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S T U

FOREWORD

21st century brought new dynamics in the development of European settlement structures framing overall transformation processes towards knowledge-based society and demographic development, coping new imbalances resulting from the different starting positions, different potentials and process speed across the particular spaces in Europe. This is mirrored not only in current spatial planning research, but in the New Territorial Agenda and other strategic documents of the European Union.

The Central European space is facing, alongside the overall challenges and changes in Europe, many specific problems, or specific effects of overall trends in spatial development. New tasks and new frameworks require the implementation of new approaches, new methods and new instruments in the spatial development management, new understanding of the role of planning and planners in the development processes.

The effort of this issue is to contribute towards sustainable development and the processes of economic, social, and cultural integration in Europe as well as towards its territorial cohesion with the interdisciplinary research and education emphasizing the integration of landscape-ecological, economic, social and technological aspects. Research results and the proposals, focused on optimising of spatial structures contribute to the fulfilling of the criteria of sustainable spatial development to balancing the regional disparities and at the same time to preserving cultural and ecological diversity, to improving the quality of life and to strengthening of social cohesion in Europe.

Interdisciplinary based research has been focused on creative research work, on the issues of complex planning of sustainable spatial development with the focus on optimising the functional use of territory, including economic and other activities, mobility, relations and functioning of urban and rural structures, creation of sound environment for living, preservation of cultural heritage and ecological balance, based on cooperation with the population and other stakeholders of spatial development.

I believe that the papers will address academic society in the field of spatial planning in the whole Europe to see the topics and projects of researchers in planning and at the same time bring impulses for their own research.

Maroš Finka

Besnik Aliaj
Artan Kacani

INFORMAL SETTLEMENTS IN THE ERA OF RIGHTS

Abstract:

For different authors, but also if we follow the history of human rights, we will realize that this century belongs to the rights - and to the ethical challenges that accompany the evolution of many different spheres of life but also of science. And while many living practices change and prosper, so does the diversity of residents affected by informality, or at its doorstep. The more they differ the more they would risk falling into a complex situation. And the complexity brings to non-substantive theories. But, rights, constitutional principles and the institutional environment lays on substantive theories. Starting from these substantive theories the research offers a structured discourse on the complexity of the situation where inhabitants are affected by the informal settlements. By operating on "what's clear" researchers and decision-makers may trace the various forms of inhabitants, affected by the informal settlements, responsively in the institutional environment or in the decision making.

In this analytical research, three profiles will broadly summarize the diversity of residents affected by informal settlements. The workers and unprotected social groups, those struggling for an affordable cost in the city, and last but not least those on the administrative processes of tenure. Many countries have inhabitants affected by the informal settlements due to all the reasons listed above, other only some. It's up to researchers to investigate further reasons that bring inhabitants to the informality, in order to predict the increasing number or not.

Key words:

Universal Rights, Constitutional Principles, Institutional Environment, Regular Informal Settlements, Informal Settlements. Contents

Informal settlements.
Inside and Beyond the state

The informal settlements are a given statement to the human settlement by a national public entity. Informal settlements may be considered unconstitutional if no action is made by the public entities. With "actions", we mean constitutional articles, laws, regulations or guidelines, and they represent the institutional environment. The informality mainly consists in the recognition, or not, from parties beyond the householder, such as the state and its institutional environment (1). From the first point of view, it seems that it is a juridical and legal issue, but the statement is mostly based on territorial resources - such as land, settlement, and urbanization degree. These territorial resources are defined usually on development plans, building codes, and permissions. If a settlement fulfills the prescribed processes, (such as the development plans, the building codes and permission) it has a high possibility to be recognized as regular settlement. The final output may consist in legal documents signed and registered by the cadastral offices as an ownership certificate.

The statement of the informal settlements, as so, is a top-down definition. This top-down definition starts with the institutional environment. Nations with a constitution based on principles such as social equity, property rights, local autonomy, and minority rights have a higher possibility for less informal settlements. The existence of principles mentioned above is the pillars of the "civil code", or of the "commercial code" for many states/countries. However, there are states/countries that, even if they have a constitution based on the above principles, fail to distinguish the right for housing and the universal rights, from the need to build settlements. The pressure of unaffordable houses pushes people and communities towards squatting - even if the settlement is formal - thus forcing the householder to become informal (2). The diversity of informality in this sense, which may vary from the land, settlement, and household situation, has created different names/status for informal settlements in different states. Some countries call the informal settlements as "slums" (3), others as "shanty town" (4). In other cases the informal settlements are named by the territorial locality, such is "Calais Jungle" (5), France; "Bathore" Tirana, Albania (6); "Këneta" Durrës, Albania; or "Cardboard city" Novi Sad, Serbia; etc. Such colored and multiform of naming the human settlements has been driven many times by biased positions on living conditions, by stigmatization, or even by ethnic discrimination.

The top-down definition on informal settlements should be seen on it's vertical statement to understand it's reliability to the lower levels such are the Human Rights, the

Constitutional Principles and the Institutional Environment. And many are the cases where the primary factor to increase the inhabitants affected from theinformal settlements stands on the universal rights threatened by war (7). The war in Siria, in Middle East, Palestine, and it's escalation, has affected millions of inhabitants by living their home settlement to take a refugee destination. Such is Palestine, where inhabitants cannot build a regular settlement due to the inexistence of a state - the one who adopts the universal rights to the constitutional principles.

According to a report (8) from the United Nations in 2013, informal settlements are a global phenomenon affecting 25% of the world population. Even though the number of people affected by informal housing has been declining in the last decade, what remains to be concerned is the existence of linkages between the universal rights with local constitutional principles and institutional environments - that affects directly the well-being of the inhabitants. The worst examples for any inhabitant affected from the informal settlements is to struggle because of ethnic discrimination, societal and economic exclusion and lack of housing tenure at the same time. This example if concentrated in a given local area may have drastic consequences on the human well-being of certain communities and on the society in general. Examples of the refugee camps, or the inhabitant in between borders (9) and spaces, etc, are just one segment of the population affected from the informal settlements. Other examples may be given if we follow a consecutive reading of the affected population by the phenomena of informal settlements, including: 1) the universal rights; 2) the constitutional principles, and 3) the institutional environment.

The reason behind such diversity of populations affected from the informal settlements stand on two facts: i) on the political will of certain countries to commit or not to the various international charters on universal rights (10);and ii) on the standards of good/bad governance (11). And these two facts are the ties that connects the 1) the universal rights; 2) the constitutional principles, and 3) the institutional environment.Some of themainhypotheses that could be generated under theseperspectivesare as thefollowing:

- The more limited/violated would be the Human Rights (12), the more would be the number of population affected from the phenomena of theinformal settlements, such are refugees. According to the UNHCR there are around 26 million of refugees in 2020 – twice if we consider the early years of the 1990, when many borders and states failed to deliver primary needs to its citizens, such was Albania.

- The more unfair/democratic would be the constitution, the more would be the number of population affected from the informal settlements (13) , especially those fromthe minority groups, young or old workers, or groups struggling for gender equality issues. The urban agglomeration into functional regional areas, has totally transformed the way how inhabitants work in the city and if their rights are fulfilled as primary needs or not.

- The more ineffective and inefficient would be the public policies, the more would be the number of population affected from the informal settlements, such are the inhabitants struggling with housing un-affordability, and land tenure. Now-days it appears even more evident that new forms of social vulnerability are rising. Such are those connected with health - access to clean air or, heating – energy and its cots.

A Strategic Methodology for a critical review on informal settlements.

Facing such a large impact on the population affected by informal housing, but also on their diversity, it is necessary for future science (14) of the cities to work through the ambiguity, to highlight what is distinct, unique and replicable in similar situations. We need simple confirmations, by tracking the universal rights in the urban areas (A), and by reclaiming the need to be meet the constitutional principles (B) in a given institutional environment (C). Table number one, (Table 1), show where informal settlements stands among (A), (B) and (C). What we purpose in this research is a strategic reading for the informal settlements, more comprehensive, on international and local scale, by explaining the structural relation of the informal settlements with three dimensions of the certainty, such the universal rights, constitutional principles and the institutional environment.

A discourse that the United Nations is dealing is how informal settlements are connected with universal rights and the constitutional principles, and if they guarantee formalization of the informal settlement or not. (such is the missing of clean water and sanitation (15)). On chapter (2.1) we identify three hypothesis that advantages, or not, the formalization under universal rights and constitutional principles -(A)in Figura 1. A second discourse, chapter (2.2), is the relation of the political will with the constitutional principles - (B) in Figura 1.And a third discourse, chapter (2.3), sees only the institutional environment, and the interaction the informal settlements. In between stands the political will to tie (A), (B) and (C), and the city growth approaches based on political ideology - Figura 1.
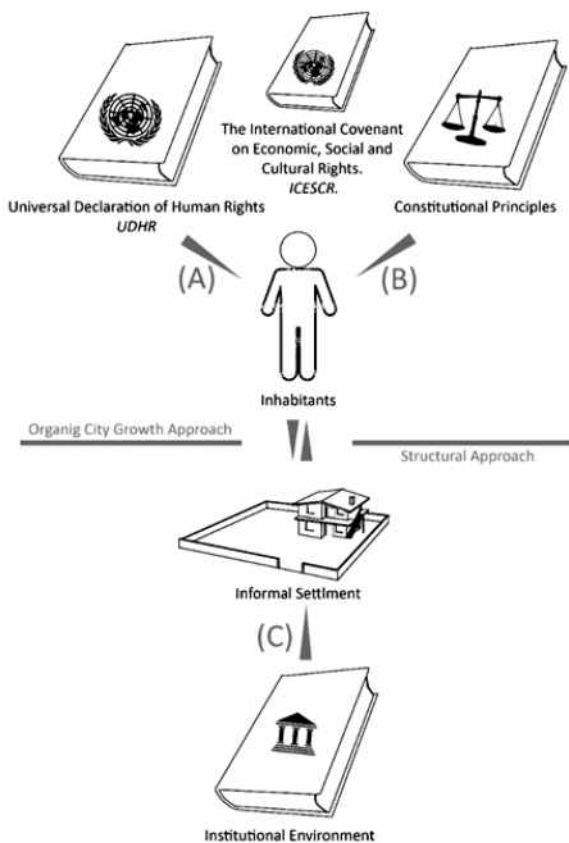
Figure1: **Rights, Constitutional Principles, and Institutional Environment. A methodological reading for the informal settlement worldwide.**

Source: Map by the authors.

Informal settlements in rights, principles and laws.

The reasons that stands behind the strategic reading of the inhabitants affected by the informal settlements stands to un attempt to offer a more comprehensive view of the nature of informality - that surrounds the housing condition. The political debates have continually faced the contradictions of ownership, and if it's an indicator of freedom or not. Albeit the debate persists without any dispute, what we offer to see is the political will as the primary factor of the increasing forms of informality in the housing tenure.

FIRST DISCOURSE:"UNIVERSAL RIGHTS TO BE ACQUIRED".

Householders affected from the Informal settlements lacks of primary human rights. The ICESCR (16) is part of the Universal Declaration of Human RightsUDHR,along with the International Covenant on Civil and Political Rights

ICCPR.The paradigm of the UDHR, sees the individual rights as the primary subject of the research. But, if we talk about the informal settlements the discussion is more vast than the individual rights, and however on the universal rights prism, such are the environmental issues, land consumption, access to clean water and air and energy. For this reason the ICESCRis the most significant partof the UDHRto understand the relation of the householder with the settlements as a property right matter, not only on the human rights. Only in 2019the Human Right to Water and SanitationHRWSwasrecognized as part of the UDIHR underICESCR- specifically on the right to social protection, to an adequate standard of living and to the highest attainable standards of physical and mental well-being. More should be done to enforce it to third parties, countries and nations (17). As well on the right to clean air and to energy. This last faces ethical discussions on the nature of the energy.

Figura 2 shows the countries that has signed, or are members of the ICESCR.Although there are countries that are part of, it does not mean that the householders affected by the informal settlements would not be. The reasons stand on the constitutional principles and on the institutional environment.

The International Covenant on Economic, Social and Cultural Rights. ICESCR (18) divided into 5 parts defines the obligations of the states (first and second part), the nature of the document (third part), how to monitor and report (part four), and, how to address to the UN.The third part, which is the nature of the document, can be grouped in three dimensions as follows;

- The first dimension, the right to work in just and favorable conditions, is the seventhand eight article from the Declaration of the Human Rights. It includes remuneration (19) to general and specific categories of workers, such are a) female workers, b) young workers and older worker, c) workers with disabilities, d) workers in the informal economy, e) migrant workers, f) domestic workers, g) self-employed workers, h) agricultural workers, i) refugee workers, and J) unpaid workers.Working in an informal settlement, even if the human rights of different workers categories are fulfilled, would put the working condition into a more vulnerable situation, and irresponsible. Building sector, manufacturing, extraction of row materials, and the agricultural sector has the highest human cost. More work should be done with the international brands on the international debate to decrease the population affected by the informal settlements, - a matter that depends from the inter-regional commercial agreements, such is the European Union,or by country reciprocity agreements.

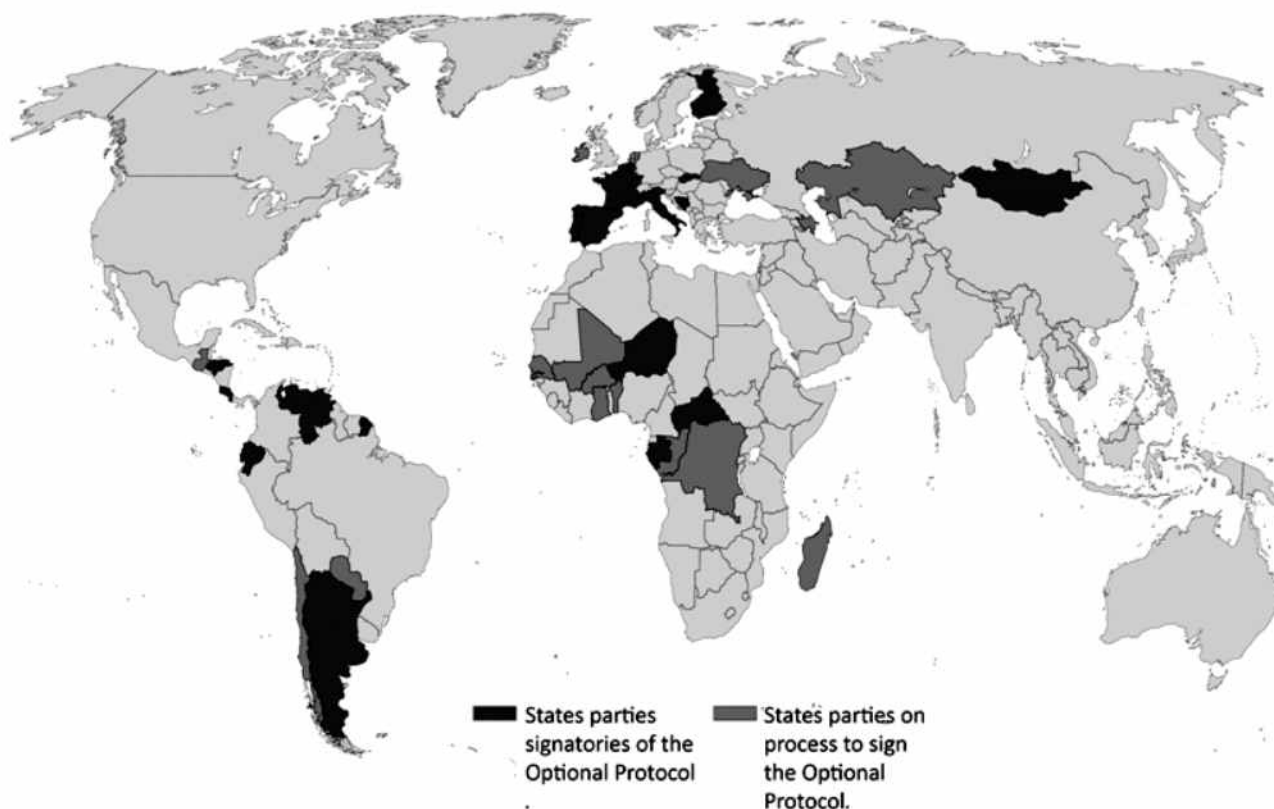   Another interesting fact is that where informal working is spread, also will be affected the

Figure 2: **States parties and signatories to the Optional Protocol to the ICESCR.**
The Optional Protocol is for countries that has opened a process of monitoring and reporting to the special commission of ICESCR.

Source: United Nations: Treaty Collection. Map by the authors.

economy of the worker, and so his housing solution. Many immigrant from East Europe, non in Schengen Agreement (20), in UE countries non having a regular working place, contract, are pushed also to irregular market renting. Other cases are when the informal economic areas has become a "shelter" for informal settlements, mostly self-build. The case of Rosarno in Italy in the "agricultural ghettos" (21), or the informal settlements in the economic corridor between Durres and Tirana.

- The second dimension is on the right to social protection, to an adequate standard of living and to the highest attainable standards of physical and mental well-being. From article nine to twelve, the ICESCR explains the importance of social security, including the social insurance, in a case of maternity leave, health problems and hygiene. The non accomplishment of certain articles from the states does not effects the increasing number of the informal settlement rather than the householder vulnerability by pushing more to the informal market renting and working, or to homelessness.

More than a factor to informal settlements, the social protection on health issues is un indicator of good or bad quality of living. If not directly it calls in need the action of the state to guarantee "a place to not get ill", that maybe shelter, a social or religious institution that offers primary needs such may be food, clothes, or a bed to sleep. In the absence of social protection institutions, states may recognize even the poorest settlements as a temporary solution of housing. These actions may result also in constitutional principles changes, on the "civil code", ad on the institutional environment, on "building codes and permission". The case of Italy, inheriting a mature Civil Code from the time of ancient Rome (22), shows that it's possible to guarantee a social protection to the householders even in informal tenure, or if the building in itself is informal.

With "condonoedilizio"the law means an amendment, amnesty, throw the institutional environment to guarantee a social protection to vulnerable inhabitants living in informal condition or settlement. It has not to do with the material mean of the settlement rather than the social

status of the inhabitant. The case of Albania, shows that the political transition brought to a constitutional amnesty for building informally, but not the settlement possession - that is another institutional matter.

- The right to education and the enjoyment of benefits of cultural freedom and scientific progress is the third and last dimension of the third part of ICESCR. The total or partial failure may result in conflict, social or religious tensions. Differently from the other dimensions, this last, has a materialistic or a value oriented approach. Education is the primary right. In China informal schools are a driving force of entire communities toward the big cities. Differently, the right to enjoyment and cultural freedom are beyond the householders affected from the informal settlements. Countries and parties that has signed UDHR, but not ICESCR, does not guarantee freedom of material means, the right to working, living and cultural freedom. This mean that these counties are exposed to a high social cost and householder's tenure risk. The non effective rights are translated in inefficient public policies.The participation of the countries for the organization of big events, such was the Greece with the Olympic Games in 2004 ;or Brasil in World Football Cup in 2016 ; resulted with high social cost doe to the increased of the public debt with consequences on the housing market - by increasing thehouseholder's tenure risk.

These two indicators, public debt and householder's tenure risk are rooted on the constitutional principles and on the institutional environment.Even the countries that has signed the ICESCR, such as Italy, has a territorial cost of the buildings raised for the Football World Cup 1990, and now unused and abandoned. Any further action to remediate these abandoned settlements would have additional cost, however there are international cases when building for big event purposes has been reutilized for local public issues.

The Human Right to Water and SanitationHRWS, as part of theICESCR, is a more crosscutting issue of access to water following individual rights as gender disparities on access to sanitation and water. The HRWS is also part of the SDG 2030 (23) Agenda. It is the sixth goal and gives explicit directions for the countries that has signed the Universal Declaration of Human Rights. In other ways, SDG is an intermediary agenda to bring the ICESCR and respectively HRWS to those countries that has not signed it.However the international effort, householders affected from the informal settlements suffers from the access to clean water. Examples for different countries shows different degrees of access, to the water supply, limited in hours per day, and that the quality, potable or not (24).

The right to breathe clean airis not (25) in the UDHR, not in ICESCR and neither in SDG 2030 agenda.On big scale householders affected from the informal settlements are same exposed to air quality than the other inhabitant in formal settlements - unless the area is exposed to high source of air pollutants, such may be the traffic congestion or industrial pollutants. On smaller scale inhabitants affected from informal settlements may face high density, small rooms, unhealthy construction materials, and other indoor effects that may affect the human wealth.

Another importantfactor leading to bad or good quality of living, asICESCR prescribes, is theaccess to affordable energy. It faces many ethical disputes on material means of energy. If we consider it as material mean, we fall into one kind of energy - that may be electricity. Many countries has experienced the wood as a right applied from the local authorities and to distribute to the householders – a process deriving from the European Charter of Local Self-Government.

SECOND DISCOURSE: "POLITICAL DEBATE ON CONSTITUTIONAL PRINCIPLES REGARDING INFORMAL SETTLEMENTS".

The political orientation are defined by the political theories, which are many, but on the position regarding the city and it's product from the urban growth, is defined by two mass groups; i) the structural approach, and the ii) post-structural approach. The first sees the material means for the human factor (26) . The second sees the human factorto thematerial world strictly connected to the historical and social background . (27)

i)The first approach, structural, sees the city growth as a mechanistic process, defined by codes, regulations and standards to be followed. The structural approach has given two positions on the city, one biased (the city as a machine), such is the "new urbanism","smart city" and the other more neutral - the city as an "ecological phenomenon".

For structural approach, we shouldconsidercritical description (Mumford, 1970)in "The myth of the machine" and why he calls it so (28). He critically describes the city growth in this process as a product of the "Pentagon of Power" which refers to five aspects of what he calls "the new power complex" of military and industry in industrialized nation-states: Politics, Power (in the sense of physical energy), Productivity, Profit and Publicity (29). For many authors, as Mumford, the definition is a political matter connected with the capitalistic system (30) and it's evolution. On this description, many scholars sees the city as an numerical growth, based on outputs and physical form and material means, such are the authors insisting on "New Urbanism" (31) and "Digital Economy". Partially biased and partially scientific authors explores the human well-being as a result of build environment (material means), such is air quality, spaces quality,technological development, etc.

The more we increase these housing qualities the more political attention it would get. Power in physical means, the productivity, the profit and the publicity produces this well-being. Urban planners and architects, such is (Gehl, 2014 (32); McLaren &Agyeman,2015 (33)), explains that it's possible to draw a city at human size. However, authors such is Susan S. Fainstein (34) suggests that "New Urbanism" should be associated with the term "Just City" and the Communicative models of planning theories.

The second position toward urban growth, created by a structural approach, is the "ecological reading" of the city. Developed firstly by the Chicago School, in the early 1920, it was the neutral wing of technocrats, landscapers and city amateurs. Today it can be paralleled with the methodological studies of territorial metabolism- where empirical data are mapped. In other casesthis methodological reading of the city has offered biased descriptions on how beautiful the city, aesthetically (35), on the human behavior (36),virtual data (37) and on it's cultural output..

Structural Approach (material means) =>
Affects the Human behavior (individual/social means).

Equation 1. Right Political Paradigm

ii)The post structural approach, differently from the previous, sees the city as a result of an "organic growth", more connected to the human inspirations, social interrelations, society intensity, and to the institutional and historical background. Authors who defends the organic growth has proved that the "People makes the City". Starting from the mid 70 the term "urban ecology" got a more political post structural approach - see (Lefebvre, 1974(38) ; Bockchin, 1982 (39) ; Soja, 2010 (40); Swyngedouw, 2011(41)) by bringing the ecological reading of the city to the Marxist approach.Some other authors defending the organic growthare architects and theories of"vernacular architecture" (42).

They explain the importance of local knowledge as an ethical filter and as andistinguishing element from the"polite architecture" - a definition of imported knowledge in making the city form, so a structural approach. Now-days it's difficult to understand the political importance of the "vernacular architecture" in explaining the city growth as un "organic" process -since industrialization, basically infrastructure, opened new frontiers for the modernism. Inside this modernism we find even partial characteristics of "vernacular architecture" such is the self-build settlement, but not by using local materials. Some examples are named "turbo-architecture" (43) - developed in post-socials countries. Other forms of self-fulfillment of own needs and rights, has given non-structural forms of living, or in transition phase - that makes these settlements informal (44)

Human Behavior (individual/social means) =>
Affects the Structural Approach (material means).

Equation 2. Left Political Paradigm

The political debatesare important to understand the reasons that stands behind the political will, the ethical involvement, or not, of authors in the informal settlements debate - but it does not expresses the nature of the principles that draws a constitution against or favorable to informal settlements. For this reason it's important to see if the UDHR, signed by 140 parties countries, are adopted or not. ·

- The first indicator to understand the constitutional principles that might decrease the number of inhabitant affected from the informal settlement are the Human, Minority, and Workers Rights.

Beyond the political debate how the city should be, organic or not, the human rights starts from an individual expression. Failing to recognize it means directly to create an informal condition of living, and so increasing the number of householders affected from the informality. Latter, it may result in an increasing effect in the informal renting market. This consequential effect, from the loss of recognition of the individual rights, to the increasing of tenure and renting informality is essential to distinguish rights from non material means to the material means. And, the social protection, described above as the second dimension of the ICESCR,plays significant role tracing these two rights. For examples, "Housing First" (45), is innovative way to deal with social protection policies on primary needs with excluded inhabitant - or those with different forms of disabilities. However, different historical processes have made the forms of homelessness vary in their forms, and the material means of "housing first" are not enough. Figure below, Figura 3, show a world map borders raised for migrants. Within these borders, signed with red, the individual rights cease to exist, for those coming outside, and so the right to have a regular tenure or rent contract.

The European Union law, on migration and asylum seekers is enforced by the Dublin Regulation. Although many countries has opposed it, as Hungary as the government sees it as a cristian value and principle, others relies their critiques on the ineffective distribution of resources and refugees seekers among state (46).

This is one the best examples to show how the institutional environments, fragemented into states with different consitutional principles opposses the Universal Human Rights. According to the UNHCRat the end December 2019, 40,600 new entry where registered in the European Borders through the Balkan countries. And in 2016, around 780,000 entries. Till-nowdays there's not an homogenous response to this situation from the Europen

Figure 3: **World map of migratory borders.**

Source: (Rekacewicz, 2013). Map by the authors.

countries, and the "negative thought" prevails (47). Without a solution on these persepective, from the political will, it would be impossible to have consitutional principles that would guaratee a regular housing solution or settlement tenure. Figura 4 show the European countries on the Shengen Agreement.

- The second indicator to understand the constitutional principles that might decrease the number of inhabitant affected from the informal settlement are the Social Equity, Inclusiveness degree.
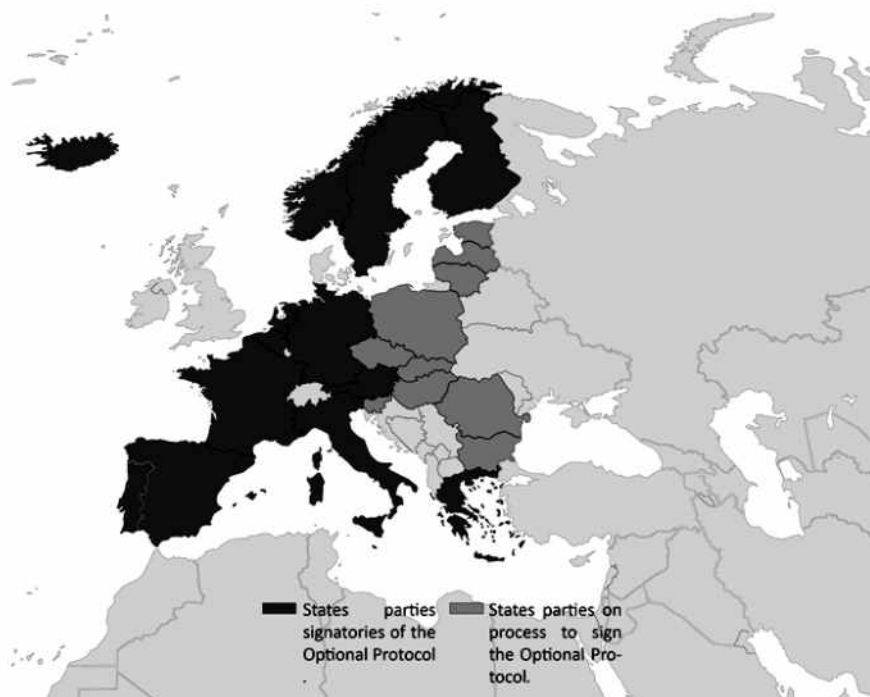
Figure 4: **Europe map of migratory borders. Schengen Area.**

Source: (European Commission, 2014). Map by the authors.

The different models of housing included in "Housing Europe" (48) show that housing models are strongly characterized by the legal environment of each country separately.On the position paper (49) listing 8 challenges in funding the immigration policies, "Housing Europe", directly or indirectly implies that many initiatives, even if they have a state nature, such as the recognition of special rights of the population, must be undertaken by the local government.However,public taxes, and revenue's reversibility are a good indicator to trace the social equity and inclusiveness degree, from whatever level of government. European Funds, such are ERDF, and the published toolkit (50)' on the use of EU funds for the integration of people with migrant background' aims to encourage the Member States to use the available priority.The mayor work consists in the recognition of the human rights, at the national level, and how the policies, and guidelines are addressed through the institutional environment. Even though much work has been done, some issues remain unresolved, such is the lack of recognition of Roma citizens (51).

- The third indicator to understand the constitutional principles that might decrease the number of inhabitant affected from the informal settlement is the Property Right degree(index).

Property right, concerning the civil code and the economic code, has different statements and limitation to various parties, countries and nations. Measuring three components such as the 1) Legal and Political Environment, 2) Physical Property Rights, and 3) Intellectual Property Rights the International Property Rights Index (52) lists the countries from those with the highest scores to the lowest. See Figura 5. Countries with low score of the physical property right has also a high number of inhabitants affected from informal settlements. The reasons that stands behind a weak property right may consists on primary two directions; the first may come from a total or partial refuse of the political will to recognize the property right as a constitutional principle. Such happens in countries in communist regimes, or in other countries where there are gender restrictions on property rights - see Figura 6; the seconds may come from a transitional phase of the legal and political environment. Such is the case of Albania, where the political will has constitutionallyopened the legalization process of the informal settlements- after the fall of the communist regime. Now-days the country counts 1/3 of the national population affected from the informal settlements.
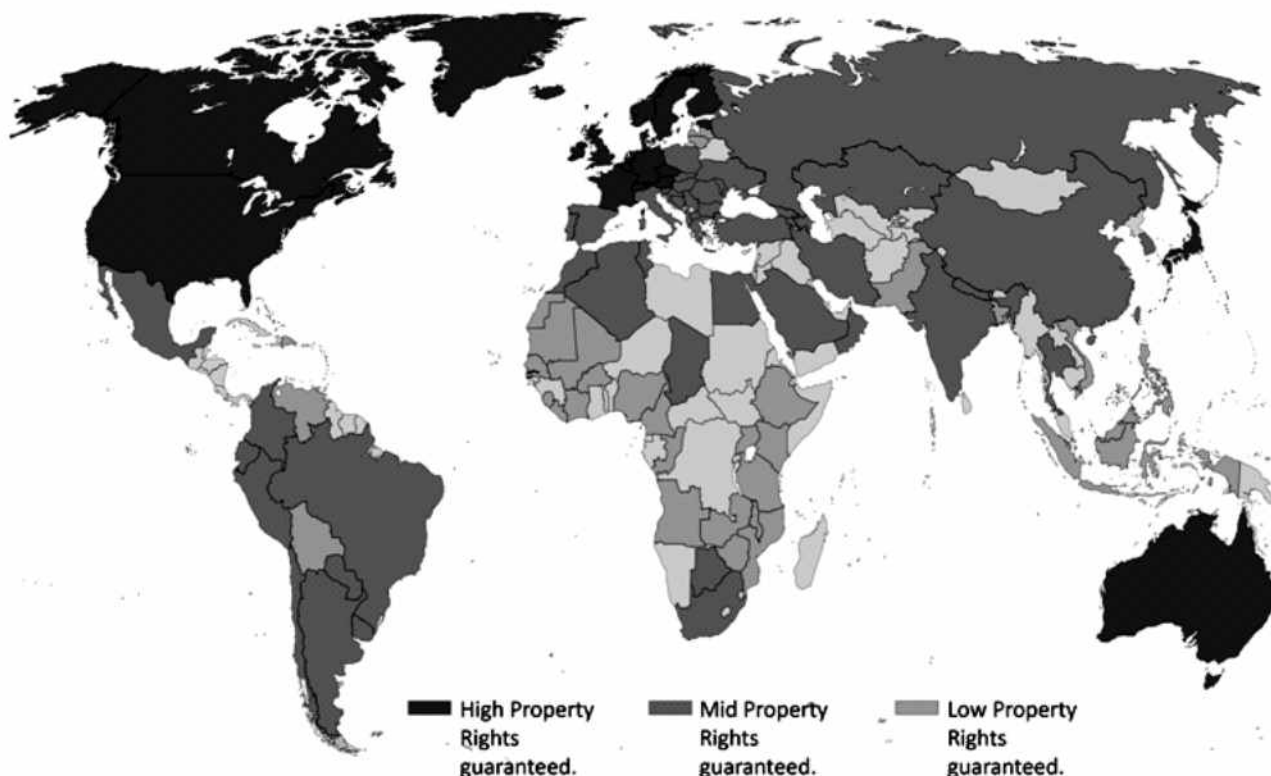

Figure 5: **Law concerning property rights.**

Source: From the International Property Rights Index, 2017. Map from the authors.
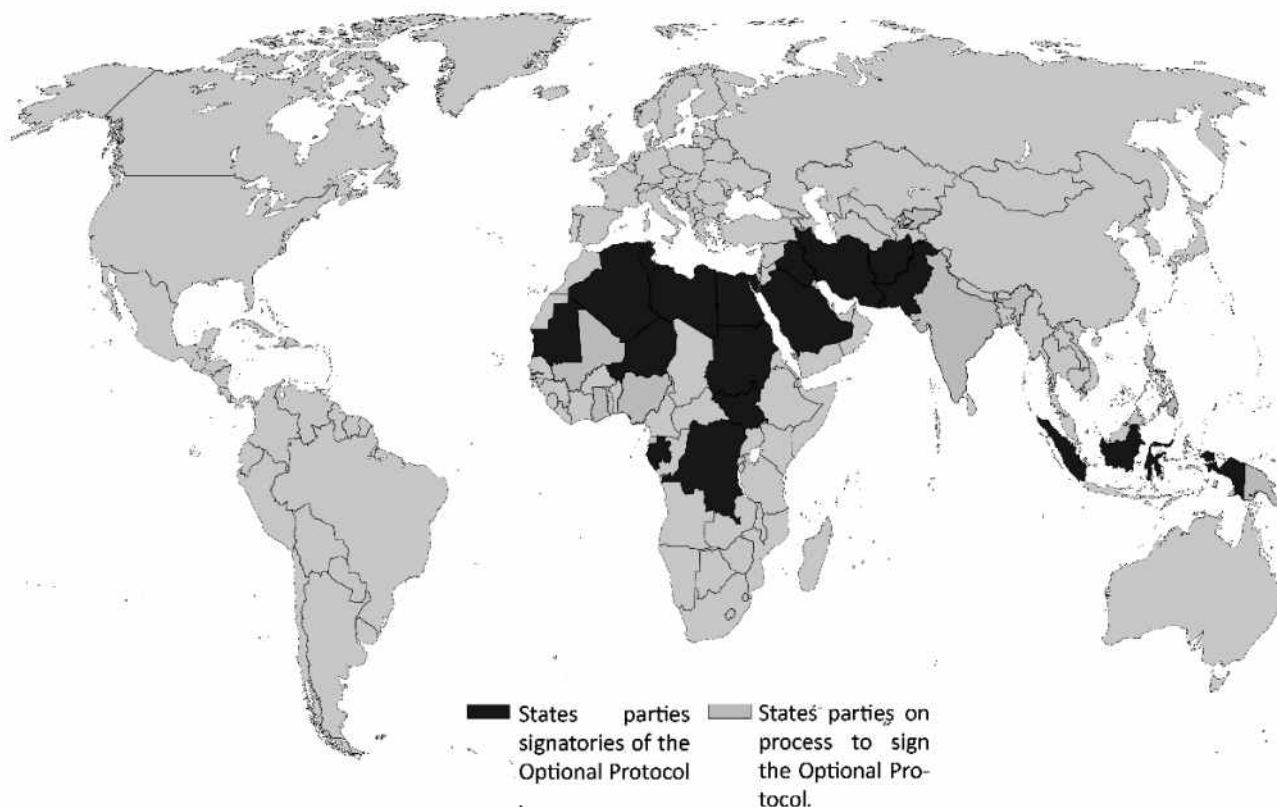
Figure 6: **Law concerning property rights for women.**

Source: (womanstats.org, 2012). Map by the authors.

- The fourth indicator to understand the constitutional principles that might decrease the number of inhabitant affected from the informal settlement is the Local Autonomy degree (index).

The local autonomy degree is very important to understand the reasons behind the recognition, or not, of the informal settlements as a housing solution. This may come by different plan and territorial priorities. Many are the countries that in the early 1990, with the supervision of the World Bank, Municipalities followed a process of upgrading the low income settlements before to give a housing tenure to the householders affected by the informal settlements as a best approach to face the problems where they are without avoiding, or in the worst cases by forced removal.

Another step in consolidating local autonomy across Europe was European Charter of Local Self-Government (53). In Figura 7 are colored only the countries that has signed the Charter and consequently has adopted it to the constitutional principles of the local autonomy. From 18 articles no of them explicitly addresses the Human Rights and neither other matter on the status of the settlements, if formal or not. But this does not exclude the fact that decisions of local autonomy, signed following the charter,

would not change the condition of the inhabitants affected from the informal settlements. On the Charter, the Economic resources, revenues or material means, real estate property owned from the Municipalities, stands on principles such is, the territorial subsidiary, financial efficiency (54) and democratic representatives.

A good local autonomy may decrease the number of the inhabitants affected from the informal settlement. Municipalities are in the first front when we talk about the welfare policies on housing, but not only. In many countries municipalities, inheriting a public stock faces management services in un autonomous way (55). Other municipalities has faced pioneering programs and projects on housing alternatives beyond the private market. On the nature of the public policies the conditions mentioned above represent the two different public cultures in facing the housing solutions. The first culture sees housing as an universalistic right, so strictly connected with the UDHR and the primary beneficiaries as a result of social protection. The second culture sees housing policies as a matter of efficiency, and the criteria of selection is based on affordable cost. In this target group it's not necessary that inhabitants should be from the UDHR. In Italy, for example, only in the last 20-30 years the public policies on housing started to address programs and projects to different forms
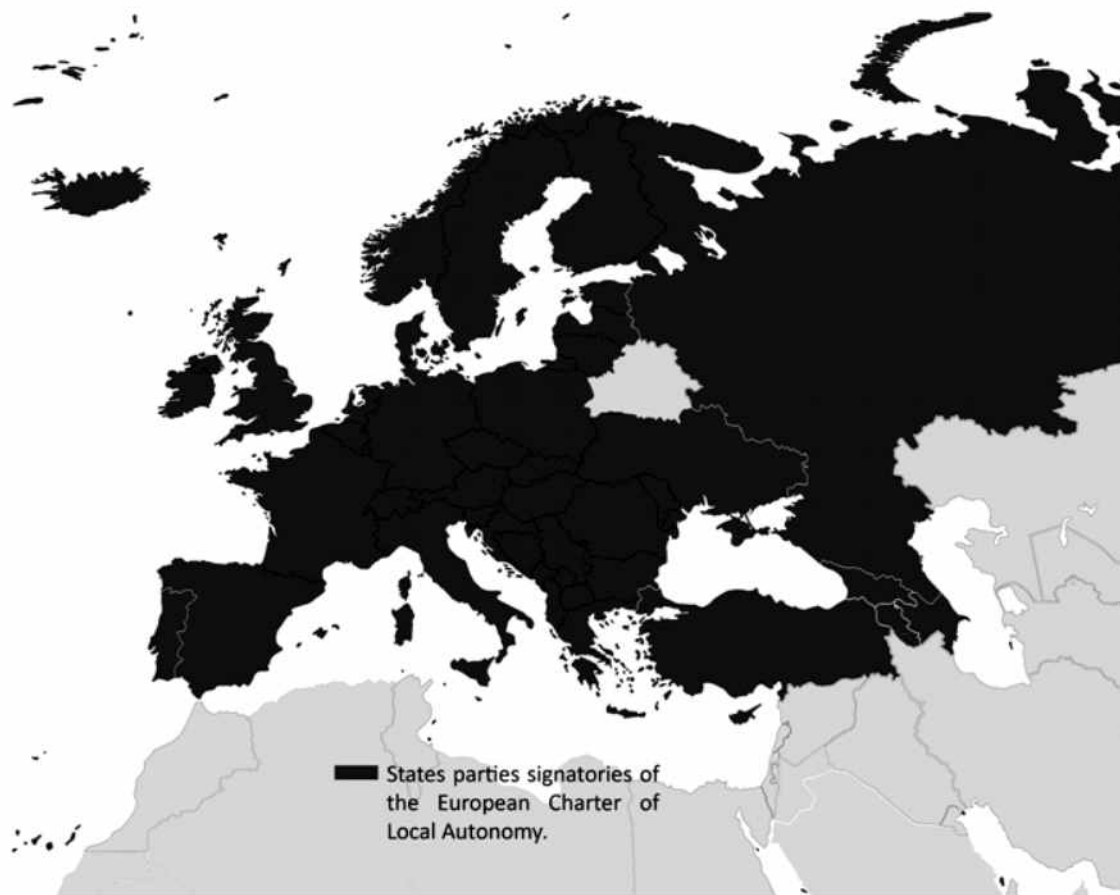
Figure 7: **Countries signatory of the European Charter of Local Self-Government.**

Source: (Council of Europe, 2020). Map by the authors.

of vulnerability. Considering the housing vulnerability as social and an economic matter, at the end, both cultures can play a significant role in decreasing the number of the inhabitants affected by the informal settlements (56) .

THIRD DISCOURSE: "THE INSTITUTIONAL ENVIRONMENT".

A third discourse for a strategic reading of the informal settlements stand on the institutional environment. Looking the problem of the informal settlements from the institutional environment is a structural approach that goes beyond the human rights – scattered on ethical definitions. The institutional environment is a form of written laws and everything that is beyond the written is outlawed. Differently from the Rights and Principles, the laws are the last communicative tool between state and citizens. And that is the reason why laws are more used to change rather than the constitutional principles or the universal human rights - which dates back in the 18 century with Pierre-Joseph Proudhon and other philosophers. Laws are a common interpretation and consensual negotiation between citizens and the public institutions.

This consensual negotiation is written on the Constitutional Principles and it expresses how citizens are represented in the public decision making processes. It may vary from a monist governmentto a pluralism one – and this condition reflects how the citizens are seen from the institutional apparatus. The fact that there's a monist political culture that governs the housing diversity it makes difficult the process of integration of the inhabitants affected from the informal settlement into housing solutions. Inhabitants living in informal condition under a monist government are of two sorts, or confirm the state and to the institutional environment or outside of it. Here to mention the fact that many informal forms of living the city are born in pluralist countries, or in transition. This affirmation makes the number of the inhabitants affected from the informal settlement an indicator of pluralism and openness toward new forms of living beyond the institutional environment. To make it really happen we need to see the practical solutions that integrates the inhabitants affected from the informal settlements into regular institutional environment.

The political debates have implications on the institutional environment. As various positions and theorist reclaims the right of the city (57) as an organic growth

process other theories sees the urban growth as a structured process prescribed by the I) development plan,ii) building codes,iii) building permissions and iv) housing tenurein the institutional environment.But if we look at our cities we will realize that the urban reality is stratified in time beyond the political debate about the physical growth of the city. If till the in the mid of the last century the aim of institutional environment was aimed to land control, now-days the land management process guides the urban growth.

This process of land management (58), which started from the late 1980, opened a long process of housing financialization, land consume, and restriction of human rights. Till now-days the ethical debate on housing commodification (59) has separated the municipal political positions. Many municipalities, in the recent years has introduced the rent control to slow the social disparities in housing rent market, or by discouraging the informal market – a phenomenon that exists even in the most developed countries in terms of public policy as in Sweden (60).

Other cases of political ethical debates regarding the housing commodification goes on the nature if it's right or not. Seeing that the World Housing Crisis started with the "good" assumption that the banks would offer diversified loans and mortgagesfor different inhabitants, we understood that it wasn't possible to deal with the housing affordability cost. However, the ethical debate can be enriched on the forms of housing financialization by asking "why starts it" and "who gets it".

Informal settlements raised by individuals as primary housing solution faces institutional hindering factors. Differently from the settlement raised form economic purposes, the settlements for housing purposes carries more public costs; such are those enforced by constitutional principles relating to equitable distribution in the territory of public transport, waste management coverage, wealth and education services.In the late 90, many municipalitiesfacing a vast growth of the informal settlements, raised by inhabitants for primary housing solution, sow as a primary necessity to work on mobility issues. Now-days, around 20 years later, the challenges remains on the in/appropriate fare policies to different categories of inhabitants (61). Other hindering factors from the institutional environment to the informal settlements lays not only on the enforced costs, for the municipalities to the urban growth, by also on the nature of the land and settlement tenure. Many are the cases raised on unresolved ownership conflicts, environment restrictions, or inadequate housing living conditions.

Problems

The universal rights, constitutional principles, and the institutional environment, are crucial to understand how the world population is affected by informal housing, housing un-affordability and accessibility. Although fundamental universal rights has been defined, they are in embryonic phase, if we consider the ethical dimension of access to energy, or the access to the clean air. Even those universal rights which came during the modernism and the individualism are threatened from ineffective international politics to maintain world peace, and to consolidate national principles on the constitution for the wellbeing of the population affected from war, discrimination, and climate change and the access to primary resources such is housing, work and human rights. The political use, for institutional and governance reasons, of the universal rights risks to jeopardize the international charters signed by different countries. In order to understand the informal settlements, we need to reverse the concept, and see strategically the relation of the inhabitant affected with the big frame; with the universal rights, constitutional principles and with the institutional environment and good governance.

Recommendations.

What remains necessary for the scientific argument of informal settlements is to remove any stigmatization of forms of informality by constructing articulations of basic concepts affecting inhabitants of informal settlements. The first lesson is that the increasing number of inhabitants affected from the informal settlements stand on the political will to tie the universal rights, with the constitutional principles and with the insitutitonal environment. The second lesson is these rights starts from the individual scale, and so the answers. The result from ineffective rights in different countries on inhabitants has created three forms of informal householders.

1. Informal householder from the working condition. Created by the lack of social protection to vulnerable inhabitants.
2. Informal householder from the living condition. Created by un-affordability and high costs of living.
3. Informal householder from the political condition. Created by the political crisis and social tension.

And all of these forms may exists at the same time. More than the political paradigm, as opposing forces, we need those the solutions connected between theory and practice with a sight on universal rights (human and environmental issues), on the constitutional principles (equity, minority rights, and local autonomy) and on the institutional environment (good governance). More than an inductive reading, informal settlements should be seen as a deductive reading if the rights, principles and good governance are fulfilled. This will lead to new lens on hindering factors of the informal settlements.

References

Acioly, C., Aliaj, B., & Kuçi, F. 2004. **A path to citizen participation in urban management: Lessons learned from an Albanian NGO.** Adequate & Affordable Housing for All (p. 25). Toronto: Center for Urban and Community Studies. University of Toronto.

Alexander, G. S., & Peñalver, E. M. 2012. **An introduction to property theory.** Cambridge introductions to philosophy and law. Cambridge University Press.

Aliaj, B. 2008. **Misteri i Gjashte.** Cili eshte kurthi qe mban peng zhvillimin dhe integrimin e ekonomise shqipetare ne boten moderne. (A. Kacani, Trans.) Tiranë: CoPlan.

Aliaj, B. 2008. **Misteri i Gjashte.** Cili eshte kurthi qe mban peng zhvillimin dhe integrimin e ekonomise shqipetare ne boten moderne. Tiranë: CoPlan.

Aliaj, B., Shutina, D., & Dhamo, S. 2010. **Between energy and the vacuum.** Tiranë: CoPlan.

Bartha, A. 2020, January. **Rent controls have failed in cities throughout Europe.** Retrieved from iea.org.uk: https://iea.org.uk/rent-controls-have-failed-in-cities-throughout-europe/

Bobbio, N. 2014. **L'etŕ dei diritti.** (A. Kacani, Trans.) Torino, Italy: Einaudi tascabili. Saggi.

Bookchin, M. 1982. **The Ecology of Freedom.** United States: Cheshire Books.

Caves, R. W. 2004. **Encyclopedia of the City.** Routledge.

Co-Plan. **Center for Habitat Development.** 2000. Annual Report 2000, pg. 29. Tirana: Co-Plan.

Cortese, C. 2016. **Scenari e pratiche dell'Housing First:** Una nuova via dell'accoglienza per la grave emarginazione adulta in Italia. FrancoAngeli. Social Science.

Council of Europe. 2020. **European charter of local self-government.** Retrieved from A Charter for local democracy: https://www.coe.int/en/web/congress/european-charter-of-local-self-government

Council of the European Union. 2019. **Way forward for EU Migration and Asylum policy - outcome of discussions.** Presidency report. Brussels: Council of the European Union.

Dale, P., & McLaughlin., J. 1988. **Land information management:** An introduction with special reference to cadastral problems in Third World countries. Oxford: Clarendon Press.

Dimelli, D. 2018. **Advocacy Planning During the Economic Crisis in Neo-liberal Greek Cities.** In H. Sadri, Neo-liberalism and the Architecture of the Post Professional Era. Springer International Publishing.

Eurocities. 2017. **Mapping of the situation of Roma in cities in Europe.** Retrieved 2019, from http://nws.eurocities.eu.

European Commission. 2014. **ec.europa.eu.** Retrieved from Migration and Home Affairs: The Schengen visa: https://ec.europa.eu/home-affairs/what-we-do/policies/borders-and-visas/visa-policy/schengen_visa_en

Fainstein, S. S. 2000. **New Directions in Planning Theory.** Urban Affairs Review 35(4):451-478.

Farha, L., & Porter, B. 2017. **Commodification over community: financialization of the housing sector and its threat to SDG 11 and the right to housing.** SDG11 - Civil Society Report, 12.

Habitat III. 2016. **Issue papers. Informal Settlements.** (p. 9). Quito: United Nations.

Harvey, D. 2013. **Rebel cities: from the right to the city to the urban revolution.** Verso.

Housing Europe. 2010, 2 28. **Social Housing in Europe, Austria.** Retrieved from Housing Europe: http://www.housingeurope.eu/resource-88/social-housing-in-europe

*Housing.***Who decides?** 2000 London MacMillan Press LTD

Housing_Europe. 2018. **Social, Cooperative and Public Housing and the EU policies and funding in the area of migration after 2020.** Housing Europe, Bruxelles.

Keuffer, N. 2016. **Local Autonomy, a Multifaceted Concept: How to define it, How to Measure it and How to Create a Comparative Local Autonomy Index?** International congress of the International Political Science Association (IPSA). Poznań, Poland.

Kramer, M. 2004. **John Locke Origins Private Property.** Cambridge University Press.

Larsson, G. 2010. **Land Management as Public Policy.** UPA.

Lefebvre, H. 1974. **The production of space.** (D. N.-S. Nicholson-Smith, Trans.) Blackwell.

Lindblom, C. 1959. **The science of 'muddling through'.** Public Administration Review.

Lowi, T. J. 1972. **Four Systems of Policy, Politics and Choice.** Public Administration Review.

McLaren, D., & Agyeman, J. 2015. **Sharing Cities: A Case for Truly Smart and Sustainable Cities.** MIT Press.

McMichael, G. 2016. **Land conflict and informal settlements in Juba**, South Sudan. Urban Studies, vol. 53, issue 13, 2721-2737.

Medici Senza Frontiere. 2018. **Insediamenti Informali: marginalitŕ sociale, ostacoli all'accesso alle cure e ai beni essenziali per migranti e rifugiati.** Roma: MSF.

Mumford, L. 1970. **The Myth of the Machine** (Vol. 2). Harcourt Brace Jovanovich.

Nations, U. 1966, December 16. **International Covenant on Economic, Social and Cultural Rights.** Retrieved February 12, 2020, from www.ohchr.org: https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx

Oates, W. 2001. **Property taxation and local government finance. Cambridge: Lincoln Institute of Land Policy.**

Orta, L. 2010. **Mappling the Invisibe: EU-Roma Gypsies.** Black Dog Press.

Paone, S., Petrillo, A., & Chiodelli, F. 2017. **Governare l'ingovernabile.** Politiche degli slum nel XXI secolo, pg.19. Assago, Milano: Edizioni ETS.

Papadimitriou, F. 2012, October. **Modelling landscape complexity for land use management in Rio de Janeiro,** Brazil. Land Use Policy. Volume 29, Issue 4 , pp. 725-928.

Popper, K. 1991. **The Open Universe: An Argument for Indeterminism.** Routledge; 1 edition.

Ranci, C. 2010. **Social Vulnerability in Europe: The New Configuration of Social Risks.** Palgrave Mc Millan.

Rekacewicz, P. 2013, October 16. **Mapping Europe's war on immigration.** Retrieved from Le Monde diplomatique: https://mondediplo.com/outsidein/mapping-europe-s-war-on-immigration

Silva, J. P., & Kerbauy, M. T. 2015. **Norberto Bobbio and the debate on conflict between right and power.** I CONACSO - National Congress of Social Scienceschallenges in relation to the insertion in contemporary contexts. UFES, Vitória-ES.

Soja, E. 2010. **Seeking Spatial Justice.** University Of Minnesota Press.

Srdjan Jovanovic Weiss. 2005. **What was Turbo Architecture.** Bauwelt Stadt .

Swyngedouw, E. 2011. **Designing the Post-Political city and the Insurgent Polis.** London: Bedford Press. Civic City Cahier 5. .

UN Habitat Programmeof Human Settlements. 2003. **The Challenge of Slums: Global Report on Human Settlements.**

UN-Habitat. 2015. **22 – INFORMAL SETTLEMENTS. HABITAT III** (p. 9). New York: Issue papers.

UN-Habitat. 2007. **What are slums and why do they exist?** Nairobi, Kenya: United Nations Human Settlements Programme.

Venter, C., Pineda, A. F., Hidalgo, D., & Jennings, G. 2016. **The equity impacts of bus rapid transit: A review of the evidence and implications for sustainable transport.** International Journal of Sustainable Transportation .

womanstats.org. 2012. **http://www.womanstats.org/.** Retrieved from Maps: http://www.womanstats.org/ /newmapspage.html

World Bank. Water resources management in South Eastern Europe.

Notes:

1. Many governments refuse to acknowledge the existence of informal settlements, which undermines citywide sustainable development and prosperity. These settlements continue to be geographically, economically, socially and politically disengaged from wider urban systems and excluded from urban opportunities and decision-making. (UN-Habitat, 2015f).

2. Example of the inhabitants living in the student's ex-dormitory of the Agricultural University in Tirana.

3. Since it first appeared in the 1820s, the word slum has been used to identify the poorest quality housing, and the most unsanitary conditions; a refuge for marginal activities including crime, 'vice' and drug abuse; a likely source for many epidemics that ravaged urban areas; a place apart from all that was decent and wholesome. Today, the catchall term "slum" is loose and deprecatory. It has many connotations and meanings and is seldom used by the more sensitive, politically correct, and academically rigorous. But in developing countries, the word lacks the pejorative and divisive original connotation, and simply refers to lower quality or informal housing. (UN-Habitat, What are slums and why do they exist?, 2007)

4. A shanty town or squatter area is a settlement of improvised building that is known as shanties or shacks, made of plywood, corrugated metal, sheets of plastic, and cardboard boxes. Sometimes called a squatter, or spontaneous settlement, a typical shanty town often lacks adequate infrastructure, including proper sanitation, safe water supply, electricity, hygienic streets, or other basic necessities to support human settlements. Such settlements are the autonomous, self-help housing developments created by low- and very low-income individuals and families around the world. (Caves, 2004)

5. The 'Calais Jungle' was a refugee and migrant encampment near 'Calais' France, hosting more than 3,000 inhabitants from 2015 to 2016.

6. Bathore symbol of poor and low educated people from the most discriminated region of the country. According to statistical data: the level of services there (northwest) was two times less than the average level of the country and 10 time less than the capital Tirana.(Aliaj, Shutina, & Dhamo, Between energy and the vacuum, 2010). 7. without human rights, recognition and protection, there is no democracy; without democracy there are no minimum conditions for the peaceful resolution of social conflicts. (Bobbio, 2014)

8. (UN-Habitat, 2013)

9. On in February 2020 In Lesbos Kara Tepe Refugee Camp the asylum seekers are amount up to 75.000 inhabitants living in temporary solutions - beyond the camp capacity, approximately made for 2500 persons.

10. The International Covenant on Economic, Social and Cultural Rights (ICESCR) is a multilateral treaty adopted by the United Nations General Assembly on 16 December 1966.

11. Factors that distinguishes the "bad" from the "good" governance for the United Nations stands on: i) the degree of citizen's participation; ii) the responsiveness from the public authorities (the guardians of the constitutional rights, guaranteeing human and minority rights, equity, inclusiveness, property right, and local autonomy); iii) the efficiency and the effectiveness of the public policies, such are those on taxes and how the well-being is distributed; iv) the transparency degree; v) the rule of law, as public documentation becomes reality; vi) the accountability of the public funds, etc.

12. Human Rights emerge along with a conception of society based on individualism, which is an influence of liberalism, and developed in the context of battles for rights in revolutionary France and in the context of hegemony in the historical process of defining and institutionalizing thereof within bourgeois society.(Silva & Kerbauy, 2015)

13. Today we are increasingly convinced that the ideal of perpetual peace cannot be pursued except through a progressive democratization of the international system, and that this democratization cannot be separated from the gradual and ever more effective protection of human rights above individual states. (Bobbio, 2014, pg. 162)

14. Science may be described as the art of systematic over simplification — the art of discerning what we may with advantage omit. Popper, K. (1992) The Open Universe: An Argument for Indeterminism.

15. The Universal Right on clean water and sanitation is a charter signed only in 2019.

16. The Optional Protocol to the International Covenant on Economic, Social and Cultural Rights is an international treaty establishing complaint and inquiry mechanisms for the International Covenant on Economic, Social and Cultural Rights. It was adopted by the UN General Assembly on 10 December 2008, and opened for signature on 24 September 2009. As of October 2018, the Protocol has 45 signatories and 24 state parties. It entered into force on 5 May 2013.

17. Without the existence of an international body that can enforce it, the human right to water relies upon the activity of national courts.McGraw, George S. "Defining and Defending the Right to Water and its Minimum Core: Legal Construction and the Role of National Jurisprudence" Loyola University Chicago International Law Review Vol. 8, No. 2, 127-204 (2011) at 137.

18. (Nations, 1966)

19. The term "remuneration" goes beyond the more restricted notion of "wage" or "salary" to include additional direct or indirect allowances in cash or in kind paid by the employer to the employee that should be of a fair and reasonable amount, such as grants, contributions to health insurance, housing and food allowances, and on-site affordable childcare facilities.(Nations, 1966)

20. Schengen Agreement is a treaty which led to the creation of Europe's Schengen Area, in which internal border checks have largely been abolished.

21. According Medici senzaFrontiera in 2018 there where at least 50 informal settlements inhabited by foreign citizens in Italy, mostly refugees, for a total of at least 10,000 inhabitants(Medici Senza Frontiere, 2018)

22. In 118 AD, Emperor Adriano made the first and biggest world known fiscal amnesty.

23. The SDGs, set in 2015 by the United Nations General Assembly and intended to be achieved by the year 2030, are part of UN Resolution 70/1, the 2030 Agenda.

24. In the World Health Organization for the European Region, more than 63 million people gained access to drinking-water services and 84 million people to sanitation services between 2000 and 2017. Nevertheless, over 16 million people still lack access to basic drinking-water and more than 31 million people are in need of basic sanitation. Significant inequalities persist between rural and urban areas, and between rich and poor people, with rural dwellers and the poorest being the most disadvantaged.

25. "The failure to respect, protect and fulfil the right to breathe clean air is inflicting a terrible toll on people all across the world. The statistics presented in the present report depict a public health catastrophe, yet the numbers fail to capture the magnitude of human suffering involved. Each premature death, every illness and every disability afflicts an individual with hopes, dreams and loved ones. Air pollution is a preventable problem. The solutions - laws, standards, policies, programmes, investments and technologies - are known. Implementing these solutions will of course entail large investments, but the benefits of fulfilling the right to breathe clean air for all of humanity are incalculable.". David Boy. UN Human Rights Special Rapporteur. 26. See Hegel on Dialectical Materialism. See(Alexander & Penalver, 2012).

27. See the the Historical Dialectical Materialism of Karl Marx. See (Alexander & Penalver, 2012).

28. See (Mumford, 1970)

29. L'importanza delle esplorazioni all'interno degli slums, in questo processo di costruzione di una nuova immagine della poverta, e testimoniata anche dal fatto che nei vocabolari compare, sempre a partire dal 1980, il verbo slums, nell'accezione di visitare i quartieri poveri delle citta per motivi filantropici e caritevoli. Il portato stigmatizzante che accompagna la genesi della

parola slums si deve percio ad una costruzione culturale nata all'incrocio fra filantropia, volonta di riforma e moralizzazione, ma anche grazie alle immagini di esotismo che i luoghi della porverta trasmettevano stuzzicando la curiosita morbosa delle classi borghesi. Petrillo. A, Paone. S, Chiodelli. F (2017) Governare L'ingovernabile. Politiche degli slums nel XXI secolo. Bologna, Edizioni ETS.

30. The neo-liberalism principles which serve hyper capitalism are intensified through conditions of economic crisis as local governments focus on promotion, competition and marketing, rather than place making, in central urban areas at the expense of investing in other areas or in urban issues based on social matters.Dimelli, D. (2018) Advocacy Planning During the Economic Crisis in Neo-liberal Greek Cities. In H. Sadri, Neo-liberalism and the Architecture of the Post Professional Era. Springer International Publishing.

31. New Urbanism, (Caves, 2004)

32. See Gehl, J. (2014) Making Cities for People.

33. See(McLaren & Agyeman, 2015). In this bookauthors argue that the intersection of cities' highly networked physical space with new digital technologies and new mediated forms of sharing offers cities the opportunity to connect smart technology to justice, solidarity, and sustainability.

34. The author defends the continued use of the just-city model and a modified form of the political economy mode of analysis that underlies it.(Fainstein, 2000)

35. The four ecologies of Los Angeles.

36. "Morning Chronicle" in the early 1920 brought to new theories on urban planning, those connected with public hygiene, and other forms that classified inhabitants in different categories in base of their workforce.

37. Now-days the virtual data are part of the ethical discussions on universal rights and datacrazia, such are the social network platforms. 38. See (Lefebvre, 1974)

39. See (Bookchin, 1982)

40. See (Soja, 2010)

41. See (Swyngedouw, 2011)

42. See (Caves, 2004)

43. (Srdjan Jovanovic Weiss, 2005)

44. Learning from the informal land tactic is a process which focuses on the diversity and the multiform which land and settlement are shaped, and re-shaped, in the territory. Kacani, A. (2020) Land tactics, and territorial impact in the informal urban growth in Albania. International Journal of Architecture and Planning A+P Forum. Polis University. (in peer-review process).

45. Housing First approaches are based on the concept that a homeless individual or household's first and primary need is to obtain stable housing, and that other issues that may affect the household can and should be addressed once housing is obtained. 46. There is a shared understanding that the current system is not suitable for securing a fair distribution of asylum seekers across Member States.(Council of the European Union, 2019)

47. Lastly, there is some untapped potential in exchanging national practices (both successful and problematic) and lessons learnt; this working method is often under-appreciated in the EU context. As administrative, judicial and societal conditions vary across Member States, increasing mutual understanding has clear benefits. This is particularly relevant in the context of asylum procedures, including the link to return, where added efficiency is crucial to securing a well-functioning system.(Council of the European Union, 2019)

48. Housing Europe is anEuropean Federation of Public, Cooperative and Social Housing, networkedwith 45 national and regional federations in 24 countries, including 19 EU member states.

49. (Housing_Europe, 2018)

50. The toolkit is much needed for the Managing Authorities who very often lack the necessary knowledge on available measures.(Housing_Europe, 2018)

51. (Orta, 2010)

52. The International Property Rights Index (IPRI) is the flagship publication of Property Rights Alliance. The IPRI scores the underlining institutions of a strong property rights regime: the legal and political environment, physical property rights, and intellectual property rights. It is the world's only index entirely dedicated to the measurement of intellectual and physical property rights. Covering 129 countries the 2019 IPRI reports on the property rights systems affecting 98 percent of world Gross Domestic Product and 94 percent of world population. The International Property Rights Alliance.

53. The European Charter of Local Self-Government was adopted under the auspices of the Congress of the Council of Europe and was opened for signature by the Council of Europe's member states on 15 October 1985.

54. The Local autonomy implies, first of all, that local government is able to decide over its own tax and fees (Oates, 2001).

55. According to (Housing Europe, 2010) in Austria "Out of the total social housing stock, 60 % is owned by municipalities and public companies, but municipalities have withdrawn from new construction over the last decade. The main sector is currently the Limited-Profit sector, which includes cooperatives and companies. A smaller part of subsidized housing is provided by for-profit providers".

56. Il riconoscimento di bisogni provenienti da fragilita legate a eventi, transizioni e rischi biografici costituisce un decisivo punto di svolta (Ranci, 2010)

57. (Harvey, 2013)

58. (Dale & McLaughlin., 1988), (Papadimitriou, 2012)

59. (Farha & Porter, 2017)

60. (Bartha, 2020)

61. (Venter, Pineda, Hidalgo, & Jennings, 2016)

Maroš Finka
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SCIENTIFIC BACKGROUND OF RECOMMENDATIONS AND GUIDELINES FOR AVOIDING/MINIMISING FRAGMENTATION OF ECOLOGICAL CORRIDORS AND NATURA 2000 SITES

Abstract:

Human population growth, forthcoming urbanisation, growing requirements on living standards exert pressure on limited nature resources including ecosystems bringing the habitats` fragmentation, lowering their resilience and even destroy. As the fragmentation of ecosystems influences biodiversity and ecological stability in a significant way, it is necessary to avoid/minimise fragmentation of the landscape and to re-establish coherent ecological network. Finding solutions in harmonizing interests between ecosystem protection and other use of ecosystems has been set as one of the main tasks in the ConnectGREEN project supported by the EU from the program INTERREG Central Europe.

This project built on three main parts building on available knowledge and experience from previous project. The first part provides scientific background for defining proper measures to avoid, to mitigate and to compensate negative effects of the development on ecosystems, the second is formulating comprehensive system of interlinked measures in different phases of development processes and the third part brings the recommendations for avoiding/minimising fragmentation of ecological corridors and Natura 2000 sites.

These recommendations target the macro-regional level of the Carpathian Convention tackling a challenging the agenda of adoption of legislation and development and implementation of strategic documents. In addition, they address implementation within projects/actions by a set of basic rules referring to different aspects of the ecological connectivity.

Key words:

Recommendations, fragmentation, ecosystems, ecological corridors, biodiversity

Human population growth, forthcoming urbanisation, growing requirements on living standards exert pressure on limited nature resources including ecosystems bringing the habitats` fragmentation, lowering their resilience and even destroy. As the fragmentation of ecosystems influences biodiversity and ecological stability in a significant way, it is necessary to avoid/minimise fragmentation of the landscape and to re-establish coherent ecological network. Finding solutions in harmonizing interests between ecosystem protection and other use of ecosystems has been set as one of the main tasks in the ConnectGREEN project supported by the EU from the program INTERREG Central Europe. This project includes three main parts building on available knowledge and experience from previous projects AKK on Alps-Carpathian bio-corridor and TransGREEN on harmonising the green and grey infrastructure. The first part provides scientific background for defining proper measures to avoid, to mitigate and to compensate negative effects of the development on ecosystems, the second is formulating comprehensive system of interlinked measures in different phases of development processes and the third part brings the recommendations for avoiding/minimising fragmentation of ecological corridors and Natura 2000 sites. These recommendations target the macro-regional level of the Carpathian Convention tackling a challenging

the agenda of adoption of legislation and development and implementation of strategic documents. In addition, they address implementation within projects/actions by a set of basic rules referring to different aspects of the ecological connectivity.

The recommendations reflect important international documents as the IUCN Guidelines for conserving connectivity through ecological networks and corridors (Hilty et al. 2020 providing detailed recommendations on planning and implementing ecological corridors and introducing fundamental principles and objectives of ecological connectivity, addressing the governance of ecological corridor, in respect to the decision-making processes and responsibilities.

At the European level the recommendations refer to the Pan-European Ecological Network (PEEN) under the aegis of the Council of Europe (CE), the United Nations Environmental Programme (UNEP) and the European Centre of Nature Conservation (ECNC) (Jongman et al., 2011), to the network Natura 2000, established by the EU Habitats and Birds Directives, comprising Special Areas of Conservation (SAC) of the Habitats Directive (92/43/EEC, 1992) and Special Protection Areas (SPA) of the EU Birds Directive (2009/147/EC, 2009), to the Emerald Network, also known as Network of Areas of Special Conservation Interest, launched in 1989 by the CE (Council of Europe,

2009), and to the Trans-European Wildlife Networks Project (TEWN) (EuroNatur, 2010). At the same time the recommendations mirror the fact that current Natura 2000 system is highly fragmented and represents an unconnected set of unevenly protected 'islands' needed to be developed into a system of green infrastructure (Green Infrastructure, 2007) and the coherent Trans-European Nature Network (EC 2020).

This underlines a set of spatial planning political documents and strategies such as European Spatial Development Perspective towards Balanced and Sustainable Development of the Territory of the European Union as a suitable policy framework for the sectoral policies of the Community and the Member States that have spatial impacts, as well as for regional and local authorities, aimed as it is at achieving a balanced and sustainable development of the European territory. Another important document represents Territorial Agenda of the European Union 2020 and Territorial Agenda of the European Union 2030. They draw attention to the main territorial challenges underlining a coordinated approach to transform the challenges into potentials for sustainable and harmonious territorial development. Loss of biodiversity, vulnerable natural, landscape and cultural heritage are listed among the most important challenges. Overexploitation of these resources to provide for increasing demand, as well as industrial hazards can cause serious damage and may threaten territorial development. Urbanisation, intensification of agriculture and fisheries, transport, and other types of infrastructure development, particularly where they take place in a territorially uncoordinated manner, can cause severe environmental problems.

Changes in land and sea use, urbanisation and mass tourism threaten cultural assets and landscapes and may lead to fragmentation of natural habitats and ecological corridors. In historic and cultural environments, as well as in areas for new development or constructions, attention paid to the character of the place can improve the coherence and quality of the built environment.

The Territorial Agenda defines among six territorial priorities priority to manage and to connect ecological, landscape and cultural values of regions underlining those well functioning ecological systems and the protection and enhancement of cultural and natural heritage are important conditions for long-term sustainable development. The Agenda highlights, that the integration of ecological systems and areas protected for their natural values into green infrastructure networks at all levels is needed. Territorial Agenda of the EU 2030 (EC, 2020) reflects the need to act as people and places drift apart – increasing imbalances and inequalities and to respond to the increasing pressure concerning sustainable development and climate change e. g. in the fields such as climate change, loss of biodiversity and land consumption, air, soil and water quality, secure, affordable and sustainable energy, just transition, circular value chains and nature, landscape and cultural heritage.

A coherent network of protected areas (Trans-European Nature Network) is one of the priorities of the proposed new EU Biodiversity Strategy. To have a truly coherent and resilient Trans-European Nature Network it will be important to set up ecological corridors to prevent genetic isolation, allow for species migration, and maintain and enhance healthy ecosystems. In this context, investments in green and blue infrastructure and cooperation across borders among Member States should be promoted and supported, including through the European Territorial Cooperation.

The EU Nature Restoration Plan will help improve the health of existing and new protected areas and bring diverse and resilient nature back to all landscapes and ecosystems. This means reducing pressures on habitats and species and ensuring all use of ecosystems is sustainable. It also means supporting the recovery of nature, limiting soil sealing and urban sprawl.

Important input for the formulation of the recommendations was the Final report to the project Ecological Connectivity in the Danube Region identifying different research and knowledge, cooperation, institutional and communication gaps to be addressed the areas of physical improvements of corridors, transnational or trans-sectorial cooperation, research, planning instruments to institutionalize connectivity by integrating them into policy instruments.

The ConnectGREEN project executed several studies the results of which are included in the documents such as "State of the Art Report on existing planning systems and their application for ecological corridor identification and management in the Carpathians", "Gap analysis report on the identification of the needs for improving the planning processes and tools" and "Report on best practices addressing ecological connectivity and spatial development". They brought enlightenment into the topic and indicate possible approaches to solutions. Moreover, the national workshops were organized with national experts, both nature conservationists and spatial planners, to gain their expertise.

The studies have shown that spatial planning is the most important tool for balancing the needs of the society, economy and the environment offering institutional, technical and policy framework for managing the territorial dimension of sustainability, safeguarding the values of our habitats, ecosystems, and landscapes. The most critical threats to the sustainability and biological diversity of ecosystems is anthropogenic land use change, effective spatial planning has to bridge between nature conservation and anthropogenic land use.

Spatial development plans must be based on estimates of the economic value of biodiversity and ecosystem services, both in areas of high biodiversity and in critical areas, such as ecological corridors. It is essential that these identified critical areas be secured and included in local / county / regional development plans precisely to avoid fragmentation of the corridors due to potential economic

investments with a major negative impact on biodiversity. Although spatial planning differs from one country to another, there are common denominators such as:

- spatial planning is concerned with identifying long- or medium-term objectives and strategies for territories,
- dealing with land use and physical development,
- it is a distinct sector of government activity, and
- it has an important coordinating role between sectoral policies.

In addition to the above identified potentials the survey of the ConnectGREEN project identified several gaps of the planning processes and tools related to the ecological corridors across 5 countries represented in the project consortium – Austria, Hungary, Rumania, Slovakia, Czech Republic and Ukraine. Within the study relevant policy frameworks and legislation for ecological networks were analysed, as well as participatory planning and stakeholders' involvement, integration spatial planning and ecological networks. The project brought examples for best practices preserving the natural structures, linkages, the network of core habitats and corridors in different types of our landscapes mainly in terms of regional scale of connectivity too.

Based on the above-described outcomes from the research activities, the recommendation and guidelines have been formulated as follows:

Recommendations

1 RECOMMENDATIONS TO THE CARPATHIAN CONVENTION

1. Launch works on the Protocol on Spatial Planning reflecting the current state of art of knowledge on biodiversity and climate change as well as European strategic documents on spatial development, especially Territorial Agenda EU 2030 and to transpose them into the national strategic documents and national legal systems.
2. Define a common development strategy for the Carpathians including spatial planning, transport and biodiversity aspects and analyse national development policies, e.g. on tourism with respect to their impact on spatial planning development, then set up mechanisms for reducing impact on wildlife corridors and other biodiversity objectives. The common development strategy for the Carpathians should be reflected in the comprehensive national development strategies including spatial planning master plans.
3. To develop activities to raise public awareness about biodiversity protection as an important aspect of spatial development management.
4. Enable sustainable spatial planning by amending, where necessary, relevant policies and laws, in particular those related to nature conservation and spatial planning, e. g. on identifying and ensuring the functionality of ecological corridors.
5. Upgrade laws and policies on public procurement, public–private partnerships, power purchase agreements and concession agreements to seek best results according to the three dimensions of sustainability across the infrastructure life cycle.
6. Amend spatial planning/building code legislation so as to systematically require technical feasibility studies, costs and revenue forecasts (conducted in the project planning phase) consider mitigation measures. This is particularly important for the coherence of protected areas and landscapes outside of the protected areas that provide critical ecosystem services, especially under current climate change effects.
7. Amend legislation on spatial planning, building code and project preparation to make consultation of biodiversity action plans at respective hierarchical levels and similar policies mandatory early in the infrastructure planning process.
8. Amend legislation to ensure that the national biodiversity plans highlight opportunities to use natural and nature-based infrastructure as a part of the overall biodiversity conservation strategy to encourage planners, scientists, and nature conservation stakeholders to jointly determine the biodiversity value of different options and thus to identify the best trade-off.
9. Amend national climate change adaptation and mitigation plans to integrate aspects of spatial planning, transport infrastructure, urban development, and national biodiversity plans to make climate reliance an integral part of infrastructure plans and projects.
10. Set up a pool of experts and professionals and secure funding specialized on sustainable spatial planning, research, and expertise, especially for those who can be drawn in for solving conflicts between spatial planning and nature conservation objectives.
11. Set up interdisciplinary and interagency Working Groups – including internationally – for sharing information, methodological developments, analysis of results and trade-off discussions; ensure that relevant staff is tasked to participate regularly, and meetings are prepared and moderated effectively.
12. Collect and share data on biodiversity and ecosystem services on an inter-ministerial platform to promote the mainstreaming of biodiversity conservation in spatial planning and infrastructure deployment.
13. Periodically monitor and assess the impact of spatial planning master plan implementation.

14. Define common international / Carpathian guidelines for data collection, including proper legal and institutional arrangement of the obligation to make the data on spatial planning, biodiversity, and ecosystem services, collected from public funding, publicly accessible.

15. Define common international / Carpathian guidelines for the cost-benefit analysis of spatial planning programmes and projects, which fully reflect environmental costs and benefits.

16. Design and finance capacity building measures to empower stakeholders to participate effectively in spatial planning processes. Further, design and finance capacity-building measures for spatial planners and policymakers on how to properly design the Terms of Reference (ToR) of the impact assessments, supervise the development and conclude on results such as adapting the siting and design of infrastructure.

17. Strengthen the integrated approach in the EU Strategy for the Danube Region: the EUSDR should enhance
    a) cross-sectorial exchange and cooperation among relevant Priority Areas PA6 and Pa1b;
    b) cooperation and exchange of information between the Carpathian Convention relevant Working Groups (Biodiversity and Sustainable Transport) and PA6 and PA1b Coordinators;
    c) the use of the knowledge base developed under the TRANSGREEN, ConnectGREEN and SAVEGREEN projects;
    d) the cooperation with other EU Initiatives and international processes for data sharing, mediation and resolution of environmental conflicts, while ensuring easy public access to data and information, both concerning the biodiversity and the transport aspects and plans;
    e) the use of existing data platforms like CCIBIS, developed and updated thanks to several EU Projects (e.g. SEE BioREGIO Carpathians, DTP TRANSGREEN, DTP ConnectGREEN);
    f) interagency / inter-ministerial / inter-sectoral dialogue.

18. Introduce the objective of conserving habitats of selected protected large mammal species and of ecological corridors to the spatial planning procedures (transport/urban planning, etc.) of the Via Carpathia highway network.

19. Provide and activate adequate financial resources for implementation of integrative spatial planning and green infrastructure development approaches. In the public investment policies, including the EU structural funds, it is necessary to prioritise integrated approaches aiming at balanced development, harmonising the interests of environmental protection and better spatial planning. 2 General recommendations on project level

A. COMMUNICATION - STAKEHOLDER INVOLVEMENT

- Time aspect: In all phases, planning phase is crucial,
- Sectoral aspect: involve all relevant sectors such as spatial planning, transport, nature conservation, river basin management etc.,
- Integrated discussions: scientist, practitioners, decision makers, public,
- Selection of proper communication methods: consultation processes, presentations, round tables etc.,
- Communication of information about the location of sites with high biodiversity value,
- Political support at community, county and national level.

B. COOPERATION

- Working together with clear competencies and sharing responsibilities
- Formalizing the cooperation – Memorandum of Understanding, Cooperation contracts…
- Strategic long-term cooperation with vision,
- Implement demonstrative projects that can be replicable by partners/other relevant stakeholders,
- Include a wide range of tools, approaches and a wide range of actors,
- Best practices from stakeholders and the business community,
- Building the necessary partnerships and encouraging collaboration between these partners to overcome imminent conflicts.

C. KNOWLEDGE BASE

- Access to high-quality data, information, and knowledge,
- Creating and sharing of common databases,
- Harmonizing data among different stakeholders,
- Regular update of databases,
- Use modern methods of data processing,
- Designing and completing an inventory of available data and documenting the source, quality, and reliability of the data,
- The spatial scale is one of the most important defining attributes of an assessment of ecological connectivity.

D. FUNDAMENTAL IMPLEMENTATION RULES

- Apply environmental assessments (SEA, EIA),
- Keep on mitigation hierarchy: avoidance – mitigation – compensation,
- Monitoring and assessment of applied measures,
- Set of long-term objectives and measures for integrating the concept into the political process at national, regional, and local level,
- The pilot projects demonstrate how available resources can be used effectively to promote biodiversity in practice.

E. FINANCIAL ASPECTS

- Make use of financial analysis for assessment of plans and alternatives (cost – benefit analysis, value for money etc.),
- Monitor existing and invent new financial instruments for financing the ecological connectivity (Payments for Ecosystem Services, Polluter pays, …),
- Communicate with relevant authorities and politicians the financial gaps and commit them to improve the financing of ecological connectivity in framework of different financial schemes,
- Adequate assessment of the specific socio-economic factors in which ecological networks are implemented is a necessary precondition for the success of this implementation process.

Guidelines for controlling landscape fragmentation on national, (sub) regional and local levels.

The approach, design, and mechanisms for embedding, integrating and implementing the EU Green Infrastructure (GI) Strategy developed the Green Infrastructure Working Group (2011), including for national, regional and local levels.

NATIONAL GOVERNMENT ROLE

The role of national administrations is likely to vary but should include the interpretation of any EU framework for GI to take account of national circumstances.

While playing a crucial role in developing the strategic context and vision of GI, depending on the distribution of competences within states, national authorities will have a variable degree of responsibility in establishing the GI on the ground. Nevertheless, opportunities exist for national authorities to give clear guidance and direction to local authorities on how to plan and manage GI. Depending on the circumstances in each state, it is advisable for national governments to consider using their own national planning policy framework to set out the need for regional/local planning authorities to consider GI provision in local development planning and policy. National authorities could also play a useful role in the collation and sharing of regional information on GI, particularly good practice regarding GI design, mapping, assessment, delivery and implementation, and integration of GI into policy and planning. This is likely to be of particular importance in relation to climate change, where coherent national spatial planning ought to be aligned with regional and local planning activities and action, for example, to facilitate species dispersal when existing sites prove unsustainable due to changing climatic conditions.

REGIONAL/LOCAL AUTHORITY ROLE

The role of regional/local authorities in successfully implementing the GI is crucial. In most European countries, these are responsible for spatial planning decisions. Different administrations would need to work together, such as environmental, planning, agricultural, treasury, social departments. In addition, due to their close links to the local public, stakeholders and developers, local authorities are well-situated to enhance communication, public participation and involvement of stakeholders.

Regional/local authorities should be seen as the lead organisation to undertake detailed GI (master) planning, including an assessment of GI assets, considering their location, threats, constraints, priorities and opportunities, and relevant regional factors (geographic, environmental, social, political, economic, etc.).

A multi- and interdisciplinary approach to the planning and management of GI is needed, relying on the input of a wide range of relevant professionals, such as biologists, agronomists, conservationists, engineers, economists, foresters, landscape architects, planners, ecologists, and community workers. From a biodiversity conservation perspective, it is critical that the expertise of appropriately trained nature conservationists and ecologists is included, and that links are made to established biodiversity priorities and action plans.

The establishment and maintenance of GI will not be possible without the full and engaged commitment of land managers (e. g. farmers, foresters, urban, transport and energy infrastructure developers) who need to also see the advantages that GI can bring to their assets, their resources, and their economic activities. Such stakeholders need to input to the design and lead on the implementation of GI. The motivation of landowners is obviously crucial for the success of GI projects which result in any land use change.

The involvement of environmental NGOs and other interest groups, as well as local knowledge, is also essential. There are many benefits of civil society and community involvement, namely enhancing the quality of decision-making, encouraging a sense of ownership, and raising awareness. Early involvement in planning decisions can avoid conflicts and delays later in the process.

The potential policy instruments and tools on GI applications and relevant examples can be found in table in Annex III, developed within a background paper for an expert workshop on Green Infrastructure (Ecologic Institute 2011).

PRACTICAL CONSIDERATIONS

Regarding the multi-functionality of GI, it is likely to be important for multiple sectors to be involved. By definition, the implementation of GI involves multiple sectors, being underpinned by the Ecosystem Approach. In general, the earlier the concerned sectors engage, the greater the

likelihood of longer-term sustainability of the GI development. The biodiversity conservation sector should always be involved with creating GI spatial plans but may not need to be involved at all levels. Depending on the objectives/remit of the GI plan, other sectors need to be included and local authorities are essential in coordinating and leading on GI spatial planning.

In addition to national and regional planning instruments, there are also different obligations to establish plans and programs which can be excellent vehicles for providing GI and ecosystems services, such as:

- Biodiversity National Action Plans.
- Natura 2000 Management Plan or equivalent instruments pursuant to the Habitats and Birds Directives and/or the Emerald Network of the Bern Convention,
- National or regional Climate Change Adaptation Strategies,
- Rural Development Programs,
- River Basin Management Plans including the Programme of Measures pursuant to the Water Framework Directive,
- Flood Risk Management Plans pursuant to the Flood Risk Directive,
- Forest Management Plans or equivalent instruments,
- Cohesion Policy operational programs,
- Regulations that implement the EU Nitrates Directive,
- Multi-national conventions such as The Convention on the Protection and Sustainable Development of the Carpathians, or the Council of Europe's Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), which provide a platform for cooperation, multi-sectoral policy coordination, joint strategies, and a forum for dialogue on sustainable development.

Measures at a strategic level

Preserving and restoring wildlife movement corridors

Landscape fragmentation must no longer continue to increase within trans-regionally important wildlife corridors. Rather, transport infrastructure that is not necessary should be removed or tunnelled under or bridged over. Likewise, built-up areas should be strictly prevented from expanding in these areas (EEA 2011).

The restoration of damaged or severed wildlife corridors is a significant step in recreating the opportunities for species to migrate and disperse.

Ongoing efforts for implementing a system of green infrastructure aim at addressing this issue on the European level. In many countries, some regulations and instruments can already be used either directly or indirectly to promote defragmentation; for example, protected areas, wildlife

corridors/habitat networks, and defragmentation plans. Within the projects implemented in the Carpathians relevant studies have been developed and their results can be widely used.

It is important that wildlife corridors and plans match well along the boundaries between different countries. Coordination of these efforts at the Carpathian and European level is needed.

Effective protection of remaining large unfragmented areas

The protection of the remaining large unfragmented areas is a measure of high priority and we recommend it to be implemented immediately, based on the existing maps and existing knowledge about habitat types, habitat amount, and habitat quality. These areas should cover habitats of a range of species. The maps can help identify areas where further fragmentation is an imminent threat and their rapid preservation is critical.

Targets and limits

Targets and limits for the future degree of landscape fragmentation should be broadly discussed and implemented. Such targets and limits are urgently needed by government offices and administrations for being able to act and for justifying their decisions and actions towards better protection of the environment. This measure will contribute to making better use of the existing road network rather than constructing new roads. These limits cannot be set in stone but should be region-specific and should consider the ecological, geographic, social, economic, and historic characteristics of each region. Specific targets, benchmarks and limits could be distinguished according to the respective type of landscape, for example:

1. Priority regions for large unfragmented areas, i. e. no further fragmenting elements are allowed here, and there is a priority for the removal of existing fragmenting elements.
2. Setting of targets for rural landscapes.
3. Further fragmenting elements could be allowed in densely settled landscapes or along development axes up to a certain limit.

Measures in traffic planning and regional planning

Based on EEA Report (EEA 2011), generally, four types of measures to address the problem of landscape fragmentation can be distinguished: (1) to minimise negative impacts during the planning and construction stages of new infrastructure, (2) to restore connectivity across existing transportation and other infrastructure, (3) to prevent further increase of the density of the transportation network, and (4) to remove existing

transportation and other infrastructure. Rethinking transport systems to improve their efficiency may be an important component of this.

Without better methods and higher awareness and consideration of the remaining uncertainties it will be impossible to resolve the increasing conflicts about land-use and landscape fragmentation in a responsible manner. However, this list of measures is not comprehensive. For example, it does not cover measures in the fields of communication and education of the public, economic or market-based instruments, reorganisation of traffic, and promotion of changes in behaviour. In addition, regional differences need to be considered.

This implies that different measures may be needed in regions with different current levels of fragmentation, with different departures of the observed from the predicted levels of fragmentation, and with different prevailing driving forces. Thus, the measures may need to be applied in differing combinations to the various regions. When deciding on these measures, the combined effects of a series of measures should be considered.

The measures include:

- Tunnels and wildlife passages
- Priority of upgrading of existing roads over construction of new roads
- Bundling of transport routes
- Keep bypass routes close to settlement areas
- Dismantling of transportation routes and other constructions
- Reduction of the width of roads with decreasing traffic volume
- Limiting urban areas, and internal urban development based on densification
- Oasis concept

Important is also implementation of relevant environmental indicators in the planning process.

The details of how to understand and apply these measures can be found in the Annex I.

Nature Networks Evidence Handbook

To make an ecological network we need to involve people from the earliest stages of planning and design, considering their needs and the services that a landscape provides to society (Crick et al. 2020).

In engaging people, it is helpful to develop a „stakeholder map" to identify key participants for developing a vision for a network. Participatory approaches increase in effectiveness from informing and consulting, through collaboration and empowerment.

When implementing the plans for a nature network there are various key practical aspects that need to be considered: working within the planning system, working with landowners / land users and farmers and working with the natural processes that operate within a landscape.

The planning system is a major statutory instrument that can be used to help implement appropriate land use within and adjacent to a nature network.

Agri-environment schemes provide the opportunity to work with farmers and landowners / land users to support nature network development.

At a practical level, working with natural processes within a landscape requires thinking about hydrology, nutrients, soil and sediment processes, vegetation controls and species composition. Decision making operates at a number of spatial scales, from landscape to species, but being aware of the needs of finer levels of organisation at each level.

Conservation practitioners need access to a range of information and spatial tools to help design and implement nature networks.

The handbook for designers of nature networks (Crick et al. 2020) identifies 10 Principles for Nature Network Design to help in the planning process.

PRINCIPLES FOR CREATING NETWORKS FOR WILDLIFE.

The following 10 principles provide a summary of how to design nature networks in an integrated way, to benefit biodiversity and people. These principles are consistent with and informed by both the Ecosystem Approach and the European Landscape Convention.

1. Understand the place: Recognise where the nature network will sit, in terms of how the natural characteristics of the area generate conditions for different habitats and how the cultural landscape character has evolved and is valued. Identify what the area is special for, from a national and local perspective, how nature has changed and the potential for its restoration. This assessment should include biodiversity and ecosystem function, geodiversity, landscape and the historical environment. Understand where people live and work and how ecosystems provide benefits to them. This enables us to identify priorities and opportunities, and to be sympathetic to the current character of the landscape, while not being constrained from accommodating what the future might hold.

2. Create a vision: for your nature network and be clear about your objectives: specify what the ultimate goals are for the network, identify the spatial scale, and the environmental and societal aspects that are important.

3. Involve people: People both benefit from and create nature networks: plans should engage and be created with the community; recognising that the landscapes and the ecosystems that support species, also provide multiple benefits to people.

4. Create core sites: Core sites are the heart of nature networks; these are places that sustain thriving

wildlife populations that may expand across the network. It will often be best to build core areas of nature networks by enlarging, connecting, and improving existing high quality wildlife sites, to make well-functioning ecosystems. However, on occasion, it will be appropriate to fill gaps in a network by creating core sites where little wildlife currently remains. Within landscapes, working with functional ecological units will provide the building blocks to support abundant and diverse wildlife and ecosystem services.

5. Build resilience: Enhance the resilience of landscapes, ecosystems and their ecosystem services through restoration that reinstates natural processes, accommodates desirable change, improves low quality habitat, and includes areas that provide buffering from the causes of current and potential future environmental degradation. Take opportunities to deliver nature-based solutions to climate change and reduce external pressures (such as diffuse pollution).

6. Embrace dynamism: Remember that in a natural state, ecosystems and landscapes change and are inherently dynamic over short and long-time scales; allow natural processes to operate whenever possible, as they will aid restoration of ecosystem function and enhance the sustainability of conservation efforts.

7. Encourage diversity: Nature networks need to include a diverse physical structure, influenced by the underlying geodiversity, to accommodate the widest variety of opportunities (niches) for species. Biological complexity and landscape diversity are important to facilitate resilience. Such diversity is best founded on the restoration of natural environmental processes where this is possible, overlain by vegetation management regimes that encourage further diversity.

8. Think 'networks': Networks need to be planned at multiple spatial scales and address multiple issues. Joined-up actions across adjacent landscapes help to deliver integrated outcomes and ensure that the network acts as a coherent whole for all species (especially for those that live in the wider countryside), ecosystems and people within the area.

9. Start now but plan long-term: Identify the locations that can deliver a coherent nature network but prioritise those locations that provide the best opportunities for action now, while developing longer term solutions.

10. Monitor progress: evaluate actions and adapt management in the light of results, to achieve long-term aims at local and national scales.

References

Anděl, P., Gorčicová, I., Hlaváč, V., Miko, L. & Andělová, H., 2005. **Assessment of Landscape Fragmentation Caused by Traffic**. Systematic guide. ANCLP CR. 99 pp.

Council of Europe, 2009, '**The Emerald Network — Network of areas of special conservation interest**', Council of Europe, Strasbourg (http://www.coe.int/t/dg4/cultureheritage/nature/econetworks/default_en.asp).

Crick, H. Q. P., Crosher, I. E., Mainstone, C. P., Taylor, S. D., Wharton, A., Langford, P., Larwood, J., Lusardi, J., Appleton, D., Brotherton, P. N. M., Duffield, S. J. & Macgregor, N. A., 2020. **Nature Networks Evidence Handbook.** Natural England Research Report NERR081. Natural England, York, 160 pp.

EC, 2020. **EU Biodiversity Strategy for 2030**. Bringing nature back into our lives. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2020) 380 final, Brussels, 20.5.2020.

Ecologic Institute, 2011. **Background paper Green Infrastructure – Expert Workshop**, 07 September 2011, Brussels. Ecologic Institute, Berlin in cooperation with GHK Consulting and Institute for European Environmental Policy (IEEP), 31 pp. (https://www.ecologic.eu/sites/files/attachments/presentation/2011/gi_expert_ws_background_paper_07sept2011x.pdf)

EEA, 2011. **Landscape fragmentation in Europe.** Joint EEA-FOEN report. EEA Report No. 2/2011, European Environment Agency, Copenhagen, Swiss Federal Office for the Environment (FOEN), Bern, 87 pp.

EuroNatur, 2010. **Trans-European Wildlife Networks project — TEWN**, TEWN manual — Recommendations for the reduction of habitat fragmentation caused by transport infrastructure development, EuroNatur Foundation, Radolfzell, Germany, ISBN 978-3-00-032533-3, 135 pp.

EU Strategy on Green Infrastructure, 2013 (https://ec.europa.eu/environment/nature/ecosystems/strategy/index_en.htm)

Green Infrastructure, 2007. '**Towards a green infrastructure for Europe — Developing new concepts for integration of Natura 2000 network into a broader countryside**', EC study ENV.B.2/ SER/2007/0076, 211 pp. (http://ec.europa.eu/environment/nature/ecosystems/docs/green_infrastructure_integration.pdf, see also www.greeninfrastructure-europe.org).

Green Infrastructure Working Group, 2011. **Task 2: How to put Green Infrastructure in place on the ground.** (https://circabc.europa.eu/sd/a/ad331ba8-2425-457e-920c-1fe5be2f8aca/GI%20TASK%202%20RECOMMENDATIONS.pdf)

Hilty, J., Worboys, G.L., Keeley, A., Woodley, S., Lausche, B., Locke, H., Carr, M., Pulsford I., Pittock, J., White, J.W., Theobald, D.M., Levine, J., Reuling, M., Watson, J.E.M.,

Ament, R., and Tabor, G.M., 2020. **Guidelines for conserving connectivity through ecological networks and corridors.** Best Practice Protected Area Guidelines Series No. 30. Gland, Switzerland: IUCN.

Jongman, R. H. G., Bouwma, I. M., Griffioen, A., Jones-Walters, L. and Van Doorn, A. M., 2011. '**The Pan European Ecological Network: PEEN'**, Landscape Ecology 26, 311–326.

Annex I

Measures in traffic planning and regional planning (EEA 2011)

· Tunnels and wildlife passages

Existing roads and railways can be made more permeable for wildlife through tunnels, crossing structures (wildlife overpasses and underpasses), or by raising roads up on pillars so that wildlife can cross underneath. In general, the larger the areas linked together, the more effective the measures will be. Therefore, the neighbouring areas and the interactions with other measures should be taken into account in the development of defragmentation plans. This measure can take advantage of the topographic conditions of the landscape (e.g. bridges across streams and valleys).

· Priority of upgrading of existing roads over construction of new roads

The widening of existing highways and railways will increase their barrier effect, and higher traffic volumes will contribute to the stronger barrier effect. However, the upgrading of existing highways is still less detrimental than the construction of new highways at another location in most cases, even if the new highways were to be bundled with existing transportation infrastructure. The upgrading of existing highways is an example of making better use of the existing road network and of addressing increased transportation demands while minimising the increase in landscape fragmentation.

· Bundling of transport routes

The tighter that transport routes are bundled together, the larger the remaining unfragmented areas of land. If, for example, a railway line is already present, any new road should be planned to run as close and parallel to the existing line as possible. The barrier effect of a bundle of transport routes will be higher than the barrier effect of a single transport route, but bundling is usually a better solution than the fragmentation of a larger area. In addition, wildlife passages could then be placed so that all the transport routes could be crossed over or under in one go. In general, an upgrade of existing routes should, however, be preferred, see above.

· Keep bypass routes close to settlement areas

If bypasses (and other roads) are sited close to developed areas, their fragmentation effect is lower compared to the construction of bypasses away from settlements. The purpose of this measure is to preserve unfragmented areas that are as large as possible and to lessen the fragmenting impact of any new transport routes.

· Dismantling of transportation routes and other constructions

Transport and other infrastructure which is not urgently needed any more (e.g. due to the construction of new routes or changing requirements) should be removed. This is particularly important where existing infrastructure is located in an area of animal movement corridors. Currently, actual dismantling of roads and other constructions (including water dams) that are no longer needed is very rare, and usually only affects sections of old roads that have been upgraded or moved to the side. The potential for removal of roads and other constructions is probably higher than the current practice suggests. Removal is essentially the more effective, the larger the areas that will be rejoined, but other criteria such as habitat quality should also be considered.

· Reduction of the width of roads with decreasing traffic volume

Roads, on which traffic volumes have decreased due to the construction of other transportation infrastructure or due to changing conditions, should be downgraded and physically reduced in width. This means a reduction of their surface and their footprint on the ground through physical modification.

· Limiting urban areas, and internal urban development based on densification

In order to preserve open space in the countryside, it is necessary to limit the size of urban areas and to develop policies to curtail urban sprawl.

This would also help counteract continued landscape fragmentation since built-up areas are themselves barriers to animal movement and contribute to landscape fragmentation, and since urban sprawl and road construction mutually intensify each other: dispersed patterns of settlement areas lead to higher traffic volumes and more road construction, and roads attract urban development. Regional planning legislation should more effectively require local authorities to treat land sparingly in their land-use plans. Regional and local authorities should limit the growth of built-up areas and encourage development within urban areas, e.g. through the reuse of brownfield sites, promoting compact design in developed zones and qualitative improvements of neighbourhoods. Limiting lines and green belts can ensure that clear open spaces are left between built-up areas. Open spaces are also significant in providing linkages for animals and plants as well as in providing local recreation areas.

· Oasis concept

The oasis concept is an innovative new idea for designing transport infrastructure. This means that small communities and areas suitable for preserving biodiversity or for recreational use (refuges or 'oases') will be kept free from trans-regional traffic. Road traffic will be concentrated onto a small number of roads located at a clear distance from such oases. Small communities will be connected by access roads. Current roads that route traffic directly from community to community will then be dismantled.

The major advantages of the concept are that communities are freed from through-traffic, that areas for preserving biodiversity or for recreational use are protected from throughtraffic, and that it halts the trend of continually building new bypasses around communities. This concept may prompt new ideas for the planning of new roads. It can also be applied to roads dedicated to agricultural purposes, as part of continued restructuring in the agriculture sector, i.e. when farms are abandoned and the network of agricultural roads can be rearranged.

· Implementation of relevant environmental indicators in the planning process

Decisions in the planning process should be underpinned by well established status of the environment in the considered area. Environmental indicators are able to provide information on status but with multi-annual datasets available, also on trends that are developing in the researched area. There are several applicable sets of environmental indicators on European level, developed by the European Environment Agency, as well as national ones existing in the Carpathian countries. One of the indicators suitable for informing the process of planning of the new transport infrastructure is the descriptive type of indicators (describing pressure on the environment within the DPSIR framework), Fragmentation of natural and semi-natural areas (SEBI 013).[1]

Annex II

Stages to be undertaken in nature network design and delivery
(Crick et al. 2020)

STEP 1: EVIDENCE GATHERING TO DEVELOP AN INITIAL VISION FOR THE NATURE NETWORK

1. Understand the place and assess what aspects of nature are special about an area or have been degraded or become threatened

   a. Landscape character & beauty
   b. Geology & soils
   c. Natural processes (e.g. hydrological, geomorphological)
   d. Biodiversity

   i. Identify existing and potential core sites for biodiversity
   ii. Identify opportunities for expansion and joining up existing areas and for improving their natural functioning
   iii. Review matrix (land between core sites)
      1. Identify important species and habitats
      2. Identify opportunities to improve connectivity
   e. Ecosystem services
   f. Historical environment
   g. Socio-cultural context (e.g. traditions, affluence, life-styles etc.)

2. Assess what aspects of nature could be restored or created, taking into account current and potential national importance
3. What opportunities are there for new or enhanced ecosystem service provision
4. Think in a network way rather than about individual sites

STEP 2: IDENTIFY AND INVOLVE STAKEHOLDERS IN REFINING THE VISION

1. Develop a stakeholder map based on land ownership and ecosystem service provision and usage
2. Hold a workshop to review the initial vision and to refine it
3. Use a variety of tools to present relevant data
4. Identify opportunities
   a. For ecosystem restoration and habitat creation
   b. For restoring natural processes
   c. For new and enhanced ecosystem service provision
5. Use participatory approaches to engage with the wider community to encourage support and to refine the vision further

STEP 3: PREPARE FINAL VISION

1. Agree ultimate goals for nature network
   a. Biodiversity goals
   b. Natural capital goals
   c. Ecosystem service goals
   d. Landscape character and cultural heritage
   e. Other societal goals, such as access to the countryside ,
2. Agree constraints and opportunities
   a. Ecological issues e.g. soil types, likely climate change impacts, natural processes
   b. Landscape issues e.g. cultural expectations
   c. Cultural issues e.g. population make-up
3. Agree areas of uncertainty including aspects requiring a search for compromise
4. Agree size of area over which the network will be designed

5.   Identify links to wider networks a. Including how it contributes to national and regional needs
6.   Develop a suite of targets against which progress can be assessed

STEP 4: DEVELOP A PROJECT TEAM FOR THE DELIVERY OF NATURE NETWORK VISION

1.   Develop an organisational and governance structure
2.   Identify leads (teams) for each key aspect of the project
3.   Teams to develop aims and objectives for their component of the project
4.   Project teams work together to ensure an overall integrated plan
5.   Implement plans

a. Start immediately, but think long-term

STEP 5: BUILDING THE NATURE NETWORK

1.   Build resilience

a. What are the pressures?
b. Think about social resilience

2.   Design the nature network using the suite of rules of thumb

a. Make sites better

    i. Big enough, complex, messy, dynamic
    ii. Enhance natural processes
    iii. Develop buffers where possible

b. Make sites bigger
c. Create new sites d. Improve connectivity e. Improve quality of resources for wildlife in the wider countryside

STEP 6: IMPLEMENT THE PLANS

1.   Work with the planning system
a. National planning policy frameworks b. Green Infrastructure
2.   Working with farmers and landowners
a. Use of agri-environment schemes where practicable
3.   Detailed ecosystem management
a. Tailored to improving and using natural processes, working towards rewilding where appropriate b. Tailored to specific habitats

STEP 7: UNDERTAKE MONITORING AND SURVEILLANCE TO ALLOW EVALUATION OF NATURE NETWORK

1.   Develop a programme to monitor progress that takes into account local and national objectives
2.   Refine implementation plan as it progresses in the light of evaluation (adaptive management)
3.   Undertake management interventions scientifically to grow the evidence base.

Annex III

Potential instruments and tools and how they may relate to Green Infrastructure (based on Ecologic Institute 2011)

POLICY TOOLS AND INSTRUMENTS
Description/explanation – with working insights into potential GI application

STRATEGIES AND ACTION PLANS
Setting out overall strategic approach to GI provision
Adoption of a non-binding forward looking, strategic document identifying the need to take measures to identify, preserve and/or invest in (new) GI. This is guidance with political commitment.

This can potentially include (new) objectives (including targets) or general principles to allow for GI to be better taken into account in policy-making across all policy areas and governance levels and in particular in spatial planning. In some cases this will announce that concrete priorities and measures will be taken in some policy areas (e.g. biodiversity) or geographic areas. We note that there are already existing GI Strategies at MS or regional level, even if they generally focus only certain components of a green infrastructure and are often not called GI strategies – e.g. biodiversity strategies, forest strategies etc.

INFORMATION GATHERING AND MAPPING
Identification and mapping of GI elements   and requirements
Drawing up maps both for identifying current GI elements that need to be protected and or enhanced or areas where new connectivity features, restoration measures or other GI elements are required to enhance the overall coherence and resilience of ecosystems and the delivery of ESS. This is an essential element of spatial planning fully taking GI into consideration – useful at different geographic scales, from local to continental.

Monitoring of GI elements and their impact objectives
Monitoring of GI elements, their quantity, quality and impacts would include the development and use of indicators in particular for the monitoring of the health of GI elements and their impacts in terms of biodiversity and ecosystem service benefits. It also includes monitoring trends in (i.e. accounting of the stock of the different GI element types over time).

The development of indicators and monitoring allows to set baselines, monitor trends, inform instruments and set targets. A mix of appropriate biodiversity and ESS indicators for the quantity and quality of GI elements will be needed. They are also critical for impact objectives (eg on the resilience of ecosystems) and instrument design (e.g. PES) and for subsequent monitoring and reporting on performance.

Analysis of GI benefits in view of integration into decision-making

Analysis of GI benefits would require identification, quantification and valuation of these. Authorities may choose to contract consultants or researchers to identify and/or value the various ESS benefits GI elements deliver in a given area (e.g. a forest) and ways in which these could be secured or enhanced by integrating this value in policy-making, e.g. by setting up PES schemes or purchasing the land. This can be at the local level (e.g. city exploring the importance of its green belt) to EU level (e.g. requirement for integration into impact assessment and to duly consider the value of the benefits when selecting an option that will be chosen).

REGULATION AND PLANNING

Regulation of land use

This would involve a political institution, whether at the local, regional, or national level adopting new legislation (or revising an existing legislation) to regulate the use of land in an attempt to avoid further deterioration of the identified green infrastructure by clearly setting out how land foreseen for GI provision is to be treated, thus avoiding land use conflicts, further GI degradation and fragmentation to ensure the provision of certain ESS (e.g. water provision) and biodiversity benefits. Depending on the level at which they have been adopted these might have to be translated in local land use plans (e.g. Natura 2000).

Spatial planning/integrated territorial development

Spatial planning at local, regional, national or supra-national levels, generally resulting in the creation of a spatial plan reflecting the choice to preserve or enhance GI to ensure planning decisions do not lead to a development which would further undermine the provision of ESS and biodiversity conservation objectives and aiming at a balanced development which does acknowledge the need to preserve strategic natural elements in the landscape. Links may be established between GI and territorial cohesion.

It is important to note here that spatial planning systems generally already exist and most of them do protect some GI elements e.g. core areas but often fail to protect/consider GI as a coherent whole. This is therefore as much about how the spatial planning system protects GI as about new initiatives to protect GI through spatial planning.

Procedural requirements: EIA/SEA

Setting clear procedural requirements within the EIA/SEA legislation for the consideration of impacts on the overall coherence of the green infrastructure and the delivery of their ecosystem services. Possibly also encouragement or requirement for avoidance, mitigation and off-setting measures to be taken before a certain development is authorised (for EIA) or a plan or programme adopted (SEA), to ensure "no-net loss" or "net positive gain" of biodiversity or ecosystem services. EIA and SEA already consider impacts on some GI elements but in many cases there is arguably opportunity for expanding this e.g. through additional requirements and/or guidance.

Standards

Requirements in building regulations stating e.g. that for a given surface of built/sealed land a determined share of land/space has to be dedicated to GI to facilitate the provision of ESS (be it only requiring the creation of private green spaces). This primarily encompasses, but is not limited to, building/development regulations.

Liability and compensation

Liability of operators for unauthorised environmental damage they cause through the requirement to return the environment back to its original state (e.g. before the accident occurred) and/or off-set the environmental damage caused elsewhere (possibly strategically, through habitat banking, taking into account where restoration could best contribute to overall coherence of the green infrastructure). The way in which N2K protected areas are treated in the ELD Directive could be expanded to some of the GI elements.

ECONOMIC/MARKET INSTRUMENTS

Resource pricing
(e.g. taxes, charges, fees, land values)

The pricing of certain resources is introduced in some way or another to increase the incentive to preserve GI for the ESS it provides. This might for example include introducing water pricing (or increasing the price of water) in view of introducing a PES-scheme or a tax on land use in areas identified as part of the GI (e.g. for housing developments) where the income of the tax is used to finance enhancing the GI elsewhere.

Land management contracts/agreements
(incl. PES-schemes)

A land management contract or agreement is an agreement negotiated between the leaseholder and the land owner which guides the sustainable use of the lease land for the term of the lease. It may or may not include PES. A PES is defined as a voluntary transaction where a well-defined ESS is 'bought' by at least one ESS buyer from at least one ESS provider if – and only if- the ESS provider secures ESS provision. This therefore involves setting up a

system through which those benefiting from a particular ESS (e.g. direct beneficiaries such as water companies, irrigation authorities, etc) compensate those who provide it (e.g. foresters, farmers), thus providing them with an incentive for improving land-use and management practices in view of supplying those services. PES-schemes may be public and based on legal obligations or private schemes with little government involvement. Scales might also differ depending on the beneficiaries, the providers and the spatial relationship between them. There is a fine line between PES and a subsidy.

e.g. PES for flood control, for management practices that support water quality, European expenditure which could also be considered PES-schemes (e.g. agri-environment schemes) will be considered "EU expenditure" under this classification.

Public procurement

There is also some scope for using public procurement to support green infrastructure. This could happen on the one hand via procurement requirements for road, rail and energy infrastructure and on the other hand, by encouraging the development of labels for and purchase of "greener products", i.e. organic, FSC, MSC, etc.

As regards greening grey infrastructure - public procurement may be relevant in relation to GI where the list of criteria links to the effort of the producer to implement practices which ensure that GI elements were not determinately affected in the production of the good/service. When commissioning the building of new grey infrastructure, public authorities assess offers against criteria including the consideration of the need to preserve/enhance GI in the proposed development. Projects going beyond the sheer compensation and seizing opportunities for creation of valuable GI are considered more highly given the additional value they deliver to the community.

For public procurement of certified timber, agricultural or fisheries produce, the market pull by GPP can encourage the development of greener production /greener natural infrastructure.

PUBLIC INVESTMENTS
EU Expenditure for GI
(national to local and private detailed below)

Using the different funding instruments of the EU (EAFRD, EFRD, CAP, EFF, LIFE+ etc.) to support the maintenance or enhancement of GI or supporting ecosystem based solutions rather than grey infrastructure for the delivery of certain services (e.g. water cleansing and wastewater treatment). Some of this expenditure, e.g. the agri-environment schemes, could arguably also have been included under PES schemes above.

Other levels: national to local and private using appropriate funds and budgets – see below.

Land purchase

Public authorities purchase land to protect or manage GI elements. Owners may be given the possibility to leave their land to the public authorities requesting that it be managed in the wider public's interest (statutory bodies may be created to manage these lands according to clear criteria).

Restoration projects/programmes

Projects/programmes may be undertaken to restore green infrastructure elements for biodiversity and ESS provision at various levels of governance and backed with the necessary funding, possibly from different sources. These will take place where valuable GI elements have deteriorated.

GI creation projects/programmes
(including reducing impacts of grey infrastructure)

Projects or programmes, most probably publicly funded or NGO-driven/ funded which aim at strategically creating GI elements in certain places to ensure overall coherence/resilience of ecosystems and/or ensure that specific groups of people may benefit from the services the GI may deliver to them. Instrumental creation of nature.

This would include public authorities adopting programmes or implementing projects to reduce fragmentation caused by existing grey infrastructure.

Securing long-term financing/maintenance

Public authorities commit to long-term financing of the management of GI (e.g. through creating publicly funded institutions or creating permanent jobs whose purpose is to preserve and enhance GI) or funds where proceeds pay for GI. This is a category apart as it recognizes a specific need (e.g. around protected areas internationally).

Respond to the value of GI when setting priorities

When disbursing public funds/assessing application for grants/loans to support grey infrastructure investments/development projects/programmes, include criteria referring to green infrastructure and ensure that appropriate weight is given to these criteria, giving the value of the services delivered by GI due consideration. Having a high adverse impact on a GI element (or any impact at all, depending on the type of project) should penalise the applicant.

This is also linked to the above mentioned public procurement, investments, etc.

GOVERNANCE

Institutions

Establishing an institution / a statutory body or expanding the mission statement of existing institutions covering a relevant geographical scale to allow them to take measures to preserve GI / deliver their objectives through ecosystem based approaches and allow them to allocate some of their budget to such approaches; e.g. river basin authorities, municipalities (expanding mission).

Participatory decision-making processes

Ensuring the participation of a wider range of stakeholders in decision-making processes which have implications for green infrastructure to ensure that the benefits derived from GI elements are not undervalued by only focusing on economic interests.

Reporting on implementation

Reporting on the extent to which measures which were foreseen have been implemented on the ground: e.g. money allocated to projects has resulted in their implementation/ legislation/regulation adopted at national level have resulted in effective implementation of requirements (e.g. local authorities contributing to meeting a target set for GI through their spatial planning decisions; farmers implement requirement for riparian vegetation along rivers etc.).

Reporting on the state of GI as part of wider natural capital reporting, which in turn can be part of natural capital accounts and extended income accounts – e.g. linked to national accounts regulation (also an issue for measurement above).

Coordination of policies

Legislative measures leading to the amendment of existing policies and/or drafting legislative proposals to ensure a consistent approach with regard to GI across all relevant policy areas. Policies making cross-reference to how they can deliver ESS through GI in synergy with other policies. This would be best achieved by exploring the benefits supporting policy objectives across all policy areas and integrating this into the different policy areas when these could better account for the benefits they may deliver which would underpin the objectives in other policy areas.

COMMUNICATIONS AND ADVISORY MEASURES

Awareness raising

Increase policy-maker and overall public awareness of GI benefits. Could include reform of educational programmes at schools and universities to increase awareness of GI. In higher education focus especially on disciplines which result in an increased likelihood of having to deal with GI elements (eg engineering, architecture).

Advice and guidance

Issuing guidance documents targeted at different stakeholder groups, which may need support in implementing new requirements, or interpreting new legal provisions meant to ensure GI is preserved/enhanced and its ESS provision optimised. These may be directed at e.g. key staff members in local/regional authorities meant to implement revised planning regulations or foresters/ farmers meant to change their practice on the ground to comply with new requirements.

Capacity building

Through targeted training on GI and its benefits public authorities ensure that those meant to implement GI measures are appropriately skilled and aware of the objectives they need to promote through GI. This will often be required also for staff working in the public administration who will have to change their perception with regard to the value of GI elements and the use that can be made of GI to deliver policy objectives.

Technical assistance on EU level (for policy making)

EU support to MS administration for the interpretation and implementation/ transposition of new EU-level requirements in the area of GI across a wider range of policies.

Technical assistance at MS/regional level for potential beneficiaries of EU-financed projects

Support (either from EU to MS or MS to regions) to help applicants develop successful applications for projects and programmes involving e.g. delivering objectives (including objectives such as social cohesion, growth and jobs/rural development) through ecosystem based solutions. Support to potential applicants for funds (e.g. NGOs, farmers).

Dagmar Petríková

PROPOSAL OF THE VISION AND DEVELOPMENT STRATEGY OF SLOVAKIA UNTIL 2030

A LONG-TERM STRATEGY OF SUSTAINABLE DEVELOPMENT OF THE SLOVAK REPUBLIC

Abstract:

The draft version of Vision and Development Strategy of Slovakia until 2030 – a Long-term Strategy of Sustainable Development of the Slovak Republic – Slovakia 2030 is the proposal of the key implementing document to achieve national priorities of the UN 2030 Agenda for Sustainable Development in the Slovak Republic. At the same time, the document after its approval has got ambition to fulfil the role of the National Strategy for Regional Development in Slovakia in accordance with Act No 539/2008 Coll. on the Support of Regional Development. Its content is in full compliance with Slovakia's international commitments in the area of sustainable development in its economic, environmental and social dimensions. In this context, these are mainly the international commitments resulting from the European Green Deal, a key document of the new European Commission, which is also based on the Sustainable Development Goals (SDGs) of Agenda 2030 while responding to climate change. Slovakia 2030 at the same time reflects the EU programming documents that are being developed in connection with the beginning of the new programming period 2021-2027. It equally takes into account the situation in the society affected by the Covid 19 pandemics. Slovakia 2030 sets out priorities and development goals of Slovakia in three integrated development programmes covering key development areas: protection and development of resources, their sustainable use and the development of communities. These programmes are seen as cross-cutting, integrating the areas within the remit of various ministries and various levels of state and local administration. They address the main challenges at the national level while taking into account specifics of individual regions.

The document is developed in broad participatory process under active involvement of academia. The publishing of this information on the draft version of the Visoin and Development Strategz of Slovakia until 2030 shall support this participatory process via involving broader academic auditorium.

Key words:

Communities, regions, development, sustainability, environment, safety, living a full life

Introduction

The motivation behind the creation of the document Vision and Development Strategy until 2030 (later only Slovakia 2030) as a long-term strategy of sustainable development of the Slovak Republic was the need to develop a comprehensive horizontal strategic document as a framework for implementation of the 2030 Agenda and preparation of documents for the next programming period. It shall be updated in the context of societal changes, challenges and related international strategic documents. The updated strategy will provide a framework for the direction and development of strategies, and enable better and more accurate links between relevant documents of Slovakia for the EU's programming period 2021-2027 before it is replaced by the Vision and Development Strategy of Slovakia 2050, which is set to be drafted by the expected deadline of 2024.

The 2030 Agenda for Sustainable Development was adopted by all 193 UN states. It calls for swift action to promote prosperity while protecting the planet, recognising that "ending poverty must go hand in hand with strategies that build economic growth and address a variety of social needs, including education, health, social protection, while creating jobs in tackling climate change and protecting the environment".

The European Union signed up to the 2030 Agenda goals primarily in the following documents:

- Communication from the European Commission No 15011/18 A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy
- Towards a Sustainable Europe by 2030
- Joint synthesis report of the European Union and its member states of 15 May 2019: Supporting the Sustainable Development Goals accross the

World, in which the EU and its member states confirm their committments to implement the 2030 Agenda goals

These documents resulted in the adoption of the European Green Deal , a flagship document of the new European Commission.

The Slovak government started implementing the 2030 Agenda by adopting the The Baseline for the Implementation of the 2030 Agenda for Sustainable Development . Subsequently, it approved the Concept for the 2030 Agenda Implementation in the International Environment, outlining a vision of Slovakia's active contribution to the progress on SDGs in the global context. In July 2017, the Slovak government adopted the Roadmap for National Implementation of Agenda 2030 and in June 2018, six national priorities for the 2030 Agenda implementation :

1. Education for a life in dignity
2. Transformation towards a knowledge-based and environmentally sustainable economy in the face of changing demographics and global environment
3. Poverty reduction and social inclusion
4. Sustainable settlements, regions and landscape in the context of climate change
5. Rule of law, democracy and security
6. Good health

Long-Term Strategy for Central and Local Governments

In its Programme for 2020-2024 , the Slovak government committed itself to promoting an internally cohesive, strong and socially just Slovakia, able to use public resources for the development of its regions and for the protection of the environment in order to support the transition of Slovakia to a smart, innovative and transparent country. This commitment of the government is fully compliant with the national priorities of the 2030 Agenda. However, to deliver on these goals, it is essential to involve local and regional governments, which are closest to the citizens. Therefore it is necessary to translate the national priorities of the 2030 Agenda into the plans and support programmes of all relevant ministries, as well as at the level of regional and local administration, including programmes related to the European structural and investment funds.

Slovakia 2030 thus also fulfils the role of the National Strategy for Regional Development under Act No 539/2008 Coll. on the Support of Regional Development. It serves as a source document for regional and local governments in preparation of their economic development and social development programmes (EDSDP). At the same time, in line with the quoted Act, the National Strategy for Regional Development shall be developed and updated, respecting the principle of partnership, based on the current development programmes of higher territorial units, municipalities and joint municipality programmes.

Slovakia 2030 is a long-term strategy reaching beyond one political cycle. This way, it aims to improve the predictability of public policies, the use of public resources and the stability of the business environment. The aim of the Slovakia 2030 document is to overcome a narrowly sectoral approach to development planning at the level of the central government and link it with the level of regions and municipalities according to the following scheme:

Figure 1: **Vision and Strategy in the Hierarchy of Strategic and Programming Documents**

A country's vision offers an image of what the country should look like in a given period. It takes into account the expected developments in society, technological progress and their projection into the daily lives of the population. Strategy is a way to progress from the current state to the desired state embodied in the vision. To achieve the goals in a more efficient way, sectoral and territorial strategies are developed. These consist of programmes containing specific measures, areas of their implementation and a timetable.

The figure above illustrates the simplified general principle of vision implementation through strategies, programmes and individual projects. However, it should be noted that successful implementation of the vision depends primarily on the synergies of individual strategies and concepts, created at different levels and sectors of the state, regional and local governments, with Slovakia 2030 having the ambition to serve as an umbrella document. The coherence of individual sub-strategies must be assessed in the process of their preparation, using the standard procedure for preparation of a document of a strategic nature.

Slovakia 2030 – Preparation Process

National priorities for Agenda 2030 approved by the Slovak government resolution No 273/2018 were designed in a broad participatory process involving public administration together with private sector, academia and NGOs. The Vision and Development Strategy of Slovakia until 2030 was prepared around national priorities of the UN 2030 Agenda.

The document was drafted in cooperation with a wide range of stakeholders. Expert working groups were established for each integrated development programme, bringing together representatives from the public administration (including analytical units), academia, business sector, socio-economic partners and non-profit NGOs. These groups under the leadership of their guarantors elaborated individual parts of the document. The document then went through the consultation process by individual ministries and a strategic environmental assessment (SEA) pursuant to Act 24/2006 Coll. The consultation process ran between June and September 2019. Subsequently, the document was approved by the Council of the Government of the SR for the 2030 Agenda on 16 September 2019, and the National Convent on Slovakia 2030 took place on 23 September 2019.

However, several new factors have affected the preparation of this document – the adoption of the European Green Deal, the coronavirus pandemic and the new political situation following the February 2020 elections.

It was necessary to take into account the new situation and revise the original document entitled Draft Vision and Development Strategy for Slovakia until 2030. An updated document entitled Draft Vision and Development Strategy for Slovakia until 2030 – A Long-term Strategy of Sustainable Development of the Slovak Republic – Slovakia 2030 – was submitted for comments to the members of the expert groups who participated in the preparation of the original document, beyond the standard consultation procedure by the ministries. Based on the discussion with the SEA manager, the SEA process of the original document remained valid also for the updated document, while the relevant explanatory memorandum was published on the website of the author of the updated document. Subsequently, an inter-ministerial consultation procedure of the document was held in November 2020.

The updated document takes into account all relevant comments and suggestions and streamlines them in the final version of the document.

European Green Deal

The European Green Deal is at the heart of the European Commission's strategy for implementing the UN 2030 Agenda and the Sustainable Development Goals. The main objective of the European Green Deal is to transform the EU into an economy for a sustainable future. The EU is to be a fair, prosperous society with a modern and competitive resource-efficient economy, where net greenhouse gas emissions are reduced to zero by 2050 and where economic growth does not depend on the use of resources. The aim is to protect, conserve and enhance the EU's natural capital and to protect the health and well-being of citizens from environmental risks and impacts. At the same time, this transformation must be just and inclusive in the spirit of the motto "no one is left behind".

Public participation and confidence in the transformation process are key factors in the success and acceptance of relevant policies. The European Green Deal represents the vision that Europe will become the first climate-neutral continent through the following measures:

European Union increasing its climate ambitions for 2030 and 2050

- Securing a clean and affordable energy supply
- Trasforming industries for a clean and circular economy
- Building renovation using energy and resources efficiently
- Zero pollution for toxic-free environment
- Maintaining and improving the air quality
- Conservation and restoration of ecosystems and biodiversity · From farm to fork strategy: fair, healthy and eco-friendly food systems
- Accelerating transition to a sustainable and smart mobility
- Mainstreaming sustainability into all EU policies

Post-Pandemic Recovery Plan for Europe and a streamlined response to the consequences of the corona crisis

The COVID-19 pandemic has affected the society and economy in a significant way emphasising the importance of a functional critical infrastructure of the state. The pandemic revealed vulnerabilities and many characteristics of the current society, such as dependence on international markets and supplies of raw materials and products, and the impact of ecosystems degradation on human health, difficulties in a decision-making process, declining trust of some parts of the population in public administration, and lack of inclusiveness in decision-making. Following a request from the European Commission, the Slovak government has been working on its Recovery Plan in response to the effects of the corona crisis on society. Addresing the effects of the corona crisis also requires systemic measures within the public administration, in particular the introduction of a horizontal approach.

Therefore, according to the recommendations of the International Monetary Fund and the OECD, it is necessary to build more robust institutions and processes, improve strategic planning and prioritise projects. At the same time, investment planning and prioritisation systems need to be strengthened in order to improve budgeting. From a strategic point of view, the prioritisation of long-term investments will build up on the Slovakia 2030 document, featuring in the National Investment Strategy. This strategy will link the objectives, measurable indicators and strategic selection of investments to create a comprehensive framework. The National Investment Strategy will be then followed by sectoral investment strategies.

The need to develop a National Investment Strategy and sectoral investment strategies will be stated in the document on the procedures concerning investment projects that is now under preparation by the Value for Money Department of the Ministry of Finance.

Regional Development

Regional development is not possible without a horizontal approach. Therefore, local governments prepare integrated territorial strategies, which should also contribute to deliver on the 2030 Agenda goals. This will be ensured in any given territory mainly by linking regional planning processes with EU programming processes, specifically in the preparation of the economic development and social development programmes (EDSDP), including also for the strategic planning regions and areas of sustainable urban development.

At the same time, at the national level, there will be sectoral and territorial coordination of investments with the aim to interlink the investment priorities from integrated territorial strategies of self-governing regions and ministries. Slovakia 2030 is thus an instrument of change, bringing solutions where their implementation requires a horizontal (cross-sectoral) and vertical (between various levels of public administration) integrated management as recommended to Slovakia by the OECD in its document Better Coordination for Better Policies, Services and Results.

At the same time, there is a plan to draft a law on sustainable development, which will encompass integrated cooperation of all branches of public administration and will replace Act No 539/2008 Coll. on the Support of Regional Development and Act No 336/2015 Coll. on the Support of the Least Developed Districts and on the amendment of certain laws while creating legislative frameworks for the support of regional development from EU funds.

Natural (functional) strategic planning regions are equally important. They can arise in several ways (integration, disintegration) and can overlap between several administrative units/areas based on previously defined regionalisation criteria.

Strategy for Partnership Agreement

Slovakia 2030 is based around six national priorities defined for the implementation of the UN 2030 Agenda, integrated into three development programmes:

· Resource protection and development
· Sustainable use of natural resources
· Development of communities

The principles of Slovakia 2030 are:

· Environmental and economic sustainability
· Quality of life as a decisive aspect of public policies
· Efficiency, synergy, subsidiarity, self-sufficiency and integration
· Emphasis on priorities

In line with the global 2030 Agenda and the European Green Deal, the central pillar of Slovakia 2030 is sustainability: emphasis on the protection of the environment in Slovakia, strategic planning and sustainable development, streamlining priorities with the development potential of the regions and industrial development based on green transformation and high added value, automation, market services, digital economy, innovation, and research and development.

The European Union ensures synergies between the European and national policies in various ways, including the cohesion policy and use of financial instruments. Slovakia 2030 is a source document for the preparation of the Partnership Agreement for the years 2021-2027 and its implementation through the integrated Operational Programme Slovakia.
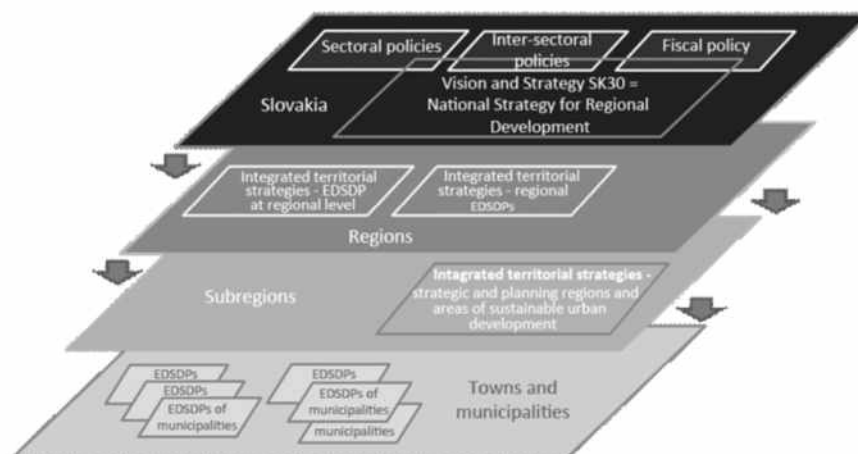

Figure 2: **Cross-Sectoral and Territorial Integration of Strategies within the Implementation of the Vision and Strategy SK30**
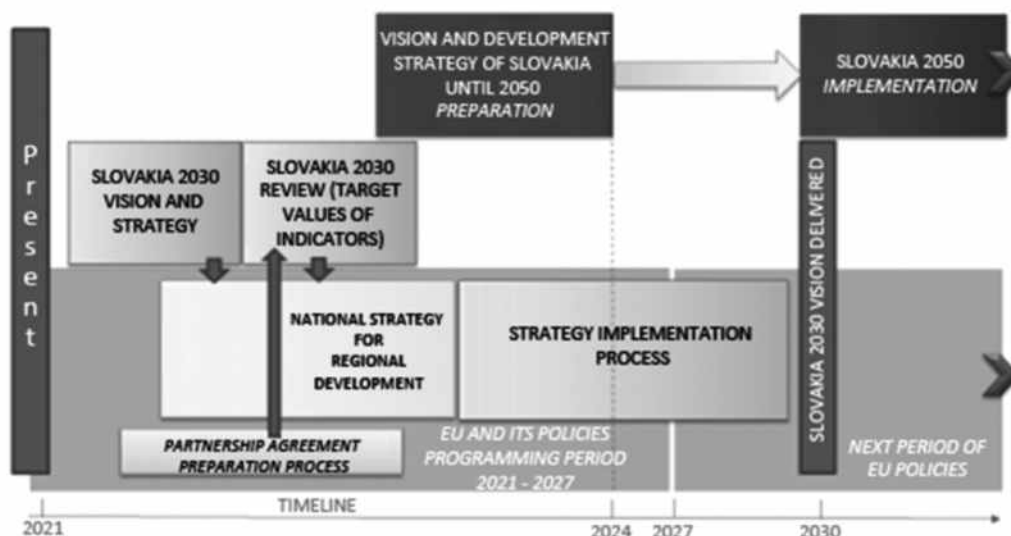
Figure 3: **Vision and Development Strategy of Slovakia until 2050**

The above figure illustrates the preparation of Slovakia 2030 as an umbrella document of the National Strategy for Regional Development in relation to the EU processes and policies, particularly in the framework of the programming period 2021-2027, and the subsequent preparation of the Vision and Development Strategy of Slovakia until 2050.

Implementation of Agenda 2030

Slovakia 2030 is a source document for the creation of policies, especially for ministries, other central administration bodies and local government bodies, which will be guided by it when planning support programmes and development projects. The implementation of the Vision and Development Strategy will bring benefits to the public administration, business sector, civil society and all citizens.

Slovakia 2030 has no ambition to replace sectoral, and more detailed, strategies, nor other development documents and policies. It outlines the main national priorities, sets out the basic tools to achieve them, and sets the implementation and monitoring framework. It is the role of governments and their political priorities to fill these basic frameworks with appropriate content.

The priorities and goals of the approved document Slovakia 2030 will be subsequently developed in new or updated sectoral strategies of various bodies of central administration, programmes of economic development and social development of self-governing regions, towns and municipalities, and reflected in the National Investment Plan, implementation documents for the European Green Deal (as an integral part of the EU strategy to deliver on the 2030 Agenda and the SDGs), and in the preparation of the programming period 2021-2027, in particular of the Operational Programme Slovakia.

Document Structure

The content and structure of the document respond to the main challenges not only at the national level but also in individual specific regions of Slovakia. At the heart of Slovakia 2030, there are three integrated development programmes defining priorities and goals in the key areas of development: protection and development of resources, their sustainable use and the development of communities. They are understood as cross-cutting, integrating issues related to various ministries and various levels of state administration and local government.

Each development programme, backed by the results of extensive analytical work stated in the introductory part of their description, is defined by:

· the goal of integrated development programme
· the expected key change to be achieved by its implementation
· key tasks needed to achieve the desired change

Annex 1 to the document outlines a specific position of Slovakia 2030 as the National Strategy for Regional Development of the Slovak Republic, and Annex 2 sets out the basic concept of progress indicators and their monitoring.

Vision as the basis for the Development Strategy of Slovakia until 2030

Slovakia is a country with a high standard of living, good-quality public services and a healthy environment for all citizens. Slovakia's development is based on vibrant regions with educated and productive human capital, a functioning economy and good-quality infrastructure. Economic development is based on innovation and high value-added industries, leading to an increase in the living standards of the population and a sound work-life balance.

As an integrated development strategy, this document aims not only to reflect and specify priorities of the UN 2030 Agenda and European Green Deal for Slovakia, but also to provide a framework for national public policies and development policies of regional and local governments in order to ensure their coordination, synergy, stability and a more efficient use of public resources.

The priorities and goals of the long-term strategy of sustainable development will be further elaborated in the National Investment Plan, sectoral strategies of individual bodies of the state administration, in the economic development and social development programmes of self-governing regions, towns and municipalities, and they will also be reflected in the preparation of the EU's new programming period 2021-2027, mainly in the Partnership Agreement and Operational Programme Slovakia.

Since the document "Vision and Development Strategy of Slovakia until 2030" will be the key strategic document for the future development of Slovakia until 2030, once it is published in its final form, the journal TERRA SPECTRA Planning Studies will publish its full text in the next coming issue.

REVIEW

Jakub Hajduk

SUBURBANIZATION
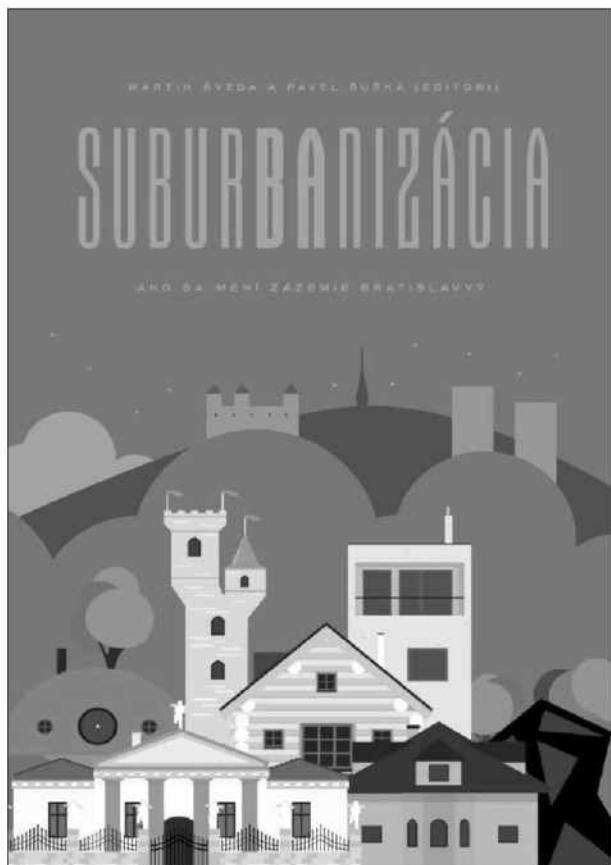
Suburbanizácia
- AKO SA MENÍ ZÁZEMIE BRATISLAVY?

editors:
M. Švedna
P. Šuška

Geografický ústav SAV, 2019, Bratislava

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The book sets out to provide analytical disclosure of the currently ongoing processes of suburbanization of Bratislava and its surroundings. Each chapter asks a question, which is later answered and explained by individual authors and authors groups, through specific studies. In addition to their own empirical findings, the contributors also present their own conceptualisations of social and spatial relationships shaping specific research perspectives.

This logic provides for a unique perspective and allows the reader to dive deeper into the subject without the requirement of being familiar with the topic.

The book itself consists of twelve chapters, each focusing on different aspect of suburbanization. In the introductory chapter, the authors Pavel Suška and Martin Šveda explain the term of suburbanization in an easy to understand manner, which is later supplemented by a clear overview of the historical and logical explanations of suburban development in the area of the Slovak capitol.

Following chapter, written by Martin Šveda consists of the presentation of visible manifestation of suburbanization in the country, further explaining its necessity as a requirement for any settlement. The author later dives into residential construction and its spatial forms, seeing it as not only information on the volume and spatial distribution of housing construction, but also as a report on current preferences in housing, which are characterized by individualism, privatism and functional purposefulness with a minimized range of non-residential areas.

These facts provide for empirical basis for the specification of spatial planning tools that have not been in this area fully and comprehensively applied . The book continues to describe the effects of suburbanization on the rural landscape, transforming it into a newly fragmented form. In chapter 3, Róbert Pazúr, Zuzana Pazúrová and Ján Oťaheľ focus on the evaluation of changes in land cover based on quantitative analysis of satellite images capturing the situation in several time segments. Authors continue to cover the post-socialist period and its complex transformations and severe and often brutal interventions to the countryside. In addition to the increase in built-up areas, the country also raises important environmental issues related to conservation landscape-ecological structures. Areas of permanent crops (orchards, vineyards), so typical for suburban environment of Bratislava, are gradually disappearing under the onslaught of residential construction.

In Chapter 4, Michal Bogár notes the potential of the Bratislava Green Belt, whose formation is more a consequence of natural conditions and political-historical development (iron curtain) rather than targeted or

systematic building through spatial planning. The author later anaylises the development of Western European cities, which encourage Slovakia to deal with potential undeveloped territory with increased sensitivity. According to Michal Bogár, the Bratislava green belt should be gradually acquired the status of a comprehensive protected area, which has the potential to make a real contribution to guiding the hitherto natural nature expansion of the city.

Chapters 5 and 6 focus on analysing the population change in the terms of migration, as well as their age and educational structure. Through analysis of population processes Peter Podolák and Martin Šveda document that since 1989 Bratislava witnessed the first gradual, later accelerated development of suburbanization, which manifests itself decentralization of the population from Bratislava to its hinterland. Furthermore, it was discovered that the flow of suburbanization of Bratislava is supported by practically the whole country. The processes were evaluated to be opposing to the pos-socialist development of Slovakia, representing a major change in spatial distribution of the residents. It was discovered that this resulted in forming a centre of a supranational scale, in other words, creating a Bratislava metropolis.

Following chapters, Martin Šveda and Peter Barlík aim to create a comprehensive understanding and a complete picture of population change via the presented migration flows and continue to present it as underestimated. Pavel Šuška, Martin Šveda and Ján follow the analysis of population changes in Chapter 7, primarily noticing how the influx of migrants is reflected in electoral behavior, thus the authors try to clarify, at least in part, the issues of changing cultural norms and value anchors in relation to suburbanization. They further analyze how urban parties, in our cultural environment, especially center-right civic parties, are asserting themselves in the originally rural environment.

The following chapters discuss the changes of functions in rural areas and how the suburbanization changes the nature of these settlements, often not being supported by sufficient amenities. Anton Michálek partially disrupts the traditional idea of living in the city hinterland as a safer environment, as the image of rural Slovakia with more expensive housing become more crowded, therefore bringing criminal elements of a city to suburban zones. Naturally, the development of suburban zones needs to be supported by infrastructure, which is often not the case. In Chapter 11, Daniel Michniak points not only to the increase in traffic intensity at key nodes of the transport network, but also to the need for system support for public transport modes.

The closing chapter attempts to reveal the causes of the different manifestations of suburbanization processes in the rural areas of Bratislava region. The presented analysis captures key trends from a spatial point of view and documents that processes of different nature, directions and intensities are taking place in the background of the city, the result of which is a diverse mosaic of spatial and social structures. The book offers readers a clear and easy to understand outlook on both historic development of suburbanization, as well its current reasons and issues. Its graphic processing provides for graspable benefits even for the most unexperienced readers in the topic. It is clear that the current suburbanization process, more precisely residential developments are rarely synchronized with parallel infrastructural developments, which often lower the standards of living and produce more issues than solutions. The resulting regional typing of the book allows us to better understand the multi-layered reality of these processes and dives deeper into the issues connected to the suburbanization processes.

Milan Husar

AESOP 2020 HEADS OF SCHOOLS MEETING

Figure 1: **Prof. Dr Angelique Chettiparamb, Prof. Dr. Benjamin Davy and Prof. Maros Finka
at the Head of Schools of Meeting held in Vienna**

(Source: author)

The annual Heads of Schools (HoS) meeting, prepared under the Association of European Schools of Planning, was organized between 11th and 14 March, 2020 at Vienna University of Technology in Vienna. It was a very unique meeting of the AESOP community as the global corona crisis has become more and more acute in the week of the AESOP conference, and so the organizers in Austria were suddenly forced to cancel events that exceed a certain number of people. Some members of AESOP have already decided not to attend the conference under these circumstances. Others have already arrived.

The HoS meeting is an annual forum for planning education, usually held in Spring (March- April), where AESOP is happy to welcome delegates from its member schools, whether they are Heads of the Schools or any key persons designated by them, to discuss main problems and challenges for planning education across Europe.

During the first day, a meeting of the AESOP Executive Committee (ExCo) took place. The ExCo operates with delegated powers on behalf of the Council of National Representatives (CoRep) and is subject to its authority. The second day was dedicated to the AESOP Council of Representatives (CoRep) meeting where representatives of AESOP member schools are invited to take place, discuss

the current issues related to planning education and decide on resolutions. All the powers of the AESOP rest within the Council of Representatives which is a body elected by Full Members. Among other functions, it defines the policies and programmes of the Association and elects the Officials of AESOP.

The second half of the HoS meeting is usually dedicated to conference-like event with keynotes, workshops and study tours in the organizing city. However, this year's meeting took place few days before the CoViD-19 restrictions in Europe began. This impacted also the presence of country representatives leading to threatening the quorum. The AESOP Charter states that the CoRep cannot validly meet unless 15% of the Council members are present, provided that at least 50% of the attending Council members are National Representatives. The Charter also does not specify the presence of national representatives and therefore the representatives not able to come to Vienna could join virtually using online platforms. Due to the beginning of pandemics and high uncertainty, it was decided that the second part of HoS will be postponed to 2021 and the meeting shall take place in Vienna in 2021. Some of the most important decisions taken during the HoS meeting was cancelation of the annual AESOP Congress and other events.

Figure 2: **One of the first hybrid meetings of the CoViD-19 crisis**

(Source: author)

This was rather shocking as it did not take place during the 30-year history of AESOP, but safety measures and the surrounding uncertainty of development of public health situation necessitated this unprecedented move.

The special conditions in which the meeting took place opened the discussion on how the meetings shall take place in the future. Previously it was hard to imagine that these events are done online or in hybrid form on regular basis, but the pandemics catalyzed this shift. It turns out, it can never fully replace face2face presence, but also considering the impacts of frequent travels on environment such meetings should continue to be more frequent in the future when the pandemics will be over, too.

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