ANNEXE 8,1 Habitats comprehension Framework

Kind of habitat	Eunis correspondance	Patrimonial-conservation value	Conservation status		Sensitivity to human perturbations - protection level required	Effort for conservation (Need for human intervention)	Need for restoration measures	Effort for restoration	Economical value for landowner/user	Kind of habitat	Recurring active management measures	Restoration measures
			Area	Quality								
		(1:low - 2:medium - 3:high)	(A: good - B : medium - C : bad)	(A : good - B : medium - C : bad)	(1:low - 2:medium - 3:high)	(1:low - 2:medium - 3:high)	(1:low - 2:medium - 3:high)	(1:low - 2:medium - 3:high)	(1:low - 2:medium - 3:high)			
extensive meadow	**6410, 6430, 6510, 6520**	2-3	C	C	2	2	3	2		**extensive meadow**	Extensive mowing (+ sometimes extensive grazing)	Sod-cutting, intensive mowing, suppression of the drainage, cutting shrubs and trees
dry grassland	**5110, 5130, 6110, 6120, 6130, 6210, 6230**	3	C	C-B	3	2	3	2		**dry grassland**	extensive grazing (+ sometimes extensive mowing)	Sod-cutting, intensive mowing or grazing, cutting shrubs and trees
peatland	**7110, 7120, 7140, 7150, 7210, 7230**	3	C	C-B	3	1	3	3		**peatland**	Almost nothing (only ligneous vegetation control)	Suppression of drainage, raising of the water level, sod-cutting, cutting of shrubs and trees, reshaping of the coal faces
heathland	**2310, 2330, 4010, 4030**	3	C	C-B	3	2	3	2		**heathland**	extensive grazing (+ sometimes extensive mowing), management by fire, control of ligneous regeneration	Sod-cutting, intensive grazing, cutting shrubs and trees
caves	**8310**	3	A	A	2	1	1	1		**caves**	Nothing	Closing to the public
rocks	**8150, 8160, 8210, 8220, 8230**	3	B	C	2	1	2	2		**rocks**	Almost nothing (only ligneous vegetation control)	Sometimes cutting trees
N2000 forest	**9110, 9120, 9130, 9150, 9160, 9180, 91D0, 91D0, 91E0, 91F0**	2-3	A-C	C	2	1	2	1		**N2000 forest**	The less one makes, the better it is (only invasive species control + management of open habitats)	cutting coniferous and exotic trees, giving time! Creation of open habitats into the forest (clearing area, edges,…)
other broadleaved forest	**species habitat**	2			1	1	2	1		**other broadleaved forest**	The less one makes, the better it is (only invasive species control + management of open habitats)	cutting coniferous and exotic trees, giving time! Creation of open habitats into the forest (clearing area, edges,…)
exotic forest	**species habitat**	1			1	1	1	2		**exotic forest**	Invasive species control + management of open habitats	Creation of open habitats into the forest (clearing area, edges,…), diversification
oligotrophic rivers	**3260, 3270**	2	C	C	3	1	2	2		**oligotrophic rivers**	Invasive species control	elimination of coniferous and exotic trees, elimination of invasive species populations, recreation of "natural" banks
eutrophic rivers	**3260**		A	B-A	2	1	1	2		**eutrophic rivers**	Invasive species control	Recreation of alternation of open and forested areas, elimination of coniferous and exotic trees, elimination of invasive species populations, recreation of "natural" banks
oligotrophic body of water	**3110, 3130, 3140, 3160**	2-3	C	C	3	2	3	3		**oligotrophic body of water**	Water level management	restoration of good quality water, restoration of banks, restoration of a good fish equilibrium, cleaning silt
eutrophic body of water	**3150**		A	C	2	2	2	2		**eutrophic body of water**	Water level management, fish population regulation	restoration of good quality water, restoration of banks, restoration of a good fish equilibrium, cleaning silt
crop land	**species habitat**	1			1	3	1			**crop land**		
intensive meadow	**species habitat**	1			1	3	1			**intensive meadow**		
References		*1	*2	*2	*3	*4					*6	*5
***1**		Habitat Directive + expert judgement										
***2**		Evaluations of conservation status from both walloon and flemish regions										
***3/*4/*5/*6**		Cahiers habitats										
	Not considered habitats	coastal & estuarian 1130, 1140, 1310, 1320, 1330, 2110, 2120, 2130, 2150, 2160, 2170, 2180, 2190										
		marine habitats 1110										
		petrifying springs 7220										

APPENDIX 8

8.1 Habitat's comprehension framework

See excel file

8.2 An habitat's comprehension framework as a decision making tool

This comprehension framework is a proposal aiming at guiding politicians making decisions about the different strategies to adopt in order to achieve conservation goals for each big kind of habitat. Very briefly, it gives some information about the habitats, like ecological functioning, requirements, status of conservation, patrimonial value and level of protection required, and it tends to estimate the economical potential value of each habitat, which is the reflect of the social sensitivity in regard to the habitat.

The framework proposed is only a draft that should be completed in the future with further research, but not in the scope of the SELNAT-project.

Explaining of different columns

Kind of habitat : This column gathers all the main terrestrial habitats concerned by Natura 2000 into 15 global kinds of habitats (which are described below) in order to simplify the analysis.

Eunis correspondence : This column mentions the correspondences between the global kind of habitat and the Eunis codes (European based).

Patrimonial-conservation value : The patrimonial value (or conservation value) of an habitat depends on its biological value, but this concept takes also into account its importance into the global ecological network in term of content of biodiversity, its originality, the history of land use and vegetation evolution,… It reflects a priority for conservation and protection. Especially in Belgium, an habitat of high patrimonial value is an habitat which has a high level of rarity in the regional context, which is endangered, which is the biotope of endangered, rare species and/or which is sometimes culturally significant.

Conservation status : These 2 columns mention the conservation status (in regard to the habitat area and quality) as defined by the Habitat Directive (Art. 17) and calculated for the first report about conservation status to the European commission (2007).

Sensitivity to human perturbations - protection level required : This column aims at estimating the protection level required, in relation to the sensitivity of each habitat to human perturbations and activities. This information is inspired from the habitats books.

Effort for conservation (Need for human intervention) : This column gives an estimation of the human efforts required for the conservation of the habitat, to keep it in its current state, taking into account all different technical measures which are necessary to maintain it (see specific column). This effort could be valued in money.

Need for restoration measures : In regard to the current conservation status, the protection level required and the patrimonial value, this column informs if the restoration of the habitat is a priority or not at the country scale.

Effort for restoration : This column gives an estimation of the human efforts required for the restoration of the habitat taking into account all different technical measures which are necessary to maintain it (see specific column) and the different states of initial habitat. This effort could be valued in money.

Economical value for landowner/user : This column aims at evaluating the economical value which the habitat represents for the landowner or the land user.

Recurring active management measures : This column gives a non-exhaustive list of active management measures that can be set up to manage the habitat.

Restoration measures : This column gives a non-exhaustive list of restoration measures that can be applied to restore the habitat.

Big kinds of habitats selected

extensive meadow
This term includes the following Natura 2000 habitats : 6410, 6430, 6510, 6520. This habitat includes grasslands/meadows which are mowed, grazed, fertilized extensively. These are generally rich-flowered grasslands.

intensive meadow
This habitat is not of community interest but it includes species habitats, for example, birds like *Lanius excubitor, Saxicola rubetra*, bats like *Myotis dasycneme*,… These meadows are intensively used (mowed more than 2 time a year, or intensively grazed, fertilized).

dry grassland
This term includes the following Natura 2000 habitats : 5110, 5130, 6110, 6120, 6130, 6210, 6230. Dry grasslands are open, herbaceous vegetations occurring on poor soils (acid or calcareous). They are the biotope of a lot of endangered plants and animals species.

peatland
This term includes the following Natura 2000 habitats : 7110, 7120, 7140, 7150, 7210, 7230
Peatlands are open habitats occurring on poor, wet and organic soils. The level of organic matter increases with time and so this habitat has a high capacity for water retention. Acid peatlands are characterized by large populations of *Sphagnum* species. They are the biotope of a lot of endangered plants and animals species.

heathland
This term includes the following Natura 2000 habitats : 2310, 2330, 4010, 4030
Heathlands are open vegetations occurring on poor, wet or dry soils. Their existence is mainly due to ancestral activities like sod-cutting, sheep grazing, fire management, etc… So they have most of time an anthropogenic origin. They are the biotope of a lot of endangered plants and animals species.

caves
This term includes the following Natura 2000 habitats : 8310. These caves are not open to the public and are of great interest for the conservation of bats.

rocks
This term includes the following Natura 2000 habitats : 8150, 8160, 8210, 8220, 8230. This habitat includes rocks outcrops, cliffs, rock falls, rock cracks,… It can be the habitat of some birds species like raptors (peregrine falcon,…)

Natura 2000 forest
This term includes the following Natura 2000 habitats : 9110, 9120, 9130, 9150, 9160, 9180, 91D0, 91E0, 91F0. the three last habitats are of community interest. This term includes a large diversity of forests of community interest, like dry and wet forests (of beeches, oaks,…), slope forests, alluvial forests, boggy birch forests, etc… These forests are of great interest for a large diversity of animals like insects (lucanus,…) , bats, birds (woodpecker, raptors,…).

other broadleaved forest
This habitat is not of community interest but it includes species habitats, rather similar to the previous.

exotic forest
This habitat is not of community interest but it includes species habitats. Potentially, this habitat is able to be restored into broadleaved, indigenous forests, or into open semi-natural habitats (depending on the historic).

oligotrophic rivers

This term includes the following Natura 2000 habitats : 3260, 3270. These rivers are characterized by a low concentration of nutrients and a weak colonization by aquatic vegetation. These rivers are the habitat of a lot of species like kingfisher, fish, bats, otter, pearl mussels, etc…

eutrophic rivers
This term includes the following Natura 2000 habitat : 3260. These rivers are characterized by a high richness in nutrients and a colonization by aquatic vegetation. These rivers are the habitat of a lot of species like kingfisher, bats, fish, etc…

oligotrophic body of water
This term includes the following Natura 2000 habitats : 3110, 3130, 3140, 3160. This habitat includes bodies of water, ponds, that can be very small, with a low level of nutrients. It also includes banks vegetation like *Carex* sp. and low-marshes vegetations. This habitat is also a species habitat for a some birds and other animals (bats, fish,…).

eutrophic body of water
This term includes the following Natura 2000 habitat : 3150. This habitat includes bodies of water, ponds, with a high richness in nutrients. It also includes banks vegetation like reeds and *Carex* sp. vegetations. This habitat is an important species habitat for a lot of aquatic birds and some other animals like fish and bats.

crop land
This habitat is not of community interest but it includes species habitats

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Habitats not taken into account
coastal & estuarian habitats (1130, 1140, 1310, 1320, 1330, 2110, 2120, 2130, 2150, 2160, 2170, 2180, 2190), marine habitats (1110) & petrifying springs (7220)