

# **Spatial (in)justice in coal regions in transition. The case of Post-Mining Regional Strategy in Western Macedonia**

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## **Abstract**

Since the mid-50s the Region of Western Macedonia started its coal intensive development pathway, due to its significant lignite reserves. However, during the last decade the lignite industry in the region is in decline. At the same time regional economic growth was based on one-dimensional characteristic, and was focused on the energy sector, with all the traits of pathogenesis established through the years. Within this context, this paper addresses the issue of spatial justice and place-based strategies in the region of Western Macedonia which has currently been included by the EU as one of the 41 coal regions in transition. In particular, what is attempted is to test the case of 5-years Spatial Development Plans based on funding by the Public Power Corporation (PPC), and which reflects the region's long-standing and fair demand against the environmental degradation due to the use of a non-renewable energy resource, such as lignite. The paper attempts to examine place-based practices through the lens of spatial justice, investigating whether a focus on localities would be better able to deliver the demands of spatial justice. The concept of spatial justice indicates a fair and equitable distribution in space of socially valued resources and opportunities. The hypothesis to be tested is that equity in socially valued resources and opportunities can be achieved through place-based strategies. Based upon empirical material collected in 2018, within the framework of RELOCAL project (H2020, [www.relocal.eu](http://www.relocal.eu)), this contribution attempts to shed some light on the aforementioned research hypothesis.

**Keywords:** spatial justice, place-base policies, locality, coal transition regions

**JEL** classifications: O21, O32, O43, O47, R11, R58, H12

## **1. Introduction**

The concept of spatial justice indicates a fair and equitable distribution in space of socially valued resources and the opportunities to be used (Morange and Quentin, 2018; Madanipour et al. 2017). In the same vein, spatial (in)justice refers to an intentional and focused emphasis on the spatial or geographical aspects of justice and injustice (Soja, 2010). In terms of policy-making, an interesting question to be explored is whether the effectiveness of spatial justice can be associated with localisation and place-bound policy. Within this context, the particular contribution attempts to examine place-based practices through the lens of spatial justice, investigating whether a focus on localities would be better able to deliver the demands of spatial justice.

Given that background, this paper addresses the case of post-mining regional strategy in Western Macedonia, examining the relationship between place-based practices and spatial justice. To begin with the lignite history of the region, it is worth noting that since the mid-50s, Western Macedonia started its coal intensive development pathway. As a result, the regional economic growth was based on one-dimensional characteristic focused on the energy sector, associated with all the traits of pathogenesis established through the years. At this point it is worth noting that during the last decade the lignite industry in the region is in decline.

On the above basis, what is attempted is to test the locally-driven action of 5-years Spatial Development Plans which are based on funding by the Public Power Corporation (PPC). The action reflects the region's long-standing and fair demand against the environmental degradation due to the use of a non-renewable energy resource such as the lignite. The hypothesis to be tested is that equity in socially valued resources and opportunities can be achieved through place-based strategies. Based upon empirical material collected in 2018, within the framework of RELOCAL project (H2020, [www.relocal.eu](http://www.relocal.eu)), this contribution attempts to shed some light on the aforementioned research hypothesis.

The paper proceeds as follows: the next section briefly outlines the discussion on the relevant literature, while section 3 focuses on policy making at the EU and national level. Section 4 presents the empirical analysis and interpretation of the data gathered. The last section provides the conclusions and puts into the limelight some policy implications of this research.

## **2. Place-based policies as component of 'spatial justice'. A brief theoretical review**

Spatial justice is defined by Edward Soja (2010) as the fair and equitable distribution in space of socially valued resources and the opportunities to be used. From this point of view, the social and the spatial processes are mutually inter-correlated, since social processes are spatially reflected while spatial processes influence the social processes. In other words, spatial justice is the spatial dimension of social justice (Soja, 2010). According to Morange and Quentin (2018), social and spatial justices are multifaceted and overlapping theoretical concepts, with a strong normative character and a wide variety of different understandings. Put differently, social and spatial justices are fuzzy and overlapping theoretical

concepts, with a strong normative character and a wide variety of different interpretations (Morange and Quentin, 2018). Overall, both see the distribution of resources as a key factor in identifying (in)justice, with social justice focusing more on the distribution between social groups, and spatial justice more on the geography of distribution (Madanipour et al. 2017).

The paper's research hypothesis is that the processes of localisation and place-based public policy can make a positive contribution to spatial and social justice. In other words, equity in socially valued resources and opportunities can be achieved through place-based strategies. Moreover, given that spatial justice is examined at inter-local and intra-local level, the focus on the locality includes both an investigation into social and spatial justice within the locality and across localities.

There is ample evidence in the literature that spatial and social justice combines two important forms of justice, the distributive and the procedural one. In particular, distributive justice is focused on identifying the patterns of exclusion and unfairness as well as the perceptions of spatial injustice, while procedural justice focuses on actions and institutional arrangement that can combat spatial injustice (Fischer and Iveson, 2012). According to the distributive paradigm, an equal distribution of goods, services and opportunities is the basic prescription for justice. Remarkably, for the procedural paradigm, what matters are just institutions and procedures that are necessary to have a just society (Madanipour, Cars and Allen, 2003; Madanipour et al, 2017, Soja, 2010).

From this perspective, the idea of place-based approach is of particular importance in this discussion. The influential Barca report defines a place-based policy as 'a long-term strategy aimed at tackling persistent under-utilisation of potential and reducing persistent social exclusion in specific places through external interventions and multilevel governance' (Barca, 2009). Place-based policies could be exercised either through a redistributive logic, where emphasis is given on ensuring a better balance in access to resources and opportunities across the space, or through an emphasis on localities, as the Lisbon Strategy does, based on the endogenous competitive potential of each territory (Madanipour et al, 2017). Especially, the issue is whether there is a rationale for inequality to be tackled by a place-based development policy rather than by financial transfers (redistributive justice) to people, independently of where they live.

The EU territorial cohesion, as one of the key arenas of EU public policy, has been the main investment instrument. It provides benefits for all regions and cities in the EU and supports economic growth, the creation of jobs, business competitiveness, sustainable development and protection of the environment. By embedding territorial cohesion into more spatial realms, it seeks to tackle place-specific problems that have the potential to undermine the attempts to establish the European Union as a strong political and economic territory (Jones R. et al. 2019). The European Commission in the third Report on Economic and Social Cohesion (EC, 2004), stated that it wanted 'to help achieve a more balanced development by reducing existing disparities, preventing territorial imbalances and making both sectoral policies which have a spatial impact and regional policy more coherent'. In the same document, the Commission argued that the conflict between solidarity and efficiency in

cohesion policy can be overcome using a notion of territorial capital, or 'place-based policy' which was taken-up later also by the Barca Report in 2009 (Sarmiento-Mirwaldt 2015).

In bibliography a tension can be identified over the relationship between aggregate efficiency and the focus on local specificities. Some scholars argue that, 'spatially-blind' or 'place-neutral' policies may represent the best option to promote economic growth and facilitate the catch-up of lagging areas, but for others this would be best served by place-based development strategies (Barca et al, 2012). In the same line, there is a debate over 'whether efficiency should be concentrated in the core or there is potential for growth and development in every territory' (Barca, et al, 2012).

Camagni and Capello, (2015), in an attempt to provide a critical examination of the tensions between spatial-blind and place-based approaches, pointed out that the New Economic Geography school first, favoured among others by the World bank, emphasizes the 'superior efficiency of large metropolitan areas and the need to support them for the sake of aggregate well-being ...with favour openly expressed for the efficiency goal and 'space-blind' policies. Contrary to this, place-based regional policy, advocated by such organisations as OECD and the Barca Report (2009), is based on 'place specificities and territorial assets, designed in a transparent and inclusive way by local actors' with the support from multi-level governance. Put differently this conflict, the aggregate efficiency approach calls for "a national and mainly institutional intervention with no concern for territorial specificities' while the place-based approach calls for 'a regionalized, bottom-up intervention concerned with local institutions and providing both a method for devising good and shared projects and financial support'.

Scrutinizing correlations between social and spatial justice and sustainability, it should be noted that sustainable development can theoretically be understood in terms of inter-generational and intra-generational justice (Brundtland 1987). However, while the concept of sustainable development inherently includes a reference to social justice across generations, social equity and spatial justice have not often been placed at its centre. Nevertheless, the concepts of social and spatial justice cannot be separated from environmental justice. As the problems of environmental degradation and climate change are global problems, it has been argued that local, place-based solutions are not sufficient (Rees, 2015; 2017). Of utmost importance to this paper, is whether the pursuit of inter-generational justice due to environmental degradation, must necessarily be at the expense of intra-generational justice, affecting people and places disproportionately. Might it be possible to pursue both inter-generational justice and intra-generational justice through focusing simultaneously on the processes which lead to injustice and the processes which lead to environmental degradation? The relationship between territorial cohesion, spatial justice and sustainable development might therefore be conceived in terms of processes underlying inter-generational and intra-generational spatial injustice and their coupled relationship to development, growth and competitiveness.

### **3. Policy making at the EU and national level**

Upon revising its energy and climate legislation with the 'Clean Energy for All Europeans' Package, the European Commission adopted a series of 'enabling measures' aimed at supporting regions and sectors deemed most vulnerable to the transition. Coal regions (i.e. regions with ongoing coal mining activities) were identified as a priority area of intervention for the EU, due to their high reliance on coal-related activities for generating revenues and supplying jobs to local communities.

In December 2017, the European Commission launched its Platform for Coal Regions in Transition, an open, multi-stakeholder Platform gathering all relevant actors from the EU's coal regions, namely: national, regional and local governments, regional development bodies, coal mining companies and utilities, business and industry associations, trade unions, research and academia, think tanks, NGOs and civil society organisations (EC-JRC, 2018).

Today, the Platform covers 41 regions in 12 EU countries, with a most active participation from Poland, Germany, Czech Republic, Slovakia, Romania, Greece, Spain and Slovenia. Over 900 stakeholders have engaged on a more or less regular basis in its activities. It is worthy to be noted that Western Macedonia had been selected as one out of three pilot regions by the EU.

The purpose of the Platform for Coal Regions in Transition is to: (a) Create a sense of community between stakeholders, by allowing them to exchange opinions on their common issues, challenges and possible solutions; (b) Develop a common understanding of what a just, well-planned transition is and (c) Engage all stakeholders in discussions on a positive agenda, focused on the future development of the region, in order to build bridges between the (often-polarised) positions of different stakeholders.

To this end, instead of focusing debates on divisive issues such as phase out dates, Platform participants acknowledge that economic conditions and climate policies make the transition away from coal inevitable, and that preparatory measures have to be designed and adopted to ensure a 'just transition' and avoid the consequences of an unplanned exit from coal. This approach has proved successful in engaging stakeholders to discuss and shape together a common vision of a future-proof, climate-friendly development of coal regions, benefiting the regions and their inhabitants.

In practice, the Platform for Coal Regions in Transition organises events at two different levels: (a) Working group meetings are convened three times a year, gathering around 300 participants from all stakeholder groups to discuss transition-related issues at a technical level; (b) An annual political dialogue is organised once a year in an EU coal region. These events gather political representatives and leading stakeholders to engage in more strategic discussions about the progress achieved and the future of the initiative. Discussions held in the Platform also guide the European Commission in the direct support provided to pilot regions, focusing on strategy and/or project development.

The new EU political context, with a greater focus on energy, climate and just transition issues, will be particularly favourable for the development of the initiative. The scope of the Platform will be enlarged to regions with reliance on the extraction of other solid fossil fuels (e.g. peat, oil shale), starting already in 2019 with the participation of Ireland. The Platform will also open to the international level, connecting to other national, regional and global initiatives, more and more numerous and active on the issue of coal transition.

The EU, under EC SRSS has financed the World Bank to act as technical consultant, in order to develop a Master Plan entitled 'Regional Economic Transition Towards a Low Carbon Economy in Western Macedonia. The regional transition is aimed to be based on a holistic approach to the intervention area with three dynamically interconnected issues that will respond simultaneously to the questions "where?", "who", "why" and "with what". The Master Plan is articulated upon three pillars: First, Spatial Planning which means post-mining scenarios referring to this huge land plot. Second, a comprehensive Governance Model tackling with the transition management and finally a clear institutional, legislative and financial framework.

At a national level, the Greek Government has established in 2018, the Just Transition Fund for the lignite areas, in order to finance sustainable development actions providing a budget of 60 M€ during the period of 2018-2020. The funding priorities are related to the Region's Smart Competitiveness Strategy, as well as past development plans and proposals, promoting the development of clean energy, energy saving, circular economy, primary sector, exploitation of industrial heritage and integrated intervention programs. The main aim of the program is job creation and entrepreneurship support.

At a regional level there was established the Regional Development Fund of Western Macedonia in 2016. The Fund reached its operational status in 2018. It is co-funded by the Public Power Corporation, through compensatory supporting actions, and the Hellenic Fund for Entrepreneurship and Development. It aims to support local SMEs in the form of small low interest loans. Strong emphasis is being given on projects with substantial added value to the local economy. The Fund will invest 10 M€ in a minimum of 200 innovative business plans. Last but not least, the Region of Western Macedonia formed, in late 2017, a working group to support the technical and administrative work to be carried out throughout its participation in the Coal Regions in Transition Platform.

## **4. Empirical Evidence**

### **4.1 Methodological framework**

The empirical research of this paper, tests the hypothesis that the processes of localisation and place-based public policy related to post-mining regional strategy, can make a positive contribution to spatial justice. The research has been undertaken within the framework of the RELOCAL project (H2020, [www.relocal.eu](http://www.relocal.eu)). The RELOCAL project aims to identify factors and policies that condition local accessibility of European policies, local abilities to articulate needs and equality claims and local capacities for exploiting European opportunity structures. RELOCAL departs from the basic premise that the notion of 'place' may precondition the chances of

local policies and action to successfully promote fairness and well-being.

The selection of the present case-study in Western Macedonia has been based on methodological guidelines, defined by the research consortium, specifying the notions of 'locality' and 'policy-driven action'. In more detail, locality is defined as multifarious and porous, at the intersection of vertical, horizontal and transversal forces (Madanipour et al., 2017). Within this context, the locality should exhibit obvious challenges of spatial justice and coping strategies for improving living conditions. Moreover, stakeholders from the chosen locality should have identifiable vision(s) and preferably a long-term action plan that addresses spatial justice and shows a connection towards agencies of local/regional groups, stakeholders, scales. The long-term policy-driven action should address spatial justice, initiated by a governmental body and they need to have an identifiable impact on the locality.

In the above methodological framework, and in order to investigate the interaction between the 'locality' and the 'action', qualitative methods were combined and process tracing techniques focused on the causal factors were sequenced (Blatter and Blume, 2008). To meet these requirements and to obtain a holistic view, interview techniques, critical text analysis and participative observations have taken place (Yazan, 2015). Expert interviews with key stakeholders have been the most important source for case study evidence. The in-depth analyses' objective was to obtain a holistic picture of the particular case under consideration. In this context, 20 formal interviews were conducted with representatives of stakeholders, mainly face-to-face, employing a snowballing sampling technique. Certain viewpoints articulated within interviews with policy-makers and practitioners proved to be helpful sources to develop a well-nuanced picture.

Moreover a workshop that had the character of a 'symposium' and 'focus group' meeting has been organized. The purpose of this approach was to provoke a brainstorming of ideas and reflections through an open and free discussion, based on the critical questions addressed by the research team, with an emphasis on the association of spatial justice with place-based practices. The meeting was attended by local stakeholders, executives with experience in the design and implementation of European, national, regional and local policies, as well as representatives of the academic community, specializing in regional development issues. At the beginning of the event, it has been presented to the participants, the philosophy and objectives of the RELOCAL project, the content of the concept of 'spatial justice' in the present research, the characteristics of the particular Case Study and their basic findings. Then, with the help of an experienced moderator, a very interesting and open discussion was conducted which the research team was constantly supplying with new triggers and material in order to have a continuous interaction. The accumulated experience and expertise of the participants in the discussion contributed to the successive discussion cycles of the topics that emerged each time, and ended with the formulation of the final conclusions.

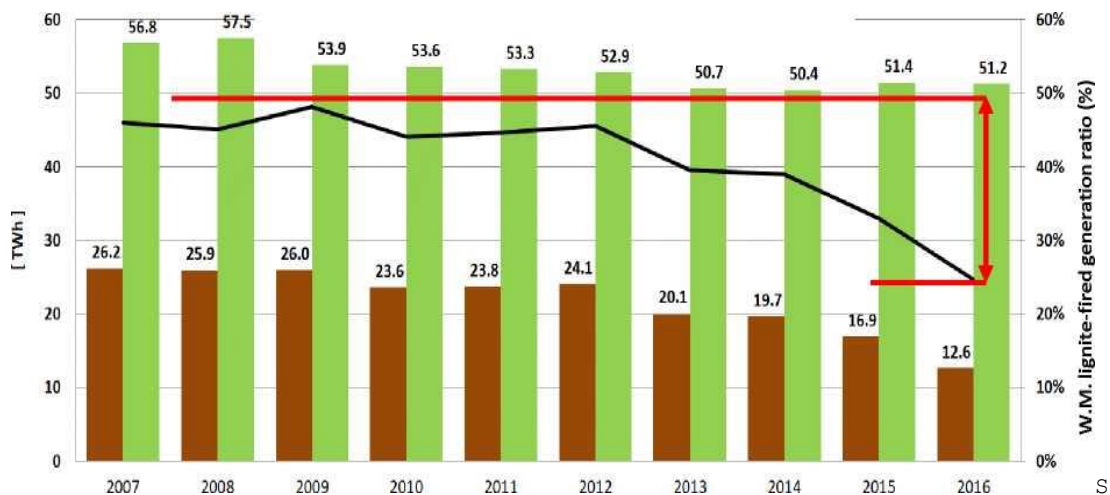
#### **4.2 The locality's profile**

Western Macedonia is the only landlocked Region in Greece. The Region's area covers 9.451 km<sup>2</sup> (7,16% of the total country). The population is at 283.689 (data 2011) inh. (2,62% of the total

country) and the density is at 30,02 inh/km<sup>2</sup>. Since mid-50s the Region of Western Macedonia started its coal intensive development pathway, due to its significant lignite reserves. The integrated exploitation of domestic lignite deposits was a national strategic decision, supported by all Greek governments. As a result, the region supplies electricity to the Greek interconnected system since 1960, acting for several decades as the Greek energy pillar of economic growth due to the electricity low cost and utilisation of domestic energy sources. Lignite activity includes open-cast mines over a total area of 160 km<sup>2</sup> and currently 4 lignite fired power plants of 12 units are in operation, representing 40% of thermal units and 20% of the total installed net capacity of the interconnected system in Greece (Petrakos et al, 2019).

Based on mining activity, Western Macedonia's energy axis of Kozani - Ptolemais - Florina is ranked first in the Balkans, second in Europe and sixth in the world. The lignite mining in the Region during the period between 1956 and 2006 was in the magnitude of 5.4 billion m<sup>3</sup> total excavated soil (except Meliti mines), while respectively the lignite production amounted to 1.2 billion tons. At the peak of the lignite production, more than 34% of the Gross Added Value of the Region of Western Macedonia, about € 1.5 billion, was coming from the mining and energy sector.

**Figure 1: Evolution of electricity generation from Western Macedonia lignite in the interconnected system of Greece.**

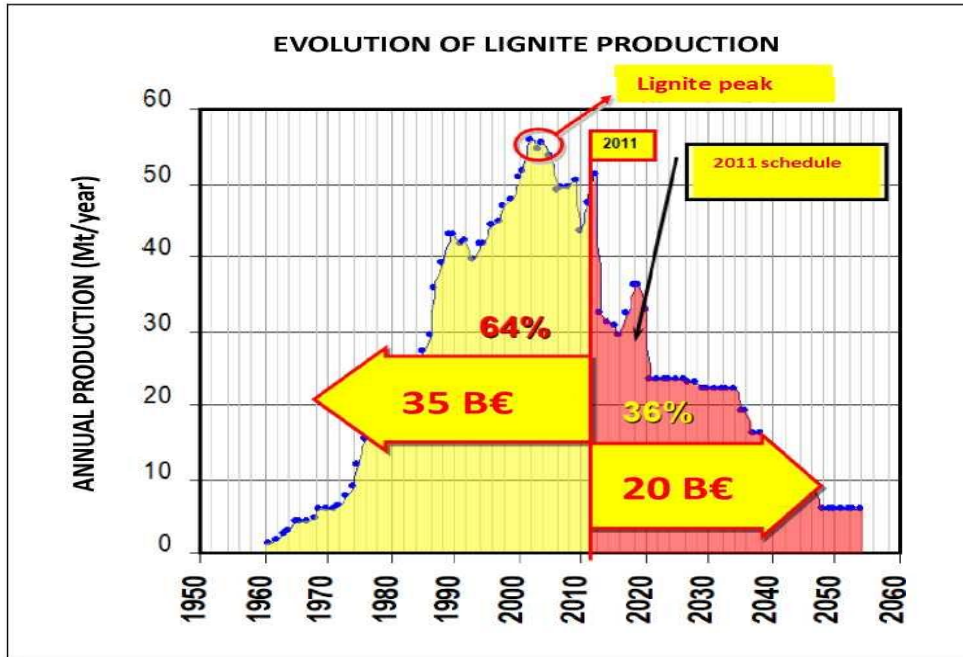


Source: Technical Chamber of Greece / Department of Western Macedonia, Western Macedonia Coal Platform Team, 2018

During the last years the lignite industry in Western Macedonia is in decline, shrinking its share in the energy mix, as depicted in Figures 1 and 2. Western Macedonia's contribution to the overall national electricity production has been severely diminished.



Figure 2: Evolution of lignite production in Western Macedonia



Source: Technical Chamber of Greece / Department of Western Macedonia, Western Macedonia Coal Platform Team, 2018

The Region's input to the Greek energy mix has been reduced from almost 50% (2009) to less than 30% (2016). In particular, from 2009 until 2016 there is a significant deterioration of the situation compared to the previous years. From 30.5 TWh and 58% participation in the country's energy mix in 2009, lignite dropped below 15 TWh and 29% in 2016. This decline is a consequence of a mix of energy policies, technological developments, economic data and administrative interventions (Western Macedonia Coal Platform Team, 2018).

A first phase of local lignite industry shrinkage occurred during the period 2010 - 2015, where 663 MW of the oldest lignite-fired units have ceased operation. In parallel, lignite electricity production has lost its significant position in the Greek energy mix. A second, more severe wave of lignite sector reduction will occur in 2020. It is due then the 6 lignite-fired units' (with 1812 MW capacity) planned operation termination, according to the existing environmental limitations. By 2030, 4 units of 1220 MW capacity will reach their lifetime, leaving only 15% of the initial lignite capacity in operation in the region. A new lignite fired power plant of 660 MW will start its operation by 2022. On the top of all these, the Greek Prime Minister has announced at the UN Climate Action Summit in New York in September 2019, that Greece will close all its lignite-fired power plants by 2028 at the latest, marking an historic opportunity for transition to a renewable energy future.

According to the proposed National Strategy for Adaptation Measures to Climate Change, Ministry of Energy (2015), where the Greek regions' vulnerability was examined in terms of economic activity sectors, it was estimated that the local negative impact could

possibly be fourfold compared to other Greek regions, mainly derived from the reduction of lignite mining activity. It should be noted that 22.5 thousand of direct, indirect or inductive jobs are related to the power production industry (2009). Based on an input-output model elaborated by ANKO Development Agency, (2015), for each permanent staff position in the lignite mining and power production, 3.28 positions are created and maintained in the local labor market. In other words, for each euro spent by PPC in salaries and sub-contracting, more than three euros are inductively generated to the local economy cycle. Also, it should be mentioned that the current local unemployment rate is approximately 30%, while the unemployment rate among young people (72,5%) is the highest at the European Union level. It is estimated that in case of no Regional supporting actions, the unemployment in Western Macedonia in 2050 will rise above 40%, while in Kozani and Florina it will exceed 52% and 38%, respectively (ANKO, 2015).

Paradoxically, this one-dimensional approach, that defines the prosperity level of an area solely through the per capita GDP, does not correspond to the total developmental reality of the region. The region is placed in the phasing out regions of the EU-27 because of the PPC, augmenting the regional GDP. As a result, neighboring regions and even the metropolitan area of Thessaloniki has a higher rate of funding, reflecting spatial injustice. On the other hand, however, in terms of spatial justice, the area has cheap heating costs due to district heating based on PPC activities. Approximately 100.000 citizens of Kozani, Ptolemaida and Amyntaio use district heating systems powered by lignite power plants. Plus, the area has good living conditions characterized by low crime rates, lack of huge traffic etc. In addition, the region has the most surface water in Greece, many protected areas and plenty of noteworthy natural and cultural resources, which could be significant assets to the prospect of a new post-mining regional strategy (Petrakos et al, 2019).

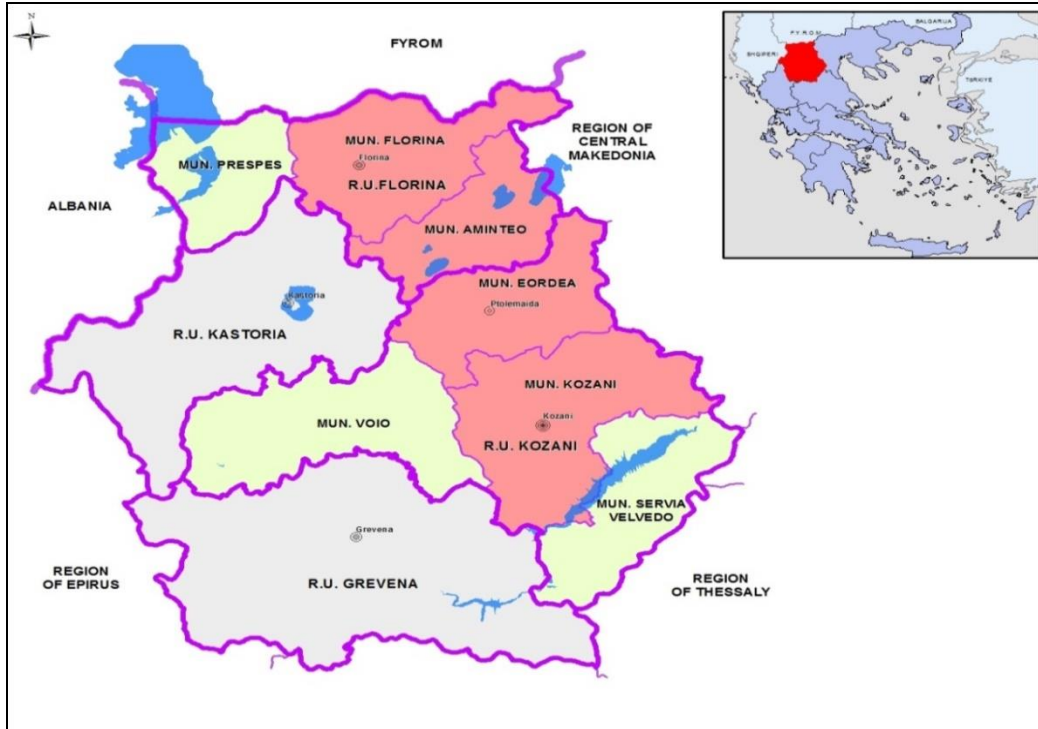
It is evident that the regional economic growth was based on one-dimensional characteristic, and was focused on the energy sector, with all the traits of pathogenesis established through the years. Traditional professional skills have been substantially confined. A high negative environmental impact was caused, with strong pressure both on human and natural environment (Petrakos et al, 2019). The Western Macedonia Region productive system, based on conditions of one-dimensional growth, presents a limited range of flexibility in terms of its sectoral structure. The system is extremely vulnerable either to the declining economic activities or even more to situations of general economic crisis. For example, decommissioning of 300 MW capacity would deprive the local economy of 83 million EUR on an annual basis. Economic crisis which has been affecting the country since 2008, found Western Macedonia Region unprepared to cope with its effects, since, regional crisis had existed beforehand. This fact has led to a significant recession, affecting negatively the regional per capita GDP (80% of the average between the EU27). Within the above context, the differentiation of local economy towards a multi-sectoral model of economic growth is of utmost importance taking into consideration the specificities of locality, place-based approaches and tailor-made solutions (Western Macedonia Coal Platform Team, 2018).

#### **4.3 The locally-driven action**

The policy action addressed in this paper, is the Special Development Program (S.D.P.) of Western Macedonia Region. The program is legally

launched by the Greek Ministry of Environment and Energy imposing a special Development Levy, which is based upon the energy production at local level (0.5% on the turnover of the P.P.C).

**Map 1. The energy (red color) and non-energy (green color) Municipalities of the Western Macedonia**

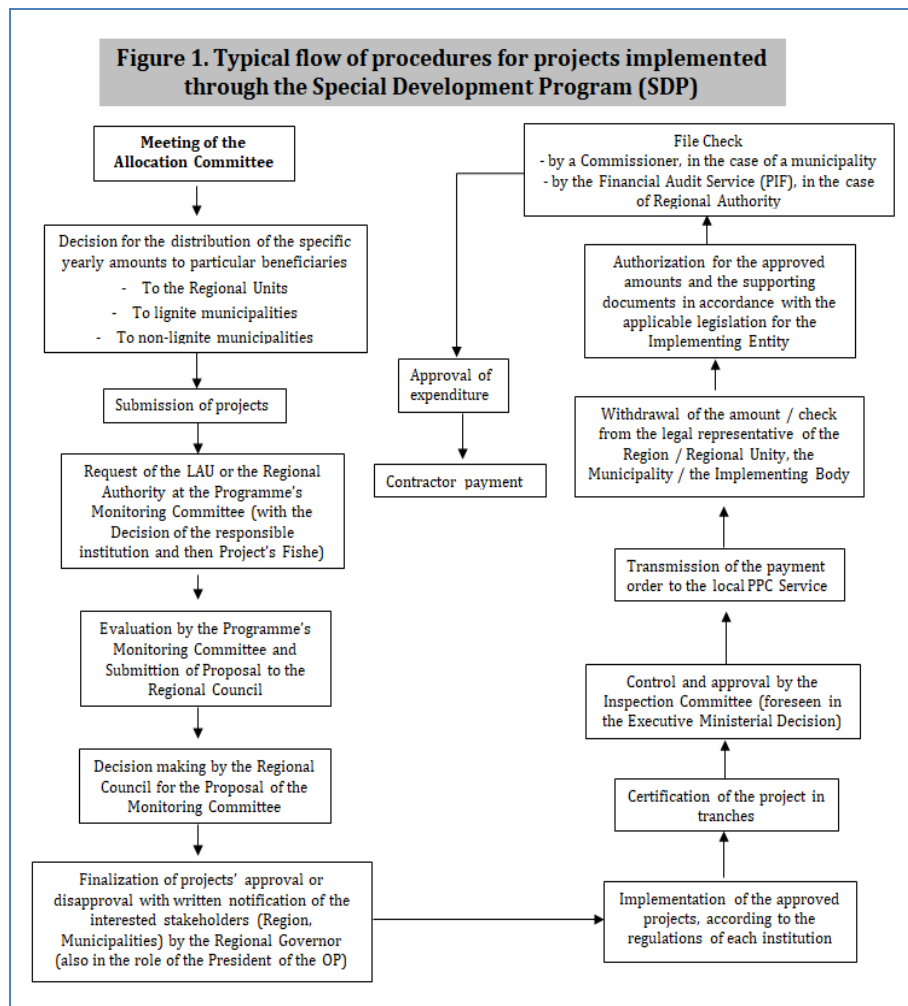


Source: ANKO Development Agency

The S.D.P. acknowledges that Western Macedonia is facing high environmental pressures due to industrial, mining, and energy production activities, which produce dangerous waste, deplete natural resources, and threaten the quality of life. For the determination of the development priorities and the particularization of the actions to be implemented, a Special Development Program (S.D.P.) is being elaborated by the Region every 5 years. Until now, there have been implemented 4 SDPs: 1st S.D.P. (1997-2001), 2nd S.D.P. (2002-2006), 3d S.D.P. (2007-2011) and 4th S.D.P. (2012-2016).

Based on the research hypothesis, the S.D.P. represents an action to deliver/improve spatial justice. More specifically, the S.D.P. concerns environmental protection projects and also infrastructure projects that support growth, exploitation of the comparative advantages of the region and the creation of new jobs. The territorial scope of the planned intervention refers to the two out of four Regional Units of the Region, namely the ones of Kozani (EL531) and of Florina (EL533). However, the S.D.P. focuses especially on the 'energy axis', which is characterized by the intense mining activity and the environmental degradation due to the use of fossil fuel for energy production (see Map 1).

Figure 3. The flow of procedures



Source: own elaboration / Relocal Case Study Report

The Region is responsible for developing the S.D.P.s which applies to certain infrastructure projects, development and environmental protection. The Regional Governor, who is also the president of the Monitoring Committee, leads the Action. The S.D.P.s implementation does not reduce or remove the PPC's obligations to protect and restore the environment from direct or indirect impacts caused by its actions. Every S.D.P. is approved by the Regional Council of the respective Region, after submission of a SDP draft, which is prepared after processing the respective proposals of the local authorities and other institutions such as Chambers, Labor Unions Agricultural Cooperatives as well private individuals. The processing, assessment and ranking of the proposed projects to be included is done by a Monitoring Committee on the basis of the indicative benchmarks. Figure 3, provides summary information on the procedural flow for implementing the S.P.D. The distribution of the funds to the Regional Units of Florina, Kozani and Arcadia, which result from the Levy, is proportional to the production of electricity from the thermal lignite plants of the above regions. These funds, according to the Minister's Decree (MD), can be used for works and actions to serve the developmental priorities of the wider area.

The Western Macedonia Region plays the central role in the planning and implementation of the S.D.P., because it prepares and approves

the Operational Plan and manages 50% of the budget. The rest 50% is distributed between the Municipalities of the Regional Units of Kozani and Florina, with special emphasis on the four Municipalities that are within the "energy axis" and therefore receive the lion's share.

#### 4.5 Place-based practices and spatial justice

Based on empirical results, we can conclude that spatial justice can be perceived, traced and assessed in geographical, social, environmental and financial terms (Int# 1, Int# 10, Int# 12, Int# 19). The most distinctive dimension of inequalities however is 'geography'. Spatial (in)justice can also be found at inter-generational and intra-generational level in term of sustainability in the way a locality exploits the natural and non-renewable resources. In the case of Western Macedonia, this issue is of utmost importance because of the significant environmental costs of the region's contribution to the country's energy efficiency. Undoubtedly, this model has caused inter-generational injustice because of environmental degradation. At the same time however, it is interesting that during the expansion phase (mid-50 until 2008), this 'paradigm' generated high incomes and employment, while during the 'de-carbonization' phase (from 2009 until today), unemployment is rising dramatically and incomes are constantly shrinking. During the 'expansion phase', inter-generational injustice based on intensive use of non-renewable resources, rendered a short-term benefit to the region. On the other hand, intra-generational injustice based mainly on high incomes compared to other areas, triggered spatial inequalities where citizens and places have been affected disproportionately. During the 'de-carbonization' phase, inter-generational injustice based mainly on strict EU Regulations for reducing CO2 emissions, caused dramatic depression in the region in relation to its future perspective. Contrary, intra-generational injustice, seen in terms of unemployment arising and economic stagnation in the region, mitigates spatial inequalities, in comparison to other areas.

In an attempt to evaluate the territorial development policy making at national and regional level, it seems that the key-stakeholders have not managed to be collectively mobilized on the basis of a common vision. The formation of any common vision, manifestation or declaration though is temporary and doesn't go beyond the needs of the election cycles. Within this frame, localism has dominated over time resulting in no major actions, lacking of critical size.

*"How many people working for the regional authority have thoroughly read the key-texts of the regional planning beyond the titles of the overall goals?" (Interview Quotation - Int# 2)*

There is a lag in the implementation of the policies that have been planned and approved. In many cases the way of approaching and assessing the development/regional problem is 'epidermal'. Usually the policy makers run behind the problems after they have grown, operating like firefighters rather than preventively. Additionally, there is resistance to change, whereas the problems are addressed fragmentarily rather than holistically.

*"It is like having a patient and giving him drugs to treat the symptoms only, but not to cure the disease. It is like someone reading the title of a contract but not its terms, especially the ones written in small letters" (Interview Quotation - Int# 5)*

The Action's spatial scope of intervention is the region of Western Macedonia, but the activities are concentrated in the regional units of Kozani and Florina and in particular on the energy axis where the lignite mines and the power stations are installed and operating. In this context, place-based knowledge can be identified at all scales of the aforementioned spatial levels, in the form of business plans, studies or political decisions and practices. Place-based knowledge may also address a series of claims and struggles of local society and stakeholders to improve the environment or to claim the imposing of an extra restitution fund against the use of a non-renewable natural resource.

Empirical evidence indicates that one of the interpretive factors of producing and reproducing spatial injustice was the so called 'center-periphery' administrative, political and economic development model. This model, involved mechanisms, procedures and institutional arrangements, which dominated the country and are defined by the lack of autonomous regional planning, problematic administrative structures, overlapping of competences, forms of political dependency and huge bureaucracy. As a result, the region has a small degree of flexibility and sufficiency of financial and human resources and mechanisms to plan and apply effective policies, due to the discontinuity in the structural operations of the central state in relation to the region. The problem is that there is no permanence, consistency and clear focus in planning neither at national nor at regional level.

The above-mentioned setting designates to a great extent the scope and limitations as well as the potentials and opportunities for local stakeholders to shape and implement a place-based agenda. In this context, it is interesting to look at how the local stakeholders understand spatial justice and how they engage with it in relation to their access to decision-making centers. Based on the analysis of the recorded views, one could hardly trace a single and clear picture. There is the opinion that under no circumstance the access to the decision-making centers poses a problem.

It is pointed out that phenomenon of policies being overthrown when the persons and the political staff change are frequent and intense. It was also stressed that an indication of inspired leadership is the ability of actors to overcome localism and temporary political benefit, and further to design projects and interventions of critical size and long-term developmental footprint. Evidence suggests that within the Action, this has not been achieved. In the majority of actions, infrastructure projects prevail with no developmental value added which would support entrepreneurship and create prospects for new and viable jobs. It is characteristic that the results of the actions for the entrepreneurship and employment have not been counted yet.

Awareness activities and consultation processes with local stakeholders and potential beneficiaries are another interesting part, in the decision-making chain, concerning spatial justice. It is pointed out that the beneficiaries' participation in the consultation supplements no specific added value (Int# 7) whereas most of the times these procedures take place within the legal compulsion of the regulatory framework. Also, it is highlighted reluctance of the beneficiaries to participate as they believe that the consultation is a pretext. Usually, the participants are a small group of people, representing a small circle of local institutions. As a result,

consultation, public debate and planning engagement, is practically being recycled and discussed among the same people.

*The institutions representatives often do not furnish substantial arguments at the consultation table. Usually, the only criticism is "I don't like that..." without any productive proposal.*  
(Interview Quotation - Int# 7)

Enhancing Entrepreneurship through the Action has been an issue particularly highlighted by many. It has also been emphasized that supporting existing businesses as well as the setting up new ones, is the only strategy that can create new jobs and enable the region to overcome the crisis. It is pointed out however, that this distributive approach in practice cannot be effective to the best extent possible, given the wider context at national level. Within this context it is highlighted the high taxation, lack of access to finance and banking system, inadequate business infrastructure, poorly trained workforce, state-owned entrepreneurial mindsets, and lack of innovation culture. There is broad consensus that apart of some exceptions, such as the currently established Development Fund of Western Macedonia; the Action didn't manage to efficiently address the issues of entrepreneurship.

Other important factors that are determined and influenced in the wider context in which the Action is being developed are the institutional context at national and European level, the administrative arrangements and political stability within the current crisis. For example, taxation on CO<sub>2</sub> emissions imposed by the European Regulations, drastically affects the impact of the Action at the local level as the power plants in the region are no longer competitive. On the other hand, the complex and ineffective administrative system at national level determines the degree of autonomy of regional and local authorities and sets a restrictive framework for the impact of the Action.

## **5 Conclusions**

There is no doubt that the Action met the region's long-standing and fair demand against the environmental degradation due to the use of a non-renewable energy resource such the lignite. Seen in this 'top-down' respect, the Action could promote under certain conditions, distributive and procedural spatial justice challenges. Assessing however, the overall outcomes derived by a 'bottom up' approach as well as the extent to which the Action manages to pave the way for the transition of the region towards an alternative development path, one could claim that the developmental footprint, could have been much greater. In other words, the Action failed to shape new major projects and form a long-term strategy aiming to boost the transition process within spatial justice logic.

Attempting an overall assessment of the Action's impact, there is no doubt that the final balance is positive, in the sense that many projects and interventions would have never happened if there was no Action. The Action also offered the necessary flexibility to design and implement projects that could never be included in another EU funding program in terms of eligibility. However, it seems that the Action did not produce a noticeable developmental footprint beyond solving some minor problems. In other words, the major challenge, namely the adequate preparation of the area for the transition to a different productive model beyond lignite and mines, has not been addressed. In this respect, the overall financial resources of the

Action during the last 20 years, has been considered by most to be sufficient to contribute to spatial justice under different approach and preconditions obviously.

It is strongly agreed that a place-based strategy through visionary leadership and a clear vision of 'where we want to go' could lead to a greater spatial justice. Seen in this respect, the role of the local political staff in the formation of a place-based strategy seems to be vital. The preceding analysis has shown that epidermal approaches, localism, simplistic solutions and lack of realism, absence of impact indicators and 'regional culture' as well as temporary political benefits in view of the next election cycle, were the dominant spatial justice constraints. As a result, the locally-driven action was not treated by the political staff, longsighted, as a golden opportunity for the region to be prepared for a smooth transition from the lignite age to an alternative and sustainable economic model.

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### **List of Interviewed Experts**

- Anonymised list of experts, including type of expert, date and time of interview

- Int# 1 Expert in Regional Planning, 17/11/2017, 10:00 a.m.
- Int# 2 Expert in Operational Programmes, 17/11/2017, 13:00 a.m.
- Int# 3 Person in charge for the Specific Operation Office of the Action, 5/12/2017, 10:00 a.m.
- Int# 4 Expert in Development Agency, 5/12/2017, 19:30 p.m.
- Int# 5 Expert in European Network and Entrepreneurship, 5/1/2018, 12:30, p.m.
- Int# 6 Expert in Planning at Regional level, 21/3/2018, 9:00 a.m.
- Int# 7 Researcher in Research Institution, 21/3/2018, 11:00 a.m.
- Int# 8 Expert of Managing Authority of the ROP of the Region, 22/3/2018, 11:00 a.m.
- Int# 9 Expert in Planning at Regional level, 27/3/2018, 10:00 a.m.
- Int# 10 Academic, expert in energy sector, 28/3/018, 11:00 a.m.
- Int# 11 Academic, expert in economics and innovation, 29/3/2018, 9:00 a.m.
- Int# 12 Director in local administration, 2/4/2018, 11:30, a.m.
- Int# 13 Environmental NGO representative, 17/4/2018, 10:00, a.m.
- Int# 14 Expert of Managing Authority of the ROP of the Region, 19/4/2018, 9:00 a.m.
- Int# 15 Expert of Managing Authority of the ROP of the Region, 19/4/2018, 11:00 a.m.
- Int# 16 Expert of Managing Authority of the ROP of the Region, 20/4/2018, 9:00 a.m.
- Int# 17 Expert of Managing Authority of the ROP of the Region, 22/3/2018, 10:00 a.m.
- Int# 18 Representative of private business, 24/4/2018, 10:00 a.m.
- Int# 19 Mayor, 23/8/2018, 11:00 a.m.
- Int# 20 Politician at the Regional level, 31/8/2018, 10:00 a.m.