



## **WP2: NATIONAL/TERRITORIAL REPORTS, BULGARIA**

Atanaska Todorova, Tsvetomila Sabcheva, Radostina Ivcheva

Sofia, Bulgaria

Last revised: June 2023



The project SOCIAL GREEN DEAL (101052243) has been financed by the European Commission. The content of this paper solely reflects the thoughts of the authors, and the Commission is not responsible for the use that might be made of it.



## Table of contents

|  |    |
|--|----|
| INTRODUCTION.....  | 4  |
| SECTION ONE: TERRITORIAL SCOPE AND ANALYSIS OF THE ECONOMIC, SOCIAL AND ENVIRONMENTAL CONDITION, NEEDS AND POTENTIAL FOR DEVELOPMENT OF THE AREA | 4  |
| Socio-economic conditions and characteristics.....   | 5  |
| Demographics.....  | 5  |
| Employment.....  | 5  |
| Gross Value Added (GVA).....   | 6  |
| 1. Primary sector (agriculture, forestry and fisheries).....   | 6  |
| 2. Industry (secondary sector).....  | 6  |
| 3. Services (tertiary sector).....   | 7  |
| SECTION TWO: THE VEGETABLE TRANSITION IN THE STARA ZAGORA REGION.....  | 7  |
| SECTION THREE: CASE STUDIES.....   | 9  |
| THE INTERVIEWS.....  | 10 |
| SECTION FOUR: THE ROLE OF SOCIAL DIALOGUE AND INDUSTRIAL RELATIONS.....  | 12 |
| Tables.....  | 13 |

## INTRODUCTION

The Bulgarian coal and energy industry faces a serious challenge to meet all the requirements for a fair green transition and reaching a low-carbon economy by 2050, high-tech solutions and democratization of the energy system. The specific goals for achieving the energy transition are laid down in the "Low Carbon Economy" component of the Recovery and Sustainability Plan (SSR), which builds on the goals set in the Integrated National Energy and Climate Plan of the Republic of Bulgaria for the period 2021-2030. (INPEC), which is the reference document for comprehensive assessment and transition planning. To support Bulgaria's transition, the WFP concentrates 58.9% of all financial resources on green transition and transformation measures in support of climate goals by 2026.

Stara Zagora, Kyustendil and Pernik are the most affected by the transition to a climate-neutral economy. This is because they are key areas of concentration of local coal mining and coal power generation, as well as the economic structure associated with these activities, making the three areas most vulnerable to the transition. They have different regional spatial structures and processes. Although the three target areas are to varying degrees vulnerable to the transition, it has a number of challenges that affect all of them - aging population, depopulation, predominance of small and medium-sized enterprises, etc.

The poorest and most vulnerable region in Bulgaria is the North-West, but since the introduction of the provisions of the Green Deal there will not have a big impact, we direct our analysis to the region where this impact will be big, namely the South-East region. This region includes the districts: Burgas, Sliven, Stara Zagora and Yambol with a total of 33 municipalities. The Stara Zagora region will be among the three regions most affected by the introduction of the Green Deal, especially if Bulgaria fulfills its commitment under the Recovery and Sustainability Plan (RSP) to reduce carbon emissions from the "Energy" sector by 40% by 2026. In practice, this means closing 80% of lignite capacity, as there is no other way to reduce carbon dioxide - unless projects and reforms against them are renegotiated in the PPU. Over 42% of the electricity produced in Bulgaria comes from coal plants. Nearly 14,000 people are directly employed in the industry, and another 29,000 - indirectly.

## SECTION ONE: TERRITORIAL SCOPE AND ANALYSIS OF THE ECONOMIC, SOCIAL AND ENVIRONMENTAL CONDITION, NEEDS AND POTENTIAL FOR DEVELOPMENT OF THE AREA

The data of the National Statistical Institute at the level of Stara Zagora region show that in 2021<sup>1</sup> economically active persons aged 15 to 64 in Stara Zagora region are 143.2 thousand people. The coefficient of economic activity (15 - 64 completed years) is 74.5%. Employed persons aged 15 to 64 in the Stara Zagora region in 2021 are 138.7 thousand people. The employment rate (15 - 64 years of age) is 72.2%. The number of employed persons with higher education is 32.9 thousand, with secondary education - 88.9 thousand and with primary and lower education - 16.9 thousand. The employment rate for persons with higher education is 89.6%, for persons with secondary education - 78.7% and for persons with primary and

---

<sup>1</sup> This is the last year for which district-level data is available.

lower education - 39.8%. The number of unemployed persons aged 15 to 64 is 4.5 thousand people. The unemployment rate (15 - 64 years of age) is 3.1%. In 2021, there are 146.9 thousand economically active persons aged 15 and over in the Stara Zagora region. The coefficient of economic activity (15 and over completed years) is 55.9%. Employed persons aged 15 and over in Stara Zagora region in 2021 are 142.2 thousand people. The employment rate (15 and over) is 54.2%. The number of unemployed persons in the Stara Zagora region in 2021 is 4.7 thousand. The unemployment rate is 3.2%.

The gross domestic product per capita in Stara Zagora region decreased in 2019 and it lost its second place. However, wages and incomes in the district continue to rise. Economic activity is declining, but remains relatively high and has been consistently above the national average for the past few years. Employment and unemployment have better than average coefficients. There is a relatively small number of enterprises in the district, but the production is relatively high. The proportion of road surface in good condition lags behind the average. Stara Zagora maintains relatively low levels of local taxes. Local administrations' self-assessments of the development of e-government and the provision of one-stop administrative services are weak. In line with the trend at the national level, natural growth in Stara Zagora has worsened in recent years. The shares of primary and secondary school dropouts remain almost double the national average. Stara Zagora's low rating in the environmental sphere is primarily due to the extremely high level of carbon dioxide emissions in the atmosphere.

## Socio-economic conditions and characteristics

### Demographics

The current demographic situation in the region is characterized by a continued decline and aging of the population, a declining birth rate and a persistently high level of total mortality. On average, the population of the South-East region is decreasing, from negative natural and mechanical growth by 5,924 people. The situation with Covid-19 also gives an advantage to mortality, as for 2020 and 2021 the deaths in the area due to the virus are close to 5,000. The current demographic situation in the region is characterized by a continued decline and aging of the population, a declining birth rate and a persistently high level of total mortality. On average, the population of the South-East region is decreasing, from negative natural and mechanical growth by 5,924 people. The situation with Covid-19 also gives an advantage to mortality, as for 2020 and 2021 the deaths in the area due to the virus are close to 5,000.

The National Statistical Institute has developed three options for the country's demographic development in the perspective of 2080. According to the forecast, the population will decrease and age according to all three options. The big obstacle to economic growth will be the significant shrinking of the population as a whole, as well as a specific reduction in the number of people of working age. Although the demographic dependency ratios in the area remain almost unchanged in the long term, the nominal population in all age groups will shrink significantly. The forecast is for significant changes in the structure of the population and fewer persons of working age.

### Employment

The employment of the population in the most active age (15–64 years) marked an increase in the South-East region in the period 2011-2018. and reached 66.8% in 2018, but slightly behind the national average of 67.7%. Among the statistical regions in Bulgaria, the Southeast region has a high employment rate - 62.3%. Despite the measures and programs undertaken to promote employment in recent years, and in particular that of women, there is still a difference in employment between the two sexes. The employment rate for men is 72.1% and for women 58.5%. The employment rate among persons with primary, primary and lower education is significantly lower than the overall employment rate.

Stara Zagora is among the five regions with the lowest unemployment rates in Bulgaria and ranks first in the region. However, in the Maritza East energy complex, a significant part of the affected workforce is approaching retirement age, but up to 90% of the directly affected workforce will continue to be of working age and will be affected by labor market disruptions in 2026. - the majority (~70-72% in the period 2016-2020) of the employed workers in the energy complex "Maritsa Iztok" have at least a secondary education and skills to work in an industrial environment. Stara Zagora has a highly educated workforce, which is a counterpoint to the country-wide structural shortage of qualified labor with higher secondary education. For example, in mining and energy enterprises there is a concentration of employees in the following labor categories: machine operators and assemblers (~ 35%) and skilled production workers and related occupations (~ 28%).

## Gross Value Added (GVA)

### 1. Primary sector (agriculture, forestry and fisheries)

The analysis of the data on the participation of the agrarian sector in the BDS of the region shows that this is a complementary economic activity for the region, and at the same time there are highly developed agrarian areas and municipalities in the SE. The region has 17.6% of the agricultural and 18.1% of the forest territories of the country. In the scope of the South-East region, agricultural territories are 57.3%, and forest 35.2% of the territory of the region. The usable agricultural areas in the region are 736,394.81 hectares or 19.6% of those of the country<sup>2</sup>. Cultivable land is 617,015.56 hectares or 19.0% of that of the country. The irrigated territories are 2.1% of the usable agricultural area, which is close to the national average of 2.4%. The region with the highest contribution to the sector's production<sup>3</sup> is Burgas region - 34%, followed by Stara Zagora region - 26.8%, Yambol region with 19.1% and Sliven region with 19.1%.

In terms of crop production, the region is the leader in the country in areas for growing durum wheat, including third in areas for corn for grain, in second place nationally in areas for growing fresh vegetables. Animal husbandry has a complementary function. Regarding the main groups of animals, 109,075 cattle are bred in the region - 18.4% of those in the country, which ranks the region second in this indicator. The same applies to farmed sheep. The number of reared pigs can also be considered as a significant share on a national scale - 25.8%. The activities related to breeding of birds and bee families are also in good positions.

### 2. Industry (secondary sector)

The main economic activities in the area include productions from the regions - coal mining and electricity production; manufacture of armaments and ammunition; of refined petroleum products; of electrical equipment for engines and vehicles; worsted wool and wool type fabrics, classic (machine or hand knitted) sweaters, cardigans and other similar products; productions in the field of food industry; shipbuilding, road and civil engineering; engineering and metalworking, sewing industry and others. More than 123,000 people were employed in the sector in 2017, with 58 enterprises operating in the area from the leading 500 enterprises by number of employed persons.

The leading position of the Stara Zagora region according to BDS is due to the "Maritsa East" energy complex, which shows the structural role of the coal industry in the region's economy. Stara Zagora dominates the production of electricity in Bulgaria thanks to the thermal power plants located on the territory of the district. The unemployment rate (2019) is the lowest in Bulgaria - 1.4%, and the average annual salary (€7,114) is comparable to the national average and is the highest in the South-East region according to NUTS2.

---

<sup>2</sup> Ministry of Agriculture, Agro Statistics No. 348/ June 2018

<sup>3</sup> According to NSI 2017 data.

### 3. Services (tertiary sector)

The service sector is the most dynamically developing sector of the economy. Its share in the BDS of the region for 2017 is 48.0%, and in national plan its participation is 6.7%. Tourism has an important place in the economic structure of the Southeast region. In addition to the coast, the region is also characterized by mineral springs, which allow a combination of climate and balneotherapy. On the territory of the region there are many other natural and anthropogenic zones and factors - the regions of Eastern Stara Planina - the architectural settlements, masterpieces in the so-called Kamchi settlement center (Zheravna, Kotel, Icheri). The area of Strandzha with its megalithic complexes and Nestinar heritage still does not contribute to the valorization of its unique wealth. Winery and rural tourism are not well developed and advertised.

## SECTION TWO: THE VEGETABLE TRANSITION IN THE STARA ZAGORA REGION

In order to make a smooth transition towards reaching the Union's energy and climate targets for 2030, as well as achieving a climate-neutral economy by 2050, each EU Member State must develop territorial plans that outline the transition process of the most affected territories, complying with the national energy and climate plans. Territorial Just Transition Plans (TTPs) are a mandatory condition for granting funds from the JTF, which aim to minimize the adverse consequences of the climate transition in the affected territories and the most affected workers. TTPs must include effective and concrete measures to overcome environmental, social and economic challenges by region.

In Bulgaria, the TTP plans have been repeatedly discussed and revised. At the moment, until the end of June 2023, Bulgaria must present their latest options to the EC, in order not to lose the funds from the JTF, which are aimed at investments in a low-carbon economy and the creation of new jobs. TTP of the three coal regions - Stara Zagora, Pernik and Kyustendil, will allow our country to benefit from 70% of the funds under the Just Transition Fund (JTF).

In the latest drafts of the territorial plans, they are tied to the requirement laid down in the EPA to reduce emissions in the energy sector by 40% by 2026 compared to 2019. This caused serious disagreement from the trade unions and led to protests in the country demanding revising and dropping this requirement, as the country has long since fulfilled its commitment under the European Green Deal to reduce its total carbon footprint by 55% by 2030. Unions also object to more than 12,000 job cuts by 2026, when emissions reductions from coal-fired power stations are due to reach, and by 2038 (the latest planned date for the phase-out to end) are expected to be affected another 15,000 jobs, and in the absence of any strategy for opening new jobs.

Another factor of concern is that the affected jobs in all three regions must be redeployed to other economic activities within the next three years, which is unacceptable and unworkable in this short time frame. Therefore, one can think about how the employed persons in the coal regions can be at least secured. When reorganizing the activities of enterprises, the state should guarantee the offer of financial packages for compensation in case of layoffs or layoffs. The mismatch between available and required skills creates the need for retraining of these workers from the most affected regions. They should undergo trainings and retrain, orient themselves to new areas of professional development, in order to avoid loss of gross added value if the transition happens suddenly and in a short period. Because if this happens and measures are not taken now, it can lead to losses of at least BGN 877 million per year in gross added value. In order to create new jobs, other active economic sectors should be supported and decarbonisation measures should be

implemented, such as clean energy production and energy efficiency measures, installing equipment with greater capacity and reducing greenhouse gas emissions, while supporting the overall diversification of economic activity.

The reason for taking a detailed look at Stara Zagora is that it is the largest coal region in Bulgaria, and fossil fuels are the main driver of the economy in the area. Lignite mining, coal-fired power generation and related services are the most important economic sectors in the gross value added (GVA) structure of the district. Other key economic activities in the region include a wide range of manufacturing and construction services, wholesale trade, retail trade, engineering, food processing and electronics manufacturing. Although for 2019 the region has the lowest unemployment rate in Bulgaria - 1.4%, more than 80% of the total number of expected "directly affected" jobs in coal mining and energy production facilities, according to approximate estimates 40 000 jobs (directly or indirectly), may be lost as a result of the transition. It is important to take measures to support small and medium-sized enterprises and start-ups in sectors with high added value, which will allow the economic diversification of the area. The impact on the local labor market will be significant as the mining and energy sector is a structural economic sector and employer.

The transition to a low-carbon economy is slow, as much of the local industry is energy-intensive, which significantly slows down the introduction of new technological solutions and delays the process. In the area, the production of electricity from coal and its extraction is realized with the full capacity of the four thermal power stations. It is important to note that the power plants are powered by coal mined only from the deposits in the region and are operated by local mining companies.

The Stara Zagora region has been identified as the most affected by the transition, as the four coal-fired thermal power plants and mines are located on its territory. The just transition to a climate-neutral economy covers the entire territory of the Stara Zagora region, with the most affected, apart from the main urban and economic center of Stara Zagora, being the municipalities of Radnevo and Galabovo. It is important to emphasize that although the mentioned municipalities are the most affected, it should be taken into account that the "Maritsa East" energy complex provides work to the other administrative districts - Sliven, Haskovo and Yambol. In 2020, energy/mining enterprises attract labor from the following areas: Stara Zagora - 8.2 thousand people; Haskovo - 1.5 thousand people; Sliven - 0.9 thousand people; Yambol - 0.6 thousand people; others - 0.1 thousand people.

Regardless of the above-mentioned facts, the Stara Zagora region has the highest potential for transition due to the prospect of preserving the energy profile through industrial productions with high added value in the field of clean technologies, utilizing the opportunities of the available infrastructure, human capital and terrain. The district can compensate for the lost revenue and jobs that will be lost in the coal sector by undertaking the development of new opportunities to increase industrial production.

Delaying territorial plans would reduce the industrial competitiveness and successful transformation of the largest coal region in the country. The Stara Zagora region has initiatives for the production of green hydrogen and has the prospect of being included among the nine hydrogen valleys of Europe. Stara Zagora has a well-developed educational infrastructure and regional capacity, which makes the region promising for research and development activities and innovations in the field of new clean technologies, as well as building a model of active participation of local stakeholders in the process of managing and implementing the transition. However, the lack of good dialogue and cooperation between educational institutions and businesses is a major obstacle for the transformation of the regional economy in Stara Zagora. In universities and specialized high schools, it is necessary to introduce the study of low-carbon technologies, which will lead to the easier integration of graduated students and students when starting work in enterprises that focus on imposing green innovations.



Measures should focus on alternative activities and new jobs. A suitable type of generation that can replace current coal generation in the region is renewable energy sources (photovoltaics, wind, green hydrogen, geothermal energy and biomethane) and storage facilities. Thus, the characteristics of labor force and movement will be preserved. In this way, the shortage of jobs that SMEs cannot provide could also be filled. This new production will also have the advantage of contributing significantly to the large-scale energy transition in Bulgaria by providing storage infrastructure and clean energy capacity. In this regard, the Staro Zagora region is among the most suitable for land-based photovoltaic installations (with a cumulative technical production potential of ~ 15-20 GW), because about 25% of the area of the mining complex is reclaimed and the territories do not conflict with agricultural lands and Protected Areas. Encouraging the development of renewable energy sources will lead to an increase in foreign direct investment. Measures to promote RES and energy storage complement each other and aim to diversify the economy, increase employment and quality of life and support climate neutrality goals.

Stara Zagora is already registered as a leading initiative for the "EU Hydrogen Hub" and as a hydrogen valley, which is a prerequisite for becoming part of the EU hydrogen centers, producing green hydrogen for thermal processes (heating, electricity production, industrial processes, etc.) .n.), for hydrogen cells or other devices.

Bulgaria is among the most dependent on fossil fuels in the EU. The green transition to a low-carbon economy is slow and difficult. Modernization and innovation in the energy sector will lead to changes in our entire economy. In order to achieve the EU's Green Deal goals and climate neutrality by 2050, there are a number of transition challenges that further slow down the process. The transformation of the electricity sector and the impact of decarbonisation are inevitable, so work must be done to reduce the negative impact of the coal transition on the economic development of vulnerable regions.

Once the state has made a commitment to abandon a coal and fossil fuel economy, we must prepare for the changes that will occur and focus on their impact on those working in the most affected regions, in the direction of guaranteeing their jobs by ensuring of the necessary retraining and redirection in new fields of activity and professional development, through investments in education and support for companies.

The green transition should not deepen inequalities, but on the contrary, provide alternatives to evenly distribute the costs and benefits of the transition to low carbon emissions, as well as offer mechanisms to support affected workers and measures to adapt them to new green technologies. An integral part of the success of the energy transition is finding a new formula for the continued development and prosperity of the coal regions.

## SECTION THREE: CASE STUDIES

As good practices in Bulgaria in terms of initiating a fair green transition, we can point out:

- 1) Campaigns to stimulate social dialogue and raise awareness. Examples of such activity is the KNSB's green campaign, which began in 2020. Concrete manifestations of this campaign are the initiative organized by the Federation of Independent Trade Union Organizations of Light Industry - KNSB's initiative under the title "Together we can do everything!" Green transition only with the participation of all workers. Another campaign is the "Think Green - The Earth Deserves It!" campaign initiated by the Federation of Independent Agricultural Trade Unions at KNSB. The initiative focuses on the interconnectedness of environmental, economic and social issues along the

food chain - clean nature - clean food - healthy and prosperous society, as well as the harm and damage of pesticides and glyphosate on humans. FNSZ warns about the urgent need to reduce the use of pesticides, herbicides and other chemical substances in the agricultural production cycle (in the context of the Green Deal, the F2F Strategy "From Farm to Fork" and CAP2020+). The campaign insists on a complete ban on GLYPHOSATE and aims for change, including legislation on the subject of pesticides in Bulgaria.

2) Another example of good practice in Bulgaria is the Memorandum of Cooperation and Common Actions signed in 2020 by the social partners in 5 sectors for more attention to workers in the conditions of COVID-19 and green challenges and goals in the light of the Green Deal. This Memorandum is an expression of the political will and social commitment of the partners to join their efforts to care for the human factor and to take action together in two important directions:

- To ensure effective measures that will guarantee the prevention of COVID-19 in the workplace in agricultural holdings;
- For a fair transition in implementing the goals of the European Green Deal.

The sectors in which there is a signed Memorandum of Cooperation and common actions for more attention to workers in the conditions of COVID-19 and in the light of the Green Deal are: "Waterworks" sector, "Agriculture" sector, "Metal industry" sector, "Construction" sector, "Light industry" sector and "Food industry" sector. (See Appendix 2)

3) The third example of good practice is based on Decree of the Council of Ministers No. 54 of February 18, 2021 for the opening of the Institute for Sustainable Transition and Development within the structure of the University of Thrace - Stara Zagora. The main goal of the institute is to contribute both to the transformation of the economic model in the regions affected by the energy transition, and to the achievement of the goals for a low-carbon and carbon-neutral economy at the regional and national level.

## THE INTERVIEWS

### EMPLOYERS

According to a representative of one of the employers' organizations in the country, when asked what should be Bulgaria's main priorities in the field of energy and the green transition, he replied: "Energy is the "hot potato" in the economy. The main priority is to correct the distortions of the wholesale electricity market at extreme prices by compensating consumers in the free market, incl. the adoption of a mechanism and procedures for signing long-term contracts for energy-intensive enterprises. As other priorities, he indicates the formation of a national market for greenhouse gas emissions; drawing up a national Strategy for sustainable energy development until 2030 with a horizon until 2050; development and systematic implementation of a Road Map for the transition to climate neutrality; promoting the production and storage of electricity from renewable energy sources for own consumption.

In the opinion of one of the employers whose company is at risk due to the green transition, however, coal is "the only reliable reserve that we can count on at least in the foreseeable future", adding: "Coal is a Bulgarian resource and is part of our energy independence. TPPs, in addition to guaranteeing the security of supply, also provide important system services for maintaining the stability of the entire energy network in the country. And any restriction on these services provided or on production could jeopardize the security of supply."

At the same time, when asked whether the green transition can be made without closing the coal-fired power plants, the same employer answers: "There are options not to limit the production of the coal-fired power plants. Analyzes are yet to be made, for example, for burning coal in combination with biomass or

waste. This would somewhat lead to the preservation of the amount of electricity produced, but with reduced carbon dioxide emissions. Another option is investments in existing capacities to increase their efficiency and produce the same amount of electricity with less coal. It's a matter of analyzing technologies and combinations."

As an alternative to the plans to close the plants, the employer presented the idea to "Nucleon" of the cooperation of the state with Gemcorp and IP3 for the use of carbon emissions in the complex "Maritsa Iztok". According to him, this is a project that looks like it will preserve everything we have and attract new investments to the complex that may be mutually beneficial. And if one part of the carbon dioxide is stored, another is used as a raw material for the production of other products, and there are new investments, this is interesting. But we have yet to see its financial model and what our potential role and involvement in it will be. We need the details so that it is clear what is happening step by step and to assess whether the calculations behind this project are economically viable.

## WORKERS

The main concern for those working in thermal power plants is the fear of losing their jobs. For them, the set 40% reduction in carbon emissions by 2026 in the WWTP means closing half of the plants. And this, in turn, has a number of consequences - it will lead to a halt in the export of electricity and lead to the loss of at least half of the jobs. These people will be left with no income, no security and no alternative. This means that their families are also at risk, sometimes in one household both adults work at the thermal power plant and layoffs of 50% of the staff give reason to worry about job loss. Coal power is the only 100% independent electricity production in Bulgaria, the workers remind the authorities.

## TRADE UNION

The unions are unanimous that Bulgaria's EPA should be withdrawn and reworked so that the Bulgarian initiative to reduce emissions from coal plants by 40% by 2026 is dropped. They are united to develop an energy strategy for Bulgaria with the participation of the complex "Maritsa East" in it; Development of a plan to preserve the complex until the coal reserves are exhausted; Not to develop the idea of a battery park on the territory of "Maritsa Iztok".

The KNSB insists on the clarification that the reduction of emissions by 40%, which we have undertaken as a commitment under the NPUV, is only in the "Energy" sector. If the commitment was for a 40% overall reduction in emissions, we have fulfilled it - Bulgaria, according to what was adopted under the "Fit for 55" Package, must by 2055, together with other European countries, reduce emissions by 55% compared to 1990 year.

Especially for the mines, the KNSB proposes the creation of a company in which 60% will be owned by National Company "Industrial Zones" EAD, 20% by Mini "Maritsa Iztok" and 20% reserved package for the employees and workers of "Maritsa Iztok".

According to another proposal of the confederation, it is the creation of an enterprise Conversion of the coal regions, which will deal precisely with the reclamation of the terrains and the preparation for the various types of businesses. Will it be photovoltaics, production for RES parts, electric cars, whatever. The idea is that this park will attract investors. The union proposes that at least 1,500 of the mine workers who are not retrained be redirected to this enterprise. For the TPP "Maritsa Iztok - 2" the proposal of KNSB is the creation of a virtual photovoltaic plant - something that is extremely modern. They propose to build 100 photovoltaic installations in the area, especially in the two large settlements of Radnevo and Galabovo, to be located on private and municipal buildings. This would cost around 3.4 million euros.

NGO

According to non-governmental organizations, pollution in the area of thermal power plants is high and measures should be taken for cleaner air and investment in many renewable sources. After a case brought by environmental organizations, the Court of the EU ruled that Bulgaria violated European legislation by allowing Maritsa East 2 TPP to pollute with sulfur dioxide without a deadline and without a plan to deal with harmful emissions. These organizations are pushing for energy producers to comply with environmental legislation to keep our energy up to date – both in terms of the best available technology and the highest possible level of protection for human health.

They add that extreme weather causes enormous material damage, and waterlessness is an increasingly common challenge to everyday life, industry and even energy in many European countries, including Bulgaria. However, carbon emission levels continue to rise, and the reason for this continues to be our way of life, which is heavily tied to the burning of fossil fuels.

## SECTION FOUR: THE ROLE OF SOCIAL DIALOGUE AND INDUSTRIAL RELATIONS

The introduction of new technologies and the green transition are a challenge for every industry in Bulgaria. These challenges carry the risk of business closures and job losses. Particularly risky industries for Bulgaria are the energy and mining industry, which will of course have an impact on other sectors as well. In this regard, social dialogue at the national, sectoral and enterprise level is extremely important.

The previous section of this report presented the social partners' experience of a Memorandum of Cooperation and Common Actions for more attention to workers in the context of COVID-19 and green challenges and objectives in the light of the Green Deal. This expression of political will and social commitment of the social partners to join their efforts to take care of the human factor and take action together once again shows the importance of social dialogue and industrial relations in Bulgaria. These social partner reactions were triggered by the EC's Recovery and Resilience Plan from mid-2020, which defines the green and digital transition. Each of the Memorandums has its own identity in relation to the specifics of the sector to which it refers. (See Appendix 2).

This type of agreements and memoranda do not have the power of collective bargaining, but this is a step in the right direction, as it shows KTD as a tool for improving working conditions with care for the worker, preserving decent work and wages in the transforming labor market.

Although general in nature, the underlying "green" provisions find their place for the first time in the sectoral collective labor agreement for the Mechanical Engineering sector and can serve as a gateway to consider the responsibilities and rights of employers and workers in environmental matters. Collective bargaining makes it possible to make progress in protecting the environment, preserving employment and opening new types of jobs.

A training program has been set up to raise awareness among the workers and union presidents who will lead the negotiations. It includes topics such as: air pollution in workplaces and risk management, measurement, prevention and reduction of pollution in the working environment, health consequences, why climate change is a health problem, how the Green Deal will affect Bulgarian industry.

## Tables

Table 1

| <b>Stara Zagora region</b>   |            | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   |
|--|------------|--------|--------|--------|--------|--------|--------|--------|
| Population as of 31.12. - general  | Number     | 323685 | 321377 | 319067 | 316356 | 313396 | 311400 | 307140 |
| Population as of 31.12. - men  | Number     | 157260 | 155975 | 154706 | 153264 | 151611 | 150524 | 148455 |
| Population as of 31.12. - women  | Number     | 166425 | 165402 | 164361 | 163092 | 161785 | 160876 | 158685 |
| Mortality rate - total (per 1,000 population)  | Percentage | 16,4   | 16,1   | 16,6   | 16,5   | 16,5   | 19,0   | 22,9   |
| Mortality rate - male (per 1,000 population)   | Percentage | 17,4   | 17,5   | 17,8   | 17,6   | 17,7   | 20,7   | 24,2   |
| Mortality rate - women (per 1,000 population)  | Percentage | 15,4   | 14,8   | 15,6   | 15,5   | 15,4   | 17,4   | 21,7   |
| Average list number of persons employed by labor and service legal relationship        | Number     | 101646 | 104411 | 105851 | 105668 | 103029 | 98735  | 98270  |
| Average annual salary of employed persons in employment and service legal relationship | Lions      | 10667  | 11250  | 12248  | 13190  | 13914  | 15010  | 16673  |
| Economic activity rate - 15 - 64 completed years                                       | Percentage | 66,9   | 65,0   | 72,3   | 72,7   | 75,7   | 74,9   | 74,5   |
| Employment rate - 15 - 64 completed years  | Percentage | 60,3   | 61,1   | 70,1   | 71,0   | 74,7   | 73,3   | 72,2   |
| Unemployment rate  | Percentage | 9,7    | 5,9    | 3,0    | (2,3)  | (1,4)  | (2,1)  | 3,2    |
| Unemployed persons registered in the labor offices as of 31.12.                        | Number     | 12387  | 8877   | 7436   | 6134   | 6354   | 7907   | 5754   |
| Relative share of the population aged between 25 and 64 with higher education          | Percentage | 22,6   | 18,6   | 17,8   | 19,0   | 20,7   | 21,6   | 22,0   |
| Relative share of the population aged between 25 and 64 with secondary education       | Percentage | 59,8   | 66,5   | 67,3   | 63,0   | 60,6   | 62,0   | 62,2   |

|  |                    |           |          |          |          |          |          |           |
|--|--------------------|-----------|----------|----------|----------|----------|----------|-----------|
| Relative share of the population aged between 25 and 64 with primary and lower education                       | Percentage         | 17,6      | 14,9     | 15,0     | 18,0     | 18,7     | 16,4     | 15,8      |
| Foreign direct investments in non-financial enterprises as of 31.12.   | Thousands of euros | 1023382,2 | 920971,3 | 905945,8 | 929285,0 | 971972,4 | 971733,8 | 1101944,6 |
| Relative share of enterprises with up to 9 employees in the total number of enterprises for the district       | Percentage         | 92,1      | 92,1     | 91,8     | 92,1     | 92,3     | 92,8     | 92,7      |
| Relative share of enterprises with 10-49 employees in the total number of enterprises for the district         | Percentage         | 6,5       | 6,6      | 6,7      | 6,5      | 6,4      | 6,0      | 6,1       |
| Relative share of enterprises with 50-249 employees in the total number of enterprises for the district        | Percentage         | 1,2       | 1,2      | 1,2      | 1,2      | 1,1      | 1,0      | 1,0       |
| Relative share of enterprises with more than 250 employees in the total number of enterprises for the district | Percentage         | 0,2       | 0,2      | 0,3      | 0,2      | 0,2      | 0,2      | 0,2       |

Source: Infostat

Table 2

| Name of the document                             | Date of signing | Signatories (social partners)              | Subject areas  |
|--|-----------------|--|--|
| <b>Memorandum of Partnership</b>                 | 30.09.2020      | FNSOLP and BAPIOT                          | Circular Economy, European Green Deal and Digitization in Textiles and Clothing  |
| <b>Memorandum of Partnership</b>                 | 30.09.2020      | FNSOLP and BATOK                           | Circular Economy, European Green Deal and Digitalization in Textiles, Clothing and Leather   |
| <b>Memorandum of Cooperation and Partnership</b> | 01.09.2020      | FNSOHP, SPRMMB, APBNB, SPZZP, SPPZ and SPB | Effective measures to prevent infection with Covid-19 in the food industry; impact of the green deal and circular economy actions.   |
| <b>Memorandum</b>                                | 24.09.2020      | NSF "Metal-Electro" and BAEE               | Impact of the Green Deal on the Electrical and Electronics sector; actions for the development of a circular economy; support for businesses to implement preventive measures to limit |

|  |            |  |  |
|--|------------|--|--|
|  |            |  | Covid-19.  |
| <b>Memorandum of Cooperation and Partnership</b>   | 11.09.2020 | NBS "Vodosnabditeľ" and SVKORB                             | Impact of the Green Deal on the water and sanitation sector; actions for the development of a circular economy; support for businesses to implement preventive measures to limit Covid-19. |
| <b>Framework Cooperation Agreement</b>   | 30.09.2020 | FNSS and KSB   | Mutual information and consultation, identifying measures on the green deal, the transition to a low-carbon economy; qualification and employment support in the Construction sector       |
| <b>Memorandum of Cooperation and Common Actions</b>  | 05.11.2020 | FNSZ, NSZKB, AZPB and BAKIB                                | The Covid-19 crisis; The European Green Deal and related Farm-to-Fork and Biodiversity 2030 strategies; reforms of the Common Agricultural Policy after 2020                               |
| <b>Roadmap of the main policies and measures needed to implement the Sectoral Pillar for Labor and Social Rights and the European Green Deal</b> | project    | Social partners from the "Beer and malt production" branch | The double transition (green and digital) to a greener and low-carbon industry leading to a circular economy, social justice of the transition; "living wage"                              |

Source: Study on Multinational Companies in Bulgaria (2014-2020), ISSI