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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

GROUP OF EXPERTS ON PROTECTED AREAS AND ECOLOGICAL NETWORKS

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Palais de l'Europe building, Room 8

**IMPLEMENTATION OF THE
EMERALD NETWORK CALENDAR (2011-2020)**

- NATIONAL REPORTS -

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the Directorate of Democratic Governance
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ALBANIA



Law No. 9868, date 04.02.2008 on some addendums and changes to the Law No. 8906, date 6.6.2002 "On protected areas", defines the criteria for proclaiming protected areas as well recognizes special protected areas of interest to the European Community, initially providing the possibility for assessment of habitats of interest to the European Community included in the annexes of the Habitats Directive and then to propose these areas based on criteria established by law in accordance to Habitats Directive.

Also, the law sets the internal sub-zoning for each protected area. The concept of division of a protected area territory into functional sub zones based on their characteristics, facilitates the performance of community activities in the territories of protected areas, provides "buffer" or mitigating effects and better characterizes the properties of natural areas. The law defines the procedures for proclaiming protected areas in regard to local government and landowners.

The total number of protected areas is 797 (including nature monuments), covering an area of more than 401 thousand hectares. This is 16, 61 % of the territory of Albania, including costal territories and one MPA Sazan- Karaburun.

The coverage of Protected Areas has increased considerably since the first NBSAP. Especially, in the period since 2005 the number of PAs and the territory covered has more than doubled from 5,8 % in 2005 to more than 16 % actually. The Map and the main data on PAs are given in Annexes to this report. The actual representative network of Protected Areas counts for 16.61 % of terrestrial areas or 461 thousand hectares, of which 119,401 ha of coastal as well as 13,261 ha of marine areas.

The first MPA in Albania was designated in April 2010 as the "Karaburuni peninsula-Sazani island" Marine National Park.

There are four Ramsar sites of wetlands of international importance especially as waterfowl habitats, respectively (1) Karavasta lagoon; (2) Butrinti wetland complex; (3) Shkodra Lake and Buna river wetland complex, and (4) Prespa lakes area – the fourth Ramsar site for Albania declared by Decision of the Council of Ministers' No. 489, date 13.06.2013. Annex 4 shows the location of Ramsar sites in the Albanian map. The Convention on Wetlands came into force for Albania on 29 February 1996. Albania presently has 4 sites designated as Wetlands of International Importance, with a surface area of 98,181 hectares.

Management of Protected Areas

Although the coverage of Protected Areas has increased, the management issues are still lacking behind. The management of Protected Areas in accordance with the national legal framework is based on the management plan. The preparation and implementation of Management Plans for the Protected Areas has progressed as follows:

The preparation of the Management Plan for National Park Prespa was completed in cooperation with German KfW and it was approved by Ministerial Order in June 2014.

Infrastructure development and rehabilitation of the NP DivjakeKaravasta, NP Dajti, NP Lura, MNR Kune-Vain-Tale and PL BunaVelipoje projects, with investment from the state budget have started their implementation after the completion of procurement procedures in early

June and signing of contracts of work with selected companies in late June 2014. The work will be completed by the end of December 2014.

Final drafts of 6 Management Plans elaborated with the assistance provided in SELEA project IPA 2010. Management Plans for the following protected areas: Protected Landscape "Pogradeci Lake", National Park "Bredhi i Hotoves-Dangelli", National Park "Tomorri Mountain", Natural

Park "Korab-Koritnik", PL "Mali me gropë -Bize Martanesh" and Alps Proposed National Park which will include the existing NP Theth and Valbone and Strict Reserve Lumi i Gashit, are completed. The first five were approved in the end of 2014.

Management Plan for the Marine National Park "Karaburun-Sazan" is prepared in cooperation with the GEF-UNDP project on "Marine and Coastal Protected Areas" and is planned to be completed in December 2014.

Management Plan for the National Park 'Divjake- Karavasta' is ongoing in cooperation with JICA. The final draft is completed in June 2014. The plan will be approved by the within 2014. Management Plan for both the Buna River and surrounding wetlands Protected Water and Ground Landscape and the Shebenik-Jablanica National Park are in preparation process in the framework of a Project titled "Institutional Support to the Albanian Ministry of Environment, for Sustainable Biodiversity Conservation and Use in Protected Areas and the Management of Waste". The project has been financed through a grant from Government of Italy, and is currently being implemented by the IUCN - The World Conservation Union

Management Plan for both the Regional Natural Parks "Nikaj Mertur" and "Shkrel" are in preparation process in the framework of a Project titled "Conservation of the Agro-biodiversity in Rural Areas in Albania (CABRA)". The project is being supported from GIZ (German International Cooperation Agency).

Two sites, Shebenik and Lumi i Gashit have been nominated as UNESCO World Heritage Beech Forests Meanwhile, Management Committees of Protected Areas have been established for the majority of PAs to ensure the implementation of Management Plans.

Ecological networks

The Pan-European Ecological Network (PEEN) originated from the PanEuropean Biological and Landscape Diversity Strategy (PEBLDS) aims to link different European and national protected areas and ecological networks with the goal of ensuring a favourable conservation status of Europe's key ecosystems, habitats, species and landscapes.

The complete National Ecological Network (Alb-NEN) is still missing.

Emerald Network of Areas of Special Conservation Interest (ASCI-s). The identification of Areas of Special Conservation Interest (ASCI-s) was carried out in the period 2002-2008 for Albania. As the result 25 potential Emerald sites were identified and studied. The proposals were assessed by the ETC/BD and Council of Europe during 2010-2012. The Standing Committee of the Bern Convention at its 32 meeting in December 2012 approved the 25 proposed sites for Albania.

Recently this year the IPA project on Natura 2000 started in Albania. The project tender was completed in February 2015 and the winner is Italian Cooperation office in Albania in joint venture with IUCN. The work is in its inception phase.

Appendix I

RRJETI I ZONAVE TE MBROJTURA NE SHQIPERI

MINISTRIA E MJEDISIT VITI 2015-Janar

Nr.	Kategoria	Qarku	Rrethi	Emri i ZM	Miratimi	Nr.ZM	Siperf. Ha
1	I	Kukes	Tropoje	Lumi i Gashit	VKM nr.102,date 15.01.1996	1	3,000.0
2	I	Gjirokaster	Gjirokaster	Kardhiq	VKM nr.102,date 15.01.1996	1	1,800.0
	SHUMA I	Rezervat Strikt Natyror/Rezervat Shkencor				2	4,800.0
3		Shkoder	Shkoder	Thethi	VKM nr. 96,date 21.11.1966	1	2,630.0
4	II	Diber	Diber	Lura	VKM nr. 96,date 21.11.1966	1	1,280.0
5	II	Vlore	Vlore	Llogara	VKM nr. 96,date 21.11.1966	1	1,010.0
6	II	Korce	Korce	Bredhi i Drenoves	VKM nr. 96,date 21.11.1966	1	1,380.0
8	II	Kukes	Tropoje	Lugina e Valbones	VKM nr.102,date 15.01.1996	1	8,000.0
9	II	Durres	Kruje	Qafe Shtame	VKM nr.102,date 15.01.1996	1	2,000.0
10	II	Diber	Mat	Zall Gjogaj	VKM nr.102,date 15.01.1996	1	140.0
11	II	Korce	Korce	Prespa	VKM nr. 80,date 18.02.1999	1	27,750.0
12	II	Vlore	Sarande	Butrinti	VKM nr. 134,date 20.02.2013	1	9,424.4
13	II	Tirane,Durres		Mali i Dajtit	VKM nr. 402, date 21.06.2006	1	29,216.9
		Tirane	Tirane	Mali i Dajtit	VKM nr. 402, date 21.06.2006		26,772.7
		Durres	Kruje	Mali i Dajtit	VKM nr. 402, date 21.06.2006		2,444.2
14	II	Fier, Tirane		Divjake-Karavasta	VKM nr. 687, date 19.10.2007	1	22,230.2
		Fier	Lushnje	Divjake-Karavasta	VKM nr. 687, date 19.10.2007		19,411.1
		Fier	Fier	Divjake-Karavasta	VKM nr. 687, date 19.10.2007		2,074.5
		Tirane	Kavaje	Divjake-Karavasta	VKM nr. 687, date 19.10.2007		744.6
15	II	Elbasan, Diber		Shebenik-Jabllanice	VKM nr. 640, date 21.05.2008	1	33,927.7
		Elbasan	Librazhd	Shebenik-Jabllanice	VKM nr. 640, date 21.05.2008		33,760.1
		Diber, Kukes	Bulqize	Shebenik-Jabllanice	VKM nr.640,date 21.05.2008		167.6
16	II	Gjirokaster, Korce		Bredhi i Hotoves-Dangelli	VKM nr. 1631,date 17.12.2008	1	34,361.1
		Permet	Permet	Bredhi i Hotoves-Dangelli	VKM nr. 1631,date 17.12.2008		33,165.3
		Korce	Kolonje	Bredhi i Hotoves-Dangelli	VKM nr. 1631,date 17.12.2008		1,195.8
17	II	Vlore	Vlore	PKD "Karaburun-Sazan"	VKM nr.289, date 28.04.2010	1	12,428.0
	II	Berat, Elbasan		Mali i Tomorrit	VKM nr.432,date 18.07.2012	1	24,723.1
18	II	Berat	Berat	Mali i Tomorrit	VKM nr. 432, date 18.07.2012		8,398.4

		Berat	Skrapar	Mali i Tomorrit	VKM nr. 432, date 18.07.2012		15,045.8
		Elbasan	Gramsh	Mali i Tomorrit	VKM nr. 432, date 18.07.2012		1,278.9
	SHUMA II	Park Kombetar				15	210,501.4
19	III	Shqiperi	Shqiperi	BioMonumente Nr.	VKM nr. 676,date 20.12.2002	348	0.0
20	III			GjeoMonumente Nr.	VKM nr.676,date 20.12.2002	398	0.0
	III			ShumaBio&Gjeo Nr.		746	0.0
21	III	Gjirokaster	Gjirokaster	Bredhi i Sotires	VKM nr.102,date 15.01.1996	1	1,740.0
22		Gjirokaster	Gjirokaster	Zhej	VKM nr.102,date 15.01.1996	1	1,500.0
23	III	Vlore	Delvine	Syri i Kalter	VKM nr.102,date 15.01.1996	1	180.0
24	III	Diber	Diber	Vlashaj	VKM nr.102,date 15.01.1996	1	50.0
				Shuma MonNatyre Nr.		4	0.0
				Totali MonNatyre Nr	VKM nr. 676,date 20.12.2002	750	0.0
	SHUMA III	Monument Natyre					3,470.0
25	IV	Vlore	Vlore	Karaburun	Rreg.MB nr. 1, date 27.7.1977	1	20,000.0
26	IV	Korge	Devoll	Canongan	Rreg.MB nr. 1, date 27.7.1977	1	250.0
27	IV	Berat	Skrapar	Bogove	Rreg.MB nr. 1, date 27.7.1977	1	330.0
28	IV	Korge	Korge	Krastafillak	Rreg.MB nr. 1, date 27.7.1977	1	250.0
29	IV	Elbasan	Librazhd	Kuturman	Rreg.MB nr. 1, date 27.7.1977	1	3,600.0
30	IV	Fier	Fier	Pishe Poro	Rreg.MB nr. 1, date 27.7.1977	1	1,500.0
31	IV	Lezhe	Lezhe	Berzane	Rreg.MB nr. 1, date 27.7.1977	1	880.0
32	IV	Fier	Fier	Levan	Rreg.MB nr. 1, date 27.7.1977	1	200.0
33	IV	Berat	Berat	Balloll	Rreg.MB nr. 1, date 27.7.1977	1	330.0
34	IV	Elbasan	Elbasan	Qafe Bushi	Rreg.MB nr. 1, date 27.7.1977	1	500.0
35	IV	Durres	Durres	Rrushkull	Urdher MB nr.2,date 26.12.1995	1	650.0
36	IV	Vlore	Delvine	Rrezome	VKM nr.102,date 15.01.1996	1	1,400.0
37	IV	Kukes	Has	Tej Drini Bardhe	VKM nr. 102,date 15.01.1996	1	30.0
38	IV	Korce	Kolonje	Germenj-Shelegur	VKM nr.102,date 15.01.1996	1	430.0
39	IV	Elbasan	Librazhd	Polis	VKM nr.102,date 15.01.1996	1	45.0
40	IV	Elbasan	Librazhd	Stravaj	VKM nr.102,date 15.01.1996	1	400.0
41	IV	Elbasan	Librazhd	Sopot	VKM nr.102,date 15.01.1996	1	300.0
42	IV	Elbasan	Librazhd	Dardhe-Xhyre	VKM nr.102,date 15.01.1996	1	400.0
43	IV	Shkoder	Shkoder	Liqeni i Shkodres	VKM nr. 684, date 02.11.2005	1	26,535.0
44	IV	Lezhe	Lezhe	Kune-Vain-Tale	VKM nr.432, date 28.04.2010	1	4,393.2

45	IV	Lezhe	Kurbin	Patok-Fushekuqe-Ishem	VKM nr. 995, date 03.11.2010	1	5,000.7
46	IV	Diber, Kukes		Korab-Koritnik	VKM nr.898,date 21.12.2011	1	55,550.2
		Diber	Diber	Korab-Koritnik	VKM nr.898,date 21.12.2011		20,663.4
		Kukes	Kukes	Korab-Koritnik	VKM nr.898,date 21.12.2011		34,886.8
	IV/1	Park Natyror Rajonal					
47	IV/1	Diber	Mat	Liqeni i Ulzez dhe zona perreth tij	VKQ nr. 16, date 03.04.2013	1	4,206.0
	IV/1	Kukes	Tropoje	Nikaj Mertur	VKQ nr. 32, date 13.10.2014	1	17,505
	SHUMA IV	Rezervat Natyror I Menaxhuar/Park Natyror				24	144,685.10
48	V	Korçe	Devoll	Nikolice	VKM nr. 102, date 15.01.1996	1	510.0
49	V	Korçe	Pogradec	Pogradec	VKM nr. 80,date 18.02.1999	1	27,323.0
50	V	Vlore	Vlore	Vjose-Narte	VKM nr. 680, date 22.10.2004	1	19,738.0
51	V	Shkoder	Shkoder	Lumi Buna-Veipoje	VKM nr. 682, date 02.11.2005	1	23,027.0
52	V	Tirane, Diber, Elbasan		M. Gropa-Bize-Martanesh	VKM nr.49, date 31.01.2007	1	25,266.4
		Tirane	Tirane	M. Gropa-Bize-Martanesh	VKM nr.49, date 31.01.2007		13,213.6
		Diber	Mat	M. Gropa-Bize-Martanesh	VKM nr.49, date 31.01.2007		3,016.7
		Diber	Buiqize	M. Gropa-Bize-Martanesh	VKM nr.49, date 31.01.2007		9,036.1
	SHUMA V	Peizazh 1 Mbrojtur				5	95,864.4
53	VI	Diber	Diber	Luzni-Buiac	VKM nr. 102, date 15.01.1996	1	5,900.0
54	VI	Korçe	Kolonje	Piskai-Shqeri	VKM nr. 102, date 15.01.1996	1	5,400.0
55	VI	Lezhe	Mirdite	Bjeshka e Oroshit	VKM nr. 102, date 15.01.1996	1	4,745.0
56	VI	Korçe	Pogradec	Guri i Nikes	VKM nr. 102, date 15.01.1996	1	2,200.0
	SHUMA VI	Zone e Mbrojtur e Burimeve te Menaxhuara				4	18,245.0
	TOTALI i ZM				16,61%	800	477,566
	Sip. Republikes	2,874,800.00		ZM pa Sip.Detare	16.14%		464,305
				Sip. Detare, Ha	0.5%		13,261.2
a	VKM	Vendim Keshilli Ministrave			Karaburun-Sazan		12,428.0
b	VKQ	Vendim Keshilli Qarkut			Butrint		833.2
c	MB	Ministria Bujqesise		Sip. Bregdetare dhe Detare	%/Totalit ZM	25.95%	119,401.5

<i>LISTA E ZONAVE RAMSAR</i>							
1	RAMSAR	Fier	Lushnje,Fier	<i>Laguna Karavastase_Pisha Divjakes</i>	VKM nr.413,date 22.08.1994	Nr. Site 781, dt.29.11.1995	20,000.0
2	RAMSAR	Vlore	Sarande	<i>Kanaii Qukes-Butrint-Kepi Stillos</i>	VKM nr.531, date 31.10.2002	Nr. Site 1290, dt.28.3.2003	13,500.0
3	RAMSAR	Shkoder	Shkoder	<i>Liqeni Shkodres-Lumi Bunes</i>	VKM nr. 683, date 02.11.2005	Nr. Site 1598, dt.2.2.2006	49,562.0
4	RAMSAR	Korce	Korce, Devoll	<i>Liqeni i Prespave</i>	VKM nr. 489, dt. 13.06.2013	Nr. Site 2151, dt 03.07.2013	15,118.6
	TOTALI				% Totai i Republikes	3.42%	98,180.6

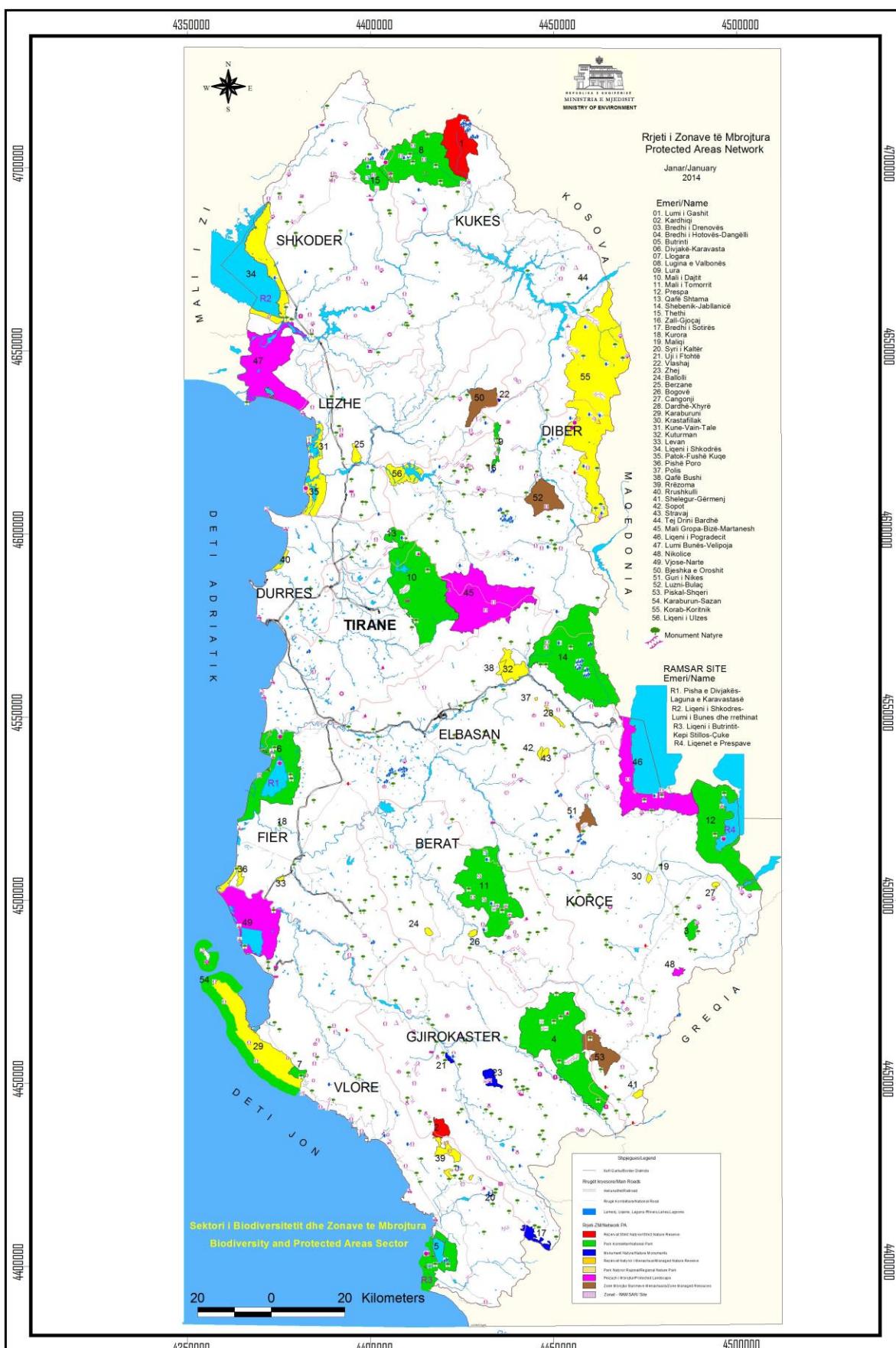
DREJTORIA E BIODIVERSITETIT DHE ZONAVE TE MBROJTURA

SEKTORI I ZONAVE TE MBROJTURA

Adresa: Rruga e Durresit, Nr. 27, Tirane.

www.moe.gov/Zonat e Mbrojtura te Shqiperise.

Appendix II



ARMENIA

According to the ideology of the Convention, the factors affecting ecosystems and biodiversity vary and are not limited to the national borders. And measures that different countries undertake in local, national or regional levels are sometimes not sufficient. Only international frameworks can assist in the complete protection and development of the biodiversity and landscapes by supporting the coordinated initiatives of all parties. Such a successful example is a “Natura 2000” in the EU member states and based on this example for non-member states the completely compatible “Emerald Network” was created.

For this purpose, under the scope of the Convention, party states allocated areas of Special Environmental Interest (ASEI, “Emerald Network”), where each Party State implements necessary complex environmental measures. The selection of the areas was done by the country governments according to the requirements set by the 4th and 6th resolutions of the Standing Committee of the Convention and due to the special protection regime across Europe targeted to the creation of the global network of conservation in order to mitigate risks threatening floral, fauna species and habitats. The basic working principle of “Emerald network” in Europe is the fulfillment of Emerald electronic forms in the computer program by the party courtiers along with the separation of the SEI areas, where the detailed description of the habitat (included the occupied area, status), data in the Annexes of the Convention, species, habitats included in special Resolutions, as well as information about the species, habitats etc. of international and national importance exist.

The importance of “Emerald network” for Armenia is also highlighted by the fact that it will serve as a unique electronic cadastre of the chosen areas (habitats, the condition of flora and fauna). Such a cadastre can be used not only by the cooperating countries but also in our country by the government agencies and local governments concerned with management of biodiversity and natural resources, academic, public organizations.

The establishment of “Emerald Network” started during 2007-2008 at the scope of the introduction of “Emerald Network” program in Armenia according to its requirements the 10% sites were chosen and described to be included in the “Emerald Network”. Program continued until 2009-2011 and during its triennial works the list of the following nine potential sites were identified and drawn up: “Khosrov Forest” State reserve, “Sevan”, “Lake Arpi” National parks, “Khor Virap”, “Plane grove” State sanctuaries and “Khustup”, “Erakhi range”, “Lori lake”, “Sjuniqi shibljak” areas that was occupy 206 697,5 ha and forms 7% of the total country area. As a program requirement, the electronic database was created of the potential sites, including GIS mapping works. The target goal of the program was also the international assessment of any protected area. As such “Khosrov Forest” State reserve was chosen by the Ministry which is included in the “Emerald” Network and satisfies the biological and landscape European requirements.

For that purpose, at November 2011 Armenia's application was submitted to the Secretariat of the Convention by the State Agency of “Environmental Project Implementation unit” to grant “Khosrov Forest” State reserve a European diploma of protected areas. According to the declared procedure, a list of activities were implemented /workshops, meeting of experts, online discussions/ and at 10th of July 2013 the “Khosrov Forest” State reserve was granted a European diploma by a special decision of the Committee of Ministers of Europe CM/ResDip(2013)2.

Aimed at eventual development of that ecological network at 2013 the “Emerald Network - phase 2” program has started. At present previously proposed all positional sites are estimated. As a consequence of the done works, the list of potential sites included in the network was revised and supplemented with as follows: 1. “Khosrov Forest” State reserve, 2. “Sevan”, 3. “Arpi lake”, 4. “Dilijan”, “Arevik” National parks, 6. “Khor Virap”, 7. “Plane Grove”, 8. “Khustup”, 9. “Aragats Alpine”, 10. “Ijevan” sanctuaries, 11. planned “Gnishik” protected landscape, 12. “Ararat salt marshes” Natural monument, 13. “Sjuniqi shibljak”, and 14. “Lori lakes” areas.

Total 14 sites of the Network occupy 346949.8ha and consist of the 11.7% of the country's territory.

In addition to the planned works, for the development of synergy with the Convention of “Climate Change” and its prediction, risk mitigation and possible reduction, climate change risks mitigation

works were done for the sites included in the “Emerald Network”. Those works were financed and were implemented in cooperation with the Convention of “Climate Change” office.

Completing the establishment of the “Emerald network” in Armenia we can enlist that in Armenia 12 sites “Khosrov Forest” State reserve, “Sevan”, “Arpi lake”, “Dilijan”, “Arevik” National parks, “Khor Virap”, “Plane Grove”, “Khustup”, “Aragats Alpine”, “Ijevan” State sanctuaries, planned “Gnishik” protected landscape from overall 14 areas included in the “Emerald Network” are involved in the system of protected natural areas and have different categories. According to the law of the protected areas, part of the area of “Ararat salt marshes” is included in the list of Natural monuments, and the two “Sjuniqi shibljak” and “Lori lakes” areas still do not have any category.

At the same time “Loru lcher” site coincides with “Tashir” Important Bird Area among 18 Important Bird Areas identified by “Birdlife International” and with the “Loru lcher” site included in the list of Important Botanical Areas of Armenia.

“Ararat salt marshes” site coincided with the homonymous Important Botanical Area.

Main part of the areas having NPA status in the “Emerald Network” again coincides with the Important Botanical Areas and Important Bird Areas, for instance “Sevan”, “Arpi lake”, “Arevik” and “Khor Virap”, “Khosrov Forest” sites are also Important Bird Areas, and “Plane grove”, “Ararat salt marshes”, “Khor Virap” are also Important Botanical areas.

“Sevan”, “Arpi lake” and “Khor Virap” sites of “Emerald Network” are also included in the list of internationally important wetlands areas of the <Convention of Wetlands of International Importance” the Ramsar Convention.

Above mentioned Important Bird Areas in Armenia are highlighted also in the Annexes of migrating species of the Bonn Convention and in the Bern Convention for conservation of migratory species. Accordingly,

- ”Emerald Network” was founded by the Standing Committee of the Convention (Res.N3(1996) to solve issues related to the Pan European Ecological Network/PEEN/ and “Emerald Network” sites are also PEEN core areas,
- The development of PEEN is the first thematic strategy of the Pan-European Biological and Landscape Diversity Strategy /PEBLS/ and in its turn, it is an important investment of Europe for realization of the goals of UNDP Convention of “Biological Diversity”.

Consequently, we can enlist the fact that the creation of “Emerald Network” in Europe as well as in Armenia is the important step towards the implementation of the provisions of the Convention of “Biological Diversity”.

The creation of “Emerald Network” is a precedent and a first step towards the creation of ecological network in Armenia provided by the law of Specially Protected Areas of RA and towards joining the international networks such as PEEN.

“Khosrov Forest” state reserve is already a core area of PEEN a holder of European diploma as well as the rest 13 sites of “Emerald Network” according to the procedure.

According to the determined procedure after the discussions at the session of the Standing Committee, the areas will be officially accepted as “Emerald network” sites in Armenia and therefore as PEEN core areas.

At the same time, “Emerald Network” sites intersect with the areas protected under Ramsar, Bonn Conventions as well as with Important Bird Areas and Important Botanical Areas. Furthermore, it is once again important the protection of those areas and the designation of their future development events as a protection step of species and habitats having national, European and international importance.

ARMENIAN SITES INCLUDED IN THE “EMERALD NETWORK”

During 2009-2014 in line with establishment activities of “Emerald Network”, the number and consequently the scope of the areas included in the network was changed, clarified and supplemented.

At 2009-2011 as a result of the first stage the network included the following 9 sites that occupied 206 697,5 ha area and constituted 7% of the total country area.

At the end of the year 2013 there were already 12 sites with 291329.0 ha total surface area and constituted 9.8% of the total country area. The Network was supplemented by new "Dilijan" National Park-“Ijevan” sanctuary, planned “Gnishik” protected landscape, “Aragats Alpine” sanctuary and by the part of “Ararat salt marshes” matching with the same nature monument sites.

Consequently, the reassessment removed “Erakh range” area from the list.

Finally, the works done during 2014 added another potential area “Arevik” National park to the list. The united site “Dilijan” National park-“Ijevan” State sanctuary was divided into two “Dilijan” National park and “Ijevan” State sanctuary separate sites.

Currently chosen 14 sites together occupy 346 949.8 ha area and constitute 11.7% of the total country area.

NN	Site	(ha)	Elevation (m)		
			min	max	mean
1	AM0000001 "Khosrov Forest" State reserve	28402.1	858	3065	1776
2	AM0000002 "Sevan" National park	148620.8	1863	2862	1919
3	AM0000003 "Khor Virap" State sanctuary -"	50.0	815	822	817
4	AM0000004 "Lake Arpi" National park -	21133.3	1954	3009	2438
5	AM0000005 "Ijevan" State sanctuary -	6151.7	740	2141	1385
6	AM0000006 "Khustup" State sanctuary	2000.1	2032	3201	2601
7	AM0000007 Lori lakes –	174.1	1473	1496	1483
8	AM0000008 Impassable brushwood	5.0	857	902	880
9	AM0000009 "Plane grove" State sanctuary -	1221.3	630	1195	876
10	AM0000010 "Aragats alpine" State sanctuary	9446.7	2606	4090	3274
11	AM0000011 "Dilijan" National park -	38634.3	890	2631	1621
12	AM0000012 planned "Gnishik" Protected landscape	30300.1	969	2705	1924
13	AM0000013 "Ararat salt marshes" Nature monument	10.0	840	851	845
14	AM0000014 "Arevik" National park -	60800.3	420	3753	1745
Total area		346949.8			

1."KHOSROV FOREST" STATE RESERVE

Area: 28402.1 ha*

Location: Ararat Marz

Purpose: protection of Azat River water resources, juniper and oak forests, arid mountain vegetation, rare animals and plants.

*The site area does not correspond to the official size of Specially Protected Nature Area.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Invertebrates: Cerambyx cerdo

Reptiles: *Testudo graeca, Mauremys caspica*

Birds: *Accipiter brevipes, Aegolius funereus, Aegypius monachus, Alcedo atthis, Anthus campestris, Aquila chrysaetos, Aquila pomarina, Bubo bubo, Bucanetes githagineus, Buteo rufinus, Calandrella brachydactyla, Caprimulgus europaeus, Circaetus gallicus, Coracias garrulus, Dendrocopos syriacus, Emberiza hortulana, Falco biarmicus, Falco peregrinus, Gypaetus barbatus, Gyps fulvus, Hieraaetus pennatus, Lanius collurio, Lanius minor, Lullula arborea, Luscinia svecica, Neophron percnopterus, Pernis apivorus, Pyrrhocorax pyrrhocorax, Sylvia nisoria.*

Mammals: *Canis lupus, Capra aegagrus, Lutra lutra, Myotis emarginatus, Panthera pardus, Rhinolophus euryale, Rhinolophus ferrumequinum, Rhinolophus mehelyi, Ursus arctos, Vormela peregusna, Myotis blythii, Rhinolophus hipposideros, Miniopterus schreibersi.*

Habitats: E1.2-Perennial calcareous grassland and basic steppes; E1.3-Mediterranean xeric grassland; E3.4-Moist or wet eutrophic and mesotrophic grassland; F9.3-Southern riparian galleries and thickets; G1.11-Riverine Salix woodland; G1.A7-Mixed deciduous woodland of the Black and Caspian Seas; G3.9-Coniferous woodland dominated by Cupressaceae or Taxaceae.

The assessment of the climate change possible impact on the “Khosrov forest” State reserve

A deterioration of the forest vegetation growing conditions can be expected. The specific forest ecosystems will stay the same in the middle mountain belt, while in the lower mountain belt they will transfer into sparse forests. Overall, the natural forest growth will be hampered.

Especially in the middle mountain belt, the steppe vegetation of the reserve area will start to transfer into phryganoids. A significant expansion of tragacanth steppes and traganths is possible. Juniper and deciduous arid open forests will rather stay within the old borders. A bigger expansion of open arid forests is possible due to the forest vegetation of the lower belt. The upper border of the forest probably will rise to the sub-alpine belt (an expansion of sub-alpine forests is possible); while the meadows situated in the border of the reserve will start to transfer into meadow-steppes. The presumed changes of ecosystems will lead to the conservation and improvement of Bezoar goat's natural habitats, and also to the occupation of new sites and expansion of their local area within the reserve area. Most likely, the existence conditions of Transcaucasian water shrew (*Neomys schelkovnikovi*) will improve, which will lead to the increase of the population rate. A fragmentation of the local area of porcupine (*Hystrix indica*) may be expected, and out of their current migration reserve area, in best case, in the separate parts of the reserve small groups of this species will remain. The existence conditions of the mouflons, which do not have permanent habitats here and are considered as a seasonal migrant during recent years, will get significantly worse. It is possible, that already in 2007 the reserve area will not be included in his area. The existence conditions of long-eared hedgehog (*Hemiechinus auritus*), marbled polecat (*Vormela peregusna*) will noticeably improve, which will lead to the increase of their populations and the extension of their areal. There will not be any significant changes in the populations of Caspian snowcock (*Tetraogallus caspius*). The climate change also will not have noticeable impact on the populations of *Panthera pardus*. For *Cerambyx cerdo* of the invertebrates the living conditions can be expected to have some improvements. Related to the rise and the change of species of the forest lower border, a deterioration of the growing conditions is expected for those tree species (oak) that are considered as a main food. Consequently, the number of weak and semi-dry trees will increase, which will lead to the additional microbiotops for the development of the *Cerambyx cerdo*.

2. “SEVAN” NATIONAL PARK

Area: 148, 621 ha*

Location: Gegharkunik Marz

Purpose: protection of fresh water reserves of the Lake Sevan, fish stocks, natural and historical-architectural complexes; recreation and tourism activities.

*The site area does not correspond to the official size of Specially Protected Nature Area.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Dactylorhiza chuhensis*, *Dracocephalum austriacum*, *Echium russicum*

Invertebrates: *Maculinea nausithous*

Birds: *Accipiter brevipes*, *Acrocephalus melanopogon*, *Aegypius monachus*, *Alcedo atthis*, *Anthus campestris*, *Aquila heliaca*, *Aquila nipalensis*, *Aquila pomarina*, *Ardea purpurea*, *Ardeola ralloides*, *Aythya nyroca*, *Botaurus stellaris*, *Bubo bubo*, *Buteo rufinus*, *Calandrella brachydactyla*, *Charadrius alexandrinus*, *Chlidonias hybridus*, *Chlidonias leucopterus*, *Chlidonias niger*, *Circaetus gallicus*, *Circus aeruginosus*, *Circus cyaneus*, *Circus macrourus*, *Circus pygargus*, *Cygnus bewickii*, *Cygnus cygnus*, *Egretta garzetta*, *Emberiza hortulana*, *Falco cherrug*, *Falco columbarius*, *Falco naumanni*, *Falco peregrinus*, *Falco vespertinus*, *Ficedula parva*, *Ficedula semitorquata*, *Grus grus*, *Gypaetus barbatus*, *Gyps fulvus*, *Haliaeetus albicilla*, *Hieraaetus pennatus*, *Himantopus himantopus*, *Ixobrychus minutus*, *Lanius collurio*, *Lanius minor*, *Larus genei*, *Larus minitus*, *Limosa lapponica*, *Luscinia svecica*, *Marmonetta angustirostris*, *Melonocorypha calandra*, *Mergus albellus*, *Neophron percnopterus*, *Nycticorax nycticorax*, *Pandion haliaetus*, *Pernis apivorus*, *Phalaropus lobatus*, *Philomachus pugnax*, *Platalea leucorodia*, *Plegadis falcinellus*, *Pluvialis apricaria*, *Porzana porzana*, *Pyrrhocorax pyrrhocorax*, *Recurvirostra avosetta*, *Sterna caspia*, *Sterna hirundo*, *Tadorna ferruginea*, *Tringa glareola*, *Xenus cinereus*

Mammals: *Canis lupus*, *Capra aegagrus*, *Lutra lutra*, *Lynx lynx*, *Myotis emarginatus*, *Ursus arctos*, *Vormela peregusna*

Habitats: C1.224-Floating Utricularia australis and Utricularia vulgaris colonies; E1.2-Perennial calcareous grassland and basic steppes; E1.3-Mediterranean xeric grassland; F3.241-Central European subcontinental thickets; G1.A7-Mixed deciduous woodland of the Black and Caspian Seas; G3.9-Coniferous woodland dominated by Cupressaceae or Taxaceae.

3."Khor Virap"

Area: 50.00 ha.

Location: Ararat Marz

Purpose: protection of wetland ecosystems and typical species of plants and animals.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Fish: *Aspius aspius*

Amphibians and Reptiles: *Mauremys caspica*

Birds: *Accipiter brevipes*, *Acrocephalus melanopogon*, *Alcedo atthis*, *Anthus campestris*, *Aquila clanga*, *Aquila heliaca*, *Aquila nipalensis*, *Aquila pomarina*, *Ardea purpurea*, *Ardeola ralloides*, *Asio flammeus*, *Aythya nyroca*, *Botaurus stellaris*, *Burhinus oedicnemus*, *Buteo rufinus*, *Calandrella brachydactyla*, *Charadrius alexandrinus*, *Charadrius asiaticus*, *Charadrius lesshenaultii*, *Charadrius morinellus*, *Chlidonias hybridus*, *Chlidonias leucopterus*, *Chlidonias niger*, *Ciconia ciconia*, *Circaetus gallicus*, *Circus aeruginosus*, *Circus cyaneus*, *Circus macrourus*, *Circus pygargus*, *Coracias garrulus*, *Crex crex*, *Egretta alba*, *Egretta garzetta*, *Falco biarmicus*, *Falco cherrug*, *Falco columbarius*, *Falco naumanni*, *Falco peregrinus*, *Falco vespertinus*, *Gallinago media*, *Gelochelidon nilotica*, *Glareola nordmanni*, *Glareola pratincola*, *Grus grus*, *Hieraaetus pennatus*, *Himantopus himantopus*, *Hoplopterus spinosus*, *Ixobrychus minutus*, *Larus genei*, *Larus melanocephalus*, *Larus minitus*, *Lanius minor*, *Limosa lapponica*, *Marmaronetta angustirostris*, *Melonocorypha calandra*,

Neophron percnopterus, Nycticorax nycticorax, Pandion haliaetus, Pelecanus crispus, Pelecanus onocrotalus, Pernis apivorus, Phalacrocorax pygmaeus, Phalaropus lobatus, Philomachus pugnax, Porzana porzana, Porzana parva, Porzana pusilla, Recurvirostra avosetta, Sternula albifrons, Sternula caspia, Sternula hirundo, Tadorna ferruginea, Tringa glareola, Xenus cinereus

Mammals: *Lutra lutra, Myotis emarginatus, Rhinolophus ferrumequinum, Rhinolophus hipposideros, Rhinolophus mehelyi*

Habitats: E1.2-Perennial calcareous grassland and basic steppes; E1.3-Mediterranean xeric grassland; E3.4-Moist or wet eutrophic and mesotrophic grassland

The assessment of the climate change possible impact on the “Khor Virap” State Sanctuary

The climate change will not have a direct impact on this site, but because of the water regime change in the site a deterioration of the conditions can be possible. On the one hand, the predicted rainfall rate decrease can bring worse conditions, but on the other hand, the increase of the irrigation water demand and the modern irrigation system opportunities in the Ararat valley surrounding sites can provide the site with the required quantity of water.

4.”Lake arpi” National park

Area: 21133.3 ha

Location: Shirak Marz

Purpose: protection of Lake Arpi, Akhuryan River water resources, the temporary resting place for migrating birds, rare animals and plants.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Ligularia sibirica, Echium russicum*

Fish: *Aspius aspius*

Birds: *Accipiter brevipes, Accrocephalus melanopogon, Alcedo atthis, Aquila chrysaetos, Aquila nipalensis, Aquila pomarina, Ardea purpurea, Asio flammeus, Bubo bubo, Buteo rufinus, Caprimulgus europaeus, Ciconia ciconia, Ciconia nigra, Circus aeruginosus, Circus cyaneus, Circus macrourus, Circus pygargus, Coracias garrulus, Crex crex, Emberiza hortulana, Falco cherrug, Falco columbarius, Falco naumanni, Falco peregrinus, Falco vespertinus, Gallinago media, Grus grus, Hieraaetus pennatus, Himantopus himantopus, Ixobrychis minutus, Lanius minor, Larus genei, Limosa lapponica, Lullula arborea, Luscinia svecica, Neophron percnopterus, Nycticorax nycticorax, Pelecanus crispus, Pelecanus onocrotalus, Pernis apivorus, Pyrrhocorax pyrrhocorax, Sternula hirundo, Tadorna ferruginea, Tringa glareola, Xenus cinereus*

Mammals: *Canis lupus, Lutra lutra, Ursus arctos.*

Habitats: E1.2-Perennial calcareous grassland and basic steppes; E3.4-Moist or wet eutrophic and mesotrophic grassland; F3.241-Central European subcontinental thickets; E3.5-Moist or wet oligotrophic grassland

The assessment of the climate change possible impact on the “Lake Arpi” National park

The sub-alpine meadows with successions should be replaced by meadow-steppes and later with steppes. Due to rainfall rate non-proportional changes compared with the temperature the meadow-steppes, in the near future, can transfer into ecosystems, which are similar to modern sub-alpine tall grasses. However, later their return to meadow-steppes and transformation into steppes is possible (connected to the decrease of rainfall rate and the temperature increase). The wetlands will more likely stay in the same level /their extension to steppes and meadow-steppes is even possible/. Due to the forecasts of the climate and ecosystem changes, good conditions are created for the Asia Minor ground squirrel (*Spermophilus xanthopygmnus*) to penetrate into the national park’s area. The

existence conditions of Transcaucasian water shrew (*Neomys schelkovnikovi*), Eurasian otter (*Lutra lutra*), Dalmatian pelican (*Pelecanus crispus*), Corncrake (*Crex crex*), marbled polecat (*Vormela peregusna*), Armenian sea-gull (*Larus armeniacus*) will also improve. The existence conditions of Black stork (*Ciconia nigra*) and Common crane (*Grus grus*) will deteriorate.

5."Ijevan" State sanctuary

Area: 6151.7 ha.

Location: Tavush Marz

Purpose: to protect forest landscapes and specific animal species

*The site area does not correspond to the official size of Specially Protected Nature Area.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Echium russicum*, *Steveniella satyrioides*

Invertebrates: *Cerambyx cerdo*, *Rosalia alpina*

Reptiles: *Elaphe quatuorlineata*, *Emys orbicularis*, *Testudo graeca*

Birds: *Aquila pomarina*, *Bubo bubo*, *Caprimulgus europaeus*, *Ciconia nigra*, *Circaetus gallicus*, *Crex crex*, *Dendrocopos medius*, *Dryocopus martius*, *Emberiza hortulana*, *Falco peregrinus*, *Ficedula parva*, *Ficedula semitorquata*, *Hieraaetus pennatus*, *Lanius collurio*, *Luscinia svecica*, *Neophron percnopterus*, *Pernis apivorus*, *Pyrrhocorax pyrrhocorax*

Mammals: *Canis lupus*, *Myotis blythii*, *Rhinolophus ferrumequinum*, *Rhinolophus mehelyi*, *Ursus arctos*

Habitats: E1.2-Perennial calcareous grassland and basic steppes, E1.3-Mediterranean xeric grassland, F3.241-Central European subcontinental thicket, G1.6-Fagus woodland, G1.A7-Mixed deciduous woodland of the Black and Caspian Seas, G3.9-Coniferous woodland dominated by Cupressaceae or Taxaceae

The assessment of the climate change possible impact on "Ijevan" State Sanctuary

The forest vegetation change is possible because of the transformation of "humid" forests into the "wet" ones: beech and Georgian oak forests expand, the hornbeam will continue to spread, while the *Carpinus orientalis* forests will remain predominantly only in the disturbed habitats. Shibliak will stay in its old level, but close in the 2100 it will expand due to the temperature rise and rainfall decrease. Because of the climate and ecosystem changes, the living conditions of the local populations of brown bear and wild cat will improve. It is possible to presume some existence conditions' improvements of *Cerambyx cerdo* and *Rosalia alpina*. Due to the increase of the lower border of the forest and the change in the species composition a growing conditions' deterioration is expected of the tree species (oak, beech) that are considered as main food. Consequently, the number of weak and semi-dry trees will increase, which will lead to the additional microbiotops for the development of insects.

6."Khustup" State sanctuary

Area: 2000.1 ha

Location: Syunik Marz

Purpose: to protect sub-alpine and alpine landscapes and corresponding biodiversity.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Echium russicum*

Invertebrates: *Cerambyx cerdo*

Amphibians and Reptiles: *Elaphe quatuorlineata*

Birds: *Aquila chrysaetos*, *Bubo bubo*, *Buteo rufinus*, *Circaetus gallicus*, *Circus pygargus*, *Emberiza hortulana*, *Falco peregrinus*, *Gypaetus barbatus*, *Gyps fulvus*, *Hieraaetus pennatus*, *Lanius collurio*, *Lullula arborea*, *Luscinia svecica*, *Neophron percnopterus*, *Pernis apivorus*, *Pyrrhocorax pyrrhocorax*

Mammals: *Canis lupus*, *Capra aegagrus*, *Lynx lynx*, *Miniopterus schreibersii*, *Myotis blythii*, *Panthera pardus*, *Rhinolophus blasii*, *Rhinolophus euryale*, *Rhinolophus ferrumequinum*, *Rhinolophus mehelyi*, *Ursus arctos*

Habitats: E1.2 - Perennial calcareous grassland and basic steppes; E1.71 - *Nardus stricta* swards; E3.4 - Moist or wet eutrophic and mesotrophic grassland; E3.5-Moist or wet oligotrophic grassland; F3.241-Central European subcontinental thickets; G1.A7-Mixed deciduous woodland of the Black and Caspian Seas; G3.9-Coniferous woodland dominated by Cupressaceae or Taxaceae.

The assessment of the climate change possible impact on the “Khustup” State sanctuary

Because of the forest growing conditions improvements the Eastern oak forests will expand in the sub-alpine belt and will penetrate into the site. The meadows will expand more in deforested parts, and the steppe vegetation presumably will be replaced by shiblyak. Together with the expected ecosystem change the existence conditions of the Caucasian black grouse (*Tetrao mlokosiewiczi*) will improve, it's areal will expand and population state will improve. The *living conditions of Bezoar goat (Capra aegagrus) will also improve. A good forages base will generate for marbled polecat and wild cat due to more intensive spread of rodents and sparrows. For Cerambyx cerdo of the invertebrates the living conditions can be expected to have some improvements.*

7.”Lori Lakes”

Area: 174.1 ha

Location: Lori Marz

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Echium russicum*

Invertebrates: *Leucorrhinia pectoralis*, *Vertigo angustior*

Birds: *Accipiter brevipes*, *Acrocephalus melanopogon*, *Asio flammeus*, *Aquila nipalensis*, *Aquila pomarina*, *Botaurus stellaris*, *Buteo rufinus*, *Ciconia ciconia*, *Circus aeruginosus*, *Circus cyaneus*, *Circus macrourus*, *Circus pygargus*, *Crex crex*, *Egretta alba*, *Falco columbarius*, *Falco naumanni*, *Falco peregrinus*, *Falco vespertinus*, *Gallinago media*, *Grus grus*, *Himantopus himantopus*, *Lanius collurio*, *Nycticorax nycticorax*, *Pernis apivorus*, *Tringa glareola*

Mammals: *Lutra lutra*

Habitats: C1.225-Floating *Salvinia natans* mats; E3.4-Moist or wet eutrophic and mesotrophic grassland; E3.5-Moist or wet oligotrophic grassland.

The assessment of the climate change possible impact on Lori lakes

Ecosystem change is not expected, but the predicted rainfall decrease can contribute to the lakes' water balance disturbance, which can make their surface smaller and deteriorate existence conditions of some species. In the result of the ecosystem surface minimization and hydrological regime change a deterioration of the population state is possible particularly for *Vertigo angustior* and *Leucorrhinia pectoralis* invertebrates.

8.”Impassable brushwood”

Area: 5.0 ha

Location: Syunik Marz

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: - *Paeonia tenuifolia*

Invertebrates: *Cerambyx cerdo*

Amphibians and Reptiles: *Testudo graeca*

Birds: *Accipiter brevipes, Aquila chrysaetos, Aquila nipalensis, Aquila pomarina, Bubo bubo, Buteo rufinus, Caprimulgus europaeus, Circus cyaneus, Circus macrourus, Circus pygargus, Coracias garrulus, Falco peregrinus, Gypaetus barbatus, Gyps fulvus, Hieraaetus pennatus, Lanius collurio, Lullula arborea, Neophron percnopterus, Pernis apivorus, Pyrrhocorax pyrrhocorax*

Habitats: E1.3-Mediterranean xeric grassland.

The assessment of the climate change possible impact on the Impassable brushwood

The predicted climate changes represent no threat to this area. Overall, shibljak can expand in the result of climate change. There is no direct threat to peony, as it is a spring species, vegetation term change is possible.

9."Plane grove" State sanctuary

Area: 1221,3 ha*

Location: Syunik Marz

Purpose: To preotect unic in the Caucasus only plane grove and corresponding biodiversity.

*The site area does not correspond to the official size of Specially Protected Nature Area.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Invertebrates: *Cerambyx cerdo*

Amphibians and Reptiles: *Testudo graeca*

Birds: *Accipiter brevipes, Aegypius monachus, Alcedo atthis, Anthus campestris, Aquila pomarina, Bubo bubo, Buteo rufinus, Calandrella brachydactyla, Caprimulgus europaeus, Circaetus gallicus, Circus cyaneus, Coracias garrulus, Dendrocopos medius, Dendrocopos syriacus, Dryocopus martius, Emberiza hortulana, Falco peregrinus, Ficedula parva, Ficedula semitorquata, Gypaetus barbatus, Gyps fulvus, Hieraaetus pennatus, Lanius collurio, Lanius minor, Lullula arborea, Luscinia svecica, Melonocorypha calandra, Neophron percnopterus, Pernis apivorus, Pyrrhocorax pyrrhocorax, Sylvia nissoria*

Mammals: *Miniopterus schreibersi, Ursus arctos*

Habitats: C3.55-Sparsely vegetated river gravel banks; E1.3-Mediterranean xeric grassland; G1.37-Irano-Anatolian mixed riverine forest; G1.A7-Mixed deciduous woodland of the Black and Caspian Seas

The assessment of the climate change possible impact on the "Plane grove" State sanctuary

Overall, the predicted climate change represents no threat to this area, but the expected water regime change can have a negative impact on the plane regrowth. The ecosystem will be totally preserved, while the surrounding forest ecosystems and the shibljak ecosystem are not supposed to be threatened.

10."Aragats alpine" State sanctuary

Area: 9446.7 ha*

Location: Aragacotni Marz

Purpose: to protect glacial Lake Kari and neighbouring alpine meadows

*The site area does not correspond to the official size of Specially Protected Nature Area.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Echium russicum, Saxifraga hirculus*

Birds: *Aegypius monachus, Aquila chrysaetos, Aquila pomarina, Buteo rufinus, Circaetus gallicus, Emberiza hortulana, Falco peregrinus, Gypaetus barbatus, Gyps fulvus, Hieraaetus pennatus, Lanius collurio, Lullula arborea, Luscinia svecica, Neophron percnopterus, Pernis apivorus, Pyrrhocorax pyrrhocorax*

Mammals: *Canis lupus*

Ecosystems: E1.71 - Nardus stricta swards; E3.4-Moist or wet eutrophic and mesotrophic grassland

The assessment of the climate change possible impact on "Aragats alpine" state reserve

The main impact of the predicted climate changes can influence on alpine meadow vegetations. A general way of the conditions change is envisaged not for the sub-alpine meadows, but for the expansion of sub-alpine tall grasses and wetlands. A penetration of the aggressive species from lower belts can be considered as a threat for the rocky and stony habitats.

11."Dilijan" National park

Area: 38 634.3 ha*

Location: Tavush Marz

Purpose: To protect oak and beech forests, yew grove, natural pine ecosystems, mineral spring waterbasins, rare included in the Red book of Armenia plant and animal species

*The site area does not correspond to the official size of Specially Protected Nature Area.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Echium russicum, Ligularia sibirica*

Invertebrates: *Cerambyx cerdo, Rosalia alpina*

Fish: *Sabanejewia aurata*

Reptiles: *Elaphe quatuorlineata, Emys orbicularis, Testudo graeca*

Birds: *Accipiter brevipes, Acrocephalus melanopogon, Aegypius monachus, Alcedo atthis, Aquila clanga, Aquila chrysaetos, Aquila heliaca, Aquila nipalensis, Aquila pomarina, Asio flammeus, Bubo bubo, Buteo rufinus, Caprimulgus europaeus, Ciconia nigra, Circaetus gallicus, Circus aeruginosus, Circus cyaneus, Circus macrourus, Circus pygargus, Crex crex, Dendrocopos medius, Dryocopus martius, Emberiza hortulana, Falco cherrug, Falco columbarius, Falco peregrines, Falco vespertinus, Ficedula parva, Ficedula semitorquata, Grus grus, Gypaetus barbatus, Gyps fulvus, Hieraaetus pennatus, Lanius collurio, Lanius minor, Lullula arborea, Luscinia svecica, Melonocorypha calandra, Neophron percnopterus, Pernis apivorus, Pyrrhocorax pyrrhocorax*

Mammals: *Canis lupus, Lutra lutra, Lynx lynx, Myotis blythii, Rhinolophus ferrumequinum, Rhinolophus mehelyi, Ursus arctos, Vormella peregusna*

Habitats: E1.2-Perennial calcareous grassland and basic steppes; E1.3-Mediterranean xeric grassland; E3.4-Moist or wet eutrophic and mesotrophic grassland; E3.5-Moist or wet oligotrophic grassland; F3.241-Central European subcontinental thickets; G1.11-Riverine Salix woodland; G1.6-Fagus woodland; G1.A7-Mixed deciduous woodland of the Black and Caspian Seas; G3.4E-Ponto-Caucasian Pinus sylvestris forests; G3.9-Coniferous woodland dominated by Cupressaceae or Taxaceae.

The assessment of the climate change possible impact on “Dilijan” National park

The forest vegetation change is possible because of the transformation of “humid” forests into the “wet” forests: beech forest expand, wider spread of Georgian oak forests comparing with Eastern oak forests, the hornbeam will continue to spread, while the *Carpinus orientalis* forests will remain predominantly only in the disturbed natural habitats. For the near future the sub-alpine meadows and tall grasses will remain, but later they will decrease and transfer into meadow-steppes. Because of the climate and ecosystem changes, the living conditions of the local populations of Caucasian black grouse (*Tetrao mlokosiewiczi*), Transcaucasian water shrew (*Neomys schelkovnikovi*), brown bear (*Ursus arctos*) in the territory of the national park will improve. At the same time, the increasing recreational activity will probably not let them to increase their population rate. A deterioration of living conditions for the invertebrate *Maculinea nausithous* is not expected. It is possible to presume some existence conditions’ improvements of *Cerambyx cerdo* and *Rosalia alpina*. Due to the increase of the lower border of the forest and the change in the species composition, a growing conditions’ deterioration is expected of the tree species /oak, beech/ that are considered as a main food. Consequently, the number of weak and semi-dry trees will increase, which will lead to the additional microbiotops for the development of insects.

12.”Gnishik” planned Protected landscape

Area: 30300,1 ha*

Location: Vayots Dzor marz

Purpose: to protect landscape and biological diversity of the region.

*The site area does not correspond to the official size of Specially Protected Nature Area.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Dactylorhiza chuhensis*, *Echium russicum*

Fish: *Aspius aspius*, *Barbus capito*, *Sabanejewia aurata*

Reptiles: *Elaphe quatuorlineata*, *Testudo graeca*

Birds: *Accipiter brevipes*, *Aegypius monachus*, *Anthus campestris*, *Aquila chrysaetos*, *Aquila heliaca*, *Aquila nipalensis*, *Aquila pomarina*, *Bubo bubo*, *Buteo rufinus*, *Calandrella brachydactyla*, *Caprimulgus europaeus*, *Circaetus gallicus*, *Circus aeruginosus*, *Circus cyaneus*, *Circus macrourus*, *Circus pygargus*, *Coracias garrulus*, *Dendrocopos syriacus*, *Emberiza hortulana*, *Falco naumanni*, *Falco peregrinus*, *Falco vespertinus*, *Grus grus*, *Gypaetus barbatus*, *Gyps fulvus*, *Hieraaetus pennatus*, *Lanius collurio*, *Lanius minor*, *Lullula arborea*, *Luscinia svecica*, *Melonocorypha calandra*, *Neophron percnopterus*, *Pernis apivorus*, *Pyrrhocorax pyrrhocorax*, *Sylvia nissoria*

Mammals: *Canis lupus*, *Capra aegagrus*, *Lutra lutra*, *Lynx lynx*, *Myotis blythii*, *Myotis emarginatus*, *Rhynolophus euryale*, *Rhinolophus ferrumequinum*, *Rhinolophus hipposideros*, *Rhinolophus mehelyi*, *Ursus arctos*

Habitats: E1.2-Perennial calcareous grassland and basic steppes; E1.3-Mediterranean xeric grassland; E3.5-Moist or wet oligotrophic grassland; F3.241-Central European subcontinental thickets; G1.11-Riverine Salix woodland; G1.A7-Mixed deciduous woodland of the Black and Caspian Seas; G3.9-Coniferous woodland dominated by Cupressaceae or Taxaceae; H1-Terrestrial underground caves, cave systems, passages and waterbodies

The assessment of the climate change possible impact on the “Gnishik” planned Protected landscape

The main ecosystems will remain, but little areas of sub-alpine and alpine meadows can transfer into meadow-steppes. Change of dominants and their distribution of areas can be observed in the steppe ecosystems. The open forests will remain, while the phryganoid areas will expand. Overall, the process of ecosystems’ becoming more xerophyte and arid will take place.

13.”Ararat salt marshes” Nature monument

Area: 10,00 ha*

Location: Ararat Marz

Purpose: to protect uniq ecosystems

*The site area does not correspond to the official size of Specially Protected Nature Areas.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Microcnemum coralloides* ssp. *anatolicum*

Birds: *Anthus campestris*, *Ciconia ciconia*, *Coracias garrulus*, *Himantopus himantopus*

Habitats: D6.1-Inland saltmarshes; E5.4113-Althaea officinalis screens; F9.3-Southern riparian galleries and thickets

The assessment of the climate change possible impact on the “Ararat Salt Marshes” Natural monument

The main ecosystems will remain or even more will expand their areas. Because of increasing precipitations there is a chance that some territories of salt marshes will transfer to salt bodies (“solonchaks”).

14.”Arevik” National park

Area: 60800,3 ha*

Location: Syuniq marz

Purpose: to protect oak forests and open arid forests, unic ecosystems of arid slopes and corresponding biodiversity.

*The site area does not correspond to the official size of Specially Protected Nature Areas.

List of species found on the site and included in Resolution 6 and habitats included in Resolution 4

Plants: *Echium russicum*

Invertebrates: *Cerambyx cerdo*

Fish: *Aspius aspius*, *Barbus capito*, *Sabanejewia aurata*

Reptiles: *Elaphe quatuorlineata*, *Mauremys caspica*, *Testudo graeca*

Birds: *Accipiter brevipes*, *Acrocephalus melanopogon*, *Alcedo atthis*, *Anthus campestris*, *Aquila chrysaetos*, *Aquila heliaca*, *Aquila nipalensis*, *Aquila pomarina*, *Ardeola ralloides*, *Botaurus stellaris*, *Bubo bubo*, *Buteo rufinus*, *Calandrella brachydactyla*, *Caprimulgus europaeus*, *Ciconia nigra*, *Circaetus gallicus*, *Coracias garrulus*, *Dendrocopos medius*, *Dendrocopos syriacus*, *Emberiza hortulana*, *Falco peregrinus*, *Ficedula semitorquata*, *Gypaetus barbatus*, *Gyps fulvus*, *Hieraetus pennatus*, *Ixobrychus minutes*, *Lanius collurio*, *Lanius minor*, *Lullula arborea*, *Luscinia svecica*, *Neophron percnopterus*, *Nycticorax nycticorax*, *Oenanthe pleschanka*, *Pelecanus onocrotalus*, *Pernis apivorus*, *Porphyrio porphyrio*, *Pyrrhocorax pyrrhocorax*, *Sylvia nisoria*

Mammals: *Canis lupus, Capra aegagrus, Lutra lutra, Lynx lynx, Miniopterus schreibersii, Myotis blythii, Myotis emarginatus, Panthera pardus, Rhinolophus blasii, Rhinolophus euryale, Rhinolophus ferrumequinum, Rhinolophus hipposideros, Ursus arctos*

Habitats: C3.431-Ponto-Pannonic riverbank dwarf sedge communities; C3.55-Sparsely vegetated river gravel banks; C3.62-Unvegetated river gravel banks; E1.3-Mediterranean xeric grassland; E3.4-Moist or wet eutrophic and mesotrophic grassland; E3.5-Moist or wet oligotrophic grassland; F3.241-Central European subcontinental thickets; G1.11-Riverine Salix woodland; G1.A7-Mixed deciduous woodland of the Black and Caspian Seas; G1.37 - Irano-Anatolian mixed riverine forests; G3.9-Coniferous woodland dominated by Cupressaceae or Taxaceae

The assessment of the climate change possible impact on the “Arevik” National park

As a result of the forest growing conditions improvements the Eastern oak forests will expand in the sub-alpine belt. The meadows will expand more in unforested parts, and the steppe vegetation presumably will be replaced by shiblyak. Phryganoid and other xerophyte vegetation (semi-deserts, open arid forests, tragacanth ecosystems with Acantholimons, etc.) will expand and distribute much more up on the slopes. Wetlands near rivers and waterstreams will remain, but could be vulnerable because of decreasing of precipitation.

BELARUS

BELARUS FULFILLMENT OF CALENDAR FOR THE IMPLEMENTATION OF THE EMERALD NETWORK OF AREAS OF SPECIAL CONSERVATION INTEREST 2011-2020

Time periods	Task for the country in Calendar	Implementation status
2011-2012	Fulfillment of at least 50 % of Phase I for Belarus	<p>12 Sites covering 50% of the territory of the potential Emerald sites were proposed, such as:</p> <ul style="list-style-type: none"> – “Berezinskiy Biosphere Strict Reserve” (total area – 85199 ha) – National Park “Belovezhskaya Pushcha” (152962 ha) – Republican Biological Reserve “Sporovskiy” (19384 ha) – National Park “Braslav Lakes” (69115 ha) – National Park “Prypiatski” (188485 ha) – Republican Landscape Reserve “Mid-Prypiat” (90447 ha) – Republican Landscape Reserve “Zvanets” (10460 ha) – National Park “Narochanskiy” (94000 ha) – Republican landscape reserve “Yelnya” (25301 ha) – Republican landscape reserve “Vyonoshchanskoye” (54915 ha) – Republican landscape reserve “Osveiskoye” (27754 ha) – Republican landscape reserve “Olmanskiye bolota” (94219 ha). <p><u>Totally 47 species and 20 habitats were mapped</u></p> <ul style="list-style-type: none"> • Plants – 7 • Birds – 22 • Mammals – 6 • Amphibians – 2 • Reptiles – 1 • Fishes – 3 • Invertebrates – 6 • Habitats – 20 <p>Species suggested to Res 6 of Bern Convention Растения PLANTS</p> <ul style="list-style-type: none"> • Гроздовник виргинский Botrychium anthemoides • Аконит шерстистоусый Aconitum lasiostomum

		<ul style="list-style-type: none"> • Крапива киевская Urtica kioviensis • Фиалка топяная Viola uliginosa • Молодило русское Sempervivum ruthenicum • Клевер Спрыгина Trifolium spryginii • Гирчевник татарский Conioselinum tataricum • Неоттианта клубучковая Neottianthe cucullata <p>Рыбы FISHES</p> <ul style="list-style-type: none"> • Европейская ряпушка <i>Coregonus albula</i> • Европейская корюшка <i>Osmerus eperlanus</i> <p>Беспозвоночные INVERTEBRATES</p> <ul style="list-style-type: none"> • Пиявка медицинская <i>Hirudo medicinalis</i> • Рак широкопалый <i>Astacus astacus</i> • Неизвестный ильник <i>Rhantus incognitus</i> • Жужелица Менетриези <i>Carabus menetriesi</i> • Ребристый слизнеед <i>Chlaenius costulatus</i> • Бороздчатый слизнеед <i>Chlaenius sulcicollis</i> • Четырехбороздчатый слизнеед <i>Chlaenius quadrisulcatus</i> <p>Habitats suggested to Res 4 of Bern Convention</p> <ul style="list-style-type: none"> • Долгопоемные широколиственные леса с доминированием <i>Querqus robur</i> полесского типа - Broad-leaved forests growing in long bottomland with the dominance of <i>Querqus robur</i> of Polessie type • Сухие сосновые леса на древних эоловых дюнах полесского типа - Dry pine woods on ancient Aeolian dunes of Polessie type
2013-2014	Completion of Phase I for Belarus	<p>The following additional 51 potential Emerald sites have been identified by the National Emerald team during the implementation of the Emerald Programme in Belarus in 2014:</p> <ul style="list-style-type: none"> - Natural reserves “Krasny Bor”, “Lipichanskaya Pushcha”, “Sinsha”, “Shvakshty”, “Smychok”, “Dnepro-Sozhsky”, “Duleby Islands”, “Glubokoe-Cherbomyslo”, “Zaozerie”, “Golubitskaya Pushtcha”, “Iput”, “Mozyrskie ovragi”, “Servech”, “Sorochanski lakes”, “Svitsiazanski”, “Seliava”, “Podveliki Mokh”, “Mokh Wetlands”, “Zamkovy forest”, “Godnenska Pushtcha”, “Koziany”, “Selets”, “Bottom Land of the Sozh River”, “Khovanschina”, “Berezina-Gajna”, “Gronovo”, “Drozhbitka-Svina”, “Bottom Land of the Lva

		<p>River” , “Bottom Land of the Ptich River”, “lebediny Mokh”, “Morochno Wetland”, “ Prostyr” , “Stary Zhaden”, “Tikin Islands”, “Vydritsa” , “Tyrowsky Grassland”, “ Dywin-Veliki Forest”, “Orehovsky”, “Volkhva”;</p> <ul style="list-style-type: none">- Territory of the natural reserve in project “Svislochsko-Berezinsky”;- Other potential territories of the “Emerald Network”: “Bottom Land of the Zapadnaya Berezina River”, experimental fish farm “Beloe”, “Lelchitskaya Ubyrt”, “Staraya Vit”, storage lake “Veluta” , IBA “Nalibokskaya Pushtcha” , Lesnaya River, IBA “Bottom Land of the River Dniepr, Loev - Zhary”, Wetlands “ Polesskaya valley of the Bug River”. <p>Belarus acceded to the Convention in 2013 (President’s Decree No. 70 of 7 Feb. 2013)</p> <p>A new edition of the “Law on Environment Protection” (of 22 November 2013 No. 18-3)</p> <p>For the first time the law was amended with such a notion as “<u>rare and typical habitats and natural landscapes</u>” as the territories for which a special regime of protection and economic use.</p> <p>Currently 38 habitats are identified on the territory of Belarus out of the 182 ones defined in Annex 1 of the Habitats Directive</p> <p>Following the new edition of the “Law on Environment Protection” the Technical Regulations of identification and protection of the rare and typical habitats and natural landscapes in Belarus was approved by the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus on 22/05/2014 Nr5-T.</p> <p>Due to the above document approval the clear rules of definition and protection of typical and rare biotopes, typical and rare natural landscapes are in force now in Belarus. It helps all national stakeholders to raise the effectiveness of work in the area of identification of biotopes in compliance with the requirements of the Bern Convention and other international biodiversity conservation agreements Belarus has joined to.</p> <p>In the framework of the GEF/UNDP project «Mainstreaming Biodiversity Conservation into Territorial Planning Policies and Practices» a methodological guidance «Rare and Typical habitats of Belarus» was developed</p>
2015-2016	Finalization of the evaluation of proposed Emerald	National Seminar was held on September, 4 th , 2015 on the Emerald Network, aimed at

	<p>sites in Belarus; Start designation of Emerald sites in Belarus,</p> <p>explaining the Emerald process and upcoming biogeographical evaluation to scientific community, representatives of relevant Ministries (environment, landplaning, forestry, and agriculture) and NGOs in the nature conservation sector. The meeting will aim at planning the preparation for the biogeographical evaluation by the national authorities, discussing the completion of the Emerald Network at national level and the identification and description of additional sites, according to the results of the quality check of the 2014 database for the country. Inconsistencies in the 2014 national Emerald databases, following the QA/QC reports/remarks of the scientific experts to the project were corrected.</p>
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NORWAY

THE EMERALD NETWORK PROCESS

The Emerald Network calendar indicate when each task should be accomplished on a biennial schedule, starting in 2011. Tasks are grouped according to the three phases (I, II and III) of the Emerald Network Process. This report present the status of the implementation in Norway by June 2015

BY 2011-2012

Phase I

Task: Completion of Phase I for Switzerland, **Norway** and Iceland;

By the end of 2012 The Directorate for Nature Management presented a first selection of sites regarded as important for Emerald species and habitats in Norway. As a result, the Norwegian ministry of environment proposed 633 sites as candidates to the Emerald Network in February 2013.

The selection of species and habitats were based on the results of the Emerald Network pilot project in Norway ([T-PVS/Emerald \(2007\)18E](#)), also published as a national report ([DN-report 1b-2007](#)). However, about half of the habitats were omitted from the selection, due to uncertainty about the interpretation of EUNIS habitats in relation to national classification systems. Potential sites were also listed in the report, but further sites were added during the subsequent process.

The data for habitats and species at each site were uploaded to the Central Data Repository (CDR) of EIONET ([Emerald Network 2013 - delivery of Phase I](#)) in Standard Data Format (SDF). However, the data collection according to the SDF was incomplete.

Phase II

Task: Start pre-evaluation of the first set of proposed Emerald sites for countries asking for it (Switzerland and **Norway**).

The scientific consultant of the Bern Convention investigated a subset of the data during autumn 2012, as a preparation to the full delivery mentioned above (Chap. 1.1.1).

BY 2013-2014

Phase II

Task: Assessment of proposed Emerald sites in Switzerland, Iceland and Norway

During winter 2013 the European Topic Centre on Biological Diversity (ETC/BD) performed a scientific analysis of the Norwegian data. The work was carried out on behalf of the Bern Convention, and in collaboration with the European Environment Agency (EEA).

The sufficiency of the candidate sites were discussed at the [First Biogeographic Seminar for the implementation of the Emerald Network in Norway](#) in June 2013. The conclusions were that quite few of the species and none of the habitats had sufficient protection, based on the candidate sites and their belonging species and habitat data.

Since 2013 the Norwegian Environment Agency has hired several national experts to evaluate most of the species and 11 habitats further. Where necessary, the experts were asked to propose sites to strengthen the network, either among other candidate Emerald sites, or by new sites. Species and habitat data were also updated as part of this evaluation. Ten scientific reports have been made:

- Mammals: 1 report
- Birds: 2 reports “species by species”, and 1 report of sites important for congregations of birds (according to specific IBA criteria).
- Invertebrates: 1 report
- Plants: 3 reports
- Habitats: 2 reports

The Norwegian Environment Agency gathered the experts at a 2-day seminar to discuss the results in November 2014. Based on the advice given in reports and at the seminar, the Norwegian Environment Agency suggested to append further 85 sites to the list of candidate Emerald sites. Adding these sites, and listing species or habitats in other candidate Emerald sites, will increase the sufficiency of the network significantly. We estimate that 60 of 136 species and 3 of 50 habitats (EUNIS) relevant for Emerald Network will get sufficient protection according to the Emerald criteria.

The Norwegian Ministry of Climate and Environment requested the Bern Convention to append these 85 candidate Emerald sites by letter of 22. June 2015 to the Council of Europe. These sites cover about 8300 km². The Norwegian Environment Agency will upload an updated SDF database (new format) to CDR, by the end of August 2015.

BY 2015-2016

Phase III

Task: Designation of the Emerald Network in Norway, Iceland and Switzerland;

No sites have been designated for Norway yet.

It is still possible to designate a network **for those species and habitats regarded as sufficiently protected** by the end of 2016. This requires a new evaluation of both the existing (633) and appended (85) candidate Emerald sites, and the full SDF database. The evaluation has to be carried out by the Bern Convention, EEA and ETC/BD at normal procedures, and followed by a second national seminar for Norway in 2016. Such activities has to be planned as soon as possible, and we ask the Bern Convention about a dialog on this matter.

FURTHER PROGRESS

Evaluation of species and habitats without sufficient protection

The Norwegian Environment Agency will continue to evaluate those species and habitats still considered not to have sufficient protection.

Quite a few species and habitats might achieve sufficient protection by listing them among the 85 new candidate sites. Further work will be done to investigate this during autumn 2015.

There is still significant uncertainty about the interpretation of EUNIS habitats in relation to national classification systems. However, we give high priority to finish the evaluation of all relevant habitats of EUNIS group D - Mires, Bogs and Fens, by the end of 2015. Evaluation of other habitats will be delayed to 2016

The distribution of some species is still uncertain, especially among invertebrates. These are considered as "Scientific reserve" (SR), in one or more biogeographic regions. Further work on these will probably be delayed to 2016.

If the status of some species or habitats changes to "sufficient", we suggest updating the SDF and redeliver it on CDR later in 2015 or early 2016. A deadline for such update must be coordinated with the prospected evaluation process of the Bern Convention, EEA and ETC/BD.

RUSSIAN FEDERATION

This report briefly summarises the annual Reports of the Emerald Network in Russia as presented in 2011-2014.

In this report:

the “Asian part of the Russian Federation” conventionally means the territory of Ural, Siberian, and Far-East Federal Districts of the Russian Federation.

the “European part of the Russian Federation” conventionally means the territory of North-Western, Central, Near-Volga, Southern, and North-Caucasian Federal Districts of the Russian Federation.

the Emerald Network implementation project in the European part of the Russian Federation is realised under the Joint Programme between the Council of Europe and the European Commission entitled “Support for the implementation of the Convention on Biological Diversity Programme of Work on Protected Areas in the EU Neighbourhood Policy East Area and Russia: Extension of the implementation of the EU’s Natura 2000 principles through the Emerald Network” (2009-2011) and the Joint Programme between the European Union and the Council of Europe for the Preparation of the Emerald Network of Nature Protection Sites, Phase II (2013-2016).

By the appointment of the Ministry of Natural Resources and Environment of the Russian Federation, the Emerald Network implementation project in the European part of the Russian Federation is coordinated by St. Petersburg Charitable Public Organization “Biologists for nature conservation” (also known as the Baltic Fund for Nature).

2011-2012.

Fulfilment of at least 50 % of Phase I for the European part of the Russian Federation.

By the end of 2011, 740 potential Emerald sites were identified. They were distributed among the site types as following:

- 4 potential ASCI's of the type A (important for bird species);
- 232 potential ASCI's of the type B (important for other species or habitats);
- 504 potential ASCI's of the type C (important for birds and other species or habitats).

At the end 2012, the 32nd meeting of the Bern Convention Standing Committee has nominated all the 740 potential Emerald sites as Candidate Emerald Sites.

2013-2014.

Completion of Phase I for the European part of the Russian Federation.

By the end 2013, 923 potential Emerald sites were identified. The expected total area of the identified potential ASCIs was about 31,16 mln ha, which is approximately 7,88 % of the total area of European part of the Russian Federation.

At the end 2014, the 34th meeting of the Bern Convention Standing Committee has nominated all the 183 new presented potential Emerald sites as Candidate Emerald Sites.

By the end 2014, 1267 potential Emerald sites were identified. The expected total area of the identified potential ASCIs is more, than 47,9 mln ha which is approximately 12,1 % of the total area of the project area.

The portion of the species and other taxa in the identified ASCIs in relation to the total number of taxa in the revised the Russian Reference Database is the following: all the 11 moss species, 61 out of 69 confirmed plant taxa, all the 7 mollusc species, 42 out of 47 confirmed arthropod species, all the 3 lamprey species actually confirmed for Russia, all the 14 confirmed fish species, all the 3 species of

amphibians, all the 7 species of reptiles, 36 out of 37 mammal species, all the 140 confirmed bird species.

Examples of all the 95 habitat types from the Resolution 4 (1996, 2010) in the revised the Russian Reference Database are identified in the potential ASCIs.

Phase II. Start of assessment of proposed sites in Belarus, the Russian Federation.

We have expected the 1267 potential Emerald sites as enough for beginning the assessment process.

Several experts took parts in

Development of principles of the establishment of the Emerald Network (as Core Areas of the PEEN) in Asian parts of the Russian Federation and Kazakhstan, in Kirghizistan, Tadjikistan, Turkmenistan, Uzbekistan.

WWF-Russia and UNEP have organized the International Expert Conference for the Development of the International ECONET CIS Programme (Vozdvizhenskoye, Russia, 27-29.10.2014)

2015.

Finalisation of the evaluation of proposed Emerald sites in the Russian Federation.

In fact, according to the Joint Programme between the European Union and the Council of Europe for the Preparation of the Emerald Network of Nature Protection Sites, Phase II, the first evaluation seminars was carried out in 2015.

Compiled by Nikolay Sobolev,

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SWITZERLAND

RAPPORT D'IMPLÉMENTATION 2015 DU RÉSEAU EMERAUDE EN SUISSE

1. Introduction

Le Réseau Emeraude est destiné à assurer la conservation de la biodiversité du continent européen, et notamment des espèces les plus menacées. Pour les Parties contractantes de la Convention de Berne, le processus Emeraude consiste à sélectionner les surfaces dont la conservation peut contribuer significativement aux objectifs du Réseau et à les désigner comme «zones d'intérêt spécial pour la conservation» (ZISC).

1.1 Listes d'espèces et de milieux

Les annexes des résolutions n°4 et n°6 de la Convention de Berne énumèrent les espèces et les habitats européens qui nécessitent des mesures de protection particulières. Une analyse de ces listes a été faite afin de déterminer quelles espèces étaient présentes en Suisse. Pour les oiseaux, seuls les oiseaux nicheurs de Suisse ont été pris en compte dans la liste suisse. Au final, la Suisse compte 43 « habitats Emeraude » et 140 « espèces Emeraude ».

A ces 2 listes de la Convention s'ajoutent les listes nationales des espèces et des milieux prioritaires de Suisse (OFEV 2012 et Delarze 2015). En effet, ces listes s'inscrivent dans une stratégie globale, nationale de sauvegarde de la biodiversité, qui vise entre autres la conservation des espèces et des écosystèmes menacés. Les priorités y sont fixées sur la base du degré de menace et de la responsabilité internationale de la Suisse pour une espèce ou un milieu donné. La liste des espèces prioritaire de Suisse contient 3606 espèces alors que la liste des milieux prioritaires en compte 73.

Ces 4 listes, espèces Emeraude et espèces prioritaires de Suisse, milieux Emeraude et milieux prioritaires de Suisse, revêtent une importance capitale dans l'identification des ZISC.

1.2 Centres de données nationaux

La Suisse compte plusieurs centres de données nationaux, qui sont tous réunis dans le réseau suisse des centres d'informations et de données faunistiques, floristiques et mycologiques, appelé Info Species (www.infospecies.ch). Il s'agit du centre de données des vertébrés et invertébrés (CSCF), du centre de données des oiseaux (vogelwarte.ch), des centres de données chauves-souris est et ouest (CCO et KOF), du centre de données amphibiens et reptiles (karch), du centre de données des plantes vasculaires (Info Flora), du centre de données pour les mousses (NISM) et des centres de données pour les champignons et les lichens (Swissfungi et swisslichens). Ces centres contiennent à l'heure actuelle plus de 10 millions de données dans leur banque de données et donnent des conseils pour la mise en œuvre des mesures de conservations des espèces.

2. Phase 1 : acceptation des 37 premiers sites en 2012

Afin d'identifier une première vague de ZISK, la Suisse avait procédé entre 2001 et 2012 par étapes, décrites dans le document « Démarche et désignation de la première série de sites Emeraude pour la Suisse » (OFEV 2009), résumées ci-dessous, et qui ont abouti à l'acceptation de 37 premiers sites Emeraude.

Etude préliminaire :

La Suisse a tout d'abord réalisé en 2001 une étude préliminaire qui identifiait les zones les plus intéressantes de Suisse pour les espèces, en se basant sur les données existantes dans les centres, et pour les milieux. Cette approche a finalement permis d'obtenir 108 sites représentant des zones candidates potentielles.

Identification officielle des premiers sites Emeraude :

En 2003, il a été décidé par les offices fédéraux en charge du dossier de préparer une proposition pour la Convention de Berne d'une série de 30 objets ZISC. Cette approche s'est concentrée sur des sites jouissant déjà d'un statut de protection au niveau national, afin de faciliter la concrétisation des premiers objets du Réseau Emeraude en Suisse. Les candidats potentiels pour cette approche étaient

constitués d'objets appartenant aux inventaires fédéraux des biotopes suivants: Inventaire des hauts-marais d'importance nationale, Inventaire des bas-marais d'importance nationale, Inventaire des zones alluviales d'importance nationale, Inventaire des sites de reproduction de batraciens d'importance nationale, Inventaire des sites d'escale des oiseaux d'eaux et migrants d'importance nationale et internationale et l'Inventaire fédéral des paysages, sites et monuments naturels d'importance nationale.

Cette approche a permis d'obtenir une centaine de sites potentiels. Sur cette base une validation a été entreprise en commun avec les offices cantonaux de la protection de la nature pour retenir les 30 sites les plus précieux. La consultation finale du dossier entrepris par les autorités cantonales compétentes a finalement abouti à la désignation de 28 sites candidats (voir annexe).

Dans une 2^{ème} étape, l'accent a été mis sur les sites d'altitude, qui étaient sous-représentés aussi bien dans l'étude préliminaire que dans la sélection des sites par les inventaires fédéraux. La liste d'espèces a donc été adaptée en ajoutant les espèces endémiques et sub-endémiques. Cette procédure a permis de retenir 8 éléments pour lesquelles la Suisse porte une responsabilité internationale.

Un site supplémentaire a pu être désigné dans le cadre d'une initiative régionale. L'objet en question faisait partie d'un des 108 sites retenus dans l'analyse préliminaire. L'idée, lancée par les associations de protection de la nature de la région concernée, a finalement été adoptée et portée par 21 communes politiques de quatre cantons. La démarche a permis d'élargir de façon substantielle le périmètre initial du site. Il s'agit du site candidat présentant la plus grande surface.

Enfin, la compilation des trois étapes décrites ci-dessus a permis l'obtention de 40 sites candidats. Trois des sites candidats proposés ont été mise en attente lors de l'ultime consultation cantonale. C'est donc un total de 37 sites qui ont été proposés pour la Suisse pour l'inscription au réseau européen Emeraude. La numérotation initiale des sites candidats, c'est-à-dire de 1 à 10, a été maintenue (voir Annexe 1).

Acceptation par la Convention de Berne :

Lors de sa séance annuelle à Strasbourg en fin 2012, le Comité permanent de la Convention de Berne a décidé d'intégrer les 37 sites proposés par la Suisse au réseau Emeraude ([List of officially nominated candidate emerald sites T-PVS/PA \(2012\) 18](#)). La description des sites suisse se trouve sur la page internet de l'office fédéral de l'environnement concernant les sites Emeraude (<http://www.bafu.admin.ch/biodiversitaet/13721/14385/15013/index.html?lang=fr>).

3. Phase 2 : compléter le réseau

Le séminaire biogéographique pour la Suisse (http://www.coe.int/t/dg4/cultureheritage/nature/EcoNetworks/Meeting_072012_en.asp et [Minutes of the 1st Emerald biogeographical Seminar for Switzerland, Basel, 5 July 2012 T-PVS/PA \(2012\) 11](#)) a démontré formellement que les 37 sites Emeraude étaient insuffisants pour remplir les exigences de la Convention de Berne. Les critères étaient remplis pour très peu d'espèces et aucun milieu. La Suisse doit donc compléter son réseau Emeraude. Dans un premier temps, la Suisse va intégrer tous les objets d'ores et déjà protégés sur son territoire. Cette démarche principalement formelle ne suffira pas non plus à remplir les exigences de la Convention. La Suisse devra, dans un deuxième temps, compléter son réseau avec de nouvelles aires protégées.

3.1 Intégration des sites déjà protégés en Suisse

Le processus formel d'intégration des sites protégés de Suisse dans le réseau Emeraude pose des problèmes concrets. En effet, la Suisse a depuis toujours eu une politique de protection des habitats qui s'est faite sur de nombreux petits objets et non sur de grandes surfaces. La protection sur ces objets y est très stricte (pas de construction, pas de destruction, etc.) et ne peut être étendue à un plus vaste territoire autour des petits objets, même lorsqu'ils sont très rapprochés les uns des autres.

La Suisse prévoit d'intégrer les objets décrits dans les inventaires suivants : Inventaire des hauts-marais d'importance nationale, Inventaire des bas-marais d'importance nationale, Inventaire des zones alluviales d'importance nationale, Inventaire des sites de reproduction de batraciens d'importance nationale, Inventaire des prairies et pâturages secs, ainsi que le parc national (172 km², de loin la plus

grande superficie protégée en suisse). Les biotopes d'importance nationale couvrent 1,8 % du territoire national et représentent au total 5930 objets (hauts-marais environ 550 objets, bas-marais environ 1'200, zones alluviales 283, zones de reproduction des batraciens 897 et prairies et pâturages secs environ 3'000). De plus, une révision de ces inventaires est actuellement en cours et prévoit 1'295 nouveaux objets et 12 suppressions. Lorsque la révision entrera en vigueur nous aurions un total de plus de 7'200 objets à intégrer dans le réseau Emeraude. Cet état de fait pose évidemment un problème notamment au niveau des plans de gestion et du *reporting* régulier auprès de la Convention.

3.2 Désignation de nouveaux sites Emeraude

En plus de l'intégration des objets déjà protégés, la Suisse doit identifier de nouvelles aires protégées. En collaboration avec les experts du CSCF mandatés par l'office fédéral de l'environnement et le bureau Raymond Delarze, la Suisse a mis en place une démarche scientifique qui permet de mettre en évidence les sites les plus intéressants à conserver en Suisse.

Démarche scientifique

Approche « espèces » :

Dans un premier temps, les experts ont identifiés les meilleurs sites à protéger du point de vue espèces en se basant sur les données disponibles concernant les espèces Emeraude et les espèces prioritaires au niveau national (priorité très élevée à élevée) ; au total, 764 espèces. Seules les données avec des observations récentes (après 1990) et précises (hectare ou mieux) ont été utilisées, ce qui représente 49'586 observations extraits des bases de données nationales (oiseaux, faune, flore, champignons et lichens). Une seule observation a été conservée pour chaque espèce dans chaque hectare. Les nouveaux sites ont été définis par l'agrégation des zones tampon définies autour de chaque observation située en dehors des sites actuellement protégés.

Approche « milieux » :

Dans un 2^{ème} temps, le résultat obtenu avec l'approche « espèces » a été évalué du point de vue milieux. Il a ainsi été possible d'évaluer les milieux déficitaires dans le futur réseau Emeraude. Des sites supplémentaires seront désignés afin de combler ces lacunes.

Le résultat des 2 démarches sera ensuite contrôlé sur le terrain afin de vérifier que ces sites sont réellement les hot spots de la biodiversité de Suisse.

Difficulté dans la mise en œuvre

La démarche scientifique permet d'identifier les sites intéressants d'un point de vue biodiversité mais n'analyse pas la faisabilité sur le terrain. La protection de la nature est, en Suisse, une responsabilité cantonale. Les sites identifiés doivent être validés par les cantons. La principale difficulté pour mettre en place le réseau Emeraude en Suisse réside donc dans la mise en œuvre.

Les bases légales suisses doivent être adaptées pour intégrer les changements et clarifier les exigences quant aux sites Emeraude.

4. Lien avec mise en réseau

Il est important de ne pas perdre de vue que l'ensemble des futures sites Emeraude, tels que décrits ci-dessus, c'est-à-dire les 37 sites déjà acceptés, les sites déjà sous protection qu'il faudra intégrer au réseau ainsi que les nouveaux sites, devront être ensuite liés entre eux par des aires de mise en réseau afin de permettre aux espèces de se déplacer entre les sites. Ainsi, un des principaux objectifs de la Stratégie Biodiversité Suisse est de réaliser une « infrastructure écologique » composée d'aires protégées (sites Emeraude) et d'aires de mise en réseau afin de réservé l'espace nécessaire au maintien durable de la biodiversité. Afin de mettre en œuvre cette Stratégie Biodiversité Suisse, un plan d'action, contenant des mesures pour l'infrastructure écologique, est en cours d'élaboration.

5. Prochaines étapes

- D'ici la fin de l'année, la Suisse a prévu de clarifier la procédure pour intégrer les sites déjà sous protection au réseau Emeraude.
- La démarche scientifique d'identification des nouveaux sites doit maintenant être finalisée et évaluée. Puis, des experts réaliseront un contrôle sur le terrain.

- Un travail doit également se faire au niveau des bases légales suisse.

6. Annexe : Liste des sites candidats pour l'inscription au réseau européen Emeraude, officiellement accepté en fin 2012 par le comité permanent

No	Nom du site	Canton	Superficie (ha)	Approche 1	Approche 2
1	Bonfol	JU	220	x	
2	St-Ursanne	JU	2012	x	
3	Etang de la Gruère	JU, BE	201	x	
4	La Vraconne	VD	195	x	
5	Vallée de Joux	VD	882	x	
6	Sèche de Gimel	VD	13	x	
7	Finges	VS	2046	x	
8	God da Staz	GR	827	x	
9	Ruin'Aulta	GR	2626	x	
10	Val Roseg	GR	1840	x	
11	Valle Maggia	TI	414	x	
12	Piano di Magadino	TI	1318	x	
13	Colombera	TI	26	x	
14	Tresa	TI	15	x	
15	Les Grangettes	VD	1004	x	
16	Les Mosses	VD	1588	x	
17	Habkern / Sörenberg	BE, LU	9692	x	
18	Moore auf dem Rickenpass	SG	225	x	
19	Galgenmaad-Schribersmaad	SG	308	x	
22	Hanenried	OW	45	x	
23	Thurspitz	SH, ZH	461	x	
24	Boniswiler-Seenger Ried	AG	147	x	
25	Rive Sud du Lac de Neuchâtel	BE, FR, NE, VD	3562	x	
26	Complexe alluvial du Rhône genevois	GE	2628	x	
27	Chatzensee	ZH	502	x	
28	Belpau	BE	436	x	
29	Pfäffikersee	ZH	1101	x	
30	Reusstal	AG, ZG, ZH	3195	x	
32	Walenstöcke-Brisen	NW, OW, UR	2714		x
33	Val Piora	TI	1431		x
34	Monte di Brissago	TI	914		x
35	Albionasca	TI	463		x
36	Monte Generoso	TI	6215		x
37	Ramosch	GR	310		x
38	Ardez	GR	607		x
39	Piz Plavna Dadaint	GR	2592		x
40	Oberaargau	BE, SO, LU, AG	11468	initiative régionale	

UKRAINE

UKRAINIAN REPORT ON THE IMPLEMENTATION OF THE EMERALD NETWORK CALENDAR (2011-2020)

Timing	Tasks for Ukraine from the Emerald Network Calendar (2011-2020)	Achievements (outputs) in Ukraine
2011-2012	<p>Strategic issues: Development of guidelines on management, monitoring and reporting tools in line with existing Natura 2000's tools.</p>	<p>In a frame of the implementation of the Joint Programme between the European Union and the Council of Europe for the Preparation of the Emerald Network of Nature Protection Sites, Phase II, NGO Interecocentre prepared the initial draft Guidelines on Development of Management Plans for Emerald Sites in Ukraine</p>
	<p>Phase I: Fulfilment of 80 % of Phase I for Ukraine</p>	<p>As a final output of development of the Emerald Network in Ukraine in 2009-2011, the Emerald database of species, habitats and other relevant information were prepared for 146 potential Emerald Sites from the Council of Europe grant and 5 Emerald Sited – from the project, financed by the Ministry of Ecology and Natural resources of Ukraine (MENR).</p> <p>Totally, the Standard Data-Entry Forms were prepared for the 151 Emerald sites comprised by :</p> <ul style="list-style-type: none"> • 20 Nature Reserve • 5 Biosphere Reserve • 41 National Nature Parks • 28 Wildlife Reserves (Sanctuaries) of National and local importance • 21 Regional Landscape Parks • 5 Ramsar Wetlands (without existing governmental conservation status for full site) • 13 wetlands (without existing governmental conservation status for full site) • 19 areas with high biodiversity, species and habitats from the Res. 4 and 6 of Bern Convention. <p>Those 151 Emerald Sites cover area of 43 290 km² that is 7.2% of the total area of Ukraine. For comparison, the area of the proposed Ukrainian Emerald Network exceeds the area of the existing network of protected areas in Ukraine (5.95%).</p> <p>The book “EMERALD NETWORK IN UKRAINE” (Editor: L.Protsenko, 192 pages, 200 copies) was published. The objective of this book was to familiarize government</p>

		officials, directors, managers of protected areas, owners and land users, researchers, other stakeholders and the wider public with the constitution process of the Emerald network and with experts' proposals on 151 potential Emerald Sites in Ukraine
2013-2014	<p>Strategic issues: Drafting and adoption of monitoring tools and management plans</p> <p>Phase I: Completion of Phase I for Belarus, the European part of the Russian Federation and Ukraine</p>	<p>The management plans were prepared for three Emerald Sites in Ukraine</p> <ul style="list-style-type: none"> • Uzhanskyi National Nature Park (UA0000032); • Dnistrovskyi lyman (UA0000141); • Nyzhnodnistrovskyi National Nature Park (UA0000039) <p>The Emerald database of species, habitats and other relevant information were prepared for 169 Emerald Sites (10 new sites and extension of areas of two sites were proposed) and uploaded to the CDR of the EEA.</p> <p>Totally, Ukraine prepared database and digital boundaries for the 169 Emerald sites comprised by:</p> <ul style="list-style-type: none"> • 18 Nature Reserve • 6 Biosphere Reserve • 43 National Nature Parks • More than 40 Wildlife Reserves of national and local importance • 19 Regional Landscape Parks • 6 Ramsar Wetlands (without existing governmental conservation status for full site) • 13 wetlands (without existing governmental conservation status for full site) • 24 areas with high biodiversity, species and habitats from the Res. 4 and 6 of Bern Convention <p>169 Emerald sites in Ukraine cover the area of 4,685,360.2ha that is 7.8% of the total area of Ukraine. For comparison, the area of the proposed Ukrainian Emerald Network exceeds the existing Ukraine network of protected areas (6.0%).</p> <p>The proposed 169 potential Emerald Sites cover the most value sites which host species and habitats from Resolutions 4 and 6 of the Bern Convention.</p>
	<p>Phase II: Start of assessment of proposed sites in Belarus, the Russian Federation and Ukraine in coordination with the evaluation for sites in Moldova and South Caucasus, if appropriate</p>	<p>The assessment of proposed Emerald Sites was made and 159 Emerald Sites from Ukraine were included to the List of Candidate Emerald Sites by decision of the Bern Convention Standing Committee on December, 2014.</p>

2015-2016	Phase II: Finalisation of the evaluation of proposed Emerald sites in Belarus, the Russian Federation and Ukraine	10 proposed Emerald Sites were submitted to the Council of Europe and the EEA in 2014 and they are waiting for assessment by the Council of Europe and consideration by the Standing Committee of the Bern Convention. The NGO Interecocentre in Ukraine manages preparation of proposals for 24 new Emerald Sites in Ukraine and extension of area of 3 existing Candidate Emerald Sites
	Phase III: Start designation of Emerald sites in Belarus, the Russian Federation and Ukraine	<ul style="list-style-type: none"> • In a frame of the EU-Ukraine Association Agreement Ukraine started approximation of environmental legislation in 2014 which envisaged approximation of Bird and Habitat Directives to Ukrainian legislation. In fact, this approximation will be resulted in introduction of Emerald sites into Ukrainian legislation, description of procedures for their designation, management, monitoring and reporting. • Ukrainian Government approved by the order of April 15, 2015 No 371-p plans for the implementation of some legislative acts of the EU, including the Action plan on implementation of the EU Directive on habitats. This Action plan includes the preparation of the register of potential Emerald sites, approving the list of protected habitats in Ukraine, development of management plans for Emerald sites, public awareness, etc. • A team of experts developed a draft “Guidelines on Regimes of Conservation of Biodiversity and Forest Ecosystems within Protection Areas of Ukraine and Emerald Sites” in 2015.

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