanism of integration par excellence. And the Walloon decree of 27 May 2004 relating to the Book 1st of the Code of the Environment lays out in its D.2 article that "*the requirements {of safeguard and environmental protection} are integrated in the definition and the implementation of the other policies of the area*".

Concretely, the obligation of integration aims at the whole of the policies, strategies, actions and plans carried out by an authority. The regional legislations codifying the right of the environment (Flemish and Walloon Regions) stipulate indeed that the principle of integration aims the "*policies of the Region*"[12].

This integration must be carried out *at each stage of the « development process »* (Principle 4 of the declaration of Rio) or the "*national decision-making*" (art.10. a. of the CBD). The Community legislation is more precise: integration must have place on the level of the definition and the implementation of the Community policies and activities (Article 6 EC). Lastly, integration must be respected by all the competent authorities with one of the above mentioned stages of the decision-making process. No level of power - executive, legislative, legal - escapes from the obligation to integrate the environment, as well on the horizontal level as vertical.

With regard to the implementation of the principle, the authors agree to deduce from the principle of integration the obligation for the States to put all the means necessary so that the requirements of environmental protection are taken into account in an effective way through sectoral policies.

In practice, one can affirm that the principle of integration contains two obligations of procedural nature at least:

- *to identify and assess the environmental impacts of the decisions concerned and to evaluate the extent to which they can compromise the achievement of the environmental objectives*. This double evaluation is done mainly by mechanisms of impact assessment of the policies, plans, programs and projects. It results from this a corollary obligation from motivation of the decisions taken with the glance of the incidences, in the body of the decision or the administrative file which accompanies it[13] ;

[10] Le principe 4 énonce en outre que « *Pour parvenir à un développement durable, la protection de l'environnement doit faire partie intégrante du processus de développement et ne peut être considérée isolément* ». L'article 10, a, de la CDB dispose que « *Chaque Partie (…), dans la mesure du possible et selon qu'il conviendra : a) intègre les considérations relatives à la conservation et à l'utilisation durable des ressources biologiques dans le processus décisionnel national* » (voy. aussi l'art. 6, b).

[11] Sur le plan jurisprudentiel, la Cour de justice s'est fondée, implicitement ou explicitement, sur le principe d'intégration, pour reconnaître la possibilité pour les institutions communautaires d'adopter des mesures ayant partiellement trait à l'environnement sur une disposition autre que l'article 175 CE. Voy. notamment CJCE, 29 mars 1990, aff. C-62/88, *Grèce c. Conseil*; 24 novembre 1993, aff. C-405/92, *Mondiet* (pêche maritime); 19 septembre 2002, aff. C-366/00, *Huber* (mesures agri-environnementales).

[12] Art. D.2, al. 3, du Livre Ier du Code de l'environnement ; art. 1.2.1, § 3, du décret du 5 avril 1995 contenant des dispositions générales concernant la politique de l'environnement.

[13] Dans le sens d'une obligation de motivation, de SADELEER, 1999, p. 283.

- to make so that, formally, *the environmental and socio-economic interests* are duly and equitably represented in the decision-making process specific to the sectoral policy concerned[14]. Even if a broad capacity of appreciation is left in the States to adapt this process, integration seems to necessarily have to take place:
    - on the one hand, by the establishment of *procedures of public participation* and/or *consultation of expert authorities as regards environment*;
    - on the other hand, by the adoption of mechanisms of *articulation* and *coordination of the decisions* at the same time vertical - i.e. between all the levels of capacity concerned - and horizontal - between the qualified administrations for each sector concerned, including the environmental protection. These mechanisms are very diverse. One distinguishes mainly:
        - mechanisms of *sectoral and intersector planning* (being used as reference common to the various administrations);
        - mechanisms of *articulation between decisions* (hierarchy of the standards, formal obligation of taking into account of the other decisions, etc.) ;
        - procedural mechanisms of *setting in conformity of the contradictory decisions*;
        - mechanisms of impact assessment;
        - *institutional mechanisms of coordination, co-operation and consultation;*
        - the *fusion of the instruments*[15].

The integration principle thus presents two aspects:
- a scientific integration, namely an integration of the environmental impacts about the ground
- and the other more procedural, an integration of the decisions and a coordination of the proper authorities to counterbalance the principle of subsidiarity and to make sure as well as the decision is taken by the most proper authority and most capable to take it but also that this decision will not be in contradiction with the decisions taken by other authorities.

The principles of the ecosystem approach refer to the two aspects.
On the one hand, principle 3 states that “Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems.”

And a guideline mentions that “3.3 Environmental impact assessment (EIAs), including strategic environmental assessments (SEAs) should be carried out for developments that may have substantial environmental impacts taking into account all the components of biological diversity. These assessments should adequately consider the potential offsite impacts. The results of these assessments, which can also include social impact assessment, should subsequently acted upon. When identifying existing and potential risks or threats to ecosystem, different scales need to be considered.”

On the other hand, principle 12 affirms that “The ecosystem approach should involve all relevant sectors of society and scientific disciplines.”

“12.1 The integrated management of land, water and living resources requires increased communication and cooperation, (i) between sectors, (ii) at various levels of Government (national, provincial, local), and (iii) among Governments, civil society and private sector stakeholders. Increased communication among international and regional organizations also.”

Another guidelines states that
“2.2 The potential adverse effects of fragmented decision-making and management responsibilities should be compensated for by:

[14] En ce sens, voy. l’article 13.2 du Projet de Convention de l’IUCN, qui stipule que “*the Parties shall ensure that environmental conservation is treated as an integral part of the planning and implementing activities at all stages and at all levels, giving full and equal consideration to environmental, economic, social and cultural factors*” (nous soulignons). Voy. aussi, en droit communautaire, WASMEIER, 2001, p. 162 ; ALVES, 2003, p. 139.
[15] Voy., en matière de zone écologique, l’inventaire des mécanismes d’articulation en droit wallon établi in JADOT, 2002.

- ensuring that decisions are appropriately nested and linked
- sharing information and expertise
- ensuring good communication between the different management bodies
- presentation of the overall combination of decisions/management to the community in an understandable and consolidated form so they can effectively interact with the overall system.
- supportive relationships between the levels."

From a legal point of view, we will analyze if the instruments make it possible to hold account of the other compartments of the environment, if they are linked with a mechanism of impact assessment. In addition we will consider if the instruments allow an effective coordination between the various levels of power.

Flexibility

Ecosystem processes and functions are complex and variable. Their level of uncertainty is increased by the interaction with social constructs, which need to be better understood. Therefore, ecosystem management must involve a learning process, which helps to adapt methodologies and practices to the ways in which these systems are being managed and monitored. Implementation programmes should be designed to adjust to the unexpected, rather than to act on the basis of a belief in certainties. Ecosystem management needs to recognise the diversity of social and cultural factors affecting natural-resource use. Similarly, there is a need for flexibility in policy-making and implementation. Long-term, inflexible decisions are likely to be inadequate or even destructive. Ecosystem management should be envisaged as a long-term experiment that builds on its results as it progresses. This "learning-by-doing" will also serve as an important source of information to gain knowledge of how best to monitor the results of management and evaluate whether established goals are being attained. In this respect, it would be desirable to establish or strengthen capacities of Parties for monitoring.

This type of management is called an adaptive management. It is linked to two main principles of the ecosystem approach about the change and the variations:
- Principle 9: Management must recognize that change is inevitable
- Principle 8: Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term.

The guidelines linked to these principles are the followed:
9.1 Adaptive management is needed to respond to changing social and ecological conditions, and to allow management plans and actions to evolve in light of experience.
9.2 Natural resource managers must recognise that natural and human-induced change is inevitable and take this into account in their management plans.
9.3 Adaptive management should be encouraged when there is a risk degradation or loss of habitats, as it can facilitate taking early actions in response to change.
9.4 Monitoring systems, both socio-economic and ecological, are an integral part of adaptive management, and should not be developed in isolation from the goals and objectives of management activities.
9.5 Adaptive management must identify and take account of risks and uncertainties.
8.1 Adaptive management processes should include the development of long-term visions, plans and goals that address inter-generational equity, while taking into account immediate and critical needs (e.g., hunger, poverty, shelter).
8.2 Adaptive management should take into account trade-offs between short-term benefits and
long-term goals in decision-making processes.
8.3 Adaptive management should take into account the lag between management actions and
their outcomes.
8.4 Monitoring systems should be designed to accommodate the time scale for change in the ecosystem variables selected for monitoring.

From a legal point of view, the evaluation of the adaptivity of an instrument is connected with the evaluation of its legal flexibility, i.e. up to what point it is easy to modify the instrument in function of the temporal, space changes, of the evolution of the ecosystem... One will thus analyze for this principle the heaviness or the simplicity of the procedure of revision of the studied instruments.

Assessment:

Mesures agri environnementales et autres mesures incitatives

Les primes agri-environnementales (MAE) ou sylvo-environnementales sont des compensations financières qu'un exploitant agricole ou forestier peut recevoir en échange d'un effort réalisé en faveur de l'environnement. L'engagement est pris sur base volontaire, pour une durée de 5 ou 1 ans et va au-delà des bonnes pratiques.

L’engagement d’un producteur ou d’un forestier dans le régime MAE/MSE lui impose d’appliquer une ou plusieurs méthodes ou sous-méthodes définies dans un cahier des charges qu’il devra respecter.

L’instrument octroie donc un avantage financier aux agriculteurs ou propriétaires forestiers et qui s’engagent volontairement à appliquer des mesures favorables à la biodiversité. L’exclusion des propriétaires non agriculteurs ou forestiers de ce mécanisme pose cependant questions. Les particuliers non professionnels seront sans doute moins atteints dans leur patrimoine que les professionnels de l’agriculture ou de la forêt mais il n’est pas certain qu’il soit conforme au principe d’égalité de ne pas leur octroyer un avantage similaire pour l’application des mêmes mesures.

Les cahiers des charges contiennent des mesures définies pour atteindre les objectifs de conservation généraux en zones agricole ou forestière. On peut juger les restrictions proportionnées dans la mesure où il s’agit d’engagements volontaires indemnisés via un calcul précis des coûts et pertes de revenus engendrés par les mesures.

L’instrument confie la responsabilité de la gestion aux particuliers, sous le contrôle de la Région wallonne.

Le particulier dispose des moyens financiers nécessaires au bon fonctionnement de la gestion. Il peut dans certaines hypothèses recevoir l’assistance d’un conseiller pour optimaliser les mesures.

Les mesures incitatives font partie des instruments qui transposent l’article 6.1 de la directive Habitats. Celle-ci prévoit en effet que les Etats membres peuvent prendre des mesures contractuelles pour répondre aux exigences écologiques des espèces et des habitats. La Cour de justice a jugé que, dans les ZPS, des mesures présentant un caractère volontaire et purement incitatif (en l’espèce justement des MAE) ne suffisaient pas à établir le régime de protection requis pour ce type de zone[16]. Ceci signifie donc que les mesures préventives nécessaires à la protection du site ne pourraient être prises de façon uniquement contractuelle, à tout le moins dans les ZPS. Cette jurisprudence nous paraît valable aussi dans les ZSC.

Conditionnalité

Tout agriculteur percevant des paiements directs est tenu de respecter de bonnes conditions agricoles et environnementales (y compris le maintien des terres consacrées aux pâturages permanents) ainsi que des exigences réglementaires en matière de gestion [règlement (CE) n° 1782/2003, titre II, chapitre 1].

[16] C.J.C.E., 25 novembre 1999, aff. C-96/98, Commission c/ République française (« Marais poitevin », points 26-27) (cité dans Avis du Conseil d’Etat, *Doc. Parl. W.*, session 2000-2001, 250, n°1, page 116).

La conditionnalité définie en Région wallonne se subdivise selon les 4 domaines suivants :
1. Bonnes conditions agricoles et environnementales (y compris le maintien des terres consacrées aux pâturages permanents) (5 thèmes)
2. Environnement, incluant des règles relatives à Natura 2000 (5 actes)
3. Santé publique, santé des animaux et des végétaux (9 actes)
4. Bien-être des animaux (3 actes)

Les règles de la conditionnalité permettent d'assurer une protection minimale de l'environnement. Compte tenu de leur corrélation avec l'ensemble des primes octroyées aux agriculteurs, ces règles apparaissent proportionnées, elles sont une contrepartie de bonne gestion et de services rendus par l'agriculture en échange des paiements.

Mais le mécanisme de la conditionnalité ne trouve à s'appliquer que dans le domaine agricole. Conditionner l'octroi de primes au respect d'un package de règles environnementales ne nous parait pas devoir être réservé exclusivement aux matières agricoles. Si à l'avenir d'autres secteurs devaient bénéficier de mécanismes similaires d'aides financières, un système de conditionnalité identique devrait selon nous s'y joindre afin de respecter l'égalité.

En cas de non-conformité aux obligations, normes et exigences soumises à la conditionnalité, une sanction peut être appliquée par l'organisme payeur. Elle correspond à une diminution de 3 % de l'ensemble des aides, découplées ou non (les aides du 1er pilier de la politique agricole commune (PAC) dont le paiement unique ; les aides du 2ème pilier de la PAC (subventions agri-environnementales, agriculture biologique, indemnités compensatoires en régions défavorisées).

Selon la gravité, l'étendue et la permanence de la non-conformité, cette diminution peut être portée à 5% ou réduite à 1 %, voire à 0 % dans certains cas particuliers.

C'est une administration spécialisée de la DG agriculture qui contrôle le respect de la conditionnalité. Cette administration montre cependant des signes de carences en matière de conservation de la nature. S'en suit une inéligibilité aux primes de certains sites intéressants d'un point de vue biologique et donc un désintérêt des agriculteurs pour la gestion de ces sites. La DNF est également compétente pour contrôler le volet relatif à Natura 2000.

<u>Evaluation appropriée des incidences</u>

Le mécanisme de l'évaluation appropriée des incidences est inscrit à l'article 29 de la LCN :
« Tout plan ou projet soumis à permis, qui, au regard des prescriptions à valeur réglementaire de l'arrêté de désignation d'un site Natura 2000, est non directement lié ou nécessaire à la gestion du site mais est susceptible d'affecter ce site de manière significative, individuellement ou en conjugaison avec d'autres plans et projets, est soumis à l'évaluation des incidences prévue par la législation organisant l'évaluation des incidences sur l'environnement dans la Région wallonne, eu égard aux objectifs de conservation du site et selon les modalités fixées par le Gouvernement.
L'autorité compétente ne marque son accord sur le plan ou le projet qu'après s'être assurée qu'il ne porte pas atteinte à l'intégrité du site concerné.
Si, en dépit de conclusions négatives de l'évaluation des incidences et en absence de solutions alternatives, le plan ou le projet doit néanmoins être autorisé pour des raisons impératives d'intérêt public majeur, y compris de nature sociale ou économique, l'autorité compétente prend toute mesure compensatoire nécessaire pour assurer que la cohérence globale du réseau Natura 2000 est protégée et informe la Commission des Communautés européennes des mesures compensatoires adoptées.
Lorsque le site concerné abrite un type d'habitat naturel prioritaire et/ou une espèce prioritaire, seules peuvent être invoquées des considérations liées à la santé de l'homme et à la sécurité publique ou à des conséquences bénéfiques primordiales pour l'environnement ou, après avis de la Commission des Communautés européennes, à d'autres raisons impératives d'intérêt public majeur. »

Outre cette disposition, c'est donc la législation générale organisant l'évaluation des incidences sur l'environnement dans la Région wallonne qui sert de cadre juridique à l'évaluation appropriée des incidences. Elle est constituée par le décret le Code de l'environnement et certaines dispositions du CWATUP. Pour rappel, cette législation générale a été modifiée pour inclure un volet Natura 2000.[17]

Le critère de distinction pour soumettre un projet ou un plan à évaluation appropriée des incidences est le risque d'impact sur un site Natura 2000. Si la pertinence du critère est évidente, son objectivité pose plus de question car le risque d'impact sur un site Natura 2000 est un concept difficile à appréhender même si la jurisprudence tente de lui donner un contenu bien défini.[18] S'il s'agit d'un critère scientifique qui devrait être analysé comme tel, en pratique il est souvent mal aisé à mettre en œuvre.

L'évaluation appropriée des incidences est un mécanisme d'évaluation plus une règle de fond. En ce sens elle amène deux restrictions. La première est que le particulier devra faire une évaluation avant de poser un acte, ce qui est en soit une restriction importante. Le deuxième est que cet acte peut et doit être refusé ou conditionné en cas d'impact avéré ou suspecté sur un site Natura 2000.

L'évaluation appropriée des incidences est l'instrument d'intégration par excellence. Elle oblige toute autorité appelée à se prononcer sur une autorisation à prendre en compte les considérations relatives à Natura 2000 dans sa décision. Elle force même via l'application du principe de précaution[19] l'autorité à faire passer ces considérations avant toute autre.

Quant à la pertinence et la proportionnalité de l'instrument, l'obligation de réaliser une évaluation parait être un instrument efficace et pas trop contraignant pour permettre à l'autorité de prendre sa décision en connaissance de cause. Cependant, l'application stricte du principe de précaution semble très contraignante en pratique et difficile à mettre en œuvre car l'évolution des écosystèmes et leurs facultés d'adaptation restent des matières bien mal connues des scientifiques. Les conditions de dérogation sont strictement balisées et ne laissent que très peu d'espace pour la prise en compte des considérations socio-économiques.

L'instrument transpose l'article 6.2 à 4 e la directive Habitats. La notion de « projet soumis à permis » visée par la loi du 12/7/1973 exclut du mécanisme de l'évaluation appropriée les installations et activités de classe 3 (soumis à déclaration) en vertu du décret du 11 mars 1999 relatif au permis d'environnement. Cette exclusion paraît contraire à la directive Habitats, celle-ci visant « tout projet », sans distinguer s'il est ou non soumis à permis. Comme précisé ci-avant, outre l'article 29, § 2, précité, c'est la législation générale organisant l'évaluation des incidences sur l'environnement dans la Région wallonne qui sert de cadre juridique à l'évaluation appropriée des incidences. Le volet Natura 2000 inclus dans ces dispositions ne parait pas constituer une évaluation appropriée au sens de la directive. Elle devrait analyser spécifiquement les effets du plan ou projet sur chaque habitat et chaque espèce pour lesquels le site a été désigné (et non de façon abstraite). Ce qui ne parait pas être le cas dans le régime actuel.

<u>Expropriation</u>

L'expropriation signifie une privation du droit de propriété. Elle ne peut donc s'effectuer que pour une raison déterminée (l'utilité publique), et suivant une procédure particulière.

L'expropriation permet à l'autorité de priver totalement une personne de son droit de propriété contre son gré. Le propriétaire exproprié a droit à une indemnité juste et préalable. Elle doit donc couvrir tout le dommage subi: tout peut intervenir: la valeur de convenance, les intérêts, les frais de remplacement du bien, le coût du déménagement, les dommages moraux, ...

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[17] Voyez Ch.-H. BORN, *Guide juridique des zones protégées en Wallonie*, Publication par le Ministère de la Région wallonne, Division de la Nature et des Forêts, 2005, p. 223 et svts.

[19] Mer des wadden

La notion d'utilité publique n'est pas définie dans un texte légal, et elle évolue au fil des années et en fonction des besoins publics: par exemple, l'extension des aéroports, la suppression de passages à niveau, ou la construction d'écluses évoluent sans cesse. Il ne faut cependant pas confondre "l'intérêt public" avec "l'intérêt de tous les citoyens".

Le concept d'utilité publique peut certainement comprendre la protection de la nature et il ne fait aucun doute que l'acquisition d'un bien peut servir cet objectif. En ce sens la mesure est certainement pertinente. Mais l'expropriation est un moyen indirect car c'est la gestion et la protection mise en place sur le terrain acquis qui permettra d'atteindre ou non les objectifs. Il ne fait aucun doute que d'autres instruments moins radicaux, moins violents, plus consensuels ou simplement règlementaires, mais ne privant pas totalement le propriétaire de son bien contre sa volonté, existent pour atteindre les objectifs. On peut penser dès lors que l'expropriation ne sera proportionnée eu égard aux objectifs qu'à la condition que les autres voies aient été explorées au préalable, sans succès.

La procédure ordinaire est lourde et très longue. La loi a instauré une procédure d'extrême urgence beaucoup plus rapide: pour cette raison, les autorités publiques essaient de l'invoquer. Elles doivent faire une offre et s'adresser au juge de paix qui réunira sur les lieux les représentants de l'administration, les propriétaires intéressés, et un expert qui devra décrire les biens et les estimer. Si les conditions de l'expropriation sont remplies, le juge de paix devra simplement constater que la procédure est régulière et il fixera le montant d'une indemnité provisionnelle.

Aménagement forestier

L'article 31 du Code forestier stipule que: «Tous les bois et forêts soumis au régime forestier sont assujettis à un aménagement réglé par arrêté ministériel. » Cet aménagement est un document qui se compose de 3 parties principales: un état des lieux de la ressource et des différentes conditions écologiques. Sur base de ce constat une discussion des options possibles et des grandes orientations qui seront données à la forêt. Enfin, sur base de ces choix, une planification des travaux ainsi que des dépenses et des recettes sur une dizaine d'années.

Le mécanisme de l'aménagement forestier opère une distinction fondamentale entre les propriétaires publics et les propriétaires privés. Seuls les premiers ont l'obligation d'élaborer et de mettre en œuvre un plan d'aménagement forestier. La Cour d'arbitrage a considéré que *ne sont pas comparables* la situation de personnes morales de droit public propriétaires de bois situés en Région wallonne et donc soumises à un contrôle particulier en cas d'aliénation, et celle des simples particuliers, également propriétaires d'un patrimoine boisé privé, lesquels ne sont pas régis par une mesure de contrôle identique ou similaire. Pour la Cour, « il n'est manifestement pas déraisonnable d'appliquer aux personnes morales de droit public en raison de la nature, des règles différentes de celles qui sont destinées aux personnes de droit privé »[20]. L'obligation pour les propriétaires publics d'élaborer un tel plan apparaît comme une mesure adéquate compte tenu des objectifs de bonne gestion du patrimoine forestier public. Mais l'on ne préjugera pas de savoir si l'obligation d'un tel plan pour les particuliers serait disproportionnée.

L'aménagement forestier limite la liberté du propriétaire public dans la gestion de sa propriété. Même s'il élabore avec l'aide de la Division Nature et Forêts et vote le plan, celui-ci doit être approuvé par le GW et son contenu est strictement défini dans le code forestier. Le plan est soumis à enquête publique et doit faire l'objet d'une évaluation des incidences sur l'environnement. L'élaboration d'un plan de gestion de façon concertée entre le pouvoir public propriétaire et l'administration compétente ne parait pas être un instrument trop contraignant compte tenu de l'objectif, des revenus que procure la forêt aux pouvoirs publics, de leur rôle exemplatif et des principes de bonne gouvernance.

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[20] C.A., n° 17/96, 5 mars 1996, motif B.3., cité par F. TULKENS, *op. cit.*, p. 137.

Le plan de gestion doit développer plusieurs volets : économique, écologique, cynégétique, social, culturel, récréatif. Il doit intégrer de nouvelles mesures en faveur de la biodiversité qui sont contraignantes, ainsi que « le rappel des mesures de conservation liées au réseau Natura 2000 ». Le Code forestier prévoit que le plan sera révisé dans l'hypothèse où les bois et forêt du périmètre du plan sont érigés en site Natura 2000. Mais il n'existe pas de procédure de révision, seule la procédure complète permet de modifier le plan ce qui le rend peu flexible aux évolutions environnementales ou socio-économiques.

Un mécanisme prévoit que le GW se substitue au propriétaire public si celui-ci reste en défaut d'adopter le plan.

Le plan d'aménagement fait partie des instruments qui transposent l'article 6.1 pour la forêt publique. L'instrument permet une transposition conforme de des directives, le plan peut intégrer les mesures qui répondent aux exigences écologiques des espèces mais il n'existe aucune obligation juridique en ce sens.

Remembrement

Le remembrement ou remembrement rural, est le regroupement des terres agricoles appartenant à un ou plusieurs agriculteurs autour de l'exploitation agricole. En regroupant les parcelles de superficies trop faibles, ou trop dispersées pour qu'elles soient facilement exploitables, le remembrement veut réduire les coûts d'exploitation, faciliter et optimiser le travail de l'agriculteur en limitant ses besoins de déplacements et transports et en adaptant le parcellaire et la topographie aux techniques et engins agricoles modernes. Il est aussi souvent l'occasion de moderniser la voirie locale.

Le remembrement et la redistribution des parcelles reposent sur le classement des terres. Il s'agit du relevé comparatif des différents types de sols du territoire selon la valeur culturale et d'exploitation afin de redistribuer ensuite les terres en fonction de l'apport de chaque intéressé. Après ce classement une vaste consultation a lieu afin de définir et d'affiner au mieux le nouveau parcellaire.

Un plan représentatif de la situation future est dressé. Il servira de base pour les travaux d'aménagement et pour un nouveau cadastre de propriété et d'exploitation.

Le remembrement modifie donc les titres de propriété, en pratiquant l'échange de terres ou en privant certains propriétaires de leur bien.

Le remembrement ne poursuit pas un objectif de conservation. On vise l'intérêt général entendu comme l'exploitation plus économique des biens ruraux. Le mécanisme du classement des terres par points essaie d'objectiver la valeur des terres pour redessiner un parcellaire équitable. D'un point de vue écologique les critères du classement ne sont pas adéquats. En pratique le remembrement pourrait prendre en compte d'autres aspects de l'intérêt général, environnemental par exemple. Le projet de remembrement doit d'ailleurs faire l'objet d'une étude d'incidences sur l'environnement. La Direction générale de l'Agriculture ainsi que la Division Nature et Forêts sont consultées.

Largement participative voire presque totalement consensuelle, la procédure laisse une certaine marge de manœuvre au comité du remembrement pour intégrer les intérêts en présence ce qui pourrait faire l'attrait du mécanisme pour travailler sur le volet foncier de la conservation de la nature. Les terres pourraient être redistribuées en fonction des intérêts publics et privés. Il paraîtrait ainsi pertinent lors d'une réorganisation de la propriété d'octroyer les terres à haute valeur biologique aux personnes intéressées et considérées comme gestionnaires potentiels.

Si le remembrement poursuit divers intérêts, les prend en compte dans le réaménagement de la propriété et que la procédure est largement participative, le remembrement peut apparaître comme un outil proportionné eu égard aux objectifs de conservation de la nature.

Contrat de gestion

Le contrat de gestion active est une sorte de contrat administratif[21] multipartite ou « collectif » par lequel le Gouvernement et une série de propriétaires et occupants s'accordent sur la nature, la programmation et le financement des travaux d'entretien, d'amélioration et de restauration à réaliser pour atteindre les objectifs de gestion active.

Le contrat n'imposera des restriction directe au droit de propriété que dans la mesure de ce que le propriétaire acceptera dans son engagement.

S'agissant d'un mécanisme contractuel, la responsabilité de protection et de gestion est partagée entre les deux partenaires privés pour la mise en œuvre, publics pour le contrôle. Il revient en outre à la Région wallonne de conduire les négociations et de s'assurer que le contenu technique du contrat de gestion active, en particulier la nature des travaux, leur programmation dans le temps et les techniques nécessaires pour les réaliser doit soit conforme au contenu des objectifs de gestion active définis dans l'arrêté de désignation, qui ont valeur réglementaire.

En cas d'inexécution des mesures de gestion active par un ou plusieurs propriétaires ou occupants concernés, ou s'il est mis fin au contrat de gestion active conformément à l'article 27, §3, alinéa 2, ou dans toute autre circonstance susceptible de mettre en péril l'état de conservation favorable du site, le Gouvernement prend, après l'avis de la commission de conservation concernée, les mesures appropriées pour atteindre les objectifs du régime de gestion active tels que définis par l'arrêté de désignation conformément à l'article 26, §1er, alinéa 2, 7°.[22]

Il est difficile d'appréhender dans l'absolu quelles seront les ressources humaines nécessaires pour effectuer ces négociations et le contrôle de la bonne mise en œuvre des contrats.

Le mécanisme prévoit la possibilité de conclure un ou plusieurs contrats par site. Des contrats individuels ou impliquant seulement un nombre limité de parties pourraient permettre d'accélérer la conclusion des contrats, les parties pouvant se mettre plus rapidement d'accord. Mais de tels contrats ponctuels ne garantissent en rien une gestion homogène et cohérente du site. Tandis qu'un seul contrat collectif implique que l'accord des propriétaires et occupants porte sur l'ensemble du contrat, c'est-à-dire aussi sur les travaux auxquels s'engagent les autres propriétaires et occupants.

Le contrat est « fermé » et rigide. En terme de durée du contrat, celui-ci est conclu pour neuf ans. Les conditions de résiliation et de révision sont assez strictes et par là tendent à réduire considérablement la souplesse du mécanisme. En matière de résiliation, la loi prévoit que le contrat est prorogé pour la même durée et aux mêmes conditions, sauf à l'égard des propriétaires et occupants signataires du contrat qui s'opposent à cette prorogation au moins six mois à l'avance. (art. 27, § 3, de la loi). En ce qui concerne la révision, l'initiative appartient à chaque propriétaire ou occupant concerné, au Gouvernement wallon et à la commission de conservation concernée. Mais la loi prévoit que le contrat ne peut être révisé qu'en fonction de l'évolution des connaissances scientifiques, des techniques de gestion et de l'état de conservation du site, ou si les objectifs de gestion active du site ont été révisés (art. 27, § 4). Aucun autre motif (par exemple de nature socio-économique) ne semble pouvoir être invoqué.[23]

Le contrat de gestion fait partie des instruments qui transposent l'article 6.1 de la directive Habitats. Celle-ci prévoit en effet que les Etats membres peuvent prendre des mesures contractuelles pour répondre aux exigences écologiques des espèces et des habitats. La Cour de justice a jugé que, dans les ZPS, des mesures présentant un caractère volontaire et purement incitatif (en l'espèce des MAE) ne suffisaient pas à établir le régime de protection

[21] En ce sens, P.-Y. ERNEUX, « La gestion active des sites », in COLL., *Natura 2000 et le droit*, Bruxelles, Bruylant, 2004, p. 266.
[22] Art 26, §4 de la LCN.
[23] Ch.-H. BORN, Guide juridique des zones protégées en Wallonie, op. cit., p. 209.

requis pour ce type de zone[24]. Ceci signifie donc que les mesures préventives nécessaires à la protection du site ne pourraient être prises de façon uniquement contractuelle, à tout le moins dans les ZPS. Cette jurisprudence nous paraît valable aussi dans les ZSC.

Permis et autorisations

Le mécanisme d'autorisation est un mécanisme de contrôle qui permet à l'autorité d'apprécier l'opportunité d'un projet, de l'autoriser, le refuser ou de l'assortir de conditions. L'autorité dispose d'une certaine marge de manœuvre pour prendre sa décision. Pour le particulier cela implique d'effectuer des démarches administratives, la préparation d'un dossier sans avoir la certitude que les travaux ou l'activité pourront être effectué, des délais, des coûts parfois pour réaliser les évaluations d'impacts environnementaux.

Traditionnellement, les législations urbanistiques ou environnementales établissent des listes d'activités, de projets ou de travaux pour l'exercice desquels il sera nécessaire de solliciter l'autorisation administrative prévue par ces législations.

Les actes et travaux sont en réalité interdits sans cette autorisation, ce qui constitue une restriction importante au droit de propriété. En outre si l'acte ou les travaux sont autorisés, l'autorité compétente peut assortir son autorisation de conditions.

Le mécanisme des listes parait justifié eu égard aux objectifs de bon aménagement du territoire, de protection de l'environnement, de santé ou de sécurité qu'elles poursuivent.

Les restrictions paraissent pertinentes eu égard aux objectifs de bon aménagement du territoire, de protection de l'environnement, de santé ou de sécurité qu'elles poursuivent.
La proportionnalité de l'instrument doit s'évaluer en fonction des actes et travaux qui sont soumis à autorisation. Pour des actes et travaux importants risquant souvent de porter atteinte à l'environnement ou au cadre de vie, un mécanisme d'autorisation avec conditions paraîtra proportionné. Si les actes et travaux sont une faible envergure et ne risquent que rarement de porter atteinte au cadre de vie ou à l'environnement, un mécanisme d'autorisation pourra paraître trop contraignant. Notons que le risque d'impact sera fonction du cadre urbain et du milieu récepteur des actes et travaux.

L'autorité compétente pour délivrer l'autorisation est variable. Cela peut être une commune, un fonctionnaire délégué du Ministre de la Région wallonne compétent ou le Ministre lui-même.

La région wallonne dispose d'administrations spécialisées dans les matières d'aménagement du territoire et d'environnement. Il n'est cependant pas certain que les agents soient en nombre suffisant pour absorber le flot de demandes.

S'agissant des communes, elles ne disposent pas toutes d'agents qualifiés ou spécialisés en aménagement du territoire et environnement. Cela pose d'autant plus problème que ces matières se complexifient constamment. En ce qui concerne leurs effectifs, il n'est pas certain qu'ils soient suffisants pour traiter les demandes.

Des mécanismes existent pour suspendre ou annuler les décisions des autorités inférieures en cas de carence. Les procédures de recours administratifs permettent également de palier aux erreurs des administrations si besoin. En outre, en cas de silence de l'autorité compétente, il existe des procédures permettant à l'administré de s'adresser à l'autorité supérieure afin qu'elle se prononce sur sa demande.

La procédure de délivrance des autorisations prévoit selon les cas une réunion consultation publique préalable, la tenue d'une enquête publique, la réalisation d'une évaluation des incidences ou encore la consultation d'administrations compétente ou de commission consultatives.

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[24] C.J.C.E., 25 novembre 1999, aff. C-96/98, Commission c/ République française (« Marais poitevin », points 26-27) (cité dans Avis du Conseil d'Etat, *Doc. Parl. W.*, session 2000-2001, 250, n°1, page 116).

La procédure des permis est relativement rigide (consultations, délais, enquête publique). Les permis sont délivrés à durée déterminée, en général de longue durée. Il n'est pas possible de revenir sur les conditions des autorisations sauf à utiliser la procédure de retrait de permis très peu prisée. (Art. 65 et s. et 97 du décret du 11 mars 1999 relatif au permis d'environnement.)

S'agissant de l'articulation avec le réseau Natura 2000, en RW ce qui est soumis à permis ne sera pas soumis à un autre régime de protection. C'est l'article 29 de la LCN qui transpose la directive quant aux procédures d'autorisation administrative. Cette transposition apparaît conforme. Les autorités ne pourront donner une réponse favorable qu'à la condition que le projet ne porte pas atteinte au réseau Natura 2000. Mais c'est plutôt l'interprétation et l'application qu'en feront les autorités compétentes pour délivrer les autorisations qui détermineront si les directives sont respectées.

<u>Régime de protection</u>

Tous les sites Natura 2000 « sont désignés par un arrêté du Gouvernement », appelé « arrêté de désignation » (art. 25, § 1 et 2 et art. 26, § 1er, de la loi). Chaque arrêté concerne donc un seul site, et lui est spécifiquement adapté. Cet arrêté est un document central, dont dépend en grande partie la réalisation des obligations de résultat qui pèsent sur la Région wallonne. Cet arrêté comprend les interdictions et mesures préventives qui composent le régime de protection des sites.

Les activités et travaux dans ou aux abords des sites peuvent ainsi être soumis à trois types de contrôle : ils peuvent être interdits, soumis à autorisation du directeur de la DNF ou doivent être notifiés également au Directeur.

L'AGW fixant la procédure et les modalités d'octroi des dérogations et des autorisations, ainsi que la procédure et les modalités de la notification ni aucun arrêté de désignation n'étant pas encore adoptés, l'analyse s'effectue dans l'absolu.

Le régime de protection va opérer des distinctions entre catégories de personnes par exemple les propriétaires publics par rapport aux propriétaires privés les propriétaires et occupants de parcelles abritant un même type d'habitat et soumis, d'un site à l'autre, à des prescriptions différentes.

L'objectivité, la pertinence et la proportionnalité des distinctions s'apprécieront mesure par mesure. Quant à la pertinence de la mesure, le législateur (ici le Gouvernement) dispose d'une large marge d'appréciation, qu'il lui suffit de bien justifier, notamment, par des arguments scientifiques pour écarter tout risque de sanction. Seule une erreur manifeste d'appréciation pourrait être critiquée. S'agissant de la proportionnalité de la mesure, la violation du principe d'égalité implique de constater le caractère *manifestement disproportionné* de la mesure considérée comme discriminatoire par rapport à son but. En définitive, c'est par une *motivation* scientifique pertinente et suffisamment étayée, démontrant qu'il a pesé les intérêts en présence, que le Gouvernement pourra respecter le principe d'égalité et éviter l'écueil d'une éventuelle annulation pour discrimination[25].
En pratique, il paraît essentiel d'*harmoniser le plus possible la rédaction des mesures à valeur réglementaire* de façon à éviter que, pour deux parcelles comparables abritant un même type d'habitat, leur traitement soit différent sans qu'il existe une justification objective et raisonnable.

Le régime de protection peut contenir des interdictions, des autorisations ou des notifications. Le choix de soumettre à l'une de ces restrictions une activité doit s'effectuer en considération

[25] Voy. en ce sens, concernant le droit de propriété, M. PAQUES, « Propriété et zonage écologique, compensation et indemnisation », *op. cit.*, p. 294.

du fait que *la mesure adoptée ne doit pas faire peser sur le propriétaire une charge disproportionnée* par rapport à l'objectif d'intérêt général poursuivi et au droit de propriété[26]. La Cour d'arbitrage a jugé que « le seul fait que l'autorité impose des restrictions au droit de propriété dans l'intérêt général n'a pas pour conséquence qu'elle soit tenue à l'indemnisation »[27]. Comment déterminer s'il existe une disproportion manifeste ? Les critères dégagés par la jurisprudence sont multiples. On retiendra les critères suivants :

- l'importance de la limitation ;
- l'existence de compensations ;
- la nature du bien et son état antérieur ;
- l'existence de garantie de procédure, notamment en termes de participation ;

Le Gouvernement dispose d'une large marge d'appréciation dans le choix du contenu ainsi que du champ d'application temporel et spatial des mesures restrictives du droit de propriété lors de l'adoption du régime de protection. La proportionnalité de ces mesures sera respectée *si le Gouvernement peut justifier, par une motivation scientifique, que chaque mesure est nécessaire et pertinente sur le plan écologique* – le cas échéant, en renvoyant à des références dans la littérature scientifique – et qu'il a pesé, le cas échéant, les différentes *solutions alternatives* qui s'offrent à lui pour atteindre ce résultat.

Les demandes de dérogation, d'autorisation et les notifications sont reçues par la DNF, administration compétente en matière de conservation de la nature de la Région wallonne; Inspecteur général pour les dérogations, directeurs des directions extérieurs pour les autorisations et les notifications. Traditionnellement gestionnaires forestiers, les agents de la DNF ne sont pas particulièrement spécialisés en matière de biodiversité. Un ou deux agents sont chargés de suivre Natura 2000 par direction. Le CRNFB les assiste en pratique pour répondre aux demandes.

La teneur des interdictions particulières et mesures préventives n'est pas entièrement laissée à l'appréciation du Gouvernement. En vertu des articles 26, § 1, 6° et 28, al. 2, de la loi, lus à la lumière des objectifs de la directive Habitats et de son article 6, § 2, le Gouvernement est *tenu* d'indiquer dans l'arrêté les interdictions particulières et toutes les autres mesures préventives *nécessaires* pour *éviter la détérioration des habitats naturels et les perturbations significatives des espèces pour lesquelles le site a été désigné*[28]. Le Gouvernement doit donc *identifier les menaces propres à chaque site* (chimiques, physiques ou biologiques) et *adopter les interdictions et autres mesures préventives écologiquement appropriées pour les contrer efficacement*[29], dans le respect de ses compétences. Il s'agit d'une obligation de résultat, qui s'évalue au cas par cas. Il faut également rappeler que le Gouvernement est tenu de respecter le *principe de précaution* dans l'élaboration de ses arrêtés

Contrat de rivière

Le Contrat de Rivière consiste à mettre autour d'une même table tous les acteurs de la vallée, en vue de définir consensuellement un programme d'actions de restauration des cours d'eau, de leurs abords et des ressources en eau du bassin. Sont invités à participer à cette démarche les représentants des mondes politique, administratif, enseignant, socio-économique, associatif, scientifique, …

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[26] M. DELNOY, « Indemnisation des atteintes au droit de propriété : description et appréciation des régimes de compensation du CWATUP et du décret « Natura 2000 » », in COLL., *Actualité du cadre de vie en Région wallonne,* Actes du colloque de Namur des 17 et 18 oct. 2002, Bruxelles, Bruylant, pp. 135-136.

[27] C.A., 6 juin 1995, n° 40/95, *M.B.*, 4 août 1995, motif B.11. ; C.A., 27 mars 1996, n° 24/96, *M.B.*, 26 avril 1996, motif B.1.18.

[28] Dans le même sens, E. ORBAN de XIVRY, « La procédure de sélection des sites en Région wallonne », op. cit., p. 133.

[29] L'efficacité des mesures est une exigence rappelée par la Cour de justice à propos des mesures de protection des espèces prescrites par l'article 12 de la directive Habitats (voy. C.J.C.E., 30 janvier 2002, *Commission c. Grèce*, aff. 103/00, obs. C.-H. BORN, *Amén.*, 2002/3, pp. 216-224). Il ne fait aucun doute que la Cour adopterait la même position à l'égard des mesures préventives que doivent prendre les Etats membres en vertu de l'article 6, § 2, de la directive Habitats.

Depuis 1993, plusieurs circulaires ministérielles successives définissent puis élargissent les conditions d'acceptabilité et les modalités d'élaboration des Contrats de Rivière en Région wallonne. La dernière circulaire a été adoptée le 20 mars 2001 (M.B. 25/04/01)

Les domaines abordés par le contrat de rivière couvrent de nombreux aspects liés de près ou de loin au cours d'eau, à ses abords et aux ressources en eau du bassin :

- la qualité des eaux de surface et des eaux souterraines ;
- les risques liés aux inondations et la gestion quantitative ;
- la restauration des cours d'eau et la gestion concertée ;
- l'aménagement du territoire dans la vallée ;
- la conservation de la nature et la préservation des écosystèmes aquatiques ;
- la gestion des paysages ;
- les activités économiques en rapport avec l'eau ;
- l'agriculture et la forêt ;
- le tourisme et les loisirs ;
- le transport fluvial ;
- la gestion des déchets ;
- l'information et la sensibilisation du public ;
- les activités pédagogiques sur le thème de l'eau ;
- …

L'exécution des engagements (phase de suivi) dure de 3 à 12 ans avec une évaluation tous les 3 ans. Pour suivre ces étapes, une "cellule de coordination" est mise en place, partiellement subsidiée par la Région wallonne. La technique du regroupement de partenaires permet de réunir de nombreuses compétences.

Le contrat de rivière n'est pas soumis à évaluation des incidences. La problématique Natura 2000 n'est pas mentionnée explicitement dans la circulaire mais l'état des lieux réalisé ainsi que les objectifs du contrat de rivière relatifs à la conservation de la nature ne laissent aucun doute quant à l'intégration de la problématique N2000.

De nature volontaire il est peu contraignant juridiquement. Il n'existe pas de mécanisme de sanction juridique en cas de non exécution des engagements, mais un comité de suivi évalue et modifie le contrat en fonction des résultats et de l'évolution du contexte environnemental ou socio-économique. Le mécanisme du contrat de rivière présente à cet égard une souplesse appréciable.

Rappelons cependant que les mesures préventives nécessaires à la protection des sites Natura 2000 ne pourraient être prises de façon uniquement contractuelle[30].

Réserve naturelle

La réserve naturelle agréée est une zone protégée, gérée par une personne physique ou morale autre que la Région wallonne et reconnue par le Gouvernement, à la demande du propriétaire du terrain (qui peut être une personne de droit public ou privé) et avec l'accord de l'occupant.

Le propriétaire d'un terrain présentant un intérêt biologique peut demander que ce terrain soit agréé comme réserve naturelle si sa valeur scientifique et écologique est reconnue par le CSWCN. Aucune procédure d'enquête publique ou d'évaluation des incidences n'est prévue. La demande doit comprendre notamment le futur plan de gestion. S'il est différent du propriétaire, le gestionnaire de la réserve, qualifié d' « occupant » (généralement une asbl de conservation de la nature), doit avoir le droit d'occuper le terrain pendant 20 ans, ce qui rend l'instrument tributaire du marché foncier.

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[30] C.J.C.E., 25 novembre 1999, aff. C-96/98, Commission c/ République française (« Marais poitevin », points 26-27) (cité dans Avis du Conseil d'Etat, *Doc. Parl. W.*, session 2000-2001, 250, n°1, page 116).

Le statut de réserve naturelle agréée implique généralement une gestion active du site (par la mise en œuvre du plan de gestion). La gestion est assurée par l'occupant-gestionnaire, sous contrôle de l'administration. Elle peut être subventionnée. Pour bénéficier des subsides à l'achat de terrains, il faut être une association sans but lucratif ou un établissement d'utilité publique ayant pour objet principal la conservation de la nature, notamment la gestion de réserves naturelles, et reconnus à cet effet par le Ministre qui a la Conservation de la Nature dans ses attributions, après avis du Conseil supérieur wallon de la conservation de la nature.
La reconnaissance se fait sur base d'une demande contenant toute indication permettant de juger de la capacité des demandeurs à gérer des réserves naturelles agréées en vertu du présent arrêté.

En cas de manquement grave aux dispositions du plan de gestion, l'agrément peut être suspendu ou retiré.

Le régime de protection applicable dans les réserves naturelles est très strict, et sa violation est passible de peines correctionnelles. Ces restrictions sont l'essence même du régime de protection, elles sont sans aucun doute pertinentes pour atteindre l'objectif de conservation. Compte tenu du fait que le propriétaire fait librement la demande pour agréer son sa propriété comme réserve naturelle, la proportionnalité des mesures est assurée.

D'application volontaire, ce statut de protection est, avec celui de réserve naturelle domaniale, le plus strict existant, mais il présente peu de souplesse compte tenu de l'impossibilité de changer le plan de gestion sauf dans une nouvelle procédure d'agrément.

Avantages fiscaux

En Région wallonne, deux avantages fiscaux sont octroyés aux propriétaires des sites Natura 2000 : les sites Natura 2000 bénéficient de l'exonération du précompte immobilier ainsi que de l'exonération des droits de succession. L'exemption des droits de successions ne joue qu'en ce qui concerne les droits qui sont « réputés localisés en Région wallonne », c'est-à-dire des droits portant sur des biens appartenant à un *de cujus* résident en Région wallonne durant les cinq dernières années avant son décès.

Le critère de distinction parait pertinent compte tenu de l'objectif qui est d'avantager ou indemniser les biens Natura 2000 pour les restrictions ou la perte d'autonomie qui y seront imposées. La proportion de la mesure par rapport à l'objectif s'évaluera en fonction des contraintes liées à cet avantage ou des prévisions de modifications de comportement que l'on espère inciter par cet avantage. De manière générale, une personne possédant un terrain hors Natura 2000 pourrait s'estimer discriminé si l'avantage fiscal est octroyé sans contraintes.

Les conditions attachées au régime d'exemption des droits de succession posent différentes questions au niveau du droit à l'égalité et à la non discrimination.
M. DELNOY soulève le problème de la façon suivante : « (…) si la dernière résidence du de cujus était située en Région flamande, l'exemption ne peut jouer, même si le bien transmis est, lui, situé en Région wallonne. Cela pose donc la question du respect du principe d'égalité et de non discrimination. »[31]
Il semble ainsi affirmer[32], dans son analyse du régime wallon, qu'il y aurait une discrimination entre un résident flamand possédant des biens situés en Région wallonne et un résident wallon possédant des biens en Région wallonne. Selon nous, la question ne se pose pas dans cette hypothèse. En effet, le site, bien que situé territorialement en Région wallonne, sort de sa compétence en matière de droits de succession pour entrer dans celle de la Région flamande. Or, la Cour d'arbitrage a affirmé que « L'autonomie (des collectivités fédérées) serait dépourvue de signification si le seul fait qu'il existe des différences de traitement entre les destinataires des règles s'appliquant à une même matière dans les

[31] M. DELNOY, *op. cit.*, p. 130.
[32] Selon la manière dont nous comprenons son affirmation et sous réserve bien sûr de l'intention réelle de l'auteur.

diverses communautés et régions était jugé contraire aux articles 10 et 11 de la Constitution. »[33]. « Dans les matières de compétence fédérée, l'égalité doit être réalisée au sein de chacune des collectivités. Elle ne saurait correspondre à l'égalité « des Belges devant la loi ». »[34]

La compétence des droits de succession est une compétence des régions, la règle de rattachement est la résidence, l'égalité s'appréciera donc entre deux résidents de la même région.

Une discrimination apparaît selon nous entre deux résidents de la même région lorsque l'un deux possède des biens situés dans une région et l'autre dans l'autre. Ainsi, par exemple, un résident de la Région wallonne possédant des biens situés sur le territoire de celle-ci bénéficiera de l'exemption tandis qu'un autre résident de la Région wallonne possédant des biens situés en Région flamande ne bénéficiera pas de l'exemption. L'idée d'un espace commun et de la libre circulation des biens et des personnes à l'intérieur de celui-ci, présente dans un Etat fédéral et même plus encore que dans les Etats unitaires, aurait dû, selon nous, amener les législateurs régionaux à octroyer l'exemption tant aux sites Natura 2000 désignés par un arrêté du Gouvernement wallon que par un arrêté du Gouvernement flamand, voire même aux sites désignés Natura 2000 dans un autre Etat de l'Union Européenne.

Beheersovereenkomsten

In uitvoering van de Europese Plattelandsverordening werd een Vlaams Plattelandsontwikkelingsplan opgesteld, dat op zijn beurt heeft geleid tot onder meer een aantal uitvoeringsbesluiten over beheerovereenkomsten in de landbouw[35]. Er zijn verschillende beheerdoelstellingen met beheerpakketten: soortenbescherming (weidevogelbeheer en hamsterbeheer), perceelsrandenbeheer, kleine landschapselementen, botanisch beheer, erosiebestrijding, waterkwaliteit en natuurbeheer. Tot de beheergebieden behoren onder meer de gebieden waarvoor natuurrichtplannen (moeten) worden opgemaakt; de speciale beschermingszones zijn daar dus bij.
Het instrument heeft in de praktijk een heel beperkte toepassing voor de instandhouding van speciale beschermingszones, als men enkel de voor de speciale beschermingszones belangrijkste beheerspakketten (weidevogelbeheer en botanisch en natuurbeheer) bekijkt: ten opzichte van de totale oppervlakte aan speciale beschermingszones gaat het om nog niet 1 % die onder een dergelijke beheersovereenkomst is[36], laat staan wat de natuurresultaten ervan zouden zijn.
Er stellen zich geen problemen in verband met de beheersovereenkomsten in relatie tot de vooropgestelde criteria. Voor wat betreft integratie, scoort het instrument zelfs goed, maar men moet dit ook niet overschatten vermits beheersovereenkomsten tijdelijk zijn, en dus niet noodzakelijk een duurzame oplossing wordt bereikt. Als er dan een probleem zou kunnen rijzen met de criteria, dan is het in verband met de gelijkheid en non-discriminatie. De afbakening van de beheersgebieden zou soms voor ongenoegen zorgen bij sommige landbouwers, die doordat ze er met hun gronden buiten vallen niet in aanmerking komen voor beheersovereenkomsten, terwijl vanuit natuuroogpunt gelijkaardige gronden erbinnen vallen. De overheid zou er met name voor opteren, in samenspraak met de natuurverenigingen, in de buurt van natuurreservaten de toepassing van beheersovereenkomsten nogal eens te

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[33] CA, n° 35/95, IV, B.12.2. et n° 36/95, 25 avril 1995.

[34] F. DELPÉRÉE et S. DEPRÉ, *Le système constitutionnel de la Belgique*, Bruxelles, Larcier, 2000, p. 246.

[35] B.Vl.R. van 21 oktober 2005 betreffende het sluiten van beheersovereenkomsten; M.B. van 21 oktober 2005 betreffende het sluiten van beheersovereenkomsten.

[36] Meer bepaald bracht een eerste evaluatie in 2005 naar voor dat de voor de speciale beschermingszones belangrijkste beheerpakketten (weidevogelbeheer en botanisch en natuurbeheer) maar rond 600 ha respectievelijk 2.200 ha halen, waarvan ongeveer 400 ha respectievelijk 1.000 ha binnen speciale beschermingszones ligt (A. CLIQUET, G. VAN HOORICK, J. LAMBRECHT en D. BOGAERT, "Gebiedsgericht natuurbeleid: operationalisering en uitvoering van de Vogelrichtlijn en de Habitatrichtlijn", in: M. VAN STEERTEGEM (ed.), MIRA-BE 2005, Aalst, Vlaamse Milieumaatschappij, 2005, 94).

beperken, om de landbouw te ontmoedigen (zodat landbouwgronden worden verkocht waardoor de natuurreservaten kunnen uitbreiden). Voor deze veronderstellingen werd evenwel geen empirisch bewijsmateriaal teruggevonden. Een strikte scheiding van beheersgebieden en vooral een afbakening van gebieden voor reservaatsvorming (cf. Nederland) kan voor meer duidelijkheid zorgen.

***Cross compliance* op milieuvlak in de land- en bosbouw**

De overheid ondersteunt op vele wijzen financieel de land- en bosbouw. De uitvoeringsbesluiten inzake beheersovereenkomsten, milieuvriendelijke landbouwproductiemethoden, biologische landbouw en bosbeheersplannen bevatten bepalingen die inhouden dat bij niet-nakoming door de land- of bosbouwer van zijn milieuverplichtingen (een deel van) de financiële steun daarvoor moet worden terugbetaald. In het Vlaamse Gewest vindt men het instrument van de *cross compliance* op milieuvlak in de land- en bosbouw echter niet terug, voor zover ermee wordt bedoeld dat indien de land- of bosbouwer bepaalde milieuvereisten niet nakomt, hij (een deel van de) *andere* financiële tegemoetkomingen verliest. Eén uitzondering vormt de vermindering van de successierechten voor bossen.
Het instrument heeft in de praktijk geen toepassing (de uitzondering buiten beschouwing gelaten).
Er stellen zich mogelijks problemen in verband met het instrument in relatie tot sommige van de vooropgestelde criteria, zij het dat voor wat betreft integratie het instrument zeer goed scoort. Men kan zich met name afvragen in hoeverre een dergelijke regeling niet onproportioneel is: de financiële straf gaat met name zover dat men steun verliest op een domein waarmee men op zichzelf genomen in orde is, de milieuverplichtingen buiten beschouwing gelaten.

Milieueffectrapportage

De milieueffectrapportage voor projecten bestaat uit het opstellen van een milieueffectrapport en uit de procedure die het gebruik ervan als hulpmiddel bij de vergunningverlening omtrent een voorgenomen project waarborgt. Het milieueffectrapport is een openbaar document opgesteld door deskundigen waarin van het voorgenomen project en van de redelijkerwijze in beschouwing te nemen alternatieven, de te verwachten gevolgen voor het milieu in hun onderlinge samenhang op een systematische en wetenschappelijk verantwoorde wijze worden geanalyseerd en geëvalueerd. In het Vlaams Gewest werd bij Decreet van 18 december 2002 het Decreet van 5 april 1995 houdende algemene bepalingen inzake milieubeleid aangevuld met een titel betreffende de milieueffect- en veiligheidsrapportage. Dit verving een vroegere regeling uit 1989. De zogenaamde passende beoordeling wordt in voorkomend geval geïntegreerd in het milieueffectrapport.
Het instrument is sinds lang ingeburgerd in de praktijk.
Er stellen zich geen problemen in verband met de milieueffectrapportage in relatie tot de vooropgestelde criteria. Voor wat betreft integratie, scoort het instrument zelfs goed, onder meer omdat in de loop van het opmaken van het milieueffectrapport, het project soms nog in meer milieuvriendelijke zin gewijzigd wordt. Dit verklaart wellicht ook waarom zo weinig projecten niet worden vergund op basis van het milieueffectrapport. Voor deze veronderstellingen werd evenwel geen empirisch bewijsmateriaal teruggevonden. Als er zich dan al een probleem kan voordoen met de criteria, dan is het met de rechtszekerheid. De milieueffectrapportage voor projecten komt in het stadium dat iemand een bepaald project wil vergund zien, op percelen die reeds een ruimtelijk bestemming hebben die normaal gezien overeenstemt met het project. Indien het project niet zou kunnen doorgaan, ontstaat een tegenstrijd met de ruimtelijke ordening en het rechtsgevoel van de burger (“*ik mag iets niet wat ik volgens het ruimtelijk plan wel mag*”). Vandaar dat de milieueffectrapportage voor *plannen* zo belangrijk is: zij komt in het stadium waarop de overheid haar (ruimtelijke) plannen gaat opstellen. Op dat moment kan er zich geen probleem voordoen in verband met de rechtszekerheid.

Onteigening

Volgens het Natuurdecreet[37] kunnen om redenen van natuurbehoud, het Vlaamse Gewest en de Vlaamse gemeenten onroerende goederen verkrijgen door onteigening ten algemenen nutte. Onder een onteigening wordt volgens oude en constante rechtspraak verstaan een gedwongen, onherroepelijke en volledige overgang van een zakelijk recht (doorgaans een eigendomsrecht), van de onteigende, dit is de vroegere houder van het recht (eigenaar) naar de onteigenaar, die doorgaans een overheidsinstantie is. Indien een onroerend goed getroffen wordt door een onteigeningsbesluit (dat aan de betrokkene per aangetekende brief werd meegedeeld, dit is eigenlijk de start van een onteigeningsprocedure), dan is het best mogelijk dat alsnog een overdracht in der minne aan de overheid plaatsvindt, zodat niet tot onteigening moet worden overgegaan. Ongeveer 95 % van de overdrachten naar de overheid komen door overeenkomst tot stand, slechts 5 % door onteigening[38]. De onteigeningsvergoeding moet volgens artikel 16 Grondwet billijk (in de zin van juist) zijn, dit houdt praktisch in gebaseerd op de venale waarde. Met de ruimtelijke bestemming of beschermingsmaatregel (zoals de ligging in speciale beschermingszone) mag alleen worden rekening gehouden als de onteigening niet met de vaststelling van het betrokken ruimtelijke plan of de beschermingsmaatregel samenhangt.
Het instrument is sinds lang ingeburgerd in de praktijk en wordt de laatste jaren ook wel eens voor natuurbehoudsdoeleinden ingezet.
Er stellen zich mogelijks problemen in verband met de onteigening in relatie tot sommige van de vooropgestelde criteria. Een onteigening omwille van natuurbehoud zal door de burger al snel strijdig met zijn rechtsgevoel worden aangevoeld: waarom wordt juist ik onteigend ? waarom krijg ik een mindere prijs dan de ander ? waarom gebruikt de overheid geen ander instrument, zeker gezien het leed voor mij ? waarom wil de overheid mijn gronden gaan beheren ? wat nog met het eigendom doen nu een onteigeningsdreiging bestaat ? Criteria die problematisch kunnen zijn, zijn de gelijkheid en non-discriminatie, de proportionaliteit, de subsidiariteit, en de rechtszekerheid. *Louter juridisch* is er evenwel doorgaans geen enkel probleem met deze criteria. Zo aanvaardt de rechtspraak dat de betrokkene die vrijwillig verkoopt een lagere prijs krijgt dan degene die weigert en hem laat onteigenen, of dat de betrokkene die wordt onteigend op basis van een onteigeningsplan behorend bij een ruimtelijk plan die het gebied tot natuurgebied bestemd een hogere vergoeding krijgt dan degene bij wie het al vijf jaar natuurgebied is, of dat geen rekening wordt gehouden met het gebruik dat de overheid later maakt van de grond. Ook mag de rechter geen proportionaliteitstoetsing doorvoeren tussen het algemeen belang (van de gemeenschap), met name het natuurbehoud, en het particulier belang (van de onteigende), en de rechter mag ook niet nagaan of de onteigening wel nodig is om het gemeenschapsdoel te bereiken[39]. Immers het bestuur heeft de keuze van de maatregel die hem het best geschikt voorkomt om het gestelde doel te bereiken. Het kan dus zijn dat met andere maatregelen dan een onteigening het doel ook kan worden bereikt, doch dit maakt van de onteigening nog geen disproportionele maatregel[40].

Bosbeheerplannen

Voor elk bos van ten minste vijf hectare dient volgens het Bosdecreet[41] door de bosbeheerder een beheerplan te worden opgesteld. Voor bossen kleiner dan vijf hectare, is dit niet verplicht, maar kan eveneens een beheerplan worden opgesteld. Een uitvoeringsbesluit[42] regelt het beheerplan nader. Het beheerplan gaat in op de technische en administratieve aspecten van het beheer, de inventarisatie, de kapregeling, de uitvoering van onderhouds- en verbeteringswerken, de verkoop van bosproducten, de bebossing, de herbebossing en de bewaking. Het geldt in beginsel voor 20 jaar. Het beheerplan bindt de opeenvolgende bosbeheerders zolang geen gewijzigd beheerplan werd ingediend en goedgekeurd[43]. Binnen

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[37] Art. 41, § 1 Natuurdecreet.
[38] J. COPPÉE, "L'expropriation", *J.T.* 1979, 106.
[39] Cass. 30 maart 1933, *Pas.* 1933, I, 185, concl. P. LECLERCQ; Cass. 23 juni 1978, *T.B.P.* 1979, 241; R.v.St. Van Teemsche, nr. 47.944, 14 juni 1994.
[40] Rb. Luik 15 juni 2004, *J.L.M.B.* 2004, 1540.
[41] Art. 43, § 3 Bosdecreet.
[42] B.Vl.R. van 27 juni 2003 betreffende de beheerplannen van bossen.
[43] Art. 43, § 5 Bosdecreet.

de perken van het Bosdecreet voert elke bosbeheerder het beheer van zijn bos overeenkomstig het beheerplan[44].
De beheerplannen worden goedgekeurd door het Bosbeheer. Tegen de afkeuring kan beroep ingesteld worden door de indiener van het beheerplan bij een Comité van beroep. Het beoordelingskader van het Bosbeheer en het Comité van beroep wordt gevormd door de bepaling[45] dat "*het beheer van de bossen tot doel heeft het bosareaal te bewaren en (het) te brengen of te behouden in een bestendige staat van veelzijdige functie*" en, voor de privé-bossen in het Vlaams Ecologisch Netwerk, de door de Vlaamse regering vastgestelde criteria voor duurzaam bosbeheer[46].
Voor elk openbaar bos en bosreservaat dat geheel of gedeeltelijk gelegen is binnen een speciale beschermingszone moeten in het beheerplan tevens de volgens het Natuurdecreet vereiste instandhoudingsmaatregelen opgenomen worden[47]. Een bestaand beheerplan van een dergelijk openbaar bos vervalt uiterlijk twee jaar na het van kracht zijn van het natuurrichtplan. Binnen die periode van twee jaar moet een nieuw beheerplan ingediend worden dat rekening houdt met de bepalingen van het natuurrichtplan[48]. De bestaande beheerplannen voor private bossen mogen blijkbaar worden behouden, voorzover deze bossen niet in het Vlaams Ecologisch Netwerk gelegen zijn, zoniet geldt een vergelijkbare regeling. Wel kan een natuurrichtplan bijkomende beschermingsvoorschriften opleggen aan de bosbeheerder[49]. Het is *in het Natuurdecreet* onduidelijk of een beheerplan als een project of plan te beschouwen is dat onderworpen is aan de zogenaamde passende beoordeling.
Het instrument is stilaan wel ingeburgerd in de praktijk, maar toch zijn nog maar ongeveer 30 % van de private bossen onder een beheerplan gebracht.
Er stellen zich mogelijks problemen in verband met het beheerplan in relatie tot sommige van de vooropgestelde criteria. Meer bepaald is er hier een spanningsveld tussen legaliteit en rechtszekerheid. Voor de bosbeheerder is het wenselijk dat hij eens hij een goedgekeurd beheerplan heeft, voor 20 jaar het beheer mag voeren overeenkomstig dat plan (en zo is het ook bepaald in het Bosdecreet). Voor de instandhouding van de speciale beschermingszones (en dus het nakomen van de Europese verplichtingen door het Vlaamse Gewest) daarentegen is het problematisch dat de bestaande beheerplannen voor private bossen zonder meer behouden blijven. Beter zou worden opgelegd dat beheerplannen, ook voor private bossen, moeten voldoen aan de instandhoudingsdoelstellingen voor speciale beschermingszones, en een procedure worden voorzien die het Bosbeheer zou toelaten de bosbeheerder te verplichten tot het herzien van zijn beheerplan, in het licht van de instandhoudingsdoelstellingen.

Ruilverkaveling

De ruilverkaveling, de landinrichting en de natuurinrichting zijn drie inrichtingsinstrumenten die betrekking hebben op het landelijk gebied. Het inrichten van gebieden houdt in dat éénmalige werken gebeuren om een gunstige uitgangssituatie te bekomen voor bepaalde functies in het gebied: herverkaveling, infrastructuurwerken, grondverzet, structuurwerken aan waterlopen, bedrijfsverplaatsing, enz. De doelstellingen die men met de inrichting beoogt verschilt bij de drie instrumenten. Onder ruilverkaveling wordt verstaan de inrichting van het landelijk gebied met het oog op een economisch betere landbouwexploitatie. Landinrichting heeft een multifunctioneel doel. In richtplannen en inrichtingsplannen bij landinrichting, en bij ruilverkaveling, inzonderheid het landschapsplan daarbij, in een speciale beschermingszone, dienen volgens het VLM-decreet respectievelijk de Ruilverkavelingswet[50] de vereiste instandhoudingsmaatregelen te worden opgenomen.

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[44] Art. 46, leden 1 en 4 Bosdecreet.
[45] Art. 41, lid 1 Bosdecreet.
[46] Art. 41 lid 2 Bosdecreet.
[47] Art. 19, lid 3 Bosdecreet.
[48] Art. 3, § 2 B.Vl.R. van 27 juni 2003 betreffende de beheerplannen van bossen.
[49] De bijkomende beschermingsvoorschriften die in een natuurrichtplan kunnen worden opgelegd, en die betrekking hebben op de bosbouw, zijn: de bescherming of het herstel van bepaalde bos- en andere habitats door de bosbeheerder; een verbod op het aanplanten van (bepaalde soorten) bomen of struiken (art. 8 tot en met 18 B.Vl.R. van 21 november 2003 houdende maatregelen ter uitvoering van het gebiedsgericht natuurbeleid, verkort: Maatregelenbesluit).
[50] Art. 13, § 2 V.L.M.-decreet; art. 62, lid 5, art. 70, lid 1 en art. 71, lid 1 Ruilverkavelingswet.

Het instrument is ingeburgerd in de praktijk.
Er stellen zich mogelijks problemen in verband met de ruilverkaveling in relatie tot sommige van de vooropgestelde criteria, met name de propotionaliteit en de legaliteit. Meer bepaald rijst qua legaliteit de vraag of het niet haast per definitie strijdig is met de instandhoudingsdoelstellingen in een speciale beschermingszone inrichtingsmaatregelen te nemen met een overheersende landbouwdoelstelling. Hoe dan ook is een ruilverkaveling onderworpen aan de zogenaamde passende beoordeling. Voor wat betreft de proportionaliteit brengt de ruilverkaveling toch soms zware eigendomsbeperkingen met zich mee (tot zelfs verplichte kavelruil) tegenover het eerder beperkte maatschappelijke nut (een economisch betere landbouwexploitatie voor bepaalde landbouwers).

Landaankoop

Het natuurbehoud is een doeleinde van algemeen belang. De overheid kan ten behoeve van het natuurbehoud gebruikmaken van privaatrechtelijke instrumenten, zoals de (ver)koop en de (ver)huur (van gronden), die eenieder ter beschikking staan. Het Natuurdecreet bevat specifieke bepalingen over de onteigening (hoger reeds besproken), de ruil, het recht van voorkoop, en de gedwongen aankoop. Het Vlaamse Gewest kan, om redenen van natuurbehoud en op voorstel van de eigenaar, het eigendomsrecht, de pacht, de huur of het recht van gebruik van een onroerend goed dat het in eigendom heeft of waarover het kan beschikken, ruilen tegen het eigendomsrecht, pacht, huur of recht van gebruik van een ander onroerend goed mits akkoord van de houder van het betrokken recht[51]. Het Vlaamse Gewest heeft in bepaalde gebieden (doch niet op zichzelf in speciale beschermingszones) een recht van voorkoop bij verkoop van onroerende goederen[52]. De eigenaar van een onroerend goed kan van het Vlaamse Gewest de verwerving daarvan eisen indien hij aantoont dat, ten gevolge van de aanduiding van dit onroerend goed als een GEN of GENO of de aanwijzing ervan als een speciale beschermingszone, de waardevermindering van zijn onroerend goed ernstig is, ofwel dat de leefbaarheid van de bestaande bedrijfsvoering ernstig in het gedrang komt. De Vlaamse regering bepaalt de nadere voorwaarden en de procedure van deze koopplicht[53]. Dat is gebeurd in het Maatregelenbesluit. Opmerkelijk is de bepaling in het Maatregelenbesluit dat de overheid de waarde moet vergoeden alsof het onroerend goed niet in een GEN, GENO of speciale beschermingszone lag, wat de gedwongen aankoop voor de overheid budgettair weinig aantrekkelijk maakt.
Het aankopen van land, eventueel in toepassing van het recht van voorkoop, is ingeburgerd in de praktijk, en hangt doorgaans samen met de oprichting van natuurreservaten. Het is ons niet bekend of reeds gebruik is gemaakt van de ruil. De gedwongen aankoop heeft bij ons weten nog geen toepassing gevonden.
Er stellen zich mogelijks problemen in verband met sommige van deze instrumenten in relatie tot sommige van de vooropgestelde criteria. Het recht van voorkoop wordt door de burger soms als onproportionele aantasting van het eigendomsrecht beschouwd. Louter juridisch gezien is dit onjuist, vermits de overheid gewoon in de plaats komt van de koper, niet meer dan dat. Beleidsmatig zou er wel een zekere onproportionaliteit kunnen zijn, vermits het aantal aanbiedingen zeer groot is, en de overheid slechts heel zelden zijn recht van voorkoop uitoefent. En zelfs bij een gewone aankoop van land door de overheid kan de eventuele pacht worden opgezegd, zodat ook dit kan leiden tot ongenoegen bij de landbouwers. Een ander probleem vormt de waardepaling bij een gedwongen aankoop. Vooreerst zou bij de waardebepaling van het onroerend goed bij een onteigening in beginsel wel rekening moeten worden gehouden met de ligging in een GEN, GENO of speciale beschermingszone, wat problematisch lijkt in het licht van het gelijkheidsbeginsel. Tevens toont de praktijk wellicht aan dat de koopplicht onproportioneel is met de (blijkbaar eerder als licht aangevoelde) beperkende maatregelen waaraan de eigenaar of gebruiksgerechtigde wordt onderworpen.

Natuurprojectovereenkomsten

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51 Art. 41, § 1 Natuurdecreet.
52 Art. 37, § 1 Natuurdecreet.
53 Art. 42 Natuurdecreet.

Volgens het Natuurdecreet[54] kan de minister binnen de grenzen van de begrotingskredieten natuurprojectovereenkomsten sluiten in bepaalde gebieden, waarbij vergoedingen worden toegekend voor locale projecten in uitvoering van een natuurrichtplan ten behoeve van het natuurbehoud, de natuurontwikkeling, de natuurrecreatie en de natuureducatie.
Het instrument heeft bij ons weten in de praktijk nog geen toepassing gevonden.
Er stellen zich geen problemen in verband met het instrument in relatie tot de vooropgestelde criteria. Het lijkt me wel dat de wetgeving inzake overheidsopdrachten in de gaten zal moeten worden gehouden, mede gezien de vaagheid van de bepaling in het Natuurdecreet.

<u>Natuurinrichting</u>

Het inrichten van gebieden houdt in dat éénmalige werken gebeuren om een gunstige uitgangssituatie te bekomen voor bepaalde functies in het gebied: herverkaveling, infrastructuurwerken, grondverzet, structuurwerken aan waterlopen, bedrijfsverplaatsing, enz. Natuurinrichting is gericht op de inrichting van het landelijk gebied met het oog op natuurontwikkeling (met inbegrip van natuurherstel). De decretale basis van de natuurinrichting vindt men in de artikelen 47 en 47bis van het Natuurdecreet. De natuurinrichting wordt voornamelijk geregeld in de uitvoeringsbesluiten, inzonderheid het Natuurbesluit[55].
Het instrument krijgt stilaan meer toepassing in de praktijk. In 2003 waren er reeds ongeveer 25 natuurinrichtingsprojecten ingesteld of in voorbereiding, die samen goed zijn voor een oppervlakte van bijna 10.000 ha.
Er stellen zich mogelijks problemen in verband met de natuurinrichting in relatie tot sommige van de vooropgestelde criteria, met name de proportionaliteit. De natuurinrichting kan indien zij wordt doorgevoerd op gronden van eigenaars of gebruiksgerechtigden die een loutere economische uitbating voor ogen hebben, zware eigendomsbeperkingen met zich meebrengen (tot zelfs verplichte kavelruil, ofschoon dit in de praktijk bij ons weten nog nooit is toegepast) tegenover het maatschappelijk nut (natuurontwikkeling en -herstel).

<u>Vergunning</u>

Er bestaan diverse vergunningenstelsels in andere wetgevingen dan de natuurbehoudswetgeving die van belang zijn voor het natuurbehoud, zoals de stedenbouwkundige vergunning, de milieuvergunning, de kapmachtiging.
In het Natuurdecreet[56] zelf wordt voorzien in een eigen algemeen vergunningenstelsel, met name dat de Vlaamse regering onder bepaalde voorwaarden algemene maatregelen kan nemen en daarbij onder meer een vergunningsplicht invoeren. Hiermee wordt in essentie bedoeld een regeling ter bescherming van vegetatie en kleine landschapselementen, door de wijziging ervan te verbieden of vergunningsplichtig te maken. De concrete regeling is neergelegd in Hoofdstuk IV van het Natuurbesluit (met een ministeriële omzendbrief)[57], dat handelt over de wijziging van vegetatie en kleine landschapselementen, en eerst in dit uitvoeringsbesluit is er sprake van de "*natuurvergunning*", en dan nog slaat deze term niet op alle vergunningen. Wij gebruiken de term evenwel wel in zijn algemeenheid.
Onder de natuurvergunning vallen volgens het Natuurbesluit de volgende activiteiten:
- het wijzigen van historisch permanenten graslanden[58] en poelen in groene ruimtelijke bestemmingen, holle wegen, graften[59], bronnen, vennen en heiden, moerassen en waterrijke gebieden, en duinvegetaties[60] (relatief verbod);

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[54] Art. 45, § 1 Maatregelenbesluit.
[55] B.Vl.R. van 23 juli 1998 tot vaststelling van nadere regels ter uitvoering van het decreet van 21 oktober 1997 betreffende het natuurbehoud en het natuurlijk milieu.
[56] Art. 13 en 15 Natuurdecreet.
[57] B.Vl.R. van 23 juli 1998 tot vaststelling van nadere regels ter uitvoering van het decreet van 21 oktober 1997 betreffende het natuurbehoud en het natuurlijk milieu; Omzendbrief 10 november 1998 LNW/98/01 betreffende algemene maatregelen inzake natuurbehoud (…), *B.S.* 17 februari 1999.
[58] Zie ook art. 1, 14° Natuurbesluit.
[59] Dit zijn begroeide stroken (bosrestanten) op hellingen in een cultuurlandschap. Zij komen vooral in de Voerstreek voor.
[60] Zie ook art. 7, §1 Natuurbesluit.

- het wijzigen van vegetatie als zodanig in groene en geelgroene ruimtelijke bestemmingen en bepaalde beschermde gebieden (natuurvergunning);
- het wijzigen van bepaalde kleine landschapselementen (zoals houtachtige beplantingen) in landschappelijke waardevolle agrarische gebieden en groenere ruimtelijke bestemmingen, en bepaalde beschermde gebieden (natuurvergunning).
Onder de melding valt onder meer het wijzigen van kleine landschapselementen in agrarische gebieden, enz.
Daarnaast bestaan in het Natuurdecreet nog gebiedsgerichte beschermingsvoorschriften in het Vlaams Ecologisch Netwerk, geformuleerd als verbodsbepalingen waarvan ontheffing kan worden verleend.
De natuurvergunningsplicht is na aanvankelijke moeilijkheden ondertussen toch ingeburgerd in de (gemeentelijke bestuurs)praktijk.
Er stellen zich mogelijks problemen in verband met het instrument in relatie tot de vooropgestelde criteria. Vooreerst wordt het voor de burger soms als onproportionele aantasting van het eigendomsrecht aangevoeld dat hij een vergunning moet vragen om enkele bomen te kappen of vegetatie te wijzigen. *Louter juridisch* stelt zich echter geen probleem op dat vlak. Wel roept de regeling soms vragen op in verband met de legaliteit: er valt moeilijk in te zien waarom de beleidsmakers met relatieve verbodsbepalingen of vergunningsplichten werken voor vegetatiewijzigingen in groene gebieden volgens de ruimtelijke ordening, waar deze wegens de verordenende kracht van de ruimtelijke plannen niet mogen. Ook geldt de vergunningsplicht voor vegetatiewijziging slechts binnen de aangewezen habitats en ruimtelijke bestemmingen van de niet-integraal aangewezen speciale vogelbeschermingszones, wat ons strijdig lijkt met de instandhoudingsverplichting opgelegd door de Vogelrichtlijn. Hetzelfde geldt voor de beperking in het Natuurdecreet dat het natuurvergunningenstelsel er niet mag toe leiden dat de verwezenlijking van de ruimtelijke bestemming verhinderd wordt. Tevens is het wel een complexe regeling, zelfs nog bekeken los van andere vergunningenstelsels, zodat er problemen kunnen rijzen met de rechtszekerheid. Zo is het niet steeds duidelijk wanneer men te doen heeft met een beschermde vegetatie. Een herdenking van het ganse natuurvergunningenstelsel lijkt om bovenstaande en nog diverse andere redenen opportuun[61].

Zorgplicht en code van goede natuurpraktijk

In het Vlaamse Gewest werd de zorgplicht in het Natuurdecreet[62] van bij het begin als zeer belangrijk beschouwd in de natuurmiddens: "*Iedereen die handelingen verricht of hiertoe de opdracht verleent, en die weet of redelijkerwijze kan vermoeden dat de natuurelementen in de onmiddellijke omgeving daardoor kunnen worden vernietigd of ernstig geschaad, is verplicht om alle maatregelen te nemen die redelijkerwijze van hem kunnen worden gevergd om de vernietiging of de schade te voorkomen, te beperken of indien dit niet mogelijk is, te herstellen.*" Zij geldt rechtstreeks, dus zij behoeft geen nadere uitvoeringsmaatregelen. Wel geeft sinds het wijzigingsdecreet van 2002 de mogelijkheid dat de Vlaamse Regering de zorgplicht concretiseert in een code van goede natuurpraktijk. Dit is vooralsnog niet gebeurd[63], ofschoon deze bepaling heel wat mogelijkheden biedt.
De overtreding van de zorgplicht heeft reeds tot enkele veroordelingen in de rechtspraak geleid. Aangezien er nog geen code van goede natuurpraktijk bestaat, stelt de vraag naar de toepassing in de praktijk voor dat instrument niet.
Er stellen zich mogelijks problemen in verband met de zorgplicht, en dus ook de code van goede natuurpraktijk in relatie tot sommige van de vooropgestelde criteria. Het Grondwettelijk Hof heeft op 27 mei 2008[64] op prejudiciële vraag geoordeeld dat de strafrechtelijke sanctionering van de zorgplicht ongrondwettig is, want strijdig met het wettigheidsbeginsel in

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[61] A. CLIQUET, G. VAN HOORICK, J. LAMBRECHT en D. BOGAERT, "Gebiedsgericht natuurbeleid: operationalisering en uitvoering van de Vogelrichtlijn en de Habitatrichtlijn", in: M. VAN STEERTEGEM (ed.), MIRA-BE 2005, Aalst, Vlaamse Milieumaatschappij, 2005, 104-108.

[62] Art. 14 Natuurdecreet.

[63] Wel bestaat er een omzendbrief die voor vegetatie en kleine landschapselementen aangeeft wat onder normale onderhoudwerken moet worden verstaan, die worden vrijgesteld van de verplichting tot het aanvragen van een natuurvergunning, zie Omzendbrief 10 november 1998 LNW/98/01 betreffende algemene maatregelen inzake natuurbehoud (…), *B.S.* 17 februari 1999.

[64] Grondwettelijk Hof nr. 82/2008, 27 mei 2008.

strafzaken, neergelegd in artikel 12 Grondwet. De bezwaren van het Hof slaan op de vage term "*handelingen*" en de alomvattende definitie van het begrip "*natuurelement*" vooraan in het Natuurdecreet, in het licht van het gegeven dat de zorgplicht voor iedereen geldt. Bovendien leidde het Hof uit de parlementaire voorbereiding af dat de decreetgever het blijkbaar noodzakelijk achtte dat de Vlaamse Regering door middel van een code van goede natuurpraktijk een "*handleiding*" zou worden geboden. Overigens kan volgens het Hof de Vlaamse Regering de ongrondwettigheid niet verhelpen door alsnog een code van goede natuurpraktijk op te stellen. Binnen de zes maanden kan nu een beroep tot vernietiging van de bepaling worden ingesteld bij het Grondwettelijk Hof. Alleszins lijkt het belang van de zorgplicht met het wegvallen van de (strafrechtelijke, maar dit kan uitgebreid worden naar bestuurlijke) sanctionering grotendeels uitgespeeld. Ook een code van goede natuurpraktijk kan in de huidige stand van het Natuurdecreet niet gehandhaafd worden vanuit de overheid, tenzij misschien hoogstens in toepassing van het Wet van 12 januari 1993 op het vorderingsrecht voor milieuverenigingen.

Bescherming bij wet

Er gelden geen specifieke verbodsbepalingen in speciale beschermingszones. De beleidsmakers hebben vertrouwd op de zorgplicht en op het natuurrichtplan: voor elke speciale beschermingszone wordt een natuurrichtplan opgesteld en op die manier zou in "*maatwerk*" worden voorzien[65]. Volgens het Natuurbesluit geldt het relatief verbod en de vereiste van een natuurvergunning voor de wijziging van vegetatie binnen de aangeduide habitats en bestemmingsgebieden van de speciale vogelbeschermingszones en de definitief vastgestelde speciale habitatbeschermingszones, en voor de wijziging van kleine landschapselementen binnen de perimeter van de speciale vogelbeschermingszones en de definitief vastgestelde speciale habitatbeschermingszones. In het Maatregelenbesluit vindt men slechts één nieuwe specifieke verbodsbepaling terug voor de aangewezen speciale habitatbeschermingszones: het is verboden om overstorten aan te leggen in de speciale beschermingszones aangeduid voor een vissoort uit bijlage II van het Natuurdecreet[66].
Aangezien er geen specifieke beschermingsvoorschriften in speciale beschermingszones bestaan, zodat de vraag naar de toepassing in de praktijk zich niet stelt.
Er stellen zich door het gebrek aan specifieke beschermingsvoorschriften mogelijke problemen in verband met het instrument in relatie tot sommige van de vooropgestelde criteria, met name de legaliteit. Er zou, om aan de Europese instandhoudingsverplichtingen in speciale beschermingszones te voldoen, minstens een *catch all*-bepaling in de wetgeving moeten worden ingevoerd die alle ingrepen die een speciale beschermingszone nadelig kunnen beïnvloeden, vergunningsplichtig maakt[67].

Bekkenbeheerplannen

Het (integraal) waterbeleid wordt in het Vlaamse Gewest geregeld door het Decreet van 18 juli 2003 betreffende het integraal waterbeleid. Centraal staat een (zwaar opgezette) waterbeleidsplanning, met een waterbeleidsnota (op Vlaams niveau en per stroomgebied), stroomgebiedbeheerplannen, bekkenbeheerplannen, deelbekkenbeheerplannen, bekkenvoortgangsrapporten, en maatregelenprogramma's (per stroomgebiedsdistrict). De stroomgebiedbeheerplannen, bekkenbeheerplannen en deelbekkenbeheerplannen worden vastgesteld door de Vlaamse regering via een vastgelegde procedure. De bepalingen in de bekkenbeheerplannen en deelbekkenbeheerplannen kunnen beperkingen opleggen maar mogen evenwel geen beperkingen vaststellen die absoluut werken of handelingen verbieden of onmogelijk maken die overeenstemmen met de plannen van aanleg of de ruimtelijke

[65] Wel is volgens het Maatregelenbesluit elke administratieve overheid gehouden de habitats van bijlage I van het Natuurdecreet en de historisch permanente graslanden, vennen en heiden, moerassen en waterrijke gebieden, duinvegetaties en struwelen en kleine landschapselementen, die voorkomen op gronden waarover zij enig recht van beheer uitoefenen, de instandhouding te realiseren (art. 7 Maatregelenbesluit).

[66] Art. 5 § 2 Maatregelenbesluit.

[67] A. CLIQUET, G. VAN HOORICK, J. LAMBRECHT en D. BOGAERT, "Gebiedsgericht natuurbeleid: operationalisering en uitvoering van de Vogelrichtlijn en de Habitatrichtlijn", in: M. VAN STEERTEGEM (ed.), MIRA-BE 2005, Aalst, Vlaamse Milieumaatschappij, 2005, 104-108.

uitvoeringsplannen, noch de realisatie van die plannen en hun bestemmingsvoorschriften verhinderen, *met uitzondering van de werken of handelingen binnen overstromingsgebieden en oeverzones*[68]. Opvallend is dus dat het primaat van de ruimtelijke ordening ten opzichte van het waterbeleid niet geldt in de oeverzones en overstromingsgebieden. Daar kan een bouwverbod worden opgelegd, zelfs ingaand tegen de ruimtelijke bestemming. Bovendien zijn de schadevergoedingsmogelijkheden bij b.v. verhoging van het waterpeil op grond van het decreet beperkter dan indien dit in het kader van het natuurbeleid gebeurt. Dit alles maakt dat het waterbeleid een heel belangrijke bondgenoot kan worden van het natuurbeleid.
Aangezien men nu nog in de fase zit van het opstellen van de plannen, rijst de vraag naar de toepassing in de praktijk nog niet.
Er stellen zich mogelijks problemen in verband met sommige van deze instrumenten in relatie tot sommige van de vooropgestelde criteria. Zo lijkt het moeilijk te verantwoorden in het licht van de gelijkheid en non-discriminatie dat schadevergoedingsmogelijkheden voor dezelfde maatregelen (zoals verhoging van het waterpeil) verschillen naargelang de beleidstak waarin deze worden doorgevoerd. Ook de rechtszekerheid van de burger lijdt onder het gegeven dat het waterbeleid "*haasje over*" kan spelen met het ruimtelijk plan, en de uitvoering van dit plan onmogelijk kan maken.

Soortenbeschermingsplan

De huidige rechtsgrond voor maatregelen inzake soortenbescherming wordt gevormd door het Natuurdecreet[69], dat de Vlaamse Regering toelaat alle maatregelen te nemen voor het behoud van "*populaties van soorten of ondersoorten van organismen*". In de planning van het natuurbeleid staan het natuurrapport en het natuurbeleidsplan centraal. Het natuurbeleidsplan is een actieplan en kadert in het milieubeleidsplan bedoeld in het Decreet van 5 april 1995 houdende algemene bepalingen inzake milieubeleid. De Vlaamse Regering bepaalt de delen van het natuurbeleidsplan die bindend zijn voor de administratieve overheden. Het natuurbeleidsplan omvat onder meer "*een deelplan waarin soortenbeschermingsplannen kunnen worden opgenomen*". Een verdere operationalisatie gebeurt onder meer via de milieujaarprogramma's. Tot dusver werden evenwel nog geen soortenbeschermingsplannen in het kader van het natuurbeleidsplan vastgesteld. Binnen het Agentschap voor Natuur en Bos wordt wel gewerkt aan het opstellen van buitenwettelijke soortenbeschermingsplannen (onder meer voor de Europese hamster).
De toepassing in de praktijk van deze buitenwettelijke soortenbeschermingsplannen is ons niet bekend.
Er stellen zich geen problemen in verband met het instrument in relatie tot de vooropgestelde criteria. Uiteraard is een buitenwettelijk plan niet meteen het meest geschikte instrument voor het voeren van een effectief natuurbeleid.

Natuurreservaten

Volgens het Natuurdecreet[70] is een Vlaams natuurreservaat "*een beschermd gebied dat door de Vlaamse regering wordt aangewezen op terreinen die het Vlaamse Gewest in eigendom of in huur heeft of die daartoe ter beschikking worden gesteld*". De Vlaamse natuurreservaten zijn de vroegere staatsnatuurreservaten. Het Natuurdecreet[71] definieert een erkend natuurreservaat als een beschermd gebied, dat geen Vlaams natuurreservaat is, en "*dat door de Vlaamse regering wordt erkend op verzoek van de eigenaar en/of diegene die het gebruiksrecht heeft, mits beider toestemming, of van de beheerder, mits de eigenaar ermee instemt*". De erkenning geldt voor 27 jaar en is voor hernieuwing vatbaar. Het betreft terreinen van natuurverenigingen, die door het Vlaamse Gewest financieel worden ondersteund voor de aankoop en het beheer[72]. Natuurreservaten worden beheerd volgens een door de bevoegde minister goedgekeurd beheersplan waarin een bepaald natuurstreefbeeld wordt

68 Art. 42, § 1, lid 2 en art. 46, § 1, lid 2 Decreet integraal waterbeleid.
69 Art. 51 Natuurdecreet.
70 Art. 33, lid 1 Natuurdecreet.
71 Art. 33, lid 2 Natuurdecreet.
72 B.Vl.R. van 27 juni 2003 tot vaststelling van de voorwaarden voor de erkenning van natuurreservaten en van terreinbeherende natuurverenigingen en houdende toekenning van subsidies.

vooropgesteld. Volgens het Natuurdecreet[73] gelden binnen de natuurreservaten een aantal strenge verbodsbepalingen. Deze maatregelen kunnen evenwel geen erfdienstbaarheden opleggen op de omliggende gebieden. Daarmee wordt bedoeld dat de verbodsbepalingen niet gelden voor op zich rechtmatige activiteiten buiten natuurreservaten, die een nadelige invloed kunnen hebben erbinnen.
Voor wat betreft de toepassing in de praktijk, dient gesteld dat de reservaatsvorming de laatste jaren (gelukkig) in een stroomversnelling komt, maar toch bedraagt de totale oppervlakte nog geen 2 % van Vlaanderen.
Er stellen zich mogelijks problemen in verband met het instrument in relatie tot sommige van de vooropgestelde criteria. Er zijn vooreerst de veel gehoorde opmerkingen vanwege eigenaars dat er geen gelijkheid is door die (hogere) financiële ondersteuning voor het beheer, en de aankoopsubsidies. Deze kwestie is nog niet aan bod gekomen in de rechtspraak. De natuurmiddens gaan er wellicht nogal gemakkelijk vanuit dat *louter juridisch* zich geen problemen stellen. De vraag rijst of dit niet te kort door de bocht is. Voor wat betreft het beheersluik, zou het toch wel discriminerend kunnen zijn dat volgens het uitvoeringsbesluit (niet het decreet) de beheersubsidies worden voorbehouden voor natuurverenigingen. Een eigenaar die hetzelfde wenst te doen, met dezelfde professionele ondersteuning als de natuurverenigingen (b.v. door een studiebureau), zou eigenlijk ook die kans moeten krijgen, niet ? Voor wat betreft de aankoopsubsidies, zou het wel eens kunnen dat deze vanuit Europeesrechtelijk standpunt concurrentieverstorend zijn. Het lijkt toch niet zomaar te ontkennen dat de markt kan worden verstoord doordat de natuurverenigingen (soms tot 90 %) gesubsidieerd worden voor hun aankopen. Wellicht zal vroeg of laat de Europese Commissie of het Hof van Justitie zich daarover moeten uitspreken. Het lijkt ons ondertussen alvast een topic voor verder juridisch onderzoek. Tenslotte moet worden opgemerkt dat aan de aanwijzing of erkenning van een natuurreservaat geen openbaar onderzoek voorafgaat, zodat de bevolking in de besluitvorming geen kans tot inspraak wordt geboden. Dit laatste valt evenwel te begrijpen in het licht van het gegeven dat de aanwijzing of erkenning geen bijkomende beschermingsmaatregelen *buiten* het natuurreservaat met zich meebrengt.

Vrijstelling van successierechten

Er geldt op grond van artikel 55quater van het Wetboek der Successierechten[74] een vrijstelling van successierechten in het Vlaams Ecologisch Netwerk zonder voorwaarden, en voor bossen onder bepaalde voorwaarden (beheersplan dat voldoet aan criteria voor duurzaam bosbeheer; uitdrukkelijk verzoek om de vrijstelling in de aangifte van nalatenschap, gestaafd met een attest opgemaakt en uitgereikt door het Vlaamse Gewest volgens de regels bepaald bij uitvoeringsbesluit, dat voldaan werd aan de eerste voorwaarde). Het recht van successie of van overgang bij overlijden dat verschuldigd zou zijn geweest over het bij toepassing van artikel 55quater van het Wetboek der Successierechten vrijgesteld bedrag, wordt geacht als subsidie te zijn verleend, onder bepaalde voorwaarden (de goederen moeten hun aard van bos blijven behouden; de goederen moeten blijven voldoen aan de vermelde voorwaarden in het Wetboek der successierechten; het effectief gevoerde beheer moet overeenstemmen met het goedgekeurde beheersplan). Indien deze voorwaarden niet worden nageleefd moet de subsidie worden terugbetaald.
De toepassing in de praktijk is ons niet bekend.
Er stellen zich geen problemen in verband met het instrument in relatie tot de vooropgestelde criteria.

Participatie

In het natuurbeleid bestaan voor de meeste besluitvormingsprocessen de mogelijkheid tot inspraak via een openbaar onderzoek. Een openbaar onderzoek houdt in al naargelang het geval dat aanvragen tot vergunning of ontwerpen van plannen gedurende een periode (meestal 30 dagen) ter inzage van de bevolking worden gelegd, en dat de bevolking

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[73] Art. 35, § 2 Natuurdecreet.

[74] Decreet van 9 mei 2003 tot invoering van een vrijstelling van successierechten voor bossen en van een vrijstelling van successierechten en onroerende voorheffing voor gronden gelegen in het VEN, *B.S.* 2 juni 2003.

gedurende die periode bezwaarschriften kan indienen. Toch zijn er belangrijke uitzonderingen waar er geen openbaar onderzoek wordt of werd gehouden. De aanwijzing en erkenning van natuurreservaten gebeurt zonder voorafgaand openbaar onderzoek. Ook gebeurde de *vroegere* aanwijzing of vaststelling van speciale beschermingszones zonder openbaar onderzoek, en op dit laatste is er toch heel wat kritiek geuit vanuit de kant van onder meer de eigenaars. De kapmachtiging wordt verleend zonder onderbaar onderzoek
Daarnaast zijn er in sommige besluitvormingsprocessen andere mogelijkheden tot inspraak, zoals door adviesorganen, stuurgroepen, beheerscommissies, enz.
De toepassing in de praktijk is ons niet bekend.
Er stellen zich mogelijks problemen in verband met het instrument in relatie tot sommige van de vooropgestelde criteria. De beleidsmakers dienen meer na te denken vooraleer openbare onderzoeken in te voeren, en met name na te gaan of inspraak wel vereist is en zo ja, of het openbaar onderzoek het ideale instrument is voor die inspraak. Zo lijkt het weinig proportioneel dat zelfs voor het vellen van één boom in het veld, indien er daarvoor een natuurvergunning nodig is, in de vergunningsprocedure ook een openbaar onderzoek moet georganiseerd worden.

4.3.2 Social

Excel file

4.3.3 Economic

The assessment of instruments, for the economic part, will be led in accordance with some guidelines explained hereafter.

The first objective obviously is to know the application cost of each instrument and in a second time compare this cost to the results gained on the field. Nevertheless, it is not possible to give a clear quantitative answer for each instrument. So the collection of information is conducted to answer the following question:

- What does it cover? It could be
  - A loss of earnings
  - The payment of a management action
  - The price of other action (e.g. doing an impact assessment)
- Who pays?
- Who is the beneficiary?
- When is it paid?
- Is it expensive or cheap? This question is quite difficult to answer in a so short and one-discipline oriented analysis. To answer this question we have to compare in regard of results gained on the field, the ecological results, but also evaluate if it is socially acceptable.

Note that for some instruments it is not relevant to answer to each of the above items. Moreover some comments will be done qualitatively to give an opinion on the opportunity to use the instrument for a better application of Natura 2000.

Agri-Environmental Measures (AEM) + Organic farming subsidies

The AEM give a financial support to farmers who voluntary use, for a minimal duration of 5 years, methods of agricultural production planned to protect environment and preserve natural space.

For the organic farming subsidies, there are some differences. This regime was adapted in 2003, the amounts of subsidies were modified (they are decreasing in function of the superficies) and every farmers, not only the ones who are farmer as principal activity, can received this help. Moreover, the duration is not limited to 5 years.

The objective of this support is to compensate the loss of earnings and additional costs supported by farmers who maintain or implement production methods going beyond legal levels, so for what is beyond the level "base line": at the minimum, the requirement of the conditionality. The compensation of the loss of earnings corresponds to the difference between the standard raw margin of a "mean" agricultural parcel <u>and</u> the raw margin that we can expect on a parcel in agrienvironment.

Moreover, the farmers have to respect, over their whole exploitation, the requirements of the conditionality and some complementary constraints are not compensated.

Concerning the date of payment, in the decree, it is specified that the first payment is done 13 to 17 months after the commitment, set up the 1st April each year. That means that in theory the payments have to be done for the 1st September at last. This delay is very long and the Walloon Region does not respect it every time because in 2007, the payments were done on 15th October.

This instrument is financed by the Regions (Walloon and Flemish) and the European Commission (via the FEADER) at a rate of 50/50. For the Walloon Region, the public expenses is about 146 114 000 € with 73 057 000 € from the FEADER. Note that the amount of 146,114 millions € will not be enough to cover the whole period of programming taking into account the fixed objectives. To reach this objective, a budget of 183 millions € is necessary. So when the budget for agrienvironment will be empty, the Walloon Region will take in charge 100 % of expenses unless Europe can give more money.

This instrument is possible with or without Natura 2000 and is okay to ensure economic viability of agricultural exploitations. Economically the good point is that this instrument is cofinanced by EU.

<u>Eco-conditionnality</u>

In accordance with European rules for agrienvironmental payments, the payments of AEM and Organic farming relative to 5 years agreements from 2007 are subordinated to the respect of conditionality. So it is required to fulfill:

- rules of conditionality
- minimal requirements for use of manure and phytosanitary products

The non-respect of these rules can give a suppression/reduction of his "unique rights" (Budget of 1st pillar of the PAC) and AEM and organic farming subsidies (Budget 2nd pillar of the PAC) when this non-respect is noted on a parcel on which is applied AEM regime. In this case, the respect of some rules of eco-conditionnality becomes a condition of eligibility to the payment.

In concrete terms in a case of non-conformity to the rules, a sanction can be applied. It corresponds to a reduction of 3% of the whole helps, 'découplée' or not. In accordance with the gravity, the expanse and the permanence of the non-conformity, the decrease can get 5 % or be reduced to 1 % or even to 0 % in some particular cases. In case of repeat of non-conformity, the sanction can be multiplied by three. In case of intentional non-conformity, the sanction can be fixed between 15 and 100 %.

The payment of the unique rights comes the 1st December that is 8 months after the declaration of the PAC (must be back for 1st April). The AEM payment is done 13 to 17 months after the commitment.

It is the Walloon Region who pays the farmer. So the Walloon Region recovers the money from sanctions but she has to give back 75 % of it to Europe (FEOGA). In 2007, the Walloon region took 300 000 € for the conditionnality in her pockets and must then give back 225 000 € to Europe.

Environmental impacts assessment

The Environmental impacts assessment is an evaluation made by an authority recognized by the government and chosen by the requester. Each research department defines his own rates so the cost will vary from one project to another.

If it is a project, it is the promoter of the project who pays the EIA,
If it is a land use plan, it is the public authority who pays (Walloon Region, municipalities, intercommunales, ….)

The cost of the EIE will be minimal in relation to the implementation of the whole project/plan but quite important in relation to whole study of the project/plan.

Expropriation

Expropriation is not a sale and the payment of this compensation cannot be considered as the payment of a price but the integral reparation of the undergone prejudice, to be recognized as a damage that comes from the removal of a property right.

The compensation of expropriation has to take into account the different prejudices undergone by the expropriated person. The criterions of compensation evaluation are in particular:

- venal value
- future value
- convenience and affection value
- indemnity for depreciation of remaining portion
- reuse indemnities
- delay interests
- movable indemnities
- troubles of professional or commercial activity
- judicial interests
- defence costs

The critera presented above have to be taken in account for expropriation in general. In the case of nature conservation, it is possible to add some remarks.

The first question to ask is about *public utility*: "Could nature conservation be referred to reason of public utility?".

Secondly, we have to know if we are in a normal procedure or of extreme emergency. As the ordinary procedure is long and heavy, law has established a procedure of extreme emergency, much faster than the normal one. That is why public authorities refer to this procedure.
Costs will be very high because the person has to be repaid to maintain the situation like "nothing has happened!". The compensation of the full damage gives two possibilities:

- either the field is left behind or does not present a very big interest and in this case the amount will be quite small,
- or we face a building field and then the amount is more expensive.

It is the public authority that will pay the compensation to the expropriated person.

Forest management plan

In this case, we have to consider two options. Making a forest management plan is not compulsory for private forest; if the owner elaborated a plan, some costs will be induced:

- buying of maps
- services of surveyor
- services of an expert

- use of a software
- costs of implementation and active management
- …

Conversely, it is compulsory for public forest, which then induces:
- Inventory of fixtures of the resource and ecological conditions
- discussion of the possible options
- planning of management actions and expenses/receipt
- implementation of active management

Afterwards, a budget has to be set up to implement management actions.

For private forests, the costs are paid by the owner and for public forests, it is paid by public authorities.

<u>Land consolidation</u>

For Land consolidation, it is the public authority who pays the cost. The proportion of the intervention of Walloon Region in the expenses for consolidation strictly speaking is about 100 %.

The proportion of the intervention of the Walloon Region in the expenses for works executed by consolidation Committees is set up as follow:
- 60 % of expenses for works of design, laying out and suppression of paths, way of water flow and closely related works (40 % remain in charge of the concerned municipality),
- 45 % of expenses for works of drainage and irrigation,
- 30 % of expenses for works of implementation of primary networks of electricity distribution and water piping,
- 100 % of expenses for the implementation of the Site assessment plan (Plan d'évaluation des sites),
- 80 % of expenses for the implementation of the Site development plan (Plan d'aménagement des sites) and for the execution of works planned by this Plan.

However, for works of collective interest such as laying out of road networks or site works, local authorities and sometimes provincial authority take in charge the non-subsidized part. Concerning works of transplantation of farm buildings, the Walloon Region pre-finance them and gives loans to interested people.

Land purchase

Purchase of land is paid to the owner(s) of the land by public authorities. In Table A below we can see a list of price per municipalities of study sites. In general lands are more expensive in Flanders.

Note that to the buying price we have to add the cost for the implementation of management action so in the end it could be quite expensive.

From Ecodata (2006),

	Agricultural properties		**Horticultural properties**		**Cultural land**		**Meadows**		**Orchards**		**Mixed agricultural land**	
Place	# selling	Mean price (€unit)	# selling	Mean price (€unit)	# selling	Mean price (€m²)	# selling	Mean price (€m²)	# selling	Mean price (€m²)	# selling	Mean price (€m²)
Flanders	506	106 716	102	120 461	5929	3	3139	3	415	5	9	7
Wallonia	438	64 215	6	191 806	2703	1	2862	1	155	3	18	2
Vlaams Brabant (Prov.)	79	129 974	24	86 575	1145	2	400	1	80	5	1	*
Namur (Prov.)	100	54 239	/	/	423	1	546	1	25	3	1	*
Luxembourg (Prov.)	125	41 126	2	*	847	0	652	1	3	1	14	2
Aarschot	/	/	1	*	43	3	10	4	/	/	/	/
Begijnendijk	/	/	1	*	14	3	4	1	/	/	/	/
Diest	/	/	/	/	16	2	15	3	/	/	1	*
Rotselaar	3	172 670	/	/	22	3	6	1	8	9	/	/
Zichem	2	*	/	/	25	2	12	1	2	*	/	/
Nassogne	3	14 127	/	/	11	1	22	1	/	/	/	/
Rochefort	6	24 114	/	/	17	1	20	1	/	/	/	/
Tellin	2	*	/	/	4	1	9	2	/	/	/	/
Wellin	1	*	/	/	1	*	5	0	/	/	/	/

Table A: Ventes de biens immobiliers (SPF Economie, 2006)

	Building land		**Industrial lands**		**Woods**		**Uncultivated land**		**Small parcels**		**Mixed field and miscellaneous**	
Place	# selling	Mean	# selling	Mean	# selling	Mean	# selling	Mean	# selling	Mean	# selling	Mean

		price (€m²)		price (€m²)		price (€m²)		price (€m²)		price (€m²)		price (€m²)
Flanders	13 961	123	33	58	1055	11	365	8	2	*	677	12
Wallonia	8682	35	28	12	2460	1	357	2	19	49	389	21
Vlaams Brabant (Prov.)	2129	141	6	87	217	11	24	2	/	/	86	87
Namur (Prov.)	1 427	30	6	9	472	1	80	1	2	*	73	26
Luxembourg (Prov.)	1276	23	3	3	1317	1	146	1	3	19	47	12
Aarschot	54	101	1	*	35	6	/	/	/	/	2	*
Begijnendijk	22	126	/	/	2	*	/	/	/	/	/	/
Diest	39	95	/	/	5	1	2	*	/	/	19	155
Rotselaar	57	121	/	/	8	14	1	*	/	/	/	/
Zichem	43	86	/	/	10	21	2	*	/	/	1	*
Nassogne	23	19	/	/	26	0	3	0	/	/	/	/
Rochefort	34	27	1	*	14	2	2	*	/	/	2	*
Tellin	12	19	/	/	15	1	/	/	2	*	/	/
Wellin	20	15	/	/	6	0	2	*	/	/	/	/

Table A: Ventes de biens immobiliers (SPF Economie, 2006)

Management and protection agreement

In this case a contract is concluded between the owners and occupants of a site and the administrative authority. It includes the description of work, technical management measures and protection measures which the owners and occupants agree to implement. A financial counterpart can be considered.

In the Walloon Region, the government can give subsidies coming from the Rural development programs. Considering that Rural Development programs run on 7 years, farmers have the obligation to practice a management to mid term, linked to the length of the contract (10 years), without benefitting of the financial guaranties that will allow to ensure this management over 7 years. So there is an interest to link up compensation subsidies (AEM) to the constraint of an active management agreement.

In the Flemish Region, within the area of VEN (Vlaams Ecologish Netwerk – Flemish Ecological Network), natuurverwevings' – areas, the green and forest areas and the areas with similar destinations in the spatial destination plans and within the special protected zones, a nature project agreement can be set up between the Flemish government and private owners or local governments, whereby compensations are reached out for local projects carrying out a "natuurrichtplan", as far as there are no other subsidiary systems for that type of projects. Up to 90 % of the costs can be compensated in case of private ownership (50 % of costs for local governments)

Nature arrangement – Natuurinrichting

Only in Flanders: Nothing found

Permit for intervention in environment

In the Walloon Region, for some actions in environment a permit is needed. The person who wants to make the action ask the permit to the DPA (Division de la Prévention et des Autorisations) territorially competent. For every demand of permit of environment, file rights are:

- 500 € for realization of class 1
- 125 € for realization of class 2
- free for realization of class 3

The case rights are to be paid to the DPA (Division de la Prévention et des Autorisations) territorialy competent. Note that some municipalities can add supplementary costs for file rights.

Added expenses can be:

- acquisition of the cadastral plan (for every requests)
- Obtaining of the opinion of the 'intercommunale' in the case of the reject of dirty industrial water (paying service in some 'intercommunales')
- Obtaining of the cadastral matrix in the case of establishment of class 1, of 'Centres d'enfouissement techniques' and quarries of class 2
- Realization of an incidence survey for establishment of class 1
- Realization of a safety survey for SEVESO establishment

Protection regime

In the Walloon Region, protection regimes are put in place in Natura 2000 sites. For the action of management and conservation, there are some subsidies from the Walloon Region only available for Natura 2000 sites, other are available outside Natura 2000 but are increased in Natura 2000. The subsidies are paid to the contractor.

Classification among categories is as follow:

1. Subsidies only available in Natura 2000 sites

The implementation of measures in this first case requires beforehand adoption of designation decree by Walloon Government to organize exactly this protection regime.

A. Subsidies for management

A. 1. In open zone

A.1. 1 Natura 2000 payment for farmers (Measure 213 from PwDR[75])

From adoption of the designation decree and the signature of the management contract, the agricultural manager will receive the right to a compensation of 100 €/ha/y for parcels with mean Natura 2000 stakes, generally “species habitats” and to a compensation of 200€/ha/y for parcels with strong Natura 2000 stakes, generally “habitats”. These supports can be accumulated with amounts perceived in application of agri-environmental measures.

Budget 2009 for 63 523 ha covered by designation decree =
- 248 164 € WR budget
- 248 164 € PwDR budget

A.1.2 Management of non-agricultural open zones (WR budget)

Here it is the matter of financing real expenses incurred for maintenance (apart from restauration) of communautary interest open non-agricultural habitats (on the base of a previous estimate). These measures, essential to the maintain of the state conservation of habitat, are financed whatever the nature of the property (private, municipal, public establisshemnt, etc…). These measures concern a maximal surface corresponding to 5 % of the Natura 2000 network (grassland, moors, peat-bog). For the 2008 budget, 300 000 € are planned for this measure.

Budget 2009 for 63 523 ha covered by designation decree =
- 317 615 € WR budget

A.2. In forest zone

A.2.1 Natura 2000 payment to foresters (Measure 224 of PwDR)

This measure has the goal to compensate forest private owners possessing more than 5 ha of forest in the Natura 2000 site that is the object of a designation decree adopted by the Walloon Government. The designation decree will impose in particular the respect of 6 general commitments (3 % senescence patches, 2 dead wood per hectare, …). The indemnity is about 40 €/ha/y of leafy forests situated in Natura 2000.

Budget 2009 for 63 523 ha covered by designation decrees =
- 130 730 € WR budget
- 130 730 € PwDR budget

A.2.2 Natura 2000 management agreement in forest (WR budget)

This voluntary measure is for private owner possessing less than 5 ha of forest in the Natura 2000 site that is the object of a designation decree adopted by the Walloon Government. The management agreement commits the owner for the respect of 6 measures mentioned in point A.2.1. The indemnity is about 40 €/ha/y of leafy forests situated in Natura 2000.

Budget 2009 for 63 523 ha covered by designation decrees =
- 80 039 € WR budget

A.2.3 Forest management favorable to biodiversity (WR budget)

[75] PwDR = Plan wallon de Développement Rural

This measure has the goal to allow to forest owners to go beyond the commitments taken in the designation decree. From an amount of 100 €/ha really concerned, the annual compensation has the goal to compensate the loss of earnings for the surfaces established for 'senescence patches' and to 'edges' over the 3 % and the 10 meters in border of the bank ('massif') (commitments going over level base measures). This measure is accessible to forest private owners and public owners. The 2008 budget scheduled for this measure is about 44 000 €.

Budget 2009 for 63 523 ha covered by designation decrees =
- 54 000 € WR budget

B. Subsidies for restoration

B.1. In open zone

- Other Works of restoration (WR budget and eventually LIFE +)

From 2009, it is scheduled to give an annual budget of 1 million € to well conducted restoration programs. This budget could benefit from European supports in the context of invitation to projects Life +, that would double the potential of action.

Budget 2009 for 220 944 ha of Natura 2000 =
- 1 000 000 € WR budget + eventually Life +

B.2. In forest zone

B.2.1 Restoration of 'grasslands', moors and 'valley bottoms' (measure 323 PwDR)

This measure has the goal to finance the restoration of sensitive environment like 'valley bottoms', 'grasslands' and moors. The public intervention is about 100 % of expenses (except for implementation of sheepfold – financing rate of 40 %) in the respect of ceiling and on the base of a previous estimate, of a scientific comment on the pertinence of works and if set up ceilings are not exceeded. The measure is accessible to private individuals, to municipalities and associations. The 2008 budget scheduled for this measure is about 226 000 €.

Budget 2009 for 63 523 ha covered by designation decrees =
- 450 000 € WR budget
- 450 000 € PwDR budget

B.2.2. Other works of restoration (WR budget and eventually Life +)

See measure B. 1 in open zone, also applicable in forest.

2. <u>Subsidies increased in Natura 2000 sites</u>

2.1 Agrienvironmental program (measure 214 of PwDR)

Some measures that are in this program can be voluntary activated by agricultural managers with a positive impact in particular in Natura 2000 sites. Moreover, some of these helps are increased by 20 % in particular in Natura 2000 sites.

2.2 Plantation and maintenance of hedges, orchards and tree lines

The subvention decree newly adopted by the Walloon Government revalues and extends the projects that could be financed in this scope. Moreover, a subprime of 20 % is given in Natura 2000 sites. Furthermore the laying out created can afterwards benefit from support towards maintenance.

<u>River agreement (contrat de rivière)</u>

There are different steps in a rivers agreement. Firstly a preparatory file has to be elaborated. Secondly a study agreement (convention d'étude) has to be elaborated. On the basis of the preparatory file, the Water Division of the DGRNE, in collaboration with the initiator of the project, establishes a project of agreement about the elaboration of a project of rivers agreement.

In a river agreement, there are three management representatives:

- a coordination cell: the authors of the project. One of these people is especially responsible for giving information and doing sensibilization. This cell is also in charge of the daily management of the execution of objectives and manages meetings.
- the river committee composed by parties interested in the realization of the river agreement.
- Administrative assistance: given by the DGRNE.

The need of financing can be divided in four points:

1. The financing of the study agreement: two ways of financing are possible, one inclusive in function of the number of municipalities concerned and the necessary needs and another established in proportion of the number of inhabitants. This financing could be taken in charge by the Walloon Region, the province(s), the municipality(ies) and every other partner willing to support financially the project. The total intervention of the Walloon Region is limited, for the duration of the study agreement (3 years maximum), to the sum of the amount affected by municipalities and provinces, with a maximum amount per year and per 'sub-basin'.
2. The financing of the river committee: to guarantee the follow-up of the execution and the update of the river agreement, the financing of the Committee can be taken in charge by the Walloon Region, the province(s), the municipality(ies) and every other partner willing to support financially the project. The total intervention of the Region is granted for successive periods of 3 years, limited to a maximal period of 12 years. The renewal of subsidies is subordinated to the amounts affected by the municipality(ies) and the province(s). The financing of the updates is preceded by an assessment realized by the administration. This assessment takes into consideration in particular the percentage of actions realized during the previous period. In case of a negative assessment, the Minister can decide to reduce, for a period of time that he determines, the maximum financing.
3. The financing of the program of actions: every signatory take responsibility for the financial expenses for the action in which (s)he is engaged. The regional budget affected to the river agreement is reserved to the implementation of the study agreement and to the management, the assessment and the update, by the river committee, of the execution phase of the commitment in the contract. So, it is up to every signatory to plan the budgets necessary to the implementation of actions. Nevertheless, it is possible to seek a subsidy in the framework of specific regional budgets if a proposal has gained the consensus of the Committee (e.g. works subsidized and extraordinary works in water for municipalities and provinces, subsidies of the DNF, Green week, World day of water, …). It is also usual that the Region intervenes financially for the publication of a leaflet or for the realization of an operation "clean river".
4. Exceptional financing: within the limits of budgetary availabilities, the Minister can decide to enhance by a maximum amount of 25 000 € (Figure of 1999 – to be checked) the ceiling planned for the financing of the study agreement and the river committee to face some exceptional situations.

<u>Species protection plan</u>

Only in Flanders: No information found

<u>Nature reserves</u>

This part is written on the basis of an article written by Colas & Hébert, two scientists working for nature conservation in France. In the scope of a Life environment project, they worked in 2000 on guide of references for the cost of management of open spaces. Results will shortly be presented here.

Two levels of costs could be defined: the apparent cost or *sensu stricto* corresponding to the cost op operation on the field. To this cost has to be added the non-operational expenses of the manager (charges non-opérationnelles du gestionnaire) such as salary of the administrative staff, structure expenses, … We defined then the real cost of the operation. Here we will only see the *sensu stricto* cost with two guidelines: when the work is done by a farmer and not. 230 management operations were analyzed (corresponding to around 25 000 hours of work) and four types of open spaces were taken: the grasslands, the oceanic moors, the water meadows and the bogs and fens, considering four types of work: mowing, grazing, brushwood clearing and tree felling.

Six types of measures will be analyzed:

1. mowing delay
2. mowing of refuse
3. forbidden grazing
4. maintaining of grassy areas
5. forbidden fertilizing
6. Reduction of animal load.

i. Work done by a farmer

In this case, the cost of ecological management corresponds to a marginal cost. It equals the loss of earnings or the surplus due to the production system's adaptation to ecological constraints.

The Table B hereafter presents the assessment of the surplus or the loss of earnings for a farmer in function of the different types of measures.

	Pas de pâturage initial – fauche avec évacuation	Coût de la fauche = temps de travail x coût horaire + coût d'évacuation = temps de travail x coût horaire – Gain de fourrage = rendement x prix du fourrage	82,5 à 210 €/ha
Fauche tardive	Retard de fauche et maintien du nombre de coupes	Coût de la baisse de qualité du foin remplacé par du blé	45 à 150 €/ha
	Réduction du nombre de coupes	Coût de baisse de quantité de foin = rendement x prix du fourrage	79,5 à 94,5 €/ha
Maintien des surfaces en herbes	Maintien de STH à la place de prairies temporaires	Marge brute de la prairie temporaire - Marge brute de la prairie naturelle - coût d'implantation de la temporaire	67,5 à 82,5 €/ha
	Maintien de STH à la place de maïs de fourrage	Marge brute du maïs de fourrage - Marge brute de la prairie naturelle - coût d'implantation du maïs de fourrage	60 à 105 €/ha for the first year of implementation 142,5 à 180 €/ha for the following years

	Maintien de STH à la place de cultures de ventes	Marge brute des cultures de ventes - Marge brute de la prairie naturelle - coût d'implantation des cultures de ventes	0 à 67,5 €/ha
Pas de fertilisation sur prairies	Arrêt de la fertilisation	Coût baisse de quantité de foin = baisse rendement x prix du fourrage - gain sur le poste engrais - gain sur le poste mécanisation	39 €/ha
	Réorganisation du plan de pâturage	Temps de travail supplémentaire	10,5 à 18 €/ha for a additional rotation
	Retrait partiel des animaux excédentaires	Coût alimentaire/UGB/jour x baisse de chargement x nombre de jours de retrait	0,6 à 1,05 €/UGB/day
Diminution du chargement de bétail	Retrait complet des animaux excédentaires	Perte de marge brute par UGB retiré	300 à 450 €/UGB/an

Table B : Assessment of the surplus or the loss of earnings for a farmer in function of the different measures (Colas & Hébert, 2000).

Every measure was assessed in the same way. We can see that the induced cost is relatively low and often less then 152 €/ha with a mean situated between 30 and 122 €/ha. The maintenance by farmers is quite meaningful to promote because it allows the maintenance of a strong rural economic structure.

ii. Work done in non agricultural context

In this case, the cost of management *sensu stricto* equals the global cost of the operation realized on the field, so hourly cost multiplied by time of work. Here the cost depends a lot of works accomplished and the conditions on the field (humidity, …).

For mechanized operations, standardizing the hourly cost of intervention (salary of technician fixed at 10,5 €/hour and the cost of material fixed with a scale), costs can vary from 152 €/ha in the best conditions to more than 2134 €/ha for the longer operations (manual mowing of peat-bog for example). We have a mean of the intervention cost between 460 and 760 €/ha. Considering the mean costs observed during experiences, manual works are generally less expensive due to a low human salary cost (work of volunteers). As works are not performed yearly, the previous costs have to be annualized. We get a yearly cost of management comprised between 152 and 305 € per hectare. This cost is a little bit higher for flooding meadows with a strong vegetal dynamic (need to be more often mowed). When we have a good management on the site, the management can be reduced to mow and clear (débroussailler) – for moor e.g.. The cost of management amounts then to the cost of mowing namely 100 €/ha/year. In table C, we can see the annualized management costs per type of field and level of mechanization.

		Coûts annuels observés en €/ha/an		
		Tout manuel	**Tout agricole**	**Tout spécialisé**
Landes océaniques	Abattage Débroussaillge Fauche	35,4 51,9 84,6	35,4 65,25 58,35	70,35 66,15 75,6
		171,9	**159**	**212,1**
Pelouses	Abattage Débroussaillge Fauche	35,4 44,55 96,75	35,4 61,5 88,5	70,35 66,15 75,6
		176,55	**185,25**	**212,1**
Prairies inondables	Abattage Débroussaillge	35,4 64,8	35,4 26,55	70,35 82,65

	Fauche	338,1	122,1	302,1
		438,3	**184,05**	**455,1**
Tourbières-Bas marais	Abattage Débroussaillge Fauche	35,4 51,9 179,7	35,4 21,3 45,75	70,35 66,15 113,25
		266,85	**102,45**	**249,75**

Table C: Annualized management costs per type of field and level of mechanization (Colas & Hébert, 2000).

For grazing, there is a strong variability of costs due to various contexts and the type of herd watching. For animals conducted in fixed fence, if we take the minimum salary and taking into account the different intermediary expenses (care, fodder, ..) the mean cost is around 152 €/ha. The mean income is around 53 €/ha (selling animals alive or in the meat network) and hence we have a mean cost of management of around 100 €/ha. For itinerant pasture with a shepherd, the cost is more expensive. Nevertheless, this type of management lead on dry land has a return of 3 to 5 years. This implies same annualized management costs than fixed pasturing. The sample analyzed by Colas & Hébert shows that the case of fixed pasture with a light monitoring can be self-sufficient financially (for that the manager has to be in a short economic network of selling of supernumerary animals).

We also need to be careful when buying some material. The time percentage of use during a year and the necessity of reporting have to be considered. Financially, it is interesting to mechanize internally recurrent works and to work with firm for more occasional works.

In the Walloon Region Nature reserves are manage by the regional Government. So the Walloon Region will pay for the management actions and either the Region will do the actions of management itself or it will pay others to do actions.

Deduction of succession rights on natural assets

The deduction of succession rights on natural assets is only due in the Walloon Region. In this case it is a loss of earnings for Public authorities (exonération des droits de succession accordée pour les biens immobiliers situés en Natura 2000).

For the Walloon Region, loss of fiscal receipts (on forests) are as follow :

- in 2007 = 0 €
- in 2008 = 683 000 €
- in 2009 = 719 000 €

For figures of the Walloon Region, rights of succession for cultural land have to be added. Normally, this loss will take effect when the designation decree will be published. As up to now, no designation decree has been published, the loss of earnings equals 0 €.

Labels

The development of the Natura 2000 network asks for new transversal competences to implement this integrated strategy of nature resources management. The promotion of socio-economic benefits linked to the application of the Community legislation must allow giving a new dynamic to the Natura 2000 approach.

Labellisation of activities, services and products from Natura 2000 sites constitutes a considerable stake for the local development of collectivities concerned by Zones of Special Protection and Special Zones of Conservation. It is a guarantee of the territory visibility and activities it supports; labels have the essential mission to translate economically the synergy between the quality of a natural space and the quality of products that come from there, when the territory becomes soil ('terroir').

Depending from the brand or the label, it is created to the initiative of public authority, at a national or international level. The goals are to guide consumers towards products more respectable of environment and to encourage producers to enhance the ecological quality of their products.

For each label there are some constraints to respect but having a label allow environment protection and economic profitability of producers, foresters or farmers. Moreover it allows developing the tourism sector. It is difficult to evaluate the cost of implementation of a label (supported by the claimant), it will depend if it is the labellisation of a product, a service or an activity. However that may be, it could be a good opportunity for nature conservation and also for stakeholders on the field.

Life Nature

LIFE is the EU's financial instrument supporting environmental and nature conservation projects throughout the EU (as well as in some candidate, acceding and neighboring countries). Since 1992, LIFE has co-financed some 2,750 projects, contributing approximately €1.35 billion to the protection of the environment.

The data collected by the LIFE projects render it possible to extrapolate the financial requirements of Natura 2000 through two different approaches:

1. either starting from the per hectare management costs for each habitat and species
2. or from the average cost of projects per site.

It is not easy to make assessments based on the first approach due to the fact that many sites habitats are arrayed in a mosaic or overlap each other; there is a wide range of managers and human activities are integrated on the sites. Nevertheless, this method was used to assess the cost of managing natural habitats of a few LIFE projects.

If we assess costs by the second approach, we have to take into account the differences in ecological, cultural and historical, even economic, factors from one Member State to another with regard to nature conservation. We could present three examples to illustrate this phenomenon and its impact (European Commission, 2003):

1. Member State do not all deal with the notion of buffer zones in the same way in their proposition of sites. Moreover, the extent of the sites' surface area is determined by the ecological characteristics of the Natura 2000 sites. Some members State average surface area of sites are from 1000 to 2000 hectars (Italy, Ireland and Sweden) while others are near 10 000 hectars (Spain, Greece and Portugal). The variation of sites' size has direct consequences for the modes of operation in LIFE projects and the management costs per site. Nevertheless, as over half of the sites have a surface area of 500ha or less, this unit of dimension could provide a baseline for assessment.
2. From one Member State to another, nature conservation is more or less decentralized. The management of terrains can be organized in different ways, either by the state or it may depend on private initiatives (NGOs or others). The participation of civil servants in LIFE projects is not always taken into consideration in the same way.
3. The price of land varies considerably in Europe, even within a single Member State, depending on the local real estate market.

Data must be interpreted prudently, nevertheless it is possible to make an assessment of the overall cost of the Natura 2000 network starting from:

- the total cost of projects and their average cost per Member State
- the average breakdown between the various categories of expenditure in LIFE projects.

The average cost of LIFE-Nature projects by country: The average annual management costs are relatively homogeneous and in the neighborhood of 400 000 € for around ten Member States. […] An ideal assessment of Natura 2000's overall financial requirements starting from the average cost of LIFE projects should be based on real costs and on comparable basic data (surface area of projects, type of cost taken into consideration, etc.). As these data have not been compiled, the assessment was made using a restricted sample of projects[76]. The average duration of these projects is 3,83 years and their average annual budget is 358 002 € (European Commission, 2003).

[76] Only the 212 projects which presented the least methodological problems were chosen for analysis. They only related to a single Natura 2000 site, were oriented towards site management (NA1 and NA2 projects categories) and were neither dominated by land acquisition nor were projects focusing on methodology development.

In the Table D below, we can see the variation of costs from one Member State to another:

Country	Number of projects	Average cost projects in euros	Average duration in years	Average cost of projects in euros/year
Ireland	6	3 199 685	3,4	941 084
Austria	20	2 920 227	3,9	748 776
The Netherlands	8	2 845 597	5,2	547 230
Sweden	18	2 679 525	4	669 881
Luxembourg	2	2 166 762	4,2	515 896
United Kingdom	30	2 120 140	3,8	557 932
Denmark	8	2 051 281	4	512 820
Germany	48	1 788 573	3,9	458 608
France	55	1 616 962	3,9	414 606
Finland	30	1 554 733	3,7	420 198
Belgium	20	1 430 715	4	357 679
Spain	89	1 373 569	3,8	361 466
Greece	29	1 346 771	3,2	420 866
Portugal	36	876 715	3,3	265 671
Italy	114	803 168	3,3	243 384

Table D: Average cost in euros of LIFE-Nature projects by country (European Commission, 2003).

The major categories of expenditure under LIFE-Nature: The European Commission has defined in 1994 a standardized classification of the major categories of activities conducted under LIFE-Nature. Seven categories were defined:

1. Elaboration of management plans and preparatory actions
2. Acquisition of land and use rights
3. Non-recurring management
4. Recurring biotope management
5. Public awareness and dissemination of results
6. Project coordination
7. Miscellaneous (in 1995 and 1996 only).

The financial monitoring of LIFE projects allowed the average breakdown of costs per category of measures to be determined in the sample of 212 projects. In Table E, which illustrates the breakdown of costs by category, the considerable weight of land acquisition and of one-off restoration or biotope investment works, each representing around one third of the total cost, is noteworthy. On the other hand, the percentages for recurring habitat management and for information and awareness work are quite low.

The estimate of the overall cost of Natura 2000 has been broken down into various components, using their average breakdown in the sample of LIFE projects. The total cost of the Natura 2000 network by category of activity is estimated by multiplying the average costs per site by the number of sites in the Natura 2000 network (around 18 000).

Category	%	Total for 1 site	Total for the network	Nature of cost
A. Elaboration of management plans and preparatory actions	7,16	25 633	461 392 978	Annual/Investment
B. Acquisition of land and use rights	30,18	108 045	1 944 810 065	Investment
C. Non-recurring management	35,3	126 375	2 274 744 708	Investment
D. Recurring biotope management	7,61	27 244	490 391 140	Annual
E. Public awareness and dissemination of results	6,73	24 094	433 683 623	Annual/Investment
F. Project coordination	12,59	45 072	811 304 132	Annual/Investment
G. Miscellaneous	0,43	1 539	27 709 355	Annual/Investment
Total	**100**	**358 002**	**6 444 036 001**	

Pure investment costs			4 219 554 773	
Annual costs			490 391 140	
Mixed costs			1 734 090 088	

Table E: Total cost, by category of activity, of the Natura 2000 network (European Commission, 2003)

Beside the overall figure, the main conclusion is the dissociation of investments costs, the highest, from the operating costs. The pure investment costs (restoration, land acquisition) represent 4 200 millions € out of the total 6 400. Conversely, annual maintenance costs only account for 500 millions € and part of the 1 700 million € mixed costs.

A considerable financial effort must be made during the network's start-up period. One of the advantages of LIFE, and of LEADER, for that matter, is its capability of mobilizing local stakeholders around a project. This notion of a project defined and shared by local stakeholders is to be found in most LIFE projects, even if the scope of the work did not always cover the whole of the Natura 2000 site in question.

LIFE-Nature projects can play an important catalyzing role on account of their advantages:

- Integration of diverse components into the same projects (studies, management plans, management, information).
- Pump-priming funding to implement appropriate long-term measures.
- Network effect.
- Dissemination of experience and demonstration effect.
- Maintenance and development of a quality network associations.

Information campaign and education programs

The choice of the strategy will determine costs: we have to define the public and the objectives.

There is a lot of information around nature conservation at very different levels: Natura 2000 does not enter in the concerns of people. N2000 schedules actions in the long term and people need things immediately!

We don't have to think <u>for</u> people but <u>with</u> people. To act, people have to know that they are not the only one who made things. We have to create a link to value people in their behavior; we have to put people in project. We have to convince people that everybody acts and that individual actions have an impact!

Question of money and budget is difficult: human energy costs a lot (at least ¾ of the cost of the project). Moreover, in the case of Natura 2000, the general public is not the first target but rather actors on the field like foresters and farmers. These people are yet in a lot of paper so we need to implement a work of relation.

After this analysis we can draw some teachings from the Life Focus *Life for Natura 2000* (European Commission, 2003). It is said that "some economic activities, in particular tourism and public access, educational activities and products with quality labels, could contribute to the financing of the network, but even if all the benefits of conservation are brought to bear, the totality of nature conservation activities cannot always be exploited economically. On the other hand some economic activities, if they are managed well, can be favorable, even vital, for the conservation of habitats and species. These are principally farming, forestry and some hydraulic installations. The integration of policies and the funds which support them (…), requires that these particular aspects be taken into account".

Moreover, the Working group on Article 8 of the "Habitats" directive presents three main options that have to be examined for securing future co-financing for Natura 2000 (European Commission, 2003):
- Option 1: Using existing EU funds, notably Rural Development Regulation of the Common Agricultural Policy (CAP), Structural and Cohesion Funds and the LIFE-Nature instruments, but modifying these in order to ensure better delivery against Natura 2000 needs;
- Option 2: Enlarging and modifying the LIFE-Nature instrument to serve as the primary delivery mechanism; or

- Option 3: Creating a new funding instrument dedicated to Natura 2000.

Bibliography

- Colas S. & Hébert M., *Le coût de la gestion courante des principaux milieux naturels ouverts*, Le Courrier de l'environnement, n° 39, février 2000 (http://www.inra.fr/dpenv/colasc39.htm).
- Commission européenne, *LIFE Focus / LIFE pour Natura 2000 : 10 ans d'application du règlement*, Luxembourg : Office des publications officielles des Communautés européennes, 2003.
- Conservatoire des Espaces Naturels du Languedoc-Roussillon, *Labels et Natura 2000, Du Territoire au Terroir : évaluation des opportunités de labellisation des sites applicables en Languedoc-Roussillon. Résultats de l'étude*, France, 2006.
- Ellouze S. & Vergauwe J.-P., *Les droits du propriétaire en cas d'expropriation*, DroitBelge.net, 31/03/2008.
- European Commission, *LIFE Focus / LIFE for Natura 2000 : 10 years of application of rules*, Luxembourg: Office des publications officielles des Cummunautés européennes, 2003.
- Henrard G., *Contribution méthodologique à la mise au point d'une étude d'impact sur l'environnement dans le cadre du remembrement légal des biens ruraux*, Louvain-la-Neuve, 2001 (mémoire de licence, inédit).
- Katholieke Hogeschool Leuven, *Economic valuation of nature reserves. Case-study : Meldertbos*, BEED 2008, 29/02/2008.
- Ministère de la Région wallonne, *Note au gouvernement wallon, Objet : Information relative au financement de la mise en œuvre de Natura 2000 en Région wallonne entre 2007 et 2009*, Namur, juillet 2007.
- Ministère de la Région Wallonne, *Tout savoir sur les Contrats de rivière…*, Farde publiée sous le cabinet Happart (Ministre de l'Agriculture et de la Ruralité).
- SPF Économie – Direction générale Statistique et Information économique, *Ventes de biens immobiliers (2006)*, site Internet Ecodata.

Internet
- http://ec.europa.eu/environment/life/ (consulted July 2008)
- http://www.droitbelge.be/news_detail.asp?id=458 (consulted in July 2008)
- http://www.notaire.be/info/acheter/959_generalites_expropriations.htm (consulted in July 2008)
- http://www.inra.fr/dpenv/colasc39.htm (consulted in July 2008)
- http://www.permisenvironnement.be/ (consulted in August 2008)

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4.3.4 Scientific

See Excel file

Agri-environmental Schemes (AES)

Agricultural intensification is widely accepted to be the cause of decline of many wildlife and plant populations. Reforms of the European Common Agricultural Policy to reduce subsidies and concerns over widespread loss of biodiversity lead to the introduction of agri-environmental measurements. Agri-environmental schemes (AES) aim to reduce the environmental impact of agriculture by paying farmers to alter their management practices in an attempt to enhance the biodiversity of the area. In literature, the effectivity of AES is however disputed. Although some positive calls in literature do exist, among others concerning amphibians (Maes *et al.* 2008) and soil macrofauna (Smith *et al.* 2008), many research papers indicate that so far, the positive effects of AES appear to be limited (Kleijn *et al.* 1999, Kleijn *et al.* 2001, Berendse *et al.* 2004, Kleijn *et al.* 2004, Feehana *et al.* 2005). Management prescriptions that have proven to be effective under experimental conditions do not have the desired effects or even have unexpected adverse side-effects when implemented on farms (Kleijn *et al.* 2001, Willems *et al.* 2004, Konvicka *et al.* 2007, Reid *et al.* 2007). Certainly for endagered (target) species, the results of AES seem to be insufficient (Kleijn *et al.* 2006, Reid *et al.* 2007).
Concerning the conservation of bird species, for which most research on AES-effectivity is carried out, the results found in literature are often mixed. Most of the time, positive and negative effects of AES on bird populations are found together. However, in many cases these researches found place on one particular moment in time, comparing area's with and without AES. The influence of other factors on bird population densities can therefore not be excluded. Studies actually comparing the results before and after the implementation of AES on the same terrain do not seem to speak in the advantage of the AES-concept (Sanders *et al.* 2003). In global, the research results show that severe doubts concerning the effectivity of AES for bird species arise (Dochy & Hens 2005, Melman *et al.* 2004, Melman *et al.* 2006, Willems *et al.* 2004, Steurbaut *et al.* 2005, Wilsona *et al.* 2007).
Also for plant species, the results of AES are below expectations, according to a study of the Wageningen university (Melman *et al.* 2007). This study claimed that the higher the nature conservation goals were set at the beginning of the agreement between farmer and government, the more species were found and the higher the value of the species composition. However, new and special species merely showed up, despite measures as weathening and nutrient removal. Thus, although it seems that AES might contribute to the conservation of ecological values, they do not seem to contribute to their development.
In Flanders, as in most countries, there is a severe lack of knowledge concerning the effects of the applied AES (Dochy & Hens 2005, Dumortier *et al.* 2005, Dumortier *et al.* 2007). Examples of succesfull AES exist, where they are accompagnied by a well elaborated species protection plan (Hens, 2005). Nevertheless, one is more and more convinced that the Flemish policy does not yet succeed in reconciling the nature and agricultural goals (Gysels 2003, Dochy & Hens 2005).

Why do AES tend to fail?

Numerous reasons might exist why AES miss their presumed effects. Probably, part of the explanation is to be found in the fact that **certain important supporting measures** – e.g. increasing the ground water level for wader species (Willems *et al.* 2004, Verhulst *et al.* 2007) - are not carried out because they tend to impede the normal agricultural management too much (Willems *et al.* 2004). Furthermore, when **general habitat factors** are subject to unfavourable developments (such as the lowering of water tables or the decline of the open landscape by urbanisation and afforestation), the effectiveness of a substantial part of the management activities is likely to be reduced (Melman *et al.* 2004). Another important issue is the fact that **what might be good for one species, might work in an opposite direction for another species** (Willems *et al.* 2004, Konvicka *et al.* 2007, Reid *et al.* 2007, Olson & Wackers 2007). Also the current link between **conservation research and policy** might form a problem. Conservation policy is often informed by research but, once a policy is formed, the process may take some time to be reviewed and if necessary adapted (Whittingham 2007).

The last few years, more and more warnings arise that the current application of AES **does not sufficiently consider landscape effects** on the effectiveness of the measures. The long-term sustainability of ecosystems and their services depend on the conservation of biodiversity at a landscape scale (Bengtsson *et al.* 2003, Swift *et al.* 2004, Tscharntke *et al.* 2005). When

recolonization sources disappear, the dominant population process in dynamic landscapes is extinction (Picket & Thompson 1978 in Tscharntke *et al.* 2005). Therefore, agricultural landscapes must provide a mosaic of well connected early and late successional habitats, in order to create the ability for species to recover from disturbances (Bengtsson *et al.* 2003). Nevertheless, AES are constrained to be applied mostly at field scales because they are based on voluntary agreements with landowners, a fact that strongly limits its potential for increasing landscape complexity. The conclusions of the review of Whittingam (2007) about AES can be seen in the scope of the missing landscape aspect of most measures. In this review, Whittingham distinguishes three main reasons why AES fail to benefit biodiversity substantially. First, the fact that **the effect of environmental resource provision to small patches of land by means of AES is not easy to predict**. On the one hand, species require multiple environmental resources when breeding. For example, providing a section of hedge 50 m long may be important for many nesting birds but, if suitable resources for foraging nearby are insufficient, then the hedgerow may be of little value for birds. On the other hand, the distance between environmental resource provision and source breeding populations may be of great importance. It is doubtfull that an isolated hedgerow or weed-rich grass margin created under an AES attract many birds, invertebrates and plants if the nearest breeding individual or population is at a considerable distance. Second, AES are likely to be most effective when applied to areas in which target species occur. However, they are **sometimes placed in areas where the target species is absent**, with the intent of improving conditions necessary for the return of the target species. It is not unthinkable that in these situations, AES have little or no effect on species abundance. Last, but not least, **an underlying assumption of AES is that they will have similar effects on target species across the area at which the scheme is applied.** This assumption is however uncertain and good predictors derived from sites in one geographical region sometimes tend to have little or no predictive value when applied in other areas (Whittingham *et al.* 2007).

Of course, besides all the factors mentioned above, the **motivation and expertise of the farmers** play a crucial role in the succes or failure of AES. As the primary concern of farmers is to secure an income, nature conservation will be of secondary importance to them, and therefore will be fitted into a farming system that, owing to economic pressure, is still increasing in intensity (Kleijn *et al.* 2001, Folmer & Heijman 2006). Most farmers lack the knowledge to judge in what way measures taken to improve the economic position of their farm (such as lowering the groundwater table) may interfere with nature conservation measures that are taken concurrently. Above that, the fact that farmers cannot be forced to participate in AES leads to a fragmentated application of the measures (Folmer & Heijman 2006), which might decrease their effectivity, as mentioned above. Furthermore, as AES are set up for a limited period, the necessary continuity in ecological management is always in danger (Folmer & Heijman 2006).

Recommendations

Evaluation research

First of all, concerning the serious lack of knowledge, a lot of research effort should go to the evaluation of AES. Between 1992 and 2003, approximately 24 billion € was spend on AES in the 15 countries in the EU alone (Kleijn *et al.* 2004). Taking these expenses into account, it is quite astonishing that so few evaluation projects are set up. In the future, ecological evaluations must become an integral part of any scheme. An analysis of the areas where AES seem to have a positive effect should help to give a better understanding of the do's and don'ts of these measures. Furthermore, results of these studies should be collected and disseminated more widely (Kleijn *et al.* 2004).

Landscape & connectivity

Spatial connectivity is often a necessary condition for gains in nature conservation. This explains to an important extent why creating the appropriate habitat conditions on the parcel level not always leads to the expected results. The revenue only arises when farmers not only create the good environmental conditions by means of a carefull management, but also cooperate on the landscape level. Areal contracts are thus much more preferable than contracts which are set up with individual farmers, and Environmental Coöperatives offer a great opportunity to realise them.

On the basis of the effects of landscape complexity on landscape-scale species pool sizes, Tscharntke *et al.* (2005) predict that in low-diversity agricultural landscapes, local allocation of habitat is more important than in complex ones. Concepcion *et al.* (2007) claim that AES would be most effective at intermediate levels of landscape complexity, and that effectiveness for improving biodiversity should decrease towards zero in either simpler or more complex landscapes. In either way, it is clear that AES need to take the landscape component of the ecosystem into account. There is little doubt that, in order to maintain ecosystem services and biodiversity outside nature conservation areas, promoting diversity of land-use at the landscape and farm scale (rather than at the field scale) has to be targeted (Swift *et al.* 2004, Bennet *et al.* 2006, Concepcion *et al.* 2007). AES are more likely to increase biodiversity if a lower number of larger resource patches are provided. While current practice promotes many small fragmented areas of environmental resource, a better approach is to run these schemes more like traditional protected area schemes. Hereby, whole farms or groups of farms are to be managed using extensive farming methods, rather then the fragmentated application of measures from nowadays (Melman *et al.* 2004, Wittingham 2007). Concepcion *et al.* (2007) even state that compulsory measures applied across the whole countryside rather than voluntary measures applied at field scales appear to be a necessity to enhance the necessary landscape complexity-and with it biodiversity- in agricultural landscapes. This requires, however, an economical and political climate that favours diversification in land uses and diversity among land users (Swift *et al.* 2004). Furthermore, as species patterns of habitat association vary on a regional basis, AES options targeted at a regional scale are more likely to yield beneficial results than options applied uniformly in national schemes (Melman *et al.* 2004, Wittingham *et al.* 2007). The most costeffective approach may be to use AES themselves as the basis for trialling management options across multiple locations, and adapting recommended management as necessary in the light of population response (Wittingham *et al.* 2007).

One of the main instruments to make sure AES are being adopted at regional scales instead of at field level might be the establishment of Environmental Coöperatives (EC), according to Dutch example (Agrarische Natuurverenigingen)[77]. EC are local organisations of farmers and often non-farmers who work in close collaboration with each other and with local, regional and national agencies to integrate nature management into farming practices. This happens by means of coördinated action between neighbouring landowners and by using an approach that is based on a regional perspective. Each EC emphasizes locality and context in its various activities. The main factor of EC is the fact that it enables government agencies to form contracts and nature conservation agreements with groups of land owners in stead of individuals. Therefore, these agreements go across land ownership boundaries and can be adopted to natural features and geographical boundaries. This way, the improvement of habitat connectivity and the management of habitat edges is much more realistic. An evaluation of the EC made by the Dutch advisory institution CLM points out that the EC's make more effort to increase the effectivity of agraricultural nature conservation (Oerlemans et al. 2006). EC support many activities: giving information and assistance towards farmers concerning the applications to AES, organising training sessions in nature conservation, realising joinst-submission AES, providing advice and expertise towards its members and the uptake of new rural development initiatives which gives rise to opportunities that would have been impossible without collective action. The benefits to farmer and non- farmer members, as well as the government and the regional economy can be important, as described by Franks & Mc Gloin (2007).

High-quality habitats

The effectiveness of conservation management may also be improved by scheme implementation near high-quality habitats that can act as a source of species (Duelli & Obrist 2002, Kohler *et al.* 2008). In intensively farmed areas, remnant high-quality habitats do enhance biodiversity on nearby farmland but increases are spatially restricted and relatively small. Therefore, these habitats may function only as dispersal sources for ecological restoration sites or agricultural fields under extensification schemes that are located in close proximity. Habitat restoration in intensively used farmland should thus be implemented preferentially in the immediate vicinity of high-quality habitats, according to the authors.

[77] In october 2008, a European project (Eco²-project) is about to start in Flanders to establish a Flemish variant of the dutch EC's. Local groups of farmers that want to coöperate for nature and landscape management in a certain area are to form "Agro-management-groups" (Agro-beheersgroepen). At the moment, there are however some legislative issues, as collective contracts cannot yet be used for AES.

One effective way of realizing this is by means of Infield Nature Protection Spots (INPS). This approach uses set aside land (a compulsory measure in the Commun Agricultural Policy of Europe) to create nature conservation spots on agricultural terrains. Areas with extreme conditions (which are often considered to be low yield areas) and parts of fields adjacent to biotopes lent themselves for such purposes (Berger *et al.* 2003). This way, a real improvement for wildlife in arable landscapes should occur (Berger *et al.* 2003, Van Buskirk & Willi 2004, Berger *et al.* 2006), while little or no economic side-effects for the farmers arise (Berger *et al.* 2003, Berger *et al.* 2006). However, despite warnings from ecologists, recent developments in the agricultural policy tend to abolish the set aside measures due to the current food crisis. This of course, puts severe limits on the opportunities for nature conservation in agricultural areas.

Participation

When it comes to participation, without any doubt, the financial benefit is the most important reason for farmers to participate in on-farm nature conservation schemes. However, the preservation of nature also plays an important role in the decision to participate or not (Morris *et al.* 2000, Leneman & Graveland 2004, Toogood *et al.* 2004, Berentsen *et al.* 2007). According to the Nature Report (Natuurrapport) 2007 of the Flemish government (Dumortier *et al.* 2007), none of the AES which specifically aim the conservation, development and restoration of agricultural species and communities were taken up sufficiently to reach the surface goals. The participation rate of the Flemish farmers is thus succeptible for improvement. To realise this improvement, one must tackle the different reasons why farmers might recoil from taking the challenge of an AES.

A first point of conflict is the administrative overload which is often experienced by farmers who take up AES. Recently, the Dutch newspaper NRC Handelsblad wrote that in the Netherlands, the subsidy system for nature conservation is so bureaucratic that many farmers drop out. After the first period of 6 years, one thirth of the farmers has quit the agricultural nature conservation. Farmers and nature conservators were forced to pay back 7,6 billion € of subsidies in the last three years. On top of that came around 2 billion € of fines. In one case out of ten, nature developped insufficiently without the farmer being responsible for it. One penalised farmer out of three made a management mistake, often not on purpose but because of unlogical prescriptions. Melman *et al.* (2007) also found that many Dutch farmers were penalised because nature development goals were not achieved, although the farmer had taken the management measures that were agreed. These Dutch examples clearly illustrate what is concluded in scientific studies concerning farmers uptake of AES. The major disadvantage of participating in on-farm nature conservation seems to be the huge amount of administrative tasks and the lack of transparency and continuity in the regulations. Non-transparent regulations and a lack of continuity in the regulations negatively influence the opinion of farmers about on-farm nature conservation (Morris *et al.* 2000, Leneman & Graveland 2004, Reheul & Vandenabeele 2004, Berentsen *et al.* 2007). Besides that, farmers often feel that they are being curtailed in their entrepreneurship. In many cases, farmers want to participate in on-farm nature conservation but they want minimal governmental interference (Morris *et al.* 2000, Lütz & Bastian 2002, MIRA-be 2005, Berentsen *et al.* 2007). Also, a misperception of AES forms an important barrier towards their implementation. Often, farmers associate agri-environmental measures with a reduction in yields and food production (Lütz & Bastian 2002).
Poor communication and insufficient information towards farmers is without any doubt a major obstacle for a healthy relationschip between farmers and AES (Morris *et al.* 2000, Toogood *et al.* 2004). A better use of mass media and generic literature is relevant to the creation of awareness by farmers, but personal contact and demonstration are critical to actually make farmers decide to join AES (Morris *et al.* 2000). Further, more effort should be put in the training and education of the farmers. More and improved educational programmes would increase farmers conservation-oriented attitudes and their identification with the environmental goals of the scheme (Wilson & Hart 2001). These remarks reiterate the potential of EC, and in effect, according to Franks & Mc Gloin (2007), an important contribution of the EC is their positive influence on participation rates. The interactive approach seems to be vital to increase farmers willingness to accept AES. Involving the farmer more actively in every aspect of AES creates a better attitute and understanding of farmers towards ecological farming. For example, Opperman (2003) studied a self-test method to measure biodiversity and ecological benefit of farms, that was developped under coöperation of farmers and agri-environment experts. This scheme uses 47 different indicators divided into four sectors (biodiversity-structural richness, biodiversity-species richness, farm management, and field management) to record the ecological richness and benefits of farms, especially in the field of biodiversity and cultural

landscape issues. Farmers can perform the assessment themselves and after the assesment, an evaluation can easily be made in form of a nature balance scheme. The presented nature balance scheme is based on a 100-point target system revealing ecological benefits as well as shortcomings of the farms. The results of the study showed that the method works well and farmers become aware of the ecological situation of their farms. ***Still to receive and use: thesis-research about AES participation in Flanders (Katrien Delaet)***

References

Bengtsson, J., Angelstam, P., Elmqvist, T., Emanuelsson, U., Folke, C., Ihse, M., Moberg, F., Nyström, M., 2003, Reserves, resilience and dynamic landscapes, Ambio 32: 6

Bennet, A. F., Radford, J. Q., Haslem, A., 2006, Properties of land mosaics: implications for nature conservation in agricultural environments, Biological Conservation 133: 250-264

Berendse, F., Chamberlain, D., Kleijn, D., Schekkerman, H., 2004, Declining Biodiversity in Agricultural Landscapes and the Effectiveness of Agri-environment Schemes, Ambio 33 (8): 499 - 502

Berentsen, P. B. M., Hendriksen, A., Heijmanc, W. J. M., van Vlokhoven, H. A., 2007, Costs and benefits of on-farm nature conservation, Ecological Economics, 62: 571-579

Berger, G., Pfeffer, H., Kächele, H., Andreas, S., Hoffmann, J., 2003, Nature protection in agricultural landscapes by setting aside unproductive areas and ecotones within arable fields ("Infield Nature Protection Spots"), Journal for Nature Conservation, 11: 221-233

Berger, G., Kächele, H., Pfeffer, H., 2006, The greening of the European common agricultural policy by linking the European-wide obligation of set-aside with voluntary agri-environmental measures on a regional scale, Environmenatl science & policy, 9: 509-524

Cliquet, A., Van Hoorick, G., Lambrecht, J., Bogaert, D., 2005, Gebiedsgericht natuurbeleid: operationalisering en uitvoering van de Vogelrichtlijn en Habitatrichtlijn. Onderzoeksrapport MIRA-BE 2005. Vlaamse Milieumaatschappij, Aalst, 65 p.

Concepcion, E. D., Diaz, M., Baquero, R. A., 2008, Effects of landscape complexity on the ecological effectiveness of agri-environment schemes, Landscape Ecology, 23: 135-148

Dochy, O., Hens, M., 2005. Van de stakkers van de akkers naar de helden van de velden. Beschermingsmaatregelen voor akkervogels, Rapport IN.R.2005.01, Instituut voor Natuurbehoud, Brussel i.s.m. provinciebestuur West-Vlaanderen, Brugge.

Duelli, P., Obrist, M. K., 2003, Regional biodiversity in an agricultural landscape : the contribution of semintural habitat islands, Basic applied ecology, 4 : 129-138

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., Weyembergh, G., Kuijken, E., 2005, Natuurrapport 2005. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 496 p.

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., 2007, Natuurrapport 2007. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 335 p.

Feehana, J., Gillmor, D. A., Culleton, N., 2005, Effects of an agri-environment scheme on farmland biodiversity in Ireland, Agriculture systems and environment, 107: 275–286

Folmer, H., Heijman, W., 2006, Natuur niet gebaat bij agrarisch natuurbeheer, ESB, 91: 4484

Franks, J. R., Mc Gloin, A. 2007, Environmental co-operatives as instruments for delivering across-farm environmental and rural policy objectives: lessons for the UK, Journal of Rural Studies, 23: 472-489

Gysels, J., 2003, Agrarisch natuurbeheer in Vlaanderen: beleid en praktijk, Natuur.focus, 2(1): 30-36

Hens M. (2005) Landbouw. In: Dumortier M. et al. (red.) (2005) Natuurrapport 2005. Toestand van de natuur in Vlaanderen: cijfers voor het beleid. Mededeling van het Instituut voor Natuurbehoud nr. 24, Brussel, 259-267.

Holzschuh, A., Steffan-Dewenter, I., Kleijn, D., Tscharntke, T., 2007, Diversity of flower-visiting bees in cereal fields: effects of farming system, landscape composition and regional context, Journal of Applied Ecology, 44: 41–49

Kleijn, D., Boekhoff, M., Ottburg, F., Gleichman, M., Berendse F., 1999, De effectiviteit van agrarisch natuurbeheer, Landschap 16 (4): 227-235

Kleijn, D., Berendse, F., Smit, R., Gilissen, N., 2001, Agri-environment schemes do not effectively protect biodiversity in Dutch agricultural landscapes, Nature 413: 723-725

Kleijn, D., Berendse, F., Smit, R., Gilissen, N., Smit, J., Brak, B., Groeneveld, R.A., 2004, The ecological effectiveness of agri-environment schemes in different agricultural landscapes in The Netherlands, Conservation Biology 18 (3): 775 - 786

Kleijn, D., Baquero, R. A., Clough, Y., Diaz, M., De Esteban, J., Fernandez, F., Gabriel, D., Herzog, F., Holzschuh, A., Jöhl, R., Knop, E., Kruess, A., Marshall, E. J. P., Steffan-Dewenter, I., Tscharntke, T., Verhulst, J., West, T. M., Yela, J. L., 2006, Mixed biodiversity benefits of agri-environment schemes in five European countries, Ecology Letters, 9: 243-254

Kohler, F., Verhulst, J., van Klink, R., Kleijn, D., 2008, At what spatial scale do high-quality habitats enhance the diversity of forbs ad pollinators in intensively farmed landscapes?, Journal of applied ecology, 45 (3): 753-762

Konvicka, M., Benes, J., Cizek, O., Kopecek, F., Konvicka, O., Vitaz, L., 2007, How too much care kills species: Grassland reserves, agri-environmental schemes and extinction of Colias myrmidone (Lepidoptera: Pieridae) from its former stronghold, J Insect Conserv

Leneman, H., Graveland, C., 2004, Deelnamebereidheid en continuïteit van het Agrarisch Natuurbeheer, LEI, Den Haag, 61 p.

Lütz, M., Bastian, O., 2002, Implementation of landscape planning and nature conservation in the agricultural landscape—a case study from Saxony, Agriculture, Ecosystems and Environment, 92: 159–170

Maes, J., Musters, C. J. M., De Snoo, G. R., 2008, The effect of agri-environment schemes on amphibian diversity and abundance, Biological Conservation 141: 635-645

Melman, Th.C.P., Schotman, A.G.M., Hunink, S., 2004. Evaluatie weidevogelbeleid; Achtergronddocument bij Natuurbalans 2004. Wageningen, Natuurplanbureau – vestiging Wageningen, Planbureaurapporten 9. 44 p.

Melman, D., Schotman, A., Hunink, S., de Snoo, G., 2006, Evaluatie weidevogelbeheer met een grutto-mozaiekmodel, De levende natuur, 107 (3):141-145

Melman, Th. C. P., Grashof-Bokdam, C., Huiskes, H. P. J., Bijkerk, W., Plantinga, J.E., Jager, Th., Haveman, R., Corporaal, A., 2007, Veldonderzoek effectiviteit natuurgericht beheer van graslanden. Ecologische effectiviteit regelingen natuurbeheer: Achtergrondrapport 2. Wageningen, Wettelijke Onderzoekstaken Natuur & Milieu, WOt-rapport 56. 154 p.

Morris, J., Mills, J., Crawford, I. M., 2000, Promoting farmer uptake of agri-environment schemes: the Countryside Stewardship Arable Options Scheme, Land use policy, 17: 241-254

NRC Handelsblad - “Boeren stoppen met beheer natuur door bureaucratie” - 19 januari 2008

Oerlemans, N., Hees, E., Guldemond, A., CLM, 2006, Agrarische natuurverenigingen als gebiedspartij voor versterking natuur, landschap en plattelandsontwikkeling, CLM, 41 p.

Olson, D..M., Wackers, F. L., 2007, Management of field margins to maximise multiple ecological services, Journal of Applied Ecology, 44: 13–21

Oppermann, R., 2003, Nature balance scheme for farms—evaluation of the ecological situation, Agriculture, Ecosystems and Environment, 98: 463–475

Reheul, D., Vandenabeele, J., 2004, In de bres voor agrarisch natuurbeheer, Koning Boudewijnstichting, Brussel, 36 p.

Reid, N., Mcdonald, R. A., Montgomery, W. I., 2007, Mammals and agri-environment schemes: hare haven or pest paradise?, Journal of Applied Ecology, 44: 1200- 1208

Sanders, M. E., Pouwels, R., Baveco, J. M., Blankena, A., Reijnen, M. J. S. M., 2003, Effectiviteit van agrarisch natuurbeheer voor weidevogels – Literatuuronderzoek, Wageningen, Nature Policy Assesment Office, Wageningen, Planbureaurapport 2. 53 p.

Smith, J., Potts, S. G., Woodcock, B. A., Eggleton, P., 2008, Can arable field margins be managed to enhance their biodiversity, conservation and functional value for soil macrofauna?, Journal of Applied Ecology, 45: 269–278

Steurbaut, P., Vanlierop, F., Herremans, M., 2005, Begeleiding van de vrijwillige weidevogelbescherming in Vlaanderen in uitvoering van de Europese Verordening 2078/92. Studie in opdracht van AMINAL afdeling Natuur. Eindverslag. Natuurpunt Rapport 2005/01, Mechelen.

Swift, M. J., Izac, A.-M. N., van Noordwijk, M., 2004, Biodiversity and ecosystem services in agricultural landscapes—are we asking the right questions?, Agriculture, Ecosystems and Environment, 104: 113–134

Toogood, M., Gilbert, K., Rientjes, S., 2004, Biofact: Farmers and the environment – assessing the factors that affect farmers willingness and ability to cooperate with biodiversity policies, ECNC, 40 p.

Tscharntke, T., Klein, A. M., Kruess, A., Steffan-Dewenter, I., Thies, C., 2005, Landscape perspectives on agricultural intensification and biodiversity - ecosystem service management, Ecology Letters, 8: 857–874

Van Buskirk, J., Willi, Y., 2004, Enhancement of farmland biodiversity within set-aside land, Conservation biology, 18: 987-994

Verhulst, J., Kleijn, D., Berendse, F., 2007, Direct and indirect effects of the most widely implemented Dutch agri-environment schemes on breeding waders, Journal of Applied Ecology, 44: 70-80

Vickery, J., Bradbury, R. B., Henderson, I. G., Eaton, M. A., Grice, P. V., 2004, The role of agri-environment schemes and farm management practices in reversing the decline of farmland birds in England, Biological Conservation, 119: 19–39

Whittingham, M.J., Krebs, J.R., Swetnam, R.D., Vickery, J.A., Wilson, J.D., Freckleton, R.P., 2007, Should conservation strategies consider spatial generality? Farmland birds show regional not national patterns of habitat association, Ecology Letters 10: 25–35

Whittingham, M. J., 2007, Will agri-environment schemes deliver substantial biodiversity gain, and if not, why not?, Journal of applied ecology, 44: 1-5

Willems, F. , Breeuwer, A., Foppen, R., Teunissen, W., Schekkerman, H., Goedhart, P., Kleijn, D., Berendse, F., 2004, Evaluatie Agrarisch Natuurbeheer: effecten op weidevogeldichtheden, Rapport 2004/02 SOVON, Vogelonderzoek Nederland, Wageningen Universiteit en Researchcentrum

Wilson, G. A., Hart, K., 2001, Farmers participation in Agri-environmental schemes: Towards conservation-oriented thinking?, Sociologia ruralis, 41 (2): 254-274

Wilson, A., Vickery, J., Pendlebury C., 2007, Agri-environment schemes as a tool for reversing declining populations of grassland waders: Mixed benefits from Environmentally Sensitive Areas in England, Biological conservation, 136: 128 – 135

Environmental impact assessment

Environmental impact assessment (EIA) is the most widespread example of statutory requirement for the consideration of environmental effects of projects. Its main purpose is to forecast the adverse effects on the environment caused by a proposed project so that they may be avoided, mitigated or otherwise taken into account during the project design, construction, and activity.

A survey on the effectiveness of EIA carried out in the early eighties by the Environmental Protection Agency (EPA) of the USA indicated that significant changes to
projects took place during the EIA process, resulting in marked improvements in the environmental protection measures (Wathern 1988 in Geneletti 2002). Similar findings were reached by a survey commissioned by the European Union (Wood et al. 1996 in Geneletti 2002). According to that study, the EIA process has a notable effect on the number of environmentally favourable modifications to projects. Such an effect is confirmed by the conclusion of the review presented by Lee (Lee 2000 in Geneletti 2002): most of the projects subject to EIA are modified to reduce their environmental impacts. EIA proved also to give net financial benefits (Wathern 1988 in Geneletti 2002). On top of this, if the EIA regulations are well formulated and efficient, and if the EIA-report is of good quality, the EIA procedure may reduce the overall time to obtain the project authorisation (Lee 2000 in Geneletti 2002, Ten Heuvelhof and Nauta 1997 in Geneletti 2002). However, such a positive balance for EIA is not always put forward. Other reports note that the influence on planning decisions that is being exerted by EIA seems to be relatively weak. In a review of several studies, Cashmore et al. (2004) concluded that the contribution made by EIA, both to consent decisions and to project design, is generally limited, due primarily to passive integration with the decision processes it is intended to inform. EIA does exert some influences on development decisions and project design, but it is common for the findings of EIA to be marginalised in favour of other considerations, such as non-environmental objectives and political factors (Wood 2003 in Jay et al. 2007, Jay et al. 2007). Therefore, even if EIA is presenting environmental information satisfactorily, it is unlikely to succeed in ensuring that environmental considerations are fully incorporated into decision making (Jay et al. 2007). The achievement of its substantive aim, contributing to more sustainable patterns of activity, although difficult to assess, appears to be even more elusive (Jay et al. 2007). A positive remark however, is the fact that EIA could be seen as a means of bringing about change in the values, rules and priorities that govern the institutions responsible for planning decisions. So rather than being a central factor in individual planning decisions, EIA may be having a more gradual, transformative effect on decision-making authorities (Jay et al. 2007). To improve its effectiveness, EIA should be more closely adapted to the processes that it seeks to influence. The fact that EIA does not impose any particular environmental standards or targets upon decision-makers should change (Jay et al. 2007).

Also in the field of ecological evaluation applied to EIA, there is a large room for improvement (Geneletti 2002, Gontier 2005a, Gontier 2005b, Gontier 2006). A review of publications on the actual treatment of ecological evaluation within EIA-reports highlights that the ecological evaluation, if present at all, tends to be very general and unfocused. For example, an analysis of the ecological content of a sample of UK EIA-reports showed that no ecological evaluation was undertaken “in any formal sense” (Spellemberg 1994 in Geneletti 2002). The main issues to incorporate biodiversity and ecological issues in the EIA process have been studied (Treweek et al. 1993, Thompson et al. 1997, Byron et al. 2000, Atkinson et al. 2000). Some of the overall conclusions concerned the vagueness and descriptive nature of assessments, the focus on protected areas and protected species, the confinement to single development actions and on-site changes, and the lack of assessment at the ecosystem level and at the spatial and temporal scales of ecological processes (Treweek et al. 1993, Byron et al. 2000, Atkinson et al. 2000, Geneletti 2002, Slootweg and Kolhoff 2003). Further, according to several authors (Treweek et al. 1993, Thompson et al. 1997, Byron et al. 2000, Atkinson

et al. 2000, Geneletti 2002), there is a lack of adequate methodologies for accurate, systematic and quantified predictions of impacts on biodiversity.

In general, further research in the field of ecological evaluation applied to EIA should address (Geneletti 2002):

- The explicit inclusion of biodiversity conservation among the objectives of the evaluation, and the consequent identification of adequate criteria to assess its status
- The use of measurable indicators to assess the evaluation. In the context of EIA, this means also that the impact prediction can be kept separated from the impact assessment
- The enhancement of methods to compare different alternatives and to rank them according to their merit

More recently, Gontier made a review of 38 EIA-reports coming from 4 different EU-countries (Sweden, France, the UK and Ireland). The results of this review confirmed a number of shortcomings in the way biodiversity assessments are performed (Gontier 2005, Gontier 2006a). Firstly, the concept of biodiversity was not evident in most reports. Of concern was the fact that the majority of reports contained mainly qualitative biodiversity assessments without sufficiently quantifying and predicting impacts. The biodiversity assessment remained on a descriptive level and therefore often considered only direct impacts, for example local habitat loss for certain species due to land being developed, without considering indirect, long-term, cumulative or widespread impacts. Concerning the type of impacts that were presented in the assessments, even well known impacts linked to linear projects were often not considered in the biodiversity assessment. This gave rise to descriptive assessments with very little analysis present. Furthermore, the information provided on impacts during construction was in most cases standardised and therefore not specific to the project and a distinction between long-term and short-term impacts was seldom made. Besides this, the integration between ecological and landscape assessments was poor. The asssessments often concentrated on impacts at the local scale, failing to consider large-scale and widespread impacts at the ecosystem and landscape levels. The fact that many of the assessments were performed at the habitat level explain why they failed to predict large-scale and widespread impacts. It also accounted for difficulties experienced in assessing the potential cumulative impacts. The omission of areas not benefiting from a protection status is problematic, since those still may contain biodiversity values and/or fulfil important functions in the ecosystem or landscape.

In global, these studies show that despite the EU directive on EIA being enacted over 20 years ago and despite recent efforts regarding biodiversity issues, the assessment of biodiversity related impacts in the EIA process is still far from meeting its goals. Even though the biodiversity concept is now part of the scope of the EIA process according to the requirements of the CBD, there is still a general a lack of concern on biodiversity issues in today's EIA process (Gontier 2006b). Thus, the development and implementation of new methods appear necessary to meet regulations and recommendations on the consideration of biodiversity in EIA. The use of GIS-based ecological models has potential to partially address several shortcomings of today's biodiversity assessment (Gontier 2006a, Gontier 2006b, Gontier 2007). A successful integration of existing ecological tools and models developed in a GIS interface in the regulated EIA proces could be a key factor in working towards sustainable landscape management (Gontier 2006b). Such models can be applied over large areas, making it possible to quantify impacts, to model and visualise uncertainty, to make better use of scarce data, and to take into account wide-spread, off-site and long-term effects (Gontier 2006a).

References

Cashmore, M., Gwilliam, R., Morgan, R., Cobb, D., Bond, A., 2004, The interminable issue of effectiveness: substantive purposes, outcomes and research challenges in the advancement of environmental impact assessment theory, Impact Assess Proj Apprais, 22: 295–310

Geneletti, D., 2002. Ecological evaluation for environmental impact assessment, Utrecht. Netherlands Geographical Studies no. 301. Proefschrift Vrije Universiteit Amsterdam

Gontier, M., 2005, Biodiversity in environmental assessment –tools for impact prediction, KTH land and water resources engineering, 25 p.

Gontier, M., Balfors, B., Mörtberg, U, 2006a, Biodiversity in environmental assessment –current practice and tools for prediction, Environmental Impact Assessment Review, 26: 268– 286

Gontier, M., 2006b, Integrating landscape ecology in environmental impact assessment using GIS and ecological modelling. In: Tress, B., Tress, G., Fry, G., Opdam, P. (eds.) 2006. From landscape research to landscape planning: Aspects of integration, education and application. Springer, 345-354.

Gontier, M., 2007, Scale issues in the assessment of ecological impacts using a GIS-based habitat model — A case study for the Stockholm region, Environmental Impact Assessment Review, 27: 440–459

Jay, S., Jones, C., Slinn, P., Wood, C., 2007, Environmental impact assessment: Retrospect and prospect, Environmental Impact Assessment Review, 27: 287–300

Lee, N., 2000, Reviewing the quality of environmental assessments. In: Lee N. and C. George, eds., Environmental assessment in developing and transitional countries. Chichester: Wiley, pp. 137-148

Spellemberg, I.F., 1994, The biological content of environmental assessments, Biologist, 41 (3):126-128.

Ten Heuvelhof, E., C. Nauta, 1997, The effects of environmental impact assessment in The Netherlands. Project Appraisal 12(1), pp. 25-30

Wathern, P., 1988, An introductory guide to EIA. In: Wathern P., ed., Environmental impact assessment. Theory and practice. London: Unwin Hyman, pp. 3-30

Wood, C., A. Barker, C. Jones, J. Hughes, 1996, Evaluation of the performance of the EIA process. Manchester: EIA Centre, University of Manchester

Wood, C., Jones, C., 1997, The effect of environmental assessment on UK local planning authority decisions, Urban Stud, 34: 1237-1257

Wood, C., 2003, Environmental impact assessment: a comparative review. second ed. Harlow: Prentice Hall

Forest management plan

The forest management in Flanders is depicted in forest management plans. According to the Forest Decree (Bosdecreet), all forests except private forests of less then 5 ha must have such a forest management plan. All public forests and private forests (> 5 ha) situated in VEN-area need an extended forest management plan, while private forests (> 5 ha) outside VEN-area need a restricted forest management plan. The extended forest management plan must satisfy the criteria for sustainable forest management. These criteria subduct the forest management to several constraints to guarantee the different forest functions (socio-cultural function, economic function, environmental protection function and nature conservation function). The nature conservation function is to be enhanced by measures for the conservation of habitats and populations of wild plant and animal species, a minimal share of indigeneous species and a diversified forest structure. The restricted forest management plan is only subducted to the 'basic level', which aims at least at a stand still. Here, nature conservation related restrictions concerning to the exploitation are to be respected and measures for the conservation of specific species can be proposed. There is room for the restoration or the development of open spaces, forest edges, pool-swamp and other specific vegetation and the protection of specific faunatic elements (Dumortier *et al.* 2003). Every private owner can voluntarily set up an extended forest mangament plan. To support this, the Flemish Government gives subsidies for the elaboration of such a plan, and once the extended forest management plan is approved, extra subsidies for the management of the forest and the enhancement of the ecological forest function can be requested (Dumortier *et al.* 2003). Of the 146 000 ha of forest in Flanders (Dumortier *et al.* 2003), about 42 190 ha was accompagnied by a forest management plan at the end of 2006. Of these, 28 232 ha had a restricted forest management plan and 13 958 an extended forest management plan (Dumortier *et al.* 2007).

The obligation to set up forest management plans and subduct them to approval is an important controle tool for the qualitative forest conservation. After all, whenever a forest management plan is missing, every logging action needs to be requested and authorized (Dumortier *et al.* 2003). However private forest owners are obliged to subduct their forest mangament to the criteria for sustainable forest management when their forest (> 5 ha) is lying in VEN-area, that obligation does not count for private forests lying in Special Protection Zones that are not designated as VEN-area. Here, an important chance for a better controle of forest management in the scope of Natura 2000 is being missed out (Dumortier *et al.* 2003). Although it was demanded in the Government Agreement of 2004, an analysis of the effectivity of a forest mangament plan is not possible, for available data are insufficient. Nor is the situation monitored, nor are the goals clearly quantified (Dumortier *et al.* 2007). There is an urgent need for more effort concerning the monitoring and effectivity analysis of forest management plans.

References

Dumortier, M., De Bruyn, L., Peymen, J., Schneiders, A., Van Daele, T., Weyembergh, G., van Straaten, D., Kuijken, E., 2003, Natuurrapport 2003. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 352 p.

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., 2007, Natuurrapport 2007. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 335 p.

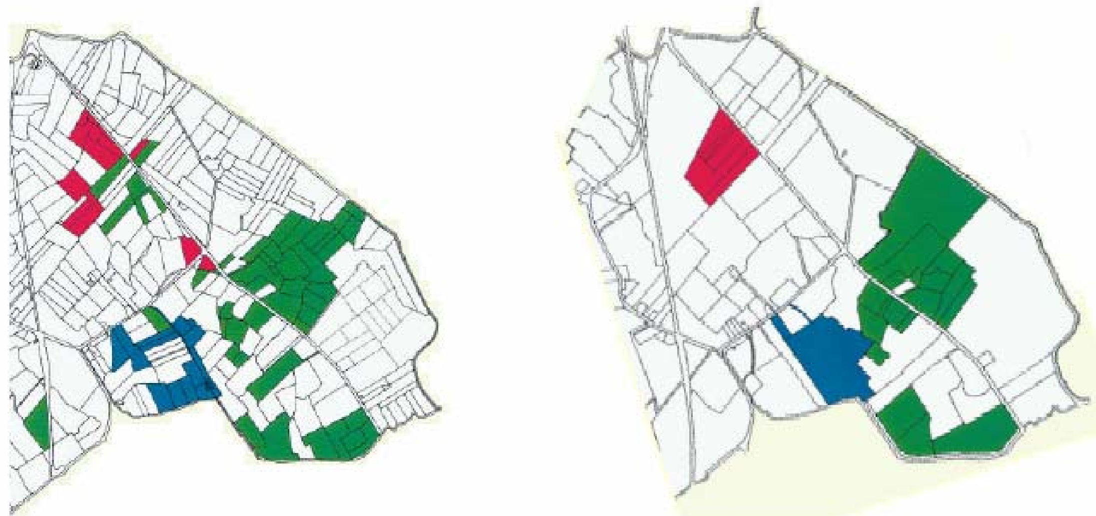
Land consolidation

Rural development by land consolidation is used in several countries in Europe. The demand for land consolidation arises from the need for readjusting unfavourable land division and promoting the appropriate use of the real property without changing the status of ownership (Vitikainen 2004). Traditionally, land consolidation was used for the improvement of the land division of farms by consolidating fragmented parcels through land exchanges in order to form larger and/ore better shaped plots and thus providing a more efficient farm management. In the late 20th century land consolidation has formed into a rural development instrument with multi-purpose objectives, which can additionally be used for improving the infrastructure, enhancing landscape and nature protection, and implementing various recreation area projects. A strictly limited area and the organisation in the form of projects, with stakeholders participation are the main characteristics of land consolidation.

Ecological impact

The available research concerning the ecological impact of modern land consolidation is as good as non-existent. Although in Flanders a few land consolidation projects are allready finished, and even though allready a decade ago, the INBO (Institute for Nature and Forest Research) has set up some guidelines for the integration and monitoring of nature conservation in land consolidation projects (De Blust & Van Olmen 1998), little information about the ecological consequences of land consolidation has risen since then.
It is clear that the change of scope of land consolidation, from a mere agro-economic enhancement tool towards a multi-purpose instrument was an important step for nature conservation. The initial form of land consolidation was mainly an act of increasing field size and areas under cultivation (Bullard 2007). This included removing important ecological structures, such as hedges and water structures, to enhance a more (economically) efficient land management. Furthermore, productivity was to be increased by bringing abandoned land back into production. These actions can have disastreous consequences for the environmental quality of the area. Cover and protection, as well as the possibility for flora and fauna to move are essential factors for a healthy biological environment. Green corridors offer herefore great potential, and these are often provided in a patchwork of fragmented units, but insufficiently available on large, barren fields. Not only biodiversity loss is a probable consequence, barrier removal also increases wind and water erosion. While erosion is more or less controlled in a more diversified, fragmented landscape, this is often not the case in a homogenised landscape, where ground cover and green boundaries are far more likely to be insufficiently provided.

The following ecological structures can be regarded as being of significant importance for the conservation of biotopes along agricultural plots: hedges, water streams, ponds, pools and small water holes, sollitary trees and tree groups, shrubbery and mixed structures. If only the needs of farmers are taken into account, these landscape entities are negatively affected by the process of land consolidation (Lisec & Pintar 2005). For example, hedges form important habitats for predators of pests and for other useful animals that are notable for the methods of new sustainable agriculture production. They provide protection against evaporation and play an essential role in the protection against wind and water erosion. Clearly, they function as an essential component of the ecological network in rural landscapes. In the former process of land consolidation, such frontier structures were often removed or destructed later as a result of the intensive agricultural production. According to the results of a study carried out in Slovenia, almost 50 % of the frontier ecological elements along the plot boundaries of an agricultural area subducted to monofunctional land consolidation disappeared (Lisec & Pintar 2005). Besides that, the majority of plot boundaries after the implementation of land consolidation did not coincide with the old boundaries. Therefore the percentage of loss of the frontier ecosystems was even higher. Also in modern land consolidation projects, one must carefully take into account the consequences of parcel enlargment. For example, the land consolidation project in Hoegaarden, which can be seen as an example for modern land consolidation, did not improve the nature values in the areas assigned for agricultural use. More specially, the small landscape elements have suffered from severe pressure due to the scale enlargement and lots of them have been removed (Geebelen 2000).



An example of parcel enlargement in Eggewaartskapelle. Every colour indicates the parcels of one farmer. It is clear that enlarging parcel sizes has a homogenising effect on the landscape, with possible negative impacts on biodiversity. Ecological consequences must be taken into account. Source: VLM 1999

These findings make clear that, from an ecological point of view, land consolidation should be planned together with the other sectors that are concerned with sustainable rural area development. Sustainable land management includes conservation and establishment of the available ecological patches. Through land consolidation, the basic ecological structures should be preserved and, in the case of removing some of these structures, new ones should be established (Lisec & Pintar 2005). Land consolidation policy seems to have understood the fact that nature development should be part of the goals of any land consolidation project. While in 1990 on average 65 % of the Flemish resources for land consolidation were dedicated to agriculture and 35 % to provisions of public use, a decade later, 35 % went to agriculture, 45 % to public use and 20 % to nature development (VLM 2000). Moreover, since 1998, land consolidation projects in Flanders are nowadays subducted to the nature decree (natuurdecreet) and its ‘care duty (zorgplicht)’. This means that land consolidation projects must consider the stand still principle, as well as the principle of ecological compensation. An inventory of the present nature conditions must be made, and be compared with the conditions of nature after the land consolidation project is finished. The balance must be at least in harmony and an evaluation wether the projected objectives concerning nature conditions are reached will be made

(VLM 2000). Signs that modern land consolidation can succesfully take into account nature values, are delivered by case-projects such as the land consolidation project in Sint-Oedenrode (The Netherlands, province of Noord-Brabant). This project covers an area of around 16000 ha and is related to over 6500 areal users. More than 700 ha of land has been exchanged and dedicated to nature, while 300 ha of new forest has been established. Furthermore, 50 pools were digged out and 33 km of plantation has been established alongside the road network. About 5 km of plantation on new parcel boarders has been carried out, accompagnied by 450 farmyard plantations. The watermanagement-measures included the creation of 7 km of shores dedicated for nature development and in an area of 6600 ha, the problem of dreigthening has been taken away (Provincie Noord-Brabant). Also in Flanders, modern land consolidation projects tend to increase the nature vales of the area. Land consolidation plans deliver a positive input for ecotope groups such as forests, heathlands, fan areas, marshlands and waterrich areas. In global, the plan situation takes up more nature with specific nature management then the original situation (Dumortier *et al.* 2003).

Participation

Without a doubt, one of the main advantages of land consolidation is the huge effort spent to make sure every stakeholder can participate in the decision making process. This is very important, as land consolidation can only be realised if the costs and benefits of the different areal users are carefully investigated. The land consolidation procedure provides different moments of voice '? inspraakmomenten' (VLM 2005). At regular times, public investigations take place. As well as during the planning process as during the execution process, advising and directing organs are set up. Besides participation moments that are formally described in the land consolidation legislation, efforts are spent towards profound and solid consultations with the different stakeholders.

Disadvantages concerning the use of land consolidation are the long term on which the projects are realised and, related to that, the many (social) difficulties that arise during their execution. Projects can be left waiting for a long time due to areal bottlenecks or politic priorities (VLM 2005). For example, the land consolidation projects of Sint-Oedenrode (The Netherlands, province Noord-Brabant) and Hoegaarden (Flanders) took respectively 20 and 13 years.

References

Bullard, R., 2007, Land consolidation and rural development, Papers in Land Management, 10, 148 p.

De Blust, G., Van Olmen, M., 1998, Optimaliseren en meetbaar maken van de ecologische inbreng in de ruilverkaveling, Instituut voor Natuurbehoud, Brussel, 292 p.

Dumortier, M., De Bruyn, L., Peymen, J., Schneiders, A., Van Daele, T., Weyembergh, G., van Straaten, D., Kuijken, E., 2003, Natuurrapport 2003. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 352 p.

Geebelen, J., 2000, Ruilverkaveling Hoegaarden, een mijlpaal voor het natuurbehoud, Natuurreservaten september-oktober-november 2000

Lisec, A., Pintar, M., 2005, Conservation of natural ecosystems by land consolidation in the rural landscape, Acta agriculturae Slovenica, 85 (1): 73 – 82

Provincie Noord-Brabant, persbericht, 14/11/2007

Vitikainen, A., 2004, An overview of Land Consolidation in Europe, Nordic Journal of Surveying and Real Estate Research, 1: 25-43.

VLM, 1999, Ruilverkaveling in Vlaanderen, ruilen voor nieuwe kansen, Brussel, 26 p.

VLM, 2001, Ruilverkaveling, veel meer dan kavels ruilen, Brussel, 32 p.

VLM, 2005, Ruilverkaveling als instrument, een (be)leefbaar platteland als doel, Brussel, 38 p.

Natuurinrichting

Natuurinrichting is a Flemish instrument that aims at executing measures and works that are meant to establish an optimal organisation of an area for the maintenance, recovery, management and development of nature and the natural environment. By active interference, natuurinrichting wants to develop nature on places with lots of potential for fauna and flora. It can be applied in those areas designated as being VEN-areas, Special Protection Zones or green-, parc-, buffer- and forest-areas (Kuijken *et al.* 2001). This instrument is inspired on the instrument of land consolidation, but is developped totally in the scope of nature development. Possible measures within the scope of natuurinrichting are amongst others the exchange of parcels, infrastructural works, adaptations of roads and road patterns, stand still measurements, the temporarily abolishment of the authority of administrative governments and public governances, waterworks, groundworks, the building of nature educative provisions and the replacement of firms (Kuijken *et al.* 2001).

Two government instances are closely involved in the execution of *natuurinrichting*: the Agency for Forest and Nature conservation (ANB) and the Flemish Land Corporation (VLM). A *natuurinrichtingsproject* starts with an investigation of the feasibility of the project. The authorized minister must give its aprovement to start the project, whereafter a project comitee and project commission is set up. After this, a project report is established by the ANB and the VLM, which contains an analysis of the project area and clarifies the vision and execution modalities of the project. The report is made public and subducted to a public investigation. After collecting and handling the incoming objections, a list of measures and modalities is set up and approved by the authorized minister. Hereafter, the project comitee creates the project execution plan in coöperation with the VLM. This plan is on its turn subducted to another public investigation and the advice of the project commission. After all this, execution can be started (Kuijken *et al.* 2001).

As the instrument is developped specifically for nature conservation goals, it can be assumed that the ecological balance of this instrument is very positive. However, a profound evaluation concerning the ecological impact of the instrument is not yet possible, due to a lack of monitoring data (Dumortier *et al.* 2005).

Participation

Public participation is a powerfull aspect of *natuurinrichting*. Thanks to a torough communication, the instrument is meant to reach the broader public and its different stakeholders. By setting up natuurinrichtingsproject comitees and – commissions, a broad base for the planning process is realized. Communication happens according to a communication plan, which indicates what stakeholder groups are to be interrogated in what order. By being represented in a commission or committee as well as trough informative sessions, meetings and public investigations, all stakeholders receive the possibility to give their own input to the project and defend their positions (Kuijken *et al.* 2001).

Disadvantages

The Nature Report of 2003 mentions several botllenecks for the instrument of *natuurinrichting*. Financially, insufficient resources impede the realisation of projects. The social base is not always sufficient and on the execution level, the strong legislations concerning polluted grounds makes groundworks difficult. Furthermore, the instruments of parcel exchange and firm replacement are badly elaborated, the compensation system is only applicable for owners and not for users, working via smaller part-projects is not allowed and the execution of the projects can only start after the definitive approval of the project execution plan (Dumortier *et al.* 2003).
The procedures are very heavy, which means the instrument is not apropriate for more or less restricted measures such as the local heightening of the water table, the restoration of a meander or the creation of wood edges and pools (Ministerie van de Vlaamse Gemeenschap 2003, Ministerie van de Vlaamse Gemeenschap 2004, Van Hoorick G. 2005). As a consequence, many chances for nature conservation are missed out (Ministerie van de Vlaamse Gemeenschap 2003) and the succesfull execution of the projects can take many years. Above that, *natuurinrichting* cannot be used in combination with land consolidation (Ministerie van de Vlaamse Gemeenschap 2004). A simplicication of the rules and a better attunement with other legislation remains a necessity, according to the environmental policy plan (Ministerie van de Vlaamse Gemeenschap 2003).

Luckily, in order to counter several procedural and legislative problems, some adaptations have recently been made to the Nature Decree concerning *natuurinrichting*. Amongst others, the possibility for a rapified project execution is given and legislative improvements concerning compensations and the legal certainties for users and owners are worked out (Peeters 2006, Besluit van 2 februari 2007).

References

Besluit van 2 februari 2007 houdende wijziging van het Besluit van de Vlaamse Regering van 23 juli 1998 tot vaststelling van nadere regels ter uitvoering van het Decreet van 21 oktober 1997 betreffende het natuurbehoud en het natuurlijk milieu, wat betreft de natuurinrichtingsprojecten (BS 8/3/2007)

Dumortier, M., De Bruyn, L., Peymen, J., Schneiders, A., Van Daele, T., Weyembergh, G., van Straaten, D., Kuijken, E., 2003, Natuurrapport 2003. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 352 p.

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., Weyembergh, G., Kuijken, E., 2005, Natuurrapport 2005. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 496 p.

Kuijken, E., Boeye, D., De Bruyn, L., De Roo, K., Dumortier, M., Peymen, J., Schneiders, A., van Straaten, D., Weyemberh, G., 2001, Natuurrapport 2001. Toestand van de natuur in Vlaanderen: cijfers voor het beleid. Mededelingen van het Instituut voor Natuurbehoud, Brussel, 366 p.

Ministerie van de Vlaamse Gemeenschap, 2003, Milieubeleidsplan 2003-2007, Brussel, 384 p.

Ministerie van de Vlaamse Gemeenschap, 2004, Beleidsnota 2004-2009 Leefmilieu en Natuur, Brussel, 75 p.

Peeters, 2006, Persmededeling van de Vlaamse Regering 15 Dec 2006

Van Hoorick, G., 2005, Voorontwerp van decreet houdende het Vlaams natuurwetboek. Algemene toelichting, Studiedag Voorontwerp van Vlaams natuurwetboek, Universiteit Gent, 22 p.

Natuurprojectovereenkomst

Within the areas subducted to an approved ‘natuurrichtplan’, it is possible to establish a management agreement between the Flemish government and a private person, the so called ‘nature project agreement’ (natuurprojectovereenkomst). Here, subsidies are assigend for local projects which enhance the execution of the ‘natuurrichtplan’. The compensation accounts for maximal 50 % of the total costs for works carried out by an administrative government, while this compensation increases to maximum 90 % of the costs if the works are carried out by private persons. The measures that can be taken in the scope of a nature project agreement are amongs others the establishment of sleep- and breeding places for different kind of birds, the creation of animal cross over places, the setting up of information panels and watch cabines, the elaboration of walking routes, the creation of fish spawn places and the buiding of fish stairs, etc …
As the first ‘natuurrichtplannen’ are only very recently approved, no nature project agreements have yet been carried out. The evaluation of this concept is therefore not yet possible. However, the evaluation of the nature project agreement will need more a social investigation then an ecological one, as the succes of this concept will depend on wether the social base for nature conservation is large enough to make this instrument work, rather then wether the different measures are usefull in the scope of nature conservation.

References
Natuurdecreet artikel 45 & 46

Nature licenses

The nature license is one of the instruments with which the Flemish Government aims to protect specific vegetations and small landscape elements. According to the Nature Decree, there is a relative prohibition for the changement of certain vegetations and an obligation of a nature license to change vegetation or small landscape elements witin the natura 2000 areas (Cliquet *et al.* 2005). The application of the nature license belongs to a great deal to the municiplatities and provinces. The license approval and the registration of the reportings, as well as the enforcement of the licenses is mostly the tasks for the municipalities. The Agency for Forest and Nature Conservation (ANB) forfills an advisory role hereby (Dumortier *et al.* 2005).

The current legal protection of vegetations and small landscape elements is far from complete. On several aspects, the legislation is not uniform (Van Hoorick 2005). Furthermore, it is strongly differentiated according to the spatial destination, which increases complexity. There is a lack of mutual attunement to other legislation, giving rise to a doucle license obligation (Van Hoorick, 2005). Furthermore, the relative small fame of the instrument and the minor attention to its enforcement further explain the insufficient working of the nature license (Cliquet *et al.* 2005).

Allready in 2001 the nature report announced an insufficient enforcement and controle and a serious lack of knowledge about the nature license concept (Kuijken *et al.* 2001). The recommendations involved 3 clusters: improve the knowledge level about the nature license legislation, create a greater incentive to applicate the instrument by means of sensibilisation, a better communication and a stronger enforcement and increase the execution capacity, as well as the monitoring and evaluation of the instrument. Related to that last recommendation, the 'Natuurvergunningsloket' was established in 2002. In 2005 however, there is still too few information about nature licenses to make a correct asessment. A lack of quantitative monitoring about the situation and trends of this instrument remains an issue (Dumortier *et al.* 2005). Also data about the enforcement are only kept ad hoc, further impeding a well elaborated evaluation of the effects of nature licenses. An enquiry showed that most license requests delivered at the municipalities concern the cutting of tree rows (Dumortier *et al.* 2005). An earlier small investigation pointed out that most license requests comprise the cutting of poplar trees and the trimming or removal of of wood edges and hedgerows (Verschelde 2000). These findings raise the question wether the current use of nature licenses contributes to the protection of other small landscape elements and specific vegetations (Cliquet *et al.* 2005, Dumortier *et al.* 2005).

References

Cliquet, A., Van Hoorick, G., Lambrecht, J., Bogaert, D., 2005, Gebiedsgericht natuurbeleid: operationalisering en uitvoering van de Vogelrichtlijn en Habitatrichtlijn. Onderzoeksrapport MIRA-BE 2005. Vlaamse Milieumaatschappij, Aalst, 65 p.

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., Weyembergh, G., Kuijken, E., 2005, Natuurrapport 2005. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 496 p.

Kuijken, E., Boeye, D., De Bruyn, L., De Roo, K., Dumortier, M., Peymen, J., Schneiders, A., van Straaten, D., Weyemberh, G., 2001, Natuurrapport 2001. Toestand van de natuur in Vlaanderen: cijfers voor het beleid. Mededelingen van het Instituut voor Natuurbehoud, Brussel, 366 p.

Van Hoorick, G., 2005, Voorontwerp van decreet houdende het Vlaams natuurwetboek. Algemene toelichting, Studiedag Voorontwerp van Vlaams natuurwetboek, Universiteit Gent, 22 p.

Verschelde, E., 2000, Uitvoering van de bepalingen inzake vegetatiewijzigingen en kleine landschapselementen door de overheid, Universiteit Gent, Gent, 44 p.

Organic Farming

Over the last few decades, dramatic declines in both range and abundance of many species associated with farmland have been reported in Europe, leading to growing concern over the sustainability of current intensive farming practices. Sustainable farming systems such as organic

farming are now seen by many as a potential solution to this continued loss of biodiversity (Hole *et al.* 2005). Attention in industrialised countries has focused on reducing pollution by fertilisers and synthetic pesticides in intensive agriculture. In particular, the leaching of nitrogen causes the extensive deoxidation of inland water reserves and a reduction in the quality of ground water. The loss of nitrogen in agriculture is also responsible for much of the environmental damage caused to many sensitive and natural terrestrial and marine ecosystems. Furthermore, the use of synthetic pesticides has reduced the quality of ground water, raised suspicions of adverse health effects, and caused changes in the habitats of many species of flora and fauna (Hansen *et al.* 2001). Organic farming has developed rapidly throughout western Europe in response to increasing customer demands and substantial support by EU and national government policy initiatives (Hansen *et al.* 2001, Hole *et al.* 2005).

Effects of organic farming

In general, the risk of harmful environmental effects is lower with organic than with conventional farming practices (Haas *et al.* 2001, Hansen *et al.* 2001, Biao *et al.* 2003, Pacini *et al.*2003). The largest beneficial effect of organic farming is associated with the lack of pesticides leaching and soil biology (bacteria, fungi, springtails, mites, earthworms), the higher level of biological activity being driven by the use of versatile crop rotations and the reduced use of nutrients in the organic system. At the ecosystem level, organic farming also benefits arable land by promoting greater densities and species diversity in the weed flora, lower concentrations of aphids, greater numbers of beneficial insects, and bigger populations of birds (Hansen *et al.* 2001). Regarding the ecosystem, semi-natural areas and small biotopes are assumed to be better protected by organic practices because of the associated ban on pesticides and the reduced use of nutrients. However, changes already incurred may be irreversible (Hansen *et al.* 2001, Hyvönen *et al.* 2003, Hyvönen 2007).

Looking at the real effects of organic farming compared to conventional farming on biodiversity, organic farming has a positive impact on **biodiversity conservation** (Mclaughlin & Mineau 1995, Haas *et al.* 2001, Mäder *et al.* 2002, Biao *et al.* 2003, Hole *et al.* 2005, Holzschuh *et al.* 2007). According to an extended Dutch research, scientific results are mixed, but the majority of the studies comes forward with a positive relation between organic farming and biodiversity. This relation concerns as well the total number of organisms as the species diversity (Smits & van Alebeek 2007). A review made by Hole *et al.* (2005) of more then 76 studies showed that a wide range of taxa, including birds and mammals, invertebrates and arable flora benefits from organic management through increases in abundance and/or species richness. Bird communities, including some species of special interest for nature conservation, seem to profit form organic farming (Genghini 2006). Although benefits of of organic farming for vegetation conservation not always give spectacular results (Bakker & ter Heerdt 2005, Gibson *et al.* 2007), also plant (Hyvönen *et al.* 2003, Pacini *et al.*2003, Manhoudt *et al.* 2007) and fungi (Oehl *et al.* 2004) species richness appears to be significantly higher on organic than conventional farms and in general, biologically farmed agroecosysterns have a higher level of soil biological activity than conventionally grown ones (Paoletti 1995, Hansen *et al.* 2001, Mulder *et al.* 2003, van Diepeningen *et al.* 2006). The available evidence indicates that organic farming could play a significant role in increasing biodiversity across lowland farmland in Europe (Hole *et al.* 2005). Not only is this beneficial for nature conservation, biodiversification can also lead to agroecosystems capable of sponsoring their own soil fertility, crop protection and productivity. Correct biodiversification results in pest regulation through restoration of natural control of insect pests, diseases and nematodes and also produces optimal nutrient recycling and soil conservation by activating soil biota, all factors leading to sustainable yields, energy conservation, and less dependence on external inputs (Altieri 1999).

Although not every study comes forward with significant results (Emmerling *et al.* 2001), organic farming also seems to be suited to markedly improve **soil fertility and nutrient management** (Hansen *et al.* 2001, Mäder *et al.* 2002, Biao *et al.* 2003, Pacini *et al.*2003, van Diepeningen *et al.* 2006). Organically managed soils are on average more stable systems with a larger soil health (van Diepeningen *et al.* 2006). Furthermore, organic farms have clear positive or comparatively fewer negative effects on **surface water and animal husbandry** and show inherent ecological advantages of **the production system** (Haas *et al.* 2001). On top of that, the use of **fossil energy** and the production of greenhouse gases is also markedly lower in organic than in conventional agriculture,

mainly because of the lower use of indirect energy related to the ban on synthetic nitrogen fertilisers (Hansen *et al.* 2001).

Besides these factors, organic farms have a clear positive effect on **landscape image and landscape diversity** (van Mansvelt *et al.*1998, Hendriks *et al.* 2000, Rossi & Nota 2000, Haas *et al.* 2001, Hansen *et al.* 2001). In terms of landscape diversity the organic types of agriculture have a good potential for positive contributions to a sustainable agrolandscape management (van Mansvelt *et al.*1998).

Landscape aspects

Although studies show contradictive information about wether the most important factor for biodiversity conservation is the farming system or the landscape features of the area where the farming system is applied (Purtauf *et al.* 2005, Rundlof & Smith 2006, Holzschuh *et al.* 2007, Smits & van Alebeek 2007), a commun conclusion is that landscape characteristics should be considered in agri-environment schemes (Bengtsson *et al.* 2005, Purtauf *et al.* 2005, Rundlof & Smith 2006, Holzschuh *et al.* 2007). The effectiveness of organic farming appears to be greatest in homogeneous landscapes (Bengtsson *et al.* 2005, Rundlof & Smith 2006, Holzschuh *et al.* 2007, Smits & van Alebeek 2007). In homogeneous landscapes, organic farming greatly compensates for the negative effects of landscape simplification (Holzschuh *et al.* 2007). This interaction between farming system and landscape context clearly shows that incentives for conversion to organic farming or the retention of non-intensive farming practices should be most cost-effective in such intensively managed landscapes and that evaluations of agri-environment schemes have to incorporate a landscape perspective (Bengtsson *et al.* 2005, Rundlof & Smith 2006, Holzschuh *et al.* 2007). This might be done by developing context-based agri-environment schemes to increase the amount of organic farming in intensively farmed landscapes (Rundlof & Smith 2006).

Participation

The surface area of the European organic farming shows an increasing trend. The most recent data point out that about 4,3 % (6,7 million ha) of the total agricultural area is used for organic farming. Belgium scores less than the european mean, with about 2,1 % of it's
agricultural area falling under organic farming (Ministerie van de Vlaamse overheid 2008). In 2007, the total area of organic farming in Flanders reached 3836 ha, an increase with 17,4 %. This matches with about 0,6 % of the total area of cultural grounds in Flanders. The number of biological farms showed a net-decrease of 2 units, which brings the number down to 230 farms. Of these, 175 completely follow the organic production method, while the other 55 partially produce by the convential methods (Ministerie van de Vlaamse overheid 2008).

Different kind of motives to convert to integrated or organic farming can be distinguished (de Lauwere *et al.* 2004): idealistic motives, economic motives, technical motives, related to matters such as the control of weed and the availability of workers, and institutional motives, related to the institutions surrounding farmers (traders of chemical crop protection products, policymakers, farmers living in the area). Idealistic motives seem to form the most important reason to convert, while institutional motives are the most important reason for not converting (de Lauwere *et al.* 2004). Quality and environmental oriented farmers are more likely to convert to organic farming than farmers who do not put this objective as important in their decision process (De Cock 2005). Motives for not converting to more sustainable agriculture are often related to a perceived risk or uncertainty (de Lauwere *et al.* 2004, Pannell 1999 in Wheeler 2008, Rogers 2003 in Wheeler 2008). Especially the economic possibilities of organic farming are estimated very low by conventional farmers (De Cock 2005). Involving relevant actors in the process of conversion, financial incentives, providing knowledge, consistent policy or offering farmers some room for experiments might help to reduce the perceived uncertainty (de Lauwere *et al.* 2004). The information available (and the costs of acquisition) is a critical factor in influencing subjective farmer perceptions (Wheeler 2008). The better farmers are informed about organic farming, the faster they convert to organic farming (De Cock 2005). A study from Cobb *et al.* (1999) suggests that there are economical and ecological advantages arising from organic agriculture that are not fully reflected in the present pattern of agricultural incentives. This is a crucial remark, as policy incentives are given by means of subsidies and financial aspects form one of the the most

important incentives for farmers to coöperate with biodiversity policies (Knierim *et al.* 2003, de Lauwere *et al.* 2004).

References

Bakker, J. P., ter Heerdt, G. N. J., 2005, Organic grassland farming in the Netherlands: a case study of effects on vegetation dynamics, Basic and Applied Ecology, 6: 205—214

Bengtsson, J., Ahnstrom, J., Weibull, A.-C., 2005, The effects of organic agriculture on biodiversity and abundance: a meta-analysis, Journal of Applied Ecology, 42: 261–269

Biao, X., Xiaorong, W., Zhuhong, D., Yaping, Y., 2003, Critical impact assessment of organic agriculture, Journal of Agricultural and Environmental Ethics, 16: 297–311

Cobb, D., Feber, R., Hopkins, A., Stockdale, L., O'Riordan, T., Clements, B., Firbank, L., Goulding, K., Jarvis, S., Macdonald, D., 1999, Integrating the environmental and economic consequences of converting to organic agriculture: evidence from a case-study, Land Use Policy, 207-221

De Cock, L., 2005, Determinants of organic farming conversion, Centre for Agricultural Economics, Ministry of the Flemish Community, Paper prepared for poster presentation at the XIth International Congress of the EAAE (European Association of Agricultural Economists), 13 p.

de Lauwere, C., Drost, H., de Buck, A., Smit, A., Balk-Theuws, L., Buurma, J., Prins, H., 2004. To change or not to change? Farmers' motives to convert to integrated or organic farming (or not). ISHS Acta Horticulturae 655: XV International Symposium on Horticultural Economics and Management, pp. 235–243.

Emmerling, C., Udelhoven, T., Schröder, D., 2001, Response of soil microbial mass and activity to agricultural de-intensification over a 10 year period, Soil Biology and Biochemistry, 33: 2105-2114

Genghini, M., Gellini, S., Gustin, M., 2006, Organic and integrated agriculture: the effects on bird communities in orchard farms in northern Italy, Biodiversity and Conservation, 2006, 15: 3077–3094

Gibson, R. H., Pearce, S., Morris, R. J., Symondson, W. O. C., Memmott, J., 2007, Plant diversity and land use under organic and conventional agriculture: a whole-farm approach, Journal of Applied Ecology, 44: 792–803

Haas, G., Wetterich, F., Köpke, U., 2001, Comparing intensive, extensified and organic grassland farming in southern Germany by process life cycle assessment, Agriculture, Ecosystems and Environment 83: 43–53

Hansen, B., Alrøe, H. F., Kristensen, E. S., 2001, Review: Approaches to assess the environmental impact of organic farming with particular regard to Denmark, Agriculture, Ecosystems and Environment 83: 11–26

Hendriks, K., Stobbelaar, D.J., van Mansvelt, J.D., 2000, The appearance of agriculture - An assessment of the quality of landscape of both organic and conventional horticultural farms in West Friesland, Agriculture, Ecosystems and Environment 77: 157–175

Hole, , G., Perkins, A. J., Wilson, J. D., Alexander, I. H., Grice, P. V., Evans, A. D., 2005, Does organic farming benefit biodiversity?, Biological Conservation 122: 113–130

Holzschuh, A., Steffan-Dewenter, I., Kleijn, D., Tscharntke, T., 2007, Diversity of flower-visiting bees in cereal fields: effects of farming system, landscape composition and regional context, Journal of Applied Ecology, 44: 41–49

Hyvönen, T., Ketoja, E., Salonen, J., Jalli, H., Tiainen, J., 2003, Weed species diversity and community composition in organic and conventional cropping of spring cereals, Agriculture, Ecosystems and Environment, 97: 131–149

Hyvönen, T., 2007, Can conversion to organic farming restore the species composition of arable weed communities?, Biological Conservation, 137: 382-390

Knierim, A., Siebert, R., Brouwer, F., Fernandez-Sañudo, P., Garcia-Montero, G., Gil, T., Graveland, C., de Lucas, C., Manzanera, J.-A., Mnatsakanian, R., Nieminen, M., Pascual, C., van Rheenen, T., Szekér, K. S., Toogood, M., Urbano, J., 2003, An assessment of factors affecting farmers' willingness and ability to cooperate with biodiversity policies, Report of the BIOfACT WP 2, 121 p.

Mäder, P., FlieBbach, A., Dubois, D., Gunst, L., Fried, P., Niggli, U., 2002, Soil fertility and biodiversity in organic farming, , Science, 296: 1694-1697
Manhoudt, A. G. E., Visser, A. J.., de Snoo, G. R., 2007, Management regimes and farming practices enhancing plant species richness on ditch banks, Agriculture, Ecosystems and Environment 119: 353–358

McLaughlin, A., Mineau, P., 1995, The impact of agricultural practices on biodiversity , Agriculture, Ecosystems and Environment, 55: 201-212

Ministerie van de Vlaamse overheid, Departement Landbouw en Visserij, 2008, Strategisch Plan Biologische Landbouw 2008 – 2012, 44 p.

Mulder, C. H., De Zwart, D., Van Wijnen, H. J., Schouten, A. J., Breure, A. M., 2003, Observational and simulated evidence of ecological shifts within the soil nematode community of agroecosystems under conventional and organic farming, Functional Ecology, 17: 516–525

Oehl, F., Sieveridng, E., Mäder, P., Dubois, D., Ineichen, K., Boller, T., Wiemken, A., 2004, Impact of long-term conventional and organic farming on the diversity of arbuscular mycorrhizal fungi, Oecologia, 138: 574–583

Pacini, C., Wossink, A., Giesen, G., Vazzana, C., Huirne, R., 2003, Evaluation of sustainability of organic, integrated and conventional farming systems: a farm and field-scale analysis, Agriculture, Ecosystems and Environment 95: 273–288

Paoletti, M. G., 1995, Biodiversity, traditional landscapes and agroecosystem management, Landscape and Urban Planning, 31: 117-128

Purtauf, T., Roschewitz, I., Dauber, J., Thies, C., Tscharntke, T., Wolters, V., 2005, Landscape context of organic and conventional farms: Influences on carabid beetle diversity, Agriculture, Ecosystems and Environment 108: 165–174

Rossi, R., Nota, D., 2000, Nature and landscape production potentials of organic types of agriculture: a check of evaluation criteria and parameters in two Tuscan farm-landscapes, Agriculture, Ecosystems and Environment, 77: 53–64

Rundlof, M., Smith, H. G., 2006, The effect of organic farming on butterfly diversity depends on landscape context, Journal of Applied Ecology, 43: 1121–1127

Smits, M. J. W., van Alebeek, F. A. N., 2007, Biodiversiteit en kleine landschapselementen in de biologische landbouw – Een literatuurstudie, Wageningen, Wettelijke Onderzoekstaken Natuur & Milieu, WOt-rapport 39, 84 p.

van Diepeningen, A. D., de Vos, O. J., Korthals, G. W., van Bruggen, A. H. C., 2006, Effects of organic versus conventional management on chemical and biological parameters in agricultural soils, Applied Soil Ecology 31: 120–135

van Mansvelt, J. D., Stobbelaar, D. J., Hendriks, K., 1998, Comparison of landscape features in organic and conventional farming systems, Landscape and Urban Planning, 41: 209-227

Wheeler, S. A.,2008, What influences agricultural professionals' views towards organic agriculture?, Ecological Economics, 65: 145-154

Species Protection Plans

Many species are treathened and often, their situation keeps getting worse. In many cases, it is not clearly known what measures have to be taken to maintain these species. A possible way out of this impasse is the set up of a species protection plan. Such a plan determines the critical problems that impedes the healthy existence of the species and indicates what measures should be taken to tackle them. In Flanders, 12 species protection plans (28 species) have been established at the moment.

Evaluating the concept of a species protection plan is not obvious, as most of the plans have not yet been translated into action on the field. A few problems have allready been determined (Dumortier et al. 2005, Dumortier et al. 2007). The choice of species and the method of setting up the plans is done arbitrarily, and above that, the making of these plans is done by different organisations and scientists. Some plans have a more practical approach, others emphasize the ecology of the species without putting concrete recommendations forward. This randomised set up of the species protection plans leads to an inferior effectivity of the concept of a species protection plan. Criteria need to be developped to indicate which species deserve priority. The Flemish and European red lists can be used in this scope. Also the feasiblity of the possible measurements has to be determined. Next to criteria to determine the urgency for the creation of a species protection plan, also directives concerning the minimum conditions for the set up of such a plan should be put forward.
Furthermore, the setting up of species protection plans is of course insufficient to save a species. These plans also have to be implemented. As only 5 plans have reached the status of implementation, it is clear that more effort is needed to make concrete actions on the field. Otherwise, the whole upset of the species protection plans risks to be lost. Maybe, the obligation of the execution of the species protection plans should be incorporated in the nature legislation.

References

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., Weyembergh, G., Kuijken, E., 2005, Natuurrapport 2005. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 496 p.

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., 2007, Natuurrapport 2007. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 335 p.

Cooperation agreement

The coöperation agreement (*samenwerkingsovereenkomst*) is an agreement between the Flemish Government and individual municipalities and provinces. By entering this agreement, the municipalities and provinces commit themselves to execute some environment related tasks. Therefore, they receive subsidies from the Flemish Government. The coöperation agreement is the most important tool for coöperation between the Flemish Region and the local governments concerning the environmental policy. The most important goal is the stimulance and elaboration of a sustainable local environmental policy. The coöperation agreement is the succeeder of the former environmental convenants ('92 – '96 and '97 – '99) (Dumortier *et al.* 2003). The agreement consists of 3 important aspects: a basic package with instruments to ensure a basic environmental policy, 8 thematic clusters, and 3 levels of ambition. While the first level of ambition is more worked out for inventorisation, the other 2 levels aim at a more concrete execution of projects on the terrain (Dumortier *et al.* 2003). Amongst the thematic clusters is the cluster 'natural entities', which consists of environmental tasks concerning nature, forests, green areas and lanscapes. Amongst others, a list of actions is given for the management and fitting up of public or private properties, the appropriate management of small landscape elements, the setting up of species protection plans, enlargement of the social base for nature conservation, green management and the management of connective elements over the entire territory of the municipality.

Effectivity

Despite former critics (Verbanck 2002, Vandeputte *et al.* 2004, Bachus 2005) and an adaptation of the coöperation agreement (Dumortier *et al.* 2005), the administrative overload remains a problem for the municipalities (Minaraad & SERV 2007). The communication and especially the language use in the coöperation agreement, both in the contract text as in other communication channels, is often too academic and not adapted to the target group of environmental municipality workers. The amount of reading is experienced as being too exuberant and time consuming (Vandeputte *et al.* 2004). Also confusal and sloppiness are still an issue on some aspects of the coöperation agreement documents (Minaraad & SERV 2007). Bad timing aspects such as delays in the individual evaluations of the municipalities (Verbanck 2002) and the short time span in which project proposals have to be elaborated, further impede a flexible way of working (Minaraad & SERV 2007). Also a more gradual payment system, aiming at motivating municipalities to reach a higher level of ambition is a missing factor in the current version of the coöperation agreement (Minaraad & SERV 2007). However, despite the practical difficulties linked with this instrument, the coöperation agreement is seen as an important tool for the elaboration of a sustainable local environmental policy (Dumortier *et al.* 2005, Minaraad & SERV 2007). This instrument stimulates the integration of the environment in other local policy fiels and leads to a professionalizing of the local environmental policy. It contributes to actions on the field (Minaraad & SERV 2007), which in the end remains the main target of nature conservation.

Participation

An enquiry made during an evaluation of the coöperation agreement in 2004 (Vandeputte *et al.* 2004) pointed out that, however not being the only reason for municipalities to participate, the receival of subsidies is by far the most important incentive. Also the image of the municipality concerning environmental policy can be a reason for participation. Some municipalities participated thanks to the efforts of a very motivated sherrif of environment, or because they assumed that the coöperation agreement would become obligatory in the future anyway. Reasons to not participate appeared to be mainly the practical problems related to the coöperation agreement, such as the lack of time and human and financial resources. In these cases, the costs of the administrative overload were estimated to overcompensate the benefits of the subsidies. Other reasons were the unwillingsness to accept the tight regulations of the agreement or the lack of a political base. The political will to participate in sustainable development in global and the coöperation agreement appeared to be rather limited over the entire sample of municipalities.
The signing of the coöperation agreement concerning 'natural entities' has improved not only quantitatively but also qualitatively (Dumortier et al. 2007). On the one hand, more municipalities sign in on this facultative cluster (in 2002, 199 municipalities signed in, in 2006 227). Moreover, the number of approved nature projects increased from 20 to 129 during the period from 2002 – 2006. On the other hand, more municipalities choose a higher ambition level (the signing for ambition level 2 increased from 34 municipalities in 2002 to 50 in 2006). This ambition level puts more emphasis on the systematic execution and approach of the policy concerning nature, forests, green areas and landscapes. Therefore, it is to be expected that municipalities that signed in for ambition level 2 will have a bigger impact on nature conservation. When looking at the subject of the nature projects, about 50 % appear to concern nature development projects, 25 % is related to subsidy-regulations (green roofs, protection of the swallow, …). A bit less then 20 % involves the acquisition of land and the remaining 5 % comprises the elaboration of plans (green management, verge management, …) (Dumortier et al. 2007).

References

Bachus, K., 2005, Carte blanche of korset? Evaluatie van de Samenwerkingsovereenkomst, Hoger Instituut voor de Arbeid (HIVA), K.U.Leuven en Steunpunt Milieubeleidswetenschappen, MIRA-be 2005, 24 p.

Dumortier, M., De Bruyn, L., Peymen, J., Schneiders, A., Van Daele, T., Weyembergh, G., van Straaten, D., Kuijken, E., 2003, Natuurrapport 2003. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 352 p.

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., Weyembergh, G., Kuijken, E., 2005, Natuurrapport 2005. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 496 p.

Dumortier, M., De Bruyn, L., Hens, M., Peymen, J., Schneiders, A., Van Daele, T., Van Reeth, W., 2007, Natuurrapport 2007. Toestand van de natuur in Vlaanderen, cijfers voor het beleid, INBO, Brussel, 335 p.

Vandeputte, M., Bachus, K., Sepelie, R., Vangeebergen, B., Deraedt, B., Mazijn, B., Vanassche, J., 2004, Evaluatie van de samenwerkingsovereenkomst – Eindrapport, Hoger instituut voor de arbeid – KULeuven & Centrum voor Duurzame Ontwikkeling – Universiteit Gent, 122 p.

Column1	PROCESS		IMPLEMENTATION	SOCIAL IMPACT			
	Takes into account socio-economic context / Realistic	**Citizen involvement**	**creation of conflict private/public interest**	**cooperation between stakeholders**	**knowledge/capacity building**	**co-responsability for nature conservation**	
EIA (Environmental Impact Assessment)	yes, EIA takes into accountthe socio-economic context with the discipline MAN. Here the impact on the societal context is described and where necessary, mitigated.	only through objections on preliminary EIA	no, however indirectly the EIA will be used for permit procedures where this conflict will arise once identified in the EIA report	mitigating measures are normally formulated in an EIA but cooperation is never one of them. EIA does however bring several disciplines together in one assessment.	no. The integrated analysis is an open and official document to support the decision making process and permit procedure but does not necessarily enhance knowledge of stakeholders	certain measures can be made obligatory for partie involved through permits procedure, creating some corepsonsabililty for project executing parties	waarom dan dit instrumen t? voorname lijk beschermi ng via de juridische weg. Specifieke aandacht
AEM (Agricultural Environmental Measures)	customised per case. Participation and specific needs can be incorporated if needed.	involvement limited to people involved in the AEM.	no	cooperation between farmers ande government	when farmers are explained why they have to take what measures, this will lead to increased knowledge and improved awareness	yes as the farmer will be asked to perform specific tasks with nature objectives	
FMP (Forester Management Plan)	As in theory all ecological, economic, social, educative, protective and scientific objectives are defined in the FMP, the context of the forest should be taken into account.	involvement limited to people involved in the FMP	cooperation for FMP with other forest owners is voluntarily. Making a FMP is however obligatory for people who own more than 5ha and the plan has to be approved by government	cooperation between forester and government	when foresters are explained why they have to take specific measures for sustainble forestry, this will lead to increased knowledge and improved awareness	yes as the forester will be asked to perform specific tasks with nature objectives	
Management/Nature Project Agreement	mainly for nature with poor and no explicit obligation to take into account the socio-economic context	initiative from public and private owners with good funding possibilities recognises the importance of smaller landowners for small scale nature projects	through financial encouragment for projects for nature in for example VEN (90% of costs payed by government) the government gives landowners to possibility to cooperate in nature conservation? The project has to be approved by the governmental administration	cooperation through funding between private or public landowner and government	education not necesarily for the party involved but for a target group of people (visitors, …)	co-responsabililty through the initiative of the private or public parties	
Land consolidation	desirablility is mainly influenced by the socio-economic context becasue the objectives for land consolidation are mainly for improvement and higher economic viability of farms	involvement limited to people involved in the land consolidation. There is also a possibility for participation (inspraak) in the procedure	through the right of prepurchase (voorkooprecht) or through voluntairy sale, the government becomes the owner. Otherwise, ground is traded from one owner to another for public and private interest. Due to voorkooprecht, a conflict partially arises for third parties	cooperation between stakeholders (mainly farmers) and government. Cooperation not objective an sich with more attention for improvement of economic viability of farms	no	cooperation mostly through a better economic activity. Co-responsability therfore reduced	
Expropriation	expropriation can be used for societal interst. Payment is on the basis of similar properties in the area. Large scale expropriation can have a disruptive impact on local communities	no citizen involvement (or only in a negative way as it negatively affects the party involved)	the government gets all the rights over the ground thus creating the largest public-private interest conflict	no	no	no	
Land purchase	estimates for the payment for land purchase is done on similar properties in the area. Most of the time, actual prices are higher and some percentages are payed unofficially. Therefore, the government can most of the time not give the actual value.	private owners presents his proptery for sale and bidding is initiative of administation	the government buys the land in a normal procedure, not creating immediate conflict except from the fact that the land is "lost" from the private market	no	no	no, the responsability is transposed to the government	
Nature Arrangement	on the basis of extensive planning, cooperation and participation, an arrangement for the area ismade with the objectives for nature. The extend of participation and cooperation and the output of it determines the level of respect for the socio-economic context. project starts with feasibility study and projectcomité and ^projectcommission for advice and consultation	involvement through participation (inspraak) and debate	nee as most measures are done on a voluntary basis where often the governement takes actions and measures on private property with permession of the owner. The minister has to approve the project and sometimes the government buys part of the land for trading and arrangement according to its own ideas.	coordination of cooperation done by governement but also debate in projectcommission and projectcomité	education might be one of the objectives of the nature arrangement project	co-responsability high due to commission and comité with stakeholders	
Protection regime	no attention for socio-economic context	no citizen involvement	conflict arises via restriction in use or activities potentially affecting protected habitats and species	no	no	general responsability to protect but not personally adressed	

Permits	a permit allows a case-to-case assessment of the activities with the current legislation. Most oif the time this is unidisciplinary about the environment but sometimes societal aspects are taken into account (noise nuisance)	no citizen involvement. However, parties involved will a priori or a posteriiori think about potential impact of their project, sometimes changing the attitude or activity because the permit would have imosed some restrictions anyway	permits will restrict certain activities that are likely to affect the environmental and biotic quality thus creating a conflict between private entrepreneurs and industries and the governmental legislation	no	through permets people are confronted with evironmental awareness but capacity building not a objective	co-responsability through (environemtnal) footprint of (industrial) activities
Natural Reserves		involvement mainly through several (recreational) possibilities for the reserve.	a management plan has to be made for eacht natu reserve. This describes specific topics like accesibility, potentially causing a conflict between private and public interest for use of the terrain. Private organisations can also buy or manage nature reserves. They also need an approved management plan for this and are thus not completely free in their development of the reserve	not necessarily	spreading knowledge can be done through eduaction of visitors of the site	management by govenrment or stakeholder organisation. Therefore, depending on the situation some co-responsability via organisations
Species Protection Plan	no attention for socio-economic context	involvement of local government and stakeholder organisation(s)	organisations or the government can make and approve species protection plans. The execution of the plan uses different instruments for the implementation of specific management measures (such as AEM). Subsidies can be asked for measures for the realisation of the species protection plan and they have to be approved	local cooperation between stakeholders, managers and local officials	not the purpose of the protection plan but because of the local charactere, capacity building can be done through involvement	cooperation between different stakeholder leads to co-responsability for appropriate protection
Ecoconditionnality	exclusively on hte basis fo environmental and ecological criteria	only involvement of the farmer/forester	giving the non governmental party the possibility to get financial support for certain adaptations in conduct of businesses. This encouragement does not create the conflict of private and public interest unless subsidies are withdrawn on discutable basis	cooperation between govenrnment and stakeholde	capacity building not the objective but awareness will be created through regulations from ecoconditionnality	support will be lost when eco-conditions are not fullfilled so therefore, the former is responsible for keeping the financial support
Communication campaign	should be customised for the socio-economic context, depending on the needs for communicatior of that same context	afhankelijk van wie de doelgroep is kan dit inderdaad een belangirjke betrokkenheid van de burger teweegbrengen met als gevolg een mogelijk grotere interesse in mede-beheer etc	no	communication can potentially increase coopeeration	spreading inforamtion is a kind of knowledge building	unless the communication campaign informs about co-responsability for nature objectives, not much co-responsabillity is gained
Education program	dissimilar to communication, education takes into account a specific audience and not necessarily the socio-economic context. Depending on the socio-economic context, different programs might be necessary.	involvement can increase due to education	no	education and capacity building can potentialy lead to increased cooperation	these are the main objectives obviously	better knowledge will often lead to increased perception that something can be done and thus co-responsability
Contrat de Rivières		many parties involved in instrument as long as they have something to do with water policy	no as the cooperation is on a volunatarily basis	all stakeholders of the water policy sector work together. Cooperation is voluntarily	some knowledge building through cooperartion with stakeholders	united with other parties of the watersector, cooperate goals might be presented and achieved
Life Nature	likelyhood for funding increases when tkaning in to account the socio-economic context and development. Funding application demands description of socio-economic context.dissiminatior of the project results is considered to be important as well.	participation of NGOs etc no the management of the sites, the importance of communication and the local charactere of the project often stimulates involvement	no as financial support is given for a plan that need to be approved.	cooperation between several partners is encourage however, most of the time projects will be executed with partners to normally work together as well.	a significatn part of the funding must go to capacity building and dissimenation	through cooperation with several stakeholders, a certain co-responsability can be reached
Deduction of successions taxes on natural assets	no attention for socio-economic context	no citizen involvement	no as private owners are encouraged to keep the current stae of natural areas and forests	no	no	because people can make profit from preserving nature, personal (financial) reasons arise from the conservation
Labels for biodiversity-friendly products/ certification	no attention for socio-economic context	labelling might mean an extra for the party involved and thus, initiative comes from (private) parties. Involvemenbt due to codes of practice for labelling	conflict would arise as labels are given to private partners adapting their conduct of business for proper market profiling. However, changing conduct is on a voluntarily basis, creating added value to product	sometimes cooperation between industries and NGOs of government	labelling will improve knowledge through awareness of regulations but not an objective on itlsef	labelling creates awareness and often co-responsability as consumers will start buying certai products

Organic farming subsidies	no attention for socio-economic context as this is a purely financial instrument specific farming practices	only involvement of farmer	no conflict arises are encouraging specific code of conduct is on voluntarily basis	no	no	as organic farming often starts because of a certain belief in co-responsability, organic farming often leads to changes in consumer behaviour and conscious choices for organic products

	Take into account structures and functions of the ecosystems - Scientific based	Take into account the natural evolution - adaptation possibility - flexibility	Durability - robustness in time	effectiveness to reach the conservation goals	Broad or specific instrument	Recommendations		
AEM (Agricultural Environmental Measures)	Agrienvironmental measures aim at improving the quality of the environment (in a general concept) and at reducing negative impacts of agriculture on biodiversity. Very few scientific research exist about the impacts of AEM, and it explains why some measures are not well scientific-based. Some of them are not adequally adapted to improve biodiversity.	There is a possibility to adapt this insrument during each reviewing of the agricultural policy, but it's not easy to do it. When an agreement is taken with a farmer, in theory the contract can't be changed into the 5 years, so it's not really flexible.	More expensive in the long-term for society than the main other instruments (in regard to the results). This instrument is voluntary base and farmers can decide not to follow when renewing a contract. Agreements are only concluded for a period of 5 years, that is very short-term in regard to the environment requirements/evolution. So, we don't have any guarantee in the long-term.	Limited effectiveness (see text of Steve : adverse side-effects, insufficient for endangered species, do not consider landscape effects). In Wallonia, this instrument is not effective in the current version for a majority of endangered species and habitats.	Currently, this instruments is only usable for farmers (and not for private individuals, or NGO's). This instrument can be applied to a large panel of agricultural-linked habitats.	This instrument should be thought at the landscape or farm scale, and not at the field scale. More studies are needed.	En Région wallonne, impact général positif mais non optimal des MAE (<2004). Succès (nombre de contrats), mise en œuvre effective des mesures et respect des cahiers des charges assez satisfaisants. Par contre, le ciblage des mesures sur les besoins environnementaux prioritaires insuffisants. Manque d'efficience (moyens trop élevés au regard des résultats obtenus). Nouveau programme mieux adapté (actions ciblées et possibilité de majoration des primes en fonction de l'impact environnemental).	Revoir certains cahiers des charges, l'impact positif des mesures fauche tardive et très tardive est évident
Management agreement	This instrument is a good manner to take into account structures, functionning and functions of the ecosystems because management measures (and prohibitions) it contains are theorically based on ecological requirements of species and habitats it aims to protect.	In the current state, this instrument is not really flexible, because the agreement covers a period of 10 years, and it should be difficult to readapt it before the deadline if it is necessary to take into account the environment evolution. One should implement a mechanism allowing its reviewing in regard to some environment evolutions.	This instrument is more or less robust because the agreement is concluded for 10 years. Moreover this instrument is a voluntary one.	We can assume that this instrument should be effective because it has been specifically created to reach the Natura 2000 conservation goals. It supposes concrete technical measures of management and restoration of natural areas. It contains clear objectives. But the effectiveness of this instruments depends on its good application on the field by different landowners or stakeholders. It requires also a control by authorities.	This instrument is at the same time broad and specific because it is broadly applicable for all Natura 2000 sites and for a large panel of conditions, and specific because adaptable to each local situation.		From an ecological point of view, management agreement is a good way to implement management (technical) measures in a Natura 2000 site because it is based on a case by case analysis of the ecological situation and it permits to implement specific measures adapted to this situation. We can assume that after the negotiation between different parties, if they agree with the content of the management agreement, this should be well applied and respected on the field, although it requires a good control.	
Protection regime (prevention regime)	This prevention regime has been specifically created to protect Natura 2000 species and habitats. Prohibitions measures included in it are theorically scientific-based and can be if necessary applied outside the site to tackle broad threats. They are function of ecological requirements of each species and habitats occuring in a Natura 2000 site.	This prevention regime seems not really flexible, because its modification requires a heavy legal procedure.	This instrument can be effective on a long term only if the measures are well-respected. So, it depends on an effective control by authorities.	This instrument can contribute to reach conservation goals, but not if applied only, insofar as it imposes a direct protection of habitats and species. This passive instrument requires other active instruments which include concrete actions to preserve and restore habitats/species.	This is a broad instrument because it is applicable for each Natura 2000 site, but some measures contained in designation decrees are specific for one site, depending on the presence of specific species or habitats.	Content bad-adapted in Walloon region, files should be better followed, presence on the field is required.	prevention regime??	
Permits for intervention in environment	This instrument has been created to reduce negative impacts of some works or activities on different facets of the environment (soil, water and air; fauna and flora), and so, by the same way, on Natura 2000 sites and their species and habitats. By reducing these impacts, we can consider that this instrument, in a certain way, take into account the structures and functions of the ecosystem in its whole.	To take into account the natural evolution, there should be a frequent reviewing of norms and rules to respect for new projects, and this is not currently automatic. But for some activities, permits must be reviewed periodically, and this could be an occasion to adapt permits in relation to the evolution of the environment.	To be robust in time, this instrument requires that constraints are well respected, and it depends on an effective control by authorities	This instrument can contribute to reach conservation goals, but not if applied only, insofar as it imposes some constraints for new projects to reduce their impact on the environment. Most of time, it doesn't include any positive action in favor of Natura 2000 objectives.	This is a broad instrument because it is applicable at each Natura 2000 site and around it.			
Natural Reserves	Yes. Natural reserves contain in general core areas of the ecological network. The management plan of a natural reserve is based on the structure and functionning of the ecosystem. But the scale of application of this instrument (protected site) doesn't allow to take into account some external problems. It requires a more global approach than only focusing on some little protected sites. The ecological network approach is recommended to enhance connectivity between core areas.	No, frequently, this statute takes not into account the evolution of the environment, because management plan are established to maintain certain types of habitats, prohibiting a natural succession. Specific environmental events (like fire, storms) are not taken into account. Management plans are not flexible, because of the heavy procedure required to change it. But at the and of an agreement (for private reserves, each 30 years), it's necessary to make a new management plan.	Yes. The statute of domanial reserve is theorically fixed for an indeterminated period. Private reserves are agreed by the government for 30 years, renewable. Forest reserves are less robust because the convention is only concluded for a period of 9 years. Natural reserves are the best guarantee in the long-term to preserve a site.	This traditional instrument is recognized as the best way to reach conservation goals for a specific site, provided that management plan is well applied on the field and that external negatives influences on the reserve are fought. It allows the protection of sites of high biological value. However, this instrument is not applicable for a large part of the territory, so it doesn't allow by itself to fight the global loss of biodiversity.	This instrument is broadly applicable, for a large panel of habitats and sites, but its application can be very specific, depending on local context, the presence of some species or habitats.	Do not close natural reserves to the public.	Experts consider that 5 to 10% of the territory should have a stong protection statute	When a new natural reserve is created, it's generally necessary to take actions to maintain or restore the ecological quality of the site. If not, it should be better to keep the field as it was before… So it's important to implement a management monitoring
Ecoconditionnality	Eco-conditionality takes into account the structure and functioning of the ecosystems, insofar it contains some measures to protect small-landscape elements, which are very important in the structure of the ecosystem. Farmers are likely to better respect nature conservation legislation.	This instrument should be rather flexible, by changing the conditions it contains in relation to the environment evolution. It can be, e.g., adapted during the revision of the Plan de Développement Rural.	This instrument should be more robust in time than AEM because a majority of farmers respect the conditionality in order to get their payment from European Commission. In a certain way, they are financially obliged to respect this eco-conditionality.	These measures are global measures, which are not always specifically adapted to reach the Natura 2000 goals but they can globally contributes to a better state of the environment. But the effectiveness of this instruments requires a good application on the field, that depends on the sensibilisation of farmers and on the control of agricultural practices.	This instrument is broad because its application involves all farmers which get money from Europe.	Norms should be reinforced	see fiche	
Contrat de Rivières	Yes. This instrument focus on the river ecosystem and try to manage this ecosystem taking into account all different aspects, influences and externalities of the environment on the basin scale. The final goal is to obtain a good quality of the river (physical and chemical quality of water and bed and bank of the river)	This instrument is flexible, seeing that objectives of contrat de rivière (the action program) are frequently (each year) readapt in relation to the evolution of the environment, new problems arising, etc…	This instrument is based on the participation and so its robustness depends on the strenght of links between people involved in it and on the engagement of these people.	This instrument seems to be the most effective to reach concrete objectives in the scope of rivers and water management because this topic requires to put a large number of stakeholders around the table. The effectiveness depends largely on the dynamism of the contrat	It's a broad instrument because largely geographically and sociologically applicable, but specific because it mainly concerns only one habitat : rivers (and ponds)	This instrument can be an support but not the main engine of Natura 2000.	The contrats de rivière permit to develop an integrated view of a catchments basin, via a spinal column, the rivers. They allow people to tackle some global problems that requires the implication of different actors, such as water pollution. This instrument is not specifically dedicated with Natura 2000 topics but it can contributes to reach some conservation objectives, mainly for aquatic habitats and species. Indeed, this instrument can have a positive influence on the water quality, the ecological management of rivers, the land use in the valley, the landscape, etc… Most of time, contrats de rivière develop education and sensibilisation programs.	
Life Nature	Yes. Life Nature are specific projects taking into account a specific problem of nature conservation by analysing all the aspects of the ecosystem to fight this problem. Frequently, a scientific team supervise the project, and a scientific evaluation is made at the end.	As this instrument is a "one shot" instrument, it's not relevant to assess its flexibility. During the period of implementation, it's very difficult to change something envisaged in the project.	No. This instrument is not durable because it is mainly established for a period of 4 or 5 years. EU only finances restoration measures and not recurring management. However, projects must contain an "after Life" chapter, explaining how the results of the project will be maintained in the future.	Yes, these projects are effective because a lot of means are implemented to achieve some very specific objectives, such as the protection of one specific species, or a panel of specific habitats. However, it happens that some objectives are not achieve in the end of a project, mainly when it focus on the protection of one species (e.g. otter)	It's a specific instrument, that is implemented to resolve specific problems in specific contexts, in a specific region.			

redondance des analyses dans chaque discipline??