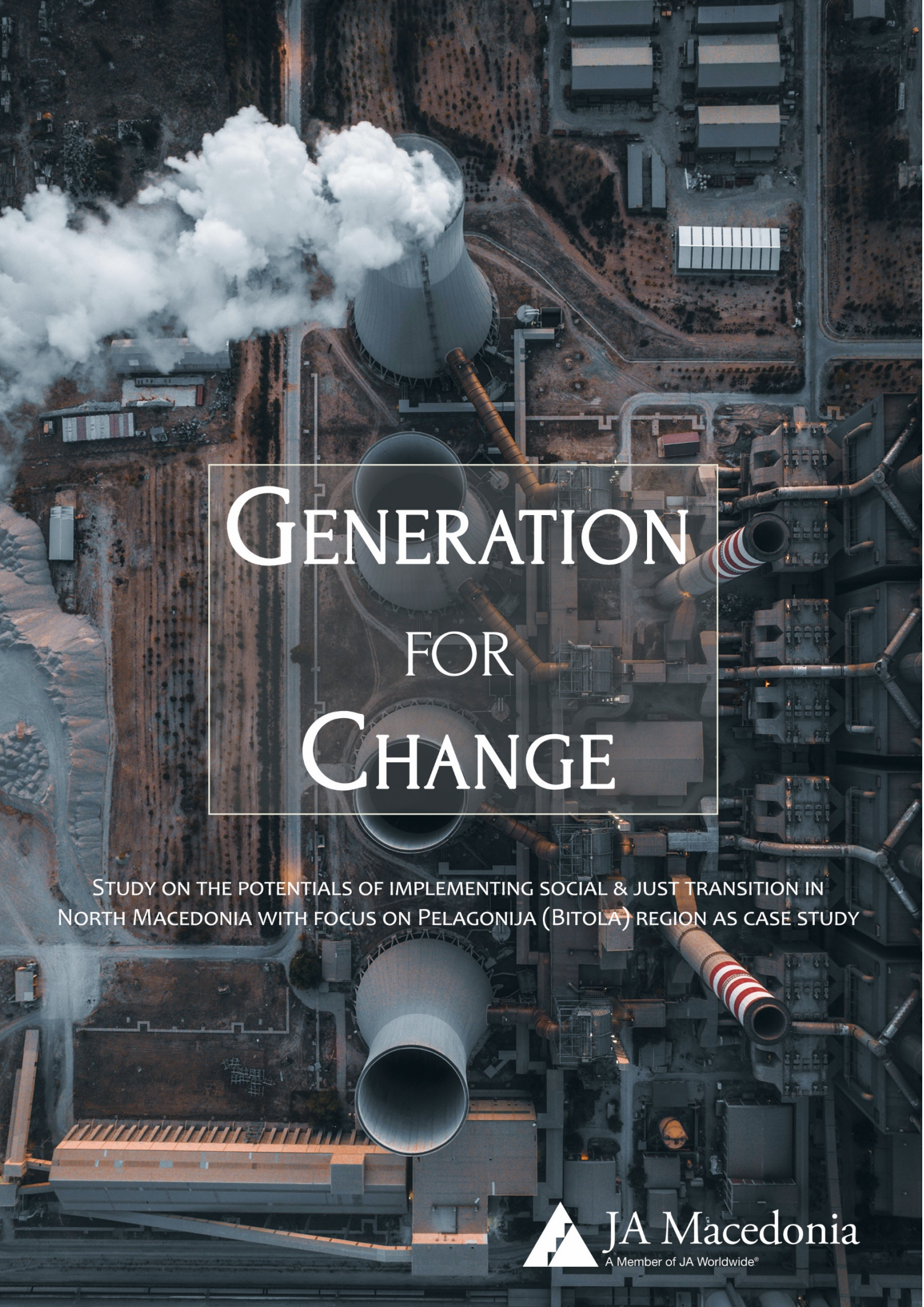

Generation for Change

Study on the potentials of implementing social & just transition in North Macedonia with focus on Pelagonija (Bitola) region as case study

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ACRONYMS

AFOLU	Agriculture, Forestry and Other Land Use
BRD	Bureau for Regional Development
CP	Contracting Parties
EAP	Environment Action Programme
EC	European Commission
EGD	European Green Deal
EGDIP	European Green Deal Investment Plan
EE	Energy Efficiency
ERDF	European Regional Development Fund
EBRD	European Bank for Reconstruction and Development
ESF+	European Social Fund Plus
ETS	Emissions Trading System
EU	European Union
GAWB	Green Agenda for the Western Balkans
IEA	International Energy Agency
ILO	International Labour Organization
JTF	Just Transition Fund
JTM	Just Transition Mechanism
MFF	Multiannual Financial Framework
MS	Member States
NDC	Nationally Determined Contributions
eNDC	Enhanced Nationally Determined Contributions
NEEAP	National Energy Efficiency Action Plan
NECP	National Energy and Climate Plan
NSED	National Strategy for Energy Development
PAMs	Policies and measures
RES	Renewable Energy Sources
RCC	Regional Cooperation Council
SDG	Sustainable Development Goal
SEIP	Sustainable Europe Investment Plan
TIDZ	Technological Industrial Development Zone
TPP	Thermoelectric Power Plan
TJTP	Territorial Just Transition Plans
TBUR	Third Biennial Update Report on Climate Change
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
WB	Western Balkan`

EXECUTIVE SUMMARY

Global context

Climate change poses a threat not just to a human life, but also to all life. It already affects the human rights of countless persons and the impacts are only getting worse.

According to the results of the climate change projections and changes in climate extremes up to the year 2100, *North Macedonia will face hotter and drier climate in the future*. As consequence of climate change the conditions are expected to vary significantly throughout the country with explicit implications in the southern part of the country such as increased average temperatures and reduced access to water. Climate change threatens every sector and community, particularly the poorest and most vulnerable.

Energy sector has the biggest impact on GHG emissions in the country. It includes emissions from fuel combustion in energy transformations, transport, industry, household, commercial and agriculture sub-sectors, as well as fugitive emissions (mines). Due to the currently significant use of fossil fuels in the country and the dominant use of domestic lignite for electricity production, there is *significant potential for GHG emissions reductions***.** The transitioning in the *energy sector will have huge impact on the country's economy* and by proper planning it can help its growth.

Energy lies at the heart of both the Paris Agreement and global 2030 Agenda. *Energy* is inextricably linked to virtually all the SDGs, including poverty eradication, food security, health, education, prosperity, gender equality, jobs, transport, ocean, water and sanitation, and the *empowerment of women and youth*. The progress made towards achieving advancement of the other SDGs can contribute to achieving *Sustainable Development Goal 7 (SDG 7)* (*Ensure access to affordable, reliable, sustainable and modern energy for all)* represents a *first-ever universal goal on energy, with five targets to be achieve by 2030.*

North Macedonia as member-state of the United Nations has committed (under the Paris Agreement and Agenda 2030) that in all policies related to mitigation and adaptation to climate change, as well as those for decarbonization of the economy will implement the so-called *just transition towards an environmentally sustainable economy*.

With above adopted commitments the Macedonian society has an obligation *to promote social and just transition concept within the processes related to climate and energy that will be undertaken by 2030*, and to ensure that no one is left behind in the transition to net zero economy. A just transition is a concept that requires transition process to a greener economy that is *inclusive for all stakeholders*, and that the unavoidable employment and social costs of the transition have to be shared by all.

In order for a just transition to take place in North Macedonia *reconfiguration of the social, economic and technological system is required*. This involves changes in institutional, legislative and policy frameworks and has strong links to the wider international policy context (global, EU and Western Balkan region).

Comprehensive *just energy transition* needs to drive a *societal just transformation* which takes into account the impact of both climate change, and the actions to mitigate it, for the wellbeing of all people – focusing particularly on the *needs of the most vulnerable and* ***those of future generations.*** It should leave no one behind, and of the decisions made should appropriately benefit those most underprivileged. By doing so, benefits and burdens of the transition should be equally distributed in accordance with a social equity. A just transition is thus *a future-oriented concept, guided by principles of sustainability and climate justice***.**

Such massive economic structural transformations, supplemented by changing the age structure of Macedonian society, the rural-urban migration and the growing inequality in income and resource allocation, will put *additional pressure on the social cohesion* of the society and can increase the social tensions and the division along all lines - ethnicity, religion and class. Simultaneously, the main question to be addressed can no longer be confined to how cities and regions can compete in a global context, but rather how they can survive in a world that must face the effects of continuous shocks by ensuring socially acceptable living conditions for everyone.

Considering the above-mentioned complexity while responding to the call for the green energy transition, a *new approach in the design process of place-sensitive, innovation-oriented development policies* that can facilitate the regional and urban transition to sustainability while reinforcing resilience to shocks induced by transition economies (e.g., post-carbon economy) are needed. In our globalized world, environmental threats require effective national and local responses that promote peace, justice, development and the fulfilment of *environmental and human rights*.

However, it also has costs for those currently employed in the fossil fuel industry and not done well, it can result in serious environmental damage, e.g., for forest biomass or hydropower. North Macedonia must design and implement its energy transition using *just and inclusive pathways* in order to accelerate collective action**.** A just transformation of our society requires solid foundation for environmental and social resilience build under the "*whole of society" approach*. This foundation will allow to build and create opportunities not only for those who are currently employed in high-carbon jobs or who will be employed in green jobs, but the whole of society through shared opportunities for greater well-being.

Regional context - Western Balkans

North Macedonia together with other Western Balkan countries is *contracting party to the Energy Community* - an international organization that unites the EU with its neighbours to create an integrated pan-European energy market. The key objective of the Energy Community is to extend the rules and principles of the EU internal energy market – in particular market liberalisation – to the contracting countries based on a legally binding framework.

By adopting the Energy Community Treaty, the Western Balkan countries made legally binding commitment to adopt core EU energy legislation, the so-called "acquis communautaire". The implementation of current obligations and honouring existing ambitions and *commitments under the Energy Community Treaty are a priority*. The extension of the Energy Community Treaty acquis to climate and environment is important step towards the

transition to a low-carbon, energy-efficient, renewables-based society in the Western Balkan region.

The utmost priority of the Western Balkan region is to urgently adapt climate policy by determining transitional 2030 climate (and energy) targets aligned with the increased EU ambitions and ensure a swift green transformation of all economic sectors with a focus on carbon-intensive ones. In line with the new European Union Climate Law, climate neutrality will be reflecting in the EU's bilateral relations and accession negotiations with the Western Balkans, who should already now *start transforming their societies* accordingly.

On *November 2021* Western Balkan countries contracting Parties of the Energy Community adopt the *legislative package "Clean Energy for All Europeans" and the corresponding Decarbonization Roadmap*. The Clean Energy Package *puts consumers at the centre of the energy transition. By this legislative package, the energy transition in all Contracting Parties of the Energy Community, is accelerated* by establishing a balanced process for adopting decisions at all levels of government - EU, national and local level, and changes the role of the citizens who have gained the opportunity to switch from passive to active participants in the energy transition.

National context

Sustainable energy is a key to global collective efforts to accelerate the pace of implementation and to deliver on the SDGs and the Paris Agreement.

For decades, the *energy sector in North Macedonia has been running a centralised approach* with very low level of active involvement of citizens and local governments, resulting in a considerable gap between national and local energy policy standards. In addition, the situations that are emerging these few years on global level - alongside climate change and the risks associated with it including the emergence of the pandemic, have seriously questioned social stability at urban level and the institutions in multi-level governance processes connected with energy sector.

North Macedonia intends to *undertake energy transition* that will diversify the economy, reduce existing (and mitigate emerging) unemployment, and safeguard social cohesion. It seeks to do so by progressively restructuring the regional economy away from coal. Such a transition hinges on attracting new investments, re-skilling workers, and repurposing other lands and assets for new economic and social good. It further relies on the development of renewables and other clean energy sources.

In recent years, *North Macedonia* has been acknowledged for *putting significant efforts in regards to its energy transition*, making visible progress in aligning the country's legal framework in accordance with the EU legislation. This has been done on several frontiers, mostly through accelerated adoption of important policy changes, such as the Energy Efficiency Law, the Energy Development Strategy *until 2040*, and schemes for supporting new renewable energy projects. As a result, the energy market of the country today is described as one of the most attractive among the countries of the Southeast Europe.

The Energy Development Strategy paves the way for achieving the following *2040 vision:*

Secure, efficient, environmentally friendly and competitive energy system that is capable to support the sustainable economic growth of the country. To translate the vision statement into clear objectives, the Strategy defines five energy pillars with six strategic goals, closely interlinked with the *five dimensions* of the European Energy Union Strategy respectively: (1) Security, solidarity and trust; (2) A fully integrated internal energy market; (3) Energy efficiency; (4) *Decarbonizing the economy*; (5) Research, innovation and competitiveness. The specific policies and measures for the transition to a modern, competitive and climate-neutral economy, envisaged in the Strategy *will contribute to improving the health and well-being* of the population, through:

- Reduction of greenhouse gas emissions by 80-95% compared to the level in 1990;
- *Reducing the use of fossil fuels for energy production*; and
- Promotion of the use of renewable energy sources.

Decarbonising the North Macedonia energy system is critical to reach country's 2030 climate objectives and the national long-term strategy objective for achieving carbon neutrality by 2050. In order to succeed, *decarbonisation has to be economically, environmentally and socially sustainable*. Its potential benefits include: low costs of GHG emission reduction; savings on fuels, coal plants' operational expenditures and coal imports mostly compensate for the increased investments in renewable energy sources; jobs creation; lower power imports need improve security of supply and improved health (reduced air pollution).

The level of coal dependence represents major social and economic challenge in the context of the country's pledge to follow the European Union's *decarbonisation path towards a carbon neutral economy* by 2050 as a signatory to the Sofia Declaration on the Green Agenda for the Western Balkans. Actions such as *coal phase-out in electricity generation, substituting fossil fuels with cleaner options such as renewable energy, but also increasing efficient use of energy in all sectors with emphasis on buildings, are at the core of decarbonisation*.

The country *energy sector is based on coal run power plants* and carbon intensive fossil fuels, while in the same time the country is unable to meet their own electricity needs and is strongly depended on the imported electricity. *The electric power generation capacity* mainly consists of *two thermal power plants*; eight large hydropower plants; 96 small hydropower plants; one wind power plant; and three Combined Heat and Power (CHP) plants. The *main entity for electricity production* is a state-owned company JSC Elektrani na Severna Makedonija ("ESM"). The company provides around *90% of the entire domestic production* with installed capacity of around 1,478 MW. The ratio of the installed capacity of company is 56% installed capacity in two thermal power plants (*Oslomej and Bitola)*, 37% in hydro power plants and 2% in renewable sources, i.e., wind energy.

With the Decision of the Government from its 65th session held on April 13th 2021, North Macedonia communicates the *enhanced Nationally Determined Contribution (eNDC)* to the global efforts for GHG emissions reduction.

The eNDC envisages a 66% reduction of GHG by 2030 mainly to be achieved through the *gradual decommissioning of the country's existing thermal power plants (TPP)* for electricity production owned by ESM, starting with TPP *Oslomej (located in Southwest planning region) in 2021 and TPP Bitola (located in Pelagonija planning region) in 2027*. Both *thermal power plants are old* and need decommissioning or significant investments to ensure reliable

electricity supply. The aged and highly polluting coal plants *need to be replaced* by sustainable forms of renewable energy, and the country's energy wastage needs to end. Both *planning regions (Southwest and Pelagonija)* are non-administrative, functional-territorial unit falls within the NTUS-III Level in accordance with the national Nomenclature of territorial units for statistics, *established for the purposes of planning and implementation of the policy for stimulation of balanced regional development*.

The new Government of North Macedonia in *January 2022* announced its intention to close all coal-fired power plants in Pelagonija planning region and their associated lignite mines by 2030. Therefore, *Pelagonija is on the frontline of the transition to a climate neutral and inclusive green economy* as one of the regions where the potentially negative social and economic impacts of the transition *first will be felt due to the phase-out of coal*. *Coal phase-out* of Pelagonija has to reduce the risk of stranded assets, improve energy independence, and bring about significant health and fiscal benefits of the region. Such transformation will require: deploying large volumes of renewables capacity in order to ensure energy security in the context of an increasing electrified economy, and developments of an inclusive and sustainable 'just' transition programme for the coal sector that employs around *4,000 people directly*.

The narrow economic base of the country requires *careful mitigation of coal mines closure impacts*. While job losses from coal mining may be small in comparison to the total labour force, a downsizing can result in a disproportionately high impact locally. The loss of mining employment substantially reduces the flow of income through the local economies-affecting retail, food services, and other dependent sectors, as well as social services. Indeed, the loss of a local economy's dominant economic engine exposes the fragility of economic base. *Coal phase-out* of Pelagonija has to reduce the risk of stranded assets, improve energy independence, and bring about significant health and fiscal benefits of the region.

A *key question* is what will be the impact of coal mines closure because it has large impacts on local employment and significant socio-economic impact. The energy transition *just and inclusive pathways* in order to accelerate our collective action must be designed and implemented**.** In order to be considered "just" and "inclusive", energy transition processes in Pelagonija region need to ensure *fairness via equal distribution*, full recognition of rights and labour contributions, equal participation in decision-making procedures, and equal capabilities in renewable energy outcomes. Engaging communities, bottom-up, is also critical to realizing the full potential of renewable energy sources and prioritize the feedback from local people on the suitability of certain project developments.

The *governance of the process of regional transformation in Pelagonija coal region* is of extraordinary importance given the multitude of relevant actors and their (often) competing goals. The transition of the region is a *multi-level and multi-actor governance process*. These *governance challenges* underscore the *need for both reforming existing institutions and introducing new ones*. The institutional framework for such governance arrangements also calls for greater synergy between the demand side of public governance, the citizens, and the supply side, the government.

The *multi-level nature* of governance models for these regions will need to harness existing interactions among levels and actors, as well as acknowledge the boundaries between levels

and competences. The "vertical" levels of government, as defined by territory, jurisdiction or mandate (i.e., local-regional-national) are widely understood. There are, however, *multi-actor dimensions of interaction* that can involve different economic sectors, workers municipal administrations, local CSOs and the regional Chamber of Commerce and Industry. Furthermore, these models require *representation of a wide range of stakeholders in governance*. Involving stakeholders in the design and implementation of transition strategies is fundamental to garnering their acceptance and to the transition's success. Thus, an effective model shall reflect the views of various - regional or not - actors and their representatives, whil***e*** *social dialogue and the involvement of civil society are key elements in this process*.

*Youth engagement is fundamental to shape the policy agenda and to make energy transitions more democratic, sustainable, just, and people-centred***.** Young people should not only be architects of their own lives, but also ***contribute to positive change in society***.

From a rights perspective, young people have a right to participate in decision-making that impacts their future, particularly in the climate change context, where they more than any other generation will bear the greatest costs of its impacts. Moreover, *youth have unique knowledge and skills, offering a rich creative potential to develop solutions to the challenges of the transition*. Young people can play a key role in *fostering intergenerational dialogue*. Young people can become a bridge in raising awareness about the transition, its reasons and consequences. Climate education also plays a fundamental role in shaping the minds of the new generations as to the magnitude of the challenge ahead to curb climate change and how can they solve this challenge.

Throughout the process, young people need *targeted support to ensure their participation is meaningful***.** Youth leaders can engage with policymakers and other relevant stakeholders in civil society and the private sector to advance the energy transition. Youth engagement can help governments achieve improved results on transparency, public service delivery, public financial management, governance, social inclusion and empowerment. Young people can also *engage in their communities* to create better services, including energy, and foster economic activities. They can help *implementing people-centred energy solutions* based on the needs of the people and communities. At the same time, they can engage in *supporting broad social mobilisation* towards climate and environmental action. Young people can apply their *innovation power to advance new technological solutions and business models* to facilitate the uptake of renewables, energy efficiency and clean mobility solutions. Just transition mechanisms focusing on youth can help *create new jobs and economic activities* through worker education/retraining, social support, local economic development tools and support to the creation of new businesses.

PART I. INTRODUCTION

1. Nature and objectives of the document

The main objective of this document is to **present the imperative of implementing social and just transition concept** within reform processes for sustainable development in the Republic of North Macedonia by 2030, and to offer recommendations which will enable **timely and comprehensive engagement of the youth in the policies for clean energy transition** and meeting the objectives of the Energy Community at national and local level.

At the 70th UN General Assembly on 25 September 2015, world leaders adopted a new global sustainable development framework: Transforming our World: the 2030 Agenda for Sustainable Development (hereinafter: 2030 Agenda) having at its core the17 Sustainable Development Goals (SDGs) and 169 targets. The 2030 Agenda is a universal plan of action for humankind.

In the same year, the *Paris Climate Agreement*, as an integral part of the 2030 Agenda, was also adopted. It sets out a *global action plan* to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C – and pursue efforts to limit the temperature increase to 1.5°C. Ambitious action on climate that keeps the warming of the planet as far below 2 degrees as possible is of crucial importance if we are to ensure *a future for humanity.* Following the Paris Agreement, the EU, the Western Balkan countries (WB6) and numerous countries around the world embraced the 2050 decarbonisation goal.

The Paris Agreement is a *landmark* in the multilateral climate change process as, for the first time, a binding agreement *brings all nations into a common cause* to undertake ambitious efforts to combat climate change and adapt to its effects. Implementation of the Paris Agreement requires *economic and social transformation*, based on the best available science.

In 2015, the issue of just transition was included in the Paris Agreement through a commitment of the parties *"to take into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities"*

The *concept of a just transition* has been feeder developed by the *International Labour Organization*[1] *(ILO) Guidelines for a just transition towards environmentally sustainable economies and societies for all*[2].

[1] *The only tripartite U.N. agency, since 1919 the ILO brings together governments, employers and workers of 187 member States, including North Macedonia, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.*

[2] International Labour Organization, 2015. Guidelines for a just transition towards environmentally sustainable economies and societies for all. Geneva, ILO. Accessible here: https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf

The Guidelines negotiated between governments, employers and their organizations, as well as workers and their Trade Unions, established a global understanding for the term "**just transition**"

It describes it as process "towards environmenttally sustainable economy, which "needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty".

ILO Vision
"The four pillars of the Decent Work Agenda social dialogue, social protection, rights at work and employment – are indispensable building blocks of sustainable development and must be at the centre of policies for strong, sustainable and inclusive growth and development".

The objectives of this study are to *assist youth (ages 15 – 25) to engage in policy advocacy* in the transition towards climate neutral, green and circular economy in the country through a document which analyses and presents **t**he potentials of the Just Transition, and provides recommendations for youth engagement in these processes.

2. Geographical and sectoral scope of the study

The geographical scope of social and just transition concept *towards climate-neutral economy is Republic of North Macedonia* which falls within the Level 1 (NUTS I) and Level 2 (NUTS II) in accordance with the national Nomenclature of territorial units for statistics[3]. This scope covers the eight statistical regions Level 3 (NUTS III): (1) Vardar Region, (2) East Region, (3) Southwest Region, (4) Southeast Region, (5) Pelagonija Region, (6) Polog Region, (7) Northeast Region, and (8) Skopje Region.

For the purposes of the case study, the *focus of the analysis* is the just ***transition towards a climate-neutral economy*** of the *NUTS III Pelagonija planning region.* Pelagonija region *is on the frontline of the transition to a climate neutral economy* in the country as it is one of the regions where the potentially negative social and economic impacts of the transition will first be felt due to the phase-out of coal.

The sectoral scope of the study is the potentials of implementing social and just transition of the energy and coal industry located in Pelagonija Basin - two open pitch lignite mines, at around 12 km eastwards from the town of Bitola, which today *are used for the needs of the three blocks for electricity production in the thermoelectric power plant "REK Bitola"*.

3. Methodology of the research

A specific approach and methodological framework were defined for the preparation of the "*Study on the potentialities of implementing social and just transition in the North Macedonia with focus on* Pelagonija (*Bitola) region as case study*". The approach is based on the

[3] *While preparing the Nomenclature, efforts were made to achieve harmonisation with the EU Nomenclature of Territorial Units for Statistics – NUTS.*

requirements set out in the tasks and responsibilities of the consultant, the instructions provided by the project representative, the need for a comprehensive *multi-level and integrated governance approach* in achieving the general objective of the consultancy, as well as the expertise and practice of the consultants.

The methodological framework begins with the thesis that Macedonian legal system has no consistent and clear rules for effective stakeholder's engagement, and especially youth, in the process of creating, adopting and implementing public policies initiated by the country's accession process to the European Union. Therefore, the *main activities* that are implemented are *identification and analysis of the key international and domestic planning documents* (strategies, plans and programs) as well as reports and documents from relevant international and domestic institutions *related to the just transition of Macedonian economy* from a traditional economic model to a modern, competitive and climate-neutral economy in a fair way, leaving no one behind.

As a control package, the following documents were analysed:

- Macedonian policy and legal framework for climate and energy;
- Macedonian legal framework for sustainable local development;
- Macedonian policy and legal framework for balanced regional development;
- EU Regulation on the Governance of the Energy Union and Climate Action (2018)[4], which is as a legal basis for establishing a unified policy planning process that ensures that the just transition objectives of the Energy Union are met by 2030;
- EU Regulation on establishing the Just Transition Fund (2021)[5] which aims to support the specific objective of enabling regions and people to address the social, employment, economic and environmental impacts of the transition towards the Union's 2030 targets for energy and climate and a climate-neutral economy of the Union by 2050, based on the Paris Agreement;
- EU Common Provisions Regulation for the 2021–2027 period, (2021)[6] which aims to sets out of common financial rules applying to the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, the Just Transition Fund;
- EU Governance of transitions Toolkit (2020). It provides insights on key governance aspects in regions that are pursuing the decarbonisation and diversification of their economies. These include: building effective governance models; designing and

[4] European Commission, 2021. Regulation (EU) 2018/1999 of the European Parliament and of the Council of December 11, 2018 on the governance of the Energy Union and climate action. Brussels, European Commission Document 02018R1999-20210729. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018R1999-20210729

[5] European Commission, 2021. Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund PE/5/2021/REV/1. Brussels, Official Journal of the European Union, L 231/1 from 30.06.2021, Document 32021R1056. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1056

[6] European Commission, 2021. Regulation (EU) 2021/1060 of the European Parliament and of the Council of 24 June 2021 laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, the Jus. t Transition Fund and the European Maritime, Fisheries and Aquaculture Fund and financial rules for those and for the Asylum, Migration and Integration Fund, the Internal Security Fund and the Instrument for Financial Support for Border Management and Visa Policy, PE/47/2021/INIT. Brussels, Official Journal of the European Union, L 231/159 from 30.06.2021, Document 32021R1060. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1060

implementing stakeholder engagement and social dialogue processes; and enhancing the role of civil society in the transition; and

- EU Youth for a Just Transition Toolkit for Youth Participation in the Just Transition Fund (2021). It *aims to encourage more ambitious, meaningful and numerous youth participation processes in the regions targeted by the Just Transition Fund,* and that the effects of such processes will lead to better-quality strategies and interventions addressing the challenges of the just transition.

This Study is based on the empirical findings of the qualitative analysis (desk review) of the analysed international and national policy and legal documents relevant for *just transitions processes towards climate-neutral economy* in the country and ensures participation of citizens especially in the decision-making process for public policies, thus it did not enter into a more detailed analysis of their functionality.

4. Definitions

For the purposes of this Study, the following definitions are used as set out in:

- Directive 2001/42/EC on the assessment of the impacts of certain environmental plans and programs[7]:
  - "*Plans and Programs*" shall mean the plans and programs, including those co-financed by the European Union, as well as any amendments thereto: which are subject to preparation and / or adoption by a competent authority on a national, regional or local level, or which are prepared by a competent authority for adopting, through a legislative procedure by the Parliament or the Government; and which are required on the basis of legislative, regulatory or administrative provisions; and
  - "*Public*" shall mean one or more natural persons or legal entities and their associations, organizations or groups formed in accordance with the national legislation or practice.
- Document of the Committee of Experts on Public Administration of the United Nations "Basic concepts and terminologies in governance and public administration"[8]:
  - "*Governance*" shall cover the mechanisms, processes and institutions, through which the citizens and groups articulate their interests, exercise their statutory rights, fulfil their obligations and harmonize their mutual differences.

This document is intended for youth civil society organizations, especially those that will mobilize and empower youth (ages 15 – 25) to engage in policy advocacy on Just Transition by offering alternative 'green' economic development scenarios for coal regions.

Simultaneously, it can be used by the other participants in the political processes involved or affected by the transition processes in the country (the business community, investors, civil society organisations and the wider public).

[7] European Commission, 2001. Directive 2001/42/EC of the European Parliament and the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment. Brussels, Official Journal of the European Union, L 197/30 from 27.06.2001, Document 32001L0042. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32001L0042

[8] UN Secretariat, 2006. Definition of basic concepts and terminologies in governance and public administration : note / by the Secretariat. New York, UN. Accessible here: https://digitallibrary.un.org/record/566603?ln=en

5. Structure of the Study

PART I. Introduction which gives brief overview of the nature and objectives of the document, geographical and sectoral scope, methodology of the research and definitions used for the purposes of this Study.

PART II. Just transition In North Macedonia - Opportunities, challenges, and recommendations is designed to lay out: the targets of implementing social and just transition concept within the processes for sustainable development in North Macedonia by 2030; current policy, legal and financial framework for transition towards climate-neutral economy dedicated to the analysis of the EU and domestic documents; current state of energy transition towards clean and affordable energy for all in North Macedonia; current state and prospects for the coal industry; the role of the Local authorities as catalysts for social and just transition towards a low carbon, climate resilient sustainable development; and possibilities for effective civic engagement especially youth in planning and oversight of the climate and energy policies in North Macedonia.

PART III. Implementing just transition in Pelagonija Planning Region - Pathways to sustainable Development - intended to map the general characteristics of the region (demography, climate; natural resources; natural, cultural and historical heritage); potential for just transition of the region based on green economy; current governance mechanisms for coal regions just transition (governance models and governance framework) and meaningful youth engagement in processes for just and people-centred energy transition (youth contribution as skilled workforce; engagement in decision-making processes; and participation in the EU Just Transition Fund)

In addition to the document there are also Conclusions about the concept of just transition and the main benefits and challenges that might arise on the way, as well as Recommendations arising from the performed analysis.

PART II. JUST TRANSITION IN NORTH MACEDONIA: Opportunities, challenges and recommendations

1. The imperative of implementing social and just transition concept in the processes of sustainable development in North Macedonia by 2030

a) Global context

Global temperatures are rising due to greenhouse gas emissions produced by human activity. Increased temperatures are directly contributing to harmful effects, such as droughts, floods, sea-level rises, heatwaves, extreme weather events, loss of biodiversity and the collapse of ecosystems. Climate change poses a threat not just to a human life, but to all life. It already affects the human rights of countless persons and the impacts are only getting worse.

> *"The climate crisis is the biggest threat to our survival as a species and is already threatening human rights around the world."*
>
> UN Secretary-General **ANTÓNIO GUTERRES**
> Remarks at UN Human Rights Council meeting on February 2020.

Without urgent action, climate change impacts could push an additional 100 million people into poverty by 2030, according to the *World Bank*.

The *World Health Organization (WHO)* indicates that, between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths each year from malnutrition, malaria, diarrhoea and heat stress alone.

According to the *Food and Agriculture Organization of the United Nations (FAO)*, climate change is causing extreme weather, drought, flooding and other disasters, depriving millions of people around the world of a livelihood. The nearly 78 per cent of the world's poor – approximately 800 million people – who live in rural areas, many of whom rely on agriculture, forestry and fisheries for their survival, are particularly affected.

The *UN Guiding Principles on Business and Human Rights* [9] confirm that businesses also have human rights responsibilities. They reaffirm that all responsible actors should be held accountable for the negative impacts of their activities and that all actors share responsibility for remedying these impacts.

[9] Ruggie, J.G & UN Special Representative of the Secretary-General on Human Rights and Transnational Corporations and Other Business Enterprises, 2011. Guiding Principles on Business and Human Rights : Implementing the United Nations "Protect, Respect and Remedy" Framework. Geneva, UN. Accessible here: https://digitallibrary.un.org/record/705860

Taking action to avert catastrophic *climate change is not only a moral goal*. With the **2030 Agenda** [10] world leaders agreed on a common vision and roadmap addressing the key challenges of our time. The *need for a change is recognized as a universal challenge,* no longer simply focused on the developing countries. All countries are called upon to act and speed up transition towards greener, more inclusive development patterns by 2030. All levels of government in the countries should work to build a national consensus that places the Sustainable Development Goals at the centre of national, regional and local development. This underscores the idea of Agenda 2030 as a *global partnership for sustainable development.*

In its formulation, the 2030 Agenda was guided by the purposes and principles of the Charter of the United Nations, including full respect for international law, grounded in the Universal Declaration of Human Rights and international human rights treaties, and informed by other instruments such as the **United Nations Declaration on the Right to Development**[11]. The Declaration on the Right to Development is *vital for the full realization of the 2030 Agenda*, and should be central to its implementation as it emphasizes that "*all human beings have a responsibility for development, individually and collectively… and they should therefore promote and protect an appropriate political, social and economic order for development*".

Placing the Sustainable Development Goals at the centre of national, regional and local development by 2030 are equally *important in achieving a society resilient to social, economic and environmental crises*.

In Sustainable Development Goal 13, Member States committed to undertake urgent action *to combat climate change and its impacts.* Several targets established to achieve Goal 13 are of particular *relevance to the Right to Development:*

- Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries;
- Target 13.2: Integrate climate change measures into national policies, strategies and planning;
- Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning;
- Target 13.b: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on *women, **youth** and local and marginalized communities.*

None of the above targets can be effectively achieved *without informed and active participation of the affected communities* in all processes and at all levels of decision-making with regard to the evaluation, planning, monitoring and implementation of climate action.

In the context of international environmental law, it should be emphasized that the **Paris**

[10] UN. General Assembly (70th sess. : 2015-2016), UN. Department of Economic and Social Affairs. Division for Sustainable Development Goals, 2015. Transforming our world: the 2030 Agenda for Sustainable Development. New York, UN. Accessible here: https://digitallibrary.un.org/record/1654217?ln=en

[11] UN. General Assembly (41st sess. : 1986-1987), 3 Mar. 1987. Respect for the right of everyone to own property alone as well as in association with others and its contribution to the economic and social development of Member States : resolution. New York, UN. Accessible here: https://digitallibrary.un.org/record/126480?ln=en

Agreement to the United Nations Framework Convention on Climate Change[12], *is the first binding multilateral environmental agreement that includes an explicit reference for human rights*.

In order to achieve those results, the Paris Agreement[13] explicitly states, in its preamble, that "Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, […] *the right to development, as well as gender equality, empowerment of women and intergenerational equity*". The preamble also affirms, inter alia, the importance of public awareness, *public participation, public access to information and cooperation at all levels* on the matters addressed in the agreement and recognizes the importance of the engagements of all levels of government and various actors in addressing climate change. In article 7 (5), the Parties specifically acknowledged that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, *taking into consideration vulnerable groups, communities and ecosystems*, and that it should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples.

Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) adopted in 1998[14] [15] emphasizes that adequate environmental protection is essential to the protection of fundamental human rights and that every individual has the right to live in a healthy environment and has the responsibility to protect the environment. Simultaneously, it is concluded that to be able to assert the right and observe the duty, citizens must have *access to information, be entitled to participate in decision-making and have access to justice in environmental matters.*

At the 24th UN Climate Change Conference (COP24) *held in 2018* in Katowice, the **'Solidarity and Just Transition Silesia Declaration'**[16], was signed by just over a quarter of the parties to the conference, including the European Commission and 24 Member States[17]. The declaration pledged to support *six steps for a socially Just Transition:*

- Support for workers in the transition to new jobs;
- Support and promote social dialogue and stakeholder engagement;
- Develop economic strategies which include wider economic and industrial support

[12] COP to the UNFCCC (21st sess. : 2015 : Paris). Decision 1/CP.21 Adoption of the Paris Agreement, Report of the Conference of the Parties on its 21st session, held in Paris from 30 November to 13 December 2015 : addendum. Geneva, UN. Accessible here: https://digitallibrary.un.org/record/831052?ln=en

[13] *North Macedonia ratified the Agreement in 2017 (Official Gazette no. 161/2017).*

[14] Official gazette of the Republic of Macedonia, 1999. Law on Ratification of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters - Aarhus Convention. Skopje, Official Gazzette No.40/1999.

[15] *The Law on Ratification of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters - Aarhus Convention Entered into force on October 30, 2001.*

[16] COP to the UNFCCC, (24th sess. : 2018 : Katowice). Solidarity and Just Transition Silesia Declaration, Geneva, UN Accessible here: https://cop24.gov.pl/fileadmin/user_upload/Solidarity_and_Just_Transition_Silesia_Declaration_2_.pdf

[17] *Signatories of the declaration: Belgium, Canada, Denmark, France, Germany, Italy, Netherlands, New Zealand, Norway, Poland, Spain, Sweden, United Kingdom, United States and the European Commission.*

beyond clean energy;
- Promote local, inclusive, and decent work;
- Support for human rights in global supply chains and the importance of building climate resilience;
- Report on Just Transition efforts in Biennial Transparency Reports and NDCs.

The **Just Transition Declaration**[18], adopted at the UN Climate Change Conference COP-26 *held in November 2021* in Glasgow, recognizes the need to ensure that *no one is left behind in the transition to net zero economies* – particularly those working in sectors, cities and regions reliant on carbon-intensive industries and production. It reflects the ILO's 2015 Guidelines for a Just Transition. Signatories to the Declaration are the United States, United Kingdom, EU member states, Norway, Canada and New Zealand.

b) European Union context

*Sustainable developmen*t is one of the overarching objectives of the EU as set out in its Treaties. The EU has also contributed to the development of 17 Sustainable Development Goals that will play important part in 2030 Agenda. EU is recognized as leading proponent of international action on environment and is committed to promoting sustainable development worldwide.

On *climate change*, the EU formulates and implements climate policies and strategies, *taking a leading role in international negotiations on climate*. It is committed to ensuring successful implementation of the Paris Agreement. Current *EU climate and energy policies* are based on Articles 191-194 of the Treaty on the Functioning of the European Union. According to Article 191, the fight against climate change is one of the objectives of the EU's environmental policy, while according to Article 194, EU promotes energy efficiency and energy saving, as well as development of new and renewable forms of energy.

On *4 December 2019* the European Environment Agency published Report of "*The European environment - state and outlook 2020, Knowledge for transition to a sustainable Europe"*[19], and its results are sobering. The current environmental, climate and sustainability challenges are of an unprecedented scale and urgency, requiring immediate and concerted action and systemic solutions.

To respond to these challenges on *11 December 2019*, the European Commission adopted **the European Green Deal**[20] – an ambitious agenda for the EU to become the first climate neutral continent by 2050 and to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environmental risks and impacts. Based on a

[18] COP to the UNFCCC, (26th sess. : 2021 : Glasgow). The Just Transition Declaration. Geneva, UN. Accessible here: https://ukcop26.org/supporting-the-conditions-for-a-just-transition-internationally/

[19] European Environment Agency, 2019. The European environment - state and outlook 2020 - Knowledge for transition to a sustainable Europe. Copenhagen, European Environment Agency. Accessible here: https://www.eea.europa.eu/publications/soer-2020

[20] European Commission, 2019. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal. Brussels, European Commission 11.12.2019, COM(2019) 640 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2019%3A640%3AFIN

regenerative growth model that gives back to the planet more than it takes, the Green Deal outlines the environmental priorities for the coming years and *the Union's ambition to transform its economy for a sustainable future while leaving no one behind.* The Sustainable Europe Investment Plan is the investment pillar of the European Green Deal[21].

> *"Europe Sustainable Development Report 2021"* [22]
>
> *„The European Green Deal is the cornerstone for SDG implementation in Europe, yet it contributes directly to only 12 out of 17 SDGs and many social dimensions of the SDGs are not fully reflected in the Green Deal. Due to an absence of politically agreed targets for many SDG indicators, Eurostat in its annual SDG report tracks progress towards quantified targets for only 15 of the 102 indicators. These primarily cover climate change, energy consumption and education."*

In *March 2020*, the EU submitted its **long-term strategy under the Paris Agreement** to the United Nations Framework Convention on Climate Change, committing to become climate-neutral economy by 2050. To enshrine this target, the **European Climate Law**[23] and a number of new strategic initiatives were adopted, notably a new **Circular Economy Action Plan** for a clean and competitive Europe[24], a **Biodiversity Strategy for 2030**[25] and a **Farm to Fork Strategy**[26].

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[21] European Commission, 2020. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Sustainable Europe Investment Plan, European Green Deal Investment Plan. Brussels, European Commission 14.01.2020 COM(2020) 21 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0021

[22] Lafortune G, at al., 2021. Europe Sustainable Development Report 2021: Transforming the European Union to achieve the Sustainable Development Goals. Paris, SDSN, SDSN Europe and IEEP, Accessible here: https://s3.amazonaws.com/sustainabledevelopment.report/2021/Europe+Sustainable+Development+Report+2021.pdf

[23] European Commission, 2021. Regulation (EU) 2021/1119 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'). Brussels, Official Journal of the European Union, L 234/1 from 09.07.2021, Document 32021R1119. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1119

[24] European Commission, 2020. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A new Circular Economy Action Plan for a cleaner and more competitive Europe. Brussels, European Commission 11.03.2020, COM(2020) 98 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A98%3AFIN

[25] European Commission, 2020. Communication from the Commission Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, EU Biodiversity Strategy for 2030, Bringing nature back into our lives. Brussels, European Commisssion, 20.05.2020, COM (2020) 380 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0380

[26] European Commission, 2020. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system. Brussels, EC, 20.05.2020, COM (2020) 381 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0381

On *14 July 2021* the Commission adopted a massive legislative package of proposals known as the "**Fit for 55 package**" to make the EU's climate, energy, land use, transport and taxation *policies fit for reducing net greenhouse gas emissions by at least 55% by 2030***,** compared to 1990 levels. Following the revision of the EU's climate and energy legislation, *Member States will revise their National Energy and Climate Plans (NECP) at the latest by 2024.* As current NECPs are already outdated because they are based on the EU's previous climate target, their revision will be an important exercise for Member States in translating the EU's upgraded legislation into concrete policies and measures to deliver the minimum ambition of "at least 55% net emissions reductions".

Social fairness is at the heart of the European Green Deal, including the "Fit for 55" legislative package to deliver on the climate targets. As stressed by the Green Deal the *transition must be "just and inclusive*". The *vision for a fair transition* towards a strong, climate-neutral Social Europe reflects the *20 principles of the European Pillar of Social Rights*[27], and comprise the 'social rulebook' for fair and well-functioning labour markets and welfare systems in 21st century Europe. The implementation of the Pillar will support a fair transition, which is *key for ensuring social cohesion.*

The **European Pillar of Social Rights Action Plan**[28] aims at rallying forces at all levels to turn the principles into concrete actions. It sets *three EU headline targets for 2030* in the areas of employment, skills, and poverty reduction, which were welcomed by the EU leaders with the Porto Declaration in May and by the European Council in June 2021. It emphasises the need to strengthen the European social dimension across all policies of the Union *to ensure that the transition to climate-neutrality is socially fair and just.*

The **Just Transition Mechanism (JTM)** [29] **is a key tool** to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind. It provides targeted support over the period 2021-2027 in the most affected regions, to alleviate the socio-economic impact of the transition through three main mechanisms:

- A new *Just Transition Fund*, a new instrument of the Cohesion Policy 2021-2027, as the first pillar of the Just Transition Mechanism that provides funding that should be matched by member states through the European Regional Development Fund (ERDF) and the European Social Fund Plus (ESF+). The resources from the JTF should complement the resources available under cohesion policy;
- An *InvestEU scheme* that will provide financing according to just transition objectives in targeted territories. These funds will be used to support a wide range of *projects including those for energy and transport infrastructure* including gas infrastructure and

[27] European Union, 2022. The European Pillar of Social Rights in 20 principles. Brussels, European Commission. Accessible here: https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

[28] European Commission, 2021. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Pillar of Social Rights Action Plan*. Brussels, European Commission, 04.03.2021, COM (2021) 102 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0102&from=EN.

[29] European Union, 2022. Just Transition Funding Sources. Brussels, European Commission.Accessible here: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/actions-being-taken-eu/just-transition-mechanism/just-transition-funding-sources_en

district heating, but also decarbonization projects, economic diversification, and social infrastructure; and

- A *new loan facility* leveraged by the European Investment Bank (EIB) that will primarily entail *grants to public sector entities* with resources to implement measures to facilitate the transition to climate neutrality.

In *March 2022* the European Commission adopted the **General Union Environment Action Programme to 2030 (8th EAP)**[30]. The new programme keeps the 2050 vision and enforces it with aim to accelerate the EU transition to a climate-neutral, resource-efficient clean and circular economy in a just and inclusive way, *fully endorsing the environmental and climate objectives of the European Green Deal.* The 8th EAP should also provide a basis for the achievement of the environmental objectives of the UN Agenda 2030 and its 17 SDGs. The 8th EAP has *six thematic priority objectives* in areas of: (1) Climate neutrality; (2) Adaptation and resilience to climate change and other environmental risks; (3) Circular economy and regenerative growth decoupling economy from resource use and environmental degradation; (4) Zero pollution ambition for a toxic-free environment; (5) Protecting and restoring biodiversity, and enhancing natural capital; (6) Environmental sustainability and reduction of the environmental pressures from production and consumption.

Regarding the 2050 vision, *'living well, within planetary boundaries*', the Commission relies on concepts such as regenerative economy, *measuring economic performance beyond GDP, and using well-being as a compass for policy.* It also proposes a stronger implementation, monitoring and review process such as a *new monitoring framework* to measure the EU and Member States progress towards the EAP's priority objectives. Its enabling conditions support a collaborative approach to *multi-level governance and action at all levels for a highly decentralised policy.*

c) Regional context - Western Balkans

Western Balkans is one of the regions in Europe *most heavily affected by the impact of climate change* and this trend is projected to continue, with estimates of temperature increases of 1.7 – 4.0°C, and even exceeding 5.0°C by the end of the century[31], depending on the global effort in greenhouse gasses emission reduction. This calls for reducing greenhouse gas emissions and enhancing resilience to the impact of climate change.

The EU is aware that to *maximise the impact of the European Green Deal for the whole continent, it should make Western Balkans a part of this deal* and ensure the countries are given equal opportunities and weight. This way, the EU can guide the region towards the 2030 and 2050 targets while benefiting from the added value the Western Balkans could offer, *and that's* **how the "Green Agenda for the Western Balkans" emerged.**

[30] European Commission, 2022. Decision (EU) 2022/591 of the European Parliament and of the Council of 6 April 2022 on a General Union Environment Action Programme to 2030. Brussels, Official Journal of the European Union, L 114/22 from 12.04.2022, Document 32022D0591. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022D0591

[31] Vuković A, & Vujadinović Mandić M, 2018. Study on climate change in the Western Balkans region. Sarajevo, Regional Cooperation Council. Accessible here: https://www.rcc.int/pubs/62/study-on-climate-change-in-the-western-balkans-region

In *March 2020*, the Council of the European Union decided to open accession negotiations with North Macedonia and endorsed the Commission Communication on a *revised methodology* **"Enhancing the accession process - A credible EU perspective for the Western Balkans"**[32]. The methodology puts stronger focus on fundamental reforms in the rule of law, economy and functioning of democratic institutions, freedom of expression, media freedom and pluralism as well as public administration. They remain crucial for preparing candidate countries and potential candidates to meet the requirements of membership. It means that WB leaders must *deliver more credibly on their commitment* to implement the fundamental reforms required, whether on rule of law, fighting corruption, economy or ensuring proper functioning of democratic institutions and public administration, and foreign policy alignment.

The European Council emphasized the need to improve the effectiveness of the entire accession process through *fully transparent and inclusive implementation of all reforms, by involving the key stakeholders*. The key to achieving this is ensuring that the process continues to be built on strict but fair conditionality and the principle of own merits. These conditions must be objective, precise, detailed, strict and verifiable.

In *November 2020* in Sofia, the governments of Western Balkans committed to the "**Green Agenda for the Western Balkans 2021-2030**[33]" as concrete plan to expand the European Green Deal to the region. The Green Agenda *is a new growth strategy for the region*, leaping from a traditional economic model to a sustainable economy, in line with European Green Deal.

The Agenda is embedded in the **Economic and Investment Plan,** which has a truly transformative potential and aims to spur the long-term recovery of the Western Balkans and their economic convergence with the EU. The plan focusses on *bridging the socio-economic gap between the region and the EU* and will be backed by a *twin green and digital transition*.

The plan provides a unique combination of *three strands:*

- First: the *substantive funding* that the EU will provide to swiftly deliver on key priority investments that have been proposed by the authorities and have high impact for the whole region;
- Second: the firm commitment of the partners *to accelerate the reforms* needed to consolidate conducive conditions for economic growth; and
- Third: the *engagement of the whole region to establish an economic market* that will make the region more attractive for investors from the region, the EU and abroad.

The EU will support financially the implementation of the ambitious *Green Agenda for Western Balkan through the Instrument for Pre-Accession (IPAIII)*[34].

[32] DG NEAR, 2020. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Enhancing the accession process - A credible EU perspective for the Western Balkans, Brussels, EC, 05.02.2020, COM (2020) 57 final. Accessible here: https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/enlargement-methodology_en.pdf

[33] *The declaration launched the energy transition process in the Region, and this process will be supported, among other things, through the Economic and Investment Plan for the Western Balkans*

[34] European Commission, 2021. Regulation (EU) 2021/1529 of the European Parliament and of the Council of 15 September 2021 establishing the Instrument for Pre-Accession assistance (IPAIII). Brussels, Official Journal of the European Union, L 330/1 from 20.09.2021, Document 32021R1529. Accessible here: https://eur-lex.europa.eu/eli/reg/2021/1529

The *Western Balkans Investment Framework, the European Fund for Sustainable Development Plus (EFSD+)*, and other instruments will be the *main implementing mechanisms* in this regard.

d) National context

By signing the international agreements and documents *as a member-state of the United Nations*[35], *North Macedonia has committed,* in all development policies at national and local level (plans and programs) related to mitigation and adaptation to climate change, as well as those for decarbonization of the economy:

- *to respect, promote and take into account* appropriate human rights obligations, in particular the right to health, the rights of local communities, migrants, children, persons with disabilities and persons in vulnerable situations, as well as the right to development, gender equality, empowerment of women *and equality between the generations and will implement the so-called just transition* (*Paris Agreement 2015*);
- *to promote the human rights of people in vulnerable situations* and their access to livelihoods, food and nutrition, safe drinking water and sanitation, social protection, health services and medicines, education and training, adequate housing and decent work, clean energy, science and technology. (*Resolution on human rights and climate change adopted by the UN Human Rights Council in 2021*);
- *to apply an integrated approach* in sustainable development planning, at national and local level (*Agenda 2030*);
- *to measure policy performance and results* through a *set of indicators* that will measure the country's progress in eradicating poverty in all its forms, ending discrimination and exclusion, and reducing inequalities (*Agenda 2030*);
- *to emphasize the role of local authorities*, as a level of governance closest to the citizens and a key driver of the transition to a greener and more comprehensive development and the fight against climate change in which "no one will be left behind" (*Agenda 2030*); and
- *to provide citizens with rights* for access to information, participation in decision-making and access to justice in environmental matters. (*Aarhus Convention*).

NORTH MACEDONIA AS A MEMBER-STATE OF THE UN HAS ALREDY ENDORSED:

- *the UN 2030 Agenda and the Paris Agreement;*
- *2018 Solidarity and Just Transition Silesia Declaration, adopted at COP-24 in Katowice; and*
- *the 2021 Declaration on Supporting the Conditions for a Just Transition Internationally, adopted at COP-26 in Glasgow.*

[35] *On 8th of April, 1993 the Republic of Macedonia joined the United Nations (General Assembly resolution A/RES/47/225). The membership, founded on the basic principles and tenets of the UN Charter, continuously creates the aspects of the multilateral dimension of the foreign policy of the Republic of Macedonia.*

By signing the *international agreements and documents within the process of accession to the European Union,* dedicated to transition of the national economy from a traditional economic model to a sustainable economy, *North Macedonia has committed*:

- *to join* the European Union in realizing the vision of "Europe - the First Climate-Neutral Continent by 2050;
- *to work* towards the 2050 target of a carbon-neutral continent together with the EU through mainstreaming a strict climate policy and reforming energy and transport sectors;
- *to define* a *clear pathway* that will determine the necessary changes in various economic sectors to achieve net zero greenhouse gas emissions by 2050;
- *to establish* an *appropriate legal framework* that imposes direct obligations on relevant stakeholders, including all levels of government;
- *to establish* the necessary legal basis for safe, inclusive, economic, transparent and predictable *planning, reporting and monitoring* of energy and climate policies and goals by 2030 (*national governance mechanism*);
- *to establish* a *multi-level climate and energy dialogue*, which will enable local governments, civil society organizations, business community, investors and other relevant stakeholders and the general public to be actively involved and discuss the various scenarios envisaged for energy and climate policies. including long-term, and will assess their progress;
- *to promote policies and measures* within the planning documents that enable achievement of the goals of the Energy Union and contribute to the reduction of greenhouse gas emissions, increase the share of renewable energy sources in the gross final energy consumption in a sustainable way and increase the savings in the consumption of primary and final energy through energy efficient measures in the sectors construction (*buildings*), industry and transport (*promotion of electric vehicles, cycling, walking and use of collective modes of transport*);
- to undertake intensive *activities and measures* for:
    - use of cleaner and renewable energy sources and more environmentally friendly transport solutions,
    - introducing a fully circular economy through sustainable production of raw materials, waste management and prevention of plastic pollution,
    - compliance with the EU standards related to air quality, water and wastewater management
    - compliance with the EU standards for food safety and quality and animal welfare and promotion of ecological and organic agriculture
    - protection of biodiversity and restoration of ecosystems
    - digitalization related to the implementation of the above groups of activities.

The above adopted commitments mean that the Macedonian society, with the scale of change required globally and in frame of the implementation of the Green Agenda for the Western Balkans, *has an obligation to promote social and just transition concept* in the processes related to climate and energy that will be undertaken by 2030, and ensure that *no one is left behind in the transition to net zero economy.*

NORTH MACEDONIA ACCESSION TO THE EUROPEAN UNION

- *Integration into the European Union (EU) is a central strategic objective for the **North Macedonia** and an opportunity to accelerate reform processes in the countries in the since 1999.*
- *The full-fledged membership of the Republic of **North Macedonia** in the European Union is a clear and unequivocally expressed strategic interest and a priority objective of the Republic of North Macedonia since 2004, from when Stabilisation and Association Agreement between the European Communities and Republic of Macedonia is in force.*
- *The process towards integration with the EU has been an important driver of democratisation, peace and institution building and has provided the country with large financial and technical support for its development and regional integration."*

2. Current policy, legal and financial framework for transition towards climate-neutral economy in North Macedonia

a) Introduction

North Macedonia is characterized by a variable climate, which combined with higher temperatures and extreme weather events (such as droughts, floods, heat waves and storms); fuelled by climate change, make it *one of the most vulnerable countries in the world. Such vulnerability to climate change is exacerbated by the country's specificities,* namely being landlocked; the diversity of the biomes (eight distinct ones), the geography including tall mountains and deep valleys; four main river basins and three large natural lakes.

According to the results of the climate change projections and changes in climate extremes up to the year 2100, *North Macedonia will face hotter and drier climate in the future.* The consequences of climate change are expected to vary significantly throughout the country with *explicit implications in the southern part,* with increased average temperatures and reduced access to water. This effect would enhance current vulnerabilities in terms of droughts, forest fires and heat waves.

The climate change challenge of North Macedonia requires *adoption of more development-sensitive (adaptation and mitigation) national and local policies,* providing new opportunities for the national economy, environment and society and thus, demonstrating that addressing climate change from a development perspective represents an opportunity *to make sustainable development of the country more tangible.*

b) Main policy and legal framework

The current policy and legal framework for transition *towards a low carbon, climate-neutral economy i*s based on:

- Country's commitments made by signing numerous international agreements within the United Nations; and
- International agreements with the European Union in the process of accession of the Western Balkans to the EU.

The main Government reforms in the period 2020-2025 are focused especially on *achieving the following sustainable development goals:* (SDG 1) - End poverty, (SDG 4) Inclusive and equitable quality education and lifelong learning, (SDG 7) (*Ensure access to affordable, reliable, sustainable and modern energy for all),* (SDG 8) Sustainable economic growth, full employment and decent work for all, (SDG 13) Take urgent action to combat climate change and its impacts, and (SDG 16)) Peaceful and inclusive societies.

➧ *Climate policy and legal framework*

North Macedonia is a party of the United Nation Framework Convention on Climate Change (UNFCCC or Convention) (Official Gazette – 61/97), ratified the Kyoto Protocol (Official Gazette – 49/04) and its Doha Amendment (2019) and has associated itself with the Copenhagen Accord (2009).

Under the Paris Agreement, the country became the twenty-third in the world to submit its Intended Nationally Determined Contribution for Climate Change (INDC) as per the Decision of the Government No. 42-17/91 of 28 July 2015.

As a UNFCCC Party, North Macedonia has non-Annex I status, meaning has obliged to submit its National Communications (NC) and Biannual Updated Reports (BUR). The latter was introduced in order to enhance reporting in NCs of Annex I Parties, to present progress in achieving emission reduction, and to report on provision of financial, technology and capacity-building support to non-Annex I Parties. The country has so far submitted to the UNFCCC three National Communications on Climate Change and two Biennial Update Reports. The *third* **Biannual Update Report on Climate Change** was submitted to the UNFCCC *in June 2021*[36]. The fourth National Communication is expected *to be finalized in 2022*.

North Macedonia submitted its **enhanced National Determined Contribution (eNDC)** to the UNFCCC Secretariat *in April 2021*[37]. The document envisages a *51% reduction of GHG emissions by 2030 compared to 1990 levels and expressed in net emissions, 82% reduction compared to 1990 levels.*

The eNDC is focused on mitigation area, with a vision to include adaptation component in the subsequent submissions, once the relevant national strategic and planning documents are prepared and adopted. The eNDC significantly increases the ambition to reduce GHG emissions. In line with the increased ambition, the eNDC includes *social aspects* such as: impact of the proposed mitigation measures for creation of *green jobs,* adopting a *gender-responsive approach,* and enhanced *engagement of the youth.* Additionally, the eNDC highlights the *vital role of the private sector* in the mitigation actions and the contribution to the regional development of the country.

The **Long-Term Strategy on Climate Action and Action Plan**[38] was adopted by the Government on *1 September 2021*. The Strategy defines contribution of the country to the global effort, through a pathway towards green, low carbon and climate resilient development, based on the best available information and in the context of the country's accession to the EU.

A Long-term Vision of the Strategy is "*The Republic of North Macedonia is, by 2050, a prosperous, low carbon economy, following sustainable and climate resilient development pathways, enhancing competitiveness and promoting social cohesion through action to combat climate change and its impacts*."

[36] Ministry of Environment and Physical Planning of the Republic of North Macedonia, 2021. Macedonian third Biennial Update Report on Climate Change (2021), Accessible here: https://unfccc.int/sites/default/files/resource/1%20TBUR_EN_f.pdf

[37] Ministry of Environment and Physical Planning of the Republic of North Macedonia, 2021. Enhanced National Determined Contribution-Submission by the Republic of North Macedonia, Accessible here: https://unfccc.int/sites/default/files/NDC/2022-06/Macedonian%20enhanced%20NDC%20%28002%29.pdf

[38] Ministry of Environment and Physical Planning of the Republic of North Macedonia, 2021. Long-Term Strategy on Climate Action and Action Plan. Accessible here: https://unfccc.int/sites/default/files/resource/MKD_ES_LTS_Nov2021.pdf

The *long-term objective* quantifying North Macedonia's contribution to the global effort is "*Reduction of national net GHG emissions (including Forestry and Other Land Use and excluding MEMO items*) of 72% by 2050 compared to 1990 levels (or GHG emission reduction of 42% by 2050 compared to 1990, excluding FOLU and MEMO items) and increased resilience of North Macedonia's society, economy and ecosystems to the impacts of climate change*".

The specific goals for the transition to a prosperous, low-carbon economy by 2030, set out in the Long-Term Strategy for Climate Action of RNM, will contribute *to improving the health and well-being* of the population through: reduction of pollutant emissions into the air; improving food production; reducing the negative consequences of exposure to forest fires; reducing health risks associated with waste management; and improving of living conditions and habitats.

The implementation of this strategy will align Republic of North Macedonia *with the SGD 13 – Take urgent action to combat climate change and its impacts.* Additionally, this strategy is also directly contributing to *SGD 7 – Ensure access to affordable, reliable, sustainable and modern energy for all,* which is supported by the indicator Share of renewable energy sources in gross final consumption. This Strategy lays the ground for immediate and urgent work required to address the key technical barriers previously identified and *to prepare a detailed cross-sectoral National Adaptation Plan* (*under development*), which will lay the grounds for international cooperation on the matter and set the country on course to a climate resilient sustainable development.

The *legal framework on climate change* is incorporated into the **Law on Environment** which currently regulates the monitoring of anthropogenic GHG emissions by sources and sinks and details requirements for the development of national GHG inventories. Article 187 refers to the National Plan for Climate Change mitigation, and Article 188 refers to the National Inventory of GHG Emissions.

The EU **Environmental Impact Assessment Directive** was transposed into national law by **the Law on Environment** (OG of RM, no. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13, 187/13, 42/14, 44/15, 129/15, 192/15, 39/16) **and by-laws** following closely the structure and content of the Directive: The Rulebook on the form and the content and the procedure and the manner for elaboration of the Environmental Impact assessment (Official Gazette of RNM 33/2006 from 20.03.2006) and Decree on public participation in the preparation of regulations and other acts, as well as plans and programs relating to the environment are mapped out ("Official Gazette of the RM" no. 147/08; 45/11).

The **new Law on Climate Action** (*under development*) is expected to fully transpose EU climate legislation, enabling low-carbon development and climate change resilience. It will set the legal obligations for the institutionalization of a national GHG emissions inventory system and for policies, measures and projections. The provisions of the Law will establish a mechanism for monitoring of the greenhouse gas emissions in accordance with the EU Regulation No. 525/2013 on monitoring mechanism and its implementing provisions.

The other policies, laws and strategies mainstreaming climate change in different sectors, that are currently under development are:

- Climate Action - Law on Climate Action and two bylaws;
- Adaptation - National Climate Change Adaptation Plan;
- Energy - National Energy and Climate Action Plan (NECP);
- Waste - Waste Managing Plans and Law on Waste Management;
- Gender - Gender Equality Strategy and Law on Gender Equality; and
- Spatial Planning - Spatial Plan 2022-2040 and the Law on Spatial planning.

The *National Climate Change Committee (NCCC),* established by the Government, provides high-level support and guidance for the overall climate change policies in the country. It is comprised of *key stakeholder representatives from national institutions, academic institutions, private sector and civil society and the climate change coordinators appointed by ministries*. National Council for Sustainable Development also participates in this process as well as other key stakeholders from the government and the civil society. The Ministry of Environment and Physical Planning (MOEPP) has been designated as *National Focal Point to the UNFCCC and the National Authority for the implementation of the Kyoto Protocol.* The UNFCCC Gender and Climate Change Focal point has been nominated from the Ministry of Labour and Social Policy.

The Office of the Deputy Prime Minister for Economic Affairs is responsible for the achievement of the Sustainable Development Goals, and it is also *a National Designated Entity for the Green Climate Fund.* Other ministries responsible for relevant climate change policymaking are: Ministry of Economy, Ministry of Agriculture, Forestry and Water Economy, Ministry of Transport and Communications, Ministry of Health, and Ministry of Finance.

Energy policy and legal framework

The main *cornerstones of the current legal framework on energy in the country* are the *Energy Law* (Official Gazette 96/2018 and 96/2019), and the *Energy Efficiency Law* (Official Gazette 32/2020) which impose extensive and serious obligations for the state and local authorities that directly affect the daily lives of citizens and functioning of the private sector.

The **Energy Law** transposes the Third Energy Package in the electricity and natural gas sector, as well as the Renewable Energy Directive 2009/28/EC. In accordance with Article 10 of the Law the *energy policy of North Macedonia* shall provide:

- Secure, safe and quality supply of all types of energy to the consumers;
- Stability, competitiveness and economic functionality of the energy sector;
- Efficient provision of services and protection and promotion of consumers rights;
- Reduction of energy poverty and protection of vulnerable consumers;
- Inclusion of the energy markets of North Macedonia in the regional and international energy markets;
- Use of energy sources in a manner that provides sustainable energy development;
- Promotion of energy efficiency;
- Reduction of the use of fossil fuels for energy generation;
- Promotion of the use of renewable energy sources:
- Protection of public health, the environment and mitigation of climate change from the harmful effects arising from the performance of energy activities; and
- Fulfilment of the commitments of the country under ratified international agreements.

In *February 2020*, the **Energy Efficiency Law** (Official Gazette 32/2020) was adopted, which, with the relevant by-laws, warrants transposition of the Energy Efficiency Directive 2012/27/EU, Energy Performance of Buildings Directive 2010/31/EC and the package of regulations for energy efficient products (labelling and eco-design). The law introduces a number of regulatory measures, such as building renovation strategy, EE obligation scheme, monitoring and verification of savings, comprehensive assessment of potential for efficient heating and cooling etc. *Implementation is still lagging behind* as key by-laws are either missing or are not updated. North Macedonia is preparing rulebooks on energy performance of buildings, energy audit of buildings and on energy performance certificates verification system.

As a requirement from the Energy Law, a **Strategy for Energy Development of the Republic of North Macedonia 2020-2040**[39] has been adopted in *December 2019*. The Strategy depicts three scenarios - Reference, Moderate Transition and Green, which reflect different dynamics of energy transition and enable flexibility into the country's response to relevant global and European level, and particularly in the framework of the Energy Community. The Strategy provides *a platform for the overall energy sector modernisation and transformation* in line with EU energy trends, contributing to increased access, integration and affordability of energy services, reduction in local and global pollution, and increased private sector participation, while considering country's development potential and domestic specifics.

In *December 2020* the **Programme for the Implementation of the National Strategy for Energy Development 2021-2025**[40] was adopted. *Investments above 900 million euros* on annual basis in until 2025 were envisioned. Given the multiplier effect on the economy, this means that this mass of investments in five years will create additional value of GDP.

Following the preparation of the national Energy Strategy and in response to the Recommendation of the Ministerial Council of the Energy Community (2018/1/MC-EnC)[41] as well as relevant to the Policy Guidance by the Energy Community Secretariat (PG 03/2018), **draft National Energy and Climate Plan (NECP)**[42] *was prepared in July 2020.* North Macedonia's NECP is still to be finalized and adopted. The draft NECP proposes a pathway to achieve the 2030 targets. As the Energy strategy does, the draft NECP also takes a holistic approach and *address the five main dimensions of the Energy Union* in an integrated way recognizing the interactions between them.

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[39] Ministry of Economy of the Republic of North Macedonia, 2019. Strategy for Energy Development of the Republic of North Macedonia 2020-2040, Accessible here: https://economy.gov.mk/Upload/Documents/Adopted%20Energy%20Development%20Strategy_EN.pdf

[40] Ministry of Economy of the Republic of North Macedonia, 2020. Programme for the Implementation of the National Strategy for Energy Development 2021-2025, https://economy.gov.mk/Upload/Documents/Program%20for%20the%20realization%20of%20the%20strategy%20_final%20version%20for%20public%20consultation_%2012%20July%202021%20EN_clear.pdf

[41] Ministrial Council of the Energy Community, 2018. Recommendation on preparing for the development of integrated national energy and climate plans by the Contracting Parties of the Energy Community. Vienna, Energy Community. Accessible here: https://www.energy-community.org/dam/jcr:de3adce9-e047-4fb3-a632-f63c64a5c9c6/REC_2018_01_MC_CLI.pdf

[42] Ministry of Economy of the Republic of North Macedonia, 2020. National Energy and Climate Plan of the Republic of North Macedonia- draft, Accessible here: https://www.energy-community.org/dam/jcr:bbb63b32-6446-4df8-adc6-c90613daf309/Draft_NECP_NM_%202020.pdf

63 specific policies and measures are proposed for achieving the set targets and objectives for each of the five dimensions. Specific *policies and measures for decarbonization of the economy and promotion of energy efficiency,* provided in the draft NECP will contribute to improving the health and well-being of the population, by reducing greenhouse gas emissions through:

- gradual closure of coal-fired power plants;
- utilization of renewable sources for electricity production in combination with energy efficiency measures in all sectors;
- improving land use practices in agriculture and forestry;
- improving waste management and treatment practices, etc.;
- improving the energy performance of buildings, by renovating existing and constructing new buildings (including passive buildings); promotion and introduction of more advanced technologies for consumption management; use of central heating systems; "Green" public procurement, etc.; and
- promotion of electric vehicles, advanced mobility (cycling, walking, etc.) and use of collective modes of transport, and change of freight traffic from road to rail.

As obligation arising from the Law on Energy Efficiency, the **National Energy Efficiency Action Plan 2020-2022**[43] (NEEAP) was developed and published *in August 2021*. The NEEAP is reporting on the measures that have been implemented in the previous three years, and propose measures to reduce consumption in the next three years.

In order to fully complete the legislation and bylaws regarding promotion of biofuels, as well as for complete transposition of the Directive 28/2009 /EC on the promotion of renewable energy in the part referring to biofuels, **Law on biofuels** was prepared and is expected to be adopted. *Action plan for the use of biofuels (based on this Law), and appropriate by-laws* that will complete the legal framework and regulate the issues related to the use of biofuels, in accordance with the methodology for determining the biofuels, obligatory percentage of biofuels, such as establishment of system for verifying biofuels, price of mixed biofuels, possibilities for subsidizing production and use, *will be prepared after the adoption of the Law*.

On a broader level, North Macedonia adopted the **Law on Strategic Investments** (Official Gazette 14/2020) which aims to encourage, attract and create conditions for implementation of strategic investments in the country, increase economic growth, employment and application of new technologies and innovations, increase the competitive economic opportunities, increase exports and reduce the trade deficit as well as improve the wellbeing and living conditions of the citizens.

c) Funding the transition towards a climate-neutral economy

In line with the **eNDC Implementation Roadmap for North Macedonia 2020-2030**[44]

[43] Ministry of Economy of the Republic of North Macedonia, 2021. NEEAP 2020-2022. Accessible here: https://economy.gov.mk/Upload/Documents/4NEEAP%20final%20version%2014.04.2021_en%20corected.pdf

[44] Landau S. & Ilieva L, 2021. Enhanced Nationally Determined Contribution Implementation Roadmap for North Macedonia 2020-2030, Skopje, Ministry of Environment and Physical Planning of the Republic of North Macedonia. Accessible here: https://klimatskipromeni.mk/data/rest/file/download/c86929c13f43f00f201b38ef166822904cf3568a881e997bc608433de987eb8f.pdf

prepared in *November 2021, financing requirements* for eNDC exceed **EUR 20 billion until 2030.** The Roadmap seeks to establish a comprehensive implementation and financing pathway considering the most attainable financing scenarios given current investment patterns and structures *for the country's largest emissions sector, energy, as well as the waste and AFOLU sectors.* It also considers the fiscal implications of the COVID-19 pandemic and the need to rebuild the economy with a new source of green jobs by prioritising those measures as part of the methodology.

In addition, even before Covid-19 struck, the EIB observed that over the past decade *investment in infrastructure* of North Macedonia has been the smallest in the Western Balkans as share of the public budget, standing at 6.2% in 2018, down from 10.8% in 2008. According to EIB, the shortfall on infrastructure investment, *particularly energy and transport*, is a serious impediment to growth in the region and North Macedonia. At the same time, energy and transport are central to reducing country's GHG emissions and constitute important areas of focus for EU Accession. Though the country has made progress in implementing financial instruments and gaining support for energy sector investments in the past, the scale of investments needed for the implementation of the Roadmap outpaces its current ability to finance the transformational change envisioned by the eNDC. Therefore, *new or significantly expanded financial instruments and support are needed.*

The **Financing Strategy for the Macedonian enhanced Nationally Determined Contributions to Climate Change**[45] prepared in *November 2021* highlights that:

- Most of the measures, except regulatory measures, can be financed through private capital;
- Sources include international blended capital structures, for-profit vehicles such as EBRD energy efficiency funds, or low interest capital sourced from the international capital markets, such as green bonds;
- Private carbon funds and offset aggregators which develop zero emission projects in anticipation of sale of offsets and removal credits can also support these efforts, especially in the nature-based finance category;
- Large renewable energy projects which benefit from government or international guarantee mechanisms, as well as a national or regional green bank, which could act as a repository of capital and expertise to assist in accelerating transition;
- A national or regional green bank could act as a repository of capital and expertise to assist in accelerating transition; and
- New technologies and projects need to be developed as "shovel ready" investor opportunities to create a long-term competitive advantage for North Macedonia.

Given the limited resources, the Financing Strategy proposes *8-point approach to prioritising measures:* (1) Invest first in those sectors which contribute the most to eNDC targets, (2) Invest in high-return technologies, (3) Target technologies with rapidly decreasing cost curves, (4) Maximise green infrastructure jobs, (5) Finance Measures which maximise external investment sources, (6) Choose Measures which can be highly leveraged by regulation (7) Leverage funds

[45] McClellan, K, 2021. The Enhanced Nationally Determined Contribution (NDC) Financing Strategy. Skopje, Ministry of Environment and Physical Planning of the Republic ofNorth Macedonia. Accessible here: https://klimatskipromeni.mk/data/rest/file/download/da39fc5ee4edde466e63b7af6581e8e0a1a015cc4458b15fb6484f6958b127eb.pdf

made available from a national carbon tax, and (8) Maximise impact and benefits of carbon markets.

Financial mechanism under UNFCCC Convention provides financial resources (*grants and lending instruments*) to assist countries in transition to meet the objectives of the international environmental conventions and agreements. There are *two operating entities* of the financial mechanism:

- *Global Environment Facility* (GEF); and
- *Green Climate Fund* (GCF) - currently active in North Macedonia through just one regional project, the Green Cities Facility, with nine beneficiary countries. The project main goal is to enable the transition of the cities, urban areas with about 70% of the global energy consumption and about 75% of emission, to low-carbon, climate-resilient urban development with minimized environmental impact and maximized support to natural environment through including energy efficiency in building, transport, waste reduction, water management and green planning. The project realization framework is October 2018-September 2034.

EU financial instruments:

- *Economic and Investment Plan for the Western Balkans* - The Plan aims to accelerate the long-term economic recovery of the region, promote green and digital transition and enable regional and EU integration. The plan provides *substantive funding* to swiftly deliver on key priority investments that have been proposed by the authorities and have high impact for the whole region. Through the Plan, *the support in the field of energy will be reinforced*. Strong emphasis will be put on energy market integration, decarbonisation and clean energy, just transition, increased digitalisation of the system and smart grids, energy efficiency, including modernisation of district heating, and energy security;
- *R&D Support EU Competitive Programmes*, one of the EU funding mechanisms to support research, development, innovation and technology transfer projects related to climate change, are financed directly from the EU's budget in the form of grants and are managed centrally by the European Commission. Participants are from Programme Countries (28 Member States and EFTA/EEA Countries) and partner countries (third countries and pre-accessing EU candidate and potential candidate countries). EU mechanisms fund projects in line with the EU's focus of research, development, innovation and technology transfer related to climate change: Horizon 2020, COSME, CEF, LIFE, Erasmus+, IPA;
- Resources currently available from the EU and other *international/bilateral sources* are far from sufficient to accelerate GHG reduction measures in North Macedonia, yet much of the EUR 20 billion will have to come from international aid organisations and banks, for example, with loans and grants for energy and energy efficiency infrastructure from the EBRD, renewable energy finance from the EIB and natural capital projects from the FAO;
- *EU new financing tools* in the form of equity and debt investment, credit enhancement programs and sector-specific funds blending infrastructure debt, as well as targeted and start-up and growth equity; and
- The *Carbon Border Adjustment Mechanism* will help reduce the risk of carbon leakage and ensure a level-playing field by encouraging EU partners to raise their climate ambition. In addition, the EU is proposing measures to implement a circular economy

action plan and biodiversity strategy. Significant funds will be made available to North Macedonia for these initiatives.

Climate Finance from Green Bonds: North Macedonia can benefit from a growing, global determination among institutional investors to invest the world's capital to work for climate change mitigation. One way to tap into this opportunity is through the green bond market. It offers significant growth potential to transitioning countries like North Macedonia. By bridging the gap between providers of capital and green assets, green bonds help to reduce the cost of finance to meet climate targets. Like conventional bonds, green bonds allow the bond issuer to raise funds for projects or ongoing businesses; the "green" label indicates that the capital raised will be used to finance environmentally beneficial projects, and this is closely monitored.

International climate funding: A limited number of international funds allow direct access, including the Green Climate Fund, the Adaptation Fund, the Global Environment Fund and the European Commission Directorate-General for International Cooperation and Development. Direct access *involves national or subnational institutions directly* receiving finance from funding sources and disbursing them to relevant projects, i.e., without an international agency managing and overseeing the funds as an intermediary. Each fund has different accreditation requirements for institutions seeking direct access, including demonstrating capacities such as financial and administrative management, monitoring and evaluation (M&E), project management, gender mainstreaming and equity, and environmental and social management. *North Macedonia* should screen a selection of national and subnational institutions against the accreditation requirements for the relevant fund or funds, to identify potential eligible institutions and establish what is required to fully meet the accreditation requirements. The next step is *to develop a project pipeline and put forward funding proposals* so that finance can be accessed.

Attracting Private Capital: Additional funding will need to augment national budget allocations, buy down technology risk, access low-cost infrastructure capital, pay for grid balancing and storage, finance energy efficiency vehicles and guarantee long term PPAs from energy companies. Greater public–private dialogue on climate finance through regular forums and institutions can lead to increased understanding of climate change opportunities within the private sector, as well as appreciation of investment barriers and how these can be addressed.

3. Socio-economic challenges of the just transition towards a climate-neutral economy in North Macedonia

a) Introduction

The Macedonian Long-Term Strategy on Climate Action and its Action Plan together with enhanced National Determined Contribution (eNDC) should mark a turning point for North Macedonia, with the country embarking on **its own pathway towards a low carbon, climate resilient economic development**. These **documents** echo the green scenario from the National Strategy for Energy Development up to 2040 and are fully aligned with the draft National Energy and Climate Plan (NECP).

The table below summarizes the characteristics of the **main economy sectors responsible for GHG** emissions in the country:

SECTOR	Characteristics
Energy	✧ Largest share in the GHG emissions, ✧ Based on fossil fuels, primarily coal (over 80% of the total energy demand), ✧ Country with high gross inland consumption and high final energy consumption per unit of GDP despite the low energy consumption per capita.
Industrial Processes and Product Use (IPPU)	✧ Production from industries and use of ozone-depleting substances for air conditioning, ✧ Metal industry (production of ferroalloys) and Cement production are the main contributors to the GHG emissions of this sector, ✧ The rest of the emissions from the use of substituents of ozone-depleting substances.
Agriculture, Forestry and Other Land Use	✧ Forests and forest lands are the main CO_2 sinks in North Macedonia, ✧ Total area in 2017 of forest is 1.001.489 ha, forest land is 109.126 ha and barren land is 11.643 ha, ✧ From 2009 to 2017, about 43.252 ha of other wood land were changed to forest,

	✧ Around 90% of the forests are state-owned and the rest are private forests, ✧ Livestock production emit GHG mainly as a result of enteric fermentation and management of manure, ✧ GHG emissions from crop production are a consequence of several major sources, such as inadequate and excessive fertilization with mineral fertilizers, rare and inadequate application of manure, conversion to land use from extensive to an intensive plant production system, inadequate management of arable land and improper management when fertilizing.
Waste	✧ GHG emissions increased by 50% between 1990 and 2016 (fastest growing), ✧ Most of the emissions are from Solid Waste Disposal, Biological Treatment of Solid Waste, Incineration and Open Burning of Waste, and Wastewater Treatment and Discharge, ✧ Solid waste disposal is the category with the highest share of GHG emissions in this sector.

Table 1: Economic sectors that largely contribute to the GHG emissions

Source: Gohou, G., 2021. Rapid socio-economic assessment of the Macedonian enhanced NDC targets/measures. Skopje, UNDP. Accessible here: https://klimatskipromeni.mk/data/rest/file/download/02a96b1c61855d62ff25dd757ce1d905ba5f50d30a87829a3721591e69ff038c.pdf

As to the climate change related policy context, the *focus of the NDC is put on climate change mitigation*, that is, on policies and measures which lead to GHG emissions reduction, and particularly to CO_2 emissions from fossil fuels combustion which covers almost 80% of the total GHG emissions in the country. The following sectors are of dominant share: *energy supply, buildings and transport.*

The *eNDC is specific to the GHG emission reduction* in the energy, agriculture, forestry and land use (AFOLU) and waste sectors. The *overall mitigation target* in the eNDC is to reduce 51% of GHG emissions compared to 1990 levels (82% reduction in net GHG emissions). Disaggregated GHG emission reduction targets by sector include: Energy: 66% reduction; Agriculture: 29% reduction; Land Use, Land Use Change and Forestry (LULUCF): 95% removals increase; and Waste: 21% reduction.

There are *63 mitigation measures* in the following sectors: *energy sector (32 measures); agriculture, forestry and other land use* (AFOLU) (11 measures); and *waste management* sector (4 measures). It also includes *16 additional measures* that contribute significantly to sustainable development and the SDG 7 aims to respond to the RES.

The eNDC *wove sustainable development into its mitigation policies and measures* **(**PAMs), quantifying the nexus of sustainable development and climate change mitigation. The climate change challenge may incentivise the adoption of more development-sensitive (adaptation and mitigation) policies, providing new opportunities for the economy, environment and society and thus, demonstrating that addressing climate change from a development perspective represents an opportunity to make sustainable development more tangible.

The results show that the *energy sector is dominant in influencing the SDGs*. *The strongest synergies remain with SDG 8:* Decent work and economic growth due to the new job opportunities in renewable energy deployment and in the construction and retrofit market; sustained economic growth, improved economic efficiency per unit of product and sustained support of entrepreneurship.

b) Socio-economic impact of the eNDC

Climate change threatens every sector and community, and particularly the poorest and most vulnerable. The socio-economic impact assessment indicates that COVID-19 has had serious negative impact on the economy of the Republic of North Macedonia of a magnitude that exceeds that of the 2007-2009 global financial crisis.

The effect of climate change on different economy sectors in North Macedonia has been assessed by the **Rapid socio-economic assessment of the Macedonian eNDC targets/measures**.[46] The report captures the socio-economic impacts and co-benefits of the Macedonian enhanced NDC targets/actions and proposes recommendations for balancing social, economic and environmental considerations.

The eNDC Policies and measures met *three social objectives that impact the well-being of the population and especially the most vulnerable groups:*

- *First*, the reduction of the pollution has a positive effect on people's health: It has to be noted that climate change poses risks to human health in general - no one is immune. It is difficult to define the vulnerability of people affected by climate change and how they respond to these severe conditions. But when it comes to impact, differences arise on how men and women experience the effects of climate change, as well as their ability to cope with them. Despite tremendous efforts made to reduce the gender gap and climate change, there are *still a lot of disparities between women and men to be addressed in different sectors.*

[46] Gohou, G., 2021. Rapid socio-economic assessment of the Macedonian enhanced NDC targets/measures. Skopje, UNDP. Accessible here: https://klimatskipromeni.mk/data/rest/file/download/02a96b1c61855d62ff25dd757ce1d905ba5f50d30a87829a3721591e69ff038c.pdf

- *Second, the green jobs creation through green economy projects as an effect on economic growth and the reduction of the people's poverty:* The climate change mitigation plan uses 3 mitigation scenarios to predict the number of green jobs creation for the period from 2025 to 2040. The most ambitious scenario also known as the climate champion scenario has the most potential of job creation, doubling the survival scenario in 2035. This is mostly due to the job creation in using new technology to reduce emissions in home energy retrofits (50%), passive houses building that results in ultra-low energy using (23%), a photovoltaic or power system designed to supply usable solar power (10%) and solar thermal collectors (8%). These results are very optimistic and should take into account the distribution of the green jobs creation by gender. This assessment of mitigation policies and measures predicts in the ambitious scenario that *2,718 jobs will be created for women in 2035,* with 43% in the retrofitting of existing commercial buildings sector.

- *Third enhancing green education and information:* Education-Skills-Information Actions are supported with eNDC Policies and Measures. The green education and information enhance long-term effects on people's behaviours by making them aware of changes beneficial to their health and well-being. Indeed, in the CC perception survey, most of the respondents think that an individual change of behaviour can greatly influence climate change.

The *social aspects* of the eNDC mitigation PAMs are addressed by:

- Calculation of the newly created jobs (*8,000 green jobs by 2030*);
- *Introduction of the gender indicators* in some of the PAMs with an aim to make them gender-responsive; and
- A *youth consultation* on the enhanced NDC, designed to ensure that the voice of young people is expressed in the NDC and that there will be broad ownership for the eNDC goals.

c) Expected impact of enhanced NDC on vulnerable groups, by category of policy

It has to be noted that climate change poses disproportionate risks to human and natural systems due to differences in vulnerability and exposure. In addition, it is difficult to define the vulnerability of people affected by climate change and how they respond to these severe conditions. North Macedonia defines vulnerability as the presence of special characteristics, specialties and circumstances of the individual, community, system or objects that are making them susceptible to negative influences and damaging factors of a given hazard.

There are *14 vulnerable groups of people affected by climate change* identified. This is important as they are the least able to protect themselves from detrimental health effects of any measure: Roma, minorities, unemployed, disabled, senior citizen, children at risk, women, drug addicts, homeless people, *young people,* single parents, chronically ill, people with cancer, and victims of trafficking and prostitution. As *energy is the main sector of the eNDC*, the following sections are assessing the use of energy by the vulnerable groups. The distribution of *expected impact on vulnerable groups by category of policy* is presented below:

- **Disposal of unwelcome components and waste:** Each policy in this area should have beneficial effect on the general population and firms due to its contribution to cleaner

environment. Overall, it is estimated that such measures would have *a positive impact* on vulnerable groups (on at least 50% of them).

- **Energy incentive:** This category is related to financial measures aimed at making upcoming changes in the energy mix more attractive from an economic perspective. Incentive feed-in tariffs and RES should have a beneficial impact on health over time and thus affect positively vulnerable groups, generating *savings and health benefits* for them. It has to be noted that at least in the short run, CO_2 taxation may negatively affect household's disposable income as well as firm profits levels and thus; despite its rationale, it may have a short-term negative impact.

- **Energy production and distribution:** Overall, measures in this category should have positive impact on households and firms (80% of proposed PAMs) and provide job opportunities (20% of PAMs). This should contribute to increase the flexibility of the electricity system, eventually reduce costs in the medium term and *support new "green job" creation*. Biomass power plants and large hydropower plants will be for the benefit of the entire population, firms and vulnerable groups though health effects, increased generation and (hopefully) lower production costs in the medium term. To enhance the positive impact, it would be useful to ensure that vulnerable groups can access – maybe in a preferential manner – the related job opportunities offered. The development of improved and expanded production/transmission/distribution networks, of cross-border infrastructure and solar related plants will be positive in terms of *health benefits and costs*.

- **Improving social effects of transition to a low carbon economy:** Transversal and economy-wide program can be used to smooth out the change in energy systems. In such a transition, vulnerable groups can face significant hardship due to the *difficulties they may have to adjust to the new situation* (low income does not help acquiring new appropriate appliances, vehicles or equipment while it is an obstacle to better health care, lack of skills and of retraining opportunities may lead to a lack of employability or an inability to join so-called smart communities operating under the new rules…). In this respect, of the four PAMs (program for just transition, identification of locations for solar/wind power plants, programs for vulnerable consumers and smart communities) in this category, all should have positive impact on vulnerable groups and *appropriate mitigation and inclusion measures* should be implemented. For example, land values may negatively be affected by solar/wind power plants, leading to net wealth reduction for vulnerable groups. Such effects should be mitigated either by setting up appropriate land prices or providing compensatory transfers.

- **Land and forest use:** While around 60% of PAMs proposed in this category should be neutral with respect to vulnerable groups, still some positive and negative impact are to be expected. Perennial grass on orchards, contour cultivation and afforestation should not have any direct detrimental impact on vulnerable groups while proper integration of management of forest fires should have an obvious impact in terms of preservation of natural resources and capital, as well as a positive health effect on local populations. However, it should be kept in mind that while conversion of land use should be environmentally sound, this *may entail income losses for landowners* and may call for proper mitigation to avoid a negative impact.

- **"Greening" of procurement rules:** They should have an obvious positive impact on all kinds of social groups and *none negative impact* on vulnerable groups. However, for this to happen, follow-up measures have to be implemented. First, procurement laws and regulations have to be adapted to take into account the consequences of such change on call for tenders, the way bids are structured and the choice of procurement methods. An obvious example would be a contradiction happening between the choice of a lower cost bidder against a more expensive competitor

- **R&D and education:** Such measures should have *broad positive impact on the economy* due to the induced productivity increase as well as increased energy efficiency and lowered pollution. Participation by researchers to new technological research as well as their increased mobility should have none detrimental impact on vulnerable groups (66% of PAMs). Increased education on these matters *should also be positive* and vulnerable groups should have access to such education – whether in school for children or during retraining for new jobs for adults.

- **Developing regional integration of energy markets:** With a view to lowering costs and increase generation should be *neutral for vulnerable groups* (100% of PAMs) and prove beneficial for the economy in the long run.

- **Change in energy use in manufacturing and transportation:** This category has a broad range of impact for its PAMs, from negative impacts (44.4% of PAMs) to conditionally positive effects (55.6). Renewal of vehicle fleets (for individuals, firms) and development of advanced mobility means may improve energy efficiency and logistics but will be done at a cost for firms (costly investment required) and for vulnerable groups (who may force to change of transportation means, will face a diminution of the second-hand market which is mostly composed of thermal engine vehicles when only electric ones will be allowed, may not have the money to get the new means of transportation…). Therefore, unless mitigation measures are implemented, the impact would *likely be negative for vulnerable groups*. This can only be compensated for, by development of rail transportation and if provided that vulnerable groups can have access to some of the newly created jobs. While promising from an environmental point of view, better energy management, use of more advanced technologies and more efficient electric engines in manufacturing will create challenges for vulnerable groups. The key here will be to retrain as much as possible of the current workforce and provide financial support to individuals who cannot be retrained or create their own job.

- **Economy wide change in energy use:** This category includes a broad range of PAMs that may positively affect vulnerable groups (30%) or negatively affect them (70%) if none mitigation measures are implemented. Improvement in street lighting, increased use of central systems and awareness campaigns should all lead in the medium term to *better energy use, better health outcomes as well as increased security* for the population and vulnerable groups. The impact is likely positive. The other PAMs proposed, while highly rational, will likely induce *extra costs* that vulnerable groups may have difficulties addressing on their own. Phasing out incandescent lights, increasing the use of heat pumps, labelling "green" appliances, developing biofuels…

are all likely to induce price increases that may hurt such groups. Mitigation measures, mostly under the form of cash transfers or subsidies, should be implemented.

- **Reduction of emissions from agriculture and agro-industry:** These PAMs will lower emissions (reduction in CH4 and NO2 emissions from livestock, use of biochar as carbon sink) but will all (100%) *require investments* (equipment, training, upgrade of facilities…) that necessitate incentives/support, otherwise they may harm poor/women farmers, older farmers and minority rural households. There is a *strong case here for public support* to the sector.

- **Finally, developing energy efficiency of (public and private) buildings:** Making new up-to-date buildings or retrofitting/renovating existing ones and photovoltaic irrigation for agriculture will be very important for environmental purposes. While these PAMs will be for the benefit to the general population, for *equity purposes and as a way of compensation for other costs* underlined above, one should target poor people and vulnerable groups (such as elderly, poor women and minorities). This concerns 85% of PAMs in the category. On the positive side, such measures should have large positive impact in terms of job creations and may provide some relief to vulnerable workers.

To promote the implementation of the enhanced NDC for vulnerable groups, North Macedonia should support **measures** for:

- Education of household to implement sustainable behaviour in their daily live (heating method, waste management…) through public awareness campaigns;
- Support to all vulnerable groups and single women aged 65+ in the first place. This support can be designed in form of awareness campaign (climate change literacy) and financial support;
- Providing awareness campaign or training, to promote the inclusion of women in informal jobs;
- Integrating specific actions to address any gender inequalities that may have emerged from mitigation responses;
- Continuing the efforts to raise awareness among the population about the importance of environmental issues in general and the fight against climate change, in particular;
- Adopting targeted measures for vulnerable groups, adapting them in particular to their education level; and
- Ensuring that citizens engaged in informal employment are also included, especially women in the agricultural sector.

4. Current state of energy transition towards clean and affordable energy for all in North Macedonia

a) Introduction

Energy lies at the heart of both Paris Agreement and global 2030 Agenda. It is inextricably linked to virtually all the SDGs, including poverty eradication, food security, health, education, prosperity, gender equality, jobs, transport, ocean, water and sanitation, and the *empowerment of women and youth*. The progress made towards achieving advancement of the other SDGs can contribute to achieving SDG 7. *Sustainable Development Goal 7 (SDG 7)* (*Ensure access to affordable, reliable, sustainable and modern energy for all)* represents a *first-ever universal goal on energy, with five targets to be achieved by 2030. Energy is one of the negotiating chapters in the process of accession negotiations of the North Macedonia* to the European Union and it is one of the priority areas for sustainable development of the country.

Energy sector has the *biggest impact on GHG emissions in the country*. The energy sector comprises emissions from fuel combustion in energy transformations, transport, industry, household, commercial and agriculture sub-sectors, as well as fugitive emissions (mines). Due to the significant use of fossil fuels in the country and the dominant use of domestic lignite for electricity production, there is *significant potential for GHG emissions reductions***.** This shows that *energy will have a huge impact on the country's economy* and will help its growth.

Decarbonising the energy system is critical to reach country 2030 climate objectives and the long-term strategy objective for achieving carbon neutrality by 2050. In order to succeed, *decarbonisation has to be economically, environmentally and socially sustainable*. Its potential benefits include: low costs of GHG emission reduction; savings on fuels, coal plants' operational expenditures and coal imports mostly compensate for the increased investments in renewable energy sources; jobs creation; lower power imports need improved security of supply and improved health (reduced air pollution). But it also has costs for those currently employed in the fossil fuel industry. And, if not done well, it can result in serious environmental damage, e.g., for forest biomass or hydropower.

Actions such as coal phase-out in electricity generation, substituting fossil fuels with cleaner options such as renewable energy, but also increasing efficient use of energy in all sectors, with an emphasis of buildings, are at the core of decarbonisation.

b) Regional context - Western Balkans

Since 2006 North Macedonia, *is contracting party of the Energy Community*[47] an international organization which unites the European Union with its neighbours to create integrated pan-European energy market. The key objective of the Energy Community is to extend the rules and principles of the EU internal energy market – in particular market liberalisation – to the contracting countries on the basis of a legally binding framework.

[47] *The mission of organization is to support the countries in implementing sustainability policies, including climate, energy efficiency, renewable sources and environment. Resently the Energy Community has nine Contracting Parties: Albania, Bosnia and Hercegovina, Kosovo, North Macedonia, Georgia, Moldova, Montenegro, Serbija and Ukraine.*

By adopting the Energy Community Treaty, *the country made legally binding commitment to adopt core EU energy legislation, the so-called "acquis communautaire*". The Treaty and its acquis evolve constantly to incorporate new sectors and update or replace older acts. To stay on track with the evolution of European Union law, Articles 24 and 25 of the Treaty allow adaptation of the acquis and implementing of possible amendments. This ensures that Contracting Parties keep pace with EU developments and continuously align their regulatory frameworks in the energy and related sectors to those of the EU. In the meanwhile, the 'original' acquis has undergone several updates and there are new acts on statistics, oil and infrastructure.

Starting from 2020, every six months the Energy Community Secretariat provides an update on key indicators related to the energy transition, called the *WB6 Energy Transition Tracker.*[48] This provides a good overview of the progress so far and is a useful tool for holding *Western Balkans governments*[49] accountable for the commitments they have taken on.

The *Green Agenda for the Western Balkans 2021-2030* committing the countries of the Western Balkans region to *work towards the 2050 target for a carbon-neutral continent together with the EU*. In line with the European Climate Law, climate neutrality will be reflected in the EU's bilateral relations and accession negotiations with the Western Balkans, who should already start transforming their societies accordingly.

The *five pillars* of the Green Agenda are: (1) climate action, including decarbonisation, energy and mobility, (2) circular economy, addressing in particular waste, recycling, sustainable production and efficient use of resources, (3) biodiversity, aiming to protect and restore the natural wealth of the region, (4) fighting pollution of air, water and soil and (5) sustainable food systems and rural areas. Digitalization will be a key enabler for the above five pillars in line with *the concept of the dual green and digital transition.*

The *Guidelines for Implementation of the Green Agenda for the Western Balkans*[50] outlines in more detail the actions related to the Green Agenda for the Western Balkans included in the Communication on the Economic and Investment Plan for the Western Balkans, adopted by the European Commission. It provides assistance for the region through investments and policy initiatives in the fields of transport, energy, digital transition, green agenda, support to the private sector, economic integration, innovation and support to human capital development. It *recognises the key role of the rule of law as cornerstone of sustainable development and* underlines that, along with structural economic reforms, progress in the area of the fundamentals should continue while implementing the flagship initiatives.

In *November 2021* North Macedonia together with other Western Balkan countries - contracting Parties of the Energy Community adopted the *legislative package* **"Clean Energy for All Europeans"** *and the corresponding* **Decarbonization Roadmap**.

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[48] Energy Community 2021. Secretariat's WB6 Energy Transition Tracker, 3rd Edition, 06.2021; Accessible here: https://www.energy-community.org/regionalinitiatives/WB6/Tracker.html.

[49] *Albania, Bosnia and Hercegovina, Kosovo, North Macedonia, Georgia, Moldova, Montenegro, Serbija*

[50] DG NEAR, 2020. Guidelines for the Implementation of the Green Agenda for the Western Balkans. Brussels European Commission 06.10.2020, COM(2020) 223 final. Accessible here: https://ec.europa.eu/neighbourhood-enlargement/guidelines-implementation-green-agenda-western-balkans_en

The Clean Energy Package *puts consumers at the centre of the energy transition. By this legislative package, the energy transition in all Contracting Parties of the Energy Community, is accelerated* by establishing balanced process for adopting decisions at all levels of government - EU, national and local level, and changes the role of the citizens who have gained the opportunity to switch from passive to active participants in the energy transition. The central place in the "Clean Energy for All Europeans" package certainly belongs to the **Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action.**

The Regulation establishes the *necessary legal basis for secure, inclusive, economic, transparent and predictable governance of the Energy Union and climate actions (Governance Mechanism).* The Regulation applies to the five dimensions of the European Union: (a) energy security; (b) internal energy market; (c) energy efficiency; (d) decarbonisation, innovation and competitiveness and requires that all Member States (MS) and Contracting Parties (CP) develop: *long-term strategies and integrated national energy and climate plan (NECPs).* Both the NECPs and long-term strategies need to be developed in a *complementary way*, so as to ensure the consistency of the 2030 targets and long-term objectives.

Action Plan for the Implementation of the Sofia Declaration on the Green Agenda for the Western Balkans 2021-2030

*„The **Western Balkan economies** will not only have to improve the implementation rate of their current obligations, but they will simultaneously need to adapt to the paradigm changes taking place in the EU in all areas, be it energy, transport or climate action, and integrate the most recent objectives into their policy and legal frameworks to ensure achieving climate neutrality by 2050.*

*The **Western Balkan energy sector**, heavily reliant on fossil fuels, obsolete technologies and ageing facilities, will therefore have a particularly important role. Already complex and demanding transformation and integration of the Western Balkans in the EU energy market will be further challenged with the new increased decarbonisation ambitions and requirements for a profound transformation of the sector, with tight deadlines."*

In October 2021 the **Action Plan for Implementation of the Sofia Declaration on the Green Agenda for the Western Balkans 2021-2030**[51] was prepared by the Regional Cooperation Council[52] (RCC). The Plan represents one of the outputs of the Sofia Declaration on the Green

[51] Regional Cooperation Council, 2021. Action Plan for the Implementation of the Sofia Declaration on the Green Agenda for the Western Balkans 2021-2030. Accessible here: https://www.rcc.int/docs/596/action-plan-for-the-implementation-of-the-sofia-declaration-on-the-green-agenda-for-the-western-balkans-2021-2030

[52] *The Regional Cooperation Council (RCC) is an all-inclusive, regionally owned and led cooperation framework. This framework engages RCC participants from the South East Europe (SEE), members of the international*

Agenda for the Western Balkans (GAWB) and is used as a *tool to guide its implementation*. *It sets a strategic orientation for the Western Balkans governments and guidelines* on how to initiate and maintain the process of meeting the Sofia Commitments *in the first decade of action* and establish a solid foundation *for achieving climate neutrality by 2050*.

The Plan takes into account the main political processes, international frameworks and agreements, the most recent policy developments and in particular legislative and non-legislative acts adopted at the EU level. This includes the European Green Deal (*EU climate framework, the EU Biodiversity Strategy, the EU Farm-to-Fork Strategy, Fit for 55% Package, Zero Pollution Action Plan, etc.*), the Western Balkans energy and climate objectives/ambitions for 2030 in line with the EU's intermediate climate targets to reduce greenhouse gas (GHG) emissions by at least 55%, as well as many others.

The Action Plan *sets an indicative timeframe for each commitment of the Sofia Declaration* and identifies the main regional coordinators, supporting organizations (where applicable), and relevant structures. The timetable is developed for all five pillars mirroring the structure of the GAWB: 1) Decarbonization, 2) Circular Economy, 3) Depollution, 4) Sustainable Agriculture and 5) Protection of Nature and Biodiversity. It is supported by seven roadmaps: 1) Climate Action Roadmap, 2) Energy Roadmap, 3) Sustainable Transport Roadmap, 4) Circular Economy Roadmap, 5) Depollution Roadmap, 6) Sustainable Agriculture Roadmap, 7) Protection of Nature and Biodiversity Roadmap.

Climate Action Roadmap

The utmost priority in the Western Balkan region is to *urgently adapt climate policy, determine transitional 2030 climate (and energy) targets* aligned with the increased EU ambitions, transpose the Fit for 55 package and the EU Climate Law, align with the EU Strategy on Adaptation to Climate Change, increase deployment of natural and artificial carbon sinks and ensure a swift green transformation of all economic sectors with a focus on carbon-intensive ones.

Recognising the need to map out a pathway towards carbon neutrality by 2050, the Western Balkan economies should:

- Trace the path for a socially acceptable and just phase-out of coal-fired power generation the Western Balkan authorities by establishing *a Decarbonisation Committee (DC) with consist of various stakeholders* from the realm of politics, business, environment including representatives of impacted branches and companies, employees' unions, and other interested stakeholders;
- *Revise the relevant climate legislation* in the Western Balkans as one of the priorities in the upcoming years to support progressive decarbonisation and ensure balance between targets, pricing, standards, and supporting measures, as well as full alignment with the EU Climate Law, *latest by the end of 2023*;
- Decarbonisation Committee shall develop *Action Programme for Coal Phase-out (APCP) by the end of 2024. T*he Plan *should be aligned with NECP and contain mix of instruments and strategic vision for gradual phase-out of coal-fired power generation,*

community and donors on subjects which are important and of interest to the SEE, with a view to promoting and advancing the European and Euro-Atlantic integration of the region.

including milestones and deadlines, with proposals for necessary legal, economic, social and other measures to prevent and alleviate potential negative impacts;

- Develop *their long-term, low-greenhouse gas emissions development strategies* (the long-term strategies) in accordance with the provisions of the EU Climate Law, Governance Regulation and other elements of the EU climate policy framework, and adopt them without further delay *by 2025*. These long-term strategies should focus on: Decarbonisation of the carbon-intensive sectors (*energy and transport*) and Defining economy-wide targets for *emission reductions from all transport modes, buildings, agriculture, industry and waste sector*;
- *Prepare Western Balkans Regional Adaptation Strategy (RAS) and* underline common needs, define joint activities towards increasing regional climate resilience and identify potential financial sources *by 2026*. The Strategy should provide proposal for fostering the climate resilience of the region until 2030 with long-term vision for climate-resilient Western Balkan region adapted to the unavoidable impact of climate change by 2050. The Strategy should be compliant with the EU Adaptation Strategy,
- Prepare *National Adaptation Plans* and other relevant documents and explore opportunities for broader *deployment of nature-based solutions in increasing climate resilience*.

Energy Roadmap

The implementation of current obligations and honouring existing ambitions *commitments under the Energy Community Treaty are a priority*. The extension of the Energy Community Treaty acquis to climate and environment is important step towards the *transition to a low-carbon, energy-efficient, renewables-based society* in the Western Balkan region.

This means that the Western Balkan economies should continue implementing the outstanding provisions of the Third Energy Package and the Clean Energy Package and:

- Transpose and implement the *Governance Regulation by 31 December* **2022**[53]**.** Therefore, the implementation of the Governance Regulation, as well as the development of integrated NECPs should take full effect;
- *Establish its own legal framework of laws and secondary legislation* based on the new provisions brought by the EGD through the Fit for 55 package and other legislative and non-legislative acts, as foreseen by the Energy Community Decarbonization Roadmap *by 31 December 2022*;
- Submit the *first NECP by 30 June 2024 and cover the period from 2025 to 2030*, taking into account the longer-term perspective. The subsequent plans shall cover the ten-year period immediately following the end of the period covered by the previous plan. The *NECP will be the first ever integrated mid-term planning tool* that North Macedonia is required to prepare in view of the implementation of the Energy Union objectives, and in particular the agreed EU 2030 energy and climate targets. It is also going to play a crucial role in *promoting cost-effective transformation* of our industrial base towards a climate neutral, circular and sustainable industry, *equally benefiting the society and the planet*. The *plan shall represent an overview* of the process following the integrated

[53] European Commission, 2021. Regulation (EU) 2018/1999 of the European Parliament and of the Council of December 11, 2018 on the governance of the Energy Union and climate action. Brussels, EC Document 02018R1999-20210729. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018R1999-20210729

national energy and climate plan and consist of *executive summary*, *description of the public consultation and involvement of stakeholders* and their results, and incorporate regional cooperation in preparing the plan, as established in Articles 10, 11 and 12 of the Governance regulation;

- Continue with its endeavours *in increasing and diversifying the share of renewable energy* in the gross final energy consumption, as well as with designing and implementing economically sustainable support schemes and fostering self-consumption of energy from renewable sources;
- Continue with achievement of *energy efficiency targets, including a widespread renovation of buildings*, in a systemic and accelerated way;
- Speed up the *transformation and ensure decarbonisation of the energy sector*. Therefore, a political decision on introduction of carbon pricing in short-term and adequate emission trading system in mid and long-term is needed, where relevant;
- Set a *clearly defined date and outline process for the phase-out of lignite-based energy production* (if applicable);
- Enable *progress in monitoring and well-informed decision making*;
- Institutionalise emission inventories and GHG emission registers, and to develop appropriate monitoring, reporting and verification mechanisms;
- *Prepare long-term building renovation strategies***.** The building sector is one of the key areas where the highest energy cost savings could be reaped. Different financial instruments (guarantee facilities, energy performance contracts, on-tax and on-bill financing) can be used to achieve higher renovation rates of both private and public buildings through attracting private finance. Digital upgrades can also improve energy efficiency of buildings by 15-25% and at the same time provide possibilities for telework, telehealth and tele-education;
- *Support the transition to highly energy-efficient and decarbonized buildings in line with the European Commission's Renovation Wave initiative*[54]. The Renovation Wave[55] is a comprehensive initiative with aim to encouraging structural energy renovations in the private and public sectors for decreasing GHG emissions and reducing energy poverty. At the same time, greater circularity and more efficient use of materials present new opportunities for further reducing greenhouse gas emissions in buildings. Hence, comprehensive approaches targeting materials efficiency along the entire lifecycle of buildings should be encouraged and supported, for example during renovation efforts.

The Energy Community Secretariat is responsible for monitoring the progress both at national and at regional level.

c) National context

In recent years, North Macedonia has been acknowledged for *putting efforts in regards to its energy transition*, making visible progress in aligning the country's legal framework in

[54] European Commission, 2020. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, a Renovation Wave for Europe - greening our buildings, creating jobs, improving lives. Brussels, European Commission 14.10.2020, COM(2020) 662 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0662

[55] *The Commission proposes expanding the EU Renovation Wave to the Western Balkans, as the Flagship 6 initiative under the 2020 Economic and Investment Plan for the Western Balkans.*

accordance with the EU legislation. This has been done on several frontiers, mostly through accelerated adoption of important policy changes, such as the Energy Efficiency Law, the Energy Development Strategy, and schemes for supporting new renewable energy projects. As a result, the energy market of North Macedonia is described today as one of the most attractive among the countries of the Southeast Europe.

The transition towards clean and affordable energy for all in the country was *underpinned in 2019 with the adoption of an ambitious Energy Development Strategy for the Republic of North Macedonia until 2040*. The specific policies and measures for the transition to a modern, competitive and climate-neutral economy, envisaged in the Strategy *will contribute to improving the health and wellbeing* of the population, through: Reduction of greenhouse gas emissions by 80-95% compared to the level in 1990; Reducing the use of fossil fuels for energy production; and Promotion the use of renewable energy sources.

The EU Commission North Macedonia 2021 Report[56]

- *„The country is moderately prepared on field of energy. North Macedonia is actively participating in meetings of the Energy Community. It has a high level of compliance with the Energy Community Treaty, notably on electricity.*
- *However, limited progress was made in environment and climate change. Some progress was made in the energy sector, notably with the progress made towards the preparation of the draft National Energy and Climate Plan.*
- *The country needs to substantially step-up its ambition to properly implement the acquis of chapters 27. These efforts will increase the efficiency of the Economic and Investment Plan and speed up the implementation of the Green Agenda for the Western Balkans. Administrative capacities need to be strengthened.*
- *In addition, strategies, action plans and legislation need to be coherent with the principles and priorities of the Green Agenda and to ensure consistency between relevant sectoral documents".*

The Strategy paves the way for achieving the following 2040 vision: *Secure, efficient, environmentally friendly and competitive energy system that is capable to support the*

[56] European Commission, 2021. North Macedonia 2021 Report Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 2021 Communication on EU Enlargement Policy. Strasbourg, European Commission, 19.10.2021, SWD(2021) 294 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0294&from=EN

sustainable economic growth of the country. To translate the vision statement into clear objectives, the Strategy defines **five energy pillars** with six strategic goals (Figure 2.2), closely interlinked with the five dimensions of the European Energy Union Strategy respectively: Security, solidarity and trust; A fully integrated internal energy market; Energy efficiency; Decarbonizing the economy; Research, innovation and competitiveness.

The Strategy defines *six strategic goals* for North Macedonia, mapped along *five dimensions* of the Energy Union (energy pillars):

- Energy efficiency: energy savings up to 27.5% of final and 51.8% of primary energy by 2040 (in the Green scenario);
- *Integration and security of energy markets***:** ensuring the integration of North Macedonia into European markets, without increasing its energy dependence, and providing the flexibility needed for increased integration of renewable energy (especially wind and solar);
- *Decarbonisation:* RES share in the gross final energy consumption increases in all scenarios, landing in the range of 35 – 45% in 2040. In all scenarios, photovoltaic (PV) and wind will be the most widespread technologies for electricity generation;
- The strategy also promotes *decarbonisation of heating and cooling* through use of more efficient and large heat pumps; district heating from combined heat and power (CHP) plants running on gas and biomass (including residual biomass); thermal storage; electrification combined with energy efficiency to gradually replace current inefficient biomass usage; and combined systems for water heating utilising district heating, electricity and solar thermal systems;
- *Research, innovation and competitiveness***:** minimising total system costs taking into account country-specific conditions. Particularly relevant are recommendations related to creating jobs and supporting new businesses, especially small and medium-sized enterprises (SMEs) in the field of renewable energy and energy efficiency; revising the business models of power plants and other key energy institutions, with the support of the government, to ensure competitiveness and address challenges including those related to the structure of the energy system; and building capacity in attracting international donor funds; and
- *Legal and regulatory aspects*: the strategy emphasises full compliance with the Energy Community acquis, with adopting the new Energy Efficiency Law and implementing four Energy Community Climate Action Group topics as well as the environmental acquis.

In the *Decarbonisation pillar* the Strategy recommends:

- *Promoting the use of RES* in a manner that provides sustainable energy development. PV and wind power plants will be fastest growing electricity generation technologies while construction of new small hydropower plants should be carefully assessed to avoid the impact on environment compared to benefits of generated electricity;
- *Financially supporting RES* electricity generation via feed-in tariffs and feed-in

premiums with auctions (granted in a tendering procedure), particularly for period 2020 – 2025;

- *Electrifying the heating & cooling sector* - using more efficient heat pumps and district heating fuelled by CHP on gas and biomass (including residual biomass). Utilization of large heat pumps, waste heat and thermal storage capacities in central heating systems. The electrification in combination with EE measures will enable a gradual replacement of current inefficient biomass usage;
- *Promoting combined systems for hot water* - utilising district heating, electricity and solar thermal systems;
- *Increasing the share of biofuels* to 10% until 2030 and boosting the electric vehicles. Financial incentives for purchase of such technologies are foreseen, as well as development of the required infrastructure at national and local levels;
- *Enhancing the role of municipalities* and the City of Skopje in energy planning to provide effective transposition of national policies at local level (e.g., more RES and EE, prosumers, local pollutants, etc.); and
- *Installing local pollutants control equipment* to meet the requirements from Large Combustion Plants Directive and Industrial Emissions Directive in case of TPP Bitola revitalisation.

Public finance has so far been the most *important driver for renewable energy development* in North Macedonia. Based on IRENA's public finance data[57] a total of USD 115.77 million (34% of total investment) was invested by international public financial institutions in renewable energy in North Macedonia between 2000 and 2018. The German development bank KfW and the European Bank for Reconstruction and Development (EBRD) dominate with 85% (KfW) and 11% (EBRD). Japan International Cooperation Agency (JICA) and UNDP are among other investors representing, together, less than 4% of the remaining amount. Almost EUR 1.5 million was distributed to 36 municipalities for solar PV in 2018 installed on 108 public buildings with total installed capacity of 1 620 kilowatts peak; The budget was allocated under the EU Instrument for Pre-Accession Assistance and through the Municipal Services Improvement Project within the Ministry of Finance.

In the period 2007-21, *North Macedonia granted subsidies for the installation of the solar thermal*. Total funds were provided by the Ministry of Economy, which gives back to buyers 30% of the investment made in the equipment. The maximum subsidy per household was set at EUR 300 and EUR 150 in 2021. Cross-sectoral support mechanisms that benefit renewable energy include a fund for technology development and innovation, and a public fund that offers technical assistance to SMEs and provides co-financed grants for start-up and spin-off companies, in addition to conditioned loans and co-financed grants for innovation commercialisation for various sectors, including renewables (MOE, 2020).

In accordance with the **NEEAP**, the total energy savings in 2018 reached 255 ktoe, which is an increase of 51% compared to the savings achieved in 2015. *Most of the savings are from the industry sector* (37%), followed by the Households sector (34%) and the Commercial sector (29%). There are almost *no savings in the Transport sector*. At the sub-sectors, the biggest savings are in the Iron and Steel sector (27%), in the household space heating sector (25%) and

[57] IRENA, 2021. De-risking investments in North Macedonia: Renewable energy finance and policy landscape focusing on power, heating and cooling. In line with the Macedonian NDCs, Accessible here: https://www.irena.org/publications/2021/Oct/De-Risking-Investments-in-North-Macedonia

in the industry sector in non-electricity consumption (18%). What is of particular importance is that the goal for 2018, which is given in the Third NEAP, is achieved, i.e., the savings are greater than the set goal by 70%. It is even more significant that in 2018 the energy savings that were planned for 2020 in the Third NEAP were realized.

For *the business community*, there is an opportunity to invest in energy efficiency and renewable energy, which in turn is an *opportunity to create new green jobs*. The *3211 new green jobs during construction and about 2000 in maintenance* are predicted only in the part of Renewable energy sources and *additional 3500 in energy efficiency up to 2025*.

The *scientific sector* is expected to cooperate with the business community in the field of innovative solutions in order to facilitate the energy transition process. In addition, *the possibility for small and micro enterprises and households to install rooftop photovoltaic systems for electricity generation for their own consumption*, and the surplus of electricity generated to be transferred to the distribution system is introduced.

North Macedonia Fourth Progress Report on Promotion and Use Of Energy From Renewable Energy Sources[58] (*September 2021)*, stipulates that "*Possibility for small and micro enterprises and households to install rooftop photovoltaic systems for electricity generation for their own consumption, and the surplus of electricity generated to be transferred to the distribution system is introduced. The details are specified with the Rulebook on RE. Energy Regulatory Commission shall obligate the appropriate operators at their own expense, to construct the grid connection for the RE producers, and to compensate these expenses through the tariffs for regulated service, when the mandatory national goals need to be met. ERC will prescribe the period when this obligation for the operators will be applied and the requirements that the RE electricity producers should meet in order to be eligible for connecting to the appropriate system and it will also approve the project for each connection.*"

Regarding the *support schemes and other measures* currently in place that are applied to promote energy from renewable sources, the Report described the following developments in the *measures* used with respect to those set out in National Renewable Energy Action Plan:

- *Support schemes for installation of solar thermal collectors and PVC windows* - Ministry of Economy continued with implementation of the program to stimulate the use of solar energy in the country, by providing subsidies through reimbursement of part of the cost for purchased and installed solar thermal collector systems in households. During 2018 and 2019 around 1,000 households were reimbursed by the Ministry of Economy. The total budget spent for this stimulation is around 180,000 EUR. In addition to this, starting from 2017 the Ministry of Economy also reimburse the cost of purchased and installed PVC or aluminium windows (Call for applications for reimbursement of 50% of the costs for windows replacement and installation of PVC and aluminium windows, but not more than 500 €, provided by the Ministry of Economy). During 2018 and 2019 around 2000 households were reimbursed by the Ministry of Economy. Total budget spent for this stimulation is around 900,000 EUR;

[58] Ministry of Economy of the Republic of North Macedonia, 2021. North Macedonia Fourth Progress Report on promotion and use of energy from renewable energy sources. Vienna, Energy Community. Accessible here: https://www.energy-community.org/dam/jcr:66107ad9-4976-408a-90ac-97f647df6fe8/4RES_PR_2018-2019_NM.pdf

- *Support schemes for pellets stove* - In 2016, in order to support the usage of pallets and pellets stove, the Government adopted a decision reducing the VAT rate for pallets from 18% to 5%. This measure is in force starting from January, 1 2017. Additionally, in 2018 and 2019, 1,400 households that bought a pellet stove were subsidised by the Ministry of Economy. The total budget spent for this stimulation is around 670.000 EUR. In addition to MoE, a number of municipalities (City of Skopje, Aerodrom, Gazi Baba, Kocani, Kavadarci and Bitola) also subsidized the purchase of pellet stoves. In total 1,056 households were supported from the municipalities; and
- *Support schemes heat pumps* - Starting from 2019 the City of Skopje and other municipalities (Aerodrom, Kocani, Kavadarci, Bitola) are subsidizing replacement of old biomass stove with heat pumps. In total 2,103 households were subsidized in 2019. In order to reduce the local pollution, the state-owned power generation company Power Plants of North Macedonia (JSC ESM-Skopje) has allocated funds of € 10 million for subsidizing households who replace their inefficient stoves and boilers based on firewood, coal, and oil with high-efficiency heat pumps (inverter air conditioners). Hence, each household that replaced their inefficient stoves and boilers with high-efficiency heat pumps will be reimbursed for up to € 1,000. This subsidy is available for households only in the cities with the highest air pollution in the country, including Bitola, Kicevo, Tetovo, and Skopje. Subsidies for purchasing of high-efficiency heat pumps are provided to 5,200 households in Skopje, 2,500 households in Bitola, 1,500 households in Tetovo, and 800 households in Kicevo, during 2020.

Limiting emissions from *large combustion plants remains one of the biggest challenges* for the country.

d) Energy poverty - the social dimension of energy transition

Energy poverty is the social dimension of energy transition that must be addressed for households that cannot afford key energy services to secure basic standard of living and citizens buy-in. Effective programmes should be designed to address affordability issues, reduce energy bills and help the environment.

The transition will also give energy-poor households easier access to affordable energy-efficient buildings and products and to renewable energy, as it *enables citizens and consumers to become active participants in the transition*. Standard definitions of energy poverty and vulnerable consumers are still under development. Member States therefore set their own criteria according to national and local context. Issues regarding energy vulnerability and energy poverty are covered in various *EU energy-related legislation*.

European Union context

Directive 2019/944/EU of 5 June 2019 on common rules for the internal market for electricity[59] in Article 28 *expands definition of vulnerable consumers*. According to the Directive, the concept of vulnerable consumers may include "*income levels, the share of energy expenditure*

[59] *Though Contracting Parties are obliged to implement Directive 2010/31/EU (without specific provision related to energy poverty), this should become an obligation in the course of 2022. In signing 2020 Sofia Declaration on the Green Agenda for the Western Balkans, WB6 leaders have agreed to "Develop programmes for addressing energy poverty and financing schemes for household renovation and providing basic standards of living".*

of disposable income, the energy efficiency of homes, critical dependence on electrical equipment for health reasons, age or other criteria." Also, Article 29 of the Directive requires that the Member States and Contracting Parties "*establish and publish a set of criteria, which may include low income, high expenditure of disposable income on energy and poor energy efficiency" that define energy poverty.*

Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action (Article 3) requires that MS/CP "*assess the number of households in energy poverty taking into account the necessary domestic energy services needed to guarantee basic standards of living in the relevant national context, existing social policy and other relevant policies, as well as indicative Commission guidance on relevant indicators for energy poverty*".

In the same article, the Regulation stipulates that if an MS/CP has a significant number of energy poor households, the MS/CP shall develop "a national indicative objective to reduce energy poverty". Such Member States and Contracting Parties are to "*outline in their integrated national energy and climate plans, the policies and measures, which address energy poverty . . . . , including social policy measures and other relevant national programs*." Finally, Article 24 requires that MS/ CP include in their integrated national energy and climate progress report the following: (a) information on progress towards the national indicative objective to reduce the number of households in energy poverty; and (b) quantitative information on the number of households in energy poverty, and, where available, information on policies and measures addressing energy poverty.

Directive 2018/844 amends Directive 2010/31/EU on the energy performance of buildings and in the *new Article 2a* details that Member States must establish a long-term renovation Page 22 of 435 strategies and outline "*relevant national actions that contribute to the alleviation of energy poverty*".

The Energy Efficiency Directive 2012/27/EU in Article 7 stipulates that "*within the energy efficiency obligation scheme, including …. a share of energy efficiency measures [are] to be implemented as a priority in households affected by energy poverty or in social housing*". The issue of energy poverty is further highlighted in Article 7 of Directive 2018/2002 amending Directive 2012/27/EU on energy efficiency.

However, legislative package provides useful general principles and insights into the possible causes and consequences of *energy poverty*. It also underlines the importance of policies to tackle the problem, especially those associated with *national energy and climate plans ('NECPs'), long-term renovation strategies and other instruments* aimed at achieving 2030 and 2050 targets must be directed towards protecting households and *empowering vulnerable consumers* by helping citizens spend *less on energy bills*, and providing them with *healthier living conditions*, as well as *reducing energy poverty*.

Access to energy services is essential for social inclusion. The European Pillar of Social Rights, jointly proclaimed by the European Parliament, the Council and the Commission on *17 November 2017, includes energy among the essential services*[60], which everyone is entitled to

[60] *The need for Member States to address energy poverty is also stressed in Guideline 8 'Promoting equal opportunities for all, fostering social inclusion and fighting poverty' of the integrated Employment Guidelines,*

access. Support for access to such services must be available for those in need. The European Pillar of Social Rights Action Plan sets out concrete actions to turn the 20 principles of the Pillar into reality, including concrete initiatives for 2022 that will also *contribute to tackle energy poverty*.

In this context, the European Commission has adopted *Recommendation on Energy Poverty*[61] *on 14 October 2020 2020,* to help eradicate energy poverty '*by targeting its root causes*' and promote energy-efficient renovation strategies that will enhance EU citizens' quality of life. The *Recommendation* states "*energy poverty is a situation in which households are unable to access essential energy services, where adequate warmth, cooling, lighting, and energy to power appliances are essential services that underpin a decent standard of living and health.*"

These services are considered necessary as they are *essential for social inclusion*. In its Recommendations, the EC further states that tackling energy poverty offers multiple benefits, including lower spending on health, reduced air pollution (by replacing heating sources that are not fit for purpose), improved comfort and wellbeing, and improved household budgets. Taken together, these benefits will directly boost economic growth and prosperity.

Regional context - Western Balkans

The Study on Addressing Energy Poverty in the Energy Community Contracting Parties[62] seeks to address the current state of complex energy poverty challenges faced by the Energy Community Contracting Parties: Albania, Bosnia and Herzegovina, Georgia, Kosovo, Moldova, Montenegro, *North Macedonia*, Serbia and Ukraine. One of the starting points for the report is the fact that *energy poverty rates in the Western Balkans region are among the highest in Europe*, due to a combination of historical, economic, and infrastructural factors, in addition to social and energy sector reforms during the post-communist transition.

The extent of energy poverty in the region has been *exacerbated further by the COVID-19 pandemic*, leading to increased unemployment, reduced household incomes, and rising energy demand – all factors contributing to energy poverty. In the Western Balkans region, the pandemic has caused *some of the highest mortality and morbidity rates* in the world, which in turn amplifies both the causes and consequences of energy poverty due to a close association between domestic energy deprivation and health.[63]

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which inform the coordination of Member States' employment and social policies in the framework of the European Semester.

[61] European Commission, 2020. Commission Recommendation (EU) 2020/1563 of 14 October 2020 on energy poverty, Brussels, Official Journal of the European Union, L 357/35 from 27.10.2020, Document 32020H1563. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020H1563

[62] Ban, M. & others, 2021. Study on Addressing Energy Poverty in the Energy Community Contracting Parties,. Vienna, Energy Community, Accessible here: https://www.energy-community.org/dam/jcr:f201fefd-3281-4a1f-94f9-23c3fce4bbf0/DOOREIHP_poverty_122021.pdf

[63] *Based on the Eurostat database set: Population change - Demographic balance and crude rates at national level, if comparing the average for the 27 EU member states, the percentage change between 2019 and 2020 for the death crude rate was 12%. Going forward, for the same period the percentage change for countries like North Macedonia, Albania and Serbia was much higher. In North Macedonia the change was 27%, in Albania 26% and in Serbia 16%.*

National context

Study on Addressing Energy Poverty in the Energy Community Contracting Parties (November 2021)
North Macedonia

- ***Electricity and biomass*** *are the dominant energy sources used in* ***Macedonian*** *households and represent 53% and 37% of the final energy consumption in households, respectively.*
- ***Heat*** *accounts for 7% of final energy consumption, while coal (lignite) and oil derivatives each account for roughly 1% of final energy consumption in households.*
- *In terms of* ***heating requirements****, households mostly consume fuelwood (61.59%), electricity (28.60%), district heating (8.33%), and other fuels (1.48%).*
- *Only 6% of households use* ***central heating systems*** *and 74.3% use individual solid fuel stoves in rural as well urban households. These types of stoves cannot heat households' entire living spaces as they are designed to heat only a limited area.*
- *Electric accumulation stoves are also used (33.79%), followed by electric heaters (31.35%), air conditioners (10.57%), and inverter conditioners (6.32%).*
- *In all, 81.96% of households were built before 1991 and 17.78% of such households have thermal insulation of the building envelope.*
- *The average heating energy demand in the residential sector is 157.78 kWh/m^2. According to the national energy efficiency requirement, the heat demand should be 90 kWh/m^2.*
- *The average dwelling area is 82.87 m^2 and on average only 37.41 m^2 is heated.*
- *There are, on average, 3.69 members per household.*
- *There are most often two, three, and four-room apartments.*
- *In all, 58.16% of households reside in detached single-family buildings and 95.10% of households own their dwelling* **".**

North Macedonia recognizes vulnerable consumers in its laws and strategic documents. Legal support for protecting vulnerable consumers includes *two main laws*:

- *The 2018 Energy Act* (Official Gazette No. 08-3424/1) stipulates that the Government shall, having received opinion from the Energy Regulatory Commission, adopt the

annual Program for Protecting Vulnerable Energy Consumers for the coming year. The Program measures must not distort competition and impede efficient functioning of the electricity, natural gas, and heat energy markets, nor lead to cross-subsidization of certain categories of consumers. Every two years, the Government must notify the Energy Community Secretariat on the progress in implementing measures from the annual Program. Furthermore, the Act anticipates an active role by the Ombudsman in protecting the rights of vulnerable customers under Article 15, paragraph 4 of the Energy Act; and

- *The Social Protection Act* defines that the Social Welfare Centre is to verify household conditions of persons possessing the right to guaranteed minimum assistance and all adult household members, by providing data on monthly revenues from official records at competent public body, which is the Public Revenue Office under the Ministry of Finance. The right to financial social assistance is paid as the difference between the established amount of financial social assistance and total income achieved by all household members. This financial social assistance is adjusted each year.

The *Strategy for Energy Development* requires that the Government defines a program for protecting vulnerable consumers. The draft NECP also envisages devising an annual program for vulnerable consumers ensuring their protection from price shocks.

5. Current state and prospects for the coal industry in North Macedonia

a) Introduction

According to the national GHG inventory, the *energy sector is the first contributor to GHG emissions in the country***,** using coal as 80 percent of the demand. The energy sector also depends heavily on domestic lignite, which constitutes 50 percent of the primary energy supply, but lignite is responsible for about 70 percent of all carbon dioxide equivalent (CO2- eq) emissions (TBUR, 2020).

The entire *reserves of coal* in Macedonia are estimated at 2.5 billion tons. Macedonian coals are lignite with relatively low caloric value and high content of damp and ash from geological Pliocene and Miocene age. The country is highly energetically dependent from its exploration, production and usage. Pollution of the environment during the usage of the lignite is their weakness.

From the overall determined geological coal reserves in Republic of North Macedonia, it is estimated that 38% could be exploited with surface excavation, and the rest with cavity – underground technology. Cavity coal excavations are still not applied.

The coal at the moment is exploited in *two types of mines*. In the first type of mines are the mines included in the thermo power plants for electricity production (Suvodol and Oslomej), and the second type are the mines which satisfy the demands of the industry and the broad expenditure of coal as fuel.

Coal accounts for large to huge shares of energy supply across country economy. The country *energy sector is based on coal run power plants* and carbon intensive fossil fuels, while at the same time the country is unable to meet their own electricity needs and is strongly depended on the imported electricity. *North Macedonia's energy mix* is dominated by domestic lignite coal-fired units and relies heavily on imports mainly in the form of gas and oil products. Coal is the main source of electricity and accounted for 50% of total generation capacity and 58% of electricity generation in 2019, one of the highest levels in Europe.

The main entity for electricity production is a state-owned company JSC Elektrani na Severna Makedonija ("ESM"). The company provides around *90% of the entire domestic production* with installed capacity of around 1,478 MW. The ratio of the installed capacity of company is: 56% installed capacity in thermal power plants, 37% in hydro power plants and 2% in renewable sources, i.e., wind energy.

The electric power generation capacity in Republic of North Macedonia in 2018 mainly consisted of two thermal power plants; eight large hydropower plants; 96 small hydropower plants; one wind power plant; and three Combined Heat and Power (CHP) plants.

The *two existing thermal power plants (TPP)* for electricity production are **Oslomej** (located in Southwest planning region) and **Bitola** (located in Pelagonija planning region), both owned and operated by ESM. The 125MW thermal power plant in Oslomej now operates primarily as reserve capacity due to the near total depletion of the nearby lignite mine. The 675MW thermal

power plant at Bitola provides around 50% of the country's electricity with lignite from two mines – Suvudol and Brod-Gneotino.

The *coal power plants are old* and need decommissioning or significant investments to ensure reliable electricity supply. At the same time, coal, particularly when burned with old technology, is a driver of climate change and causes significant air pollution, which is the region's foremost environmental burden. Meanwhile, a cleaner environment, especially in the major urban centres, is a top desire of residents and would be crucial to making the region an attractive place to live, invest and return to. The aged and highly polluting coal plants *need to be replaced* by sustainable forms of renewable energy, and the country's energy wastage needs to end.

b) Coal regions in North Macedonia

The Enhanced Nationally Determined Contribution (NDC), envisages a 66% reduction of GHG by 2030 mainly to be achieved through the *gradual decommissioning of the country's TPPs* fleet starting with *Oslomej in 2021 and Bitola in 2027* whilst simultaneously increasing the share of RE in gross final energy consumption from 18% to 38% by adding 1.9GW (incl. hydropower) to the energy mix by 2030. In January 2022 the government *delays TPP Bitola exit deadline to 2030*.

Southwest planning region (TPP Oslomej)

The Southwestern region with the Kicevo municipality of Oslomej is among the three regions (along with Northeast and Polog) with high unemployment incidence (European Training Foundation, ETF 2021 Country Fiche).

The coal potential of *Southwest region* is determined by coal deposits: Oslomej, Popovjani and Stragomiste which have enabled opening of *surface coal mines–SM Oslomej*. The mine with annual production of 1.2 x 106 tons of coal and exploitation lifetime of 22 years started with exploitation from 1980 and is feeding the TPP Oslomej.

TPP Oslomej, is the second thermal power plant (by installed capacity) in Republic of North Macedonia, which produces around 10% of domestic electricity production. TPP Oslomej consists of one block with a total installed capacity of 125 MW beginning operations in 1980 year. Due to depletion of the available coal reserves and the serious obstacles that stem from socio - cultural environment in relation to the exploration of the Popovjani site (Kicevo basin) with exploitation reserves of 9,000,000 tons, this power plant is facing significantly with uncertainties regarding supply with fuel.

Oslomej's contribution is only 2,164 tonnes of SO2, half of the plant's individual ceiling, but all of these emissions were released during the two winter months when the plant was operational.

The government pursues *energy transition* towards increased capacity in renewable generation sources ESM began construction of a 10 MW photovoltaic power station next to the coal power plant Oslomej.

After PVPP Oslomej 1, the project PVPP Oslomej 2 with installed capacity of 10 MW and planned average annual production of 16 GWh of electricity, with support from the EBRD, is realized as a continuation of PVPP Oslomej 1. The site is within a short distance from the substations and road infrastructure, i.e., in the immediate vicinity of an already operational power plant, which provides access to trained labour. The combination of favourable location factors, together with the strategic commitment of the Government, provides real potential for the realization of this project. The costs for construction of PVPP will be significantly reduced because the existing infrastructure from TPP "Oslomej" will be used.

Figure 1 - PVPPs Oslomej 1 and Oslomej 2, on the site of an exhausted coal mine

Source: ESM, 2021. Current and planned investments of AD ESM**.** **A**ccessible here: https://www.esm.com.mk/?p=11409&lang=en

Oslomej 3 will be built on the site of an exhausted coal mine, near the first 10 MW photovoltaic plant. New investment, which is actually initiated as two power plants, from at least 40 MW to a maximum of 50 MW, will be on the principle of public-private partnership, with AD ESM being the public partner.

Pelagonija planning region (TPP Bitola)

From the deposits in the Pelagonija Basin, most economically important are the coal bearings (lignite) which today *are used in the three blocks of the thermoelectric power plant "REK Bitola"*, as a facility of strategic importance and primary installation for electricity generation in the country. It satisfies over 70% of the demand for electricity in the country, as well as major part of the needs for coal (lignite) of industrial boiler plants and general consumption.

The *coal potential* of the Basins is determined by coal deposits Suvodol, Brod-Gneotino and

Zivojno, which have enabled opening of two open pitch lignite mines at around 12 km eastwards from the town of Bitola, in the territorial area of Novaci municipality:

- "Suvodol" mine located near village Suvodol, and
- "Brod – Gneotino" mine located between villages Brod and Gneotino".
- The "Zivojno" as the third main coal deposit located approximately 35 km southeast of town Bitola to the border between North Macedonia and Greece or 20 km from mine Suvodol is extension of mine Brod-Gneotino. It is expanded to the border line with Republic of Greece on south, village Zivojno on east, village Germian on west, to the river Crna on north and spreads over an area of about 20 км^2.

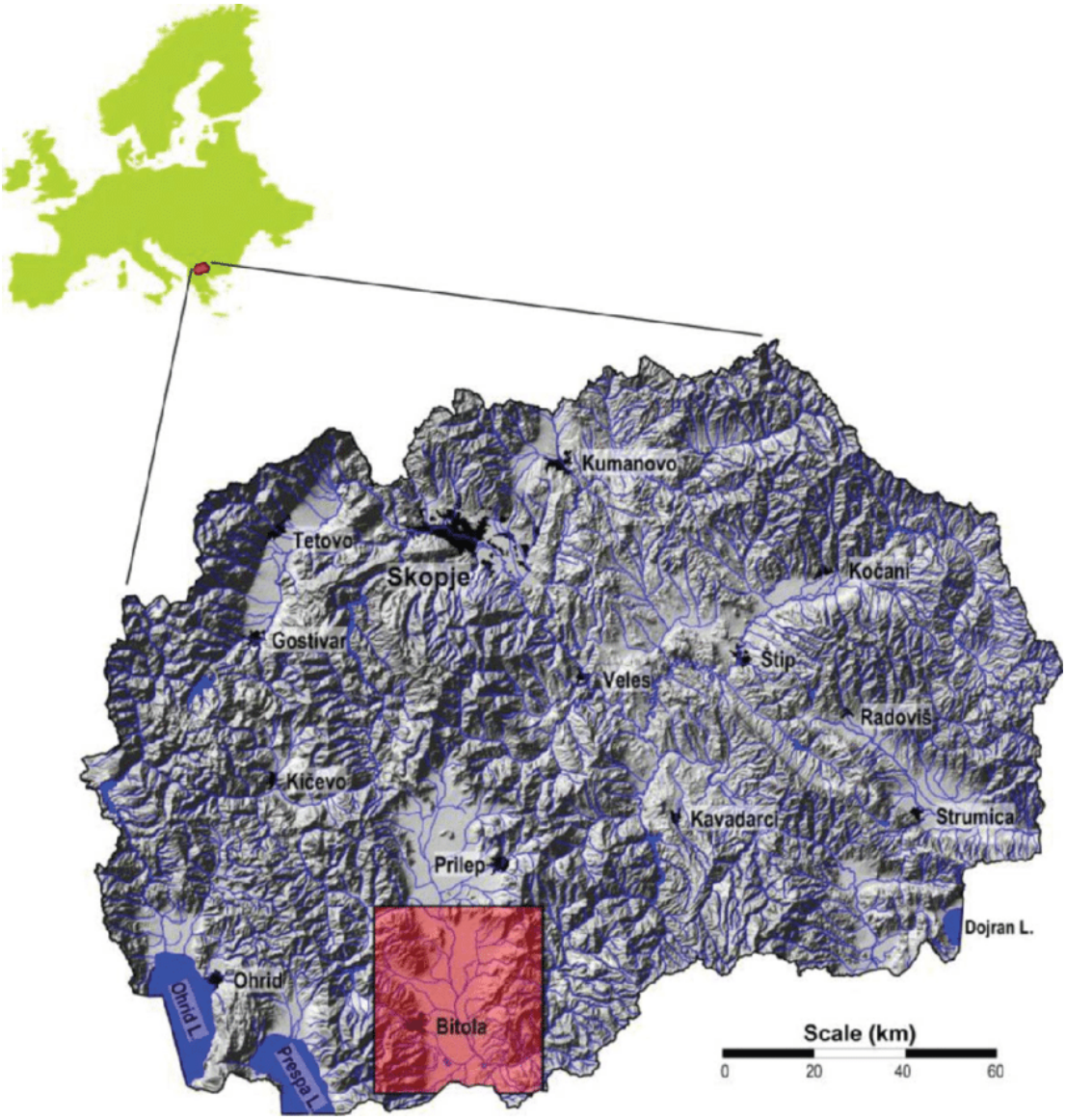

Figure 2 - The power plant "REK Bitola" and coal mine area in the Pelagonija Basin

Source: Stafilov T. at. a., 2018. Geochemical properties of topsoil around the coal mine and thermoelectric power plant, Journal of Environmental Science and Health, Part A, 53:9, 793-808, DOI: 10.1080/10934529.2018.1445076. Accessible here: https://www.researchgate.net/publication/323865392_Geochemical_properties_of_topsoil_around_the_coal_mine_and_thermoelectric_power_plant

The *coal power plant "REK Bitola"* consists of three 233 MW units, commissioned in 1982 to 1988. This plant is the *largest contributor to the local pollutant emission levels* (based on the Large Combustion Plant Directive and Industrial Emissions Directive) and it constantly creates large amounts of waste in the form of fly ash and slag in the part of Pelagonija Basin in the North Macedonia.

The two stacks of the Bitola power plant, Bitola B1+B2 (60,422 tonnes) and Bitola B3 (24,091 tonnes), remain the biggest source of SO2 emissions in the country. Emissions are somewhat lower than those in 2019, but that is only because of the lower number of operating hours. The 60,422 tonnes from Bitola B1+B2 are again among the highest in the region and are more than nine times as high as the plant's individual ceiling of 6,585 tonnes. Bitola B3's emissions are also 8.5 times higher than the 2,859-tonne individual ceiling.

The Bitola power plant is among the Western Balkan region's most dangerous power plants with respect to the health impacts it causes.

c) Prospects for the coal industry

Currently, coal-based thermal power plants account for around 50 per cent of total electricity production and about a third of total consumption. To replace these, renewables will play a primary role in the transition, with planned investment of about 1,600 MW of solar power plants, 600 MW of wind farms and about 333 MW of hydropower plants.

According to the government's *Intervention Investment Plan 2021-27,* presented in May 2021, the country will invest a total of €3.1 billion in the energy sector, mostly in renewables. In recent years, both the private and state sectors have been investing in large-scale wind, solar and hydropower projects.

The narrow economic base of the country requires careful mitigation of coal mines closure impacts. While job losses from coal mining may be small in comparison to the total labour force, a downsizing can result in a disproportionately high impact locally. The loss of mining employment substantially reduces the flow of income through the local economies-affecting retail, food services, and other dependent sectors, as well as social services. Indeed, the loss of a local economy's dominant economic engine exposes the fragility of economic base.

There are significant pre-existing regional and national inequalities, as regional disparities in terms of economic development and labour market participation are significant and skills mismatches remain substantial. Specifically, the Southwestern region with the Kicevo municipality of Oslomej is among the three regions (along with Northeast and Polog) with high unemployment incidence (European Training Foundation, ETF 2021 Country Fiche).

At national level, while the country witnessed large increase in supply of tertiary-educated graduates, most of the current and near-future demand is for people with secondary vocational education (ETF 2019, Torino Process 2018-2020). The main challenge lies in the inability of the Vocational Education & Training (VET) system to respond to regional labour market's needs and the resulting insufficient correlation of VET profiles and programmes with industry requirements.

The *key question* is what will be the impact of coal mines closure as having large share in local employment and significant socio-economic impact. Such transformation will require:

- deploying large volumes of renewables capacity in order to ensure energy security in the context of an increasing electrified economy, and
- developing inclusive and sustainable 'just' transition programme for the coal sector that employs around 4,000 people directly[64].

Based on this background, a broad partnership of the Macedonian authorities and ESM with European Bank for Reconstruction and Development (EBRD) aims to promote a *just and green transition in North Macedonia*[65]. This partnership is *the first example* of such dialogue in the Western Balkans with significant demonstration potential. EBRD has been instrumental in developing a strategic "just transition diagnostic"[66] with the Macedonian authorities, ESM and the EU Delegation in *North Macedonia to identify policy and investment opportunities nationally to create a just and green transition for the country's coal regions.*

This diagnostic encompasses: support for ESM's green investments, located in the coal depended regions; and support for private investors in RE (private solar tender and wind investments with combined capacity of 162MW) to add renewable energy to a country with serious capacity shortages and high reliance on lignite mining and generation.

On *12 October 2021* the EBRD Board of Directors approved *ESM Solar PV Transition Project* for a sovereign-guaranteed loan of up to EUR 25m in favour of ESM for implementation of a 30 MWac solar photovoltaic ("PV") project consisting of: a 10 MWac "Oslomej 2" on the exhausted coal mine of TPP Oslomej as expansion to a 10MW solar PV plant under construction; and a 20 MWac "Bitola" plant adjacent to coal fired TPP Bitola

The plants are expected to produce 50 GWh of electricity and displace 34,000 tonnes of CO_2 annually. The project will directly address the inequality implications of the green energy transition and define redeployment and reskilling opportunities in the wider regional labour market to retrain the local workforce.

The projects contribute to the "*Green*" transition quality by supporting the construction of 30MW of solar PV generation capacity expected to result in CO_2 savings.

In addition, the projects target the "*Inclusive*" transition quality by identifying the social implications of green transition and defining redeployment and reskilling opportunities at ESM. Additionally, ESM will be supported in improving its gender diversity standards by developing an Equal Opportunities Action Plan

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[64] *According to the 2019 Annual Report of JSC ESM, the TPP Oslomej and TPP Bitola with their mines employ 3,588 employees.*

[65] EBRD, 2021. Document of the European bank for reconstruction and development - North Macedonia, ESM Solar PV Transition, Accessible here: https://www.ebrd.com/what-we-do/project-information/board-documents/1395301853629/ESM_solar_PV_Transition_Board_Report.pdf?blobnocache=true

[66] *The development of a "just transition diagnostic" is a strategic policy initiative aiming to i) identify suitable and concrete investments in the coal depended regions; and ii) develop an action plan – detailing investments and policy reform instruments – which will then be taken forward by the Government.*

Figure 3 - Solar PV Transition Project location in the Pelagonija Valley

Source: EBRD, 2021 Bitola – Solar PV Plant, Environmental & Social Assessment: Non-technical Summary. ESM Solar PV Transition Project. Accessible here: https://www.ebrd.com/work-with-us/projects/psd/52320.html

As part of the investment the Bank will enhance the capacity of *ESM to actively contribute to regional economic development planning to ensure a 'just' economically diverse and sustainable transition to greener economy in the coal regions*. The Bank will also support ESM to take an active role in the development of nationally accredited market-relevant curricula and a programme for retraining and redeploying its affected local workforce, in collaboration with all the relevant local, regional and national authorities including MoES and the EU Delegation. Finally, the Project provides a platform for continuous TC and policy dialogue to promote private renewables (solar auction and Oslomej PPP).

The Project will also support a 'just' transition by addressing the inequality implications of the green energy transition and *define redeployment and reskilling opportunities* in the wider regional and national labour market with a view to retrain the local workforce in cooperation with the *Ministry of Education and Science (MoES)*, as well as local educational institutions and employment centres of the *National Employment Agency*.

It will add 30MWac of renewable generation capacity to almost double the country's existing installed solar PV capacity of 24MW. Once operational, the Project is expected to result in carbon emission reductions. Furthermore, it will support the reskilling of a substantial share of the local ESM workforce affected by the green economy transition.

This operation *will have a significant demonstration effect for the wider Western Balkan region* that faces similar challenges and require a green, inclusive and just energy sector transition.

6. Local authorities as catalysts for social and just energy transformation

a) Introduction

The complex challenges *to reach social and just transition* towards a low carbon, climate resilient sustainable development *cannot be addressed exclusively by central governments.* Local authorities are also an essential part of the solution to addressing climate change and its impacts. In fact, local authorities can make their own climate commitments and implemented various types of mitigation and adaptation policies.

Local Authorities have *the comparative advantages to act as catalyst* for the promotion of sustainable local development, over other public, private and community actors in the geographic space it administers. Moreover, the territory is also the space of interaction of plurality of public and private actors (i.e., local branches of line ministries, educational and cultural institutions, private sector and CSOs). They also have *strong legitimacy and representation* since they are directly elected by citizens and provide spaces for active public participation. In addition, they have important role to play in mobilising resources, in stimulating dialogue with local communities, encouraging public-private and public-civil society partnerships, as well as in *improving multi-level governance* (local, regional, national).

OECD (2021) MULTI-DIMENSIONAL REVIEW OF THE WESTERN BALKANS: ASSESSING OPPORTUNITIES AND CONSTRAINTS - NORTH MACEDONIA

- *Empowering local governments and **effective regional development** present major strategic opportunities.*
- *North Macedonia has the institutional framework in place for a strong bottom-up process of economic development.*
- *However, too many channels of resource distribution from the centre to local governments create inefficiencies and open the door to special interests.*
- *This needs streamlining, with a strong role for the regional fund, which gives voice to local communities in setting local development objectives.*
- *Future strategies must focus on making local governments more capable of delivering quality services and local development.*
- *This will require a **genuine reform of multi-level governance, introducing the right incentives and budget framework.**"*

Local policies have a critical role to play in both *adaptation and mitigation climate action* by strategically improving urban form, lifestyles, mobility and energy sources that influence GHG emissions:

- Local authorities *implement most climate policies* and are well positioned to experiment and pilot climate actions within their geographical areas. It is estimated that most of adaptation and mitigation actions already are or will be implemented at subnational level, implying that the majority of climate action of a country cannot be carried out without local authorities;
- GHG emissions can be brought close to net-zero using proven technologies and practices, which identifies numerous technically feasible *low-carbon measures* capable of reducing emissions *from key urban sectors - the buildings sector, transport, waste;* The investments to reduce such urban emissions are also generating annual savings.
- Local authorities have certain level of *policy authority in various sectors*, such as housing, land-use zoning, transport, natural resources management, buildings, and waste and water services;
- Climate action at the national level can be driven through local regulations, local services, local administration, local purchasing and property management, and convening of *local stakeholders*;
- Long-term strategic planning at local level can better consider policy *complementarities in different sectors*. For example, land-use zoning policies that encourage higher densities can lead to reducing trip distances and frequency in the transport sector. Natural resource policies to increase vegetation and green space can reduce the impacts of heat extremes and flooding. Such local efforts can be complemented with tailored building standards and energy retrofit projects;
- Urban climate action and investment in low-carbon, climate-resilient urban infrastructure can *provide additional co-benefits* such as avoided health costs, cost savings and increased efficiency, energy security and infrastructure improvements, and improved quality of urban life (IPCC, 2014); and
- Green urban investment, for instance in public transport and green innovation clusters, can also *contribute to increasing economic growth* potential in multiple ways including job creation, attracting firms and workers, innovation and entrepreneurship and increasing the value of urban land. In particular low-carbon innovation has strong potential for economy-wide co-benefits, including through technologies for renewable energy, energy storage, smart grids, heating and cooling in buildings as well as permeable pavement and road materials (OECD/World Bank/UNEP, 2019).

Local authorities' actions encompass a *wide range of mitigation and adaptation measures*, from installing solar panels, conducting building renovations and implementing congestion charges to maintaining and expanding green spaces, constructing porous infrastructure and reclaiming waste water. They can take bold climate action and set original GHG emissions reduction targets, many of which more ambitious than those of their national governments. Actors at local level must promote and achieve good governance, sustainable development and inclusive growth.

b) Legal framework for sustainable local development

Local self-government is one of the fundamental values of the constitutional order in the Republic of North Macedonia. The Constitution contains a set of provisions that define the

concept of local government, *ensure the independence of municipalities* in the exercise of their powers, and the specific status of the City of Skopje as the capital city of the country. The *Constitution guarantees the right of citizens* to directly and through representatives participate in decision-making on issues of local relevance particularly in the fields of public services, urban and rural planning, environmental protection, local economic development, local finances, communal activities, culture, sport, social security and child care, education, health care and other fields determined by law.

North Macedonia has a single-tier local government territorially organized in *80 municipalities and the City of Skopje as separate Local Government Unit*, which stems from the character of the city of Skopje as capital of the country. There are 33 city-based municipalities, 10 are based in City of Skopje while the remaining 37 have their seats in a village.

The Law on Local Self-Government ("Official Gazette of the RM" no. 5/12), as a systemic law defines and protects the basic principles that guarantee the political, administrative and financial independence of local authorities. The Law regulates: the competencies of the municipality; direct participation of the citizens in the decision-making; the organization and the work of the authorities of the municipality; municipal administration; the acts of the authorities; the property - ownership of the municipality; supervision of the work of the municipal authorities; dissolution of the council of the municipality; mechanisms of cooperation between the municipalities and the Government of the Republic of North Macedonia; neighbourhood self-government; the protection of local self-government; determining of official languages in the municipalities; and other issues of importance to the local self-government.

Municipalities, in accordance with the standards and procedures determined by law have competencies for performance of the following activities:

- *Urban and rural planning* - urban planning and issuing of technical documentation for construction and issuing of construction permits; regulation and maintenance of construction land;
- *Protection of the environment and nature* - measures for protection and prevention of water, air and land pollution, protection of nature, protection against noise and ionizing radiation;
- *Local economic development* – local economic development planning; determining of development and structural priorities; running of local economic policy; support of the development of small and medium size enterprises and entrepreneurship at local level and in that context, participation in the establishment and development of local network of institutions and agencies; promotion of partnership;
- *Communal activities* - potable *water* supply; technological water supply; drainage and treatment of waste waters; public illumination; drainage and treatment of precipitation; maintenance of public hygiene; collection, transport and treatment of communal solid and technological waste; regulation and organization of public local transportation of passengers; supply with natural gas and heating energy; maintenance of graves, cemeteries, crematoria and provision of burial services; construction, maintenance, reconstruction and protection of local roads, streets and other infrastructure facilities; regulation of traffic regime; construction and maintenance of street traffic signalization; construction and maintenance of public parking spaces; removal of improperly parked vehicles; removal of damaged vehicles from public spaces; chimney sweeping;

construction and maintenance of markets; maintenance and use of parks, green spaces, park-forests and recreational spaces; regulation, maintenance and use of river beds in urbanized parts, determining of names of streets, squares, bridges and other infrastructure facilities, etc.;

- *Culture* – institutional and financial support to cultural institutions and projects; preservation of the folklore; customs; traditional handicrafts and similar cultural heritage; organization of cultural events; encouraging of various specific forms of artistic work;
- *Sport and recreation* - development of general sport and recreational activities of the citizens; organization of sport events; maintenance and construction of sport facilities of public interest for the municipality, support to sport associations;
- *Social welfare and child protection* – kindergartens and homes for elderly (ownership, financing, investments and maintenance); exercising of social care for disabled persons, children without parents and parental care, children with educational and social problems, children with special needs, children from single-parent families, deserted children, persons exposed to social risk, persons with drug and alcohol addiction problems; raising of citizens' awareness, housing of persons put to social risk, sheltering and education of pre-school children. Performance of these competencies shall be in accordance with the National Program for Development of Social Care;
- *Education* – establishing, financing, administering of primary and secondary schools in cooperation with the central government in accordance with the law; organizing of transportation of students, food and their accommodation in dormitories;
- *Healthcare* – governance of the network of public health organizations and primary care buildings to include representation of local government in all boards of all publicly owned healthcare organizations; health education; health improvement; preventive activities; protection of health of workers and protection at work; health oversight over the environment; oversight of contagious diseases; assistance to patients with special needs (mental health, child abuse, etc.); and other areas determined by law;
- Execution of preparations and undertaking activities for *protection and rescuing of citizens and goods against war destructions, natural and other disasters* as well as against consequences caused by them;
- *Firefighting* activities performed by the territorial firefighting brigades;
- *Supervision* of the performance of activities that are of municipal competency; and
- *Other activities* determined by law.

Municipalities perform their responsibilities through bodies elected directly by the citizens for a term of four years. *Municipal authorities are: the Council and the Mayor***.** In the performance of the activities under its competency, *the council* adopts regulations such as: statute, *programs, plans, decrees and other regulations* determined by law. The organs of the municipality, the council committees and public agencies established by the municipality are obliged *to inform the citizens* about their work, as well as about the plans and programs that are of importance for the development of the municipality without any compensation, in a way determined with the statute.

The *citizens shall directly participate* in the decision-making process on issues of local importance through (1) *civil initiative*, (2) *citizens' gatherings and (3) referendum*, in a manner and procedure determined by law. The expenses for execution of the direct participation of the citizens in the decision-making process *shall be covered from the municipal budget*.

The citizens, in the urban and neighbourhood communities, at *citizens' gatherings*:

- *Shall review issues, take positions and prepare proposals* for issues of direct and everyday importance for the life and work of the inhabitants of that territory; and
- May *elect a council of the urban i.e., neighbourhood community* in a way and procedure determined by the statute of the municipality.

The *citizens' gathering* shall be convened by the mayor of the municipality upon his/her own initiative, at the request of the council or at the request of at least 10% of the voters in the municipality from the neighbourhood of the self-government that a certain issue relates to. The municipal organs are obliged to review the conclusions made at the citizens' gathering within 90 days and to take them into account when making decisions and determining measures on issues they relate to, and to inform the citizens on their decisions.

The Municipality may establish forms of local self-government, such as: *in cities - urban communities; in villages - neighbourhood communities*.

c) Policy and legal framework for balanced regional development[67]

Balanced regional development is a complex and long-term process with main goal to reduce development disparities between and within the planning regions. Regional development is based on its complexity and multidimensionality, i.e., the intertwining of economic, demographic, social, spatial, and cultural, as well as many other aspects of development. Therefore, the successful implementation of a balanced regional development policy is directly dependent on a broader understanding of the concept of regional development, the effective linkage of regional development policy with sectoral policies and the provision of the necessary support by the relevant institutions.

The *main objective* of the Macedonian policy for balanced regional development is to reduce the differences between the natural, economic, demographic, social and infrastructural characteristics of the municipalities in the country. In this view, regional development presupposes *continuous financial support from the state and,* at the same time, *a high degree of coordination between ministries, stakeholders at regional and local level* and international development cooperation organizations.

The principles of the policy for stimulating balanced regional development are:

- *Programming* - creation of multi-year system of programming and implementation of the policy for stimulation of balanced regional development including identification of the priorities and measures of the policy, their financing, management and control;
- *Partnership* - cooperation in the preparation, implementation, monitoring and evaluation of the regional development planning documents between the central government bodies and the municipalities, economic and social partners and other relevant representatives of the civic society;
- *Reconciliation* - goals, priorities and measures in regional development planning document are adjusted with the goals, priorities and measures in the programming

[67] ***Balanced regional development*** *is a process of planning the regional development aimed at lowering disparities in the degree of development and in and between the planning regions for the purpose of achieving balanced and sustainable development of the regions;*

documents on national level and in the program documents for integration of the Republic of North Macedonia in the European Union;

- *Co-financing* - of measures of the policy for stimulation of balanced regional development from the Budget of the Republic of North Macedonia, the budgets of the municipalities, funds of the European Union and other international sources, as well as financial means from domestic and international legal entities and natural persons;
- *Transparency* - regular, timely and objective information of the public about the measures of the policy for stimulation of balanced regional development, as well as enabling free access to information to all interested parties;
- *Participation* - active involvement of citizens in the process of creation and implementation of regional policy;
- *Subsidiarity* - preparation, implementation, control and evaluation of the programs and measures for stimulation of balanced regional development are done by the planning regions and the municipalities, except if they are excluded from their competences or are not under the competence of the state bodies; and
- *Sustainability* - respecting the economic, social and ecological components of development during the design of the policy for stimulation of balanced regional development.

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„Regional policy **improved** with the amended Law on balanced regional development was adopted in January 2021, committing 1% of the GDP to regional development, the Strategy for balanced regional development (2021-2031) and the national programme upscaling the state funds for regional development.
The **integrated system** allowing planning, management and monitoring of the national investments in regional development, is yet to be put in place. Progress is still needed on decisional, operational and fiscal decentralisation".

The new *Law on Balanced Regional Development* was adopted in 2021[69]. The Law regulates the goals, principles and stakeholders of the policy for stimulation of *balanced regional development*; *regional development planning*; financing and allocation of funds for stimulation

[68] European Commission, 2021. North Macedonia 2021 Report Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 2021 Communication on EU Enlargement Policy. Strasbourg, European Commission, 19.10.2021, SWD(2021) 294 final. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0294&from=EN

[69] *The Law performs harmonization with the regulation (EU) No. 1301/2013 of the European Parliament and of the Council of December 17, 2013 on the European Fund for regional development and on special provisions for the purpose of the Investments for growth and job positions, as well as for superseding the Provision (EC) No. 1080/2006 CELEX 3201R1301*

of balanced regional development; monitoring and evaluation of the implementation of planning documents and projects and other issues related to regional development.

Holders of the policy

Holders of the policy for encouraging balanced regional development are:

- The Government
- Council for balanced regional development
- Ministry of Local Self-Government
- *Council for development of the planning region*

The **Council for development of the planning region** is established for each planning region. Members of the Council with the right to vote are the *mayors* of the municipalities that are part of the planning region and *one representative from the associations and the business community, without the right to vote*. The member *representative of the associations* is elected by means of a public call. A *representative of the business community* is elected from the representative associations of employers from the planning region. *Experts* in the field of regional development, *the presidents of the municipal councils*, as well as *representatives of national institutions and donor organizations may also participate* in the work of the Council. The Council performs the following functions:

- organizes and coordinates the activities for monitoring and evaluation of the implementation of regional development planning documents;
- adopts Program for development of the planning region, based on the previously received approval of the Council;
- adopts annual action plan for implementation of the Program for development of the planning region;
- drafts annual list of project proposals for development of the planning region;
- submits proposals to the Ministry for identifying areas with specific development needs within the planning region, in accordance with the criteria from Article 8 of this Law;
- ensures the coordination of the activities of the municipalities, municipalities of the city of Skopje and the city of Skopje, associations, state agencies and institutions within the region which act in the field of regional development;
- initiates reviews of issues related to regional development which require coordination between the municipalities, municipalities of the city of Skopje and the city of Skopje and the partners from the private and civic sector;
- promotes cross-border cooperation with regions from other countries based on mutual interests; and
- performs other activities in the area of regional development stipulated by law.

For the purposes of carrying out professional tasks relevant for the development of the planning region, a **Center for development of the planning region** is established, by the municipalities which are an integral part of the planning region.

The Center performs the functions and implements the tasks related to the developmental priorities of the planning region in accordance with the law. The Center has the capacity of a legal entity. The Center:

- provides information to all interested parties regarding the course of the implementation of the Program for development of the planning region and other regional development-related issues;
- provides professional and technical assistance to the municipalities with regards to the preparation of their development programs;
- provides professional services to associations and other interested parties for the preparation of regional development-related projects;
- encourages inter-municipal cooperation within the planning region; prepares, submits applications and implements projects for stimulation of the development of the planning region, financed by European Union funds and other international sources;
- performs professional and administrative-technical work for the needs of the Council for development of the planning region; prepares and implements projects and agreed tasks and services for ministries and other state institutions.

For the purposes of regional development planning and implementation of measures and instruments for stimulation of balanced regional development in the country, *eight planning regions*[70] were established (Vardar, East, Southwest, Southeast, *Pelagonija*, Polog, Northeast and Skopje), as well as 8 regional development centers.

Planning documents

Regional development planning is conducted with *planning documents*, prepared on the basis of the Methodology prescribed by the Minister of local self-government (hereinafter referred to as: Minister). During the preparation of the planning documents for regional development it is *mandatory to consult all involved parties on the national and local level.* The planning documents are harmonized with the Spatial Plan of the Republic of North Macedonia, the strategic development documents on the national level, as well as with the programming documents for integration of the Republic of North Macedonia in the EU.

The regional development planning documents are: (1) *Strategy for Regional Development of the Republic of North Macedonia*, a long- term planning document prepared for a period of 10 years**,** and (2) *Programme for planning region development* prepared individually for each planning region for a period of 5 years**.**

- *Strategy for Regional Development* is prepared for a period of 10 years and it's determining the principles, goals and priorities of regional development, and defines the measures, instruments and financial and other means for their implementation. The Strategy is a basis for the preparation of the planning regions development programs. *The Strategy defines:* (1) The concept, priorities and strategic goals of the development of the planning regions, by mandatorily taking into consideration of the principles of policy for stimulating balanced regional development; (2) The measures and instruments for stimulation of the development of the planning regions, urban areas, areas with specific development needs and villages; and (3) The financing arrangement, institutions and mechanisms for implementation, monitoring and evaluation of the measures of the policy.

[70] *Planning region is a a non-administrative, functional-territorial unit for NTUS-III level of statistics in accordance with the Nomenclature of territorial units for statistics established for the purposes of planning the development and implementation of the policy for stimulation of balanced regional development.*

- *Programme for development of the planning region* is prepared for a period of 5 years in accordance with the Strategy and the program documents for integration of the Republic of North Macedonia in the EU. The Program is adopted by the Council for development of the planning region, following a prior approval by the Council for balanced regional development. *Programme serves as the basis for the preparation of the plans of the municipalities*, municipalities in the city of Skopje and the city of Skopje related to their economic, social, urban, environmental, cultural and other development. *The Programme defines***:** goals for the development of the planning region; measures and instruments for stimulation of development of the planning region; measures and instruments for stimulation of development of urban areas, areas with specific development needs, if such are identified in the region and of the villages; and financing sources, time frames and indicators for monitoring and evaluation for implementation of the measures for stimulation of development; priorities for the development of the region; and the priorities for the development of urban areas, areas with specific development needs, if such are identified in the region and the villages..

d) Sources of financing of balanced regional development

The Law on Balanced Regional Development of North Macedonia determines the following *sources for financing the regional development:*

- Budget of the Republic of North Macedonia
- Budgets of local self-government units
- European Union funds
- other international sources
- Donations and sponsorships from individuals and legal entities and other means determined by law
- Other means determined by law

In addition to the sources of financing, the Law defines the following *instruments for encouraging balanced regional development*: capital deposits, non-refundable grants, subsidies, loans on favourable terms, providing loan guarantees, credit insurance, tax incentives, leasing and other instruments in accordance with the law. In order to encourage the balanced regional development, financing and co-financing of the preparation of analyses, studies, planning documents, action plans and project documents that meet the conditions for financing, as well as financing the construction of institutional capacities for regional development in the Republic of North Macedonia shall be performed.

For efficient and effective use of the indicated sources of funding and instruments for implementation of the Regional Development Strategy 2021-2031 it is necessary to develop regional and interregional projects in a participatory manner through *regional consultative forums with maximum involvement of all stakeholders* in order to meet the priority needs of the population including the most vulnerable groups, women and *young people*. These projects should include cost-benefit analysis and thus enable reasoned prioritization.

For the purposes of stimulation of balanced regional development, the ***municipalities* can also utilize resources from EU Funds** on basis of the provisions of the Framework Agreement between the North Macedonia and the European Commission, according to the Instrument for

Pre-Accession Assistance (IPA), ratified in accordance with the Constitution of the Republic of North Macedonia.

The Budget of the Republic of North Macedonia

The Law on Balanced Regional Development stipulates an obligation from the Budget *annually to be allocated funds in the amount of at least 1% of GDP* for the purpose of encouraging balanced regional development. Funds are **awarded to the planning regions** in accordance with the Classification of Planning Regions, according to the level of development. The funds are distributed by a Decision of the Government, as follows:

- *55% for financing projects for development of the planning regions* - For efficient collection and evaluation of projects, the Bureau for Regional Development (BRD) no later than December 15 in the previous year sends notification to the Centres for development of planning regions, which informs them about the available funds for financing projects for development of planning regions in the next year. The Centre is obliged to organize regional consultations - forums for determining the Annual List of projects, in accordance with the Rulebook on the manner of organizing and implementing forums adopted by the Minister. The Annual list of projects is submitted to the Council for development of the planning region for its adoption;
- *15% for financing projects for urban areas development and sustainable and urban development* - For the allocation of funds, the BRD announces a public call for projects, which states the total amount of funds for financing projects. Beneficiaries of the funds are the municipalities with a seat in the town, the municipalities in the City of Skopje and the City of Skopje;
- *15% for financing projects for development of areas with specific development needs* - For the allocation of funds, the BRD announces a public call for projects, which states the total amount of funds for financing projects. Beneficiaries of the funds are the municipalities and the municipalities in the City of Skopje in which areas with specific development needs are determined; Centres for development of planning regions; public enterprises and public institutions established by the government, by the municipalities in the City of Skopje and by City of Skopje; higher-educational and scientific institutions and associations; and
- *15% for financing projects for development of the villages* - For the allocation of funds, the BRD announces a public call for projects, which states the total amount of funds for financing projects. Beneficiaries of the funds are the municipalities and the municipalities in the City of Skopje belonging to the planning region. The municipalities with a seat in town and the municipalities in the city of Skopje that submit projects for development of the villages that are part of them, are obliged to provide co-financing of the project in the amount of 50% of the project value, from their own sources of income and other domestic and international sources. The municipalities with a seat in the village have no obligation to co-finance projects.

European Union funds

To encourage the development of the planning region, the municipalities can also use funds from the European Union funds. The use of these funds is implemented on the basis of the provisions of the Framework Agreement between the Republic of North Macedonia and the European Commission on the rules of cooperation regarding the financial assistance of the

European Commission to the Republic of North Macedonia within the implementation of assistance under the Instrument for Pre-Accession Assistance (IPA), ratified in accordance with the Constitution of the Republic of North Macedonia.

EU financial instruments include:

- **The Instrument for Pre-Accession (IPA) III** - IPA beneficiaries will be *encouraged to develop energy efficiency and renewable energy sources and to shift to resource-efficient, safe, and sustainable low-carbon economies* in line with the wider EU targets for climate action and environmental protection. Through a sustainable use of natural resources, higher standards of environment and human health protection and increased climate change mitigation and adaptation can be achieved. This is not only for the direct benefit related to the health and well-being of the citizens, but also to make the region attractive for investments and tourism, and tap into the significant economic potential of green growth and the circular economy;
- **The multi-annual rural development programmes under the Instrument for Pre-Accession (IPARD).** IPARD programmes contain a menu of 11 measures, selected for implementation by the partners. Under each of the measures, beneficiaries may prioritise and select sectors, which should receive assistance. Sustainable agriculture and food production should be the centrepiece of IPARD under the new MFF;
- The **Just Transition Mechanism (JTM)** a key tool to ensure that the transition towards climate-neutral economy happens in a *fair way, leaving no one behind*.

Donations and sponsorships

All funds with the exception of the EU funds, may be linked to funds from donations and sponsorships from individuals and legal entities in order to implement a program or project to encourage balanced regional development. The funds from donations and sponsorships are distributed and allocated in accordance with the terms of the donation agreement or sponsorship.

PART III. IMPLEMENTING JUST TRANSITION IN PELAGONIJA PLANNING REGION: Pathways to sustainable development

1. General characteristics of the Pelagonija planning region

a) Introduction

Pelagonija planning region (hereinafter referred to as "Pelagonija") as a non-administrative, functional-territorial unit falls within the NTUS-III Level in accordance with the national Nomenclature of territorial units for statistics, *established for the purposes of planning and implementation of the policy for stimulation of balanced regional development*.

The Region is located in the southwest part of the country, borders with the Republic of Greece (EU and NATO member) and the Republic of Albania (NATO member) and internally with the Southwest and Vardar region. The region covers the basins of the *Pelagonija and Prespa valleys*, i.e., it consists of *two physical-geographical units*. The name of the area is according to the Pelagonija valley which occupies most of the territory of the entire planning region.

PROGRAM FOR DEVELOPMENT OF THE PELAGONIJA PLANNING REGION 2021 – 2026

PELAGONIJA VALLEY

- ***Valley*** *actually occupies the central-western part of Macedonia as a geographical unit. The valley today stretches between two countries: the Republic of North Macedonia and the Republic of Greece.*
- *The whole valley is composed of the Bitola and Prilep Fields in Republic of North Macedonia in the basin of the Black River and its tributaries and the Lerin Field in the Republic of Greece.*
- *The valley is surrounded by the mountains Baba, Busheva Mountain from the west, Dautica and Babuna from the north, Selecka Mountain and Nidze from the east, while to the south and southwest it is surrounded by the slopes of Neredska Mountain which is territorially located in Greece.*

The region has a *total area of 4,717 km^2*, or 18.34% of the total area of the country and is the largest planning region in the country, with a population density of 44.61 inhabitants per km^2, which makes this the seventh region in the country by population density.

It has the *largest number of settlements in the country (343 in total), of which 5 are urban (towns).* The five settlements in the region with characteristics of town (Bitola, Prilep, Krushevo, Resen and Demir Hisar) cover urban area of 80 km κ or 1.7% of the total area of the region. The rest of the *rural area* covers an area of 98.3% (4,637 km) which consists of 338 rural settlements.

The region consists of a total of *9 municipalities.*

1) **Bitola** (85.164 inhabitants)
   Settlements**:** *Town of Bitola and villages:* Bareshani, Bistrica, Bratin Dol, Brusnik, Bukovo, Velushina, Gabalavci, Gopesh, Gorno Egri, Gorno Orizari, Graeshtica, Dihovo, Dolenci, Dolno Egri, Dolno Orizari, Dragarino, Dragozhani, Dragosh, Drevenik, Gjavato, Zhabeni, Zlokukjani, Kazhani, Kanino, Karamani, Kishava, Kravari, Krklino, Kremenica, Krstoar, Kukurechani, Lavci, Lazhec, Lera, Lisolaj, Logovardi, Lopatica, Magarevo, Malovishte, Metimir, Medzitlija, Nizhepole, Novo Zmirnovo, Oblakovo, Oleveni, Optichari, Orehovo, Ostrec, Poeshevo, Porodin, Ramna, Rashtani, Rotino, Svinishte, Sekirani, Snegovo, Sredno Egri, Srpci, Staro Zmirnovo, Strezhevo, Trn, Trnovo, Capari, Crnobuki and Crnovec.
2) **Prilep** (69.025 inhabitants)
   Settlements: *Town of Prilep and villages:*Shtavica, Chumovo, Belovodica, Berovci, Carevik, Dabnica, Dren, Galichani, Golem Radobil, Golemo Konjari, Kadino Selo, Krstec, Lenishta, Mazhuchishte, Mal Radobil, Malo Konjari, Malo Ruvci, Nikodin, Novo Lagovo, Oreovec, Pletvar, Prilepec, Prisad, Rakle, Selce, Smolani, Staro Lagovo, Toplica, Trojaci, Volkovo, Zhivovo, Chanishte, Beshishte, Dunje, Gugjakovo, Kalen, Kokre, Krushevica, Manastir, Peshtani, Polchishte, Veprchani, Vitolishte, Vrpsko, Sheleverci, Chepigovo, Alinci, Bonche, Erekovci, Kanatlarci, Klepach, Lopatica, Marul, Podmol, Topolchani, Trojkrsti, Veselchani and Zagorani.
3) **Resen** (14.373 inhabitants)
   Settlements: *Town of Resen and villages:* Shtrbovo, Shurlenci, Arvati, Asamati, Bolno, Brajchino, Carev Dvor, Dolna Bela Crkva, Dolno Dupeni, Dolno Perovo, Drmeni, Evla, Ezerani, Gorna Bela Crkva, Gorno Dupeni, Gorno Krushje, Grnchari, Izbishta, Jankovec, Konjsko, Kozjak, Krani, Kriveni, Kurbinovo, Lavci, Leskoec, Leva Reka, Nakolec, Oteshevo, Petrino, Podmochani, Pokrvenik, Preljubje, Pretor, Ljubojno, Rajca, Slivnica, Sopotsko, Stenje, Stipona, Volkoderi, Zlatari and Ilino.
4) **Krushevo** (8.385 inhabitants)
   Settlements: *Town of Krushevo and villages:* Aldanci, Arilevo, Belushino, Birino, Borino, Buchin, Dolno Divjaci, Gorno Divjaci, Jakrenovo, Miloshevo, Norovo, Ostrilci, Presil, Pusta Reka, Sazhdevo, Selce, Sveto Mitrani and Vrboec.
5) **Demir Hisar** (7.260 inhabitants)
   Settlements: *Town of Demir Hisar and villages:* Zhurche, Barakovo, Belche, Edinakovci, Graishte, Kochishte, Kutretino, Leskovo, Novo Selo, Obednik, Pribilci, Rakitnica, Rastojca, Sladuevo, Slepche, Smilevo, Strugovo, Suvodol, Sveta, Utovo, Vardino, Zagoriche, Zheleznec, Zhvan, Babino, Bazernik, Boishte, Brezovo, Cerovo, Dolenci, Golemo Ilino, Malo Ilino, Mrenoga, Radovo, Sloeshtica, Sopotnica, Suvo Grlo, Velmevci, Virovo and Zashle.
6) **Dolneni** (13.126 inhabitants)
   Settlements: Villages: *Dolneni*, Zhabjani, Belo Pole, Brailovo, Crnilishte, Dabjani, Debreshte, Desovo, Dolgaec, Drenovci, Dupjachani, Gorno Selo, Gostirazhni, Koshino,

Kostinci, Kutleshevo, Lazhani, Malo Mramorani, Margari, Nebregovo, Novoselani, Peshtalevo, Rilevo, Ropotovo, Sarandinovo, Sekirci, Senokos, Slepche, Slivje, Sredorek, Strovija, Vranche, Zabrchani, Zapolzhani, Zrze, Zhitoshe and Lokveni.

7) **Krivogashtani** (5.167 inhabitants)
   Settlements: Villages: *Krivogashtani*, Bela Crkva, Borotino, Godivle, Korenica, Krusheani, Mirche Acev, Obrshani, Pashino Ruvci, Slavej, Vogjani, Vrbjani and Podvis.
8) **Mogila** (5.283 inhabitants)
   Settlements: *Villages*: *Mogila*, Alinci, Beranci, Budakovo, Vasharejca, Gorna Charlija, Dolna Charlija, Dedebalci, Bobrushevo, Dolno Srpci, Ivanjevci, Loznani, Mojno, Musinci, Novoselani, Noshpal, Podino, Puturus, Radobor, Sveto Todori, Trap, Trnovci and Crnichani.
9) **Novaci** (2.648 inhabitants)
   Settlements: *Villages: Novaci*, Armatush, Baldovenci, Biljanik, Dalbegovci, Dobromiri, Dolno Aglarci, Dolno Orehovo, Gneotino, Gnilesh, Gorno Aglarci, Grumazi, Meglenci, Novo Selo, Paralovo, Ribarci, Suvo Dol, Tepavci, Vranjevci, Brnik, Budimirci, Gradeshnica, Grunishta, Iveni, Makovo, Orle, Petalino, Rapesh, Staravina, Zovik 1, Zovik 2, Zhivojno, Brod, Dobroveni, Germijan, Polog, Skochivir, Slivica, Sovik, Veleselo and Bach.

The *Council for development of the Pelagonija planning region has 13 members* - 11 mayors of the municipalities that are part of the planning region *with the right* and one representative each from the associations and the business community, *without the right to vote*. The Council performs activities in the field of regional development determined by law.

For the purposes of carrying out professional tasks relevant for the development of the planning region, a *Centre for development of the planning region* was established, by the municipalities consisting the planning region. The headquarters of the Centre is in **city of Bitola,** the seat of the municipality of Bitola, as municipality with the largest number of inhabitants in the planning region. The influence of the city of Bitola, as one of largest city in the country, enabled the concentration of a number of economic, cultural and educational institutions and administrative functions in the region.

b) Demographic characteristics

Total population in the region is 210,431 according to the population census, 2021. Most of the population (69.46%) is concentrated in only two municipalities - Bitola and Prilep. 69.4% of the total population is concentrated and lives in *urban* areas. (2019). The rest of 30.6% of the total population of the region (226,837) lives in *rural* areas.

All municipalities are facing *declining population*, except for the municipality of Dolneni. Even the urban settlements of Bitola and Prilep, which are among the 5 largest towns in the country, are declining. The largest population decline for the period 2010-2019 was registered in the Municipality of Novaci (-10.6%). An extremely important fact should be noted the constant decrease in the total population as a result of population migration, reduced birth rate, quite high mortality rate (by far the highest by region), and the continuous negative natural growth rate that in 2019 is the largest of all regions and is -4.7 ‰.

In the total population, the number of males is higher, but we cannot say that it prevails because

there is a small difference between *male (50.1%) and female population* (49.9%) in 2019. The percentage of population under 14 in 2019 is 1 percentage point below the national average. The percentage of population aged 65+ from 17.0 in 2019 is significantly above the state average of 14.5. The average age increased from 74.4 to 75.3 years in the same period. The total fertility rate in the region in 2019 is 1.2. It is lower than the national level (1.3) and provides population renewal at the level of simple reproduction.

The continuous *negative rate of natural population growth* as a difference between the number of live births and the number of deaths, as well as the number of marriages and divorces for the analysed period (2015 - 2019) shows the *strong negative trend in the region, which is at a stage of deep demographic age*. This situation will really affect the dynamics of the economic and overall development of the region in the future. If the trend continues, it will further condition the need to increase human and financial resources in the social and health spheres, which would be an additional burden on institutions and the real sector.

The value of the *demographic index* of Pelagonija used in the classification of the regions is lower than the national average and is 79.6. According to this index, the region is fourth after the Skopje, Polog and Northeast regions.

c) Climate

The region is dominated by a *temperate-continental climate* with large climatic influences from the north that cause the climate to resemble as continental during the winter.

The annual amount of *rainfall* ranges from 570 mm in the Prilep region, 643 mm in the Bitola region, 915 mm in the Krushevo region, while Demir Hisar area is characterized by 737 mm.

It should be emphasized that in terms of *temperature* there are large temperature oscillations during one year. Summer temperatures reach up to + 40 °C, while the minimum in winter reaches -30 ° C. The average annual temperature is around 10 °C. In Prespa region the climate is characterized by cool summers and not very cold winters, due to the proximity of Prespa and Ohrid lakes. In the high mountains, the climate is mountainous, i.e., there are cold winters and cold summers, with precipitation around 1000 mm in the form of snow during the winter. Snow is often present and runs from November to May.

Pelagonija Valley is also characterized by presence of *frost*, both in the mornings and in the afternoon, from September to May or dew in the warmer days mainly from March to November.

The region is highly exposed and vulnerable to *earthquakes.*

Climate change is likely to increase region's vulnerability to natural hazards. It is expected to result with increasing the *global average temperature*, and the number and intensity of the heat waves and the more and more frequent *extreme weather conditions* (floods, droughts, landslides, fires, illnesses, etc.).

d) Natural resources

Natural resources in the region are *agricultural land, forests, mineral resources and water*.

The region is *predominantly agricultural area* with large share in the gross value added of the sector at state level. It has large areas of agricultural land and pastures, excellent climatic and pedological conditions for production of cereals, industrial and horticultural crops, fruit plants and development of livestock.

Agricultural land covered area of 261,061 hectares in 2019, of which 115,233 hectares are arable (44.1%), and the pastures are 145,328 hectares (55.7%). In the structure of arable land, arable lands and gardens participate with 83.3%, orchards with 3.5%, vineyards with 0.8% and meadows with 12.5%. This comparative advantage can be used for more extensive agricultural production and at the same time higher exports. Because of the *use of heavy agricultural machinery and different pesticides*, very few species of previous biocenosis can find opportunities for normal life and reproduction, but also perform the function of flora protectors in the field from insects and other pests. On the other hand, such terrain condition has many unfavourable consequences on the soil micro-climate due to the maximum possibilities for the wind to freeze the soil in winter and with it to block the water infiltration in the soil and dry the soil in the summer months. The water regime in the soil is disturbed, which has negative impact on yields despite the existence of irrigation system.

The areas under *forests and forest land* on average cover 139,302 ha or 28% of its total territory. In this region are located about 14% of the forest areas in the country. The wood mass (12 million m^3) has a share with 15% in the total wood mass in the country. The use of the wood mass in the national parks Pelister and Galicica is done only in the reclamation zones and only as sanitary cuttings.

From the *ore deposits* in the region, of the most important economic significance are the coal (lignite) deposits in Pelagonija and Mariovo which are used today in the three blocks of REK Bitola and the *non-metallic deposits* of diatomaceous earth in Manastir - Mariovo and white marbles in Prilep. A *special mineral resource* is the cold mineral springs near the village Medzitlija, Bitola, which have been exploited for a long time.

The *hydrological potential* in the region consists of the river Crna with the tributaries Blato, Semnica, Dragor and Eleska Reka. *Crna Reka* watershed is part of the Aegean watershed. It is the main and largest river flow in the region. The planned reservoirs of Crna Reka - Cebren and Galishte are of special importance, which according to the projected installed capacity would be the largest hydropower plants in the country. The relief conditions of the region enable irrigation of most of the areas of the Crna Reka watershed (100,000 ha), which, apart from being natural, represents a huge energy potential that has not been fully utilized.

As a hydrological potential, *Lake Prespa* is a special natural and geographical tourist motive and destination for the development of lake tourism in this region. The lake is shared by *three countries*. North Macedonia covers most of the area and the rest belongs to Greece and Albania. Lake Prespa is located at an altitude of 853 meters. It has a maximum length of 28 km and a maximum width of 17 km. The total water area is 276.4 km^2, of which to the Macedonian part belong 191.4 km^2, in Greece 37.6 km^2, and in Albania 46.2 km^2.

Prilep Lake is located in the locality Gladno Pole near Prilep. This geographical position allows

this lake to be a recreation centre and tourist motive. The lake was built on the Orevoechka River in 1967 and has since been used for irrigation and as a source of technological water.

Lake Strezevo is an artificial accumulation in the middle course of the river Semnica, a right tributary of the Black River. The dam was built of embanked gravel and stone, with a clay core. The lake is 6.5 km long, and the average width at the maximum water level is 1 km. The lake is regularly stocked. Strezevo Lake is used for water supply of the city of Bitola and most of it from the Pelagonija region. Strezevo Lake is also a basic water resource for irrigation of agricultural areas in Pelagonija, as well as a source of technological water for the needs of REK Bitola.

e) Natural, Cultural and Historical Heritage

Pelagonija is rich with natural, cultural and historical heritage.

There are two national parks in Pelagonija, the *National Park "Pelister" and the National Park "Galichica"*.

National Park "Pelister" was declared the first National Park, which has great significance in the cultural history of the Macedonian people by a special law in 1948. National Park has area of 12,500 ha with an altitude of 700 to 2,600 m. The presence of many relict and *endemic species of flora and fauna* are among the most striking features of the Park. Endemic species are mainly registered in vertebrates. The wildlife in the national park "Pelister" is represented by 44 species, of which 14 species are permanently protected. In the national park "Galichica" there are 61 species are permanently protected.

National Park "Galichica" was declared a national park in 1958, in order to protect its natural beauty and diverse flora and fauna. The Park is located on the mountain massif between the Great Prespa Lake, in the east, and Lake Ohrid, in the west, and covers 22,750 hectares of Mount Galicica, with a great wealth of relict and endemic species of flora, a classic site of 20 species of higher plants, of which 12 are local endemics and 26 endemic faunal species are present. The Macedonian National Park Galicica and the Albanian National Park Prespa are divided by the international border between North Macedonia and Albania.

The *Ohrid-Prespa" biosphere reserve* is the 14th in a row world cross-border biosphere reserve protected by UNESCO. Across the border biosphere reserve "Ohrid – Prespa" covers the catchment areas of Lake Ohrid and Lake Prespa, with an area of 446,244 hectares on the Albanian and Macedonian side of the catchment area of these two lakes. Over 450 thousand inhabitants are registered on the territory of the reserve, in 26 units of local self-government on the Albanian side, as well as six on the Macedonian side.

The *locality "Lokvi"* near the village Golemo Konjari has been declared a Monument of Nature and it contains relict and endemic species of dragonfly, which has not been found anywhere else in the country and in the world. The site is the last remnant of the once vast Pelagonija swamp, with a unique fauna still preserved in a limited area. It is located in the southeast part of Prilep field, 10 km from Prilep.

Besides them, there are *areas with specific development needs* determined by law such as the nature reserve "Ezerani" (Resen), Natural Monument "Markovi Kuli" (Prilep) and the city of Krushevo which is fully protected by the Law on the city of Krushevo. According to the defined *Emerald network* of areas with special interest for preservation, the identified 35 localities in Pelagonija include: Ezerani, Prespa, Pelister, Pelagonija, and Markovi Kuli.

There is a very rich *cultural and historical heritage of different types*. The region is particularly rich in archaeological sites of which the *archaeological site Heraclea Lyncestis*, an important ancient settlement founded by Philip II of Macedon by the middle of the 4th century BC. Areas of *cultural heritage protected by law* are the *village of Smilevo* (as a historical whole) and the *village of Konjsko, Resen and Krushevo* (as an urban whole) and *old city centar of Bitola*.

2. Potential for just transition of Pelagonija coal region based on green economy

a) Introduction

The *current structure of the economy* of Pelagonija includes all economic sectors, of which the most important include: *mining, processing industry, agriculture, trade and construction*. Although the industry dominates, services have an extremely dynamic growth.

The *largest share of GDP* has the sector "*Mining, processing industry and other*" (*which includes mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; disposal of wastewater, waste management for environmental remediation*) and participates with a significant 31.6% in the GDP of the region. The sector *"Agriculture, forestry and fisheries" has the second largest GDP*, which participates with 19.6% in the GDP of the Pelagonija region. It increased by 26.8% compared to 2015. In 2019, according to the GDP of the agriculture sector, Pelagonija region is ranked second (rank-2) after the Southeast region.

The *third largest GDP* has the sector *"wholesale and retail trade; repair of motor vehicles and motorcycles; transport and storage; accommodation facilities and food service activities*" with a significant 16.6% in the GDP of the region and a share of 7.3% in the sector at state level. It grew by a high 82.5% compared to 2015. Sectors "*real estate activities"* and *"public administration and defence; compulsory social insurance; education; health and social protection activities*" participate with about 11.1% or 10.2% in the GDP of the region. Both sectors in 2019 grew compared to 2015. The *largest growth* is in the sector "*Information and communications*" of 2.38 times in the period 2015 - 2019 and in 2019 participates with 1.9% in regional GDP.

A decline can be observed in the following sectors in 2019 compared to 2015: "*construction*" (21.4%), "*financial and insurance activities*" (50%) and "*professional, scientific and technical activities; administrative and support service activities*" (6.4%).

The region has *small share of investment in basic assets* - in the total level of investments in basic assets, which in 2019 is only 6.9%. This generally indicates that the region is stagnating in terms of total basic assets and companies are not allocating enough of the profits to purchase new technology and overall modernization. What is worrying is the small volume of investments in basic assets in the sector "*agriculture, forestry and fisheries*" with a value of only 44.6%, given that the sector participates with 19.6% in the GDP of the region in 2019. It can be noted that the share of investments in the sector in total investments in the region decreased from 12% in 2015 to 4.6% in 2019.

The *largest nominal value of investments* in basic assets was realized in the sector "*mining, processing industry and other*". It participates with significant 43% in the total investments in basic assets in the region in 2019. The value of investments in this sector in 2019 increased by about 6.2% compared to 2015. If this is related to the fact that the share of the sector in the GDP of the region in 2019 is 31.6%, it confirms the fact *that it is the leading sector in the economy*. There is a *significant growth of investments* in basic assets in the sectors "*professional, scientific and technical activities; administrative and support service activities*"

of 47.3 times, the sector "*public administration and defence; compulsory social insurance; education; health and social protection activities*" of 4.33 times and the sector "Information and communications" of 3.36 times. This is an extremely favourable trend because it invests in digital technologies and in professional and scientific activities which is of particular *importance for the development of innovation and knowledge-based economy.*

The number of *active business entities* in the region in 2019 is 8,327 and represents 11% of the total number of active business entities in North Macedonia which is 75,914. It can be concluded that 10.9% of natural persons (citizens) and 11% of legal entities (business entities) have a residence or headquarters in the Pelagonija planning region. The *largest number of active business entities in 2019 is in the sector "wholesale and retail trade; repair of motor vehicles and motorcycles*" (2,745), followed by" *manufacturing* "with 910 and the sector "*professional, scientific and technical activities* "with 700 companies. The sector with electricity, gas, steam and air conditioning supply has the smallest share in the number of active business entities, (13) due to the need for larger capacities, investments and opportunities to cover the market.

The *share of exports* realized by business entities from the region is continuously growing at 9.7% (ranking-4). Imports also registered a continuous growth of up to 5.2% of the total imports in the country (ranking-4).

b) Pelagonija on the frontline for transition towards Inclusive Green Economy

The level of coal dependence represents a major social and economic challenge in the context of the Macedonia's pledge to follow the European Union's *decarbonisation path towards a carbon neutral economy* by 2050 as signatory to the Sofia Declaration on the Green Agenda for the Western Balkans.

The new Government of the country in January 2022 announced its intention to close coal-fired power plant in Pelagonja planning region and their associated lignite mines by 2030. Therefore, Pelagonija is on the *frontline of the transition to a climate neutral and inclusive green economy* as one of the regions where potentially negative social and economic impacts of the transition will first be felt due to the phase-out of coal. *Coal phase-out* has to reduce the risk of stranded assets, improve energy independence, and bring about significant health and fiscal benefits of the region.

Inclusive Green Economy is an alternative to today's Macedonian economic model, which generates widespread environmental and health risks, encourages wasteful consumption and production, drives ecological and resource scarcities and results in inequality.

The greening of the economy *presents many opportunities to achieve social objectives*: it has potential to be new engine of growth, both in advanced and developing economies, and a net generator of decent, green jobs that can contribute significantly to poverty eradication and social inclusion. The greening of economies will enhance the local and regional authorities as well as business ability to manage natural resources sustainably, increase energy efficiency and reduce waste, while addressing inequalities and enhancing resilience. The greening of jobs and promotion of green jobs, both in traditional and emerging sectors, will foster a competitive, low-carbon, environmentally sustainable economy and patterns of sustainable consumption

and production, and contribute to the fight against climate change.

It is a *pathway towards achieving the 2030 Agenda* for Sustainable Development, eradicating poverty while safeguarding the ecological thresholds, which underpin human health, well-being, and development. It is especially connected with *SDG8 "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all***".**

The four pillars of the Decent Work Agenda – social dialogue, social protection, rights at work and employment – are indispensable building blocks of sustainable development and *must be at the centre* of policies for strong, sustainable and inclusive growth and green development. Sharing a common global purpose, there are different approaches, models and tools available to each country, in accordance with its national circumstances and priorities to achieve sustainable development in its three dimensions, which is our overarching goal.

The *new concept has to be based on competitive advantages of the Pelagonija region*: natural geographic characteristics of the region; attractiveness of the parcels prices for building industrial objects; favourable tax climate; favourable interest rates for investments credits; population with high level of computer literacy; high percentage of population with knowledge of more than one foreign language; availability of educated personnel; attractive labour market and relevant classifications; possibility for cooperation with research centres; and access to higher educational institutions

Energy efficiency, a prerequisite for achieving decarbonisation at the lowest possible cost, must be integrated in the future energy-related policy and investment decisions. Data and electronic communication technologies can support the decarbonisation of the energy system and the availability and cross-sector sharing of data, in a secure and trustworthy manner can facilitate innovative solutions.

The area of Pelagonija has great potentials for the use of *renewable energy sources - RES,* such as water, sun, and biomass[71]. In recent years, the interest for construction of small hydropower plants and photovoltaic power plants is evident, but the lack of planning of such power plants is evident in the urban planning documentation of the municipalities, despite the interest shown by investors.

The *building sector* is one of the key areas where the highest energy cost savings could be reaped. Extending the "EU renovation wave" to the Western Balkans could stimulate investment and create jobs. At the same time, *greater circularity and more efficient use of materials* present new opportunities for further reducing greenhouse gas emissions in buildings. Hence, comprehensive approaches targeting materials efficiency along the entire lifecycle of buildings should be encouraged and supported, for example during renovation efforts.

[71] *Since the exploitation of RES in the Pelagonija region, 27 plants are already in operation, including 2 gas power plants, a large number of small hydropower plants (17) and a smaller number of mini power plants with photovoltaic collectors with less installed capacity (6). The plants are located in 5 municipalities: Bitola, Demir Hisar, Novaci, Prilep and Resen. The total installed capacity for electricity production from RES in the Pelagonija region in 2020 according to the register of the State Energy Agency is 21.36 MW. According to the type of RES, the division is as follows: gas power plant from other sources - 3 MW, hydro energy - 11.71 MW and the remaining 6.65 MW is solar energy.*

The diversity and abundance of cultural, historical and natural riches create high potential for *development of various types of tourism* (lake, adventure, mountain, monastery, village tourism etc.); utilisation of those potentials can contribute to the development of the region.

Starting from the fact that every coal region differs in culture, economy, size, as well as financial, infrastructural, geological or administrative related capacities, just transition towards Inclusive Green Economy for Pelagonija *would be a long learning journey for all involved actors*. The challenge is not only to implement the concept of just transition to regional circumstances, but to develop its *own concept* of what a just transition entails and what it means to the affected people and companies.

c) Strategic goals and priorities for sustainable development of Pelagonija by 2026

Based on the Strategy for regional development of the Republic of North Macedonia 2021 - 2031, the *Programme for development of Pelagonija planning region for the period from 2021 to 2026*[72] has been prepared.

During the preparation of the Program, a PESTLE analysis was performed to assess the situation as basis for the Program's relevance and adequacy. SWOT analysis was used to analyse and define the strengths and weaknesses, opportunities and threats of the following sectors: *Economy and Investment*, *Tourism and Culture*, *Social Affairs and Education*, *Agriculture and Rural Development* and *Environment*. The final product of the SWOT analysis was *obtained realistic assessment of the development needs of the region for the next five years*.

PROGRAM FOR DEVELOPMENT OF THE PELAGONIJA PLANNING REGION 2021 – 2026

V I S I O N

Pelagonija region is a competitive and desirable destination for living and tourism, with a perspective for young people, good social inclusion, a clean environment and a European future.

In accordance with the comparative advantages of the region, the results of the performed sector analyses, SWOT analysis, proposals of the stakeholders at the workshops and the overall needs of the region, the following *strategic goals for the period 2021 - 2026* are defined:

- Strategic goal 1 - Encourage inclusive balanced economic development
- Strategic goal 2 - Promoting social, educational, cultural and health inclusion
- Strategic goal 3 - Improving the quality of life of the population through investments in interconnection and international connectivity, communal and energy infrastructure
- Strategic goal 4 - Sustainable agriculture and better quality of life in rural areas
- Strategic goal 5 - Protection and improvement of the environment

[72] Center for Development of Pelagonija Planning Region, 2021. Program for Development of the Pelagonija Planning Region 2021 – 2026. Accessible hre: https://pelagonijaregion.mk/dokumenti/programa-za-razvoj/

Strategic Goal 1 - Encourage inclusive balanced economic development

The *main advantages* of the Pelagonija region are: proximity to the EU (Greece), proximity to NATO member states (Greece and Albania), good road connections, good skilled workforce, there is a Technological Industrial Development Zone in Prilep and several municipal zones with DUP, University "St. Kliment Ohridski" in Bitola and other private universities, and a relatively high rate of vacancies jobs in the private sector. There are relatively large functional organizations to support enterprises and entrepreneurship compared to other regions, and there is also a relatively good utilization of FITR funds mainly from the energy and IT sector. On the other hand, the region is the only one that does not have a highway on its territory, it is ranked fourth in terms of productivity (GDP per employee), businesses have low competitiveness, lack of funding, use outdated technology and do not have sufficient level of investment, have low capacity for introduction of innovations, their connection and cooperation is unsatisfactory, etc.

From a *macroeconomic point of view*, the region's GDP rate is growing continuously, the region is ranked second in 2019, after Skopje, according to several economic indicators: share in GDP, total GDP, GDP of agriculture and industry, and investments in fixed assets in agriculture and industry. According to the GDP per capita index, the region is ranked fourth. Industry and agriculture have the largest share in the total GDP.

According to the number of enterprises per 1,000 inhabitants, the region is ranked third, and the number of micro and medium enterprises is continuously growing, where micro enterprises have a dominant share of almost 85%. Micro and small businesses[73] as in most of the country remain the *driving force of economic development*. Of the total number of active business entities according to the number of employees in 2019, 84.4% belong to business entities with 1-9 employees, and only 20 active business entities have more than 250 employees in 2019.

The region has the third lowest unemployment rate of all regions. The region has continuously *one of the highest vacancy rates*. This shows that the private sector is able to generate jobs, but on the other hand in the labour market there is no labour force with appropriate qualifications. This indicates the need for better alignment of supply and demand in the labour market and better alignment between the needs of the private sector for labour and profiles generated by the education system.

On the other hand, the region has *small share of investments in fixed assets* in the total level of investments in fixed assets at the state level of only 6.9%. This generally indicates that the region is stagnating in terms of total fixed assets investment and that companies are not allocating enough of the profits to purchase new technology and overall modernization. The level of investments in fixed assets in agriculture and construction decreased in the period 2015-2019. In Pelagonija there is insufficient entrepreneurial capacity of the population, especially among women and youth in rural areas, and in addition there is not sufficient number of functional business incubators and business start-up centres.

[73] *According to the number of employees,* ***micro enterprises*** *are those up to 10 employees, small up to 50 employees, medium up to 250 employees and large over 250 employees.*

Pelagonija is extremely rich in natural rarities and beauties, where *tourism is detected as one of the priority industries*. On its territory it has two of the three national parks which contain large number of protected species of flora and fauna. Except national parks, in this region there are several protected areas with specific content and many caves.

In the next period, the *construction of infrastructure* for active tourism should be continued. The well-prepared and spacious ski terrains on the mountains Baba, Galicica and Krushevo are potential for development of the winter tourist offer of the region. Regarding the tourist infrastructure, Pelagonija has good transport-traffic infrastructure and good connection with the other regions in the country. However, most of the roads are in poor condition. Even more attention should be paid to the construction of new and restoration of existing local and regional roads. The maintenance of local roads is insufficient and inadequate, which is primarily a result of lack of funds. Of great importance for the development of tourism in Pelagonija is the reopening of the railway connection Veles - Bitola - Florina - Thessaloniki, as well as rehabilitation of the road Bitola - Prilep - Gradsko.

PROGRAM FOR DEVELOPMENT OF PELAGONIJA PLANNING REGION 2021 – 2026

Important parameters in the sector of TOURISM:

- ***The region abounds in original natural beauties that represent the basic potential for tourism development.***
- ***There are 24 festivals, 8 permanent exhibitions, number of periodic exhibitions, 5 art colonies, 14 cultural institutions, 16 monuments of culture, 5 museums, 9 galleries, 1 cinema and 4 theatres.***
- ***There are more than 150 churches, 6 mosques and more than 25 monasteries in the region that have been built in all different historical periods.***
- ***The region is especially rich with archaeological sites - about 145, of which only in the part of Prespa there are about 130.***
- ***The region has a solid tourist offer of extreme sports: paragliding, bouldering (rock climbing, without any equipment), hiking, mountain biking, mountaineering, and more recently motocross. Most of these extreme sports can be offered by the municipalities of Prilep, Krushevo and Bitola.***
- ***The well-prepared and spacious ski terrains on the mountains Baba, Galicica and Krushevo are a potential for development of the winter tourist offer of the region.***

- *The 49 hunting grounds, 17 of which are intended for large and 32 for small game creates an opportunity to develop hunting tourism in the future.*
- *The solid offer for organizing seminars, conferences and business presentations and potential for developing alternative forms of tourism, tourism connection at the micro-regional level and connection with neighbouring regions (cultural, rural, lake, etc.).*
- *Accommodation facilities in Pelagonija region tend to increase slightly.*
- *The number of rooms in 2019 increased by 8.3% compared to 2015, and the total number of beds increased by approximately the same trend by 8.5%.*
- *The presentation of the cultural-historical heritage is weak, and the number of licensed tourist, mountain and bicycle guides is very small. It is necessary to improve and unify the presentation of the cultural-historical wealth. Therefore, the need arises to stimulate more young people who know foreign languages to engage in this activity.*

In the coming period it is necessary to undertake joint activities by all stakeholders to increase accommodation capacity, create new tourist attractions, services and experiences for tourists. It is also necessary to improve the promotion of the region as a tourist destination primarily through the use of new technologies and digitalization to promote and attract tourists. This should contribute to the *strengthening of Pelagonija as an attractive tourist destination*. It is necessary to take measures to benefit of the comparative advantages of the region, deal with the consequences of the pandemic, encourage competitiveness and entrepreneurship, increase investment, further development of the tourist destination and maintain economic growth.

This strategic goal will be achieved through the implementation of the following **four priorities:**

- Priority 1.1: Encouraging the competitiveness and innovation of enterprises
- Priority 1.2: Promoting inclusive entrepreneurship and self-employment
- Priority 1.3: Attracting investments and increasing exports
- Priority 1.4: Development of a desired and competitive destination for tourism

Strategic Goal 2 - Promoting social, educational, cultural and health inclusion

In terms of *demographic characteristics*, the region has a worrying trend. The demographic index has a value of 79.6 according to which the region is on the fourth place of all regions. The total population in region in 2019 decreased by 4.8% compared to the 2002 census, with the population increasing only in the Dolneni municipality. The region is facing an aging and declining population and is in a stage of deep demographic age. On the other hand, the

registered number of immigrant population is continuously higher than the number of emigrated population. However, the general conclusion is that the available data do not reflect the real picture of immigrants and emigrants in / from the Pelagonija region.

There is sufficient number of *educational institutions* (primary and secondary schools, as well as universities) on the territory of the region. According to the number of primary schools, the region is first in relation to the other regions, and also has the largest number of regional schools. According to the number of high schools, the region is ranked second.

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Important parameters in the sector of EDUCATION:

- ***The number of primary schools in the academic year 2019/20 is 175 and represents 17.8% of the total number of primary schools in the country and is by far the largest compared to other regions (ranking-1).***
- ***The number of high schools in 2019/20 is 20 and represents 15.4% of the total number of high schools. It is the second largest in the country (ranking-2) after Skopje.***
- ***The number of enrolled students in secondary schools is continuously decreasing, which in 2019 is lower by 10.6% compared to 2015.***
- ***It is necessary to work on: modernization of the system of secondary education and vocational education, rationalization of the network of schools for secondary education and schools for vocational education and training (-2, -3 and -4 years of vocational education and training) which will contributed to the development of dual vocational education and post-secondary education.***
- ***There is potential for greater institutional support to the business sector in the region, given the capacity of higher education institutions and research organizations.***
- ***There is a developed academic infrastructure and academic potential.***
- ***There is interest in innovation projects in certain sectors such as energy, machine industry, construction, textile and ICT industry.***

On the other hand, according to the number of students per primary school, the region is ranked as 8, and according to the number of students per secondary school, the region is ranked as 7. There is continuous decrease in the number of students enrolled in secondary schools. It is necessary to improve the infrastructure in the schools and the equipment with school aids (teaching aids and inventory) and to introduce more modern teaching forms and methods. According to the total number of graduates, the region is on the second place, and according to the number of graduates per 1,000 inhabitants, the region is ranked first.

There is a *weak connection between education and the labour market,* with inadequate balance between supply and demand of labour from the business sector, which is evidenced by the relatively high number of vacancies among businesses. Education does not follow the trends in the business sector and there is lack of applied education for new professions and profiles. There is lack of practical teaching in primary and secondary schools. It is necessary to establish additional school classes / schools for secondary vocational education. There is also a need for greater cooperation and synergy with the business sector and the creation of new curricula according to the needs of the business sector and the demand for labour. It is necessary to realistically implement the concept of lifelong learning through institutional and extra-institutional adult education (retraining and additional training).

The *capacities of the stakeholders especially in the municipalities should be strengthened* in order to use the opportunities for cooperation at regional and international level for knowledge transfer, use of good practices as well as EU programs and education funds (EU cross-border cooperation programs, Erasmus, etc.).

In the area of *social policies and health*, an improvement of the situation can be noted, which can be noticed from the indicators presented above. The region has the second lowest rates of poor people and social exclusion of young people (NEET), as well as the third lowest rate of socially excluded persons. According to the coverage of children in kindergartens / centres for early childhood development, the region is ranked fifth, while according to the number of employees in institutions for care and education of children the region is ranked third. According to the number of households-beneficiaries of social financial assistance at the age of 18+ (per 000 population) the region is ranked as seventh and the same records a large increase in the period 2015 - 2019.

There is a need *to improve the awareness of vulnerable groups* about available social protection measures / programs; increasing the capacity to care for all vulnerable groups; improving the number of assistants and carers, introduction of mobile services; improving access to public institutions for persons with disabilities; introduction of innovative digital tools for vulnerable groups to access services, but also increase public awareness and eliminate prejudice. If we take into account the fact that the region is a demographic region in old age where the elderly population predominates, then the existing public and private capacities in Bitola and Prilep for care of the elderly do not even closely meet the needs. In this part, the opportunities for decentralization and deinstitutionalization of social services should be used through the involvement of other entities such as civil society organizations and business entities, as well as the use of funds and donors for project implementation. Regarding the indicators for health care, the number of general practitioners and family gynaecologists should be increased, and in general the services in the primary health care should be improved, especially in rural areas.

In terms of *labour market* parameters, the positive trend of increasing employment, the second highest paid gross and net wage and the fourth lowest unemployment compared to other regions should be maintained, while providing appropriate measures to increase the active population which is continuously decreasing. The inclusion of vulnerable groups in the labour market should be taken into account.

This strategic goal will be achieved through the implementation of the following *four priorities*:

- Priority 2.1: Improving the capacities and conditions in education, social and health
- Priority 2.2: Promotion of inclusive social and health services
- Priority 2.3: Promotion of culture and protection of cultural heritage
- Priority 2.4: Creating a workforce according to the needs of the labour market by building partnerships.

Strategic goal 3 - Improving the quality of life of the population through investments in interconnection and international connectivity, communal and energy infrastructure

This strategic goal *supports all other strategic goals.* Without modern infrastructure, economic development and improvement of the quality of life cannot be imagined. It is a precondition for stopping the migration and retaining the population in the region. The region in this area has more advantages than disadvantages. Geographical location and the existence of two border crossings with two NATO member states (Greece and Albania), GDP growth, relatively good connection of the region with road and communication infrastructure, most settlements, TIDZ zone in Prilep and a large number of urbanized municipal zones, a significant number of industrial enterprises with export capacity are a good basis for intensive and sustainable development of the region.

According to the sector analysis, the region is one of the regions that fail the most in terms of *spatial planning and urban documentation* and improvement is needed in this area. The spatial plans for NP Pelister and NP Galicica are being prepared.

There are *no highways in the region.* The only point of contact with the highway is the intersection / connection of the highway Gradsko - Prilep (R1107), which in certain sections is in poor condition and its reconstruction is underway. According to the state of the *local road infrastructure,* the region is on the fifth place and improvement is needed in this part, especially if we take into account that most of the local roads are unpaved or impenetrable. The reconstruction of the railway line Bitola - Kremenica (border with Greece) provides an opportunity for better connection of the Pelagonija region. A complete reconstruction of this line has been announced for which, except for the direction Bitola - Kremenica, the railway will be connected with a branch to the industrial zone Zabeni.

Coverage of the population with *communal infrastructure* is relatively good, with 85% of the population having access to public water supply, 93% to public sewerage and 48% is covered with wastewater treatment. In the past period, a step has been made with the construction of a wastewater treatment plant in Prilep, in addition to the existing one in Resen and several smaller ones in rural areas. In the next period, it is planned to build a station for wastewater treatment in Bitola. The situation with the communal infrastructure needs to be improved, especially in

rural areas. The region is rich in *water resources* (Crna Reka, Strezevo), and the current utilization of available sources of drinking water is 26.4%.

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Important parameters in the sector of TRANSPORT & INFRASTRUCTURE:

- ***The region has a well-developed road network which in 2019 has a total length of 14,475 km, of which 335 km are highways out of a total of 897 km highways, 3,790 km regional and 9,788 km local roads. The main axes of the state road network are the two Pan-European corridors, Corridor VIII (east-west) and Corridor X (north-south).***
- ***The condition of regional and local roads is mostly poor and inadequate. Investments are needed to improve the road network for economic purposes, safety and flow of people, as well as for better access to cultural-historical and tourist sites.***
- ***The traffic signalization is also in poor condition and does not offer information and signs for the correct directions, directions and length for certain destinations in the region.***
- ***The connection of the region with the railway infrastructure is at an enviable level. The total length of the railway was 114.5 km in 2015. The reconstruction of the railway line Bitola - Kremenica (border with Greece) with a branch to the industrial zone Zabeni will provide direct access to the railway infrastructure and connection through the Greek side to the port of Thessaloniki.***
- ***Coverage of the population in urban areas with drinking water systems ranges from 80% (Dolneni), 95% (Bitola), 98% (Prilep), to 100% (Krushevo and Demir Hisar), while in rural areas this indicator is ranges from 30% to 80%.***
- ***The situation regarding wastewater treatment is not at a satisfactory level.***
- ***The share of the number of adopted urban plans in the period 2014-2019 is 27.11%, and according to this indicator the region is ranked third (ranking-3).***

Pelagonija region has the largest total installed capacity for *production of electricity* from conventional energy sources. However, as a region, it has poor performance in the field of electricity consumption of households and industry. A number of investments in renewable energy sources (gas power plants, small hydropower plants and photovoltaic plants) have been identified and this trend should continue.

In this region passes the section of the main gas pipeline Negotino - Prilep - Bitola and gasification is a great opportunity for both households and industry. Following the trends, additional investments should be made in digital connectivity and smart solutions in the municipalities.

This strategic goal will be achieved through the implementation of the following *four priorities:*

- Priority 3.1: Improving spatial and urban planning at municipal and regional level
- Priority 3.2: Construction of new and improvement of the existing communal infrastructure
- Priority 3.3: Construction of new and improvement of the existing traffic-transport and digital infrastructure
- Priority 3.4: Construction of new and improvement of the existing energy infrastructure.

Strategic goal 4 - Sustainable agriculture and better quality of life in rural areas

Pelagonija has *good preconditions* for development of the agriculture (soil and climate) conditions. The agricultural land in the region is the least fragmented and covers 20.6% of the total agricultural areas in the country, of which 44.1% are arable and 55.7% pastures. A total of 94% of the total agricultural land available in this region is used, primarily by the individual sector.

A significant 15.1% of the total number of *agricultural holdings* in the country is located in the region, and they dispose of 26% of the total land at their disposal economies in the country. The region has the lowest number of economically small holdings (only 45% of I and II class) which usually have a lower average value of production. The region is ranked first according to the use of EU IPARD compared to other regions.

Agriculture is a *significant industry* in the region and participates with 19.6% in the GDP of the region and with 23.9% in the GDP of the sector at the state level. According to the GDP of agriculture and investment in fixed assets in agriculture, the region was ranked second in 2019. However, investments in fixed assets in the sector dropped dramatically by 28.4% in the period 2015-2019. Compared to other key indicators in agriculture, the region was ranked lower (fifth ranked) in terms of percentage of women in the seasonal labour force of 24% and the number of agricultural holdings that can irrigate (74%).

The region is dominated by *production* of three main groups of crops: cereals (wheat, corn, and barley), further dominant tobacco and sunflower, garden products such as onions, peppers and potatoes, and in the field of fruit growing especially apples, but also nuts, cherries and plums. Development of organic production of fruits and vegetables, as well as branding of regional products (e.g., Resen apple, Buchinski onion, etc.) has economic potential.

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Parameters in the sector of AGRICULTURE AND RURAL DEVELOPMENT:

- *A total of 94% of the agricultural land is used, primarily by the individual sector (85%).*
- *A total of 28% of household members engaged in individual agricultural holdings are younger than 35 years and there is a trend of greater involvement of young people in agricultural activities.*
- *The most favourable conditions for economic development are created by agriculture, mostly through the production of three main groups of crops: cereals (wheat, corn, and barley), further dominant tobacco and sunflower, garden products such as onions, peppers and potatoes, and from the area of fruit growing, especially apples, but also nuts, cherries and plums.*
- *The development of organic production of fruits and vegetables, as well as the branding of regional products has great economic potential.*
- *There are excellent preconditions for livestock development. In addition to the developed livestock, the industry for processing milk and dairy products is also developed, which has a great export potential.*
- *The region is ranked first according to the use of EU IPARD compared to other regions.*
- *Due to the rich natural potential, in the Pelagonija region it is necessary to ensure sustainable use of natural resources, i.e., sustainable management of natural resources. From the aspect of agriculture, it is necessary to modernize the agricultural infrastructure, create new markets / stock exchanges, branding and marketing of agricultural products, create a regional integrated system to support organic production and processing with a focus on recognizable regional organic products, promotion of food ,building a system for quality of agricultural products, diversification*

of economic activities in rural areas, investment in knowledge and human capital in agriculture.

- *To reduce rural migration, their revitalization requires the development of appropriate social, communal and other services in rural areas, as well as the provision of greater employment opportunities and the promotion of entrepreneurship with a focus on youth, women and vulnerable groups.*

The region has excellent preconditions for the *development of animal husbandry*. In addition to the developed livestock, the industry for processing milk and dairy products has been developed, which has a great export potential. The number of pigs, poultry and bee families increased steadily in the period 2015-2019, while the number of sheep, cattle and horses decreased. The number of dairy cows also decreases in the analysed period and in parallel with the production of cow's milk. The same decreasing trend can be observed in the production of sheep and goat milk.

It is necessary to improve and introduce *new technologies and good practices* in agricultural production, strengthen the capacity to reorient agricultural production and to introduce innovations in agriculture and processing industry, organization of agricultural producers in cooperatives and cooperatives, production of final products with higher added value, improvement of irrigation systems, land consolidation, etc. It is also necessary to support the diversification of agricultural activities, conservation of traditional values and architecture in rural areas, to improve the quality of life by improving the communal infrastructure in rural areas, to encourage the entrepreneurial activities of young people and women and increase their participation as holders of individual agricultural holdings. Additionally, measures should be provided for the development of areas with severe depopulation that have a large area such as Mariovo and Demir Hisar. It is also necessary to use protected areas and biodiversity richness to encourage rural tourism.

This strategic goal should contribute to improving the competitiveness of the agricultural sector and a higher quality of life in rural areas, *in line with the EU-supported Green Agenda* for the Western Balkans, which includes, inter alia, a sustainable food supply system.

This strategic goal will be achieved through the implementation of the following three priorities:

- Priority 4.1: Knowledge transfer, increasing competitiveness and innovation in agricultural production and processing
- Priority 4.2: Diversification and inclusiveness of economic activities in rural areas
- Priority 4.3: Better quality of life in villages, areas with significant depopulation and specific development needs.

Strategic goal 5 - Protection and improvement of the environment

The presence of large number of natural resources, two National Parks (Pelister and Galicica),

other protected areas (Markovi Kuli, Ezerani, Lake Prespa, etc.) and large hydrographic potentials (Crna Reka, Strezevo, etc.) are key advantages of Pelagonija region.

The biggest problem with creating a *clean environment* is the inadequate management of solid waste, the existence of a large number of illegal landfills, inadequate collection and treatment of wastewater and the existence of several energy pollutants in the air, of which REK Bitola is the largest, followed by other industrial pollutants, heating of households with inadequate fuels and car exhaust. There is a need for improvements in the area of waste selection, recycling and reuse, but also to increase the coverage of the population in rural areas with a waste collection service. It is necessary to introduce the concepts of circular economy and "green" industry as part of *the Green Agenda in the Western Balkans*, given that these are high priorities of the EU.

The region needs adequate staff and installation of additional number of measuring stations through which it will be able *to monitor* air, water and soil pollution, and will define strategies and projects for overall environmental protection.

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Important parameters in the ENVIRONMENTAL SECTOR:

- ***The main problem for maintaining and developing a healthy and clean environment are municipal waste and wastewater.***
- ***The region has 580 km of water supply network which is mostly located in urban centres.***
- ***The Crna Reka watershed endangers the environment with a permanent deviation from the quality of part of the watercourses in its catchment area.***
- ***Most of the large settlements such as Bitola, Prilep, and Resen are characterized by occasional endangerment of air quality and permanently unfavourable quality of wastewater recipients.***
- ***The air pollution is caused by REK Bitola, the Suvodol mine, the metal processing, textile and food industries. REK Bitola contributes to air pollution by releasing large amounts of sulphur dioxide, mostly related to the absence of desulphurisation plants and the use of low-quality lignite (brown coal) containing about 2% sulphur. SO2 emissions are discharged through high chimneys (250 and 185 m high) due to which the emissions are dispersed and diluted in the atmosphere. Concentrations of SO2 in the air have been significantly reduced in recent years, as consumption of***

lignite and fuel oil has decreased. However, total national SO2 emissions are still high.

- *The region is rich in natural resources that can contribute to the development of tourism in this region. Although there are a large number of protected species and areas in the region, continuous activities are needed to maintain them as well as to expand the range of protected areas.*
- *In order to achieve balanced regional development, it is necessary to pay special attention to areas with specific development needs that have great potential for the development of various types of tourism. These areas mainly lack basic transport and communal infrastructure, and are characterized by a lack of jobs and a low level of social development. This affects the extinction of these settlements due to the low quality of life and inadequate working conditions in these settlements. The municipalities that are part of these areas should take action for proper use of the funds specifically allocated for the development of these areas.*

It is necessary to raise the level of *energy efficiency and use of renewable energy sources* in order to protect and preserve the environment, but also from the perspective of replacing conventional energy sources. Pelagonija is one of the regions with greatest negative impact on forests, both in terms of damaged areas by fires and in terms of negative balance in their recovery, but also significant intensity of logging. Pelagonija on the one hand is the largest thermal energy capacity in the country that produces most of the country's electricity needs from conventional sources, which is of great economic importance, but has a negative impact on the environment.

The region has number of protected areas of great natural value. It is necessary *to increase the awareness* of the need to preserve the environment and further position it as an ecologically clean region.

This should provide a basis for further *sustainable economic development*, especially in tourism, valorisation of protected areas, greater use of renewable energy sources, also in the agricultural sector and sustainable food production.

The University "Ss. Clement Ohridski" in Bitola represents a strong centre of knowledge in the region that should be more utilized.

This strategic goal will be achieved through the implementation of the following four priorities:

- Priority 5.1: Improving the environment through smart and sustainable water, air and soil pollution management

- Priority 5.2: Energy efficiency and utilization of renewable energy sources
- Priority 5.3: Nature protection and biodiversity
- Priority 5.4: Promoting circular and green economy.

3. Governance mechanisms for coal regions just transition

a) Introduction

For decades, the *energy sector in North Macedonia has been running a centralised approach* with very low level of active involvement of citizens and local governments, resulting in a considerable gap between national and local energy policy standards. In addition, the situations that are emerging these few years on global level - alongside climate change and the risks associated with it, the emergency of the pandemic, has seriously questioned social stability at urban level and the institutions in multi-level governance processes connected with energy sector.

The European Green Deal and Agenda for Western Balkans has provided so far for several policy measures aiming to make countries' economies fit to become sustainable and circular. New sectors are being promoted, like renewable energy, alternative fuels and digital technologies. These can create a *brand-new economy*, but also inevitably have to bring to close down entire existing sectors, especially those linked to the production of fossil fuels like coal and oil. Achieving climate neutrality requires major changes in all economic sectors and undoubtedly has major economic and social impacts on local communities that have been dependent for many years on fossil fuels, especially coal.

The current development approaches need to be adjusted to formulate *a new development pattern*. Such pattern has to be characterised by more flexible approach in allocating investment, more integrated approach to reach the goal of transition development and more tailored, place-sensitive approach to regional development. It should facilitate a sustainable transition process towards transforming regional and urban socio-economic and technological systems. This pattern should be underpinned by an integrated, multi-scalar and multidimensional approach aimed to enhance the resilience capacity of affected territories to respond to the various crises and shocks they are exposed to.

Such massive economic structural transformations, supplemented by changing the age structure of Macedonian society, the rural-urban migration and the growing inequality in income and resource allocation, will put *additional pressure on the social cohesion* of the society and can increase the social tensions and the division along all lines - ethnicity, religion and class. The main question to be addressed can no longer be confined to how cities and regions can compete in a global context, but rather how they can survive in a world that must face the effects of continuous shocks by ensuring socially acceptable living conditions for everyone.

Considering the above-mentioned complexity while responding to the call for green energy transition, a *new approach in the design process of place-sensitive, innovation-oriented development policies* that can facilitate the regional and urban transition to sustainability while reinforcing resilience to shocks induced by transition economies (e.g., post-carbon economy) are needed. In our globalized world, environmental threats require effective responses that promote peace, justice, development and fulfilment of *environmental and human rights*.

To truly fulfil the potential of an effective low carbon energy transition, there is urgent need to involve local and regional authorities in this process; this will enable active participation from citizens who can take ownership of the production and use of efficient low carbon energy.

b) Governance framework for coal regions in transition

The transition of coal regions is a *multi-level and multi-actor governance process*. But how can the interactions between different levels and actors best harnessed? How can the scope for interaction be enlarged?

The *multi-level nature* of governance models for coal regions in transition will need to harness existing interactions among levels and actors, as well as acknowledge that boundaries between levels and competences can sometimes be 'fuzzy'. Coal regions tackling challenges related to the transition to a low-carbon economy require *collaboration across different administrative units and levels of government and different stakeholders*. The "vertical" levels of government, as defined by territory, jurisdiction or mandate (i.e., local-regional-national) are widely understood.

There are, however, *multi-actor dimensions of interaction* that can involve different economic sectors, workers, municipal administrations, local CSOs and the regional Chamber of Commerce and Industry. Furthermore, these models require *representation of a wide range of stakeholders in governance*. Thus, an effective model shall reflect the views of various - regional or not - actors and their representatives, while *social dialogue and the involvement of civil society* are key elements in this process. An overall *strategy* is important to guide the various stakeholders and decision makers in transition processes and to align their actions with a coherent and effective approach.

These *governance challenges* underscore the need for both reforming existing institutions and introducing new ones. The institutional framework for such governance arrangements also calls for greater synergy between the demand side of public governance, the citizens, and the supply side, the government. The most *essential factors* to achieve progress towards these objectives, are.:

- Coherent decision-making processes;
- Adequate capacities for agreed objectives and national and regional environmental priorities through adequate legal and institutional measures;
- Integration of environmental sustainability in development at regional, sub-regional and national levels.

In order to address the challenges that local societies face as result of the transition away from fossil fuels, the *EU introduced the Just Transition Mechanism (JTM)*, *as a key tool* to support the territories most affected by the transition towards climate neutrality providing them with tailored support. The Mechanism will seek to overcome the economic and social costs of the climate transition in the most vulnerable coal and carbon-intensive regions. JTM is consists of *three pillars*: a (1) Public Loan Facility (via the European Investment Bank), (2) the InvestEU instrument to support investments of the private sector, and (3) the *Just Transition Fund*. It is implemented under shared management, under the overall framework of *Cohesion policy*[74],

[74] *The cohesion policy is the main EU policy to reduce disparities and address structural change in Europe's regions. Over the next 2021-2027 programming period, Cohesion policy will continue to enhance a fair and sustainable development in all EU regions, while supporting the green and digital transition through: (1) A comprehensive and targeted approach to development: funding, governance, consistency and synergies with*

which is the main EU policy to reduce regional disparities and to address structural changes in the EU.

Territorial Just Transition Plans

The *Just Transition Fund Regulation*[75] includes a strong *governance framework*, focusing on the Territorial Just Transition Plans (TJTPs). The *Regulation* in Article 2 sets out that the Funds shall only support activities that are (1) directly linked to TJTPs specific objective - *enabling regions and people to address the social, employment, economic and environmental impacts of the transition towards the Union's 2030 targets for energy and climate and a climate-neutral economy of the Union by 2050, based on the Paris Agreement* and (2) that contribute to the implementation of the territorial just transition plans established in accordance with Article 11.

In accordance with the Article 11, Member States shall establish, together with the competent local and regional authorities of the territories concerned, *one or more TJTPs covering one or more affected territories, which correspond to the NUTS 3 regions*, or units thereof. Those territories shall be those most negatively affected, based on the economic and social impacts resulting from the transition, in particular with regard to the expected adaptation of workers or job losses in fossil fuel production and use and the transformation needs of the production processes of industrial facilities with the highest greenhouse gas intensity. TJTP define the territories in which the Just Transition Fund will be used. These plans set out the challenges in each territory, as well as the development needs and objectives to be met by 2030. They identify the types of operations envisaged and specify governance mechanisms.

The approval of the territorial just transition plans opens the doors to dedicated financing under the other two pillars of the Just Transition Mechanism. TJTPs should contain a description of the *governance mechanism*, which, should consist of the following *three elements: partnerships*; *monitoring and assessment measures*; and the *bodies responsible* for coordinating and monitoring the implementation of the plan, including description of their role.

The *partnership principle*, as key feature of cohesion policy, is of utmost importance for the JTF. The Article 6 of the Common Provisions Regulation (CPR) states that, in order to use the resources of the European funds, each Member State *must organize a comprehensive partnership* which includes *at least the following partners*: civil and other public authorities; economic and social partners; relevant bodies representing civil society, environmental partners, institutions responsible for promoting social inclusion, fundamental rights, rights of persons with disabilities, gender equality and non-discrimination. This partnership *should be developed in accordance with the Code of conduct*[76]. The partners should also be involved

national policies; (2) Place-based, multilevel and partnership-led policies, tailoring its support to most vulnerable territories; (3) Continued adaptability to emerging and unexpected challenges.

[75] European Commission, 2021. Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund PE/5/2021/REV/1. Brussels, Official Journal of the European Union, L 231/1 from 30.06.2021, Document 32021R1056. Accessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1056

[76] European Commission, 2014. Commission Delegated Regulation (EU) No 240/2014 of 7 January 2014 on the European code of conduct on partnership in the framework of the European Structural and Investment Funds Brussels, Official Journal of the European Union, L 74/1 from 14.03.2014, Document 32014R0240. ccessible here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.074.01.0001.01.ENG .

throughout the preparation, implementation and evaluation of JTF programmes and TJTPs. In addition, a *public consultation process* will *be part of a strategic environmental assessment for the programmes* that include the JTF.

Recognizing the key role of *governance mechanisms* in the successful outcome of the transition, the European Commission issued a *Governance of Transitions Toolkit*[77] dedicated to design of *governance structures and stakeholder engagement processes for coal regions in transition*.

The Toolkit is addressed to *regional and local authorities, civil society organizations, and government bodies responsible for regional development*. It provides insights into four *key governance aspects in regions that are pursuing the decarbonisation and diversification of their economies*. They include:

- How to build effective *governance models*?
- How to design and implement *stakeholder engagement* processes?
- What role does *social dialogue* play in the governance of the transition?
- How to increase the *role of civil society* in the transition?

Designing the effective governance model

The undivided nature of the environment and its inextricable links with the social and economic dimensions of sustainable development relies on *good decision-making processes*, *effective institutions, policies, laws, standards and norms*. Good governance, rule of law and accountable and transparent public administration are considered as key to the realization of new approaches for sustained economic growth, equity and social justice, and to strengthening implementation of the internationally agreed development goals, including the Sustainable Development Goals (SDGs).

In the section on the design of *governance models,* the Toolkit, inter alia, defines the concept of "good" governance, which revolves around these core principles: transparency; participation; rule of law; equity and inclusiveness; effectiveness and efficiency; and accountability. It is also emphasized that *governance model must be specially designed and adapted* to the needs of each region and must evolve over time. Some *key aspects to consider* when designing an effective governance model in the context of coal regions in transition include:

- *Leadership* - Regardless of the prevailing governance context (centralised vs. decentralised; private vs. state-owned coal sector), legitimate political leadership is indispensable to lead change, lay out decision-making processes and clarify roles and responsibilities across a diverse set of agencies at the national, regional, and local levels. Depending on the context, each region will have a different definition of what 'good leadership' constitutes. Finally, it is important that transition strategies are able to withstand changes in leadership.
- *Power and influence* - Decisions about governance arrangements cut to the heart of power and legitimacy and, as such, need to be well-understood. Power takes many forms and can

[77] Yetano Roche, M. 2020. Toolkit: Governance of transitions, Design of governance structures and stakeholder engagement processes for coal regions in transition. Brussels, European Commission, Accessible here: https://energy.ec.europa.eu/system/files/2020-06/governance_of_transitions_toolkit_-_platform_for_coal_regions_in_transition_0.pdf

be exercised by a range of different actors. Different levels of governance will have different power and influence structures. Transition governance structures need to work within and alongside existing structures. This involves understanding both of institutional roles and the power structures in the context of the overall transition vision and goals, as well as identifying the key actors and what their roles are in the decisions needed for strategy implementation.

Building a governance model that harnesses the existing powers available to the regional authority can be challenging. The powers of local and regional actors are strongly dependent on, and specific to, the multi-level governance structure to which they belong.

The transition towards climate neutrality will provide opportunities for and challenge regions and sectors differently. Some will see more immediate opportunities, some will face more challenges than others, and not all will have the same capacity to deal with the costs for adjusting to the climate transition. For building the right governance model there is a need:

- *To understand the existing governance structures* - Identify the key actors and their roles, accountability mechanisms and political power balances; some governance mapping tools can be helpful;
- *To legitimise and make transparent* - Governance models are more likely to be effective when actors and communities view them as legitimate, which requires having a representation of a broad range of stakeholders;
- *To assign responsibilities to key decisions and build partnerships* - Leadership can benefit from assigning responsibilities to locally engaged, intermediary agents;
- *To identify levers of influence and windows of opportunity* - Regional and local authorities have different levers available to them to influence decision-making; and
- *To reflect and adjust* - The governance model can, and will likely need to evolve over time. The strategy should consider at what stage certain actors are going to be involved in decision-making and how.

Stakeholders' engagement processes

Continuous engagement of all categories of local stakeholders at all stages and efforts towards just transition is of *paramount importance in achieving progress*.

Governance of Transitions Toolkit
"WHAT IS STAKEHOLDER ENGAGEMENT?

Process by which an organisation leading the transition in a coal region engages with and involves those who are affected by the decisions that are made.
Stakeholder engagement goes hand-in-hand with partnership building, both of which allow stakeholders to pool their resources to solve common problems"

Multi-stakeholder consultation and community engagement are important and are common practice in coal mine closure processes. The closure of mines has a significant impact on local and regional economies, the identity of local populations, and on communities and family networks. This impact may last for many years, affecting current and future generations. The specific task of supporting workers who are at risk of losing their jobs requires involvement and engagement of a number of key stakeholders and actors:

- *individual companies*: new and existing employers in a variety of sectors should be engaged as they will be key in terms of offering employment and/or training. Employers in green energy sectors are particularly important stakeholders;
- *central government*: central governments might be able to negotiate agreements with large coal companies and influence outcomes at local levels;
- *regional authorities:* local governments have good overview of the region and its context, and can serve as a link between various actors;
- *social partners* (trade unions and employer representatives): trade unions have a key role to play in supporting and advising workers, both collectively and individually. They are key actors in terms of working with employees to help devise training and out placement. Trade unions can also represent workers' interests and provide pragmatic approaches to guarantee working conditions, thus helping to ensure a just transition. Trade unions and employer representatives also have a specific role in relation to collective bargaining and social dialogue;
- *training providers*: training is a key element of worker support, so it is vital that public and private training providers are part of the cooperation process;
- *other sources of advice and guidance*: in addition to the stakeholders listed above, other experts may have relevant expertise in areas such as reskilling and upskilling and working with employers to provide alternative employment;
- *community representatives*: the closure of coal mines has significant impact on the local area, so it is important that representatives of the community, in addition to those representing local authorities, are engaged; and
- *public employment services*: public employment services at regional and local levels can play a vital role in helping to match supply of and demand for employment. They can also coordinate training needs and opportunities.

Local stakeholders, including *economic and social partners* (such as trade unions, including those representing coalminers), and bodies representing *civil society (including youth organisations, environmental NGOs, etc.)* should be fully mobilised in the debate on the future of their territories. To properly and actively assist in the implementation, monitoring and evaluation phases, such stakeholders should be included *as members of monitoring committees* under the corresponding programmes. In addition, they should have their own local arrangements *to monitor the implementation* of the TJTPs. *Mayors are key stakeholders* in the just transition process. They are the implementers of the transformation; at policy level they are the ones most affected by the gradual phase-out of coal and at the same time they have the power to pioneer the transformation if financial and institutional conditions are favourable.

With regard to the *stakeholder engagement process,* the Toolkit describes *forms of participation, as well as specific tools*, which can be adapted to different target groups. The Toolkit also cites the *risks* arising from insufficient stakeholder engagement, such as increased uncertainty, rejection of outcome, loss of confidence - also associated with the inefficient use of resources, as well as the development of resistance related to ethical issues, such as the lack

of participation in decision-making.

Furthermore, toolkit presents *three levels of increasing stakeholder engagement* in the Partnerships during the planning and monitoring process: *information*, *consultation and cooperation*. In particular,

- *Information* means *a one-way flow of information to stakeholders*, in order to ensure transparency, through information material, conferences, and seminars. Finding the *right balance between information and involvement* requires planning which decisions need to be made at each stage, and who needs to be at the table for each one. The process of stakeholder engagement must always include active communication strategy that informs the general public about the process, how they can take part and what will happen next. A variety of formats should be used to ensure all groups can be reached;
- *Consultation* involves a *two-way information process*, through which stakeholders can express their views and recommend directions, via questionnaires, interviews and other channels. Consulting with a *wide range of stakeholders* can help define the problem in a more holistic way and ensure that not only a sub-set of problems are addressed;
- Finally, *cooperation* refers to *some form of joint decision-making*: at this stage, stakeholders have the opportunity to scrutinize final plans by introducing restrictive binding guidelines, through their involvement in relevant activities, such as final text consultations, licensing, approvals, public representation before administrative institutions, and negotiations with local bodies.

Clarity regarding the purpose of the stakeholder engagement process is important, and so are realistic expectations. In this sense, it is advisable to focus on clear communication of the process of stakeholder engagement – its mandate, scope, aim, composition, etc. A well-organised stakeholder engagement process includes setting milestones for decisions early, and consistently meeting them. Moreover, clear expectations will help reduce the risk of exhaustion and groups abandoning the process because they are unclear on what they are committing to, or what will happen next.

It is hard to achieve *meaningful inclusion of certain stakeholder groups.* Engagement processes can face *the barrier* of there being little interest in, or capacity for, participation among certain stakeholder groups, in particular when they do not have a strong voice. Certain stakeholders will require support to be able to meaningfully take part in the engagement process. A good facilitator has in-depth understanding of the technical, political or social settings.

Role of social dialogue

According to the Toolkit, successful social dialogue structures and processes that anticipate future needs and changes are a *key to ensure just transitions*. Effective social dialogue *can lead to more socially just and balanced transition processes*, through the management of potential conflicts, for instance, between environmental protection and employment priorities.

Social dialogue with unions, employers and government as well as robust stakeholder engagement – such as with communities, international organisations, academia and civil society (*including youth*) – builds public support, incorporates local perspectives, invites innovative ideas from diverse stakeholders, and helps create plans that are sustainable, culturally appropriate and feasible to implement. Unions' know-how regarding industrial

sectors and their roles as brokers of knowledge needed to inform decisions is increasingly recognised as essential to transition processes. Worker organisations are able to identify and implement measures aimed at attracting new businesses and investment, and to partner with other stakeholder groups to advance common goals. In fact, so-called blue-green alliances between labour groups and environmental protection advocacy groups have been a key to success in many processes (ILO Actrav, 2018).

Social dialogue and stakeholder engagement should *include clear communication* on the necessity of rapid transitions. The *principles governing this dialogue*, along with the right to collective negotiations in the EU, are included in the Treaty on the Functioning of the European Union (articles 151-156), the European Pillar of Social Rights and the EU Charter of Fundamental Rights. Successful examples of social dialogue between government, employers and employees, according to the toolkit, have been implemented in the lignite regions of Spain, the Saarland and Ruhr regions of Germany and the Yorkshire region of the United Kingdom.

Role of civil society

Relevant civil society organisations contribute with valuable thematic knowledge and experience, e.g., on the application of horizontal principles, like equality, non-discrimination and sustainable development.

Civil society can also help authorities to consider the effect of implementation of EU funds on vulnerable groups, like those at risk of discrimination and social exclusion. Involvement of civil society is not always easy. Influencing factors are for instance the capacity and resources in civil society organisations, representation of civil society throughout the programme life cycle, involvement of the right people, management of consultation by public authorities and/or organisation of the constructive dialogue (e.g., availability feed-back and follow-up mechanisms, timing of consultations).

Against this background, public authorities can strengthen their participatory practices and build capacity of civil society partners for effective administration and use of the Funds in the next programming period, on the basis of existing rules on partnership. The toolkit highlights the multiple *benefits of including civil society* in the governance mechanism. These include the following:

- *Building a climate of trust*, that increases awareness and acceptance between parties, which in turn enhances the sense of legitimacy of the plans produced and leads to greater ownership on the part of citizens. This reduces the risk of local resistance at later stages of the transition, namely, local communities are more likely to comply with the plans and implement them;
- Contribution to *overcoming additional obstacles* that may arise, by increasing the understanding of resistance and contradictions, such as imbalances of power and organized interests, which in turn contributes to overcoming them more effectively;
- *Increasing the impact and pace* of transition processes;
- *Strengthening the transition process* with know-how, contacts, local social capital expertise, or even with material resources; and
- *Multiplier action for citizen groups* and motivation for their further involvement in the transition process.

c) Key messages

- The governance of the process of regional transformation is of extraordinary importance given the multitude of relevant actors and their (often) competing goals.
- Governance is multi-level (local, regional, national, EU), and multi-actor; different sectors need to work together.
- For a regional transition governance model to be effective, it should sufficiently reflect the views of the different actors in the regions. It is crucial that representatives of all actors are recognised as legitimate.
- Involving stakeholders in the design and implementation of transition strategies is fundamental to garnering their acceptance and to the transition's success.
- Stakeholder engagement must be understood as a process. It should start early and be sustained over time, and needs leadership and facilitation to help it move smoothly with clear purpose, outcomes and vision.
- The process of stakeholder engagement must include active communication strategy, informing the general public about the process, how they can take part and what will happen next. Social dialogue and collective bargaining are key elements of governance processes that can be used to anticipate changes in the work force and deliver key agreements.
- The involvement of civil society in the transition process is vital for successful governance.
- The obstacles to CSO involvement can be external (e.g., adverse political contexts), or internal (e.g., limited resources or capacity).
- A region's transition governance structure and stakeholder engagement approach need to be aligned with the region's goals and strategy, and vice versa.

4. Meaningful youth engagement in processes for just and people-cantered energy transition

a) Introduction

Social and economic effects of the transition must be addressed to ensure that no one is left behind. Just transition mechanisms focusing on people, regions and sectors most affected by the energy transition can help create new jobs and new economic activities through a combination of worker education and retraining, social support, local economic development tools for communities and support to the creation of new businesses, among others.

The transition to a sustainable energy system is a **social and technical challenge** that requires *meaningful participation of wider society and in particular of citizens, including youth and women*. Supporting the *youth* in their efforts to achieve a just energy transition is essential.

Youth can play a fundamental role in this transformation. By including them in the energy transition, we make sure that the future energy systems are fit for a sustainable society. The youth have a role to play in shaping the legal and policy frameworks as well as building the political foundations for a just and effective energy transition.

Young generation has **lots of potential to contribute to the energy transition in many ways,** for instance *as skilled workforce* supporting the development of renewable energy, energy efficiency and clean mobility value chains *and through engagement in decision-making* processes at local and international level.

b) Youth contribution as skilled workforce

The transition towards sustainable energy system opens up substantial opportunities for a skilled workforce. It also brings with it additional requirements to scale up the number of qualified workers and professionals and to improve the quality of education and training.

Youth are emerging as important source of talent for achieving energy access, renewable energy, energy efficiency targets, and already account for a substantial fraction of jobs in the renewables sector. Renewable energy and energy efficiency can deliver a substantial number of jobs, an immediate need in many countries in the current economic crisis. However, the lack of skilled workforce is currently a major bottleneck for the sustainable energy transition and vigorous efforts will be necessary to overcome this substantial barrier.

Green skills for the youth in the energy sector

Today, the lack of green skills represents a significant barrier to achieve a sustainable and affordable energy system. Thus, job creation and green skills development should become a priority area in the energy sector. Enhanced skills development and decent work opportunities for youth can be created in the sustainable energy and clean mobility sectors. Initiatives to develop business and technical skills and create jobs targeting the youth should be pursued more vigorously, with increased collaboration between the private sector and educational institutions to improve the quality and accessibility of training.

A greater integration of climate and energy polices with measures to support employment, and technical vocational education and training (TVET) policies that encourage development of skills and job creation is necessary. To exploit its full potential, the renewable energy and energy efficiency industry needs to make use of the entire talent pool available. Challenges include availability of a skilled work force, quality of training, lack of adequate recruitment channels, lack of training institutions and certification/accreditation schemes. A coordinated effort to develop the necessary human capital pipeline to meet the needs of the rapidly growing renewable energy sector is necessary.

Digital skills

Together with decentralisation and decarbonisation, digitalisation is driving a transformation in the energy sector. Digitalisation has become essential for renewables´ penetration and the integration of renewables into electricity grids. Digital technologies are reshaping the energy system, as well as unlocking flexibility from different sources, such as battery storage, heat pumps, and appliances in the form of demand response. Digitalisation is also enhancing energy management systems in buildings and industry.

Buildings are at the centre of a decarbonized energy system. Smart buildings can play a leading role in transforming the energy landscape into a more decentralized, renewable-based, interconnected system that maximizes efficiency and ensures the optimal use of resources. A smart-ready built environment can enable energy-system-responsive buildings, which at the same time provide a better indoor environmental quality and comfort for the occupants. Certification schemes are useful to ensure quality of training and recognition of qualified installers and other professional by companies and clients.

Social innovations and the role of the youth

The energy transition has given rise to *various forms of social innovation*, defined as new ideas (products, services and models) that simultaneously meet social needs and create new social relationships or collaborations. Examples of social innovations are energy cooperatives, energy "prosumers" consuming and producing energy simultaneously, and new participative forms of decision making such as youth climate councils. They are linked to new business models and governance arrangements and can contribute to making energy more sustainable and affordable.

Youth have a key role to play in *creating and disseminating social innovations* that enable decentralised, digitalized and decarbonized energy systems. Youth-led social innovations have significant transformative potential to solve both local and global problems, using their creativity and capacity to quickly adapt and learn. To implement them, youth must develop job-specific technical skills but also build a broader set of capacities including sustainability competencies and empowerment skills.

Youth are well positioned to lead and implement *sustainable consumption movement*, showing the advantages of new consumption patterns to older generations. The youth can develop homegrown, creative solutions building on local strengths to overcome the crisis, improve their livelihoods, address long-term inequity and injustice and tackle climate change. However, a lack of adequate national policy and regulatory frameworks, workforce skills and funding often

make it difficult, for citizens and municipalities to become involved in the energy sector. Changes to market rules, support schemes and capacity building are necessary to empower communities to get involved in energy supply and collective self-consumption. Mainstreaming successful innovations in new training programmes, learning platforms and resources as well as advancing the digital agenda would help making TVET available to a broader audience and may lower the costs of training. It will also facilitate international knowledge and experience exchange.

c) Youth engagement in decision-making processes

Societal engagement has become central for energy transitions that are more democratic, sustainable, just, and responsive to public values and human needs. There is a need to build foundations for *better governance in the energy sector and encourage multi-level energy and climate dialogue* between stakeholders to overcome political resistance and shape the political incentives that are necessary for the transformation. Societal youth engagement has become **central to make energy transitions more democratic, sustainable, just, and people-cantered.**

Engaging the youth in decision-making will support shared ownership of transition strategies and help gaining political buy-in in their implementation. Youth engagement can also help mitigating negative social and economic effects of the energy transition to ensure that no one is left behind.

Why **timely and comprehensive youth engagement** for a just and effective energy transition is needed?

Youth participation and empowerment are, in fact, **essential to foster democracy and build stable and peaceful societies**. Young people should not only be architects of their own lives, but also contribute to positive change in society. Young people can offer any policy a longer perspective during its creation phase as well as innovative, fresh and inspiring ideas which can improve the **end result to the benefit of the society as a whole.**

Therefore, **including their voices** in the creation, implementation and evaluation of policies and programmes for just transition to climate-neutral economy helps decision-makers to make more informed decisions. It also brings ***substantial benefits to the democratic life of communities***, which may go beyond the group of youngsters involved in a specific project ***and expand to the society as a whole*.**

Youth participation **requires structures** in which young people are able to express their views as well as the engagement of decision-makers to listen and take those views into account.

Reasons for meaningful engagement of young people

Throughout the process, young people need targeted support – be it from youth workers, facilitators or even their peers – **to ensure their participation is meaningful.** There are several **important reasons why meaningful engagement of young people** in the decision-making process for just transition to climate-neutral economy **is crucial**:

- **Right to participate -** From a rights perspective, young people have a right to participate

in decision-making that impacts their future, particularly in the climate change context, where they more than any other generation will bear the greatest costs of its impacts.

- **Valuable ideas and skills** - Nobody knows the challenges, needs and aspirations of young people living in a transition region better than youth themselves. In this way, they can provide valuable insights for diagnosing problems relevant for transition. Moreover, youth have unique knowledge and skills, offering a rich creative potential to develop solutions to the challenges of the transition.
- **Intergenerational dimension** - young people can play a key role in fostering intergenerational dialogue. This is particularly pertinent for many transitioning regions, as even with well-designed plans, policymakers often start from a place of mistrust towards younger generations. Young people can become a bridge in raising awareness about the transition, its reasons and consequences.
- **Achieving a successful transition** - A successful transition will be one that offers true revitalisation and hope for the future to communities. Such success requires the achievement of sufficient opportunities and good alternative jobs for young people from transitioning regions so as to overcome the challenges of high out-migration of young people seen from many deindustrialised communities.

Barriers and challenges for a meaningful youth engagement

Despite the evidence that there is a need and a value in making young people part of devising and implementing policy, *there are barriers and challenges* that hinder the development of ensuring youth participation in a systemic way. Identifying these barriers and challenges is a prerequisite for a meaningful engagement of young people.

Barriers can be:

- *Systemic, when they are related to how institutions and society perceive and engage youth - Systemic barriers are a lack of trust in young people's potential and of not fully understanding their interests and needs. It is one of the main barriers that prevent young people's voices from being heard and acted on.* Resistance of institutional actors, a bias that young people are not interested, and the adult-centric perception that young people's opinions and abilities are not well developed, not valuable enough and somehow should be subordinated to adults' steering, can lead to a total absence of structures – formal and informal – for youth participation. It can also lead to a tokenistic approach, which jeopardises existing participatory processes, where engaging with youth is purely seen as a symbolic activity or a procedural requirement, a box-ticking exercise, without any potential for meaningful contribution on the substance or any follow-up. Even when young people do have a forum to participate in the lives of their communities, often the lack of a credible feedback mechanism deprives them of a tool to make public authorities accountable for the follow-up and implementation of young people's ideas. Language and culture play a major role, too: generational gaps make it difficult to understand young people, their need and values, and pose the challenge of identifying the right communication channels and style to attract their interest.
- *Youth-related barriers, linked to how young people perceive their role in society or the obstacles they see to a meaningful, structural participation in public debates and policy-making* - The lack of trust on the side of institutional actors is, in turn, reflected in young people's belief that any of their contributions would not be taken seriously nor have any real impact on their daily life. This represents the main youth-related barrier to youth

participation: young people feel that even if they express their needs and preferences, their voice is not heard and does not bring about change. The lack of trust becomes therefore reciprocal. Moreover, young people might *lack information and skills* to benefit from participation opportunities, as well as knowledge on the specific topic at hand. These elements contribute to make it difficult for them to keep their interest and motivation for long periods: they do not feel valuable and valued enough to contribute their time and effort.

Consequently, more confident and skilled young people are more likely to become involved, leaving already vulnerable and isolated segments of youth behind. In addition to these substantive and psychological barriers, socio-economic ones play a role. *Socio-economic exclusion* and democratic exclusion go hand in hand. Youth struggling with disadvantages are generally fewer active citizens and have less trust in institutions. *Logistical and administrative factors* can also play a role. *Time, transport, scheduling and financial compensation* are often not considered and can pose barriers.

In order *to have a meaningful youth engagement*:

- It is crucial that institutions overcome their stereotypes, *trust young people and their abilities, and empower them to lead the change*. Young people have opinions and ideas about the development of their communities, but they need to be listened to and to be trusted. They need *to be given the opportunity* to make a change, *be empowered and entrusted* with the means and tools to implement their own ideas and develop ownership over their projects.
- *Youth-centred approaches should replace* **youth-focused ones**, which conceive young people as objects of public policies rather than agents and engage with them only for "youth-related issues". It is important *to make youth participation a priority*, make it *regular and continuous,* and embed it in institutional structures and policy-making processes, as well as integrating youth input in a wider range of topics of their concern. An effort to youth-iffy institutional actors and adapt their communication style when they reach out to young people through innovative, original means would contribute to a better reciprocal understanding.
- Lastly, *young people need clarity about their roles and responsibilities*: a clear setting, clear instructions, rules and an explanation of what is expected from them are crucial to frame their participation and sustain their interest and commitment.

d) Youth Participation in the Just Transition Fund

The Just Transition Fund (JTF) was created with the aim of alleviating the socioeconomic impacts of the transition to a climate-neutral economy. For the JTF process to be successful, it must ensure that local people and *especially young people feel 'ownership' of it* and everyone must be involved in how the funds are spent. Their future will be directly affected by the upcoming transition, and their needs, opinions, fears and hopes are an important part of the dialogue. In this context, the European Commission's Directorate-General for Regional and Urban Policy (DG REGIO) published its *Toolkit for Youth Participation in the Just Transition Fund*[78].

[78] DG REGIO, 20221.The Youth for a Just Transition Toolkit for Youth Participation in the Just Transition Fund offers support on how to involve youth in the implementation of the JTF, Luxembourg, European Comission. Accessible here: https://ec.europa.eu/regional_policy/en/information/publications/guides/2021/youth-for-a-just-transition-a-toolkit-for-youth-participation-in-the-just-transition-fund

The Toolkit *is addressed in particular at regional and local policymakers* responsible for the implementation of the JTF, as well as other stakeholders involved in the process. One group of stakeholders that is *particularly targeted are young people living in the transition regions*. It is hoped that they will be inspired by the Toolkit to actively advocate for their involvement in implementation of the JTF. The *Toolkit* can also be useful for other policies addressing the transition.

Its goal is to support and guide on *how to organise meaningful participation of young people*. It provides a set of principles, methods and concrete tips of how to maximise the meaningful participation of youth in the programming, implementation, monitoring and evaluation of the Just Transition Fund. Moreover, it offers examples of how particular techniques were successfully used in the past.

This Toolkit *aims to encourage more ambitious, meaningful and numerous youth participation processes in the regions targeted by the Just Transition Fund,* and that the effects of such processes will lead to better-quality strategies and interventions addressing the challenges of the just transition.

e) Key messages for meaningful youth engagement

- Youth engagement is fundamental to shape the policy agenda in the sustainable energy field and achieve energy and environmental justice.
- Youth leaders can engage with policymakers and other relevant stakeholders in civil society and the private sector to advance the energy transition.
- Youth engagement can help governments achieve improved results on transparency, public service delivery, public financial management, governance, social inclusion and empowerment.
- Young people can also engage in their communities to create better services, including energy, and foster economic activities.
- Young people can help implementing people-cantered energy solutions based on the needs of the people and communities. At the same time, the youth can engage in supporting broad social mobilisation towards climate and environmental action.
- Young people can apply their innovation power to advance new technological solutions and business models to facilitate the uptake of renewables, energy efficiency and clean mobility solutions.
- Just transition mechanisms focusing on youth can help create new jobs and economic activities through worker education/retraining, social support, local economic development tools and support to the creation of new businesses.
- Climate education also plays a fundamental role in shaping the minds of the new generations as to the magnitude of the challenge ahead to curb climate change and how can they solve this challenge.

CONCLUSIONS

The International Labour Organization document on **concept of a just transition** is vital building block for the *current applications of just transition*. It clearly defines just transition, providing guidance on areas such as social dialogue, social protection & labour market policies based on tripartite dialogue between unions, employer organizations and governments.

In subsequent years, just transition has attracted attention from multilateral institutions, governments, investors, civil society and labour groups seeking to plan for a *more equitable distribution of the benefits and risks* associated with contending with climate change. However, the term "just transition" is still unfamiliar to many, definitions vary widely, and the methods for achieving just transitions remain unclear.

The *concept of just transition* is now recognised in mainstream politics. It can play a crucial role in driving the historic momentum for a just and green recovery, should just transition be seen as the means to achieve a sustainable transformation of society. The concept provides not only a set of policy tools to avoid social disruption in the country but also an approach that can *spark broader action and changes*.

A just transition is the notion that the transition process to a greener economy has to be *inclusive of all stakeholders*, and that the unavoidable employment and social costs of the transition have to be shared by all. It can play a crucial role in driving the historic momentum for a just and green recovery, should just transitions be seen as the means *to achieve a sustainable transformation of society*.

Comprehensive *just transition* in the country needs to drive a *societal just transformation* which takes into account the impact of both climate change, and the actions to mitigate it, for the wellbeing of all people – focusing particularly on the *needs of the most vulnerable and those of future generations.*

The just transition needs to *take place on multiple levels*, including at the national level, planning regions level, cities and rural areas.

Ultimately *local authorities, local businesses, local civil society organisations* and citizens as individuals will have a large part to play in supporting transition. They will be the ones who will plan and guide *their own just transition towards local climate-neutral economy.*

Public authorities should: focus on differentiating between stakeholder and citizen participation and choosing appropriate models to engage both groups; involving citizens at all stages of the cohesion policy cycle; securing and planning for resources dedicated to participatory processes; creating conditions for beneficiaries to involve citizens in the programming projects; ensuring impact and political buy-in of participation processes they implement; closing the information feedback loop by providing a response to citizens; lowering barriers to ensure an inclusive participation; and evaluating participation processes they conduct to learn from their experiences.

Policymakers, businesses, and civil society will need to examine the potential co-benefits and trade-offs of different energy pathways. To maximize social, economic, and environmental benefits, they will need *to work together* to design the transition so that the needs of the most vulnerable are placed at its centre.

RECOMMENDATIONS

Sustainable energy is a key to global collective efforts to accelerate the pace of implementation and to deliver on the SDGs and the Paris Agreement.

North Macedonia intends to undertake energy transition that will diversify the economy, reduce existing (and mitigate emerging) unemployment, and safeguard social cohesion. It seeks to do so by progressively restructuring the regional economy away from coal. Such a transition hinges on attracting new investments, re-skilling workers, and repurposing other lands and assets for new economic and social good. It further relies on the development of renewables and other clean energy sources.

North Macedonia must design and implement its energy transition using just and inclusive pathways in order to accelerate the collective action, not only to secure delivery of these goals but to ensure the **'***future we want'***.**

A just transformation of Macedonian society requires a solid foundation for environmental and social resilience to be built under the *"whole of society" approach*. This foundation will allow to build and create opportunities not only for those who are currently employed in high-carbon jobs or who will be employed in green jobs, but the society as a whole through shared opportunities for greater well-being.

In a region that is highly dependent on coal, as Pelagonija region, the shift towards cleaner and renewable energy sources *is a must*.

A societal transformation to a climate-safe world is only possible if we recognise the irrevocable links between social and environmental goals and the *need for a new governance structure*: social goals cannot be achieved at the expense of *environmental sustainability*.

In order for a just transition to take place in North Macedonia, a reconfiguration of the social, economic and technological system in the country is needed. This involves changes in institutional, legislative and policy frameworks and has strong links to the wider international policy context (global, EU and Western Balkan region).

The expected green energy and climate transition will require a timely upgrading of the relevant legal frameworks through transposing the new provisions brought by the EGD through the Fit for 55 package, and other *legislative and non-legislative acts*, as foreseen by the Energy Community Decarbonisation Roadmap, and by the Climate Action and Energy Roadmaps of the Action Plan for the Implementation of Green Agenda for the Western Balkans 2021-2030. It would be beneficial *to extend all dimensions of the Energy Union* to the region: energy transition, energy efficiency and renewable energies.

A just transition for all towards environmentally sustainable economy, needs *to be well managed* and contribute to the goals of decent work for all, social inclusion and the eradication of poverty.

In order to be considered "just" and "inclusive", energy transition processes in Pelagonija region needs to ensure *fairness via equal distribution*, full recognition of rights and labour

contributions, equal participation in decision-making procedures, and equal capabilities in renewable energy outcomes. Engaging communities and bottom-up approach are also critical to realizing the full potential of renewable energy sources and prioritize the feedback from local people on the suitability of certain project developments.

An *integrated approach* can help policy makers understand how to maximize, prioritize, and sequence the different benefits to human well-being that can be derived from a healthy environment. At the end of the day, an inclusive green economy must provide not only for jobs and income, but for our health, our environment, and our future. This is common challenge: creating the conditions for enhanced prosperity and growing social equity, within the contours of a finite and fragile planet. It is an opportunity *to advance both sustainability and social equity* as functions of a stable and prosperous financial system.

Finally, the green economy transition should also benefit from *research that involves various impact evaluations, including methodological innovation in evaluation studies*. This takes in evaluations of the impacts of important baseline trends, e.g., digitalization and automation, globalization versus nationalization, etc., on environmental and distributional outcomes but also on the prospects for green innovation collaborations and various circular economy-inspired business models. Clearly, there is also need for improved evaluations of policy instruments and combinations of policies. With an increased emphasis on the role of technology-specific policies, such evaluations are far from straightforward. They must consider different policies' roles in the innovation systems, and address important interaction effects; any evaluation must also acknowledge the policy learning taking place over time.

The EU will support financially the implementation of the ambitious Green Agenda for Western Balkan through the Instrument for Pre-Accession (IPAIII)[79].

The Western Balkans Investment Framework, the European Fund for Sustainable Development Plus (EFSD+), and other instruments will be the *main implementing mechanisms* in this regard.

The European Commission supports their efforts by facilitating the development of a stronger culture of participation; setting up a dedicated community of practice or network on citizen participation in cohesion policy; and making structural changes to institutionalise the use of innovative citizen participation practices

[79] European Commission, 2021. Regulation (EU) 2021/1529 of the European Parliament and of the Council of 15 September 2021 establishing the Instrument for Pre-Accession assistance (IPAIII). Brussels, Official Journal of the European Union, L 330/1 from 20.09.2021, Document 32021R1529. Accessible here: https://eur-lex.europa.eu/eli/reg/2021/1529