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RELEVANT ELEMENTS EVOLVING IN MOUNTAIN TOURISM

Abstract. *Tourism is the most dynamic area in the tertiary sector of services. It also includes elements of novelty, paradigm shifts and repositions of stakeholders in a very rapid evolution. This is the reason why we set ourselves on resuming ideas formulated in the last 5–10 years and watching how things have evolved in well-established basins.*

A survey was made of the mountain area of Neamț County and a recent diagnosis was made: investments in accommodation, public catering, community events, the impact of developments in sectors involved in chains (the value chain and the supply chain), how they evolve the agri-pastoral sector as a tourism provider, etc.

Interpretations and recommendations have been made in the context of the concept of “Innovation in Services” (supported by the European Commission)^{4,5} and “Mountains in the Horizon 2020” (EUROMONTANA Convention Initiative)⁶. The center of gravity of the paper is to explore the application of regenerative design for regenerative development.

Keywords: *mountain tourism, tourist pool, tourism policies, tourist support services, regeneration.*

1. Introduction

The development of rural tourism has occupied much of the concerns of policy makers and development strategies and stakeholders. Things seemed easy because accommodation and dining were provided by the private environment, public access networks (roads) are done through national programs (which has not

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⁴ * * *, 2011, Meeting the challenge of Europe 2020 – the transformative power of service innovation, Report by the Expert Panel on Service Innovation in the EU; Danish Technological Institut.

⁵ * * *, 2011, Meeting the challenge of Europe 2020 – the transformative power of service innovation, Case studies collected by the Expert Panel on Service Innovation in the EU; Danish Technological Institut.

⁶ https://www.euromontana.org/wp-content/uploads/2014/06/mountain_2020_ro.pdf, visited 4.04.2019

been confirmed); then, the objectives of attraction are classified and traced through the Ministry of Culture from Romania.

Depending on the seriousness of politics, the seriousness of entrepreneurs, the level of entrepreneurial spirit, the density of objectives on the territory of Romania, there are differentiated developments from one area to another on the background of a growing flow of tourists.

Tourism, and especially tourism rural, requires important innovation resources to meet the increasing demands of visitors. In addition, more and more complex communication paths are being diversified and lead to a strong investment challenge.

In this context, the majority of tourism entrepreneurs have understood that the engine of competitiveness must be permanently regulated by new and more suitable solutions. An IBM report from 2008 (IBM report, 2008)⁷ reveals that the key ingredient of a successful management is the slogan “catch your client”.

One of the most current solutions in tourism management is the integration of stakeholders. They aim to maximize profits, and are receptive to any favorable proposals. The integration process consists of:

- Switching from competition to collaboration in order to capture customers and quickly sell tourist packages;
- Correlation of investments through complementary actions so that the virtues of the supply chain can be highlighted;
- The conclusion of public-private partnerships for the same purpose, complementarity in the creation of market opportunities: cultural events, festivals, fairs, ad hoc events, development and maintenance of infrastructure.
- Calling on new and ingenious management and marketing methods.
- Business planning with a higher degree of predictability (linking the business plan – highlighting the feasibility of a business with the CANVAS business model – which highlights the success of the business).
- Highlighting all categories of land-related objectives that can be associated with tourism and can become attractions (natural, landscape, historical, cultural, spiritual, museums, collections, parks, etc.).

The challenge of the topic is to approach tourism in terms of the concept of “cultural ecosystem services”.

It is known that ecosystems are study models of how to integrate man with nature, combine the biotope with biocenosis, integrate several domains and sectors into a harmonic correlation. Territorial boundaries of ecosystems are extremely variable and make biodiversity coexist with the aspirations of human comfort and well-being. In general, human aspirations act on the support of productivity and land exploitation to the detriment of natural processes that provide biological,

⁷ http://globalforum.items-int.com/gf/gf-content/uploads/2014/04/ceostudy2008_fullrep.pdf, visited 19.06.2018

in 1969, the work “Designing With Nature” (McHarg, 1969) appeared in which the land was treated as a resource for ecological planning in the urban landscape. In the course of time, the relationship between man and nature has become more and more conspicuous, both positive and negative. Exploitation of land close to the supportability limit led to fertility exhaustion results even if sustainable exploitation attributes were met. In the 1980s, just before the Bruntland Report, the term “land regeneration” was used as the “injecting” solution for organic fertilizer intake. (Medard *et al.*, 1985).

During the same period, J.T. Lyle elaborated the work “Designing Human Ecosystems” (Lyle, 1984), in which he grounded the idea that nature's design does not prepare for man as a passive tenant. Man and nature become partners. For this, not only the building but the surrounding ecosystem are shaping.

Once the idea of regeneration defined, a working group was set up, the Regenerative Design Center at Pamona Polytechnic University and deepened the concept by assigning its social, economic, ecological components. In 1996 a new leap is made, Lyle publishes a new handbook of manual value, (Lyle, 1994). The ideas here concentrate on the regeneration solution as a factor for the dynamism of the designed and executed ecosystem, so that it does not die but amplify and self-develop over time. In fact, the regenerative models, theoretically grounded, and the degenerative patterns that have occupied the plans of designers, architects and geographers for many centuries.

There was the question of completing them by association. In a first approximation the transition from the degenerative model to linear regeneration was made. First, an intermediate replacement stage with a regenerative (auto) system has been achieved, which has resulted in landscaping and power supply.

In the 1990s, the Regenesi collaboration group developed, which further developed the conceptual area of regeneration. An important step was the systemic approach. An ecosystem designed for development has several subsystems included. It is also part of larger systems (multi-level).

According to the concepts formulated and grounded by the Regenesi group¹², initiation in regenerative development begins before the regenerative design, because the designer and the beneficiary should not operate on a commercial service relationship but in partnership. In fact, the problem is mastered by a set of stakeholders who need to sustain sustainability through regeneration. Otherwise, a landscaping system is functional only as long as it is inhabited, then dies slowly and safely. Lyle (1994) proposed replacing linear flow systems with cyclic flux systems. This defines a new mechanism and ensures the continuous replacement of materials and energy used in operation.

Bailey (2002) states that “regenerative design solutions regenerate rather than deplete the systems and resources that underpin the support of life”. They are generated by the uniqueness of the place and work to integrate the flows and

¹² <http://www.regenesisgroup.com/articles.php>, visited 08.05.2019

structures of the built and natural world. The scale of approach is important because, according to system theory, inter-cross interactions are created between levels.

Regenesis (2006)¹³ defines four key prerequisites for framing regenerative approaches:

1. Location and potential; the territorial definition and the potential of resources that will be used in an evolutionary dynamics to achieve health and viability as a result of man's presence in that place are made. More plastic is called "power of the place"¹⁴. It's about systemic health. There are still limitations to the approach because focus is on man and not on the essence of the place. The place is something alive and forms in a system of a certain level composed in depth from several elements and subsystems, and on the positive axis it belongs to other more complex and complex systems. We are dealing with natural and cultural ecosystems with strong interactions. Natural ecosystems consist of: flora, fauna, climate, minerals, soil, waters, geological formations. Human ecosystems consist of: values, customs, traditions, economic activities, forms of civic association, forms of education, historical artifacts (Mang, 2001).
2. The regeneration capacity is an objective: there are 3 environments: built, natural, cultural. Man uses them and, based on them, tends to a higher level of life. There is a capacity threshold that needs to be developed and embedded to support their co-evolution (Reed, 2007). No built element polarizes the regeneration and the living that is created with it. It is important both how subsystems are aggregated and how they participate as a component in higher systems. There is a distinction between operational capabilities (systemic functional efficiency), organizational (how the environment is built and the design of its illumination to increase its value) and aspiration (integrating human aspirations into the effort to create health and generosity) (Lyle, 1994, Haggard *et al.*, 2006).
3. Partnership with the place; it is the change that must take place in our mind (Haggard *et al.*, 2006); it goes from a builder's work to a gardener's partnership with its place and its biological processes; the diversity of models, the connection experience (the basis of the partnership). Each element has been viewed as a system and has a matrix on which networks and relationships are built; they produce activities, developments, increases.
4. Progressive harmonization: it is intended to continuously increase the model's harmony between human and natural systems through dynamic and evolving processes. It is like a solar apex: regenerative projects have a steering resource that generates a lasting and mutually beneficial relationship

¹³ http://www.regenesigroup.com/pdf/Regenesis_Bibliography.pdf, vizitat 08.05.2019

¹⁴ <http://powersofplace.com/papers.htm>, vizitat 08.05.2019

between human ecosystems and natural ecosystems in a specific place characterized by relevant, specific resources and processes.

Christopher A. *et al.* said: “When you build a thing, you can not build it in isolation. You have to fix the world around and from it so that the big world in that place becomes more coherent and comprehensive, and the thing you do is take place in the canvas of nature, as you do it” (Christopher *et al.*, 1997).

It follows from the above that: the first two premises establish the motivation of regeneration, and the other two provide the path to a regenerative process.

In practice, sustainable design takes 3 steps (© Regensis Group):

- understanding the relationship with the place (design and realization of the anthropic construction). Integrative assessment: cultural, economic, geographic, climate, ecological) as living systems, which allows health and continuous evolution; it is significant the persuasion of the story that includes the essence of a place, how it fits into the landscape and the role of those who live in it (Mang & Reed, 2012).
- achieving harmony. This requires prior system design, integrated, optimized. Harmonizes the new building with the natural ecosystem and the cultural ecosystem, and has the health and productivity of the system.
- co-evolution. Functional sustainability is the result of harmonization of stakeholders for the continuity of the evolution of the integrated system into other systems. As early as the design phase, it is necessary to create a culture of co-evolution, of the system after the project has become reality, so as to prepare new social, economic, ecological opportunities to populate the living formats.

3. Developing the subject

If architects have set their own concepts for sustainable design and development, other categories of specialists have contributed to the development of the applicative part.

The design structure is the one described above and has led to two solutions for the time being. These are two areas that have at present exceeded their natural capacity and can be “planted” in natural and cultural ecosystems as regeneration resources

- a. One of the directions is called permaculture (Marvick & Murphy, 1998), and consists of the “contraction of agriculture”. Intelligence and technological gains in biology can make crops that produce a lot from a relatively small surface. Thus, a rural household can provide its food resources through this agriculture and intelligent biotechnology.
- b. Another direction is the spectacular results of the last 10–15 years in the photovoltaic field, which has made a huge leap in efficiency in the process

of converting solar energy into electricity¹⁵. The placement of photovoltaic panels on buildings gives an extra function to the roofs, that of providing the necessary energy.

The balance of energy and materials becomes positive and allows accumulations or flows to the outside of the system, ensuring local vitality.

From the moment of availability of such resources one can think of using the excess of vitality for new levels of system life.

Until the application of the two attributes generating materials and energy, we must note the qualification of places for regenerative development. Every place has to go through the definition steps: viable, ecological, ecosystem, renewable. This can be done in several stages of sustainable design or in a single cumulative step. In the regenerative loop it is necessary to give life to the place. For this, the design should look at creating a natural environment where man finds his place. It is the opposite of conventional situations in which a special place for man is projected. Here is a very subtle game. If you design a natural place for man, it will disintegrate when the man leaves it. Conversely, if a natural place is projected, and man will adapt to live in it, nature will still function in the absence of man.

In order to apply the regeneration, it starts from an ecological place (where pollution problems have been solved and biologically compatible depollution solutions have been applied. For example water purification with macrophytes (Avădănei & Bucureşteanu, 2006). To ensure the regeneration conditions means to establish a balance between the generation and consumption of resources accompanied by a net increase in the conditions for improving the life (Moore, 2001). The second measure is to ensure social visibility and political transparency, for avoid the risk of undue ownership of the surplus (Howard *et al.*, 2008).

A practical application of this theory has evolved into ecotourism. This has favorable elements of implementation, but also hostile elements, so a careful analysis of the way of integration has to be done.

Tourism is the most important service sector and highlights social and ecological response measures. On the other hand, on the social component, phenomena of cultural erosion are reported in terms of traditions, family, criminality. They are mainly due to the migration of the population in search of jobs and income, from the rural environment to the urban environment.

An attribute compatible with the theory of regeneration is that, apart from certain exceptions, tourism is temporary. This allows for the presence of man at certain time intervals. Some of the hosts are encapsulated and have only their own functioning attributes in limited spaces. The tourist phenomenon itself becomes a way of observing other worlds than the tourist's own world. It interferes with social and environmental conventions different from those in which it usually works.

¹⁵ https://ro.wikipedia.org/wiki/Celul%C4%83_solar%C4%83, visited 10.05.2019

4. In fact research

In the spirit of the above, we have chosen a target area, a touristic pool with the best representation in the North East Region. It extends to the north of Neamț County in the watershed of the Ozana (Neamț) River and includes the town of Târgu Neamț as well as the communes Pîpirig, Vânători-Neamț, Agapia, Băltățești, Petricani, Raucești.

We set out to make an assessment of the preparedness for the application of regenerative development as a support for sustainable tourism in this tourism field.

The development potential of tourism has found receptiveness in the area both from the private environment and from the local public administration. On the private side increased the number of accommodation units and accommodation places on an upward axis of comfort. Also, the number of public catering establishments has grown in refinement and diversity.

We did a traveling study in this area armed with two packets of questions:

- how do the local tourist dowry reappraise?
- how prepared is the population to apply the performing tourism models?

The touristic dowry of the Ozana Valley is particularly rich.¹⁶ It can be mapped on a two-dimensional picture in two hypostases:

- the complexity and diversity of the objectives with tourism potential (Figure 1) and
- structures to support and encourage entrepreneurship in tourism (Figure 2).

Nature				Culture							
Observation information: - Mountains Landscape (interference): - Itinerary Environment (water, soil, water air): - Water rafting, sailing, fishing	Tourism in nature: - Trails - Itinerary - Water rafting, sailing, fishing	Green green tourism: - swimming pool - Park - Peaps - Itinerary	Natural park, Zoo: - Dendrological - Unique trees - Secular trees - Biomes - Protected species	Balneary: - Salt springs - mineral - spa - Căciua (SV) - Pustiana (B)	Religious events: - Service - Feasts - Pilgrimages - Events	Spiritual: - Old Churches - Monasteries - Hermitage - Places of pilgrimage	Historic: - Fortresses - Conace - Defense structures - Historical Churches - Monuments - Troy	Ethnographic: - Tourist stall - Vivante museums - Treasures alive - Arrangements - Houses with traditional architecture	Ethnographic: - Museums - Collections - Workshops - Formations (music, songs, games, customs, rituals)	Cultural (material): - Memorial - Houses - Collections (history, natural history)	Cultural (immaterial): - Events - Manifestations - Festivals
Environment (Nature)			Biodiversity	Health tourism	Cultural and historical tourism						
- Granta course improvement - Drinking water networks - Domestic water networks - Wastewater treatment plants - Waste collection (selective) - Waste storage - Access ways - Marked tourist trails - Tourist information			- Vânători-Neamț National Park - The Vrancea Silver Forest - Brass Coders of Vrancea - Drăguz Voda Zoo - Dunăreava Reservation - Unique trees - Secular forests - Protected species	- Băltățești - Baia - Oglăzei Baia - Mineral - springs - straight salt)	- New Churches, Băltățești - Churches - refurbished, Pîpirig - refurnished, Tg. Neamț - Repaired, Humulești	- Vânătes, Agapia, Săhla, Săhăstria, Secu, Yovodiana - Teodora from Săhla - Cleopa, Săhăstria - Ioni from Neamț - Nicodim, Pîpirig	- Neamț Fortress, Neamț and Secu Monastery, The Dumbrăva casemates - The monkeys of mountain hunters, Hindu	- Târgu Neamț (Humulești) - Vânători, Pîpirig, Petricani, Băhărești - Nicolae Popa, Ionida Lungu, As. Nemțeanca, Vasile Gaman	- Târgpeți - Vânători - Pîpirig - Târgu Neamț, Băltățești - Vânători - Dor - Vânători - Sezătoarea	- J. Creangă - A. Vlahuț - V. Micu - M. Sadoveanu - V. Conta - Târgpești - Pîpirig - Vânători	- Fortress Festival - The enchanted feast - The city's anniversary - Zna commune - The winter customs festival

Fig. 1. Structure of tourist destinations in Ozana Valley.

It is remarkable and comments on this area as one of the richest and most diverse in the country, with unique elements, with a complex balance between nature and culture with a rich history and many, many resources.

¹⁶ <https://www.valeaozanei.ro/>, visited 12.05.2019

Also, visibility in the tourist promotion world is a strong one with an impact on tourism consumers^{17,18,19}.

Support services							
Access	Infrastructure	Accommodation	Food	Tourist education	Entrepreneurship	Value chain	
Road Railway	Tourist Information Point Network / Promotion Flyers, brochures, web-sites	Network tourist signs (paths and markings)	- Guest house, - Hostel, - Motel, - The hotel (transit / destination) - Baths, - Monasteries	- Public food; - Food; - Commercial; - Markets; - Fairs; - Festivals; (Food basket)	Themes: - Natural; - Biodiversity; - Literature; - Events; - History; - Culture and civilization	Education: - Training; - Learning; - Training; - Workshops; - Qualification; Counseling Assistance	- Creative activities - Research; - Training; - Assistance; - Integration; - Collaboration. - Craft activities
Railway Station Tg. Neamț DN15B, DN15C DN15F Agapia DN15G Văratec DJ155C M Neamț DJ157F M Sihăstria DC159 Pipirig DJ155I Tupilaj	- Tg. Neamț, - Vânători - Neamț, - Humulești, - Parc Național; - GAL Vânători	Marcaje; Trasee amenajate; Popasuri, Refugii;	- Tg. Neamț; - Vânători ; - Pipirig; - Văratec; - Văratec; - Bălățești; - Petricani; - Oglinzi; Accommodation and food	- National Park, - Museum; - Monastery; - House of Culture; - Cenacle; - Seats; - Museum vivant; - Agapia, - Pipirig; - Vânători ;	Business Administration; Legal status; Companies; Farms; Associations; Cooperatives; Act. indep. Households; Trade Register	- APDTN Valea Ozanei - Chamber of Commerce and Industry Neamț, - Universities (tourism), - High schools (Târgu Neamț); - Professional Schools (Vânători, Pipirig, Petricani)	

Fig. 2. Support structures for tourism in Ozana Valley.

In this context, we intend to assess to what extent the strategic construction of tourism in this area is ready to undertake revolutionary steps in supply and consumption. This is especially about the application of cultural ecosystem services concepts and sustainable design through regeneration.

There are a series of signals on ecotourism, but the steps taken in this direction are scarce and small. In particular, the issue of the use of renewable resources is deficient. Indeed, there are a number of roofs that host photovoltaic panels, there are thermal solar installations for domestic hot water supply, but their number is far below the critical threshold that would generate hopes. Heat agent for the cold season is still wood, although there are worrying signs about the depletion of this resource, given that the reforested areas are very low.

Socially, there are important reasons for concern due to mobility. Young people leave the countryside to the urban environment or go abroad, and once they leave, they destroy the field's ability to preserve traditional culture. The questionnaires we have completed with the youngsters as well as the essays drawn up in relation to the culture of the villages of origin show that the career priorities and wage gains outweigh the “vibration of the ancestral values” signals (Avădănei *et al.*, 2016). This is a sign that there is a process of eroding traditional culture and a

¹⁷ <http://www.viziteazaneamt.ro/tag/turism-neamt/>, visited 15.05.2018

¹⁸ <http://www.tirguneamt-turistic.ro/obiective-turistice/>, visited 15.05.2018

¹⁹ <http://www.neamt.insse.ro/wp-content/uploads/2018/04/breviar-turism-Neamt-2017-web.pdf>, visited 15.05.2018

desynchronization with aggravating trends in what is meant by “community force” and weakening the level of cohesion.

However, there are still elements that are currently strong in promoting traditional culture and how it is found in the cultural life of the Ozana Valley communities (Avădănei & Avădănei, 2016).

With regard to sustainable design, there are also serious desynchronizations due to the disproportionate and non-energy-related approach of house constructions, whether for residential or home use. The intense mobility among the population after Romania's accession to the European Union led to the adoption of models of really spacious houses; in relation to other climatic profiles and other solutions for the control of thermal flows in the warm and cold season. There are many villages that have homes that have started with exaggerated dimensions that could not be completed by the owners. Terminated turn out to be uninhabitable due to exaggerated energy consumption.

As far as constructions relations with nature are concerned, the distribution of living space in Ozana Valley is sufficiently adapted because at least in rural areas the environment is not perverted. Yet. In fact, in other regions of Romania (especially in Ranca), due to the construction of mountain roads, constructions with an architecture and a spatial conception unfit for a durable approach have appeared and expanded. At the same time there is an accelerated wave of pollution through the chaotic storage of garbage and other wastes (Ene, 2019).

In fact, the issue of solid waste has a strong shock wave wherever tourism development opportunities emerge. And the Ozana Valley is not exempt, although the mayors are making enormous efforts to ensure a clean environment that makes tourism attractive.

For the regeneration design stage, things are incipient:

- There is a concern to plan biodiversity within Vânători National Park (colonization of ants or bees, joining wood with other materials for residential buildings, capitalizing on local resources (especially forest fruits).
- The ZERO energy balance building concept is barely discussed theoretically, and only funding constraints on European projects produce “infiltrations” of photovoltaic panels;
- The principle of fractional extraction of energy from nature (especially in hydropower) begins to be strengthened by the partial capture of a watercourse (Atomei Gheorghe case in Târgu Neamț, Blebea district).
- Vegetable garden initiatives in the balcony of the apartment are regarded as hobbies of hardships (in fact, here is the permaculture or the contraction of agriculture)²⁰.
- A good sign of regeneration is manifested by floral arrangements at hostels and monasteries (chosen at Agapia Monastery), where the floral world has a special impact on visitors.

²⁰ <https://ro.wikipedia.org/wiki/Permacultur%C4%83>, visited 13.05.2019.

It is expected that through the intervention of some entrepreneurial NGOs, the virtues of such organic farming practices and the production of photovoltaic energy will be disseminated in order to identify the first courageous entrepreneurs in terms of applying the principles of regeneration.

To address the regenerative tourism design, it is necessary to bring together several stakeholders within a community as the critical threshold for demonstrating viability is at the local level. First of all, it is the architects who can carry out the regenerative design through the General Urbanism Plan. Secondly, geographers who, using modern methods (GIS), assess the impact of regeneration on community development. Thirdly, urbanists and designers are drawn to implement the principles of local regenerative development.

Tourism is the first and most important beneficiary because it needs an element of continuity (in which the driving force is nature) to stabilize the hospitality landscape on fluctuating reception and overnight characteristics. The landscape must always keep its attractiveness characteristics in the presence and absence of man, and during the season (summer holidays or spring or autumn holidays) provide comfort and relaxation to tourists who will appreciate the efforts of the hosts.

Another important area of regeneration is agriculture; especially mountain farming. It is subject to thermal shock in spring and autumn. There is a high potential for growing crops by using smaller areas of land, but with more work and much more science. Here are involved ameliorative genetics, organic soil production, ecological treatments against diseases and pests, etc. Instead, the products made have a very clear almost permanent niche because the vegetables and fruits are formed, grow and bake in another spectral range generating bioactive compounds favorable to human health.

5. Conclusions

The regenerative approach is totally new and needs a change of mentality by a new paradigm of living and life in nature. Architects have already been told that they have to give up traditional rules in urban planning.

Tourism is the most spectacular application of regenerative design because it brings nature in the role of building a pleasant and healthy environment. It is also the solution for a positive balance in the production of renewable resources needed for sustainable development.

A possible solution for shortening the term of adoption of regenerative design comes from vocational and technical education on the following levels:

- Designing vocational and technical education specializations by formulating a self-employed purpose;
- Professional orientation correlated with the continuity mission within the community, but with performing means at school;
- Curricular foundation of the disciplines that ensure a positive balance of renewable resources in relation to the notoriety of the place; acquiring adequate skills;

- Professional orientation for skills in exploiting and capitalizing on renewable resources resulting from new sustainable design;
- Model of household and farm management favoring the application of the knowledge accumulated in the school;
- Sustainable rural household design in the context of the positive balance of renewable production.

The race for performing tourism in Ozana Valley continues with new public and private investments that ensure a natural environment favorable to the reception of guests. At the same time, it is a living environment, made with the help of architects who design a natural environment for nature, and man has to find his place in such an environment;

The operating steps in the regenerative design of tourism consist of:
 ● achieving the objective ● harmonizing with the exigencies and expectations of the beneficiaries ● participating in the natural-anthropoc conjugal evolution in a friendly formula (Regenesis).

It is envisaged the adaptation of the “Zimbru Land” Strategy with elements of regenerative and sustainable design (Strategy, 2018) ²¹.

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²¹ <http://www.tinutulzimbrului.ro/strategia-de-dezvoltare-durabila/> visited 19.06.2018

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