

**INTEGRATED PARKS OF ECOLOGICAL RESTORATION – A SUSTAINABLE
DEVELOPMENT TOOL FOR PUBLIC AUTHORITIES,
BUSINESSES AND INVESTORS**

Elena **PREDA**¹, Simona **BARA**², Gabriel **POPESCU**³

¹ PhD Senior Lecturer, Bucharest University of Economic Studies

Email: elena.preda@eam.ase.ro

² PhD Senior Researcher, Bucharest University of Economic Studies

Email: simona.bara@eam.ase.ro

³ PhD Professor, Bucharest University of Economic Studies

Email: popescug2004@yahoo.co.uk

Abstract

Environmental and climate change issues have begun to become points of interest for the financial services industry, due to both global and European policy trend - the Green Deal, the Climate Change Mitigation Treaty, the reduction of companies' carbon emissions, etc. - as well as for the relevant scientific and regulatory authorities. The process of institutional construction of the new entities represented by the ecological restoration parks was born from the need to encourage the multi and interdisciplinary remediation and integrated monitoring works of some damaged natural areas. The purpose of this paper is to provide a new approach to ecological restoration activities, taking into account not only the technical aspects of restoration works, but also new ways of them integrating economically and socially.

The paper is organized on following issues: the need to establish a general institutional framework for ecological restoration; specific technical requirements for establishing future complex ecological restoration parks; financing the ecological restoration parks; advantages of institutional recognition of ecological restoration parks. Ecological restoration parks can become a source for the design and jobs designing in the medium and long term, given the duration of restoration of bio components and / or of relationships affected and subject to ecological restoration.

Keywords: *air quality, anthropogenic factor, human pressure*

DOI: 10.24818/CAFEE/2020/9/05

Introduction

Current economic activities explain the special achievements induced in almost all areas of our lives and, on the other hand, have been the main sources of climate change and environmental degradation, the latter becoming an existential threat to each country, to Europe, and to the whole world.

In this complex context, Europe needs a new development strategy, aiming to transform the current economy into a modern, competitive and resource - efficient one, in view to build a true sustainable green industrial revolution. The ambitious goals of the new development strategy refer to: (i) zero greenhouse gas emissions by 2050; (ii) a new type of economic growth, which will be decoupled from the use of natural resources; (iii) inclusiveness for all

European citizens, which means that no person and no place will be neglected or left behind (EC, 2019).

The putting in place of a so-called “sustainable green industrial revolution” in the EU meant that its roadmap, personified in the “European Green Deal”, would help to turn climate changes and environmental challenges into opportunities - in all areas of activity - just to ensure a transition that will be fair and inclusive for all Europeans. Thus, the European Green Deal includes: a) actions aimed to stimulate the efficient use of resources by moving to a circular and cleaner economy; b) actions to restore biodiversity, intra- and inter-ecosystem relations, and to diminish pollution; c) the necessary and available investment financing instruments to ensure a fair and inclusive transition by associate investments in green technologies, innovation in both, the industrial sectors and the private and public transport sectors; d) decarbonisation in the energy field, improving the energy efficiency of buildings; e) more active collaboration with local, regional and international partners to improve and monitor the state of environment.

In parallel with the EC's efforts to transform into a modern, competitive and resource-efficient economy in the so-called "sustainable green industrial revolution" earlier this year, 2020, it seems that everything will change due to the impact COVID-19 crisis. The total blocking measures imposed by the European central public authorities, in fact, created new premises to open other emerging activities with huge potential for re-launch and integrated development at local / regional scale. The latter category includes ecological restoration, an activity that, given its complexity, multidisciplinary and interdisciplinary of the activities involved (but the duration and costs being sometimes huge for local communities) is often performed and monitored sequentially, aiming only at solving hot problems and, nowise, the set of components necessary to restore the functionality of ecosystems affected by either human activity or the action of natural factors.

This paper is structured on following issues: the need to rethink a general institutional framework for ecological restoration; specific technical requirements for establishing future complex ecological restoration parks; financing the ecological restoration parks; advantages of the institutional appreciation of ecological restoration parks.

The need to establish a general institutional framework for solicitation of the ecological restoration activities

In this context, the problem that arises is, on the one hand, the territorial classification of the ecological restoration activity and, on the other hand, the creation of a general institutional framework for its realization, knowing that each action has its specificity (for e.g. replacement of some biotic components and / or the restoration of some relations between them). It should also be noted that there are many cases in which the present solutions at a given time are not fully replicable to another area during the ecological restoration process. It should also be noted that the achievement of the proposed objectives in the areas are the subject of a gradual ecological restoration of certain activities (ecosystem protection, multiplication, replacement, but also production, research and provision of specific services) is to be carried out in – a distinctive operational regime, which ensures both the protection of the natural, human, material and cultural potential of the area to be subjected to ecological restoration and the constant and lasting financing of the remediation works to be carried out, given the fact that on elements of an organic nature, which have their own durations and rules of restoration and stabilization of their state.

Considering the particularities of the ecological restoration processes mentioned above, it is known that for the realization of such targeted projects with coherent actions, dependent on time and money variables, but also on the quality of the developed management, it is proposed to initiate ecological restoration “parks”. Such entities will have the capacity to generate, in the medium and long term, the restoration of bio elements (plants and animals) and / or of functional relationships between them, which have been destroyed either as a result of the human action or of the natural factors.

The initiation of the emergence of such entities (respectively ecological restoration parks) is similar to the development of tools for complex investments with inter and multidisciplinary effects on the environment and climate change at local / regional / national level. At the same time, in the future, by adopting such instruments, it will be possible to coherently monitor the stage of achieving the SDG targets from the “National Strategy for the Sustainable Development of Romania 2030”¹.

Aims of the research

The aim of this paper is to provide a new approach by integrated of different kind of ecological restoration activities (), considering not only the technical issues of restoration but also their economic and social incorporation. The high costs of restoration projects and the long time needed for seeing the obvious outcomes usually hinder the ecological rebuilding at a larger scale.

Research Methods

An analysis of the EU policy documents related to implementation of the European Green Deal as well as scientific literature related to ecological restoration activities projects has been made. An integrated analysis of specific restoration features, of institutional needs as well as the ways of funding the strategies for restoration activities.

Findings. Specificities of the setting up the process for ecological restoration parks

In our view the ecological restoration parks can be administrative territorial units which can be similar with the existing ones or not - it depends by the decision makers. Currently, there are no ecological restoration parks and therefore no legislative provisions, allowing the central and / or territorial public authorities to identify, delimit and allocate resources for ecological restoration activities within such administrative territorial units (ATU).

The process of institutional establishment of the new entities - represented by the ecological restoration parks - was born from the need to encourage the integrated multi and interdisciplinary remediation of some damaged natural areas. This issue will have to be accompanied both by research work of recognising, designing and prioritizing the importance and by identifying sources of funding for rebuilding in parallel with the initiation of detailed legal and institutional facilities.

Generally speaking, parks for ecological reconstruction, an expression of the effort to treat in an integrated way the existent environmental issues in a reference space, will signify opportunities for beginning at the local and regional communities research activities, outcome monitoring, the emergence of new services and occupational categories.

¹ Approved in 2018 by Government Decision no.877

Future actions to validate the establishment and operation of ecological restoration parks will aim to define these entities (ecological restoration park) as precisely bordered areas within an ATU. Inside of this entities, as a result, of the in-depth research studies - design and expertise which will be carried out, on the one hand, activities to restore of the degraded ecosystem and / or its relationships and, on the other hand, to allow the gradual development of economic activities – production, scientific research, capitalization / implementation of some results from the research, development and innovation (RDI) and ecoservices activity, such as the capitalization of the new opportunities appeared as an effect of the restoration of the ecosystem of interest and / or of its relations, respectively of the degraded ecosystem that was subjected to the ecological restoration action. The adoption of such a decision will also lead to a greater responsibility of the public administration towards the state of the environment at ATU level.

At a later stage, after the realization and approval of a specific law on ecological restoration parks by initiating, for e.g., an Order of the Minister of Regional Development and Public Administration, ATU administrators will can have capacity to start specific actions for an integrated ecological remediation within their own entities and, also, to attract in a right and maybe more efficient the money necessary for ecological rebuilding issues.

In view to support the objectives declared of the next ecological reconstruction parks, we have the opinion that at least the following issues that will have to be taken into account:

- provided or no the feasibility studies for one or more of ecological restoration objectives identified as being of interest for rehabilitation works in the future entity (ecological reconstruction park);
- the future costs related to the reference entity;
- depending on the estimated necessary resources related to solving the problems of the future entity, it will be necessary to define the area which will be subjected to the ecological restoration works;
- to identify, with accuracy, the owners of the targeted lands and their associated fiscal burdens in order to assure them to the future administrators and to establish their conditions towards the real owners;
- in the delimitation of the perimeter of the future parks, some logistic issues will have to be followed, in order to ensure the best conditions for the movement of the various resources in and from the reference perimeter, etc.

We are the opinion that the actions of identification and territorial delimitation of the future ecological reconstruction parks should fall within the attributions of the local, regional or national public authorities, which, in different degrees, are also involved in the implementation of Romania's National Sustainable Development Strategy, 2030 At the same time, it will be possible to ensure: the extension at community level of responsibilities and directions for action on sustainable development as a whole; more active communication on the state of the environment preservation; setting-up the premises for local, regional and central public authorities to become real providers of knowledge of the state and evolution of works of interest for sustainable development; exchanging examples of good practice on how different institutional structures can act as active catalysts to ensure sustainable bottom-up development.

In our conception, ecological restoration parks - in order to be functional - must meet certain framework conditions, such as: infrastructure; regulations; financial allocations included in the public budgets; the necessary workforce with various degrees of qualification; image, etc. In this context, the award of the ecological restoration park title will have to be conditioned

by the issuance of an agreement given by the central public authority - following the request made by the territorial administrative unit within which will be the future ecological restoration park. Receipt of this agreement will be based on (i) the studies carried out by specialized research units, including environmental issues, and (ii) on the feasibility study for ecological restoration works, which will be endorsed by specialized authorities.

Another element that will have to be taken into account in the process of setting up an ecological restoration parks will be the works regarding the strategic environmental assessments for the areas which will be the subject of ecological restoration. In their case, the initiator / administrator of the ecological restoration park and / or the local and / or regional and / or national public authorities will have the right: (i) to turn to specialized institutions and, on the basis of a competition, to attract experts and specialists, including ones from the international environment; (ii) allocate public resources to carry out the strategic environmental assessment.

We specify that the process of strategic environmental assessment for plans and / or programs dedicated to the areas to be subjected to ecological restoration will include at least four stages, as follows: identification and determination of areas for ecological restoration; elaboration of the project and respectively of the strategic evaluation report of the area to be subjected to ecological restoration; achieving the coordination of the project, respectively of the report of strategic evaluation of the ecological restoration of the area of interest both with the local / regional / national public authorities and with other actors interested in participating in the future project; consultations with actors located outside the area to be subjected to ecological restoration. Also,

regarding this topic (the process of strategic environmental assessment) it should be specified that:

- the entire strategic environmental assessment process for the areas to be subject to ecological restoration must describe and assess the possible significant effects of future environmental work, including those related to public health, the effects of implementing the plan or program, and reasonable alternatives on solving various problems;
- the strategic environmental assessment report must contain information related to the level of knowledge and assessment methods existing at the time of its implementation, the content and the degree of detail of the proposed plans or programs, and their stage at the time of decision-making;
- the strategic environmental assessment report must take into account public participation in the strategic environmental assessment of the reference area that will be subject to ecological restoration - and will take into account both the identification of actors that could be affected by the implementation of the plan or program; / or the (public) who is interested in the decision-making process, including public environmental organizations, as well as the establishment of the main ways of informing the public, using different methods of information (such as: public announcements in media, information posted on official websites, etc.); related to the modalities of public consultation-information (through written information, public debates, etc.) in the reference area in the strategic environmental assessment report vote should be specified the possibilities of public participation in case of cross-border consultations.

Obtaining the ecological restoration park title will involve for the referred ATU a series of advantages, such as, are, for example, those regarding the institutionalization of some state aid allocations that in the current conditions of the pandemic crisis and by the deep

implication of the state in the economy can be appear the opportunity to orient some funds towards these entities (ecological restoration park).

If the construction of these new institutional structures for an integrated environment preservation will be accepted, it will be necessary to certify various facilities, such as, for example, some tax exemptions as a result of: changing the destination of the lands which will be included in future ecological reconstruction parks; taking over / demolition of some buildings in the area of activity of the new infrastructure, etc.

Such benefits, mentioned above, may be granted, to varying degrees, for investments planned and / or underway necessary for ecological restoration actions recognized by the central authority (Ministry of Regional Development and Public Administration). The facilities provided for future ecological restoration parks will be established by separate legislative acts (laws, ministerial orders, governmental decisions, etc.) for each applicant (public authority which has in administration the ecological restoration park).

In the case of the ecological reconstruction parks legalization, an important role will belong to the directly responsible public authority, respectively to the administrator, who, mainly, should have the following attributions: elaboration of plans and programs specific for the reference area; carrying out strategic environmental assessment works, a work that requires the establishment of teams of specialists with multiple and interdisciplinary knowledge; periodic monitoring and reporting of the state of the ecosystem undergoing ecological reconstruction works. Also, the future attributions of the ecological restoration park administrator will include the obligation to periodically, for example, annually, to draw up an activity report of the ecological restoration park. This mandatory report will include: (i) inventory and how the targets of the project implemented regarding the 2030 Agenda SDGs are reached at local / regional and / or national level; (ii) analysis of the facilities received.

The report of the administrator of the ecological restoration park will be sent to the Ministry of Regional Development and Public Administration, as well as to the other ministries interested and involved regarding the objectives of the ecological restoration park and, at the same time, it will be published on the mentioned institutions.

We believe that the development of the activity report of the ecological restoration park will allow, on the one hand, a monitoring, in real time, of the implementation of the SDGs within the 2030 Agenda and, on the other hand, the updating and modernization legislative and institutional aspects of the new field of ecological restoration parks (such as, for example, the updating of new occupational codes and eco-services to be developed on sites subject to ecological restoration).

It should, also, to be noted that the new instruments represented by ecological restoration parks, in practice, at local and / or regional level will increase the awareness and participation of administrative authorities towards the environment issues; they will begin to play an active role in validating regulations.

Environmental protection developed by bottom-up level will be able to support the approach of new models of eco-businesses - which will have an action duration directly related to the recovery period for each entity (ecological restoration park).

Pursuing the quality assurance of the management of ecological restoration parks will be a very important requirement, because it (the management) will have to initiate and support several complex actions, in which collaboration between companies and other stakeholders will be the key to achieving the objectives through the reference project.

The participants in the ecological restoration parks will be: the business environment; institutes / research centres / universities; public agencies. Also, for the management of the ecological restoration parks it is necessary to build-up a strong coordinating body on the basis of a good collaboration among the participants involved.

Financing of ecological restoration parks

Environmental and climate change issues have begun to become points of interest for both the financial services industry, due to both global and European policy orientations - the Green Deal, the Climate Change Mitigation Treaty, the reduction of companies carbon emissions, etc.

The role that green investment can play must not be misunderstood or overestimated, but must be financially controlled. We exemplify by recent estimates made by the team at The Economist review, which suggests that: "the public publicly listed companies emit only 14-32% of the world total GHG emissions (depending on the methodology used). Moreover, although there are many tools used for environmental purposes (such as renewable energy financing), yet the reduction of GHG emissions is unsatisfactory and (it) does not work efficiently" and, unfortunately, it is unlikely that (this is our note) to improve it in the absence of a high, widely adopted carbon price.

We are aware that the establishment of ecological restoration parks in view to combat biodiversity loss and restore destroyed ecosystems will require significant public and private investment which could be supported by national and European funds. This will mean to assure a maximum correlation between the relevant programs and funding instruments from Romania and the EU. This will mean to assure a maximum correlation of all relevant projects / programs and funding instruments practiced by Romania and the EU in this field.

Investment Plan for the European Green Pact – The Investment Plan for a Sustainable Europe, launched in May 2020, aims to mobilize public investment but also to contribute to the release of private funds through EU financial instruments, in particular InvestEU, which could lead to a total investment of at least € 1 trillion.

Combating biodiversity loss and restoring ecosystems will require significant public and private investment at national and European level. This will mean making the most of all relevant EU programs and funding instruments. The Commission Action Plan also includes EU funding for biodiversity-friendly investments through a number of different programs in the future long-term budget of the Union. The natural environment restoration will receive an important contribution to meet the climate goals – during the next time 25% of the EU budget will be dedicated to combat climate change, to restore the biodiversity and for other nature preservation solutions. Also, others initiatives dedicated to natural capital and to the circular economy are included in the InvestEU Programme InvestEU in view to transform the EU into a modern and prosperous society, which can play an important role under the European Green Deal Investment Plan and the Just Transition Mechanism. So, in principle, it (InvestEU Programme) will be a source for green recovery and for the implementation of conducive solutions to the preservation of biodiversity.

The EC aims to finalize the Regulation on the taxation of sustainable finance in 2021. In this context, Romania could prepare a draft to propose the legalization of ecological restoration parks in order provide a feedback to EC regarding the inclusion of these entities in the Taxonomy Regulation.

We believe that from the perspective of the banking sector, ecological restoration parks could be an alternative for their financial reinvention during the crisis and post-crisis in relation with local / regional representatives' actors in supporting of the new market players.

Conclusions

Supporting the idea of establishing ecological restoration parks, as tools for sustainable development at the level of ATUs, reveals a number of advantages, among which we mention:

- i. ecological restoration parks will have the capacity to generate, in the medium and long term, the restoration of the bio elements and / or of the functional relations among them, which have been destroyed either as a result of human action or natural factors;
- ii. the proposed entities can be compared as instruments which support the public authorities to finance complex investments in view to restore biodiversity, intra- and inter-ecosystem relations or to reduce the pollution;
- iii. there will be a greater accent on the role of the public administration to preserve in an efficient way the state of the environment at the level of ATU;
- iv. the entities proposed will be real catalysts for sustainable development at the basic level of territorial decision making, contributing to ensure the coherence of the financing of the objectives and priorities proposed by the 2030 Agenda, to avoid double allocations and, also, to increase the importance of the synergistic effects of the activities carried out for environment preservation;
- v. they will be able to highlight the role and importance of local resources, including the state of local finances, but also the importance of ensuring decentralized cooperation for a coherent agenda of activities, in areas such as: agriculture; forestry; pisciculture; energy; industry; transport; waste management; management of the natural resources specific to the ecosystem undergoing ecological restoration, including aquatic ones; information and communication technology; tourism; land uses; urban and / or rural planning;
- vi. local, regional, central public authorities will have both the opportunity to become providers of essential new public eco-services and the ability to contribute to the amendment of the existing legislative and institutional framework (such as: the updating occupational codes with the new services connected with the environmental issues which must be developed during the next time) on sites subject to ecological restoration);
- vii. the ecological restoration parks will allow the institutionalization of some state aid measures, which in the current conditions of pandemic crisis, can be able to be oriented and linked with the local/ regional needs for ecological restoration;
- viii. these parks will be able to become real actors within the policies and strategies to strengthen regional competitiveness and development; the timely formation of networks for ecological restoration parks will be able to contribute to the internationalization of the good environmental practices and climate change mitigation, as practical ways to implement and monitor the 17 SDGs of the 2030 Agenda;
- ix. they will increase the awareness and active participation of administrative public authorities towards the environment preservation, because the regulations for environment conservation (from the bottom up level) will be up-dated in the right time and in accordance with the real stage of sites evolution and, also, the park will be able to support, on the one hand, the approach of the new ecobusiness models - which will have a life of action in direct connection with the existence of the each park - and, on the other hand, ensuring the continuity of the future ATUs programs;
- x. the ecological restoration parks can become a source for the design and designing of jobs on the medium and long term, given the duration of restoration of bio components and / or of the relationships affected and which are the subject to ecological rebuilding; directly related to these benefits it will be the support of actions to update education, communication and training programs;

- xi. at Community level, ecological restoration parks will also be able to become eligible partners for the future research and development programs in the field of the regional, national and international level, etc.

References

1. Dudley, N. (2008). "Ghidul privind Aplicarea Categoriilor de Management al Ariilor Protejate", *Comisia Mondială pentru Arii Protejate (CMAJ)*, <https://propark.ro/images/uploads/file/publicatii/Ghid%20aplicare%20categorii%20IUCN.pdf>
2. European Commission. (2019). An European Green Deal, https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.
3. European Environment Information and Observation Network (Eionet), <https://www.eea.europa.eu/ro>.
4. European Union. (2020). EU Biodiversity Strategy 2030. Bringing nature back to our lives, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions*, Brussels, 20.5.2020, COM (2020) 380 final.
5. Intergovernmental Panel on Climate Change (IPCC). (2019). 7 Things to Know About the IPCC's, *Special Report on Climate Change and Land*, 2019, <https://www.wri.org/insights/7-things-know-about-ipccs-special-report-climate-change-and-land>.
6. Romanian Government. (2018). Romania's Sustainable Development Strategy 2030, *Government Decision no. 877/2018*, , <http://dezvoltaredurabila.gov.ro/web/wp-content/uploads/2020/10/Romania-Sustainable-Development-Strategy-2030-en.pdf>.
7. UN, Guidance in Preparing a National Sustainable Development Strategy: Managing Sustainable Development in the New Millennium, http://www.un.org/esa/sustdev/publications/nsds_guidance.pdf.