IDEAS FOR NEW TECHNICAL AND ECONOMICAL MECHANISM FOR INCREASING THE EFFICIENCY OF NATIONAL ECOLOGICAL RESTORATION

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Abstract
The need for designing and implementing of a National Economic Governance System for Ecological Restoration (NEGSER) is given by the following issues: particulars of ecological rebuilding actions (ER); high costs of ER works within national or regional level; long time necessary for restoring damaged ecosystems (20 years or over); high degree of Ecological Restoration needs spreading in the national/ regional territory. On recommends the following components for the future NESER: Designing the National Programme for Damaged Ecosystem Saving (NPS); Financial – Economic Stability Mechanism of the integrated ER; Rapid Assessment Mechanism for Damaged Ecosystems with the role to monitor imbalances in mentioned ecosystems. The envisaged tools used by future NEGSER will be: Scoreboard for ER of damaged ecosystems; Degraded Ecosystems Stability Fund (DESF); Ecological Reconstruction Aid of damaged ecosystems. Functionality components NEGSER will be based on a legislative system and on a specific institutional management of financial resources allocated, including development of eco-system services (having as main features: diversity and scale in accordance with the type of integrated ER, public-private partnership contracts; ability to diversify or not depending on further developments of ecosystems under the consolidation and / or their capacity to catch their original functions).
Keywords:
Ecological restoration; eco-system service; stability fund

1. Why is it necessary to establish a National Ecological Governance Economic Reconstruction?

The dictum uttered by ruler Stephen the Great (1433-1504) "... For Moldova is not mine, nor yours, but our descendants and successors of our successors ..." metaphorically expressed the need for a National System for Reconstruction of Ecological Economic Governance (NEGSER). EU Biodiversity Strategy 2020 focuses on achieving the six priority targets of which ranked in second conservation and restoration of ecosystems and the services they offer (European Commission, 2011).

Given that the growth forecast of GDP for each country does not reflect the different stages of development and influencing factors on the environment – on the medium term- The European Environment Agency (EEA) began to realize recurrent systematic assessment of the habitat conservation status. This very complex approach began in 2000. The conservation status of several habitat types and species is certified by the European Environment Agency (EEA) under the Article 17 of the Habitats Directive 92/43 / EEC. The First Report on the Habitat Conservation Status of EEA was achieved in 2006.

Romania, which joined to the EU in 2007 will achieved its First Report on the Habitat Conservation Status in 2019.
On notes that over 80% of EU habitat records hard problems (in the case of EU-27 for 36.4% of habitat conservation status is bad; 28.4% of habitat conservation status is inadequate; for 17.3% of the habitat status conservation is not known). In Romania the status of habitat conservation "seems" to be more adequate than in the EU.
According to the European Commission, Romanian budget for 2014-2020 is 30.837 billion euro, *out of which for environmental protection and natural resource efficiency will be allocated 6.18 billion euro (20.04% of the total), it means aprox.44 euro / inhabitant/ year.*
Regarding the targets of the EC on environmental protection and resource efficiency it is said that about 50% of new objectives projects assumed by Romania for 2014-2020, refers to ecological restoration.
It should be noted that in the financial period 2007-2013 by the cause of poor performance concerning the use of European funds by Romania appear several projects which were delayed (phased projects). CE decided to give possibility for continuing the financing component till 2016 and to decreases with the same amount of money next budget for 2014-2020.
The financing environment for 2014-2020 will come from three sources: the European Fund for Agriculture and Rural Development (about 33%); European Regional Development Fund; Cohesion Fund.
In the practical activities, the operations concerning environmental protection and habitats restoration are intersected with the maintenance and / or repairs of infrastructure components belonging to anthropic elements.
The management of works and funds dedicated to habitats restoration and ones for repair of anthropic elements which are included inside of the first ones and their efficiency are under the management of different central government institutions (such as: ministries; government agencies; the National Company of Motorways and National Roads which covers seven cities, etc.). At regional or county level on rediscovers other structures without effective connections amongst them. For example, at regional or county level, institutional structures involved in European environment projects are: County Agricultural Directorates (42); County Environmental Agencies (42); Regional Directorates of Roads and Bridges, which coordinate 44 National Roads Departments (NRD) and all of them are organized in 316 districts of roads – each district manages road sectors having an average length of 50 km; Regional Development Agencies – RDA (8) which are working under NGOs legislation and their conditionality's to access and manage European funds are different from those applied for local public administration institutions (which are under the coordination of the central public administration institutions) – each region development (RD) comprises several counties; RDs does not have legal personality; them has an agreement between the county and local leadership and the management of RDA is assure by the rotating the representatives' of each county at very six months; also, sometimes the RDAs have insufficient financing capacity to start a project.
We intend to bring to your attention the need to develop a National System for Ecological Governance of Economic Reconstruction (NSEGER) as a mechanism which to be able to support more substantial ER targets concerning national and / or regional level. However, *analyzing The Directive 92/43 EEC on proposes that the evaluation of the habitat to be complete with the conservation status of the anthropic components existent at national / regional level.* In fact, this proposal can be found in the national legislation (Governmental Emergency Ordinance No. 195 from 22 December 2005 regarding environmental protection; this document defines the term "environmental damage" and not the

"reconstruction/ renovation" (Box 1), but unfortunately by ER the anthropic components existing in reference sites are not included and them are treated inconsistently, also.

Box 1. The signification of the term "environmental damage" within the Romanian legislation

The *Government Emergency Ordinance no. 195 of 22 December 2005* regarding environmental protection defines the significance of damage to the environment or the reconstruction. According to GEO no. 195/2005 deterioration of the environment means:

i. The modification of the physic-chemical and structural characteristics of natural and anthropic environmental components,
ii. Reduce biological diversity and productivity of natural and human ecosystems,
iii. Deteriorated of natural environment with effects on quality of life, caused mainly by water pollution, the atmosphere and soil, over-exploitation of resources, poor management and recovery,
iv. Improper settlement of the territory.

Environmental degradation occurs as a result of human actions, (a) sometimes uncontrolled and / or reckless and (b) the effect of human actions sometimes imposed by the need to carry and / or economic and social development.

In this context, the proposed National System for Ecological Governance of Economic Reconstruction (NSEGER) could bring to undesirable effects diminish some of which now face various units of the central government / regional authorities, and some communities; the expected effects of implementing a NSEGER on can mention:

- Preventing and / or reducing, where possible, the event demonstrated the domino effect if the conservation status of ecosystem degradation;
- Boost economic development in terms of the fourth industrial revolution, which has and will have the effect of miniaturization and increasing number of cases of environmental degradation leads to a continuous increase in allocations of public funds for conservation, but also to difficulties in managing processes and phenomena (see delays in the completion of European projects 2007-2013) – with a negative impact on the size of the funds to be accessed in subsequent periods.
- Constance rate of assessment action of the conservation status of habitats both for bio components and for anthropic components of national or regional interest.
- Careful prioritization of objectives ER, greater coherence in the actions of ER initiated and developed and efficient tracking of expenses related to both components.
- Increased capacity to supplement EU funds with national public funds for some actions ER tooth components – even if they are not stipulated in the European strategic objectives. This category of spending for environmental protection include: (i) expenditures for construction, installation and assembly for purchasing equipment, transportation and other expenses for creating new fixed assets for development, modernization, reconstruction existing ones, with the aim of environmental protection; (ii) the value of services related to property transfer of existing fixed assets and land (fees, materials, fees, travel expenses for loading and unloading), etc.
- The need to define more precisely who are the actors that can cooperate with central government institutions and regional / local partnerships dedicated to constitute systemic and lasting actions related to works of ER.
- The need to define more precisely who are the actors that can cooperate with central government institutions and regional / local partnerships in order to be dedicated to systemic and lasting actions related to ER works and maintenance of habitats which are the subject of ER.

2. General characteristics of environmental expenditures

Trying *correlations between changes in economic indicators and of ecosystems subject RE* is obvious that they are doomed to failure, because although both areas have cyclical developments, however, the baseline is different.

It should be noted that during periods of equilibrium and stability of habitats depends on: composition, structure and the speed of biomass restoration; intra and extra connections / reference flows ecosystems; existing relationships with neighborhood entities (sites) – in cases where it is considered that the reference to ER of habitats are subject only to the influence of natural factors.

However, the general evolution of habitats is influenced by anthropic action (by different economic activities undertaken within them, by existing anthropic components, during their lifetime, their conservation status at a moment, etc.), which in turn induce their various influences – be impartially – in a way consciously or not.

Table 1 Environmental protection expenditure and investments of the General Government and of private and public specialized and secondary producers of environmental protection services in EU-27 and Romania, during the period 2007-2013

	2007	2008	2009	2010	2011	2012	2013	2012/2007, %
Environmental protection expenditure of general government–euro per inhabitant								
European Union (27 countries)	168.40	168.11	176.12	171.74	170.97	172.76	**172.09**	102.19
Romania	33.92	39.01	34.20	49.91	62.13	39.20	**32.35**	95.37
% Romania in EU 27	20.14	23.21	19.42	29.06	36.34	22.69	18.80	-6.82
Environmental protection expenditure of Private and public specialized and secondary producers of environmental protection services – euro per inhabitant								
European Union (27 countries)	259.91	283.03	266.03	279.32	287.20	287.74	**285.78**	109.95
Romania	99.96	109.59	80.21	112.09	137.41	113.92	**98.69**	98.73
% Romania in EU 27	38.46	38.72	30.15	40.13	47.84	39.59	34.53	-11.22
Total environmental investments of General Government – euro per inhabitant								
European Union (27 countries)	34.16	34.53	33.77	32.09	33.52	31.03	**32.41**	94.88
Romania	18.42	21.52	17.52	21.53	29.46	14.10	**6.98**	37.89
% Romania in EU 27	53.92	62.32	51.88	67.09	87.89	45.44	21.54	-56.98
Total environmental investments of Private and public specialized and secondary producers of environmental protection services – euro per inhabitant								
European Union (27 countries)	50.18	51.46	47.89	47.37	46.75	45.58	**45.85**	91.37
Romania	14.88	22.59	12.08	12.52	17.42	5.58	**4.95**	33.27
% Romania in EU 27	29.65	43.90	25.22	26.43	37.26	12.24	10.80	-58.10

Source: Eurostat, http://ec.europa.eu/eurostat/data/statistics-a-z/abc, accessed on 20 august, 2016; http://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_protection_expenditure

In a generic way literature environment costs, including those for RE refers to the prevention and / or repair damage to areas of reference. In international statistics these include investment and internal current expenditure for operation, repair and maintenance of equipment related to environmental protection.
The amount spent by Governments from EU-28 for environmental protection in 2013 was 87,184 million euro, that it means aprox.172 euro per inhabitant. Romania spent 0.74% of the total EU-28 (648 million euro).
The trend of total expenditure in the state budget for environmental protection, made at the governmental level after joining the EU, between 2007-2013 the growth was in Europe (3.9% in 2013 compared to 2007), but loss Romania (with -9.6%).
In the same period, spending on environmental protection made by Private and public Specialized Producers of Environmental Protection and secondary services in the EU-28 increased by 11.8% and in Romania with 6.45%, a phenomenon that shows an increase in the general consciousness of society regarding conservation.
General economic and financial crisis has affected the investments for environmental conservation. Thus there is a tendency to reduce environmental investments made in government funding between 2007-2013 in both the EU-28 (with 3.56% – 2013 to 2007) and in Romania, where allocations to State budget were much lower (64.1%). However, in the same period, investment for environmental protection and public funded Specialized Private Producers of Environmental Protection and secondary services in the EU-28 fell by 7.12% and in Romania to 68.5%.
Discrepancies found between the EU average and Romania both environmental costs and investments – phenomenon due to the level of overall development of our country – is still an argument for a more careful management assessments, prioritization and funding available.

3. The general condition of anthropic habitats components from Romania

In view to support the idea of inclusion in the National System of Governance Ecological Economic Reconstruction of the anthropic habitat components in Romania below on shows, briefly the condition of some of them (barrage, reservoirs, transport infrastructure, etc.).
Regarding the anthropic components on mention that them are placed in various natural habitats and the bio habitat components influenced them condition and functionality.

3.1. Barrages

In Romania, according to Romanian Register of Large Barrages are 246 barrages having heights between 5-168 meters and reservoirs with volumes from 0.1 to 2,400 million cubic meters water (Hăpău-Petcu, 2016). Depending on the year of construction their situation is: 64.2% of the total number of barrages (138 dams) was built between 1976 and 1989 and they are aged between 40 and 13 years; 26.0% (56 barrages) were built before 1975 and have over 41 years of age; 9.8% (21 barrages) were built after 1989 having 25-26 years.
Depending on the type of materials used to build barrages in Romania hold the largest share of earth dams (75.2% of total), followed by rock fill barrages (10.6%).

3.2 Anthropic/ Artificial Lakes

In Romania, artificial lakes there are over 1270 have with a total area of 1,150 km^2 and a volume of total retention of 5.4 bln metric cubes water per year. They represent 1/3 of the total surface of lakes from Romania. However, arrangements for the reservoirs were accompanied by other works (regularization of rivers – have a length of over 6,600 km of embankments over 8,600 km in length, with irrigation facilities, construction of

hydropower). Also, during dry periods, existing reservoirs are supplied almost entirely, of course from other rivers. Lakes anthropic have complex and diverse uses such as: getting electricity, irrigation, urban water supply, development of economic activities (fisheries), and recreation. Although the original purpose of artificial lakes were the economy, over time they have become tourist attractions because of the landscape value habitats where they are placed and relatively easy access (Vidraru in Arges, Vidra Lotru, the Cerna Valley and Bistriţei Gorj Poiana Marului on Bistrita Mărului Negovanu Sadu Valley, the valley Sebes Sebes mouth Water Raul Mare).

3.3. Transport infrastructure and ICT networks

In Romania the highways, national roads are managed by the National Company of Motorways and National Roads through seven Regional Directorates of Roads and Bridges (Table 4). Among the main projects developed by the National Company of Motorways and National Roads on can mention: highway construction; construction of expressways; construction of rounding roads; modernization of national roads; transport corridors; rehabilitation of bridges, etc.

In 2015, Romania has 86,080 km of public roads, of which only 20.5% and 4.2% of national roads (747 km) are highway.

Before 1990 it was built 15 of the longest road bridges in Romania 20 – noting that many of them were made at the end of the 19th century or early 20th century. In the top of the largest bridges in Romania included bridges built in the 19th century (Bridge over the river Olt from entering the city Slatina- located on Route 65 – Pitesti Craiova, which was finished in 1891, two of the longest road bridges are in the right Stoienesti and Poganu Olt County, on Route 67B Tirgu Jiu-Pitesti have all the Olt River – was built another road bridge in 1901, so ago over a century; Bridge Bucharest – Cenad located on Route 6 was completed in 1901, and such examples (Neferu, 2012a)).

Although Romania is the third of mountainous areas, however, currently there are only nine road tunnels, with a cumulative length of 1.6 kilometers. In 2012, Hungary, a predominantly lowland country, had twice as many kilometers of traffic tunnels (Neferu, 2012b). In the last 25 years, they have built two road tunnels: Cheile Bicazului – with a length of 155 meters; first tunnel located on a highway, located on the route between Orăștie and Sibiu – with a length of 340 meters.

Railway lines in operation for public use in 2014 totaled 10.77 thousand kilometers. The absence of a coherent, low-maintenance funding disponible for modernization and expansion (interest-makers is directed to roads and motorways) affected the railway infrastructure, which is currently in a situation "like to a postwar". In 2006, the spending on track, in Romania, was 147 euros, while in the other EU MS they were between 591,739 euro / km in Belgium and 8,266 euro / km in Poland (Tiron, 2011).

The expansion of ICT networks is another component anthropic with effects of the most diverse habitats. For example, Telecom operators continue to invest in the development of fixed and mobile networks given that Internet use is growing regardless of platform which is accessed – PC, laptop, smartphone, tablet, or smart TV. The challenge is to increase coverage of rural areas with the same quality of services as them from urban areas, and the same availability of high-speed Internet, a phenomenon that will increase regular market services in new areas.

The expansion of ICT networks is another anthropic component which affects in the most diverse way the natural habitats. For example, Telecom operators continue to invest in the development of fixed and mobile networks given that Internet use is growing regardless what type of platform is accessed by PC, laptop, smartphone, tablet, or smart TV, etc. The

challenge is to increase coverage of rural areas for which is necessary to assure the same quality of services as in urban areas, and the same availability of the high-speed Internet – a phenomenon that will raise the market of services in the new areas (Nita et al., 2016).

4. Proposed instruments for an integrated management of degraded ecosystems

Through habitat degradation processes can slow and / or stop and / or the specific activities and on distorts their natural evolution cycle. In general, the challenge for human action is to found:

- *Identify of basis reasons of ecosystem degradation* – which is a rather a difficult endeavor, however, with several factors (natural, political, economic, technological, etc.);
- *Evaluation, initiation, conduct ecological restoration activities of the reference habita*t;
- *Monitoring ex-post developments recovery of habitat* – by developing basis specific eco-system services which will be organized as a public-private partnerships;
- *Developing human capital* by increasing the employment rate of labor force and the number of specialists attracted into ecological restoration process, while providing solutions to some of the severe social challenges concerning poverty combat, especially in the communities belonging to the reference habitats;
- *Physical infrastructure development, both in the ICT sector and in the transport sector* in order to increase accessibility and attractiveness of Romania;
- Consolidation of a modern public administration and a professional one *oriented to imagine new solutions for corrections or find new solutions of previous territorial development mistakes*.

In this context, *specific policies ecological reconstruction* and that the action taken to mitigate the effects of declining ecosystems of national or regional level and, most often for financial reasons, is limited to a minimum involvement (for example: solving an environmental problem which not be longer postponed).

Initiating and implementing such policies that involve a complex ecological restoration of resource allocation, which cannot be neglected during the next time. At the same time, new policies must take into account the lengthy period (manifested with different intensities) – extending them sometimes even over a generation (20 years and above) – and depending on the degradation severity and, also, of its capacity for restoration of reference habitat.

On appreciate that the building of a National Economic Governance System for Ecological Restoration (NEGSER) of degraded habitats can be achieved by an effective management. NEGSER components will be:

- National Programme for the Saving the Degraded Ecosystems (NPS);
- Stability Mechanism for Funding ER,
- Rapid Assessment Mechanism of the degraded ecosystems status subject ER – which served as an imbalances monitor for reference habitats. On note that under this instrument the decision-makers will: monitor evolution of ecosystem imbalances in the initial phase of ER; Ex-post monitoring of strengthen process of ER.

The necessity of designing and implementing in Romania of a NEGSER is sustained by: Specifics of ecological restoration actions (ER); high costs of the works for ER at national and / or regional level; great length of time associated to restoring of degraded ecosystems (over 20 years).

4.1. National Programme for the Saving the Degraded Ecosystems

The relations between degraded ecosystems, those which will the subjected of ER, and the whole environment in which they are placed are accomplishing by inter-systemic flows. When an ecosystem is in danger (it is at risk generated by natural action or by anthropic components), directly or indirectly, all other ecosystems charge areas posted near reference one. This domino effect is finding to its influence, functionality, costs and time required for rebuilding the entire reference habitat.

In developing of a National Programme for the Saving the Degraded Ecosystems (NPS) will be involved experts from various expertise fields, and, also, central public authorities / regional / local – most often – such statement requires not only ex-ante and also specific research and professional expenses for materialization needed for reconstruction.

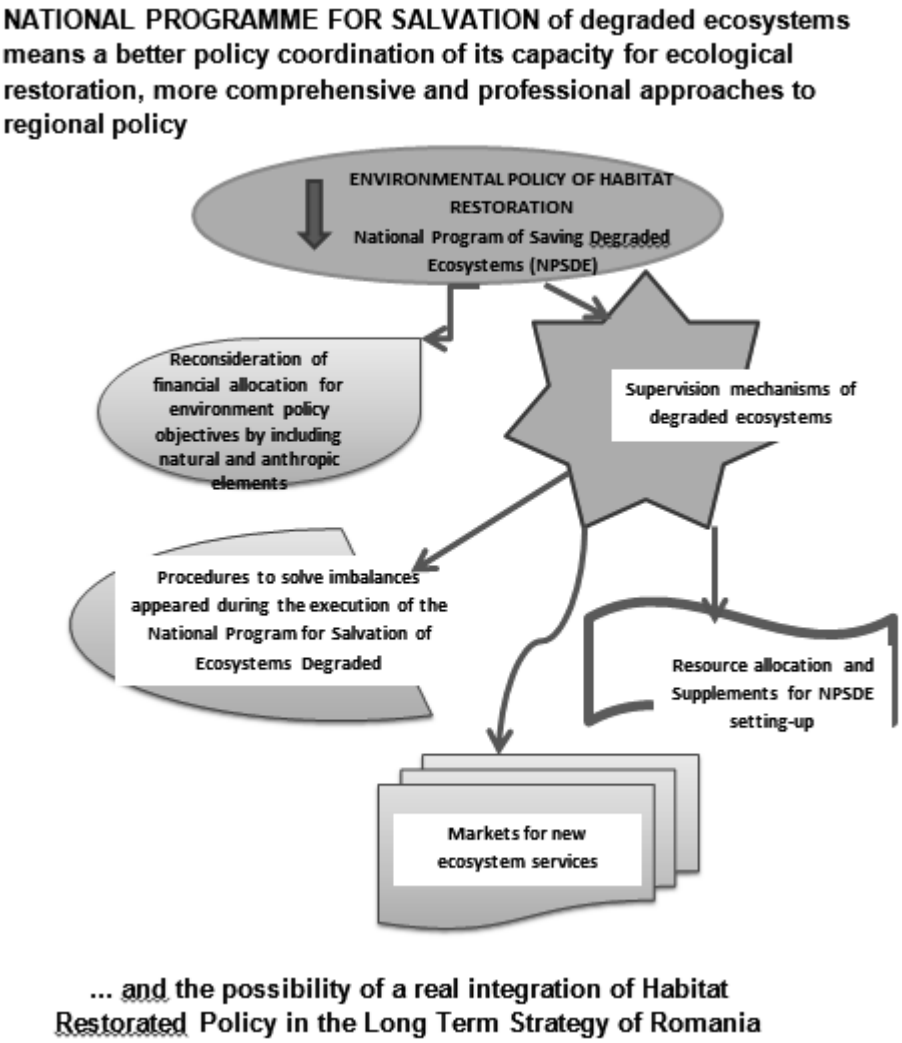

Fig. 1 The importance of achieving a National Programme for the Saving the Degraded Ecosystems

Also, depending on the size and the damage found in the reference areas that need to be integrated RE authorities are subject to design and implement appropriate legislative and institutional structures, in view to be functional at the National Programme for the Saving the Degraded Ecosystems, as follows:

- In the first step, they should realize the specific legislative and institutional framework, management of construction works for the complex ER, the adequate allocations of resources required by a complex ER and to identify the performers involved;
- In the second stage it is need to develop follow ex-post of renew the functions of habitats reference which were the subject of ER complex actions by establishing and developing the public – private partnerships, authorize both monitoring – by setting-up of specific eco-services – and by development of new investments after the main ER process.

It is worth mentioning that the NPS is focused on habitats affected by degraded, which are under governmental or regional competence. NPS aims and encourage the re-inclusion of habitats affected by the economic and social degradation in the natural circuit, as well as increasing convergence and effectiveness of the integrated ER at local / regional / national level.

However, affected ecosystems degradation included in NPS should be supervised and logistically and financially supported, in variant degrees, from the central administration specialists (for example a dedicated Council under the Romanian Government or by the Ministry of Environment and of Climate Change), the EEA (European Environment Agency) and by other entities that have responsibilities in the reference field. The purpose of these actions is to ensure that (i) it will comply with NPS established to prevent the spread of degradation phenomena to other neighbor ecosystems and (ii) to collect best practices for problem resolution in view to assure the information and general dissemination.

NPS can be a "reflection" of the National Ecological Policy of Reconstruction in our country, taking into account existing society capacities, such as: assessing of the damaged areas of socio-economic interest and environmental ones; ability to improve biomass components and components from various anthropogenic degraded ecosystems; assumption of costs related to biological and socio-economic rehabilitation of affected areas; possible sources of funding regarding the actions expected to be achieved by NPS; creating legal and institutional framework necessary to implement the provisions of the NPS for monitoring of the intermediate planned work, for monitoring and for ex-post evaluation of activities carried for the integrated (complex) ecological restoration

To avoid the collapse of degraded ecosystems NPS is required to take into account the complexity of the reference components (natural and anthropic ones); their structure; internal and external feature relationships.

On is said that sometimes essential differences emerged in treating of the complex ER in the case of various habitats may be lead with new environmental imbalances, which at long last can affect the activities of bio and socio-economic regions and even the country's competitiveness at local / regional / national level. In this context, in designing the NPS on requires a total seriousness and, also, on justify activities to certify and institutionalize it.

For each of the priorities / objectives of NPS generally on will develop "Individual habitat bailouts" that by centralizing will assure data and information for the ex-ante evaluation of the overall cost regarding the complex environmental conservation works for national/ regional interest habitats.

4.2. The Financial – Economic Stability Mechanism of the integrated ER

Support the financially integrated ER for the areas of national and / or regional interest included in the NPS and to prevent the domino effect should be provided by the "*Financial – Economic Stability Mechanism of the integrated ER*" (FESM). This will be a tool which identify (established) and *look out the necessary financial resources for a complex ER of degraded habitats that are of national and / or regional importance*.

4.2.1. Degraded Ecosystems Stability Fund

On will be a financial instrument that will be developed after the NPS's because only after this moment on can know both objectives, possible solutions which can be adopted for treating the complex ER of degraded areas and an approximate cost of the ER.

Degraded Ecosystems Stability Fund (DESF) will have as source:

- European funds dedicated to the environment conservation;
- The subscribed capital from the central public authority (for example, a percentage of GDP) through the State Budget – in view to authorize the focusing of the efforts for the complex (integrated) ER assured by NPS of all stakeholders (Ministry of Environment, Ministry of Regional Development and Administration, Ministry of Agriculture and Rural Development, Ministry of Transport, Ministry of Communications and Information Society, etc.);
- Others funds from the national government or from the regionals – as a part of the revenue comes from environmental taxes (collected from companies) taxes, which, on known, have an educational role – namely to force traders to pay a greater attention to issues regarding the conservation quality of eco-systems in which they operating

Other financial sources attracted from international markets with state guarantees.

On is worth to mention that DESF be designed / built as a tool with functions as a similar to a fund for loans guarantee ("special purpose vehicle"), which can have as source financial markets (on will works without own capital), authorize the borrowing by state guarantees .

For an effective management DESF will be subjected to a process of a continuous evaluation of how to achieve the priorities from NPS both during the implementation of NPS and afterwards in view to avoid duplication and/ or the appearance of a phenomena's concerning unwanted environmental degradation, but, also, the stabilization of habitats that have been performed by complex (integrated) ER.

It is worth mentioning that DESF be designed / built as a tool with functions similar to a fund to guarantee loans ("special purpose vehicle"), which can be attracted by financial markets (works without capital), allowing borrowing with guarantees government.

4.2.2. Ecological Reconstruction Aid

Any increase of expenditures for the complex ER of reference habitats included in the NPS are accepted under the condition to be opportune and with a temporary character. Also in DESF may be included a part of the expenses related to investments which are advantageous from the point of view economic, social, environmental; this can be identified after approval the NPS and / or during the works of ecological restoration and / or during the long period of the stabilization of the reference habitats.

For cases when on is found that the necessary financial resources initially allocated by PSE are insufficient to accomplish its goals on can be established and activate an additional financing instrument called "Aid for ER". This is a financial instrument that will be given to the central government / regional integrated involved in ER of degraded eco-systems that are part of NPS's adopted. This financial instrument is acted as a result of the progress monitored by specialized government structures.

These phenomena possible to appear during the implementation of NPS will require updating the initial institutional and legislative framework for the complex ER.

4.3. Rapid Assessment Mechanism of Degraded Ecosystems

This component of the National Economic Governance System for Ecological Restoration (NEGSER) consists of a set of technical, economic and environmental indicators (for example a set of 20 to 25 indicators) considered to be necessary for initial and intermediate evaluations and for monitoring ecosystems at regional / national, also. However, these indicators can be used to design the NPS.

The methodology to establish the technical indicators regarding the conservation status of habitats which are subject of integrated ER will follow the EC Habitats Directive – 92/43/EEA (EEA, 1992). These technical indicators necessary for monitoring degraded ecosystems subject ER on regional / national will refer to: the restoration of the ecosystem biomass components (plant or animal species); ecosystem restoration ratio of the components (structure component); resurrect the internal relations amongst the biomass components – either totally or partially, depending on the degree of which they were affected, etc. Also, this category of technical indicators are added to economic ones – those relating to current or capital repairs related of transport infrastructure and of ICT networks from habitats degraded of interest national or regional ones.

The economic indicators recommended to be used for monitoring degraded ecosystems which are subject of integrated ER can be: information regarding specific cost of procurement – materials and equipment's – salaries, payment of various services attracted (for example salaries for researchers involved in ER), investment necessary to achieve the works in reference habitats.

If it is found that during the reconstruction works is not touching ecological / realize the proposed levels of the indicators that are part of the Rapid Assessment Mechanism degraded ecosystems can initiate the launch of Ecological Reconstruction Accelerated Procedures. This is based on the analysis and the interim and is materialized by setting new deadlines to the implementation of the provisions of PSE related ecosystems degraded and subjected to reconstruction, including the (i) measures of technical and economic what role correction status system under RE, (ii) cost and (iii) the expected effects on the initial objectives targeted by PSE and the environment.

It should be noted that the initiation of such proceedings be timed only in exceptional circumstances (for example: economic downturn, state of necessity; occurrence of the extension periods to improve some components of biomass, climate change radical to PSE's ecosystem initially, etc.).

On is discover that during the ER works do not touch the proposed levels of the indicators that are part of the Rapid Assessment Mechanism of Degraded Ecosystems on can initiate the launching of the proceeding Ecological Reconstruction Accelerated Procedures. This is based on analysis and assumptions and finally it is materialized by setting-up new deadlines for the implementation of the provisions of NPS, including the (i) technical and economic measures for system status correction, (ii) assumption the new costs, (iii) suggestions for the expected effects on the initial objectives targeted by NPS and – if applicable – (iv) to initiate improvements to the existent legislative and institutional framework.

It should be noted that the initiation of a Rapid Assessment Mechanism of Degraded Ecosystems can be timed only in exceptional circumstances (for example: economic recession; state of emergency; appearance of the extension periods necessary to improve some components of biomass or of anthropic components; radical climate change compared with NPS's initially, etc.).

4.4. Imbalances Ecosystem Monitoring Mechanism

This is a tool which includes a series of procedures that permit detection of imbalances (technical environmental, economic, financial and social ones) arising after launching the ER according to NPS. Ecosystem Monitoring Mechanism imbalances may develop two components:

i. Imbalances Ecosystem Monitoring Mechanism during performance of the works themselves ER according to NPS;
ii. Imbalances Ecosystem Monitoring Mechanism after ER achievement.
iii. This procedure is based on the Scoreboard of the NPS that includes obligatory activities and indicators necessary for monitoring changes in ecosystems degraded which is the subject of ER.

Through regular analysis of data from the Scoreboard on can identify imbalances in the ecosystems of reference. However, administrative structures which are involved in ER – as main actors – may decide the necessary measures to avoid worsening of the situation revealed. They, also, are responsible for updating NPE and the other instruments (namely Ecological Stability Mechanism, the Degraded Ecosystems Stability Fund and the Aid for Environmental Reconstruction).

In addition, administrative structures involved in ER will be required to design a new Scoreboard to re-balance the overall situation in the case of detection of imbalances after launching the NPS.

In addition, administrative structures involved in RE will be required to design a new TB to re-balance the overall situation in case of detection of imbalances after launching the RE.

Based on Monitoring Mechanism of Ecosystem Imbalances on can reveal how much need services and specific eco-systemic perspective that can develop within each subject area ER. Some eco-system services can be of a public nature (research, evaluation, etc.), others may be about the development of public-private partnerships, and others can be only private (for example the investments that arising during the period ex-post ER).

Conclusions

Discrepancies found between the EU average and Romania concerning the environmental costs and investments – phenomena due to the level of overall development of our country – is still an argument for even more careful prioritization and management of available funds. Also, the natural habitat state and its general characteristics of anthropic components from Romania require a new paradigm regarding a new system of resource allocation and monitor all activities both during restoration and after that to be sure regarding the quality and efficiency.

In our vision the National Economic Governance System for Ecological Restoration (NEGSER) will respond to the challenge of taking responsibility for solving priorities regarding environment of main important habitats. On this way it hopes to have a better use of public money allocated for these issues. Also, such system will be a premium management instrument developed by Romania for RE in view to evaluate, report, and improve environmental performance of a complex restoration for the most important sites…

The National Economic Governance System for Ecological Restoration stands for…

…PERFORMANCE: NEGSER supports by central authorities and regional ones in finding the right tools to improve ecological restoration performance for reference habitats.

…CREDIBILITY: the system will guarantees to the extern and internal partners the responsibility for solving priorities regarding environmental restoration.

…TRANSPARENCY: Providing publicly available information on environmental restoration costs is an important feature of NEGSER. With NEGSER, on can increase its

outputs regarding environment conservation, strengthen EU legal compliance and on can save resources and money!
The process of introducing such a system seems to be difficult, but in time, it will be simplified by repetitive monitoring activities and on this way the National Economic Governance System for Ecological Restoration will be developed and performant.

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