

UNITED NATIONS DECADE ON BIODIVERSITY: STRATEGIES, TARGETS AND ACTION PLANS

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Abstract. Nowadays, the loss of biodiversity is one of the most serious environmental threats on a global scale, requiring joint international actions for its conservation and sustainable use. Convention on Biological Diversity represents the basis of all strategies, projects and action plans aimed at protecting biodiversity. Within the Sustainable Development Strategy from 2001, European Union has set the target to stop the loss of biodiversity and restoring the habitats and natural systems by 2010. Beginning with 2010, the European strategies are covering the period 2011-2020 – the United Nations Decade on Biodiversity – for which clear targets were set, such as Aichi targets, or those included in the EU Biodiversity Strategy for 2020. For Romania, protecting biodiversity is a national priority, reflected in strategic political documents, as is *The fifth National Report on the Convention on Biological Diversity* (2014), which presents a strategic vision on the Romanian biodiversity for the 2014-2020 horizons.

Key words: biodiversity loss, Aichi targets, Action Plans, protected areas

1. General frame

Biodiversity (or Biological Diversity) – „bios – life (lat.)” + „diversitas” – diversity (lat.) – represents „*the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems*” (UN, 1992).

The Europe’s natural diversity has reached a high level of damage, the loss of biodiversity and climate change, closely related, representing the most serious environmental threats (WMO UNEP, 2002). Biodiversity must be protected not only for its intrinsic value, but also because it supports ecological

services for people, having economic, aesthetic and recreational value (European Commission, 2011). Ecosystem services can be divided into four categories: **supply services** (they supply goods for direct benefits of the people), **regulation services** (ecosystems perform vital functions), **cultural services** (spiritual values related to certain ecosystems) and **support services** (indirectly responsible with all other services) (Pisupati and Warner, 2003).

Unfortunately, the pressure on biodiversity is high, and here we refer to issues such as habitat fragmentation, pollution that is producing climate change, over-exploitation of resources

(Spangenberg, 2007). According to FAO, more than 60% of the world's ecosystems are degraded or unsustainably used, over 75% of fish stocks are overexploited and million hectares of tropical forests are cleared (FAO, 2010). It is estimated that in Europe only 17% of habitats and species and 11% of protected ecosystems are in a satisfactory condition.

Factors **directly** responsible for this situation are: land use change, overexploitation, spread of invasive alien species, pollution and climate change (Meyerson and Mooney, 2007). **Indirect** factors are population growth, low levels of awareness and low inclusion of biodiversity economic value in decision-making activity (Miller, 2005).

In **2010** biodiversity continued to decline in all 3 components: **genes** (genetic diversity of crops and livestock in agricultural systems continues to decline), **species** (nearly a quarter of plant species are threatened with extinction (Dirzo and Raven, 2003), and vertebrate species fell by one third between 1970 and 2006 and continue to decline) and **ecosystems** (natural habitats continue to decline and fragmentation and degradation of forests, rivers and other ecosystems has led to loss of biodiversity and ecosystem services) (Secretariat of the Convention on Biological Diversity, 2010). In the same year, all pressures affecting biodiversity were either constant or increasing.

1.1. Convention on Biological Diversity

Since the reduction/loss of biodiversity occurs at global scale and across national boundaries, a common international action is required (Sala *et al.*, 2000). The framework of such action is the Convention on Biological Diversity (CBD), international agreement adopted

in 1992 by 150 heads of governments at the Earth Summit in Rio de Janeiro. **Conservation** of biological diversity, **sustainable use** of its components and **fair and equitable sharing of benefits** arising from the utilization of genetic resources are the **three main objectives** of the Convention (Butchart *et al.*, 2010). Biodiversity began to be perceived as a major issue in both developed countries and in developing ones Balmford A. *et al.*, 2005). Romania, with a remarkable biodiversity of global, regional, national and local importance, ratified CBD by Law no.58/1994. Convention on Biological Diversity was addressing to the promotion of *sustainable development* and has been designed as a tool whereby the principles of Agenda 21 were transposed into reality (Ianos *et al.*, 2009). *Sustainable development* has become since 1997 a fundamental objective of the European Union. Subsequently, at the Earth Summit in June 2001, at the European Commission's proposal, the EU launched its first sustainable development strategy: **The Sustainable Development Strategy of the European Union**. The EU Sustainable Development Strategy added basically the third dimension - the **environmental** dimension - to the Lisbon Strategy (2000) which concerned economic and social renewal, the two strategies being basically complementary. Through the Sustainable Development Strategy 2001, the European Union has set the **objective of halting biodiversity loss and restore habitats and natural systems by 2010**. Although there were significant achievements regarding the implementation of this strategy, however, trends of un-sustainability persists, such as climate change (Aranjo and Rahbek, 2006).

1.2. Biodiversity Strategy

In **1998** the European Commission presented **the European Community**

Biodiversity Strategy (COM, 1998). The Strategy focused on four main themes, each theme having specific objectives, going to be materialized by sectoral and inter-sectoral Action Plans. The Strategy focused on 4 themes:

Theme 1: Conservation and sustainable use of biological diversity (in-situ and ex-situ conservation, sustainable use of biodiversity components).

Theme 2: Sharing the benefits arising from the utilization of genetic resources.

Theme 3: Research, identification, monitoring and exchange of information.

Theme 4: Education, training and public awareness.

Policies that were proposed included the following areas:

1. Conservation of natural resources (by establishing and using the Natura 2000 ecological network)
2. Agriculture
3. Fishing
4. **Regional policy and spatial planning**
5. Forests
6. Energy and transports
7. **Tourism**
8. Economic development and cooperation

Specific action plans relate to each of the eight mentioned areas. In terms of **regional policies and spatial planning**, Specific Action Plan envisages the inclusion of Biodiversity Strategy objectives in future programming guidelines and in other relevant initiatives of the European Community, without other new specific instruments. In terms of tourism, implementation of environmental assessments and initiatives in the field of regional policy and spatial planning will ensure the achieving of biodiversity goals. Development of Action Plans was to be completed by the Commission in two years of the adoption of the Communication.

1.3. Malahide Message

Starting from the observation that, although important steps have been taken, biodiversity loss continues to be alarming, at the Conference "Biodiversity and the EU - Sustaining Life, Sustaining Livelihoods" held in May 2004 in Malahide, Ireland, was released a message, known as the "Message from Malahide" (Delbaere, 2005). The conference focused on the need to impose urgent actions aiming to halt biodiversity loss by 2010, as required by the European Council. The 230 participants from 22 Member States reviewed the progress in implementing the European Community Biodiversity Strategy and its Action Plan. The message reflects an unprecedented consensus that has been reached in terms of objectives and priority tasks in order to meet EU commitment to halt the decline of biodiversity by 2010. Message from Malahide presents 18 priority targets for halting biodiversity loss (Stakeholders' Conference Biodiversity and the European Union - Sustaining Life, Sustaining Livelihoods, 2014). They are grouped into nine sectors, 4 topics and 97 targets, while following the themes which European Commission stipulated in the European Community Biodiversity Strategy:

Sector 1. Conservation and sustainable use of natural resources. (Objectives 1 - 4: ensure the conservation of the most important habitats and wildlife in Europe by the **Natura 2000 network**, introducing biodiversity in the Community legislation and instruments, creation and implementation of measures for the prevention and control of invasive alien species, minimizing the negative impact of climate change on biodiversity, 19 targets).

Sector 2. Agriculture (Objective 5: integrating biodiversity into the Common Agricultural Policy, 11 targets).

Sector 3. Forestry (Objective 6: sustainable forest management at national, regional, global level, 8 targets).

Sector 4. Fishing (Objective 7: Conservation and sustainable use of commercial stocks and reducing the impact of fishing and aquaculture on species and habitats, 11 targets).

Sector 5. Regional policy and spatial planning (Objective 8: cohesion and spatial planning must support the conservation and sustainable use of biodiversity, 5 targets).

Sector 6. Energy, transports, construction, mining and quarrying (Objective 9: preventing negative effects on biodiversity, 5 targets).

Sector 7. Tourism (Objective 10: making a sustainable tourism, 2 targets).

Sector 8. Economic cooperation (Objective 11: EU contribution to economic cooperation and development, 8 targets).

Sector 9. International trade (Objective 12: to promote sustainable international trade, 5 targets).

Following the four themes around which focused also **the European Community Biodiversity Strategy** in 1998, and framing objectives 1-12 in **Topic 1: Preserving natural resources**, the remaining targets were related to:

Topic 2: Sharing the benefits arising from the utilization of genetic resources and traditional knowledge.

Objective 13: Equitable use of benefits arising from the utilization of genetic resources, promote their conservation and use (4 targets).

Objective 14: Ensure implementation of **CBD** decisions regarding the knowledge, innovations and practices of indigenous and local communities related to their traditional life styles (2 targets).

Topic 3: Research, monitoring and indicators.

Objective 15: Implement a set of biodiversity indicators for monitoring

progress by 2010 (4 targets). It was thus created **the first set of indicators on biodiversity**.

Objective 16: Improving and applying the knowledge base for preservation and sustainable use of biodiversity (7 targets).

Topic 4: Education, training and public awareness.

Objective 17: Strengthen the communication, awareness and public participation measures (4 targets).

Topic 5: International environmental governance.

Objective 18: Improving international environmental governance with the EU contribution in order to accelerate the implementation of **CBD** and of other relevant international agreements (2 targets).

1.4. Environmental Action Programme

European Union has defined its priorities and environmental policy objectives **until 2010 and further** in the Communication of the Commission to the Council of Europe, the European Parliament, Economic and Social Committee and the Committee of the Regions concerning **the 6th Environmental Action Programme** (PAM6) of the European Community: **“Environment 2010: Our future, our choice”** (COM(2001) 31 final). This program covers the period 2002 - 2012 and is based on the 5th Environmental Action Programme, covering the period 1992-2000.

The 6th Environmental Action Programme has shown that environmental legislation was useful in addressing the complex EU environmental problems. Among the major achievements of the last 10 years in the environmental field figures the extension of Natura 2000 network of protected areas - covering in that moment more than 18% of the EU terrestrial area - or the sound political action on climate change. In terms of **biodiversity**, the

main objective of the PAM is to protect and restore the structure and function of natural systems and to halt the loss of biodiversity both EU-wide and global scale. The actions proposed to achieve this goal consist in implementation of environmental legislation, in particular concerning air and water, protection, conservation and restoration of landscapes, extending the Natura 2000 network, creating programs to collect information on nature conservation and biodiversity.

In order to achieve **by 2020 a smart, sustainable and inclusive economy**, the European Parliament and the Council of Europe decided to create **the 7th Environment Action Programme (PAM7)**, for the period until 31 December 2020, which it continues the PAM6. In the idea that although numerous measures and actions launched within PAM6 are implemented, unsustainable trends persist in the priority sectors such as the **nature and biodiversity** (European Parliament and Council, 2013). Implementation of PAM7 will be monitored within the **Europe 2020 Strategy**, based on the indicators used by the European Environment Agency for monitoring achievement of biodiversity objectives.

1.5. Biodiversity Action Plan

The European Commission Communication of 2006 (Communication of the European Communities, 2006) on "**Halting the loss of biodiversity by 2010 and beyond**" provides an **Action Plan - EU Action Plan for 2010 and beyond** which provides measures to halt biodiversity loss, as well as the actions and targets for monitoring, evaluation and reporting.

Within 4 political key areas (EU biodiversity; EU and global biodiversity, biodiversity and climate change, and the

knowledge base), ten priority objectives were established.

1.6. The 10 Messages for 2010

Halting the loss of biodiversity by 2010 is reflected in the "10 messages for 2010".

Message 1: Biodiversity and climate change (EEA, 2010a). The climate in Europe is changing rapidly, affecting species and climate change has a real impact on all species, but especially on protected ones and on vulnerable habitats (Willis and Bhagwat, 2009). A specific management of these ecosystems is crucial to combat climate change and help human societies to adapt to its impacts. Implementation of policy in practice is possible through a set of actions: maintaining and restoring biodiversity and ecosystems; creating an appropriate framework of policies in the field; using a sectoral framework for the development and implementation of concrete actions to be based on existing ecosystems.

Message 2: Protected areas (EEA, 2010b). Europe has the highest number of protected areas in the world. Although relatively small in size, the international European networks of protected areas are catalyzing biodiversity (Mulongoy and Chape, 2004). They provide a chain of services in the context of increasing pressure and rapidly changing environment.

Message 3: Freshwater ecosystems (EEA, 2010c) are extremely rich in biodiversity and provide essential ecosystem services to people, but are affected by pressures leading to decreased biodiversity. Therefore, Europe must take action to protect freshwater quality and ecological status of freshwater ecosystems (Abell *et al.*, 2008).

Message 4: Marine ecosystems (EEA, 2010d). Although it offers key services,

European marine biodiversity faces an unprecedented range of pressures (Mora and Sale, 2011; Stan, 2013). Establishment of **Natura 2000 marine protected areas** represent a key tool to protect marine biodiversity and subsequently complemented by the EU Integrated Maritime Policy (Evans, 2012).

Message 5: Forest ecosystems (EEA, 2010e). Forests cover a large part of Europe, having multiple functions for society, providing economic, social and environmental benefits, but above all is a reservoir of biodiversity, especially in ancient natural and semi-natural forests. The main threats facing these ecosystems are unsustainable management, fragmentation, air pollution and climate change (Chazdon, 2008). European countries have already taken steps to protect and restore forest biodiversity (one third of the Natura 2000 network is covered by forests).

Message 6: Urban ecosystems (EEA, 2010f). To preserve biodiversity and quality of life is necessary to control the growing urbanization tendency (Tenea *et al.*, 2013). Green spaces and biodiversity in urban environments represent vital assets, and urban areas may represent an opportunity but also a threat to biodiversity (Tzoulas *et al.*, 2007). Ensuring urban biodiversity is critical to preserve the quality of life in European cities.

Message 7: Agricultural ecosystems (EEA, 2010g). The link between biodiversity and agriculture was the basis of the Common Agricultural Policy (CAP), Europe's biodiversity being linked to agricultural practices that have created valuable agricultural ecosystems along Europe. Maintaining and restoring biodiversity provides the basis for all

services related to agricultural ecosystems (Swift *et al.*, 2004).

Message 8: Mountain ecosystems (EEA, 2010h). European mountain regions provide essential ecosystem services their surrounding lowlands, have a diversity of species and habitats and are holding a rich cultural heritage. The low-intensity agriculture is supporting biodiversity in the mountains of Europe (Nagy *et al.*, 2003). Mountain ecosystems are fragile and vulnerable, their biodiversity suffering from intensified land use and land abandonment (Purice *et al.*, 2013). In Europe, infrastructure development is the main cause of mountain ecosystems' fragmentation. Mountain species can adapt in a very limited extent to climate change (Diaz *et al.*, 2003). The strategies on natural ecosystem management require the integration of economic, social and environmental factors.

Message 9: Coastal ecosystems (EEA, 2010i). Although coastal areas provide vital resources, multiple pressures are destroying and degrading their habitats: pollution, climate change, invasive species, overexploitation and deposition of sediments (Harley *et al.*, 2006). An integrated approach based on ecosystem is the starting point for the management and sustainable development of coastal areas (Nandi, 2014).

Message 10: Cultural landscape and the biodiversity heritage (EEA, 2010j). European cultural diversity and natural landscapes are the result of centuries of human intervention, becoming lately extremely fragmented and homogenized (Singh *et al.*, 2014). Europe can keep and improve its biodiversity through sustainable management of landscapes (UNESCO, 2003).

1.6. Millennium Development Goals

Adopted by 191 countries, including Romania, in September 2000 at the Millennium Summit, the Millennium Development Goals includes 8 goals with specific targets going to be achieved by 2015 (UN Millennium Project, 2005). In Romania, the progress in achieving these targets is monitored by the Government together with other non-governmental institutions. Objective No. 7 states "To ensure environmental sustainability". Therefore, in 2007, was prepared the **second report on the Millennium Development Goals** (Government of Romania, 2008), presenting the measures taken by Romania so far in order to fulfill these 8 targets. The document shows the priorities in terms of environmental sustainability, namely: increasing forest stock and the share of protected areas, reducing greenhouse gas emissions and improving the access to drinking water from the public network. The document provides within the target no.17 that **by 2040 forest stock to grow from 27% of the country (as recorded in 2006) to 35%**. Of interest is the target no.18 which states that **by 2015 the percentage of protected natural areas has to increase up to 19%**.

2. Strategic Plan on Biodiversity 2011-2020. Aichi targets

In 2010 in Nagoya, Aichi Prefecture (Japan), on the occasion of the The 10th meeting of the Parties to the Convention on Biological Diversity was adopted the **Strategic Plan for Biodiversity**, revised and updated, including "**The 20 Aichi Biodiversity Targets**" for 2011-2020 (Decision X/2 of Convention on Biological Diversity, 2010). The Strategic Plan provides a global framework on biodiversity. The parties agreed to create **National strategies and Action Plans** on biodiversity within 2 years. In addition, the parties decided (Decision X/10 of Convention on Biological

Diversity, 2010) that **until 31 March 2014** the national reports to focus on the implementation of Strategic Plans on Biodiversity and on their Action Plans, as main instruments for implementing the Convention (otherwise stipulated in Aichi objective no. 17). National biodiversity strategies aimed at ensuring the integration of this strategy in planning activities in all sectors whose activities have an impact (positive or negative) on biodiversity (Stringer *et al.*, 2009). For instance, tourism can contribute to several of the Aichi targets (IUCN WCPA, 2012). On October 16, 2014, a total of 193 parties had already created, reviewed or in progress Strategies and Action Plans on biodiversity, including Romania.

2.1. Action Plan for Biodiversity in Romania 2012-2020

With the ratification of the Convention on Biological Diversity, Romania had to take into account its requirements, such as to create a **National Strategy on Biodiversity and an Action Plan**. Thus, Romania's strategic vision for Biodiversity in the 2014-2020 horizon is "the protection and conservation of biodiversity in all aspects, including the processes and functions of ecosystems, interactions between organisms and their environment and ethnocultural diversity".

Action Plan for Biodiversity in Romania (The Convention on Biological Diversity, 2011) includes 10 objectives, 15 sub-objectives and 179 actions, being specified responsible institutions, periods, budget, funding sources, type of priorities and performance indicators for each action. It is observed that most activities (about 60% of the total number) are planned to be conducted in the period 2012-2014. The estimated cost of implementing the 170 recommended measures is **1,508,175,000 EUR**.

The Action Plan for Biodiversity in Romania is in line with the new Strategic Plan on Biodiversity and with the 20 Aichi Biodiversity Targets. By 2020 Romania has established the following four lines of action on biodiversity:

1. Halting the decline of biodiversity of species and genetic resources.
2. Mainstreaming biodiversity conservation in all sectoral policies by 2020.
3. Promote traditional innovative knowledge, practices and methods, as well as clean technologies.
4. Improved communication and education on biodiversity by 2020.

The 4 lines of action were transposed into 10 strategic objectives:

1. Creating the legal and institutional general frame and securing financial resources.
2. Providing an efficient management of the national network of protected areas.
3. Providing a good conservation status of species in order to protect wildlife.
4. Sustainable use of components of biological diversity.
5. Ex situ conservation.
6. Control of invasive alien species.
7. Access to genetic resources and the fair distribution of benefits resulting from them.
8. Support and promote knowledge, innovations and traditional practices.
9. Improve scientific research and promoting technology transfer.
10. Better public communication, education and awareness.

2.2. Achieving the biodiversity targets

According to the **5th Romanian CBD National Report** (Ministry of Environment and Climate Change, 2014), Romania recorded a progress in achieving the Millennium Development

Goals for 2015 and the Aichi Biodiversity Targets 2020 (Fig. 1).

According to this Report, the situation of the alignment to Aichi targets is the following:

Strategic Objective A: Integration of issues related to biodiversity loss at governmental level and in society. *Not later than 2020 the society must be aware on the values of biodiversity and the measures to be taken for its conservation and sustainable use.* In Romania, the level of public awareness regarding biological diversity increased and as an example can be given the project "National Campaign to promote the growing interest and importance of biodiversity through the Natura 2000 network in Romania" implemented between 2010 and 2013. *Also by 2020, biodiversity values must be integrated into national and local Development Strategies and in national financial and reporting systems.* Biodiversity was included in the Partnership Agreement 2014-2020 with the EU and will be considered in preparing the Operational Programmes. The Romanian National Biodiversity Strategy and Action Plan (NBSAP) 2014-2020 provides "Mainstreaming biodiversity conservation in all sectoral policies until 2020". To achieve the strategic objective "Sustainable use of biological diversity components" it is necessary the integration of biodiversity in all sectoral policies. *New consistent methods and incentives for the conservation and sustainable use of biodiversity will be developed and applied, in harmony with other relevant conventions, taking into account the national socio-economic conditions.* Incentives may include the financial compensation set for the Natura 2000 sites or the payments to landowners for the management of biologically valuable grasslands and forests belonging to the

Natura 2000 network. No later than 2020 the governments, policy makers and business firms will take steps to create and implement plans aiming a sustainable production, consumption and impact of using natural resources in ecological safety margins. Although strategic documents include the sustainability of production and consumption, it seems that this target is not sufficiently covered in this moment by Romanian strategic documents.

establishing more natural landscapes and to prevent fragmentation and destruction of natural habitats. It is necessary a sustainable management and ecosystem approaches to be applied in terms of fish stocks and aquatic plants, agriculture, aquaculture and forestry. Although the marine environment of the Black Sea has been subject of environmental policies in the last 20 years and the fishing capacity decreased after 1990, however, the fish stock is still in a critical situation. According to the reform of the Common Fishery Policy, Romania supports the fisheries sector and related activities by reducing their environmental impact (Buhociu *et al.*, 2009). As for forests, 53% of the Romanian forest areas (in Romania, 27.7% of the country is covered by forests) are protected and different forest management regimes are applied according to their function. There are necessary measures to be developed to enhance the forest protection function and to establish an integrated and sustainable management of mountain forests and watercourses, of production and protection forests, as well as the preservation of aquatic eco-systems and the application of safety measures ensuring wild species biodiversity. Pollution should be brought to the limits that do not affect ecosystems and biodiversity. In rural areas one of the most important priorities is the extension and modernization of the water and wastewater infrastructure. The use of agricultural fertilizers and pesticides decreased, improving the quality of the surface waters. Soil and water conservation measures will be needed by implementing good agricultural practices. Invasive alien species will be identified, controlled and eradicated and anthropogenic pressures on coral reefs and other ecosystems vulnerable to climate change impacts will be minimized. Regarding alien



Fig. 1. Aichi targets on Biodiversity (InforMEA, 2014)

Strategic Objective B: Reducing direct pressures on biodiversity and promote its sustainable use. By 2020, the rate of loss of all natural habitats, including forests, should halve and where possible even reduced to zero, and degradation and fragmentation should be significantly reduced. In Romania Natura 2000 network currently covers 22.7% of the national territory, with 63% of habitats and 19% of species being in a favorable conservation status. The funds that will be available in the period 2014-2020 will significantly contribute to

species, the Romanian legislation is still in an incipient stage, no clear national record of the number of invasive species being registered. Romania is working to a national “black list” of invasive species and several research programs are conducted at national level. The National Biodiversity Strategy and Action Plan 2014 – 2020 identifies objectives related to invasive alien species within the strategic Objective F – *Control of Invasive Species*. The same document refers to the mitigation of climate change within the objective no.7 - *Reduce pressures due to climate change, pollution and soil erosion*. In July 2013 Romania has adopted the National Climate Change Strategy for 2013-2020.

Strategic Objective C: Improving the status of biodiversity by safeguarding ecosystems, species and genetic diversity. *By 2020, at least 17% of terrestrial and inland waters, particularly those of importance for biodiversity and ecosystem services they provide, will be preserved by appropriate measures (systems of protected areas) and integrated in land and marine landscapes.* In Romania the Natura 2000 areas cover 22.7% of its territory. Apart from the Danube Delta Biosphere Reserve, there are 13 national parks, 15 natural parks, 925 scientific reserves, natural reserves and natural monuments. Eight natural protected areas (SCIs and SPAs) cover approximately 33% of national coastal and marine waters. *Extinction of endangered species will be prevented and their conservation status will be improved; genetic diversity of cultivated plants, animals and of all valuable species will be maintained, by creating and implementing strategies to protect their genetic diversity.* The activities of the Direction of action no.1 within the NBSAP 2014 – 2020 states “Halt the decline of biological diversity in genetic resources, species, ecosystems

and landscape and restore degraded systems by 2020”, red lists including threatened and vulnerable species being established. Most institutions dealing with the genetic diversity dissolved after 1989. Nowadays Gene Bank, Suceava, developed genetic resources considered valuable for agriculture.

Strategic Objective D: Increase the benefits derived from biodiversity and ecosystem services. *By 2020, ecosystems that provide health and welfare services especially to local and vulnerable communities will be restored and protected. At least 15% of degraded ecosystems will be restored, thereby contributing to climate change mitigation and combating desertification.* The implementation of these activities is in line with the Strategic Objectives “Sustainable use of biological diversity components” and “Providing Consistency and Efficient Management of the National Protected Area Network” of the NBSAP 2014 -2020. So far there is no assessment at national level of the impact of biodiversity loss and the loss of ecosystem services. Adaptation to climate change will be addressed in the framework of The National Climate Change Strategy for 2013-2020, adopted in July 2013, complemented by the National Action Plan for Climate Change, as well as in agricultural sector. *By 2015, the Nagoya Protocol on "Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization" will be in place and operational in accordance with national legislation.* Romania has signed the Nagoya Protocol in 2011 and its ratification is expected by the end of 2014 or in 2015.

Strategic Objective E: Accelerating implementation through participatory planning, exploitation of knowledge and training skills. *By 2015 each party*

shall create, adopt and implement a Biodiversity Strategy and Action Plan, effective, participatory and updated. Romania has adopted the NBSAP 2014 – 2020 in 2013. *By 2020, attention will be given to traditional knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity, as well as customary use of biological resources.* - The Strategic Objective H “Support and promotion of traditional knowledge, innovation and practices” of NBSAP 2014 -2020 refers to certain aspects related to traditional knowledge on food, but the existent regulations make no reference to the protection of traditional knowledge inherited by the local communities from their ancestors, requiring compliance with the community legislation. *Basic knowledge and technologies relating to biodiversity will be enhanced, and consequences of biodiversity loss will be made widely known.* The implementation of these activities is in line with the Strategic Objective I “Development of scientific research and promotion of technology transfer” from NBSAP 2014-2020. Romanian research does not include a special direction dedicated to biodiversity conservation, but is one of the priorities of public investment. *The mobilization of financial resources will substantially increase for the effective implementation of the Strategic Plan on Biodiversity 2011-2020.* At the end of 2013, all money allocated from the SOP Environment has been spent. Benefits to biodiversity conservation came from the PNDR, through agri-environment payments, as well as from LIFE+ Programme.

3. Conclusions

Biodiversity must be protected both for its value and for the ecosystem services it provides, the food security of people depending on biological diversity (Mainka

and Trivedi, 2002; Adetola and Adetoro, 2014). The objectives of the Convention on Biological Diversity, which is the most important international agreement in terms of the environment, namely biodiversity conservation, sustainable use of its components and equitable sharing of benefits arising from the utilization of genetic resources – are the basis for all subsequent strategies, plans and action programs.

With the launch of the Sustainable Development Strategy in 2001, the EU has set itself the target to halt the loss of biodiversity and restore habitats and natural systems by 2010. In fact, the year 2010 was a reference year for the goals, objectives and messages that were launched subsequently the CBD (Rands *et al.*, 2010). The strategic objectives set for halting biodiversity, such as Message from Malahide from 2010 or the Aichi targets have as horizon the years 2015 and 2020, the treaty signatory countries being required to create and implement Strategies and Action Plans on Biodiversity.

The EU Biodiversity Strategy is developed in the 2020 horizon. By then, 100% more habitat assessments must be done, as well as 50% more species assessments, reflecting a better state of preservation. At least 15% of degraded ecosystems should be restored until 2020. According CBD, protected areas represents the most successful measure implemented to conserve biodiversity (Woodley *et al.*, 2012). They must cover until 2020 at least 17% of the global land area (compared to 14.6% in 2014) and 10% of coastal and marine areas (compared 9.7% in 2014).

National Strategy for Sustainable Development in Romania provides as a

target for 2015 increasing the number of protected areas and Natura 2000 sites having approved management plans from 3 (in 2006) to 240 (in 2015). Romania's strategic vision in horizon 2014-2020 was presented at the 5th National Report on CBD (2014). The Action Plan details the 2014-2020 period in which these objectives will be achieved.

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