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MAPPING AREA REPORT  
FOR THE DISTRICT OF KARDZHALI



Regional Industrial Association – Kardzhali

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## **INTRODUCTION**

### **1. BRIEF PRESENTATION OF THE DISTRICT OF KARDZHALI**

- Brief description of the area, its geographical location, surface, population

Kardzhali District is located in the Eastern Rhodopes and occupies a large part of the valley along the upper and middle reaches of the Arda River. The district is bordered to the west by the Smolyan region, to the north by the Haskovo and Plovdiv regions, and to the south and southeast by the Hellenic Republic. Kardzhali district is located in the South Central region.

Kardzhali District covers an area of 3 209.1 sq. km, which represents 2.9% of the territory of the Republic of Bulgaria.

The population of Kardzhali district as of 7 September 2021 is 141 177. Women are 71 762 (50.8%) and men - 69 415 (49.2%), or 967 men per 1000 women.

In the period between the last two censuses, the population of the district decreased by 11,631 people, or 7.6%. The average annual rate of population decline over the 2011-2021 period was 0.8 per year, compared to 0.7 per year over the 2001-2011 period.

Compared to the national and district averages, the population decrease in Kardzhali District is relatively small. In the ten-year period between the two censuses, all districts recorded a decrease in population, with the largest decreases in Vidin (-25.4%), Smolyan (-20.9%) and Dobrich (-20.8%). In total, twenty districts showed a decrease above the national average. The smallest population loss was in the districts of Sofia (capital) (-1.3%) and Sofia (-6.3%).

The territorial distribution of the population is determined by its natural movement (births and deaths) and external migration, as well as by internal migration and changes in the administrative-territorial structure of the country.

As of 7 September 2021, there are 468 settlements in Kardzhali District. Ardino - 52, Dzhebel - 47, Kirkovo - 72, Krumovgrad - 80, Kardzhali - 118, Momchilgrad - 49 and Chernoochene - 50 settlements.

Of all the settlements, 5 are cities.

59 247 people, or 42% of the district's population, live in towns. The population of the towns is as follows. Ардино – 3 387, гр. Ardina - 3 387, Dzhebel - 3 044, Ardina - 3 044. Krumovgrad - 4 962, the district town of Kardzhali - 40 659, the town of Kiev - 40 659, the town of Kiev - 4 962, the town of Kiev - 40 659. 7 195.

Source: NSI, 10.2022 Final data from Census 2021

On the territory of Kardzhali district the length of the road network is 2025,134 km, of which the national roads - first, second and third class are 649,013 km and 1376,121 km belong to the municipal road network. There are no motorways and private roads in the district.

The length of the common border of Kardzhali region with the Hellenic Republic is about 90 km. The border situation of the district is favourable in terms of its development opportunities. This location, above all, determines the significant potential of Kardzhali District for cross-border cooperation.

- The administrative structure: prefectures/districts, municipalities, main urban centres, etc.

The centre of the administrative district is the town of Kardzhali. The administrative-territorial boundaries of the district include seven municipalities - Ardino, Dzhebel, Kirkovo, Krumovgrad, Kardzhali, Momchilgrad and Chernoochene. The number of settlements in them is 468.

Ardino Municipality is located on the border of the Western and Eastern Rhodopes on an area of 385 sq.km. and is one of the constituent municipalities of the Kardzhali District. It is situated in a small valley extension of the Ardynska River, a right tributary of the Arda River in the western foothills of the Zholti Lari Range, Western Rhodopes. To the north, east and south it is bordered by the municipalities of Chernoochene, Kardzhali and Dzhebel, and to the west by the municipalities of Nedelino, Madan, Banite of the Smolyan district.

#### Territory

Ardino municipality covers an area of 339 km<sup>2</sup>, which is about 10.6% of the territory of Kardzhali district.

- Relief, climate

The terrain is highly rugged mountainous and semi-mountainous. The altitude is about 600 m, in some settlements it reaches 1000 - 1200 m.

The climate of the area is characterised by mild and wet winters and hot and dry summers. The greater activity of Mediterranean cyclones in winter results in a pronounced winter maximum of precipitation. Average annual temperatures are 10 - 11 C. Annual rainfall 800 to 900 mm. Average number of days with snow cover - 37.3.

- Population

The population of Ardino municipality is 11572 people with different ethnic composition - Bulgarians, Turks, Roma.

- Locations

The municipality consists of 52 towns and villages. The administrative center of Ardino municipality is the town of Ardino.

- Transport infrastructure

The total length of the road network on the territory of the municipality amounts to about 200 km, most of which (127 km) consists of municipal roads and only 60 km are Republican roads and only third class roads.

Ardino Municipality has important transport-geographical functions, mainly in providing the internal Rhodope connections between the two main support centers - Kardzhali and Smolyan, carried out through the third-class road Smolyan-Rudozem-Kardzhali, crossing the territory of the municipality in parallel direction. The location of the municipality between the two future checkpoints - "Rudozem-Ksanti" and "Makaza" will turn the central part of the municipality's territory into an important transit corridor for the passage from the "Rudozem-Ksanti" checkpoint

to Kardzhali and the Black Sea coast, and from "Makaza" to Smolyan and the interior of the Rhodopes, respectively.

- Economics

The economic profile of Ardino municipality can be defined as industrial-agrarian, with a constantly increasing share of the service sector. Industry is gradually giving way to the leading economic sector and is currently represented by weaving and clothing workshops. Agriculture in the municipality is of secondary importance, which is determined by the specific soil and climatic features of the area and, above all, by the topography, which creates difficulties in cultivating the land. Until recently, tobacco production was the main area of crop production, but its relative share in the structure of the sector has tended to decrease. The service sector is the fastest growing in the municipality, which is typical not only for the municipal centre but also for many of the municipality's villages, where around 36% of employment is in services. In view of the still untapped significant recreational potential of the municipality, it can be forecast that the share of the service sector will continue to grow in the future.

On the territory of Ardino municipality there are significant natural, anthropogenic and human resources for the development of tourism. Material traces of different eras and cultures have been preserved in the municipality. A Tourist Information Centre has been operating in Ardino since 2004.

- Geographical location

In terms of natural conditions, the municipality of DDzhebel is included in the Eastern Rhodope complex physiographic sub-region of the Rilo-Rodope region. The municipality is adjacent to the municipalities of Kardzhali, Momchilgrad, Ardino, Zlatograd, Nedelino and Kirkovo. Dzhebel Municipality is 285 km away from the capital Sofia and 20 km away from the regional center - Kardzhali.

- Territory

Dzhebel Municipality occupies an area of 229 square kilometers.

- Climate and topography

The climate is transient - Mediterranean, relatively mild winters and hot summers. The average annual temperature is 11.8 and ranges from 11 to 13 degrees. Minimum temperatures during the winter months are relatively high. The average winter temperature is around 0 C and in summer - 24 C . The hilly topography prevails here. The area has a distinct hilly-ridge character. The average altitude is 330 m.

- Population

The population of Dzhebel municipality as of 2011 was 8162. The majority of the population is concentrated in the municipal centre of Dzhebel. Dzhebel - 27.39 %

- Locations

The municipality consists of 48 villages. The center of Dzhebel Municipality is the town of Dzhebel.

## Transport infrastructure

The national and local road network on the territory of the municipality has a total length of 115 km. The main road artery that provides the connection of the municipality with the interior of the country is road III-508 and the length of the section is 19 km.

- Economics

The municipality of Dzhebel is characterized by predominantly agricultural production - mainly tobacco production, which is carried out within individual households. Almost all vegetable crops are grown to meet households' own needs. The municipality has the conditions - suitable agricultural areas for growing vegetable crops. There are established business entities operating mainly in the municipal centre, but they are mainly in the trade and repair sector.

Kirkovo Municipality is located in southern Bulgaria and is one of the constituent municipalities of the Kardzhali District. It borders with the municipalities of Krumovgrad, Zlatograd, Dzhebel and Momchilgrad, and the southern border of the municipality coincides with the state border with the Republic of Greece.

- Territory

Kirkovo Municipality is located on an area of 538 sq.km.

- Climate and topography

The climate is transitional Mediterranean with an average annual temperature between 110°C and 13.20°C. Winters are relatively mild, with 43 days of snow cover, and summers are long and hot. The average annual rainfall is 521mm. The relief is flat-hilly to hilly-montane. The northern slopes of the eastern Rhodope Mountains - Muglenik and Gyumurdzhinsky Snezhnik - fall within the municipality. The average altitude is 523 m., the highest point is the peak of Veikata - 1463 m.

- Population

The population of the municipality as of 2011 was 21916 people, or 14.5% of the population of Kardzhali district. The population density is 43.5 people per sq.km, which is significantly lower than the national average (70.3 people per sq.km).

- Locations

The municipality is made up of 73 settlements, all of which are villages and neighbourhoods. The centre of Kirkovo municipality is the village of Kirkovo. The urban structure includes - the municipal centre with. Kirkovo (808 inhabitants), 6 large villages - Benkovski, Chorbadzhiysko, Fotinovo, Tihomir, Chakalarovo and Drangovo (with population over 1000 souls) and 66 settlements with population under 1000 people.

- Transport infrastructure

The transport accessibility of the municipality of Kirkovo is ensured by a first class road network with a length of 28.5 km, a third class road network with a length of 58 km and municipal and local roads with a total length of 298.80 km. Strategic importance for the development of the municipality



of Kirkovo has the first-class road E-85, which is part of the Pan-European transport corridor №9 (Helsinki - Dimitrovgrad - Alexandropolis). Its importance will increase with the opening of the Makaza BCP and the actual operation of the transport corridor. Rail transport is represented by the railway line Kardzhali-Momchilgrad-Podkova. The length of the railway line on the territory of the municipality is 5.5 km. The railway line connects the municipality with the regional centre of Kardzhali and the neighbouring municipality of Momchilgrad.

- Economics

Agriculture plays a decisive role in the economy of Kirkovo municipality, employing 62.6% of the total number of employed persons in the municipality. Those employed in industry account for 36.22 % of the total employed in the municipality. Industrial activity in the municipality of Kirkovo is not strongly present, which preserves the environmental parameters. In the industrial sector, tailoring and metalworking are the most developed.

Krumovgrad Municipality is located in the southeastern part of Kardzhali District on an area of 843.3 sq. km. It borders the municipalities of Ivaylovgrad, Madzharovo, Kardzhali, Stambolovo, Momchilgrad and Kirkovo, with the southern border of the municipality coinciding with the state border with the Republic of Greece.

- Territory

The municipality covers an area of 843 sq. km.

- Climate and topography

The relief is semi-mountainous and hilly, the average altitude is 425 m and the vertical dissection 170 m. The territory of Krumovgrad municipality falls in the northern periphery of the Mediterranean climatic influence and is characterized by a transitional-Mediterranean climate, the average annual temperature is 13.20°C, with a maximum temperature of 37.00°C and a minimum temperature of -16.00°C. Winters are relatively mild, with 43 days of snow cover and long, hot summers.

- Population

The population of Krumovgrad municipality as of 2011 was 17823. The population density is 26.6 people per sq. km, which is three times lower than the national average (70.3 people per sq. km). The main reasons for this are the strong migration processes and the absence of large settlements on the territory of the municipality.

- Locations

The municipality is composed of 78 settlements - the municipal centre of Sventoji Grad. Krumovgrad (8642 people), 7 large villages - Vransko, Golyama Chinka, Gorna Kula, Zvonarka, Polkovnik Zhelyazovo, Potochnitsa and Rogach (with population over 1000 souls), 56 medium-sized villages (with population between 200 and 1000 people) and 14 small villages (with population under 200 people). Without permanent population is the village of. Boynik.

- Transport infrastructure

The road network of Krumovgrad municipality includes secondary roads (27 km), tertiary roads (75 km) and municipal roads (261 km). The density of the road network in the municipality is 43 km/100 sq. km, which is higher than the national average (33km/100 sq. km). The main road arteries in the municipality are road III-509 Harmanli - Dolno Cherkovishte - Dolna Kula - Krumovgrad - Tokachka - Makaza and road II-59 Momchilgrad - Krumovgrad - Ivaylovgrad, which pass through the municipal centre of the town of Ivaylovgrad. Krumovgrad and connect the municipality with the neighbouring municipalities, the regional town and the national road network.

- Economics

Tobacco farming gives the economic image and characteristics of the municipality. In recent years, plantations have been established and white oregano, St John's wort, lemon balm and rose hips have been effectively cultivated. Areas of pepper, garden savory, etc. are reclaimed annually. These crops cannot be an alternative to tobacco as very little labour is involved in their production.

Kardzhali Municipality is located in the southeastern part of the Republic of Bulgaria. It borders the municipalities of Haskovo, Stambolovo, Momchilgrad, Ardino and Chernoochene.

- Territory

Kardzhali Municipality is the largest municipality in the Eastern Rhodope Mountain Range with a territory of 574 sq.km., which is 20% of the territory of Kardzhali District and 0.51% of the territory of the country.

- Relief and climate

Kardzhali municipality is located in the Ardina sub-region of the Eastern Rhodope region. The relief is low-lying and hilly. Its diversity is intensified by the erosion of the rivers, they form the modern labyrinth of ridges and complex valley network.

The municipality falls in the Southern Bulgarian climatic zone and more precisely in the Eastern Rhodope climatic region, influenced by the warm Mediterranean influence. The winter is relatively mild. Minimum temperatures during the winter months are relatively high. Summers are sunny and hot, with maximum temperatures reaching 40 degrees. The average winter temperature is around 0 degrees Celsius and 24 degrees in summer. The average annual temperature ranges from 11-13 degrees. The annual temperature total is about 4,000 degrees.

- Population

The population of Kardzhali municipality as of 2011 was 67,640,

- Locations

The municipality is made up of 117 settlements covered by 47 town halls. The town of KARDZHALI is the largest town in KARDZHALI District. It has developed into a natural administrative, commercial, cultural and industrial centre not only of the Municipality and the District, but also of the Eastern Rhodopes. The town is located 259 km from Sofia and 90 km from Plovdiv, which is the second largest city in Bulgaria. Currently, the nearest checkpoint "Kapitan

Andreevo" is 132 km from the town and connects Bulgaria with the Republic of Turkey and the Republic of Greece.

- Transport infrastructure

The density of the road network is about 31km/100km<sup>2</sup>. The municipality is serviced by the road class I - Haskovo - Kardzhali. There is a well-developed IV-class road network. Trans-European transport corridor N 9 Helsinki - Alexandroupolis will pass through the municipality. The border crossing point "Makaza" with the Hellenic Republic is important for the cross-border region, 55 km south of the town of Kiev. Kardzhali. The road network in the municipality is below the national average. This is determined by the flat nature of the terrain and the strong population displacement in many settlements. The fourth-class road network predominates. Transport links with Sofia and other parts of the country are made by rail and road. There is a well-equipped airport site, which is not used now.

- Economics

Kardzhali Municipality is an important economic centre in the South Central Region and the backbone of Kardzhali District.

A significant number of enterprises, companies and firms have been established in the non-ferrous metallurgy, mechanical engineering, textile and hosiery, wood and furniture industries and food processing. 86% of all enterprises in the municipality are privately owned and only 14% are state and municipal owned. In the structure of registered enterprises the largest share is held by commercial enterprises - 50.2%. The share of active companies in the sectors of Transport and Communications - 13.7%, Hotels and Restaurants -10.7% and Manufacturing - 9.4% is high. In Kardzhali municipality a significant number of enterprises, companies and firms have been established in non-ferrous metallurgy, mechanical engineering, textile and knitwear industry, wood and furniture industry, electronics and food industry.

The machinery industry provides the manufacture of machinery, equipment and tools required for underground mining and beneficiation; hydraulic and pneumatic products; high-pressure purification equipment; a range of low, medium and high pressure gauges and more.

The textile and knitwear industry specialises in the production of all types of outerwear and underwear. There are several tailoring enterprises in the municipality. In the municipality of Kardzhali there is a qualified human resource working in the enterprises of the sector, which is entirely directed to the private sector.

Furniture factories produce good quality furniture and joinery, although they operate at reduced capacity.

Timber harvesting is a sub-sector of forestry that is very well developed in the municipality of Kardzhali. The timber is exported to the interior of the country and abroad, and the wood is not processed in depth in the region.

The mild climate, the favourable geographical location, the rich cultural and historical heritage, the two "water lakes" - the dams provide an opportunity for year-round development of all forms of tourism in the municipality of Kardzhali.

The great biodiversity, unique natural attractions and preserved natural environment, unaffected by the negative influences of industrialization and urbanization make eco-tourism one of the priorities for the development of the municipality.

Momchilgrad municipality is located in the central part of Kardzhali region. The relief is mountainous, and the municipality includes the highly dissected eastern Rhodopean Stramni Ridge. It borders the municipalities of Kardzhali, Dzhebel, Krumovgrad and Kirkovo.

- Territory

Momchilgrad Municipality is located on an area of 358 sq.km.

- Relief and climate

The topography is mountainous, with the municipality containing the heavily dissected part of the Eastern Rhodope Stramni Ridge, about 40 km long and between 15-22 km wide. The slopes are deforested and eroded, in places there are landslides. The highest peaks are Strumni rid - 960m, Zdravets (Dambal) - 910m and Cherkovishte (Klise tepe) 871m. Many of the tributaries of the Vrbitsa and Krumovitsa rivers originate from them, and the ridge itself is the watershed between the two rivers. The average altitude of the municipality is 444 m. The climate is temperate-continental to Mediterranean-with average annual temperatures around 11°C and average annual rainfall between 650-700 mm.

- Population

The population density of Momchilgrad municipality as of 2011 was 47.08 people per sq. km, which is significantly lower than the national average (70.3 people per sq. km), but the municipality is relatively densely populated compared to the constituent municipalities of the district.

- Locations

The municipality is composed of 47 settlements most of which have a population of less than 200 people and one of the settlements is depopulated. Yunatsi. Larger villages are Gruevo and Zvezdel. The centre of the municipality is the town of Zvezda. Momchilgrad.

- Transport infrastructure

Part of the trans-European international transport corridor №9 Helsinki - Dimitrovgrad - Alexandroupolis passes through the territory of the municipality. The road III-509 Kardzhali-Momchilgrad-Krumovgrad-Ivaylovgrad is also of municipal importance. The road provides connection with Momchilgrad municipality and Ivaylovgrad municipality (Haskovo region). It is part of the republican network and is in good technical condition. The municipal road network has a total length of 90.30 kilometres, in addition there are roads with felt and stone pavement with a total length of 50 kilometres. The density of the road network is 252.16 km/1000 sq.km, which is significantly below the national average (330 km/1000 sq.km). Railway transport is represented by the railway line Kardzhali - Momchilgrad - Podkova village with a length of 22 km.

- Economics

Local industry is dominated by light industry. A characteristic feature of the local economy is the concentration of industrial production in the municipal centre. Manufacturing and light industry, with minor exceptions, are located in Momchilgrad and some of the larger settlements in the municipality - s. Gruevo, s. Raven, Nanovitsa. The main agricultural crop is tobacco, fodder crops, medicinal plants and vegetables are represented. Livestock breeding is dominated by sheep and cattle breeding, poultry and beekeeping are less developed. The service sector is represented by trade, and tourism has no significant presence in the municipality's economy, despite the availability of resources to develop a tourism product.

Chernoochene municipality is located in the northwestern part of Kardzhali region and borders with the municipalities of Kardzhali and Ardino. In its western and northern part the municipality shares borders with the municipality of Banite in Smolyan region and the municipalities of Asenovgrad and Parvomay in Plovdiv region, while in the north-north-east it borders with the municipalities of Haskovo and Mineralni bani in Haskovo region.

- Territory

The municipality covers an area of 327 sq.km., which represents 10.2% of Kardzhali district.

- Relief and climate

Chernoochene municipality is located in a small valley 15 km northwest of the town of Kardzhali. The average altitude is 645m , with a vertical drop of 240m. The relief on the territory of the municipality is very rugged and has a mountainous and hilly character. The municipality falls in the Southern Bulgaria climatic region and more precisely in the Eastern Rhodope climatic region, influenced by the warm Mediterranean influence. The winter is relatively mild. Minimum temperatures during the winter months are relatively high. Summers are sunny and hot, with maximum temperatures reaching 40 degrees. The average winter temperature is around 1°C and in summer it is 24°C . The average annual temperature ranges from 11° to 13° degrees. Precipitation is about 680 mm per year, mostly from rain.

- Population

The total population of the municipality is 9607 people.

The territory of the municipality is sparsely populated - 32 people per km<sup>2</sup>. The gender structure of the population shows an insignificant difference in the number of men and women.

- Locations

The municipality is composed of 51 villages, of which only the village of Komuniga has a population of more than 1000 people. The municipal centre is the village of Chernoochene

- Economics

Agriculture plays a decisive role in the economy of Chernoochene municipality, employing 53.2% of the total number of employed persons in the municipality. Traditionally, tobacco, cereals and, to a lesser extent, vegetables and fruit growing are the most widely grown crops. Industry is growing,

mainly represented by enterprises in the clothing industry. Those employed in industry account for 42.15% of total employment in the municipality.

Tourism is not one of the significant sectors for the development of the municipality. The only exception is hunting tourism, the prerequisite for which is the state game-hunting base in the village of Zhenda, located on an area of 5 258 hectares.

#### - Physical features (mountains, lowlands, etc.)

Kardzhali district occupies most of the Eastern Rhodopes. The relief of the district is predominantly mountainous and semi-mountainous. The highest points in the district are Veikata Peak /1463 m/ in the southern part and Alada Peak /1241 m/ and Chilyaka Peak /1450 m/ in the western part. The terrain of the District is cut by the upper and middle reaches of the Arda River, together with its tributaries the r. Varbitsa, r. Krumovitsa and r. Perperek. Along the valleys of these rivers are the most fertile lands and the largest settlements. The town of Kardzhali is situated along the Arda River, the town of Momchilgrad along the Varbitsa River and the town of Krumovgrad along the Krumovitsa River.

According to the geographic zoning of the Republic of Bulgaria, Kardzhali District is located in the Eastern Rhodope sub-region of Southern Bulgaria. This area covers the low mountainous hilly relief along the middle reaches of the Arda River. The average altitude is 329 m.

#### - Climate

Climate.

Minimum temperatures during the winter months are relatively high. The average winter temperature is around 0 C. Summers are sunny and hot, and the average summer temperature is 24 C. The annual temperature sum is about 4000 C. The southern geographical position of the municipality determines a higher level of solar radiation and a longer duration of sunshine - over 2250 hours per year.

Rainfall is mainly from rain, with annual totals of around 600l/m<sup>2</sup> below the national average. During the autumn-winter period, under the influence of Mediterranean cyclones, some of the heaviest rainfall falls. There are two rainfall peaks: winter-November/January; spring-May/July and a dry period in August and September.

North, north-easterly and southerly winds prevail in the area of the municipality. Due to the nature of the topography, the winds are relatively low speed - up to 1 m/s in 60-70% of cases. Winds with speeds of 15-20 m/sec can be observed only in certain periods - most often in spring, and in most cases these are southerly winds with a fjonc character

#### - Cultural heritage

Cultural institutions and monuments of culture, historical sites, natural landmarks and archaeological monuments on the territory of Kardzhali District by municipalities:

## **Municipality of KARDZHALI**

Monuments of culture in Kardzhali municipality are. St. John the Forerunner", "Isaclartepe Peak" and "Stone Pyramids".

The region of Kardzhali is well known for its numerous fortresses and temples dating back to antiquity. The ancient inhabitants of our lands have bequeathed us a heritage of numerous monuments from different historical epochs; prehistoric finds, Thracian tombs and Roman bridges.

The antiquities of the area boast the most ancient cultural centres of Aegean and Mediterranean. The Episcopal centre discovered in the area of Borovitsa is considered the earliest such Christian monument in south-eastern Europe.

The monastery "St.. John Prodromos" in the district of. "Veselchane" in Kardzhali.

During the studies of the complex it was proved that Christianity entered these lands as early as the 9th century. The walls of the church in the monastery were covered with magnificent images of saints - warriors in the clothes of Byzantine aristocrats. In the crypt of St. John Prodromos" were found the remains of a high metropolitan in unique golden cloth vestments and a cloth cross with an image of the Virgin Mary. The cult complex of Perperikon is the undisputed favorite among the numerous historical monuments of Kardzhali.

The Holy City occupies an area of 17 thousand square meters. This amazing monument predates the famous Troy and was rightly called the Bulgarian Mycenae. On this spot Alexander the Great received the prediction that he would conquer the world. Perperikon is the archaeological sensation that got the world talking about Kardzhali and Bulgaria. Particles of the Cross of Christ, found at the cult complex, were carried in a procession to the monastery complex "Assumption of the Virgin Mary". The numerous Thracian rock niches, necropolises, sanctuaries, medieval fortresses that dot Kardzhali are part of the amazing cultural and historical heritage of this region. The Regional History Museum in Kardzhali has one of the richest collections in Bulgaria.

More than 45 thousand exhibits, spread over 1800 square meters, tell the story of the extraordinary history and fate of the Eastern Rhodopes. Only here you can see the best examples of the folk culture of the Eastern Rhodope region for the period from the late 19th to the early 20th century. The exposition also traces the livelihood of the local population, which created the conditions and traditions for the modern development of the area.

## **Ardino Municipality**

The following historical sites are registered in the municipality of Ardino: / Eagle Rocks - Thracian sanctuary, Devil's Bridge, Thracian sanctuary "Eagle Rocks" and "Ardino Waterfall" /.

### **Krumovgrad Municipality**

On the territory of Krumovgrad municipality 38 archaeological monuments and 12 architectural monuments are registered.

### **Kirkovo Municipality**

On the territory of the municipality of Kirkovo are registered 35 monuments of culture. These include 11 arched bridges, 3 mills, 2 konaks, 2 rock formations, 1 Thracian sanctuary, 1 medieval church, 2 fortresses / Thracian and medieval /, 1 rock niche, 1 rock tomb, 6 settlements / medieval, late Roman and from the Stone Age /, 1 archaeological site, 1 mosque and 2 necropolises / cist and burial mound /.

### **Dzhebel Municipality**

There are 3 cultural monuments in Dzhebel municipality: the medieval fortress "Ustra", the ancient rock tomb "Khambar Kaya" and the rock tomb.

The following monuments of culture are registered in Momchilgrad Municipality: the "Strumni Rid" and "Dambala" Peak, the Thracian sanctuary "Tatul" and the Thracian rock cemetery "The Petrified Forest".

The following cultural sites are located in the municipality of Chernoochene.

Kuzlchirpa", "Chilyaka" peak and "Bezdiven" peak.

The cultural sites in Kardzhali Region that are of regional and above municipal importance are theatres, historical museums, art galleries. The Historical Museum in the town of Kardzhali. Kardzhali is of national importance.

### **- Transport infrastructure**

The territory of Kardzhali Region is crossed by the Pan-European Transport Corridor (TEN-T) No. 9 Helsinki - St. Petersburg - Moscow/Pskov - Kiev - Lubashevka - Chisinau - Bucharest - Ruse - Dimitrovgrad - Makaza Pass - Alexandroupolis. The transfer of international flows between Romania, Bulgaria and Greece is mostly carried out through the Captain Petko Voyvoda BCP (Haskovo region), the Captain Andreevo BCP (Haskovo region) and the Makaza BCP (Kardzhali region), opened in early September 2013. The construction of the Makaza BCP, as well as the reconstruction and modernisation of the constituent infrastructure of the OETC No 9, has established this north-south route as a competitive route through Bulgarian territory for the connection between the Baltic Sea and the North Sea, and resumed the movement of people and freight along the Russia-Romania-Bulgaria-Greece axis and the Aegean Sea region. Passage of the OETC No 9 across our southern border has had the greatest positive impact on regional development in the South Central Region, including and especially in the Kardzhali Region. The functioning of the Makaza BCP has promoted cooperation between the two border regions, the distance between Kardzhali and



Komotini (Greece) has been significantly reduced (228 km and 112 km respectively). Access was also provided to the port of Alexandroupolis (Greece), 170 km from the regional centre, the town of Kiev. Kardzhali. The high flow through the Makaza BCP in turn created a need to ease traffic through it. In this regard, work is underway to widen it and build a 15 km bypass road with five viaducts and bridge structures designed for heavy traffic.

The regional centre of the town of Kardzhali is about 100 km from the nearest operational airport (Plovdiv). The nearest seaport (in Burgas) is 255 km away. The nearest BCP with the Republic of Turkey is the BCP "Kapitan Andreevo" (Haskovo District) and is located 130 km from the town of Kardzhali. The territory of the Republic of Bulgaria is 130 km from the town of Kardzhali. The nearest BCPs with the Hellenic Republic are BCP "Zlatograd-Ksanti" (Smolyan district) - 65 km, BCP "Kapitan Petko Voyvoda" (Haskovo district) and BCP "Ivaylovgrad-Kiprinos" (Haskovo district), which are 110 km and 115 km away respectively.

Table Length of transport network in Kardzhali district by year

Topics	Indicators	2016	2017	2018	2019	2020	2021
Transport	Length of motorways (km)	-	-	-	-	-	-
	Length of first class roads (km)	73	73	73	73	73	73
	Length of secondary roads (km)	81	81	81	81	81	81
	Length of third-class roads (km)	503	503	495	495	495	495
	Length of railway lines (km)	67	67	67	67	67	67

**Source.**

**- The administrative infrastructure**

Regional Administration - Kardzhali

Municipal administrations of Ardino, Dzhebel, Kirkovo, Krumovgrad, Kardzhali, Momchilgrad and Chernoochene

Administrative Court - Kardzhali

KARDZHALI District Court

District courts - in Kardzhali, Momchilgrad, Krumovgrad and Ardino.

Regional Directorate of the Agriculture Fund - Kardzhali

Employment Agency - Kardzhali

DBTs

Social Assistance Directorate - Kardzhali

National Statistical Institute - TSB Kardzhali

Regional Road Management Kardzhali

State Archives of the town of Kardzhali

State Agency for Youth and Sport

Regional Directorate of NRA Plovdiv - Kardzhali office

Court of Auditors - Kardzhali

Ministry of Interior - Regional Police Department Kardzhali

Regional Directorate of State Road Administration - Kardzhali

Regional Military Sector - Kardzhali Region

## 2. DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF THE POPULATION

- Population change by district, municipality, urban/rural population, etc.

Table Population change - demographic balance and crude rates at regional level (NUTS 3)

year		2017	2018	2019	2020	2021
<b>BG425</b>	<b>Kardzhali region</b>	150 837	151 113	152 873	158 204	160 781

Source: Eurostat

\*Updated data for 2022 are not available at the date of the report.

Table Population structure indicators by NUTS 3 region - Average age of population [MEDAGEPOP]

year		2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>BG425</b>	<b>Kardzhali region</b>	42,8	43,7	44,2	44,8	45,1	45,4	46,3	46,8	47,1

Source: Eurostat

In relation to the table above, we can conclude that the average age of the population in Kardzhali district is progressively increasing, which is inevitably a reflection of the dynamics of the population ageing factor.

Table Net migration assumptions by age, sex, type of forecast and NUTS 3 region

(Number)

year	2019	2020	2030	2040	2050	2060	2070	2080	2090	2100
<b>Kardzhali region</b>	<b>1 881</b>	<b>1 495</b>	<b>934</b>	<b>1 106</b>	<b>1 312</b>	<b>1 543</b>	<b>1 825</b>	<b>2 076</b>	<b>2 358</b>	<b>2 615</b>

Table Population as of 31.12.2021 By district, municipality, place of residence and sex

(Number)

Areas	Total			In cities			In the villages		
	All	men	women	All	men	women	All	men	women
Kardzhali	161 024	79 623	81 401	64 566	30 895	33 671	96 458	48 728	47 730

Ardino	13 464	6 743	6 721	4 088	2 018	2 070	9 376	4 725	4 651
Dzhebel	9 751	4 910	4 841	3 391	1 662	1 729	6 360	3 248	3 112
Kirkovo	22 990	11 369	11 621	-	-	-	22 990	11 369	11 621
Krumovgrad	18 112	9 133	8 979	4 868	2 310	2 558	13 244	6 823	6 421
Kardzhali	71 404	34 747	36 657	44 071	20 901	23 170	27 333	13 846	13 487
Momchilgrad	16 635	8 353	8 282	8 148	4 004	4 144	8 487	4 349	4 138
Chernoochene	8 668	4 368	4 300	-	-	-	8 668	4 368	4 300

Source: National Statistical Institute

The population of Kardzhali District as of 31.12.2021 is 161 024 inhabitants, of which 49,45% are men and 50,55% women. The biggest difference in the gender ratio is in Kardzhali municipality - 48.66% men / 51.34% women. The ratio of those living in cities to those in villages is 2/3, which implies the development of agricultural activities.

The population in Kardzhali District is unevenly distributed by municipality, with approximately 44% of the population concentrated in the largest municipality - Kardzhali, and the rest relatively evenly distributed (from 6% to 14%).

As of September 7, 2021, the Bulgarian ethnic group in Kardzhali District comprises 37 383, or 29.0% of the persons who answered the ethnicity question. Compared to 2011, the share of this group decreased by 1.2 percentage points.

83 280, or 64.5% of the respondents, identified themselves as belonging to the Turkish ethnic group. Their relative share decreased by 1.7 percentage points compared to 2011.

1354, or 1.0% of the respondents, identified themselves as Roma. The relative share of the population from this ethnic group remains unchanged compared to 2011.

2 130 people, or 1.7%, identified themselves as belonging to other ethnic groups.

The number of persons who indicated that they could not identify themselves was 640 (0.5%). The answer "I do not wish to answer" was indicated by 4 269, or 3.3% of respondents.

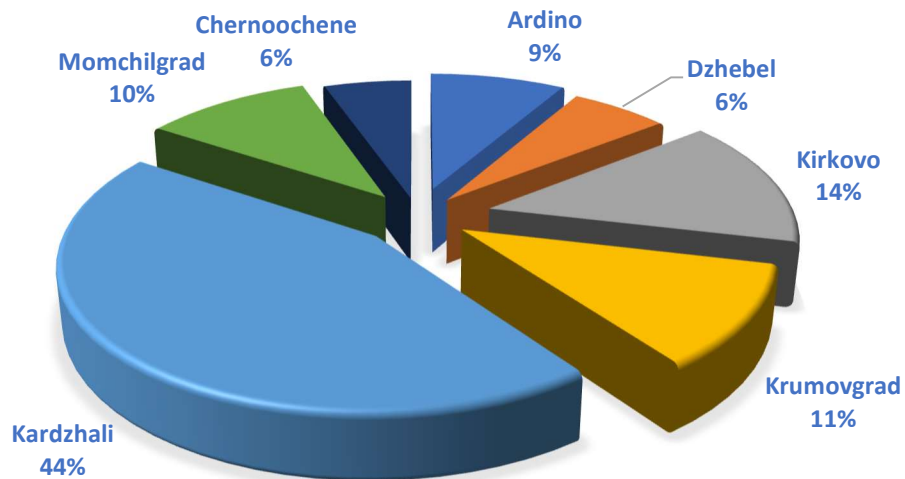
Source: NSI, 12.2022

Table of persons registered by permanent and current address in Kardzhali district as of 15.03.2023

Municipality	Number of us. places	Permanent address				Permanent address			
		Total	Address in our place	Usual address in	Address outside the municipality	Total	Postal address in our place	Postal addresses in our place	Postal addresses outside the

				our.p lace in the muni cipal ity				in the muni cipality	muni cipality
Kardzhali region	468	348876	163044	10500	175332	183320	163044	10500	9776
Ardino	52	32913	13565	936	18412	15317	13565	936	816
Dzhebel	47	32582	9460	876	22246	10794	9460	876	458
Kirkovo	72	46378	23926	707	21745	25499	23926	707	866
Krumovgrad	80	46133	17571	1891	26671	20537	17571	1891	1075
Kardzhali	118	132516	73949	3821	54746	82815	73949	3821	5045
Momchilgrad	49	41967	16388	1839	23740	19123	16388	1839	896
Chernoochene	50	16387	8185	430	7772	9235	8185	430	620

### POPULATION BY MUNICIPALITY - 31.12.2021.



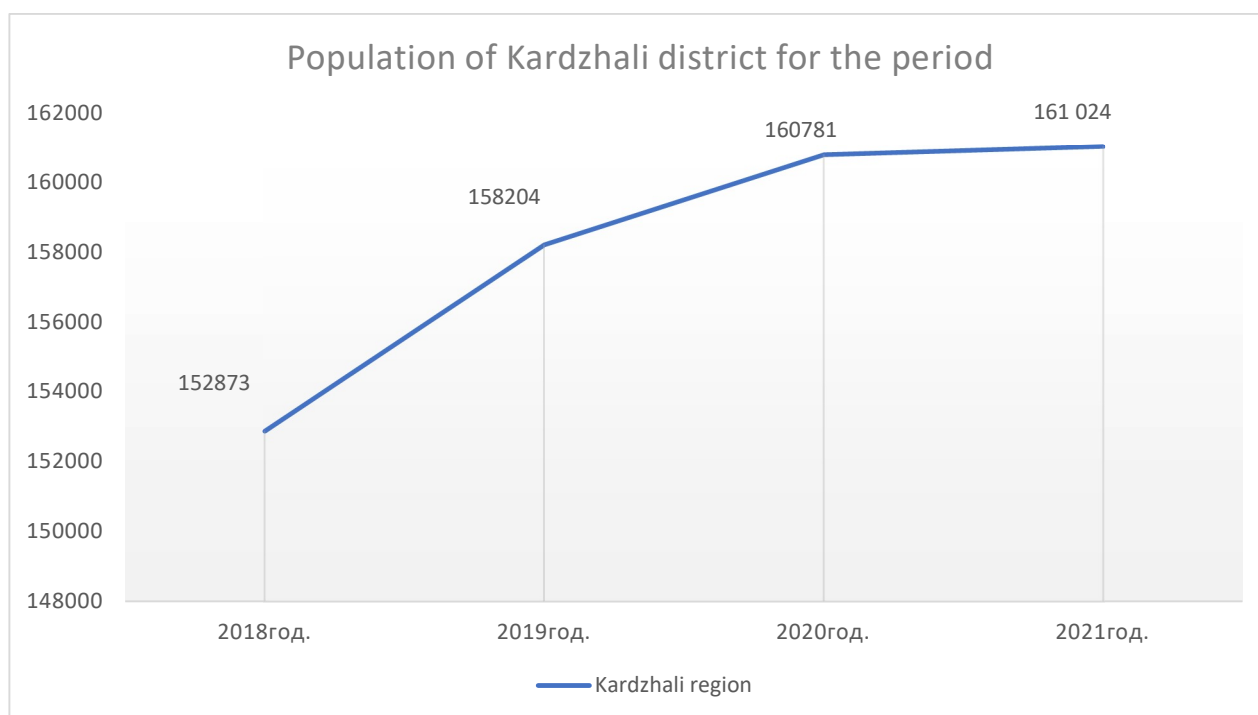
Municipality	2018.	2019.	2020.	2021.
Ardino	12792	13485	13618	13 464

Dzhebel	8441	9386	9696	9 751
Kirkovo	21254	22375	22782	22 990
Krumovgrad	17081	17775	18053	18 112
Kardzhali	68727	70097	71320	71 404
Momchilgrad	15787	16314	16530	16 635
Chernoochene	8791	8772	8782	8 668
Kardzhali region	152873	158204	160781	161 024

Source: National Statistical Institute

In contrast to the persistent depopulation of the population of Kardzhali district over the last 30 years, we find an increase for the period 2018-2021 of approximately 5%, with the most pronounced process in the municipality of Dzhebel with 14% and the only municipality with negative growth is Chernoochene with -1.4%.

Fig. Population dynamics of Kardzhali district for the period 2018-2021.



#### - Aging index

Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Population over 65.	26060	26089	26366	27426	28276	28768	29476	30666	32774	34242	35191

Source: National Statistical Institute

In Kardzhali district there is an increase in the number of inhabitants over 65 years for the last 10 years - 2021 at the base of 2011, by approximately 35% , with a simultaneous increase for the same

period of the population by 5.93%. and the percentage of the population over 65 years to the total population as of 31.12.2021 is 21.85%, compared to 17.14 as of 31.12.2011, which indicates a sustained and strong rate of population aging.

Indicators	Years				
	2017	2018	2019	2020	2021
Natural growth rate (per 1 000 population) - ‰	-3.9	-3.7	-3.6	-7.1	-11.1
Infant mortality rate (per 1 000 live births) - ‰	5.8	2.9	7.1	6.0	6.8
Mortality rate - total (per 1 000 population) - ‰	13.0	12.8	12.6	14.4	17.5
Mortality rate - males (per 1 000 population) - ‰	13.5	14.0	13.6	15.8	18.6
Mortality rate - women (per 1 000 population) - ‰	12.5	11.6	11.6	12.9	16.5

Table Population as of 31.12.2021 in Kardzhali district, by age, place of residence and sex

POPULATION AS OF 31.12.2021. DISTRICT OF KARDZHALI, BY AGE, PLACE OF RESIDENCE AND SEX (Number)									
Areas Age	Total			In cities			In the villages		
	All	men	women	All	men	women	All	men	women
Total for the country	6 838 937	3 311 311	3 527 626	5 000 496	2 396 362	2 604 134	1 838 441	914 949	923 492
Kardzhali	161 024	79 623	81 401	64 566	30 895	33 671	96 458	48 728	47 730
0	1 081	572	509	489	250	239	592	322	270

**POPULATION AS OF 31.12.2021. DISTRICT OF KARDZHALI, BY AGE, PLACE OF RESIDENCE AND SEX  
(Number)**

Areas Age	Total			In cities			In the villages		
	All	men	women	All	men	women	All	men	women
1 - 4	6 347	3 318	3 029	2 767	1 433	1 334	3 580	1 885	1 695
5 - 9	7 654	4 026	3 628	3 562	1 866	1 696	4 092	2 160	1 932
10 - 14	7 521	3 840	3 681	3 549	1 860	1 689	3 972	1 980	1 992
15 - 19	6 734	3 411	3 323	3 224	1 616	1 608	3 510	1 795	1 715
20 - 24	5 318	2 766	2 552	2 296	1 190	1 106	3 022	1 576	1 446
25 - 29	7 253	3 556	3 697	2 956	1 420	1 536	4 297	2 136	2 161
30 - 34	10 159	4 844	5 315	4 107	1 905	2 202	6 052	2 939	3 113
35 - 39	11 338	5 506	5 832	4 770	2 236	2 534	6 568	3 270	3 298
40 - 44	12 234	6 375	5 859	5 236	2 576	2 660	6 998	3 799	3 199
45 - 49	11 530	6 169	5 361	4 948	2 496	2 452	6 582	3 673	2 909
50 - 54	12 101	6 383	5 718	4 898	2 397	2 501	7 203	3 986	3 217
55 - 59	12 834	6 609	6 225	4 807	2 306	2 501	8 027	4 303	3 724
60 - 64	13 729	6 698	7 031	4 902	2 271	2 631	8 827	4 427	4 400
65 - 69	12 874	6 130	6 744	4 382	1 993	2 389	8 492	4 137	4 355
70 - 74	8 923	4 051	4 872	3 036	1 336	1 700	5 887	2 715	3 172
75 - 79	6 155	2 629	3 526	2 040	818	1 222	4 115	1 811	2 304
80 - 84	4 319	1 694	2 625	1 488	554	934	2 831	1 140	1 691
85 - 89	2 191	836	1 355	798	281	517	1 393	555	838
90 - 94	578	156	422	261	69	192	317	87	230
95 - 99	138	52	86	46	21	25	92	31	61
100 +	13	2	11	4	1	3	9	1	8

Source: National Statistical Institute

Table Structure of the population in Kardzhali district in 2021, by place of residence, sex ratio and age dependency ratios

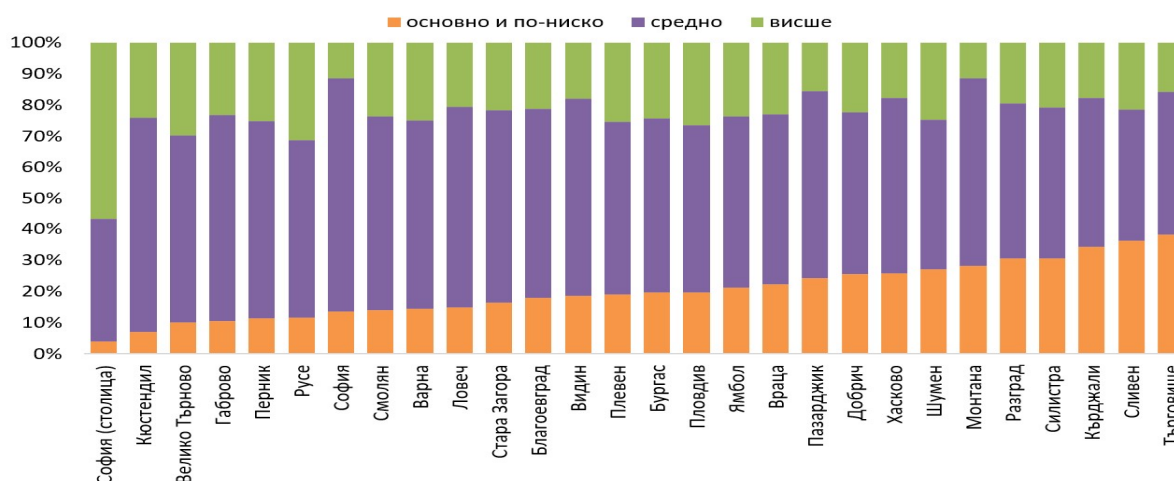
Statistical regions Districts	2021				
	Population structure by place of residence		Sex ratio	Ratio of the population aged under 15 and aged 65 and over to the population aged 15 to 64	Ratio of population aged 65 and over to population aged 15-64
	%		number of women per 1000 men	%	%
	city	village	Total	Total	Total
Total for the country	73.1	26.9	1 065	56.7	34.0
South Central Region	67.0	33.0	1 064	57.0	34.1
Kardzhali	40.1	59.9	1 022	56.0	34.1

#### - Educational level of the population

Districts with unfavourable structure are Sliven, Kardzhali, Silistra, Razgrad, Montana.

Относителен дял на населението на възраст 25-64 г. по степен на завършено образование (%), 2020 г.

Източник: НСИ



In the period 2009-2020, the share of the population aged 25-64 with primary and lower education decreased by 5 percentage points, while the share of graduates increased by 6 percentage points.



Table Graduates in 2021 By level of education, statistical area, statistical region and district (Number)

Statistical zones, statistical areas and districts	Basic education				Secondary education			
	Total	general education schools	special schools	art and sports schools	Total	mainstream and special schools	art and sports schools	vocational schools
Total	59 697	58 299	47	1 351	43 034	25 203	1 756	16 075
Kardzhali	1 246	1 246	-	-	924	676	-	248

Source: National Statistical Institute

### 3. ECONOMY OF THE REGION (1)

#### 3.1 Development of Gross Domestic Product (GDP) - Gross Value Added (GVA)

- GDP development, data by sector and by prefecture/district (administrative unit)

According to NSI data, the GDP in Kardzhali region for 2020 is BGN 1,760 million, compared to the national GDP of BGN 119,951 million. The GDP per capita of the district for 2020 is BGN 11 034, compared to the average GDP for Bulgaria BGN 17 299.

#### GDP and GVA table with data for 2021.

NUTS code	Statistical zone	GVA, Million BGN		GDP, Million BGN	
		2011	2021	2011	2021
EN	BULGARIA	70 807	121 607	81 124	139 012
BG42	South Central Region	9932	16 252	11 374	18 578
BG425	Kardzhali	753	1 655	863	1 892

Source: NSI, 2023

- GDP per capita - development (last decade)

Table GDP per capita - development (last decade)

<b>NUTS code</b>	<b>Statistical zone</b>	<b>GDP per capita, BGN 2011 г.</b>	<b>GDP per capita, BGN 2021 г.</b>
<b>EN</b>	<b>BULGARIA</b>	11 040	20 212
<b>BG42</b>	<b>South Central Region</b>	7 707	13 294
<b>BG425</b>	Kardzhali	5 660	11 760

Source: NSI, 2023

- GDP/GVA by sector (primary, secondary, tertiary sector) and by main sector of economic activity

GVA by economic sector with data for 2021.

<b>NUTS code</b>	<b>Statistical zone</b>	<b>GVA by economic sector</b>		
		<b>Agrarian</b>	<b>Industry</b>	<b>Services</b>
<b>EN</b>	<b>BULGARIA</b>	<b>6 071</b>	<b>28 979</b>	<b>86 558</b>
<b>BG42</b>	<b>South Central Region</b>	<b>1 084</b>	<b>6 055</b>	<b>9 113</b>
<b>BG425</b>	Kardzhali	<b>208</b>	<b>765</b>	<b>682</b>

Source: NSI, 2023

- Specific GDP characteristics (most dominant sectors/industries)

Industry in Kardzhali district is a reflection of the economic processes developed in the national economy and the south central region. In recent years, the gross domestic product in the district, although at a low rate, has been growing, which is typical for most regions in the country.

According to the NSI, the GDP in Kardzhali region for 2021 is BGN 1 892 million, compared to the GDP for the country BGN 139 012 million and for the South Central Region - BGN 18 578 million. The GDP per capita of the district for 2021 is BGN 11 760, compared to the average GDP for Bulgaria BGN 20 212 and the average for the South-Central Region - BGN 13 294.

The area has great potential for attracting foreign investment.

Foreign direct investment (FDI) in non-financial sector enterprises in Kardzhali region as of 31.12.2021 amounts to EUR 413.1 million, which is 61.1% more compared to 2020. Their share in the total amount of foreign investments made in the country is 1.5%, respectively 12.8% of foreign direct investments within the South Central Region.

In 2021, €7.7 million, or 1.9% of the district's total FDI, was invested in the trade; repair of motor vehicles and motorcycles; transport, storage and post; and hotels and restaurants sectors.

In 2021, foreign investments were made in all municipalities of the district, with a large share in the municipality of Kardzhali - 163.6 million euros, or 39.6% of all investments in the district. Compared to the previous year 2020, foreign direct investment in the municipality decreased by 6.0% and its relative share of total investment in the district decreased by 28.3 percentage points.

Source: 10.03.2023, CSI Kardzhali Territorial Statistical Offices / Statistical Research Departments TSB South

Table Business demography and high growth enterprises by NACE Rev. 2 and NUTS 3 regions  
Population of active enterprises in t - number

year	2015	2016	2017	2018	2019
<b>Kardzhali region</b>	4 891	5 139	5 219	5 188	5 221

Source: National Statistical Institute

### Tourism:

In November 2022, 63 accommodation places with more than 10 beds - hotels, motels, campsites, lodges and other short-term accommodation places - were operating in Kardzhali district. The number of rooms in them is 999 and the number of beds - 2 017. Compared to November 2021, the total number of accommodation establishments (operational during the period) increased by 21.2% and the number of beds in them by 21.7%.

The total number of overnight stays across all accommodation recorded in November 2022 was 6,959 and decreased by 1.0% compared to the same month the previous year. The number of bed nights in 1 and 2 star accommodation increased by 6.3% whilst the number of bed nights in 3 star accommodation decreased by 20.3%.

In November 2022, 34.6% of the total number of overnight stays of foreign citizens and 20.6% of the total number of overnight stays of Bulgarians were made in 3-star accommodation establishments, while in other accommodation establishments (1-star and 2-star) they were 65.4% and 79.4% respectively.

Most of the overnight stays were made by foreign nationals from Turkey - 56.8% of all overnight stays.

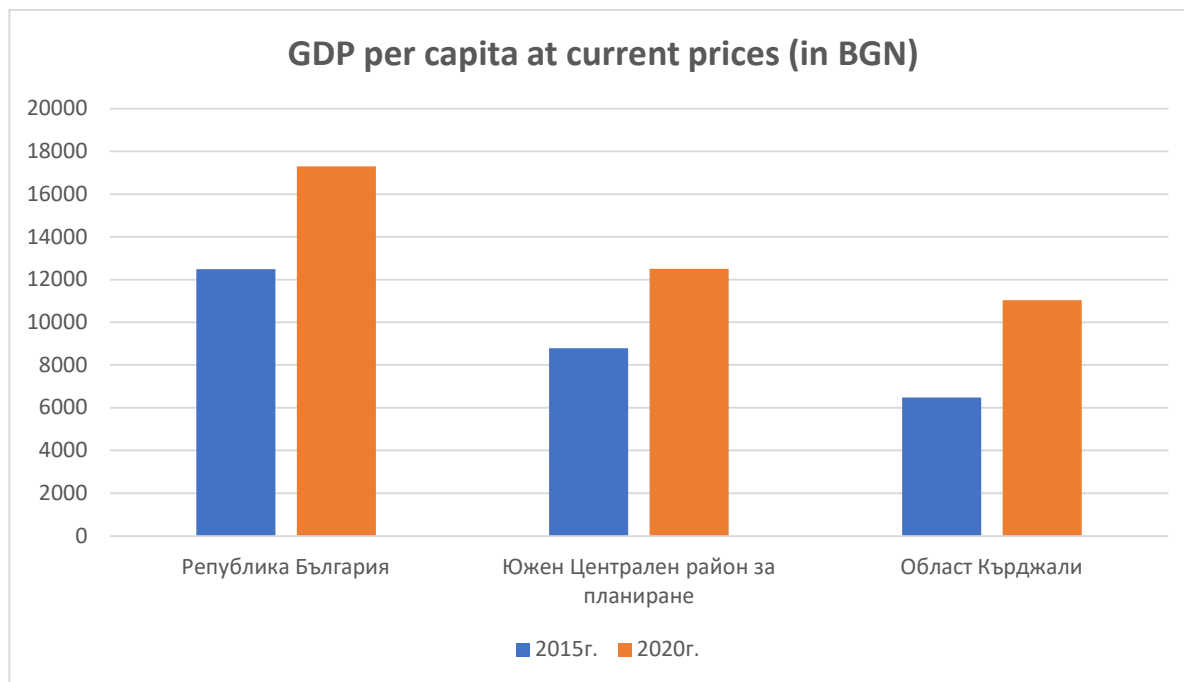
Source: 13.01.2023, CSI Kardzhali Territorial Statistical Offices / Statistical Research Departments TSB South

Table GDP per capita at current prices (in BGN)

Region / Years	2015г.	2020г.
<b>Republic of Bulgaria</b>	<b>12483</b>	<b>17299</b>
South Central Planning Region	8783	12505
Kardzhali region	6483	11034

Source: National Statistical Institute

In 2020, in Kardzhali district, GDP per capita at current prices has increased to BGN 11 034, with a 70.2% growth since 2015. At the same time, on a 2020 basis, the regional GDP relative to national and SADC level data appears to be 63.8% and 88.2%, respectively, indicating the low value added of local economic activities.



According to the chart above, in contrast to the lower absolute values, the growth rate of GDP at current prices for Kardzhali region in 2020 on the basis of 2015 (70.2%) is higher than those at the level of Bulgaria (38.6%) and South CPRD (42.4%), which indicates a better structuring of the business in the region in the last 5 years in terms of the value added generated relative to the population.

### 3.2 Active population - Employment - Unemployment

#### - Dynamics of the economically active population

According to the data of the National Statistical Institute (NSI) - OSI Kardzhali, the number of employed persons under employment and service relationships in the Kardzhali region at the end of December 2021 will increase by 0.2 thousand, or by 0.7% compared to the end of September 2021, reaching 31.5 thousand. Compared to the end of the third quarter of 2021, the number of persons employed in the private sector increased by 0.7% (to 22.1 thousand) and in the public sector - by 0.6%, reaching 9.5 thousand.

At the end of December 2021, compared to the same period of the previous year, the total number of persons employed under employment and service relationships increases by 6.8%. Compared to the end of December 2020, public sector employees increase by 7.8% (or by 0.7 thousand) and private sector employees by 6.4% (or by 1.3 thousand).

In the fourth quarter of 2021, the average monthly wage for the district increased by 3.4% compared to the third quarter of 2021 and reached BGN 1 205. For the public sector, the average monthly wage is BGN 1 502 and for the private sector - BGN 1 077. In the fourth quarter of 2021, the average

gross monthly wage for Kardzhali district increased by 1.2% compared to the same period of the previous year.

Table Labour force and economic activity rates of the population aged 15-64 in 2021

Statistical zones Statistical regions Districts	Workforce - thousand.			Economic activity rates - %		
	Total	men	women	Total	men	women
Total	3 155.3	1 689.2	1 466.1	72.0	76.2	67.7
South Central	613.6	330.8	282.8	68.9	73.5	64.2
Kardzhali	71.5	39.0	32.6	69.0	74.3	63.7

According to the table above, the workforce in Kardzhali district in 2021 represents 2.3% of the workforce at the national level and 11.7% of the workforce at the level of the South-Central Development Region. At the same time, the indicator for the economic activity rate is relatively the same as that of the SADC and 3 percentage points lower than that of the national level, mainly in view of the specificity of the region in terms of increased labour migration and the lack of a sufficiently accurate picture of the working population of the district in other EU countries.

Table Labour market dynamics in Kardzhali district by years 2016-2021

Indicators / years	2016	2017	2018	2019	2020	2021
Average number of persons employed under the employment relationship (number)	30 599	30 749	31 313	31 428	30 245	31 167
Average annual salary of employees (BGN)	8 335	9 285	10 419	11 356	12 705	14 508
Economic activity rate - 15 - 64 years (%)	61.0	61.5	60.7	65.1	62.8	69.0
Employment rate - 15 - 64 years (%)	60.0	60.5	58.6	63.7	61.9	67.9
Unemployment rate (%)	(1.7)	(1.6)	(3.3)	(2.0)	(1.4)	(1.6)
Unemployed persons registered in the labour offices as of 31.12. (number)	7 012	6 594	5 745	5 537	4 853	4 535
Proportion of population aged 25-64 with tertiary education (%)	15	13.8	16.8	18.6	17.6	24.2
Proportion of population aged 25-64 with secondary education (%)	54.7	53.1	47.5	47.7	48.1	49.1
Proportion of the population aged 25-64 with primary education or less (%)	30.3	33.1	35.7	33.7	34.3	26.6

Source: NSI, 12.2022

According to the table above, in 2021 the dynamics of the market in Kardzhali district is progressing in all indicators, especially this is expressed for average wages, economic activity rate and the relative share of the population with higher education, which indicates a smooth structuring of the workforce in industries with higher added value.

As of 7 September 2021, the number of persons with higher education in Kardzhali district is 18 668. They make up 14.0% of the population aged 7 and over. This is the lowest relative share of graduates compared to other districts of the country.

The comparison by municipality shows even more unfavourable results for all municipalities of the district, except for Kardzhali municipality, where the relative share of people with higher education is 20.0%, but still lower than the national average.

Compared to the previous census, the relative share of people with higher education increased by 3.7 percentage points. The gender gap between tertiary graduates also increased. The relative share of female graduates reached 16.8% and of male graduates 11.1%, increasing by 4.1 and 3.1 percentage points respectively compared to 2011.

There are also significant differences in the educational structure of persons by place of residence. While the relative share of persons with higher education in the district's cities is 25.2%, in the villages it is 6.1%, or four times less.

Table Employment and employment rates of the population aged 15 and over in 2022 in Kardzhali district

Statistical zones Statistical regions Districts	Employed persons - thousands			Occupancy rates - %		
	Total	men	women	Total	men	women
Kardzhali	72.9	41.0	32.0	52.5	60.2	45.2

Source: National Statistical Institute

Table Employment and employment rates of the population aged 15-64 in 2022 in Kardzhali district

Statistical zones Statistical regions Districts	Employed persons - thousands			Occupancy rates - %		
	Total	men	women	Total	men	women
Kardzhali	71.3	39.7	31.5	69.1	76.0	62.0

- Employment by manufacturing sector and by industry - development (last decade)

Table Employed persons by sectors in Kardzhali district by years 2011-2017

Employment Kardzhali district	2011	2012	2013	2014	2015	2016	2017
Total	74,049	75,406	74,442	73,195	72,757	69,671	68,882
Agriculture, forestry and fisheries	37,132	36,184	36,82	35,983	34,119	30,914	29,591
Industry (excluding construction)	13,721	14,295	13,466	13,437	14,178	14,262	14,099
Including: manufacturing	12,648	13,171	12,354	12,335	12,922	13,017	12,901

Construction	2,072	1,868	1,863	2,131	2,376	2,331	2,739
Trade, transport, hotels and restaurants	9,33	10,202	8,777	8,687	9,059	9,65	10,149
Creation and dissemination of information and creative products; telecommunications	0,121	0,137	0,13	0,163	0,135	0,156	0,162
Financial and insurance activities	0,302	0,223	0,215	0,196	0,204	0,195	0,19
Real estate transactions	0,108	0,092	0,161	0,131	0,077	0,089	0,093
Professional and scientific research; administrative and support service activities	0,622	1,415	1,811	1,074	1,064	1,079	1,208
Public administration; education; human health and social work	9,876	10,28	10,349	10,425	10,693	10,045	9,554
Culture, sports and entertainment, household repairs and other activities	0,765	0,71	0,85	0,968	0,852	0,95	1,097

Source: National Statistical Institute

Although we do not have up-to-date data on employment by economic sector, we cannot help but note that according to the 2021 report "Profile of Employees by Economic Sector" prepared by the BCCI, the workforce in Kardzhali region stands out, for all areas of the economy, with a very specific negative characteristic, namely with the highest percentages for the factor "Tendency to Leave".

Table Number of persons employed in Kardzhali district by year, in thous.

Region / years	2017	2018	2019	2020	2021	2022
Kardzhali	74,0	59,7	66,2	65,0	65,9	72,9

Source: INFOSTAT (latest data as of May 2022)

Fig. Employment by year in Kardzhali district in thousands (2017-2021)

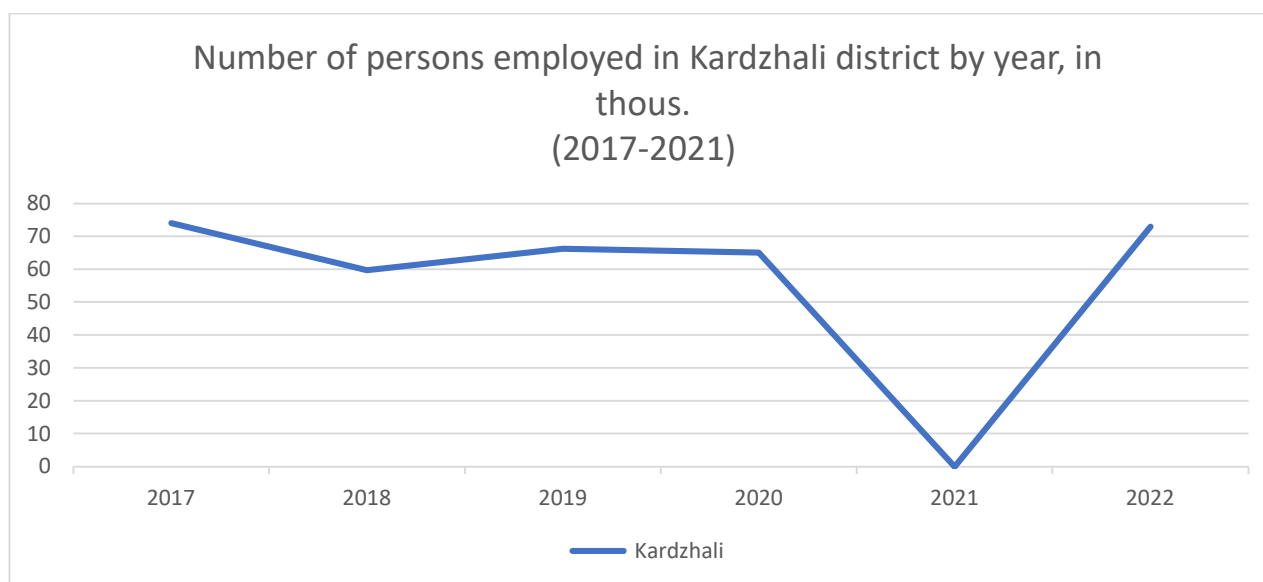
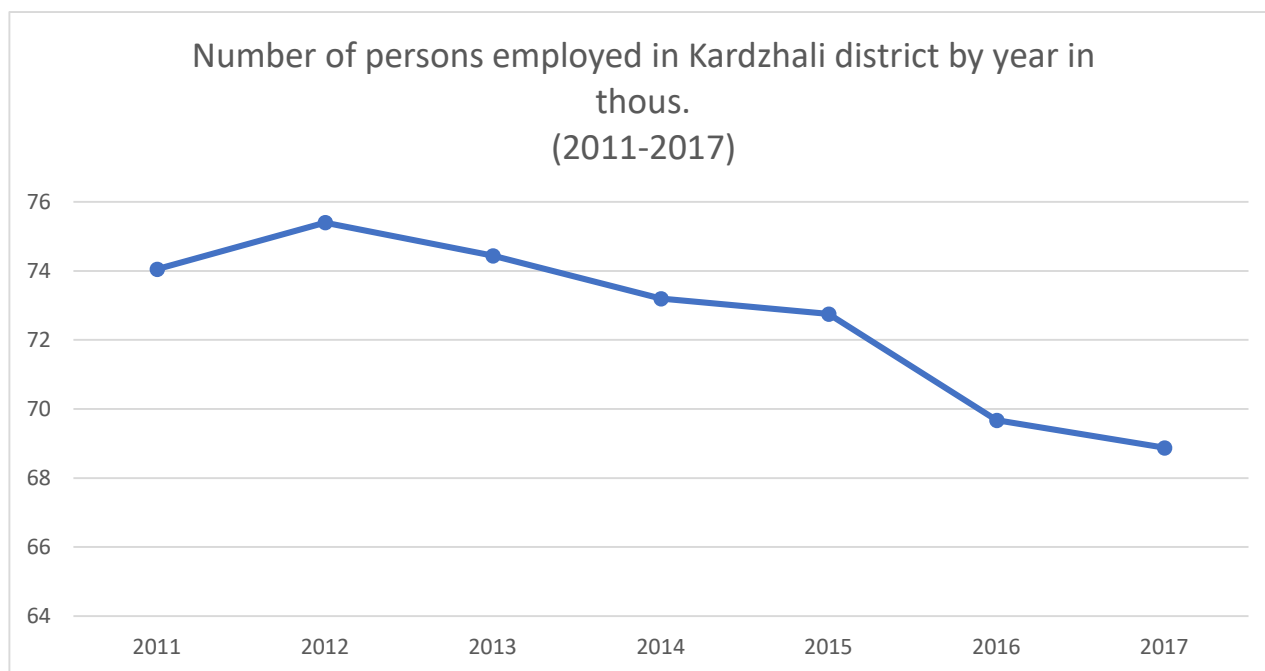


Fig. Employment by year in Kardzhali district in thousands (2011-2017)



Source: Author

According to the above 2 graphs, the negative trend for the reduction of the number of employed persons in Kardzhali district has reached its minimum in 2021, after which the figures have returned to the 2016 levels.

According to preliminary data of the National Statistical Institute (NSI), the number of employed persons under employment and service relationships in Kardzhali district at the end of September 2022 decreased by 0.4 thousand, or by 1.2% compared to the end of June 2022, reaching 31.0 thousand. Compared to the end of the second quarter of 2022, employees in the private sector decrease by 2.0% (to 21.3 thousand), while in the public sector we have an increase of 0.6% and reach 9.7 thousand.

At the end of September 2022, compared to the same period of the previous year, the total number of persons employed under an employment relationship decreases by 1.0%. Compared to the end of September 2021, public sector employees increase by 2.9% (or by 0.3 thousand) and private sector employees decrease by 2.7% (or by 0.6 thousand).

In the third quarter of 2022, the average monthly wage for the district decreased by 0.2% compared to the second quarter of 2022 and reached BGN 1 277. For the public sector, the average monthly wage is BGN 1 537 and for the private sector - BGN 1 162.

In the third quarter of 2022, the average gross monthly wage for Kardzhali district increased by 9.6% compared to the same period of the previous year.

#### - Unemployment development (by sector/branch)

The unemployment rate in March 2022 is 7.5% compared to 4.7% for the country. The unemployment rate is unchanged compared to the previous month and is 1.6% /9.1%/ lower compared to March 2021.



As of 31.03.2022 the number of registered unemployed persons in the labour offices of Kardzhali district is 4 539, as compared to the previous month a decrease of 42 people is reported, and compared to March 2021 the registered unemployed are 975 less /5 514 for March 2021/.

The municipality with the lowest unemployment rate is Kardzhali - 4.0%, while the municipality with the highest unemployment rate is Ardino - 16.1% and Dzhebel - 13.4%.

Kardzhali district ranks 20th in the unemployment rate among the 28 districts in the country.

The number of newly registered persons during the month was 631 and they were from different economic activities according to the classification of economic activities. Those registered from the Services sector accounted for 35.8% /226/, 27.7% were registered from the Industry sector /175/, from the Agricultural sector - 2.4% /15/. Unemployed persons who did not specify the sector from which they were laid off during the month were 215 - 34.1%.

As of 31.03.2022, 2 479 women /54,6%/ and 2 060 men /45,4%/ were registered in the labour offices in Kardzhali district. The number of women decreased compared to the previous month by 53 persons /2 532/, the number of men increased by 11 persons /2 049/.

The age distribution of the unemployed is characterised by an increase in the share of the different groups with increasing age.

As of 31.03.2022, the age groups with the largest share are over 55 years - 40.7% /1 846/ and 50 to 54 years - 13.9% /629/. With the lowest relative share are young people under 19 - 0.3% /14/.

As of 31.03.2022 the unemployed over 50 years are 2 475 - 54,5% of the total registered.

As of 31.03.2022, the number of registered young people under 29 years of age is 321, their share is 7.1% of all unemployed persons. Unemployed youth decreased by 8 persons compared to the previous month /329/.

The registered long-term unemployed with a stay in the labour office for more than 1 year in Kardzhali District are 718 and account for 15.8% of all registered unemployed. Compared to the previous month the number of unemployed persons decreased by 28 persons /746/.

The low level of education and qualification determines the length of stay of people with primary and lower education on the labour market.

The segmentation of the labour supply in the district labour market by education is characterized by the persistent dominance of the unemployed persons with primary and lower education - 2 349 persons or 51.8%. Compared to the previous month the number of unemployed persons decreased by 15 persons (2 364).

Graduates make up 7.5% and number 342. They decreased from the previous month by 6. /348/.

The unemployed with secondary education, including vocational secondary education, accounted for 40.8% of the total population and numbered 1 848. They decreased by 21 compared to the previous month /1 869/.

Table EMPLOYMENT, SUPPLY AND DEMAND RATES BY AREA

as of 31.01.2023.

District	Registered unemployed		Employed during the month	Unemployed under 29, incl.		Unemployed with more than 1 year registration	Vacancies		Unemployment rate
	January 2023.	Growth compared to December 2022					Requested during the month	Unemployed for one job	
	(number)	(number)	(number)	(number)	(number)	(number)	(number)	(%)	(points)
<b>About the country</b>	157980	4036	12037	18101	32486	13244	6	5,6	0,2
<b>Kardzhali</b>	4922	187	224	424	820	407	7	10,4	0,4

Table Unemployment rate in Kardzhali district, by municipality

LINKS		2022 г.	2021 г.	Growth / p.p./
<b>Bulgaria</b>	<b>Country average</b>	5,2	5,5	-0,3
District	Kardzhali	9,5	8,2	1,3
Municipality	Ardino	20,5	16,5	3,9
Municipality	Dzhebel	16,2	14,0	2,2
Municipality	Kirkovo	11,8	9,1	2,6
Municipality	Krumovgrad	13,6	10,0	3,6
Municipality	Kardzhali	5,0	4,8	0,2
Municipality	Momchilgrad	10,6	7,7	2,9
Municipality	Chernoochene	14,8	14,4	0,4

Source: Employment Agency (Annual Survey 2021 / Unemployment rate in the country by municipality)

According to the table above, only the municipality of Kardzhali has an unemployment rate (5.0%) below the national average (5.2%). In some of the other municipalities, such as Ardino, the unemployment rate is three times higher than the national average (20.5%), suggesting a

concentration of jobs in the largest municipality and a corresponding lack of sufficient jobs in the smaller ones on the periphery of the district.

By occupation the registered unemployed are:

- 24.2% /1 100/;
- specialists - 12.5% / 564/.
- without specialty and profession - 63,3% /2 875/.

The registered unemployed persons outside the group of employed, students and pensioners are 50. The number of people who started work in these groups during the month was 11.

Table Average annual number of registered unemployed and average annual unemployment rate

District	Unemployed persons (number)		Growth		Unemployment rate* (%)		Growth (p.p.)
	2022 г.	2021 г.	Number	%	2022 г.	2021 г.	
<b>Country average</b>	147804	181486	-33682	-18,6	5,2	5,5	-0,3
Kardzhali region	4482	4971	-489	-9,8	9,5	8,2	1,3

\*Determined as the share of registered unemployed persons in the labour offices to the economically active population 15-64.

Source: Bulgarian Employment agency

- Results of studies on occupational perspectives - critical trends, data and labour market needs for competences, specialisations, skills

In March 2022 in Kardzhali district 338 unemployed persons were employed. Of these, 212 persons have been placed on the primary labour market, 13 on programmes and 113 on schemes of the Operational Programme for Human Resources Development.

75 of the total number of people employed are workers, 85 are professionals and 178 are unemployed without qualifications.

By level of education, there were 57 persons with higher education, 156 with secondary education and 125 with primary education and below.

In March in the Labour Offices of Kardzhali district were registered a total of 446 vacancies, 323 on the primary labour market and for subsidized employment under programs - 123, of which under schemes of the Operational Programme "Human Resources Development" - 122.

#### **Occupational structure of the registered unemployed in 2021 and share of the total unemployed by districts**

District	Working profession	Specialists	Without qualification
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	Number	Title	Number	Title	Number	Title
<b>About the country</b>	<b>42 947</b>	<b>23,7</b>	<b>40 500</b>	<b>22,3</b>	<b>98 039</b>	<b>54,0</b>
Kardzhali region	1 201	24,2	667	13,4	3 104	62,4

Source. Bulgarian Employment agency

Fig. Occupational structure of the registered unemployed in 2021.

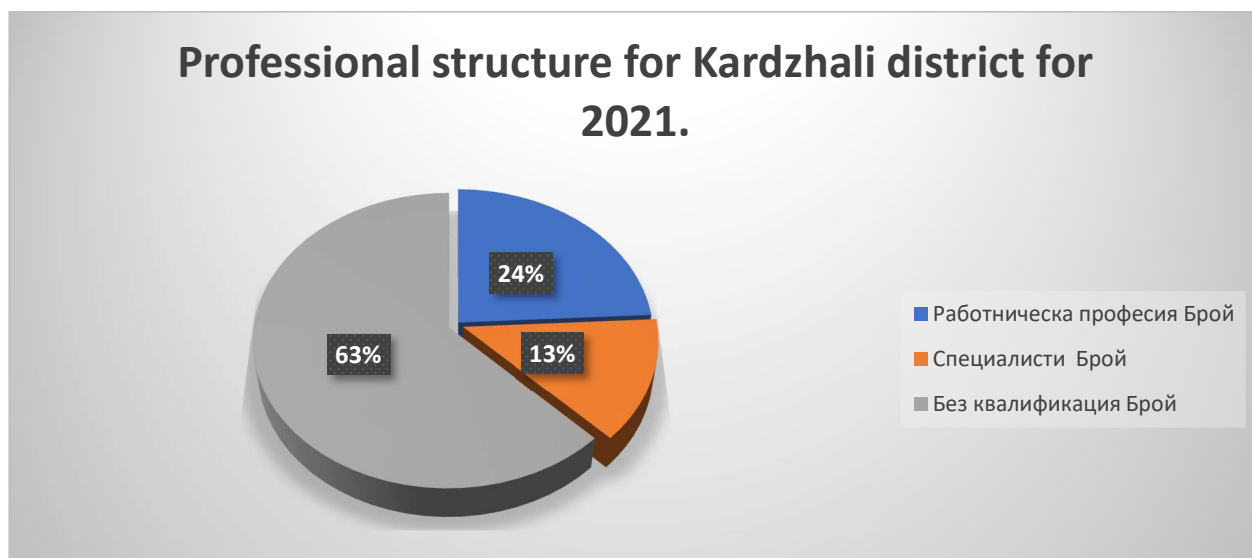


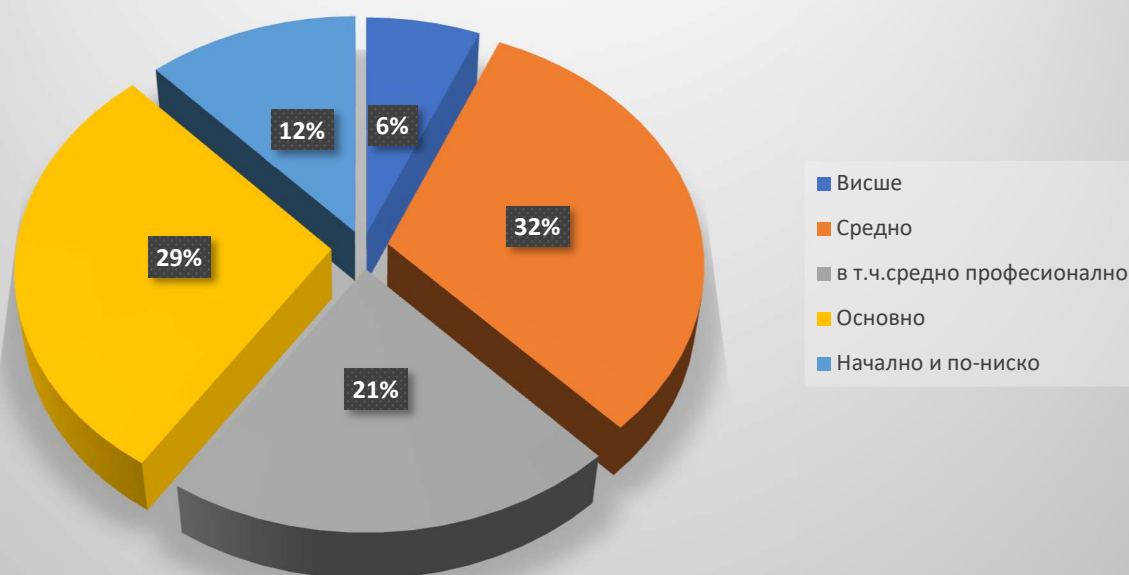
Table Educational structure of the registered unemployed in 2021 and share of the total unemployed by districts

Areas	Higher		Medium		<i>including secondary vocational</i>		Mainly		Primary and lower	
	Number	Title	Number	Title	Number	Title	Number	Title	Number	Title
<b>About the country</b>	<b>24 081</b>	<b>13,3</b>	<b>81 588</b>	<b>45,0</b>	<b>57 246</b>	<b>31,5</b>	<b>32 666</b>	<b>18</b>	<b>43 151</b>	<b>23,8</b>
Kardzhali region	402	8,1	1 996	40,2	1 343	27,0	1 825	36,7	748	15,0

Source. Bulgarian Employment agency

Fig. Educational structure of the registered unemployed in 2021 in Kardzhali district and share of the total number of unemployed by district

## Educational structure of registered unemployed persons in Kardzhali district in 2021



### 3.3 Primary sector

- Main characteristics of the primary sector (agriculture and livestock farming) (main agricultural land, main crops, quality products, PDO-PGI, etc., products highlighting the identity of the region, export-oriented products)

The district has good traditions in livestock breeding and agriculture, as well as a raw material base for the development of non-ferrous metallurgy, gold mining, timber, mineral processing, mechanical engineering and light industry.

According to the latest data, the number of beef cows in Bulgaria is 142 583, with the largest number in Blagoevgrad region - 22 118, followed by Kardzhali - 19 398.

## Cow Farm - Momchilgrad



Traditionally developed industry for Kardzhali district is the intensive farming of freshwater fish - mainly carp, sturgeon, trout, etc. by the sat method. The breeding bases are located mainly on the large dams - Kardzhali and Studen Kladenets.

"Alpha-Comfort" Ltd., - dam "Minzuhar" municipality Chernoochene. The reservoir of 113.4 acres serves for breeding and fishing. The planned annual yield is 10 tons.

"Sturgeon" expanded its nursery farm from 42 to 70 net cages in the dam "Kardzhali", s. Brosh.

In the dam "Studen Kladenets" "Cisco Aqua" Ltd. farms carp, catfish and American carp on 157 acres.

Fish satchels - Kardzhali lake



The timber industry is very well developed. Timber is exported to the interior of the country and abroad, and the wood is not deep-processed in the region. Timber harvesting is an activity mainly carried out by the state forest enterprises, of which there are six in the territory of Kardzhali District.



- Degree of processing of agricultural production - Enterprises processing crop and livestock production

Table State of the agricultural sector and agriculture in Kardzhali district

NUTS		EN	BG42	BG425
Type of territory		About the country	SADC	Kardzhali region
Total	<i>sq. km</i>	110996,8	22365,31	3210,59
Urbanised area	<i>sq. km</i>	5133,16	846,69	84,9
	%	4,62	3,79	2,64
Territory of transport	<i>sq. km</i>	2975,79	572,71	41,25
	%	2,68	2,56	1,28
Agricultural territory	<i>sq. km</i>	60598,78	9855,99	1232,86
	%	54,6	44,07	38,4
Forest territory	<i>sq. km</i>	36773,08	10154,1	1738,66
	%	33,13	45,4	54,15
Territory occupied by waters and bodies of water	<i>sq. km</i>	2074,57	514,3	73,46
	%	1,87	2,3	2,29
Protected area	<i>sq. km</i>	1545,98	122,94	9,05
	%	1,39	0,55	0,28
Disturbed territory	<i>sq. km</i>	470,56	44,01	4,35
	%	0,42	0,2	0,14
Not shown[1]	<i>sq. km</i>	1424,93	254,57	26,05
	%	1,28	1,14	0,81

The agricultural territory in Kardzhali district is only 38.4%, compared to the indicators for the South Central Regional District - 44.07% and for the country - 54.6%. This largely implies the smaller contribution to the generated GDP in the agricultural sector for the district.

Table Arable land by type of crops grown in Kardzhali district for 2020.

Main categories	Cereals (incl. fodder)	Butter-days	Technically	Green-chucks and orange-rias	Meadows and annual fodder crops (excluding maize)	Ugari	Arable land
1	2	3	4	5	6	7	8



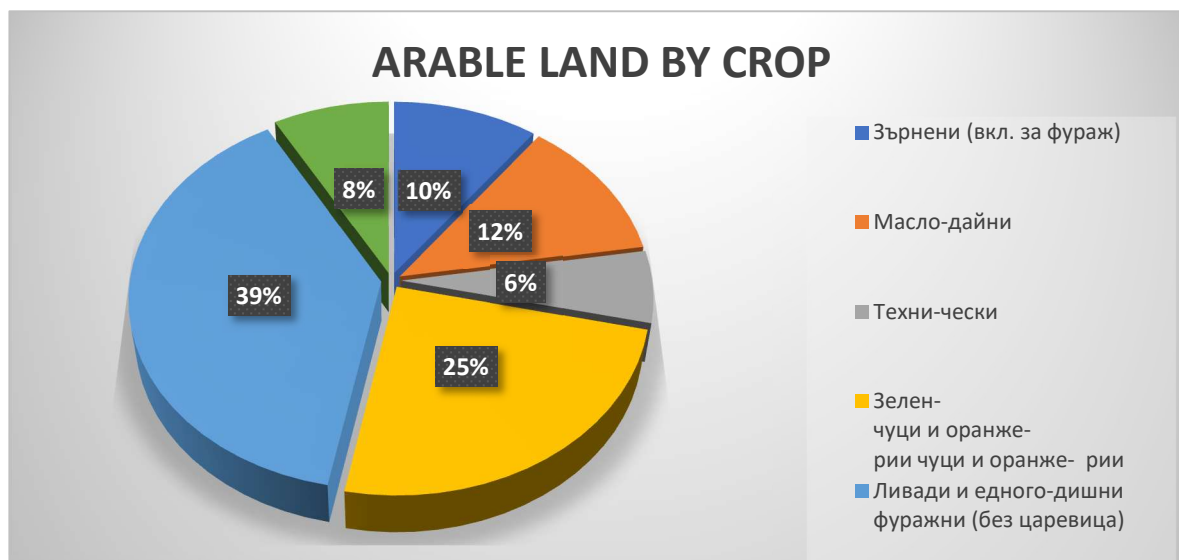
<b>BULGARIA</b>	<b>2 087 673</b>	<b>983 024</b>	<b>67 276</b>	<b>75 666</b>	<b>135 403</b>	<b>137 707</b>	<b>3 486 748</b>
<b>South Central</b>	<b>202 143</b>	<b>118 799</b>	<b>11 134</b>	<b>19 119</b>	<b>37 226</b>	<b>26 435</b>	<b>414 856</b>
Kardzhali	492	590	295	1 181	1 870	394	4 822

Source: National Statistical Institute

Kardzhali district accounts for 0.14% of the country's arable land, while its relative share in the total territory of the Republic of Bulgaria is 2.89%. The average supply of arable land per inhabitant is 2.99 hectares and is twice lower than the national average. This is a factor revealing the specificity of the region with a low degree of consolidation of agricultural holdings and a low degree of investment in technological modernization of local farming. This is largely determined by the low level of supply of agricultural land due to the local geographical characteristics.

The analysis of the data in the Land Balance of the territory of Kardzhali District, compared to the national average, shows a critically lower relative share of arable land as a share of agricultural land - only 5.05% , compared to Bulgaria - 66.70% and South Central Regional District - 50.85%. In Kardzhali District the arable land has decreased by 9.26% in only 1 year - 2020/2021, which may be due to the Covid-19 situation, but definitely the ongoing 20 years general trend of decrease by more than 16%, indicates insufficient interest and therefore serious outflow from practicing agriculture.

Fig. Arable land by type of crops in Kardzhali district for 2021 in %



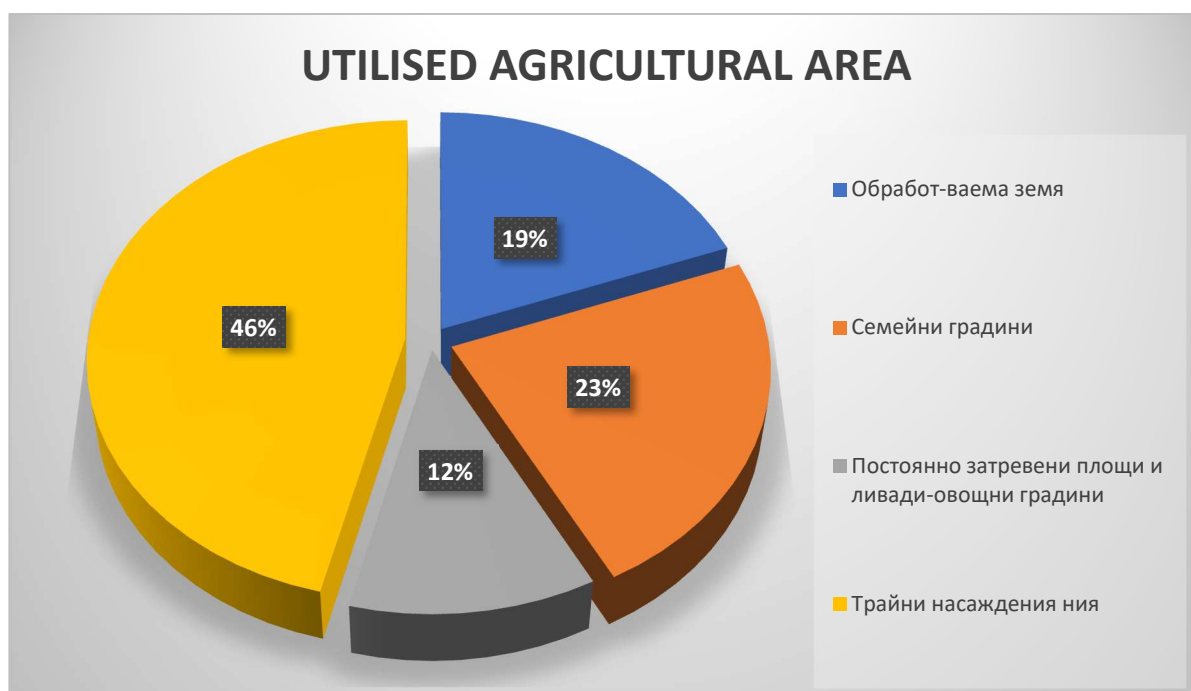
Source: National Statistical Institute

Table Utilised agricultural area by land use in Kardzhali district for 2021.

Main categories	Arable land	Family gardens	Permanent grassland and meadow orchards	Permanent crops	Utilised agricultural area	Area with agro-economic purpose
1	2	3	4	5	6	7
<b>BULGARIA</b>	<b>3 486 748</b>	<b>13 728</b>	<b>1 397 079</b>	<b>149 042</b>	<b>5 046 597</b>	<b>5 227 350</b>
<b>South Central</b>	<b>414 856</b>	<b>3 395</b>	<b>324 663</b>	<b>41 313</b>	<b>784 227</b>	<b>815 788</b>
Kardzhali	4 822	1 378	87 479	1 673	95 351	95 450

Source: National Statistical Institute

Fig. Utilised agricultural area by land use in Kardzhali district for 2021 in %



Source: National Statistical Institute

Table Gross value added at current prices in the agricultural sector in 2020 in Kardzhali region /millions BGN/

NUTS code	Statistical zone	Agrarian
EN	BULGARIA	4 205
BG42	South Central Region	919
BG425	Kardzhali	197

Source: National Statistical Institute

According to the data of the TSB Kardzhali, the gross value added at current prices produced in the district in 2020 in the sector "Agriculture and Forestry" is 12.9.% of the total GVA, which is a very high indicator compared to that in the same sector for the country - 4% or for the South Carpathian Region - 6%. This sector is characterized by overemployment, low efficiency and low level of commercialized production.

For the period from 2018 to 2020, the agriculture and forestry sector is decreasing its relative share in gross value added at current prices compared to the national and district economy.

The specific geographical and climatic conditions of the Kardzhali Region, the migration processes in the region, the privatization and restructuring of most of the industrial and processing enterprises - this is part of the complex system of objective and subjective factors that have had a significant impact on the processes and structural development of the agricultural sector.

The completed land reform and the ongoing agrarian reform have created appropriate favourable conditions for the promotion of private farmers and agricultural cooperatives in the district. The state and development of agriculture in Kardzhali district are directly dependent on a number of factors, the main ones being:

In accordance with the provisions of the Law on Support to Farmers (LASF), a Register of Farmers has been established and is operational at the Ministry of Agriculture. With each passing year the number of registered farmers in Bulgaria is increasing - in 2010 there were 22,833 and in 2020 - 8,678 farms, which indicates a decrease in the total number by approximately 62% over a 10-year period.

The utilised agricultural area in Kardzhali district in 2021 is 583 950 ha and has increased more than 2 times compared to 256 558 ha in 2010.

At the same time, the data from the 2020 census of agricultural holdings in Bulgaria show that. 54 590 cattle and buffaloes (8.6% of the total number in the country), 9 679 dairy cows (4.1% of the total number in the country), 78 589 sheep (6.1% of the total number in the country), 7 589 goats (3.1% of the total number in the country), 2 275 rabbits (3.5% of the total number in the country), 14 344 bee colonies (1.6% of the total number in the country).

- Size of holdings - enterprises

Current state of the land stock

The specific natural - climatic and geographical conditions to a large extent determine the main profile of specialization of agriculture and forestry in Kardzhali district, but to be complete the analysis of the conditions is necessary to make a comparative analysis of the state of the land stock.

Table Percentage of territory, settlements and rural areas compared to the country, region and rural areas by districts in the South Central Region for 2020.

District	Territory	Settlements	Territory	Settlements	Territory	Settlements
	Rural areas		Rural areas		Rural areas	
	area in km <sup>2</sup>	%	Issue	%	Issue	%

Bulgaria	111001		5302		231	
Rural areas in Southern central region	18219,14	81,46 %	919	47,36 %	51	21,65 %
Rural areas of the district Kardzhali	2631,26	14,44%	352	38,30 %	6	12,00 %

Source: NSI and author's calculations.

Of the South Central Region , Kardzhali District has the largest share in terms of number of rural settlements (38.30%).

In terms of aggregated environmental indicators, Kardzhali District falls in the part of the regions with lower pollution, with the parameters indicated in the table below:

Table Pollution Ranks

District	Air (a)	Water (b)	Noise (c,d)	Sum	GDP per capita of population to the national average (rank in descending order 1-29)
Kardzhali	26	71	10	107	25

Remarks:

a - sum of the ranks of the selected air quality indicators - low ranks indicate a cleaner environment

b - sum of the ranks of the four water indicators

c - the districts are ranked according to the proportion of points exceeding the noise limit values (Low values indicate less noise pollution.

d - the indicator for municipal waste is excluded as the majority of districts have very high levels of waste collection - 99%.

Source: 'Agribusiness and Rural Areas - Economy, Innovation and Growth', Proceedings of the Jubilee Scientific and Practical Conference, Science and Economics Publishing House, University of Economics - Varna, 2020.

Together with Smolyan, Kardzhali is the region with the smallest farms in the country.

The total amount of agricultural land in Kardzhali District is 954.5 thousand hectares as of 31.12.2021, compared to 1 367.7 thousand hectares as of 31.12.2000.

The fragmentation of the land, reduction of irrigated areas; outdated facilities, insufficient investment and new technologies, insufficient integration with the food industry, etc., created after the completion of the process of restoring its ownership, creates obstacles to the development of modern and efficient agriculture. Market-oriented and economically viable agriculture requires the availability of aggregated land for use and ownership.

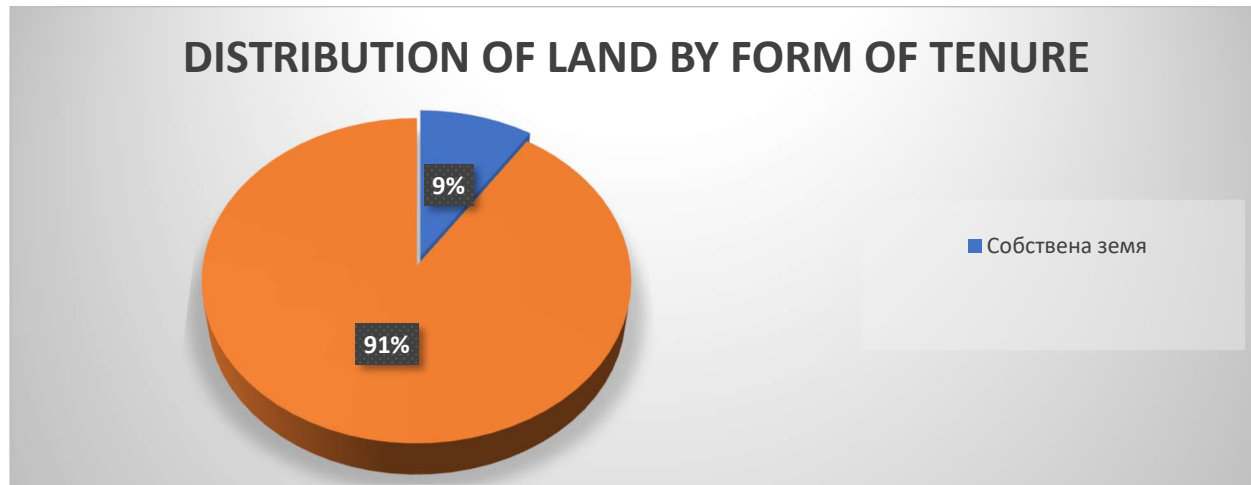
Table Distribution of utilised agricultural area by tenure by statistical regions and districts\*

Statistical regions and districts	Utilised agricultural area of holdings (ha)		Own land		Land rented or leased, other uses and common land	
	Number of farms	Area (ha)	Number of farms	Area (ha)	Number of farms	Area (ha)
<b>BULGARIA</b>	<b>127 278</b>	<b>4 564 152,4</b>	<b>85 509</b>	<b>409 118,4</b>	<b>97 024</b>	<b>4 155 034,0</b>
<i>South Central</i>	<i>42 076</i>	<i>671 270,8</i>	<i>30 704</i>	<i>81 435,7</i>	<i>30 525</i>	<i>589 835,1</i>
Kardzhali	8 685	58 406,3	7 395	5 464,7	7 741	52 941,6

\*Areas data are presented as integer values, so totals do not correspond to physical amounts.

Source: National Statistical Institute

Fig. Distribution of land in Kardzhali district in 2020 by tenure.



Source: National Statistical Institute

Table Holdings and categories of utilised agricultural area in Kardzhali district in 2020.

	UAA of the outdoor holding	Arable land	Average area	Relative share

Statistical regions, districts and municipalities	Holdings (number)	Area (ha)	Holdings (number)	Area (ha)	UAA of the outdoor holding for 1 holding (ha)	Arable area per 1 holding (ha)	Use of UAA on the outdoor farm (%)	Functioning farms (%)
<b>BULGARIA</b>	<b>126 001</b>	<b>4 562 443</b>	<b>75 243</b>	<b>3 317 071</b>	<b>36</b>	<b>44</b>	<b>72,70%</b>	<b>40,28%</b>
<i>South Central</i>	<i>41 449</i>	<i>670 710</i>	<i>25 261</i>	<i>389 711</i>	<i>16</i>	<i>15</i>	<i>58,10%</i>	<i>39,06%</i>
<i>Kardzhali</i>	<i>8 678</i>	<i>58 395</i>	<i>4 072</i>	<i>3 696</i>	<i>7</i>	<i>1</i>	<i>6,33%</i>	<i>53,08%</i>
Ardino	693	6 844	531	57	10	0	0,83%	23,38%
Dzhebel	739	3 914	191	79	5	0	2,02%	74,15%
Kirkovo	1 089	3 661	939	396	3	0	10,82%	13,77%
Krumovgrad	1 999	17 187	1 154	1 330	9	1	7,74%	42,27%
Kardzhali	1 717	10 649	702	1 261	6	2	11,84%	59,11%
Momchilgrad	1 298	9 755	85	78	8	1	0,80%	93,45%
Chernoochene	1 143	6 385	470	497	6	1	7,78%	58,88%

Source: National Statistical Institute

The average utilised agricultural area per farm in Kardzhali District in 2020 is 67.2 ha, compared to 161.82 ha on average for the South Central Region and 362.1 ha on average for the country.

A characteristic feature of Kardzhali District is that compared to the neighbouring districts and compared to the average statistics for Bulgaria, the percentage of agricultural land under cultivation in cooperatives is low. Another characteristic feature is the low percentage of the population whose main livelihood is agriculture.

The continuing division of heritable estates is leading to a reduction in the average size of estates, and this cannot be compensated for by too little land consolidation through exchanges and purchases. The reason for this is that the agricultural land market in the district, unlike in the more developed agricultural regions of the country, is not developed.

This process is further aggravated by the lack of a regulatory framework that would oblige the association of farmers and the consolidation of the used areas and, for this reason, the unification of agricultural properties can only be carried out through a freely expressed desire on the part of the owners, which is apparently not strong enough at this stage.

Table Average prices of agricultural land transactions in the period 2010-2021 - BGN / ha

Statistical zones	Years											
	Statistical regions											
Areas	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>BULGARIA</b>	<b>279</b>	<b>398</b>	<b>547</b>	<b>594</b>	<b>684</b>	<b>732</b>	<b>761</b>	<b>872</b>	<b>941</b>	<b>948</b>	<b>952</b>	<b>1106</b>

<b>South Central</b>	<b>230</b>	<b>292</b>	<b>364</b>	<b>357</b>	<b>474</b>	<b>442</b>	<b>412</b>	<b>538</b>	<b>660</b>	<b>679</b>	<b>635</b>	<b>674</b>
<b>Kardzhali</b>	<b>354</b>	<b>-</b>	<b>265</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>169</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Source: National Statistical Institute

Unfortunately, there is no up-to-date data on the agricultural land market in Kardzhali district.

Table Average prices of agricultural land lease/rental contracts in the period 2010-2021

BGN/ha

Statistical zones	Years											
	Statistical regions											
Areas	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>BULGARIA</b>	<b>23</b>	<b>30</b>	<b>34</b>	<b>38</b>	<b>41</b>	<b>42</b>	<b>44</b>	<b>46</b>	<b>48</b>	<b>48</b>	<b>45</b>	<b>54</b>
<b>South Central</b>	<b>13</b>	<b>20</b>	<b>22</b>	<b>24</b>	<b>26</b>	<b>27</b>	<b>26</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>34</b>
<b>Kardzhali</b>	<b>14</b>	<b>15</b>	<b>14</b>	<b>14</b>	<b>16</b>	<b>16</b>	<b>14</b>	<b>21</b>	<b>7</b>	<b>26</b>	<b>30</b>	<b>29</b>

Source: National Statistical Institute

According to the official data provided by the NSI, the average prices of lease/rent contracts for agricultural land in the period 2010-2021 in Kardzhali district have ranged from BGN 14 to BGN 29/ha, which for example for 2021 is below the average levels for the South-Western region BGN 34/ha and the national average BGN 54/ha, respectively.

### **Changes in the structure of land ownership**

The processes of restructuring and adaptation of agriculture in the Kardzhali region have the characteristics of a difficult and slow process, but have their typical regional characteristic. In the territory of Kardzhali District there are 7 Municipal Offices of Agriculture and Forests, which deal with the restoration of ownership of agricultural land, forests and forest land.

The restoration of the agricultural land to the owners and their heirs has been fully completed - 100%. 1 292 872 hectares of agricultural land have been restored in all 460 land districts.

This fact is a very good prerequisite, using the market forms of stimulation, the agriculture in Kardzhali district to begin to come out of the difficulties and to overcome the negative trends in its development over the last 15 years. Analyzing the results of the restoration of ownership of agricultural land, there is an increased activity of farmers in the processes of restoration of land ownership. The prerequisites being created for stimulating the real land market have not yet yielded their positive results, but in the near future they should approach land owners.

The liquidation of the material base concentrated in the former collective farms and the slow process of returning the land to its real boundaries have made it difficult to implement agrarian reform in the district. The land has been fragmented into several times smaller plots than it was before collectivisation, especially due to the increased number of heirs. Many of the heirs of agricultural land live in other districts or abroad. Farmers in the sector allocate virtually no funds for investment, and new machinery is bought very rarely. Difficult investment and revolving credit has a negative

impact on the smooth running of agricultural operations. As a result of these reasons, significant areas in the district remain uncultivated each year.

#### - Current situation in agricultural trade

The dynamics of agricultural production on the territory of Kardzhali District will continue to be particularly uneven in 2020-2021. Variations in the level of crop and livestock production from one year to the next are primarily due to amplitudes in domestic and foreign demand for agricultural products and the specific market following the cessation of the main traditional crop in the district - tobacco. Poultry farming in the region has also grown significantly in recent years, with the number of poultry reared in Kardzhali increasing by more than 50% in the last 10 years, including egg production.

The number of goats and bee colonies reared in the district also increased by about 12% and 6% respectively during this period.

In Kardzhali region 6% of the country's sheep population is reared, and in the last 5 years their number has increased by 2% on an annual basis and the sheep milk produced by 5%.

In 2020, nearly 10% of all cattle in the country will be reared in Kardzhali district, which ranks the district second after Plovdiv district, with 22% more cattle claimed under direct support schemes in 2020 compared to 2019.

Agriculture in Kardzhali district is among the main sectors of the district's economy in 2020, with gross value added of nearly BGN 197 million or 12.9% of total GVA.

Vegetables and perennial crops account for the largest share of the district's arable land, about 47% and 28% respectively in 2019. The area under oilseeds is also increasing substantially. There has also been a significant increase in the area of plum, walnut, cherry and sunflower plantations in the district - by four times, more than twice, 33% and 36% respectively. The area of pepper applied for is 3% more, representing over 7% of the national total.

The upcoming admissions under the Rural Development Programme, for the last period in Kardzhali region have received about 61 million leva under the investment measures and over 34 million under the compensatory measures.



Producers market - Kardzhali



Table Data on subsidies paid for 2021 in Kardzhali district

Description measure	Amount in BGN
Organic livestock farming	20 561,67
Organic beekeeping	58 331,75
Organic plant production	247 747,22
Restoration and maintenance of grasslands of high natural value (HNV-1)	62 478,77
Reimbursement of Financing Discipline (Reimbursement of FD) pursuant to Art. 26 of Regulation (EU) No 1306/2013 and Art. 1 of Regulation (EU) No 1307/2013.	122 491,54
Soil erosion control	20 992,79
Measure 12/Nature 2000	191 367,06
Measure 14-Animal welfare.	38 983,94
Measure 19 - Leader	527 093,94
Measure 21 - Kovid 1	3 015 970,06
Measure 6 - Farm and business development	1 516 425,00
Measure 7 - Basic services and rural regeneration	5 195 451,28

The measure is a support scheme for farmers and aims to create preferential conditions for the fuel they use for mechanised activities in primary agricultural production, by applying a reduced excise duty rate on diesel	133 720,15
National Beekeeping Programme	59 362,55
Conservation of endangered indigenous breeds	2 887 290,27
Payments De Minimis 2020 land	592,66
Payments De Minimis 2021 animals	1 905 170,00
Sub-measure 13.1/NP 1 - Mountain areas	2 868 268,86
Sub-measure 13.2/NP 2 - Other	545 354,91
Sub-measure 13.3/NP 3 - Specific	136 120,79
Sub-measure 4.1 'Investments in agricultural holdings' and 4.2 'Investments in processing/marketing of agricultural products'	1 045 796,46
Supply of milk and milk products - supply and distribution of products - R.1308/2013, Art.23(1)(a)	150 441,87
Fruit and vegetables available in schools - supply and distribution of products - R.1308/2013, Art.23(1)(a)	64 437,45
Development of farms and enterprises	4 209,50
Single area payment scheme (SAPS)	3 799 939,39
Young Farmers Scheme (YFS)	16 236,12
Bound aid scheme for buffaloes	7 320,58
Scheme for coupled support for vegetables - greenhouse production (GSP)	1 868,45
Scheme for coupled support for vegetables (tomatoes, cucumbers, gherkins and aubergines) (NW-DACS)	22 320,37
Bound aid scheme for vegetables (potatoes, onions and garlic) (NW-CLS)	3 041,42
Scheme for coupled support for vegetables (carrots, cabbages, melons and watermelons) (MPA-MPA)	17 138,82
Bound aid scheme for vegetables (pepper) (SP-P)	225 648,12
Scheme for coupled support for beef cows and/or heifers (CCS)	2 809 409,90
Scheme for coupled support for beef cows under selection control - EWSC (meat)	591 741,74
Scheme for coupled support for dairy cows (CCS)	1 218 369,61

Scheme for coupled support for dairy cows in mountain areas (5-9 animals) - SMIK (pl)	117 425,07
Scheme for coupled support for dairy cows under selection control - EWSC (milk)	819 620,05
Scheme for coupled support for ewes and/or goats in mountain areas (10-49 animals) LU (PL)	510 594,64
Scheme for coupled support for ewes and/or goats under breeding control (CSG)	1 045 661,91
Fruit coupled support scheme (basic group) - SP (basic)	226 507,15
Fruit coupled support scheme (plums and table grapes) - SP (other)	98 576,73
Scheme of coupled support for protein crops (SPC)	191 457,94
Payment scheme for agricultural practices that are beneficial for the climate and the environment - Green Direct Payments (GDP)	2 457 922,93
Redistributive Payment Scheme (RPS)	2 197 901,76
Transitional national decoupled aid scheme for cattle (TDA 1)	1 387 905,40
Transitional National Aid Scheme for sheep and/or goats coupled to production (TAS 3)	1 703 842,71
Transitional national aid scheme for tobacco decoupled from production (TNA)	17 357 512,73
School fruit - accompanying educational measures 20/21- R.1308/2013, Art.23(1)(c)	1 289,03
School milk - accompanying educational measures 20/21- R.1308/2013, Art.23(1)(c)	2 600,41
Total amount	57 650 513,47

Source: Public Agro Fund

Risks:

According to the official statistics of IAG, Kardzhali district for 2021 has the highest number of fires in forest areas - 85, where the most forest areas were burned - 1 907,6 ha.

### 3.4 Secondary sector

- Main characteristics (main forms of activity)

The area has great potential for attracting foreign investment.

Significant economic growth was recorded in the construction and textile, knitwear and food industries.

Manufacturing industry occupies an important place in the economic development of Kardzhali district. This sector accounts for most of the expenditure on fixed tangible assets. Companies in the sector specialise in the processing of non-ore and ore minerals, the manufacture of plastic products, bentonite, perlite and zeolite products, and post-metalworking products. Metal processing and production of plastic products is represented by Monek-Sug JSC - Kardzhali, Pnevmatika-Serta JSC - Kardzhali, Dzhebel-96 Ltd - Dzhebel, Formoplast JSC - Kardzhali and Kirkovo Ltd - Kirkovo.

The main enterprise for extraction and production of bentonite, perlite and zeolite products is "Imeris Minerals Bulgaria" AD, Kardzhali (former "Bentonite" AD).

Significant investments in the region include:

"Teklas Bulgaria AD, specialized in the production of rubber water compounds and plastic pipes for the automotive industry. 100% of the production is exported to Germany, Canada, Hungary, Czech Republic, England, Russia, Mexico, Australia, Poland, Spain, South Korea, USA, Italy, France and other countries. The company is the largest investor and employer on the territory of the Kardzhali region, and since its entry into the market in Kardzhali in 2006 it has already built 3 plants with a total value of 68 million BGN. The intention is to bring the total number of employees to 2,000 people.

"Balkan Mineral and Mining EAD, a subsidiary of Dundee Precious Metals - Canada, developing the Khan Krum gold deposit at Ada Tepe, Krumovgrad Municipality. The enterprise is for mining and processing of gold-bearing ores, which built a flotation plant on the river Krumovitsa, 3 km from the town of Krumovitsa. Krumovgrad.

The mining industry is represented by the extraction of non-ore minerals and lead-zinc ore. The leading enterprises in the sector are Gorubso-Kardzhali JSC - Kardzhali and Imeris Minerals Bulgaria JSC - Kardzhali.

The significant sub-sectors of the manufacturing industry for the region are the textile and clothing industry, where a significant part of the foreign direct investment is located. The largest manufacturers are: "Artex-Bulgaria" Ltd - Momchilgrad, "Modak" Ltd - Kardzhali, etc. The companies in the food and beverage sector are mainly oriented in bakery, confectionery, dairy and meat processing. The leading companies in these industries are "Hleboproduction" JSC - Kardzhali, "KIPS" Ltd - Kardzhali and ET "Alada" - Byal izvor.

The most dynamically developing sector in Kardzhali district is construction. In this sector the expenditure on fixed tangible assets doubled in the last year. The main representatives in the sector are Ardastroy Ltd - Kardzhali, Savarona Ltd - Kardzhali, Rodopastroy Ltd - Momchilgrad and Patstroengineering JSC - Kardzhali.

#### - Number, size and structure of enterprises by industry

The total number of enterprises employed in the secondary sector in Kardzhali district by 2020 is over 620. The majority of them are micro and small enterprises, while the share of medium and large enterprises is less than 2%. Over 70% are employed in light industry, followed by construction, mining and manufacturing.

#### - Export

The majority of medium and large enterprises are export-oriented, which is most pronounced in the extractive and manufacturing industries due to the predominance of foreign ownership and is further conditioned by the highly developed sewing sector, mainly for the EU.

- Large companies in the sector

- Sectors in crisis - emerging sectors

During the period 2020-2021, all businesses in the secondary sector definitely experienced difficulties and even many went bankrupt, due to the imposition of highly constrained supply chains and complex operational requirements. This has also largely created opportunities for the development of alternative supporting industries, locally.

### 3.5 Tertiary sector

- Main characteristics (main forms of activity)

The largest number of registered business units are in the Retail trade, repair of personal and household goods sector. The main activities are retail and wholesale trade. The leading companies in this sector are "Billa Bulgaria" AD, "Kaufland", "Lidl", "Vasmar" Ltd - Kardzhali, "Partners Bulgaria" Ltd, ET "Mario-73-Mariyan Stoyanov" - Kardzhali, "Galenit" AD - Kardzhali, Hypermarket Kaufland Kardzhali, BILA Kardzhali and Lidl Kardzhali.

The next sector in order of importance for the Region is Transport and Communications. It is among the most progressive in recent years. Leading companies in the sector are Arpezos Bus Ltd - Kardzhali, Autotransport-Yug-2000 JSC - Kardzhali, ET Marietta-Dimitar Dimitrov - Kardzhali.

- Number, size and structure of companies by industry:

The total number of enterprises employed in the secondary sector in Kardzhali district by 2020 is over 2,800. The majority of them are micro and small enterprises, the share of medium and large enterprises is less than 1.8%. More than 50% are employed in retail trade, followed by companies in services, tourism and transport.

- Large companies in the trade and services sector

Large companies in these sectors are mainly in the retail sector - representatives of large hypermarket chains, such as:

"Bill" ,

"Kaufland,

"Lidl,

- Tourist infrastructure

In November 2022, 63 accommodation places with more than 10 beds - hotels, motels, campsites, lodges and other short-term accommodation places - were operating in Kardzhali district. The number of rooms in them is 999 and the number of beds - 2 017. Compared to November 2021, the total number of accommodation establishments (operating during the period) increased by 21.2% and the number of beds in them - by 21.7%.

- Sectors in crisis - emerging sectors

During the period 2020-2021, all tertiary sector companies definitely experienced difficulties and even many of them went bankrupt due to imposed regulatory and market constraints. At the same

time, sectors related to basic necessities and those related to home delivery and services have increased their presence.

## **4. DEVELOPMENT PROGRAMMES**

### **4.1 Programmes 2021-2027**

- The key strategies

Integrated Territorial Development Strategy of the South Central Region for Level 2 Planning

Kardzhali Municipality Integrated Development Plan 2021 - 2027

Ardino Municipality Integrated Development Plan 2021 - 2027

Integrated Development Plan of Dzhebel Municipality 2021 - 2027

Krumovgrad Municipality Integrated Development Plan 2021 - 2027

Integrated Development Plan of Krikovo Municipality 2021 - 2027

Integrated Development Plan of Chernoochene Municipality 2021 - 2027

### **4.2 Innovation**

Innovation Strategy for Smart Specialisation 2021-2027 (ISIS) (in draft)

- The main thematic axes of the Strategy(s)

The strategy is one of the key conditions for granting Bulgaria access to the resources of the two EU programmes for Bulgaria under the IDP - the Competitiveness and Innovation in Enterprise Programme 2021-2027 (CIP) with a budget of BGN 3 billion and the Research, Innovation and Digitalisation for Smart Transformation Programme 2021-2027 (RIDIT) with a budget of just over BGN 2 billion. The total budget of the programmes is over BGN 5 billion.

The strategy defines five thematic areas where Bulgaria has a competitive advantage and capacity for smart specialisation.

The first is "Informatics and ICT" - this is one of the fastest growing sectors in the economy, focused on the development of software and information systems, as well as a sector with high export potential, attracting significant foreign investment.

The second is "Mechatronics and Microelectronics" - covering the design, technology, manufacturing and operation and application of mechatronic systems and integrated circuits (chips) in a wide range of sectors - information technology, communications, automotive, mechanical engineering, aerospace, agriculture, medicine, consumer electronics, etc. An example of a mechatronic approach with proven potential for the country is automated machinery and robotic and automation systems.

The third one is "Industry for Healthy Living, Bioeconomy and Biotechnology" - focusing on innovations in the field of clean production / production of bio-products - food, cosmetics, medicines made from Bulgarian raw materials and offering medical, healing and recovery services.

The fourth is "New Technologies in Creative and Recreational Industries" - modernising industries and business sectors with creative input, urban and rural regeneration, product and service design, content production and digitisation.

The fifth is "Clean Technologies, Circular and Low Carbon Economy" - reducing resource consumption in all economic sectors and spheres of public life, stimulating a circular economy (produce-use-dispose), increasing resource and, in particular, energy productivity while following the principles of the circular economy and stimulating the introduction of low-carbon, resource-efficient and zero-waste technologies.

The vision of ISIS is to develop Bulgaria as a hub for medium- and high-tech innovation in strategic areas with established capacity and market positions. Also to support and establish Bulgaria as a sustainable, modern and innovative entrepreneurial ecosystem. The main objectives of the Strategy include improving the research system and innovation performance of enterprises.

The draft ISIS presented is a further developed and updated edition of the document from the 2014-2020 programming period, developed in line with the UN Sustainable Development Goals and the six priorities of the European Commission for 2019-2024 - The European Green Pact, A Europe fit for the digital age, An economy for people, A stronger Europe on the world stage, Strengthening our European way of life and A new impetus for European democracy.

#### - Knowledge production and innovation in the field

The scientific activity in Kardzhali region develops along two main lines:

- Research and scholarly activity by HEIs and public research centres and
- Scientific and Development Centres of enterprises and members of NTS-Kardzhali

#### - Transfer of innovation - a pledge of links. research institutions and the business community

Technology transfer is an important and integral part of the innovation process. Government laboratories, research institutes, universities are motivated and supported by the applied technological use of their research.

In today's world, the survival and development strategy of societies and countries is based mainly on the desire for leadership in various fields of activity. The term "innovation", which has many definitions, is used to refer to the creation of new models, prototypes, technologies and products and their transformation in the modern world.

Technology transfer is the main form of fostering innovation from the development stage to commercial deployment.

This concept includes all sorts of ways to turn an idea into a commercial product: transfer of patents, technical documentation, exchange of scientific developments, creation of joint ventures, etc. .

At the current stage of the world economy's development, technology transfer serves as one of the sources of economic independence, as it provides economic actors with strategic opportunities to develop domestic markets and new emerging industries, borrowing and adapting the achievements

of more developed countries embedded in the transnational infrastructure of global markets. Taking into account the potential of each economic entity, it is necessary to develop its own approach to technology transfer in relation to the organisation of production and innovation policy.

In Kardzhali this transfer is expressed along several lines:

- from public science centres to businesses;
- from related foreign companies (parent holding companies) to domestic companies;
- from independent researchers to local enterprises.

#### 4.3 Policies and action plans for employment, human resources and entrepreneurship development

##### - Key strategies

- Employment Strategy of the Republic of Bulgaria 2021-2030. The document has been developed on the basis of the results achieved in the previous Employment Strategy Update 2013-2020 and the country's experience as a full member of the EU. The economic and social challenges in recent years as well as the impact of the COVID-19 pandemic on society have been taken into account. The actions in the Strategy are also linked to Bulgaria's commitments in the area of employment, stemming from the need to implement the European Pillar of Social Rights Action Plan;
- Regional Programme for Employment in Kardzhali Region - 2021 with the aim of Increasing employment in Kardzhali Region by providing employment to unemployed persons from disadvantaged groups on the labour market in Kardzhali Region as a prerequisite for overcoming their social isolation and for their full integration into society.



## **5. DEVELOPMENT ORGANISATIONS AND BODIES SUPPORTING ENTREPRENEURSHIP**

### **- Local development organisations**

- Commitment of public institutions and local organisations in the field of regional development

The implementation of state policy in the field of regional development is based on the principles formulated in the Regional Development Act, namely:

- A unified approach to planning and programming;
- Concentration of resources to achieve regional development objectives;
- Partnership, publicity and transparency at all levels in planning, programming, financing, monitoring and evaluation;
- Complementing funding from national public sources when co-financing with other sources;
- Inter-ministerial coordination of the activities of the competent authorities in the planning and programming process, resourcing, implementation, monitoring and evaluation;
- Coherence with other structural policies, instruments and actions at international, national and regional level.

In order to implement the objectives and priorities of the Regional Development Strategy of the Kardzhali Region, in addition to the above-mentioned principles, the principles of:

- Decentralization ;
- Subsidiarity ;
- Sustainable Development;
- Strengthening partnerships;
- Citizen participation in the planning process.

The actions of the public institutions and local organizations in the field of regional development are aimed at achieving vertical coordination - between the Regional Development Council, the Regional Development Council and the municipalities, horizontal coordination - between the different units, agencies and actors at the regional level, and effective complementarity in the implementation of the objectives and priorities of the Regional Development Strategy of the Kardzhali Region.

There is also a need to establish functioning information channels that enable direct communication, exchange of information and deepening of partnership between structures at different levels of governance. Monitoring and control provide a basis for comparison, synthesis and effectiveness of strategic planning. The good results of the implementation of the strategic process reinforce the importance and authority of the Regional Development Council, the Regional Governor and local partners, and this depends mainly on successful coordination between regional institutions in the implementation of regional policy.

Local institutions and their involvement in the regional development is an inevitable necessity, because government bodies are effective when they think and act strategically, when they care about the future and how to build it together. But without the development of administrative capacity it is impossible to absorb the funds from the Pre-accession and Structural Instruments and the Cohesion Fund.

- Organisation and coordination of activities to achieve objectives

The responsibilities for the implementation of the Regional Development Strategy of Kardzhali Region are clearly divided between the partners from Kardzhali Region and the municipalities. It is particularly important to maintain constant contact and communication between the District Administration, municipalities, businesses and NGOs as they are the main partners in the development and implementation of the District Development Strategy. The successful implementation of the Strategy depends on good coordination between them.

The local partners in the development and implementation of the Regional Development Strategy of Kardzhali Region are the municipalities, the decentralized structures of the Ministry of Regional Development and Public Works, the Ministry of Labour and Social Policy, the Ministry of Environment and Water, the Ministry of Agriculture and Forestry, the Ministry of Education and Science, the National Statistical Institute, executive agencies, regional organizations of the nationally represented employers' organizations, regional organizations of the

The regional governor and local authorities are the main actors and partners in the process of forming and implementing regional policy in the region. Their functions in the management, monitoring, evaluation and control of regional development are defined by the Regional Development Act. They are involved in the process of defining regional policy, being obliged to develop strategic planning documents for the relevant levels and to participate in the development of the NSRF. They participate in the bodies established by the Regional Development Act for the purpose of managing and monitoring regional development - the Regional Development Council, the Regional Development Council, the NSRF Monitoring Committee and the Partnership Council.

#### Regional Development Council

Ensures the broad and effective participation of all partners in the planning, financing, monitoring and evaluation of regional development measures in the planning area. Discusses and approves the draft regional development plan and acts as a monitoring body for its implementation. On the basis of the annual report on the implementation of the Regional Development Plan, it shall report on the implementation of the objectives and priorities of the National Regional Development Strategy. The Regional Development Council discusses and agrees on the draft regional development strategies and coordinates the provisions of the regional development strategies for the respective planning area.

#### The District Governor and the District Development Council

Participate in the implementation of the National Strategy for Regional Development through the elaboration, public discussion and implementation of the Regional Development Strategy, support

the preparation and implementation of municipal development plans, participate in the formation of regional and local partnerships in the preparation, financing and implementation of projects implementing the planning documents at regional and local level.

#### Local authorities

Participate in the implementation of the objectives and priorities of the National Strategy for Regional Development by the formulation and adoption of municipal development plans and implementation programmes, through the mobilisation of local financial, human and organisational resources, including those of the private and non-governmental sector, for the implementation of the measures and projects of these plans and programmes, for the development and implementation of local initiatives of more than municipal importance, for the provision of information and publicity on local development actions. In a number of cases, the municipalities will be the concrete implementers of projects, and in others, the beneficiaries of the implementation of projects resulting from the use of EU funds. The involvement of socio-economic partners, NGOs and the private sector in regional development policy within the framework of the Regional Development Strategy will be widely taken into account. In the process of work on the strategy they enrich the central, regional and local authorities with new ideas based on their practical experience and support decision-making with greater public consensus, participate in the implementation of partnerships at local and regional level for the implementation of the strategy, contribute with their own resources to the implementation of activities on the objectives and priorities of the strategy.

#### Employers' organisations

Support the implementation of the Regional Development Strategy as an object and beneficiary of policies and actions related to regional development. They also have significant capacity to support the information, education and training, mediation and other components of its implementation actions. They participate as members in the Regional Development Council.

#### Employee organisations

Key partner of the authorities at central, regional and local level in the process of regional policy formulation and implementation. Participate as members of the Regional Development Council.

#### NGOs

They have the function of a useful corrective in the preparation of the Regional Development Strategy and a real actor in its implementation. They have a wide range of possibilities to support information, education and qualification, marketing and other components of its implementation. Many of them will be directly involved in the implementation of projects and actions for regional development financed by European and national funds. A factor for their successful involvement in the implementation of the strategy is the improvement of partnership mechanisms and procedures.

#### - Research institutions

Public:

NTS-Kardzhali

Mining and Geological University "St. Ivan Rilski", branch Kardzhali

Paisii Hilendarski University - Lyuben Karavelov Branch, Kardzhali

Transboundary Research Centre "Environment and Health" at RZI-Kardzhali

Private:

Scientific Research Centre at Teklas-Bulgaria EAD

**- Institutions for education and training**

Kardzhali region has the necessary network of educational institutions with an optimal structure for the current needs for education, vocational training and obtaining higher education degrees.

There are 175 educational institutions in the district as follows:

- kindergartens -74;

- schools - 87;

Primary - 2;

Basic - 53;

SOU - 15;

Spiritual High School - 1;

profiled high school - 1- "Hristo Botev" high school

special schools -1;

vocational schools -13;

vocational college - 1;

- service units - 10;

- homes for care and education of children deprived of parental care - 1;

- higher education institutions - 3

By municipality:

1. Ardino: schools - 9 pcs., service units - 1pc., kindergartens - 5 pcs.;
2. Dzhebel: schools - 7 pcs., service units - 1pc., kindergartens - 8 pcs.;
3. Kirkovo: 9 schools, 0 service units, 19 kindergartens;
4. Krumovgrad: 12 schools, 2 service units, 8 kindergartens;
5. Kardzhali: schools - 33 pcs., service units - 4 pcs., kindergartens - 24 pcs., higher educational institutions - 3 pcs.; vocational college - 1 pcs.
6. Momchilgrad: 9 schools, 2 service units, 7 kindergartens;

7. Chernoochene: 7 schools, 0 service units, 3 kindergartens.

There are also 7 hostels and boarding houses functioning in the district / mainly in the municipal centres.

There are a number of problems in the field of education in the district, namely:

The seven municipalities in the district, located in the southeastern Rhodopes, are characterized by mountainous and semi-mountainous rugged terrain, with a large number of small settlements and neighborhoods, with poorly developed communication links and infrastructure. Their demographic parameters are determined by low population growth in the last ten years. Increasing migration has in some places led to drastic depopulation of settlements and a reduction in the number of pupils, leading to school closures.

All this reflects in a peculiar way on the state of the school network and the educational process, creating additional difficulties in building an optimal model of the school network, which is characterized by fragmentation and inefficiency.

Different types of schools, depending on where they are located, in a small municipality, or in a remote location from the municipal centre, allow for low class occupancy or merged classes.

The trend is a decrease in the number of students and classes.

Material - technical base

In most of the schools in the district, the facilities have been upgraded as a result of the projects.

- Research and development institutes

Under ISIS 2014-2020, the innovation development of the region was supported by prioritising smart specialisation in three thematic areas, namely "Mechatronics and Clean Technologies", "Informatics and ICT" and "Healthy Lifestyle Industries and Biotechnologies". These three thematic areas, with their respective sub-areas, were considered as priority areas for Kardzhali region.

- Product promotion institutions - businesses (fairs, export organizations, etc.)

"Producers' Market - Kardzhali EAD, gr. Kardzhali

- Professional organizations - Chambers - Associations, etc.

Chamber of Commerce - Kardzhali (CCC)

Kardzhali Chamber of Commerce and Industry (KCCI)

Regional Economic Development and Investment Agency - Kardzhali

Business Association "KRIB - KARJALI"

Regional Chamber of Crafts - Kardzhali

"Community Development Association South"

- Other cooperative forms (clusters, cooperatives, producer groups, etc.)

Ardino-Dzhebelle LAG

LAG "Kirkovo-Zlatograd"

LAG "Mineralni bani - Chernoochene"

LAG "Momchilgrad-Krumovgrad"

LAG "Stambolovo-Kardzhali 54"

## 6. AREAS FOR TARGETED IMPACT

A specific point in the coordination of the two documents - the Regional Development Plan of the planning area and the Regional Development Strategy is the need to link the territorial scope of the targeted impact areas with the specific long-term development objectives and priorities of these areas under Article 7, paragraphs 4 and 6 of the Regional Development Act.

The territorial scope of the areas of targeted impact has been determined in advance by the Regional Development Council, according to the defined criteria /Regulation on the definition of indicators for the delimitation of the types of areas of targeted impact, 2004/, when developing the Regional Development Plan, in order to be able to determine their specific objectives and priorities in the development of the Regional Development Strategy. By regulating the scopes of the Focused Impact Areas already in the process of developing the Regional Development Strategy, clarity is brought and the strategic planning process at all three levels (district, regional, municipal) is supported.

The Regional Development Act regulates six areas for targeted impact:

### 6.1. Economic growth area

It is characterized by highly developed economic and service functions in terms of its development, good communications, educational centers, high population concentration, positive economic growth. It is a region that has significant internal potential for accelerated development of a knowledge-based economy and the achievement of high economic growth to be consistently extended to neighbouring territories through their territorial integration by means of interconnected industries, business networks and clusters serving high-end functions. Supporting its development involves a high and rapid return on the costs incurred. The effect expected to be realised is national through their contribution to national growth and the quality of growth, on the one hand, and territorial through the diffusion of growth into the surrounding territory and the spreading of their positive impact to neighbouring territories, on the other. This is a region that should be supported mainly in the completion of competitive infrastructure, the development of their innovation potential and technological development.

The territorial scope of this region does not include municipalities of Kardzhali District.

### 6.2. Area in industrial decline

Covers an area in which restructuring of industrial structural enterprises is taking place or has taken place, leading or has led to a decline in production, an increase in unemployment, low income and displacement. An area in industrial decline is a typical target of targeted regional development policy in a number of countries. It is also the subject of one of the regional objectives of the Structural Funds of the European Union (Objective 2) for the period up to 2007.

/areals undergoing socio-economic changes in the industrial or service sectors/.

In order to successfully support socio-economic changes in the industrial sectors of this region, the specific objectives of the regional development policy are: to achieve diversification of the economy; to create conditions for the utilization of the existing potential /physical, human, etc./ for economic development; to ensure access to and implementation of new technologies and industries; to improve the educational structure and retraining of the workforce; to support the development of small and medium enterprises as an alternative

The municipalities of Kardzhali and Momchilgrad are included in the territorial scope of this region.

### 6.3. Backward border area

This area is characterized by a border location, low level of socio-economic development, displacements, poor technical infrastructure. Its development will be stimulated by improving transport accessibility, economic revitalisation and increasing employment. A key instrument of regional policy in the region is the development of cross-border cooperation, which will realise benefits for their development in terms of transport and social infrastructure, economic development, including the development of tourism, improving the skills of the workforce and its integration into the labour market, increasing the attractiveness of the regions for new investment and the quality of life in them.

The municipalities of Kirkovo and Krumovgrad are included in the territorial scope of this region.

### 6.4. Backward rural area

It is a region where the majority of the working age population is employed in agriculture and forestry, characterised by a low level of development of transport, technical and social infrastructure, a low level of education and qualification of the working age population, limited employment opportunities, a high level of unemployment, low incomes of the population and depopulation.

The specific objectives of the regional development policy in relation to rural areas are: development of a vibrant agricultural sector, diversification of the structure of the economy in line with local potential, creation of alternative sources of employment and income; stabilisation of demographic and settlement development; preservation of the specific natural and cultural heritage.

The municipalities of Ardino and Chernoochene have been identified in the territorial scope of this region for Kardzhali District.

### 6.5. Neglected mountainous area

It covers an area in the mountains of the Republic of Bulgaria with an altitude of more than 500 m or less than 500 m, but with an average depth of relief of more than 150 m between the lowest and highest point per square kilometre, with an average density of relief of more than 1.5 km per square kilometre and an average slope of relief of more than 7 degrees. It is characterised by a low level of technical and social infrastructure, limited natural conditions for agricultural development, a small and ageing population, unemployment and low incomes.

The specific objectives of the regional policy for the lagging regions are: creation of productive employment, development of sustainable economic activity and achievement of economic growth; construction of basic /mainly technical/ infrastructure for the needs of economic development; development and/or improved access to education and health infrastructure; professional qualification of the workforce and provision of services for economic development; stabilisation of small towns in rural areas.

Within the territorial scope of this region for Kardzhali District are defined the municipalities of Ardino, Dzhebel, Kirkovo, Krumovgrad, Momchilgrad and Chernoochene.

Providing financial scheme for development of infrastructure, SMEs, agriculture, processing of produce to final product, utilization of ecological potential of mountains etc. in backward



mountainous and border areas and in areas in industrial decline through tax concessions, preferences and incentives will stimulate their development.

Poverty estimates (based on NSI data for 2021)

In 2021, the poverty line for Kardzhali district is BGN 444.67 on average per person per month per household. At this level, 22.0% of the district's population was below the poverty line.

Compared to the previous year, the poverty line increased by 10.4% and the relative share of the poor increased by 0.9 percentage points (Table 1).

The social protection system is essential for poverty reduction. Data for 2021 show that if household income includes pension income but excludes other social transfers (benefits, social and family allowances and supplements), the poverty rate rises from 22.0 to 24.4 per cent, or by 2.4 percentage points. Correspondingly, when pensions and other social transfers are excluded, the poverty rate rises to 37.0%, or by 15.0 percentage points

## 7. SWOT ANALYSIS

STRENGTHS	WEAK SIDE
<p><b>ECONOMICS</b></p> <ul style="list-style-type: none"> <li>● Presence of a well-developed economic sector including automotive industry, garment industry, food industry and mining industry.</li> <li>● Priority is given to the manufacturing industry, which has a leading position in the economic structure of Kardzhali District.</li> <li>● Presence of traditional industries for the region - metalworking, pneumatic equipment, mechanical engineering, instrument making</li> <li>● Development of enterprises in the automotive sector. Presence of large enterprises in the sector.</li> <li>● Presence of enterprises with foreign participation, with sustainable markets for the sale of their products.</li> <li>● Increase in technologically upgraded enterprises.</li> <li>● Increase in export-oriented enterprises</li> <li>● Stressful location of the region, through which passes the European transport corridor /EETC/ No 9 Helsinki - Alexandroupolis;</li> <li>● Kardzhali region is rich in ore and non-ore minerals, including deposits of quality marble and facing materials, gneiss, tuffs and limestones, bentonite, perlite zeolite, etc.</li> <li>● The presence of direct transport connectivity between the district's municipal centres, ensuring the development of local supply chains across all economic sectors;</li> <li>● Suitable infrastructure for the development of small, medium and large businesses in the municipal centers - the presence of clearly defined industrial zones both in the urban part and in the suburban part provides opportunities for the development of new highly innovative industries /automotive and automotive parts/ by attracting foreign</li> </ul>	<p><b>ECONOMICS</b></p> <ul style="list-style-type: none"> <li>● Obsolete equipment, characterised by high running costs for some enterprises;</li> <li>● High cost of energy carriers;</li> <li>● Lack of sustained economic growth, bottlenecks in supply chains and high inflation due to the presence of crisis events such as wars and pandemics in the 2020-2022 period;</li> <li>● High levels of "toll manufacturing" and low levels of value added</li> <li>● A small share of large enterprises (0.2%) operate on the territory of Kardzhali district, as the business in the district is mainly composed of micro companies (over 92%);</li> <li>● Low levels of productivity and resource efficiency in most SMEs, due to a low share of high-tech enterprises;</li> <li>● Strong technological obsolescence and low degree of competitiveness of enterprises in Kardzhali district;</li> <li>● Concentration of business in the district center-Kardzhali and weak diffusion of business in the other settlements of the district;</li> <li>● Lack of a unified information system for the tourist flow, lack of a unified advertising and marketing product for the district, lack of a functioning partnership between all tourist sites in Kardzhali district;</li> <li>● Lack of modern markets for agricultural produce in small settlements in the district and modern irrigation facilities for the development of intensive agriculture;</li> <li>● There has been a continuing subsequent negative impact of the COVID-19 crisis leading to business closures in Kardzhali district.</li> </ul>

investors;

- High economic activity rate 15-64 years old (67.9% , 2021)
- Low unemployment rate (1.7% 2021)
- A steady upward trend in foreign direct investment in non-financial corporations over the last 5 years of 82%.
- Favourable climatic conditions for crop and livestock production (Temperate climate with positive temperatures and predominantly sunny days).
- Large-area regions for the production of environmentally friendly plant and animal products (organic farming).
- Tradition and qualification of farmers in the cultivation of technical crops.
- There are traditions in beekeeping, fish production, etc.
- Presence of irrigation systems in irrigated areas,
- Experience in the production of aquatic crops
- Opportunities for establishing permanent vineyards and fruit crops
- 100% restored land ownership
- Availability of veterinary services
- Presence of a relatively large number of cattle
- Modern dairies built and milk buying organised
- Traditions in sheep farming
- Suitable conditions for sheep rearing (landscaped facilities, grazing and climate)
- Availability of conditions for fish farming development (in the Studen Kladenets and Kardzhali reservoirs and in micro-dams)
- Overall, the number of existing markets for the supply and purchase of agricultural produce is sufficient.

#### SOCIAL AND HUMAN RESOURCES

- Availability of cheap and skilled labour.
- Over the last five years, the total population of the district has increased by 6.6% (2017-

#### SOCIAL AND HUMAN RESOURCES

- Presence of negative natural growth and

2021).

- Life expectancy for Kardzhali district is higher than the national average
- One of the few districts in the Republic of Bulgaria with a low relative share of the population aged 65+ in the total population - less than 21.3% (NSI, 31.12.2020).
- The age dependency ratio 26 in Kardzhali district (46.7% in 2018 and 54.68% in 202027) is lower than the national average (56.4%), i.e. there are less than two persons of active age (1.82 persons) per person of dependent age (under 15 and over 65).
- Good technical infrastructure for social activities, education and health;
- The availability of specialized training facilities.
- Availability of qualified teachers
- Availability of specialised institutions for the elderly and home-based services for people with disabilities in Kardzhali region;
- Presence of potential for the development of social and cultural activities, taking into account functioning community centers in the various settlements of the district of Kardzhali, and in the municipal center for museum, gallery and theaters;
- Established sports infrastructure, diverse sports facilities, potential for sports development
- Introduced a programmatic approach to planning activities in the Directorate of Humanitarian Activities - annual preparation, adoption and implementation of the Plan - Program and Sports Calendar for the development of youth, school, sport for all and sport for excellence;
- Total average household incomes are increasing.
- Income from savings is growing.
- Bad loans and credit are declining.
- Relatively sufficient satisfaction of families with their own housing.
- Increase in the number of private cars - cars and trucks.

increased inward migration;

- Deepening the process of demographic ageing of the population;
- Presence of a concentration of young people in the cities and the elderly in the villages;
- Relatively low wages for workers in the district - 77% of the national average;
- Shortage of skilled labour;
- Weak level of entrepreneurial initiative - the sources of income are mainly formed by wages, with its relative share being the largest;
- The highest share is accounted for by total consumer spending;
- Lack of resources for leisure, cultural recreation, education and health.
- More than 50% of registered vehicles are between 10 and 20 years old;
- The rate of increase in total average incomes is accompanied by a higher increase in total average household expenditures (impoverishment of the population);
- There is no equilibrium between supply and demand for jobs, with demand outstripping supply many times over .
- Lack of continuity of workforce in traditional industries - over 55 average age of engineers and skilled workforce in traditional industries;
- Sustained migration of young and skilled professionals to other more developed regions and EU countries.
- Risk groups are formed on the regional labour market, which are unequal in relation to the other entities offering their labour force - unemployed persons without a specialty, with primary and lower education, long-term unemployed persons with registration over 1 year, etc.
- Presence of a group of "professionally unemployed" and persons benefiting from

- The employment rate in Kardzhali is higher than the national average.
- Increased private sector activity in a dynamic business environment.
- The unemployment rate is on a continuous downward trend.
- Reduces the average number of unemployed women.
- The average number of unemployed young people aged up to 29 is falling.
- A well-developed health care network with medical specialists
- Availability of a sufficient network of educational institutions with an optimal structure for education, vocational training and higher education

social benefits in other EU countries, refusing to work at the wage rates in Bulgaria - presence of conflict between the social systems of EU countries and the labour market in Kardzhali region;

- Sustained employment of women in low-skilled occupations in the garment industry, agriculture, etc. in poor working conditions and low pay.

- Presence of formal employment in the agricultural sector due to lower levels of social security contributions, encouraging registration as self-employed farmers;

- Outdated facilities in vocational schools;
- Decrease in the number of students, including dropping out a large number of minority groups, before the secondary level;

- Closure of schools;

- Outdated material extra-curricular facilities (ritual houses, community centres);

- Increasing proportion of the population in need of inclusion in social services;

- Insufficient capacity of existing social homes and centres and the need to build new ones;

- Shortage of skilled personnel with appropriate education and experience to work in a range of sectors in the real economy;

- Although there are a sufficient number of social, cultural and historical sites in Kardzhali district, including for sports, there are certain infrastructural problems that hinder the use of their potential;

- There is a lack of balance of health care facilities (concentration of specialists and specialised departments in the district centre);

- Increased internal migration processes to more developed settlements and districts. Positive mechanical growth in the last 5 years (895 people on average per year 2016-2020, with a higher proportion of women compared

to men 469:426 people respectively);

- Increasing share of ageing population.
- Shortage of skilled people of working age to be involved in the provision of social services;
- In terms of the existing sports infrastructure in the educational institutions, they are in need of major overhaul. This weakness can be seen as the absence of sufficient incentive to retain the younger generation in the district.

#### TRANSPORT AND INFRASTRUCTURE

- Strategic geographical location of Kardzhali district
- Technical infrastructure network: internet, electricity, water, etc;
- The passage of the European transport corridor No 9 through the Kurdzhali region (Helsinki- St. Petersburg -Pskov- Moscow- Kaliningrad- Kiev- Lubashevka/Rozdilno `Ukraine-Kishinev-Bucharest - Ruse - Veliko Tarnovo - Stara Zagora - Haskovo- Kardzhali- Momchilgrad - Podkova - Alexandroupolis
- Preconditions for enhanced cross-border cooperation with the Republic of Turkey and Greece
- A higher number of sunny days (202.7) than the national average, as well as higher average monthly temperatures than the national average, are prerequisites for the construction of renewable energy facilities and for the development of crop production.
- The water courses and water areas of the territory of Kardzhali district occupy a percentage above the national average (1.8%) and is a prerequisite for the development of irrigated agriculture and water tourism.
- Presence of inexhaustible deposits of non-ore minerals
- Energy, plumbing and telecommunications

#### TRANSPORT AND INFRASTRUCTURE

- Remoteness from developed industrial centres - high degree of outgrowth;
- Restriction of freight transport up to 1.5 tonnes to Greece via the Makaza-Nimfea BCP;
- The implementation of intra-district connectivity may be compromised with the continued depopulation of the area and the reduction of the population of the settlements in Kardzhali district;
- The underfunding of the construction of inter-municipal connectivity, including bypass routes (e.g. bypass road of Kardzhali), not only deteriorates the infrastructure of the district, but also leads to the deterioration of living conditions both in the district centre and in other settlements;
- There is a need to modernize the existing regional road structure, which due to continuous lack of finances is in a deplorable condition, leading to depopulation of villages /Kardzhali district is the leader in this indicator with only 40.2% of the roads in good condition/;
- There is uneven infrastructure development in the territory of Kardzhali

systems built,

- Provided good access to high-speed internet within the municipal center - the city of Kardzhali, and the settlements outside it;
- Availability of potential for renewable energy generation located on Municipal infrastructure sites.
- There is a gas transmission network, part of the route of the gas connection with Greece, and from here there is gasification of both domestic and industrial subscribers in the town. Kardzhali
- 87% of the population is centrally supplied with water.
- Kardzhali region has good water sources in terms of quantity and quality
- The total density of the entire republican road network in Kardzhali District /0.187 km/sq.km/ is higher than the national average and is generally sufficient.
- 99% of the total length of the national road network in the district is paved.
- Well organized bus transport, fully satisfying the needs of the population.
- All settlements of Kardzhali District electrified.
- The electricity network has capacity for additional load.
- Geographical and climatic conditions suitable for the conversion of solar energy into electricity and heat.
- Availability of a resource (within 1 million tonnes per year) of biomass suitable for energy production.
- Suitable natural conditions for the construction of wind power plants and small hydropower plants.
- The common border with the Hellenic Republic, the proximity to the Republic of Turkey and the cultural and historical heritage of the region define Kardzhali as a region of cross-border importance and potential for integrated cooperation and growth.
- Kardzhali district shares a common border with Xanthi, Rhodopi and Evros prefectures

district, with a ray-oriented infrastructure centered in the town of Kardzhali with several main transport rays;

- Lack of balance in development between urban and rural areas;
- Poor condition of technical, road and transport infrastructure. 85% of the republican road network in the district is third class, half of which - former IV class in unsatisfactory or poor condition;
- Presence of multiple landslides with significant rainfall during winter and spring seasons that compromise existing infrastructure;
- Poor condition of much of the built water supply network in Kardzhali district and poor water quality;
- The development of the industrial zones and the development of industrial production in the town. Kardzhali is faced with the need to build a specialized wastewater treatment plant - WWTP, of industrial producers;
- Poor condition of the road and pedestrian street network in villages and town;
- Insufficient level of adapted infrastructure for people with disabilities;
- There is an insufficient provision of small settlements in Kardzhali district with Internet access and distance learning opportunities for students.
- A comprehensive analysis and realistic assessment of the opportunities in terms of both resource endowment and potential market segments is lacking;
- Morally obsolete infrastructure around the dams Kardzhali and Studen Kladenets;
- Unimproved and fragmented farmland.
- High level of farmland fragmentation, leached and eroded soils
- Multiple non-functioning irrigation installations

on the Greek side with a length of about 90 km.

- High teledensity
- Fiber optic cable lines have been built to the municipalities of Kardzhali, Momchilgrad, Dzhebel, Kirkovo and Chernoochene.
- The implemented digital telephone transmission to the telephone exchanges ensures 99 % digitalization of long-distance connections.
- The signal coverage of the licensed national television stations is 100% for the whole territory of the district.
- There is maximum coverage of GSM-networks of national operators.
- The degree of urbanisation has shown a minimal upward trend over the last three years
- Favourable border location - about 90 km common border with the Hellenic Republic.
- Kardzhali district falls in the transitional Mediterranean climate zone.
- Close proximity to the Mediterranean Sea.

- Few water user associations under current irrigation management law;
- Shortage of nurseries for seedling production and cold storage;
- Relatively small number of legal farmers registered , shortage of farmers' organisations;
- Lack of a unified cadastral map of the region;
- The agricultural land market in the district is not developed and the price is relatively inflated;
- Too small (fragmented) livestock holdings - cattle are raised on a household basis (average 2-3 dairy cows per family) in the absence of intensive technologies;
- They are raised mainly for milk and to satisfy their own meat needs;
- Insufficient control in the use of breeding males leads to a deterioration of the breed;
- Insufficient milk yield due to lack of selection and improper breeding;
- Lack of established collection points under European legislation;
- Presence of abandoned and demolished facilities;
- Malkistadas low-producing animals raised mainly for meat (sheep);
- Micro-dams are not designed for intensive fish farming;
- The markets available for the supply and purchase of agricultural produce do not comply with the requirements for suitable land, buildings and general conditions for this type of produce;
- Presence of mostly young coniferous forests, with undeveloped road network and vulnerable to fires;
- Insufficient effectiveness of the forest protection system;
- There is no updated vision for the



development of forestry activities;

- Timber harvesting is not in line with annual growth (450 thousand m<sup>3</sup> vs. 200 thousand m<sup>3</sup>)
- Predominant grazing and illegal logging;
- The existing water mains are past their sell-by date and are not being used wisely;
- Existence of a sewerage network only in the major settlements, while in the rest septic tanks and soakage wells are used;
- There is no motorway road network on the territory of Kardzhali District;
- The main roads are depreciated and out of service;
- Lack of bypass roads of the municipal towns in Kardzhali District;
- Insufficient length of Class III roads in Kardzhali District with a bearing capacity of 10 t/axle.
- Overall unsatisfactory assessment of the condition of the road surface of the municipal road network;
- Presence of a non-modernized railway line for speeds up to 60 km/h;
- Unbuilt railway connection with the Hellenic Republic;
- Abandoned (non-functioning) air transport infrastructure;
- Low level of energy efficiency in the use of heat in industry and households;
- High percentage of buildings in the region without modern thermal insulation - over 90%;
- 3.5% of the biological resource is used for heating (deciduous firewood and wood pellets);
- Insufficient project and financial readiness for electricity production from wind power plants and MWPP;
- There is a poorly developed gas transmission and distribution network in the region;

#### ECOLOGY AND ENVIRONMENT

- More than 50% of the population is connected to the sewerage network in Kardzhali district.
- Reduce direct discharge of untreated wastewater into water bodies and reduce infiltration into the sewerage system;
- Garbage collection, garbage collection and segregation of household waste is organized in all settlements in Kardzhali district.
- Established garbage collection schedules from the individual settlements on the territory of the municipalities in Kardzhali district
- Existing Waste Management Programme for the territory of the municipalities in Kardzhali district.
- Two of the largest dams in Bulgaria - Kardzhali and Studen Kladenets - are located in Kardzhali district;
- In Kardzhali district, measures have been taken to reduce the economic and social impact of the landslide processes, with two landslides being strengthened and three more in the pipeline;
- Kardzhali region is a region with specific flora and fauna with representatives of several zoogeographical zones with rare extinct species included in the Red Book of Bulgaria endemics and relicts and a wide variety of valuable medicinal plants;
- There are structures in place to monitor and protect the environment;
- On the territory of Kardzhali district there are predominantly regions with no recorded pollution from anthropogenic activities;
- Established structure for forest management and governance

- Limited amount of geothermal energy sources available;
- Low absorption of funds under existing EU-funded programmes in the region - €886 per capita;
- Very limited cultural and social contacts on both sides of the border;
- There is cable TV only in the community centers;
- Depopulation of small settlements (townships and neighbourhoods);

#### ECOLOGY AND ENVIRONMENT

- High levels of environmental pollution, including contaminated soils with lead, cadmium and zinc along the Arda River
- Insufficient effective management of the hunting resource - poorly developed international trophy hunting;
- Not enough hunting tourism opportunities offered by external structures and organizations for the region;
- High wolf, jackal and stray dog population levels;
- Severely declining stocks of native game species (wild boar, roe deer)
- The waste removal to the regional landfill in Kardzhali is economically weak;
- Insufficient potential and structures in place at municipal level for biodiversity conservation, development and enhancement;
- Unsatisfactory condition of the sewerage collectors;
- The presence of many potential air pollutants are the large industrial enterprises located in the city of Kardzhali and in some other settlements;
- Potential pollutants, such as the dewatering installation of the "Tailings Storage - Kardzhali 2", are present in the area of the

- Emerging forest ecosystems based on reforestation in the last 50 years amounting to 1 000 000 ha
- Favourable conditions for hunting and the presence of significant stocks of red deer, wild boar, roe deer, hare, partridge, muntjac and pheasant, as well as mouflon and fallow deer;

#### TOURISM AND CULTURAL HERITAGE

- Kardzhali region has a unique cultural and historical heritage, folklore, customs, traditional crafts, memorable inspiring spiritual environment and emerging ambitions for tourism development.
- Well-established cultural traditions of mutual celebration of different ethno-cultural festivals
- Many cultural monuments have been preserved;
- Presence of a unique historical heritage. The numerous cultural and historical monuments with which the region is filled - Perperico, Tatul, Ustra, Monek South, etc. are highlighted.
- Kardzhali region is a centre of cultural values. Their origin is connected with the multinationality of the population and the tolerance between ethnicities and religions;
- Along with the historical ones, there are a number of unique natural attractions in the area - the Utrobata Cave, the Stone Wedding, the Stone Mushrooms, etc.;
- Traditional cuisine in Kardzhali is a mix

district centre;

- The annual average concentration levels of lead aerosols and cadmium aerosols are above the limit values;
- Wastes are not universally collected separately;
- In the production zones in Kardzhali and in the lands of some villages, there are old environmental contaminations of the soil with heavy metals;
- Presence of many unregulated landfills and old pollution;
- Presence of landslides and strong landslide processes determined by geological, tectonic, climatic, hydrological, engineering geological and other factors.
- There is surface denudation and channel erosion along the river banks.
- There is no environmental protection and monitoring centre in the district.

#### TOURISM AND CULTURAL HERITAGE

- The bed base is concentrated in the regional centre of the town of Kardzhali and is not directly connected with tourist routes, recreation and rest;
- Low occupancy of the bed stock, concentrated mainly along the route of the transit flow to Greece;
- Many of the monuments are not maintained and are not marked on the tourist routes;
- Insufficient use of the tourist potential of the district, including due to poor infrastructure connectivity between the different natural and cultural attractions;
- Unregulated relationships regarding the use of the tourism potential of historical and

<p>between European and Asian cuisine;</p> <ul style="list-style-type: none"> <li>• The cultural calendar of Kardzhali district is filled with numerous events, including the annual holding of various festivals, competitions, fairs, cultural and sports events;</li> </ul>	<p>natural sites that are exclusive state property;</p> <ul style="list-style-type: none"> <li>• Poor use of natural features, including water bodies, which have not been a priority of national regional development measures. .</li> </ul>
<p><b>OPPORTUNITIES</b></p>	<p><b>FLOODS</b></p>
<p><b>ECONOMICS</b></p> <ul style="list-style-type: none"> <li>• Formation of local and regional clusters and business networks, as well as potential for building related industries based on existing ones;</li> <li>• Availability of support for the implementation of the network approach by SMEs (networking within European initiatives, measures and operations);</li> <li>• Availability of support for start-ups in all sectors and creation of an environment to strengthen them;</li> <li>• Opportunities to support smart green businesses, biodiversity and environmental conservation;</li> <li>• Potential of mineral deposits - zeolite, bentonite, etc.</li> <li>• Encouragement through appropriate national measures and programmes, including fish with the financial support of the Marine, Fisheries and Aquaculture Programme for the period 2021-2027, of the establishment and registration of fish farms for breeding, rearing and fattening of fish in the dams located in the territory of the Kardzhali region, including the construction of fish auctions, cold storage facilities for fish, factories and workshops for the processing of fish and fish products;</li> <li>• Promotion of social entrepreneurship in Kardzhali region in different spheres of the economy;</li> <li>• Availability of opportunities to increase the competitiveness of enterprises by exploiting local labour and resource potential;</li> <li>• Availability of conditions for increasing the competitiveness of the local economy by financing projects with European funds;</li> </ul>	<p><b>ECONOMICS</b></p> <ul style="list-style-type: none"> <li>• The application of inefficient economic mechanisms and the refusal to implement integrated connectivity projects with neighbouring municipalities will deepen the current trend of disconnection;</li> <li>• Civil opposition and the emergence of public discontent threatening the implementation of investment projects in certain industries;</li> <li>• The implementation of projects to promote the economic and social development of Kardzhali district could be hampered by insufficient investment interest and/or inadequate qualifications and lack of motivation of the local community;</li> <li>• Insufficient absorption of the allocated funding, from the state budget and EU funds;</li> <li>• Disinterest on the Greek side in expanding the possibilities under the OETC No. 9 and the regional BCPs for freight transport and exchange of goods;</li> <li>• Suspension of mining from ores;</li> <li>• Inability to follow the course of technological development;</li> <li>• Change in price levels and inflation with the country's accession to the Eurozone;</li> <li>• Insufficient level of foreign investment;</li> <li>• Deepening economic crisis and inability to absorb EU funds;</li> <li>• Stopping/delaying integration processes;</li> <li>• Economic crisis and collapse of the energy market;</li> </ul>

- Development of infrastructure serving farmers and those engaged in fish farming and aquaculture (auction houses, laboratories, etc.);
- Improve local tourism by creating conditions for building and sustainable development of tourism potential and increasing tourist flow;
- Exploiting the potential for development of hunting, fishing and cultural and historical tourism in Kardzhali region;
- Targeting public funds to build infrastructure in industrial zones;
- Livelihood creation and retention in the district;
- Access to raw materials and European Union markets.
- Access to financial resources and technology from the European Union.
- Cross-border cooperation with Greece and Turkey.
- Development of deposits of non-ore minerals.
- Development of gold deposits .
- Production of garments and collections , own brand;
- Conversion to the cultivation of other types of industrial crops (oilseeds and herbs);
- Renovation and construction of new highly efficient and cost-effective irrigation systems;
- Creating conditions for a real agricultural land market by creating a unified cadastral map of the region;
- Creation of conditions for farmers' associations supported by external donors;
- Financial opportunities for the establishment of nurseries for the production and acclimatization of perennial planting material;
- Use of new varieties of perennial crops with quality planting material and marketable species and variety composition;
- Restoring heavy metal contaminated soils and increasing their fertility;
- Building large-scale competitive livestock

farms;

- Support the establishment of local small and medium-sized enterprises for the processing of agricultural and livestock products;
- Formulation of a comprehensive concept for forest management in Kardzhali district, in line with the municipal development plans;
- Stimulating better conditions for the formation of local businesses to carry out forestry activities;
- Development of eco and fishing tourism around the dams of KARDZHALI and Studen Kladenets;
- Development and implementation of a unified marketing strategy for tourism development in the district;
- Supporting small and medium-sized businesses through programmes and measures funded by the European Union;
- Search for alternative forms of family business in the tourism industry and agriculture, including through adaptation of the existing housing stock;
- Integration of persons from third countries into the labour market of Kardzhali region;
- Helping small and medium-sized businesses to create jobs through programmes and measures funded by the European Union;
- Provision of conditions for opening new Higher Education Institutions in Kardzhali and other municipal centers;
- Modernisation of the learning process according to EU requirements;
- Developing a comprehensive strategy for the development and preservation of the historical and cultural heritage and traditions of the region;
- Stimulating cross-border cultural and domestic contacts with neighbours from Greece and Turkey;
- Modernization and reconstruction of the water supply network;
- Construction of sewerage system in all settlements over 500 people;
- Improving existing and building new

infrastructure to develop regional and cross-border links;

- Reconstruction of the railway network in the district and creation of conditions for railway connection with the Hellenic Republic;
- Retrofit and upgrade existing air transport infrastructure;
- Construction of a complete gas transmission and distribution network in Kardzhali district;
- Increased application of technologies for the use of bio-mass for energy production (pellets and others).
- Development of the renewable energy sector, through the construction of small hydropower, photovoltaic and wind power plants;
- Promoting the mass use of solar panels for DHW;
- Opportunity to build a Euroregion together with Haskovo Region and interested regions from the Hellenic Republic and the Republic of Turkey in order to improve the infrastructure in the region, socio-economic cohesion and environmental improvement.
- Increased participation in EU programmes and use of other opportunities for cross-border cooperation;
- Technological upgrading and expansion of telecommunications infrastructure;

#### SOCIAL AND HUMAN RESOURCES

- Using the necessary potential to create the appropriate motivation and retention of young people in the region of Kardzhali;
- Stimulating social entrepreneurship by exploiting opportunities for diversification of social services and innovative application in all sectors of the economy in the area;
- Developing the education sector and improving the quality of training, in order to meet the needs of the local labour market;
- Increase the share of employed graduates.
- Increasing average wages, while positioning in higher value-added sectors.

#### SOCIAL AND HUMAN RESOURCES

- Continuing negative demographic processes;
- Insufficiently motivated and qualified staff to service social activities and social institutions in Kardzhali district;
- Unavailability of co-financing to implement certain projects in Kardzhali district;
- Potential emergence of public discontent threatening the implementation of social investment projects;
- Lack of motivation on the part of the local population and civil society to engage in the process of educational, social and cultural

transformation;

- An increasingly ageing skilled workforce;
- Impeding integration processes;

#### TRANSPORT AND INFRASTRUCTURE

- Development of the infrastructure of GCP-Macaza and optimal functioning of OETC No. 9.
- Opening of other BCPs of regional importance - Avren, Egrek, Tihomir, Shumnatitsa, Benkovski-Challa, etc.
- Comprehensive improvement of the regional road network and connectivity to Corridor 9 and Transport Corridor 4 and 10;
- Potential for combining the different modes of transport and their efficient use by creating intermodal connections for road, rail and transport, sea and air transport;
- Stimulating PPPs and investment in major infrastructure projects;
- Prioritization and integration of the available historical, cultural and natural potential for the development of integrated tourism;
- Potential for development of transport infrastructure (water, land);
- Implementation of energy efficiency measures and production;
- Creation of infrastructure for collection, storage, warehousing and export of agricultural produce;
- Established gasification of industrial zones can serve as an incentive to attract potential investors and to develop local businesses.

#### ECOLOGY AND ENVIRONMENT

- Implementation of wastewater treatment plants;
- Developing an assessment of contaminated sites and waters and ending current contamination;
- Creation of a unified MSW management system;
- Establish a separate waste collection system.

#### TRANSPORT AND INFRASTRUCTURE

- The improvement of the quality of life of the inhabitants and the exploitation of the opportunities for economic and social development may be hampered by the deterioration of the ecological condition and of the existing sewerage network in some of the settlements in Kardzhali district;
- Insufficient funding from the state budget and European Union funds to build new and improve existing infrastructure;
- Ongoing process of division of hereditary estates resulting in a reduction in the average size of estates;
- Delay the establishment of water user unions by region;

#### ECOLOGY AND ENVIRONMENT

- Insufficient progress in tackling environmental problems;
- Presence of natural disasters;
- Insufficient funding from the state budget and other donors for environmental protection;
- Lack of interest in investments in the eco



- Creation of conditions for anti-erosion measures in the municipal and private land fund.
  - The presence of significant water bodies such as the dams: the Kardzhali and Studen Kladenets, as well as the passage of the Arda River through the middle of the town of Kardzhali are a good prerequisite for the development of the fisheries and aquaculture subsector, on the one hand, and the production of energy from renewable sources (micro and large hydroelectric power plants);
  - There are extensive areas that can be designated as an Ecologically Clean Area, which allows the development of organic production and enables local producers to certify themselves as organic producers;
  - Well-developed cross-border cooperation for economic cooperation
  - Availability of favourable natural and climatic conditions, including the highest number of days with sunshine, for the development of agriculture.
  - Construction of a new water treatment plant serving the industrial zones to attract potential foreign investors in high-tech and sustainable industries;
  - In the territory of Kardzhali district there are many protected areas under the Protected Areas Act, which gives the opportunity for the development of organic farming and organic production;
  - Increase in energy efficiency, implementation of renewable energy sources, reduction of greenhouse gas emissions and fossil fuel use in Kardzhali district can be tangible with the use of appropriate environmental protection programs and measures;
  - The potential of the available animal species, habitats and other natural attractions provides many opportunities for development, as well as responsibilities related to the use of the land and forests in these areas and the consideration of regional development projects;
- and bio industry;
  - Presence of low Natura 2000 coverage and protected areas;
  - The regional landfill operates with only one cell that will fill up in the next 4-5 years, which could lead to an environmental disaster if a new one is not built;
  - Presence of massive landslides with significant rainfall during winter and spring seasons that compromise existing infrastructure.
  - Presence of ongoing water and soil contamination;
  - Presence of calamities from diseases, pests and forest fires destroying large areas of newly created ecosystems

- The development of the Kardzhali region is linked to the opportunities for exploiting the natural and geographical features and potential of the river. Arda (opportunities for the development of river/reservoir infrastructure and river/reservoir tourism)
- The high level of air purity in Kardzhali district, above the average European air quality index, is a prerequisite for the development of various environmentally friendly economic activities.

#### TOURISM AND CULTURAL HERITAGE

- The availability of cross-border connectivity as well as inter-municipal connectivity to create regional tourist routes;
- Creating opportunities for eco, bio, sports, fishing and other types of tourism that have the potential to attract visitors from the country and beyond;
- Synchronise economic policy and use business to attract visitors to the various potential tourist sites.

#### TOURISM AND CULTURAL HERITAGE

- Changes in the natural conditions, including landslides, floods and others may not only threaten the preservation of the various potential tourist sites, but also compromise the development of tourism in Kardzhali district;
- The poor ecological condition of the Kardzhali district may negatively affect potential tourists along the river. Arda and the dams Kardzhali and Studen Kladenets;

### **Annex 1** List of abbreviations used

Abbreviation	Definition
GDP	Gross domestic product
BDS	Gross value added
HPP	Hydropower plant
RES	Renewable energy sources
Plumbing	Water supply and sewerage
BCP	Border crossing point
EE	Energy efficiency
EU	European Union
IAG	Executive Forest Agency
IARA	Executive Agency for Fisheries and Aquaculture
SME	Small medium-sized enterprises
NUTS	Planning areas
OETC	Trans-European Transport Corridor
RUG	Regional Forest Management
MSW	Municipal solid waste
CBC	Cross-border cooperation
TKZS	Worker cooperative agricultural holding
TP	Territorial division



# Interreg



EUROPEAN UNION

## Greece-Bulgaria

### MarCh

European Regional Development Fund

Cooperation Programme  
Interreg V-A Greece-Bulgaria 2014-2020

“Market Changer”

“MarCh”

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MAPPING AREA REPORT  
FOR THE DISTRICT OF KARDZHALI



Regional Industrial Association – Kardzhali

The Project is co-funded by the European Regional Development Fund (ERDF) and by national funds of the countries participating in the Interreg V-A “Greece-Bulgaria 2014-2020” Cooperation Programme



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## **INTRODUCTION**

### **1. BRIEF PRESENTATION OF THE DISTRICT OF KARDZHALI**

- Brief description of the area, its geographical location, surface, population

Kardzhali District is located in the Eastern Rhodopes and occupies a large part of the valley along the upper and middle reaches of the Arda River. The district is bordered to the west by the Smolyan region, to the north by the Haskovo and Plovdiv regions, and to the south and southeast by the Hellenic Republic. Kardzhali district is located in the South Central region.

Kardzhali District covers an area of 3 209.1 sq. km, which represents 2.9% of the territory of the Republic of Bulgaria.

The population of Kardzhali region as of 31.12.2020 is 160 781 people, of which 79 430 are men and 81 351 - women, and with different ethnic composition - Bulgarians, Turks, Roma, Armenians. The region is an embodiment of the Bulgarian ethnic model, considered an example in the Balkans and Europe because of the tolerant relations between different ethnic and religious groups.

On the territory of Kardzhali district the length of the road network is 2025,134 km, of which the national roads - first, second and third class are 649,013 km and 1376,121 km belong to the municipal road network. There are no motorways and private roads in the district.

The length of the common border of Kardzhali region with the Hellenic Republic is about 90 km. The border situation of the district is favourable in terms of development opportunities. This location, above all, determines the significant potential of Kardzhali District for cross-border cooperation.

- The administrative structure: prefectures/districts, municipalities, main urban centres, etc.

The centre of the administrative district is the town of Kardzhali. The administrative-territorial boundaries of the district include seven municipalities - Ardino, Dzhebel, Kirkovo, Krumovgrad, Kardzhali, Momchilgrad and Chernoochene. The number of settlements in them is 468.

Ardino Municipality is located on the border of the Western and Eastern Rhodopes on an area of 385 sq.km. and is one of the constituent municipalities of the Kardzhali District. It is situated in a small valley extension of the Ardynska River, a right tributary of the Arda River in the western foothills of the Zholti Lari Range, Western Rhodopes. To the north, east and south it is bordered by the municipalities of Chernoochene, Kardzhali and Dzhebel, and to the west by the municipalities of Nedelino, Madan, Banite of the Smolyan district.

#### **Territory**

Ardino municipality covers an area of 339 km<sup>2</sup>, which is about 10.6% of the territory of Kardzhali district.

- Relief, climate

The terrain is highly rugged mountainous and semi-mountainous. The altitude is about 600 m, in some settlements it reaches 1000 - 1200 m.

The climate of the area is characterised by mild and wet winters and hot and dry summers. The greater activity of Mediterranean cyclones in winter results in a pronounced winter maximum of precipitation. Average annual temperatures are 10 - 11 C. Annual rainfall 800 to 900 mm. Average number of days with snow cover - 37.3.

- Population

The population of Ardino municipality is 11572 people with different ethnic composition - Bulgarians, Turks, Roma.

- Locations

The municipality consists of 52 towns and villages. The administrative center of Ardino municipality is the town of Ardino.

- Transport infrastructure

The total length of the road network on the territory of the municipality amounts to about 200 km, most of which (127 km) consists of municipal roads and only 60 km are Republican roads and only third class roads.

Ardino Municipality has important transport-geographical functions, mainly in providing the internal Rhodope connections between the two main support centers - Kardzhali and Smolyan, carried out through the third-class road Smolyan-Rudozem-Kardzhali, crossing the territory of the municipality in parallel direction. The location of the municipality between the two future checkpoints - "Rudozem-Ksanti" and "Makaza" will turn the central part of the municipality's territory into an important transit corridor for the passage from the "Rudozem-Ksanti" checkpoint to Kardzhali and the Black Sea coast, and from "Makaza" to Smolyan and the interior of the Rhodopes, respectively.

- Economics

The economic profile of Ardino municipality can be defined as industrial-agrarian, with a constantly increasing share of the service sector. Industry is gradually giving way to the leading economic sector and is currently represented by weaving and clothing workshops. Agriculture in the municipality is of secondary importance, which is determined by the specific soil and climatic features of the area and, above all, by the topography, which creates difficulties in cultivating the land. Until recently, tobacco production was the main area of crop production, but its relative share in the structure of the sector has tended to decrease. The service sector is the fastest growing in the municipality, which is typical not only for the municipal centre but also for many of the municipality's villages, where around 36% of employment is in services. In view of the still untapped significant recreational potential of the municipality, it can be forecast that the share of the service sector will continue to grow in the future.

On the territory of Ardino municipality there are significant natural, anthropogenic and human resources for the development of tourism. Material traces of different eras and cultures have been

preserved in the municipality. A Tourist Information Centre has been operating in Ardino since 2004.

- Geographical location

In terms of natural conditions, the municipality of DDzhebel is included in the Eastern Rhodope complex physiographic sub-region of the Rilo-Rodope region. The municipality is adjacent to the municipalities of Kardzhali, Momchilgrad, Ardino, Zlatograd, Nedelino and Kirkovo. Dzhebel Municipality is 285 km away from the capital Sofia and 20 km away from the regional center - Kardzhali.

- Territory

Dzhebel Municipality occupies an area of 229 square kilometers.

- Climate and topography

The climate is transient - Mediterranean, relatively mild winters and hot summers. The average annual temperature is 11.8 and ranges from 11 to 13 degrees. Minimum temperatures during the winter months are relatively high. The average winter temperature is around 0 C and in summer - 24 C . The hilly topography prevails here. The area has a distinct hilly-ridge character. The average altitude is 330 m.

- Population

The population of Dzhebel municipality as of 2011 was 8162. The majority of the population is concentrated in the municipal centre of Dzhebel. Dzhebel - 27.39 %

- Locations

The municipality consists of 48 villages. The center of Dzhebel Municipality is the town of Dzhebel.

#### Transport infrastructure

The national and local road network on the territory of the municipality has a total length of 115 km. The main road artery that provides the connection of the municipality with the interior of the country is road III-508 and the length of the section is 19 km.

- Economics

The municipality of Dzhebel is characterized by predominantly agricultural production - mainly tobacco production, which is carried out within individual households. Almost all vegetable crops are grown to meet households' own needs. The municipality has the conditions - suitable agricultural areas for growing vegetable crops. There are established business entities operating mainly in the municipal centre, but they are mainly in the trade and repair sector.

Kirkovo Municipality is located in southern Bulgaria and is one of the constituent municipalities of the Kardzhali District. It borders with the municipalities of Krumovgrad, Zlatograd, Dzhebel and Momchilgrad, and the southern border of the municipality coincides with the state border with the Republic of Greece.

- Territory

Kirkovo Municipality is located on an area of 538 sq.km.

- Climate and topography

The climate is transitional Mediterranean with an average annual temperature between 110°C and 13.20°C. Winters are relatively mild, with 43 days of snow cover, and summers are long and hot. The average annual rainfall is 521mm. The relief is flat-hilly to hilly-montane. The northern slopes of the eastern Rhodope Mountains - Muglenik and Gyumurdzhinsky Snezhnik - fall within the municipality. The average altitude is 523 m., the highest point is the peak of Veikata - 1463 m.

- Population

The population of the municipality as of 2011 was 21916 people, or 14.5% of the population of Kardzhali district. The population density is 43.5 people per sq.km, which is significantly lower than the national average (70.3 people per sq.km).

- Locations

The municipality is made up of 73 settlements, all of which are villages and neighbourhoods. The centre of Kirkovo municipality is the village of Kirkovo. The urban structure includes - the municipal centre with. Kirkovo (808 inhabitants), 6 large villages - Benkovski, Chorbadzhijsko, Fotinovo, Tihomir, Chakalarovo and Drangovo (with population over 1000 souls) and 66 settlements with population under 1000 people.

- Transport infrastructure

The transport accessibility of the municipality of Kirkovo is ensured by a first class road network with a length of 28.5 km, a third class road network with a length of 58 km and municipal and local roads with a total length of 298.80 km. Strategic importance for the development of the municipality of Kirkovo has the first-class road E-85, which is part of the Pan-European transport corridor №9 (Helsinki - Dimitrovgrad - Alexandropolis). Its importance will increase with the opening of the Makaza BCP and the actual operation of the transport corridor. Rail transport is represented by the railway line Kardzhali-Momchilgrad-Podkova. The length of the railway line on the territory of the municipality is 5.5 km. The railway line connects the municipality with the regional centre of Kardzhali and the neighbouring municipality of Momchilgrad.

- Economics

Agriculture plays a decisive role in the economy of Kirkovo municipality, employing 62.6% of the total number of employed persons in the municipality. Those employed in industry account for 36.22 % of the total employment in the municipality. Industrial activity in the municipality of Kirkovo is not strongly present, which preserves the environmental parameters. In the industrial sector, tailoring and metalworking are the most developed.

Krumovgrad Municipality is located in the south-eastern part of Kardzhali District on an area of 843.3 sq. km. It borders the municipalities of Ivaylovgrad, Madzharovo, Kardzhali, Stambolovo,

Momchilgrad and Kirkovo, with the southern border of the municipality coinciding with the state border with the Republic of Greece.

- Territory

The municipality covers an area of 843 sq. km.

- Climate and topography

The relief is semi-mountainous and hilly, the average altitude is 425 m and the vertical dissection 170 m. The territory of Krumovgrad municipality falls in the northern periphery of the Mediterranean climatic influence and is characterized by a transitional-Mediterranean climate, the average annual temperature is 13.20°C, with a maximum temperature of 37.00°C and a minimum temperature of -16.00°C. Winters are relatively mild, with 43 days of snow cover and long, hot summers.

- Population

The population of Krumovgrad municipality as of 2011 was 17823. The population density is 26.6 people per sq. km, which is three times lower than the national average (70.3 people per sq. km). The main reasons for this are the strong migration processes and the absence of large settlements on the territory of the municipality.

- Locations

The municipality is composed of 78 settlements - the municipal centre of Sventoji Grad. Krumovgrad (8642 people), 7 large villages - Vransko, Golyama Chinka, Gorna Kula, Zvonarka, Polkovnik Zhelyazovo, Potochnitsa and Rogach (with population over 1000 souls), 56 medium-sized villages (with population between 200 and 1000 people) and 14 small villages (with population under 200 people). Without permanent population is the village of. Boynik.

- Transport infrastructure

The road network of Krumovgrad municipality includes secondary roads (27 km), tertiary roads (75 km) and municipal roads (261 km). The density of the road network in the municipality is 43 km/100 sq. km, which is higher than the national average (33km/100 sq. km). The main road arteries in the municipality are road III-509 Harmanli - Dolno Cherkovishte - Dolna Kula - Krumovgrad - Tokacka - Makaza and road II-59 Momchilgrad - Krumovgrad - Ivaylovgrad, which pass through the municipal centre of the town of Krumovgrad. Krumovgrad and connect the municipality with the neighbouring municipalities, the regional town and the national road network.

- Economics

Tobacco farming gives the economic image and characteristics of the municipality. In recent years, plantations have been established and white oregano, St John's wort, lemon balm and rose hips have been effectively cultivated. Areas of pepper, garden savory, etc. are reclaimed annually. These crops cannot be an alternative to tobacco as very little labour is involved in their production.

Kardzhali Municipality is located in the southeastern part of the Republic of Bulgaria. It borders the municipalities of Haskovo, Stambolovo, Momchilgrad, Ardino and Chernoochene.

- Territory

Kardzhali Municipality is the largest municipality in the Eastern Rhodope Mountain Range with a territory of 574 sq.km., which is 20% of the territory of Kardzhali District and 0.51% of the territory of the country.

- Relief and climate

Kardzhali municipality is located in the Ardina sub-region of the Eastern Rhodope region. The relief is low-lying and hilly. Its diversity is intensified by the erosion of the rivers, they form the modern labyrinth of ridges and complex valley network.

The municipality falls in the Southern Bulgarian climatic zone and more precisely in the Eastern Rhodope climatic region, influenced by the warm Mediterranean influence. The winter is relatively mild. Minimum temperatures during the winter months are relatively high. Summers are sunny and hot, with maximum temperatures reaching 40 degrees. The average winter temperature is around 0 degrees Celsius and 24 degrees in summer. The average annual temperature ranges from 11-13 degrees. The annual temperature total is about 4,000 degrees.

- Population

The population of Kardzhali municipality as of 2011 was 67,640,

- Locations

The municipality is made up of 117 settlements covered by 47 town halls. The town of KARDZHALI is the largest town in KARDZHALI District. It has developed into a natural administrative, commercial, cultural and industrial centre not only of the Municipality and the District, but also of the Eastern Rhodopes. The town is located 259 km from Sofia and 90 km from Plovdiv, which is the second largest city in Bulgaria. Currently, the nearest checkpoint "Kapitan Andreevo" is 132 km from the town and connects Bulgaria with the Republic of Turkey and the Republic of Greece.

- Transport infrastructure

The density of the road network is about 31km/100km<sup>2</sup>. The municipality is serviced by the road class I - Haskovo - Kardzhali. There is a well-developed IV-class road network. Trans-European transport corridor N 9 Helsinki - Alexandroupolis will pass through the municipality. The border crossing point "Makaza" with the Hellenic Republic is important for the cross-border region, 55 km south of the town. Kardzhali. The road network in the municipality is below the national average. This is determined by the flat nature of the terrain and the strong population displacement in many settlements. The fourth-class road network predominates. Transport links with Sofia and other parts of the country are made by rail and road. There is a well-equipped airport site, which is not used now.

- Economics

Kardzhali Municipality is an important economic centre in the South Central Region and the backbone of Kardzhali District.

A significant number of enterprises, companies and firms have been established in the non-ferrous metallurgy, mechanical engineering, textile and hosiery, wood and furniture industries and food processing. 86% of all enterprises in the municipality are privately owned and only 14% are state and municipal owned. In the structure of registered enterprises the largest share is held by commercial enterprises - 50.2%. The share of active companies in the sectors of Transport and Communications - 13.7%, Hotels and Restaurants -10.7% and Manufacturing - 9.4% is high. In Kardzhali municipality a significant number of enterprises, companies and firms have been established in non-ferrous metallurgy, mechanical engineering, textile and knitwear industry, wood and furniture industry, electronics and food industry.

The machinery industry provides the manufacture of machinery, equipment and tools required for underground mining and beneficiation; hydraulic and pneumatic products; high-pressure purification equipment; a range of low, medium and high pressure gauges and more.

The textile and knitwear industry specialises in the production of all types of outerwear and underwear. There are several tailoring enterprises in the municipality. In the municipality of Kardzhali there is a qualified human resource working in the enterprises of the sector, which is entirely directed to the private sector.

Furniture factories produce good quality furniture and joinery, although they operate at reduced capacity.

Timber harvesting is a sub-sector of forestry that is very well developed in the municipality of Kardzhali. The timber is exported to the interior of the country and abroad, and the wood is not processed in depth in the region.

The mild climate, the favourable geographical location, the rich cultural and historical heritage, the two "water lakes" - the dams provide an opportunity for year-round development of all forms of tourism in the municipality of Kardzhali.

The great biodiversity, unique natural attractions and preserved natural environment, unaffected by the negative influences of industrialization and urbanization make eco-tourism one of the priorities for the development of the municipality.

Momchilgrad municipality is located in the central part of Kardzhali region. The relief is mountainous, and the municipality includes the highly dissected eastern Rhodopean Stramni Ridge. It borders the municipalities of Kardzhali, Dzhebel, Krumovgrad and Kirkovo.

- Territory

Momchilgrad municipality is located on an area of 358 sq.km.

- Relief and climate

The topography is mountainous, with the municipality containing the heavily dissected part of the Eastern Rhodope Stramni Ridge, about 40 km long and between 15-22 km wide. The slopes are

deforested and eroded, in places there are landslides. The highest peaks are Strumni rid - 960m, Zdravets (Dambal) - 910m and Cherkovishte (Klise tepe) 871m. Many of the tributaries of the Vrbitsa and Krumovitsa rivers originate from them, and the ridge itself is the watershed between the two rivers. The average altitude of the municipality is 444 m. The climate is temperate-continental to Mediterranean-with average annual temperatures around 11°C and average annual rainfall between 650-700 mm.

- Population

The population density of Momchilgrad municipality as of 2011 was 47.08 people per sq. km, which is significantly lower than the national average (70.3 people per sq. km), but the municipality is relatively densely populated compared to the constituent municipalities of the district.

- Locations

The municipality is composed of 47 settlements most of which have a population of less than 200 people and one of the settlements is depopulated. Yunatsi. Larger villages are Gruevo and Zvezdel. The centre of the municipality is the town of Zvezda. Momchilgrad.

- Transport infrastructure

Part of the trans-European international transport corridor №9 Helsinki - Dimitrovgrad - Alexandroupolis passes through the territory of the municipality. The road III-509 Kardzhali-Momchilgrad-Krumovgrad-Ivaylovgrad is also of municipal importance. The road provides connection with Momchilgrad municipality and Ivaylovgrad municipality (Haskovo region). It is part of the republican network and is in good technical condition. The municipal road network has a total length of 90.30 kilometres, additionally there are roads with felt and stone pavement with a total length of 50 kilometres. The density of the road network is 252.16 km/1000 sq.km, which is significantly below the national average (330 km/1000 sq.km). Railway transport is represented by the railway line Kardzhali - Momchilgrad - Podkova village with a length of 22 km.

- Economics

Local industry is dominated by light industry. A characteristic feature of the local economy is the concentration of industrial production in the municipal centre. Manufacturing and light industry, with minor exceptions, are located in Momchilgrad and some of the larger settlements in the municipality - s. Gruevo, s. Raven, Nanovitsa. The main agricultural crop is tobacco, fodder crops, medicinal plants and vegetables are represented. Livestock breeding is dominated by sheep and cattle breeding, poultry and beekeeping are less developed. The service sector is represented by trade, and tourism has no significant presence in the municipality's economy, despite the availability of resources to develop a tourism product.

Chernoochene municipality is located in the northwestern part of Kardzhali region and borders with the municipalities of Kardzhali and Ardino. In its western and northern part the municipality shares borders with the municipality of Banite in Smolyan region and the municipalities of Asenovgrad and Parvomay in Plovdiv region, while in the north-north-east it borders with the municipalities of Haskovo and Mineralni bani in Haskovo region.



- Territory

The municipality covers an area of 327 sq.km., which represents 10.2% of Kardzhali district.

- Relief and climate

Chernoochene municipality is located in a small valley 15 km northwest of the town of Kardzhali. The average altitude is 645m , with a vertical drop of 240m. The relief on the territory of the municipality is very rugged and has a mountainous and hilly character. The municipality falls in the South Bulgarian climatic region and more precisely in the Eastern Rhodope climatic region, influenced by the warm Mediterranean influence. The winter is relatively mild. Minimum temperatures during the winter months are relatively high. Summers are sunny and hot, with maximum temperatures reaching 40 degrees. The average winter temperature is around 1°C and in summer it is 24°C . The average annual temperature ranges from 11° to 13° degrees. Precipitation is about 680 mm per year, mostly from rain.

- Population

The total population of the municipality is 9607 people.

The territory of the municipality is sparsely populated - 32 people per km<sup>2</sup>. The gender structure of the population shows an insignificant difference in the number of men and women.

- Locations

The municipality is composed of 51 villages, of which only the village of Komuniga has a population of more than 1000 people. The municipal centre is the village of Chernoochene

- Economics

Agriculture plays a decisive role in the economy of Chernoochene municipality, employing 53.2% of the total number of employed persons in the municipality. Traditionally, tobacco, cereals and, to a lesser extent, vegetables and fruit growing have been the most widespread. Industry is growing, mainly represented by enterprises in the clothing industry. Those employed in industry account for 42.15% of total employment in the municipality.

Tourism is not one of the significant sectors for the development of the municipality. The only exception is hunting tourism, the prerequisite for which is the state game-hunting base in the village of Zhenda, located on an area of 5 258 hectares.

- Physical features (mountains, lowlands, etc.)

Kardzhali district occupies most of the Eastern Rhodopes. The relief of the district is predominantly mountainous and semi-mountainous. The highest points in the district are Veikata Peak /1463 m/ in the southern part and Alada Peak /1241 m/ and Chilyaka Peak /1450 m/ in the western part. The terrain of the District is cut by the upper and middle reaches of the Arda River, together with its tributaries the r. Vrbitsa, r. Krumovitsa and r. Perperek. Along the valleys of these rivers are the most fertile lands and the largest settlements. The town of Kardzhali is situated along the Arda River, the town of Momchilgrad along the Varbitsa River and the town of Krumovgrad along the Krumovitsa River.

According to the geographic zoning of the Republic of Bulgaria, Kardzhali District is located in the Eastern Rhodope sub-region of Southern Bulgaria. This area covers the low mountainous hilly relief along the middle reaches of the Arda River. The average altitude is 329 m.

#### - Climate

Climate.

Minimum temperatures during the winter months are relatively high. The average winter temperature is around 0 C. Summers are sunny and hot, and the average summer temperature is 24 C. The annual temperature sum is about 4000 C. The southern geographical position of the municipality determines a higher level of solar radiation and a longer duration of sunshine - over 2250 hours per year.

Rainfall is mainly from rain, with the annual total of around 600l/m<sup>2</sup> below the national average. During the autumn-winter period, under the influence of Mediterranean cyclones, some of the heaviest rainfall falls. There are two rainfall peaks: winter-November/January; spring-May/July and a dry period in August and September.

North, north-easterly and southerly winds prevail in the area of the municipality. Due to the nature of the topography, the winds are relatively low speed - up to 1 m/s in 60-70% of cases. Winds with speeds of 15-20 m/sec can be observed only in certain periods - most often in spring, and in most cases these are southerly winds with a fjonc character

#### - Cultural heritage

Cultural institutions and monuments of culture, historical sites, natural landmarks and archaeological monuments on the territory of Kardzhali District by municipalities:

#### **Municipality of KARDZHALI**

Monuments of culture in Kardzhali municipality are. St. John the Forerunner", "Isaclartepe Peak" and "Stone Pyramids".

The region of Kardzhali is well known for its numerous fortresses and temples dating back to antiquity. The ancient inhabitants of our lands have bequeathed us a heritage of numerous monuments from different historical epochs; prehistoric finds, Thracian tombs and Roman bridges.

The antiquities of the area boast the most ancient cultural centres of Aegean and Mediterranean. The Episcopal centre discovered in the area of Borovica is considered to be the earliest such Christian monument in south-eastern Europe.

The monastery "St.. John Prodomos" in the district of. "Veselchane" in Kardzhali.

During the studies of the complex it was proved that Christianity entered these lands as early as the 9th century. The walls of the church in the monastery were covered with magnificent images of saints - warriors in the clothes of Byzantine aristocrats. In the crypt of St. John Prodromos" were found the remains of a high bishop in unique golden cloth vestments and a cloth cross with an image of the Virgin Mary. The cult complex of Perperikon is the undisputed favorite among the numerous historical monuments of Kardzhali.

The Holy City occupies an area of 17 thousand square meters. This amazing monument is earlier than the famous Troy and was rightly called the Bulgarian Mycenae. On this spot Alexander the Great received the prediction that he would conquer the world. Perperikon is the archaeological sensation that got the world talking about Kardzhali and Bulgaria. Particles of the Cross of Christ, found at the cult complex, were carried in a procession to the monastery complex "Assumption of the Virgin Mary". The numerous Thracian rock niches, necropolises, sanctuaries, medieval fortresses that dot Kardzhali are part of the amazing cultural and historical heritage of this region. The Regional History Museum in Kardzhali has one of the richest collections in Bulgaria.

More than 45 thousand exhibits, spread over 1800 square meters, tell about the extraordinary history and fate of the Eastern Rhodopes. Only here you can see the best examples of the folk culture of the Eastern Rhodope region for the period from the end of the 19th to the beginning of the 20th century. The exhibition also traces the livelihoods of the local population, which created the conditions and traditions for the modern development of the area.

### **Ardino Municipality**

The following historical sites are registered in the municipality of Ardino: / Eagle Rocks - Thracian sanctuary, Devil's Bridge, Thracian sanctuary "Eagle Rocks" and "Ardino Waterfall" /.

### **Krumovgrad Municipality**

On the territory of Krumovgrad municipality are registered 38 archaeological monuments of culture and 12 architectural monuments.

### **Kirkovo Municipality**

On the territory of the municipality of Kirkovo are registered 35 monuments of culture. These include 11 arched bridges, 3 mills, 2 konaks, 2 rock formations, 1 Thracian sanctuary, 1 medieval church, 2 fortresses / Thracian and medieval /, 1 rock niche, 1 rock tomb, 6 settlements / medieval, late Roman and from the Stone Age /, 1 archaeological site, 1 mosque and 2 necropolises / cist and burial mound /.

## Dzhebel Municipality

There are 3 cultural monuments in Dzhebel municipality: the medieval fortress "Ustra", the ancient rock tomb "Khambar Kaya" and the rock tomb.

The following monuments of culture are registered in Momchilgrad Municipality: the "Strumni Rid" and "Dambala" Peak, the Thracian sanctuary "Tatul" and the Thracian rock cemetery "The Petrified Forest".

The following cultural sites are located in the municipality of Chernoochene.

Kuzlchirpa", peak "Chilyaka" and peak "Bezdiven".

The cultural sites in Kardzhali Region that are of regional and above municipal importance are theatres, historical museums, art galleries. The Historical Museum in the town of Kardzhali. Kardzhali is of national importance.

### - Transport infrastructure

The territory of Kardzhali Region is crossed by the Pan-European Transport Corridor (TEN-T) No. 9 Helsinki - St. Petersburg - Moscow/Pskov - Kiev - Lubashevka - Chisinau - Bucharest - Ruse - Dimitrovgrad - Makaza Pass - Alexandroupolis. The transfer of international flows between Romania, Bulgaria and Greece is mostly carried out through the Captain Petko Voyvoda BCP (Haskovo region), the Captain Andreevo BCP (Haskovo region) and the Makaza BCP (Kardzhali region), opened in early September 2013. The construction of the Makaza BCP, as well as the reconstruction and modernisation of the constituent infrastructure of the OETC No 9, has established this north-south route as a competitive route through Bulgarian territory for the connection between the Baltic Sea and the North Sea, and resumed the movement of people and freight along the Russia-Romania-Bulgaria-Greece axis and the Aegean Sea region. Passage of the OETC No 9 across our southern border has had the greatest positive impact on regional development in the South Central Region, including and especially in the Kardzhali Region. The functioning of the Makaza BCP has promoted cooperation between the two border regions, the distance between Kardzhali and Komotini (Greece) has been significantly reduced (228 km and 112 km respectively). Access was also provided to the port of Alexandroupolis (Greece), 170 km from the regional centre, the town of Kiev. Kardzhali. The high flow through the Makaza BCP in turn created a need to ease traffic through it. In this regard, work is underway to widen it and build a 15 km bypass road with five viaducts and bridge structures designed for heavy traffic.

The regional centre of the town of Kardzhali is about 100 km from the nearest operational airport (Plovdiv). The nearest seaport (in Burgas) is 255 km away. The nearest BCP with the Republic of Turkey is BCP "Kapitan Andreevo" (Haskovo district) and is located 130 km from the town of Kardzhali. The territory of the Republic of Bulgaria is 130 km from the town of Kardzhali. The nearest BCPs with the Hellenic Republic are BCP "Zlatograd-Ksanti" (Smolyan district) - 65 km, BCP "Kapitan Petko Voyvoda" (Haskovo district) and BCP "Ivaylovgrad-Kiprinos" (Haskovo district), which are 110 km and 115 km away respectively.

Table Length of transport network in Kardzhali district by year

Topics	Indicators	2016	2017	2018	2019	2020
Transport	Length of motorways (km)	-	-	-	-	-
	Length of first class roads (km)	73	73	73	73	73
	Length of secondary roads (km)	81	81	81	81	81
	Length of third-class roads (km)	503	503	495	495	495
	Length of railway lines (km)	67	67	67	67	67

Source: National Statistical Institute

#### - The administrative infrastructure

Regional Administration - Kardzhali

Municipal administrations of Ardino, Dzhebel, Kirkovo, Krumovgrad, Kardzhali, Momchilgrad and Chernoochene

Administrative Court - Kardzhali

KARDZHALI District Court

District courts - in Kardzhali, Momchilgrad, Krumovgrad and Ardino.

Regional Directorate of the Agriculture Fund - Kardzhali

Employment Agency - Kardzhali

DBTs

Social Assistance Directorate - Kardzhali

National Statistical Institute - TSB Kardzhali

Regional Road Management Kardzhali

State Archives of the town of. Kardzhali

State Agency for Youth and Sport

Regional Directorate of NRA Plovdiv - Kardzhali office

Court of Auditors - Kardzhali

Ministry of Interior - Regional Police Department Kardzhali

Regional Directorate of State Road Administration - Kardzhali

Regional Military Sector - Kardzhali Region

## 2. DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF THE POPULATION

- Population change by district, municipality, urban/rural population, etc.

Table Population change - demographic balance and crude rates at regional level (NUTS 3)

year		2017	2018	2019	2020	2021
<b>BG425</b>	<b>Kardzhali region</b>	150 837	151 113	152 873	158 204	160 781

Source: Eurostat

Table Population structure indicators by NUTS 3 region - Average age of population [MEDAGEPOP]

year		2014	2015	2016	2017	2018	2019	2020	2021
<b>BG425</b>	<b>Kardzhali region</b>	42,8	43,7	44,2	44,8	45,1	45,4	46,3	46,8

Source: Eurostat

Table Net migration assumptions by age, sex, type of forecast and NUTS 3 region

year	2019	2020	2030	2040	2050	2060	2070	2080	2090	2100
<b>Kardzhali region</b>	<b>1 881</b>	<b>1 495</b>	<b>934</b>	<b>1 106</b>	<b>1 312</b>	<b>1 543</b>	<b>1 825</b>	<b>2 076</b>	<b>2 358</b>	<b>2 615</b>

Table Population as of 31.12.2021 By district, municipality, place of residence and sex

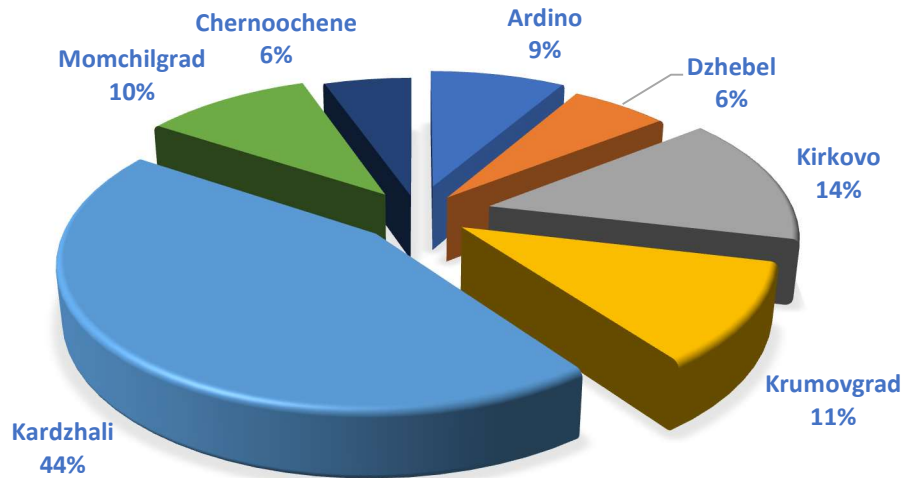
(Number)

Areas	Total			In cities			In the villages		
	All	men	women	All	men	women	All	men	women
Kardzhali	161 024	79 623	81 401	64 566	30 895	33 671	96 458	48 728	47 730
Ardino	13 464	6 743	6 721	4 088	2 018	2 070	9 376	4 725	4 651
Dzhebel	9 751	4 910	4 841	3 391	1 662	1 729	6 360	3 248	3 112
Kirkovo	22 990	11 369	11 621	-	-	-	22 990	11 369	11 621
Krumovgrad	18 112	9 133	8 979	4 868	2 310	2 558	13 244	6 823	6 421
Kardzhali	71 404	34 747	36 657	44 071	20 901	23 170	27 333	13 846	13 487
Momchilgrad	16 635	8 353	8 282	8 148	4 004	4 144	8 487	4 349	4 138
Chernoochene	8 668	4 368	4 300	-	-	-	8 668	4 368	4 300

Source: National Statistical Institute

The population of Kardzhali district as of 31.12.2021 is 161 024 inhabitants, of which 49,45% are men and 50,55% women. The biggest difference in the gender ratio is in Kardzhali municipality - 48.66% men / 51.34% women. The ratio of those living in cities to those in villages is 2/3, which implies the development of agricultural activities.

### POPULATION BY MUNICIPALITY - 31.12.2021.



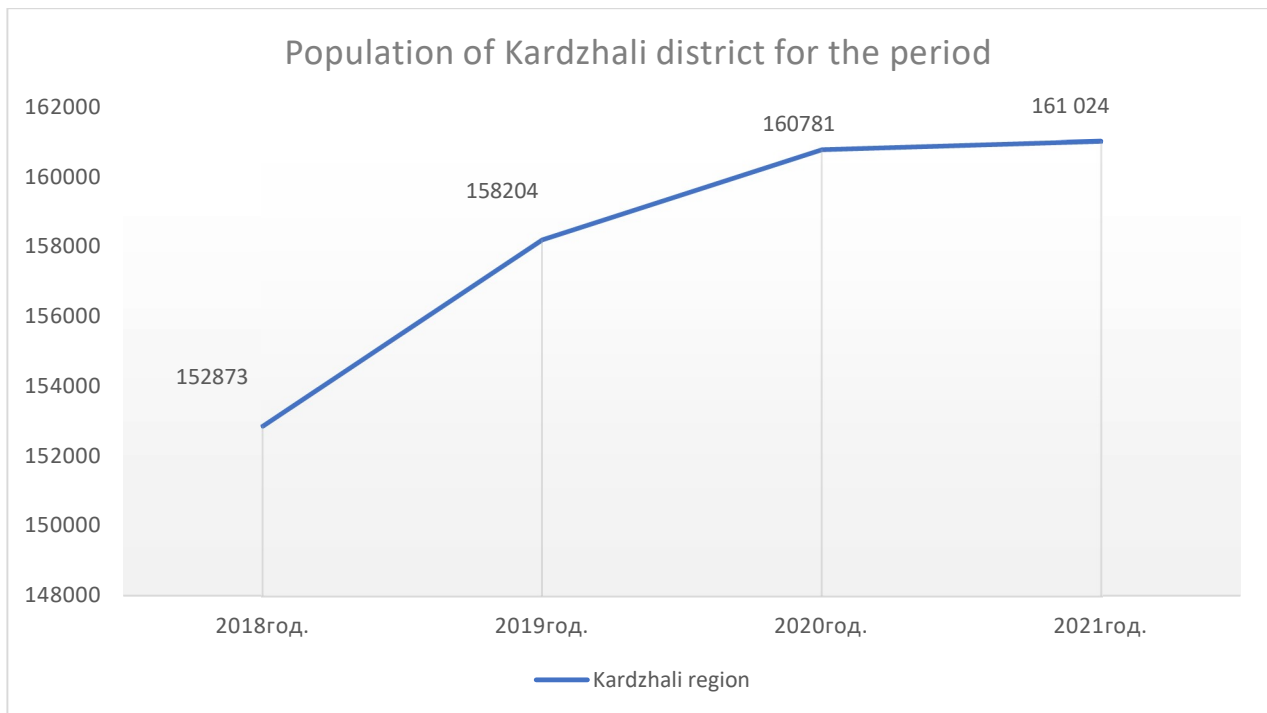
The population in Kardzhali District is unevenly distributed by municipality, with approximately 44% of the population concentrated in the largest municipality - Kardzhali, and the rest relatively evenly distributed (from 6% to 14%).

Municipality	2018.	2019.	2020.	2021.
Ardino	12792	13485	13618	13 464
Dzhebel	8441	9386	9696	9 751
Kirkovo	21254	22375	22782	22 990
Krumovgrad	17081	17775	18053	18 112
Kardzhali	68727	70097	71320	71 404
Momchilgrad	15787	16314	16530	16 635
Chernoochene	8791	8772	8782	8 668
Kardzhali region	152873	158204	160781	161 024

Source: National Statistical Institute

In contrast to the persistent depopulation of the population of Kardzhali district over the last 30 years, we find an increase for the period 2018-2021 of approximately 5%, with the most pronounced process in the municipality of Dzhebel with 14% and the only municipality with negative growth is Chernoochene with -1.4%.

Fig. Population dynamics of Kardzhali district for the period 2018-2021.



**- Aging index**

Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Population over 65.	26060	26089	26366	27426	28276	28768	29476	30666	32774	34242	35191

Source.

In Kardzhali district there is an increase in the number of inhabitants over 65 years for the last 10 years - 2021 at the base of 2011, by approximately 35% , with a simultaneous increase for the same period of the population by 5.93%. and the percentage of the population over 65 years to the total population as of 31.12.2021 is 21.85%, compared to 17.14 as of 31.12.2011, which indicates a sustained and strong rate of population aging.

Indicators	Years				
	2016	2017	2018	2019	2020
Natural growth rate (per 1 000 population) - ‰	-3.3	-3.9	-3.7	-3.6	-7.1
Infant mortality rate (per 1 000 live births) - ‰	44747	44778	44806	44568	6.0



Mortality rate - total (per 1 000 population) - ‰	44724	13.0	44785	44724	44665
Mortality rate - males (per 1 000 population) - ‰	44817	44694	14.0	44725	44788
Mortality rate - women (per 1 000 population) - ‰	44631	44693	44723	44723	44816

Table Population as of 31.12.2021 in Kardzhali district, by age, place of residence and sex

<b>POPULATION AS OF 31.12.2021. DISTRICT OF KARDZHALI, BY AGE, PLACE OF RESIDENCE AND SEX (Number)</b>									
Areas Age	Total			In cities			In the villages		
	All	men	women	All	men	women	All	men	women
<b>Total for the country</b>	<b>6 838 937</b>	<b>3 311 311</b>	<b>3 527 626</b>	<b>5 000 496</b>	<b>2 396 362</b>	<b>2 604 134</b>	<b>1 838 441</b>	<b>914 949</b>	<b>923 492</b>
<b>Kardzhali</b>	<b>161 024</b>	<b>79 623</b>	<b>81 401</b>	<b>64 566</b>	<b>30 895</b>	<b>33 671</b>	<b>96 458</b>	<b>48 728</b>	<b>47 730</b>
0	1 081	572	509	489	250	239	592	322	270
1 - 4	6 347	3 318	3 029	2 767	1 433	1 334	3 580	1 885	1 695
5 - 9	7 654	4 026	3 628	3 562	1 866	1 696	4 092	2 160	1 932
10 - 14	7 521	3 840	3 681	3 549	1 860	1 689	3 972	1 980	1 992
15 - 19	6 734	3 411	3 323	3 224	1 616	1 608	3 510	1 795	1 715
20 - 24	5 318	2 766	2 552	2 296	1 190	1 106	3 022	1 576	1 446
25 - 29	7 253	3 556	3 697	2 956	1 420	1 536	4 297	2 136	2 161
30 - 34	10 159	4 844	5 315	4 107	1 905	2 202	6 052	2 939	3 113
35 - 39	11 338	5 506	5 832	4 770	2 236	2 534	6 568	3 270	3 298
40 - 44	12 234	6 375	5 859	5 236	2 576	2 660	6 998	3 799	3 199

**POPULATION AS OF 31.12.2021. DISTRICT OF KARDZHALI, BY AGE, PLACE OF RESIDENCE AND SEX  
(Number)**

Areas Age	Total			In cities			In the villages		
	All	men	women	All	men	women	All	men	women
45 - 49	11 530	6 169	5 361	4 948	2 496	2 452	6 582	3 673	2 909
50 - 54	12 101	6 383	5 718	4 898	2 397	2 501	7 203	3 986	3 217
55 - 59	12 834	6 609	6 225	4 807	2 306	2 501	8 027	4 303	3 724
60 - 64	13 729	6 698	7 031	4 902	2 271	2 631	8 827	4 427	4 400
65 - 69	12 874	6 130	6 744	4 382	1 993	2 389	8 492	4 137	4 355
70 - 74	8 923	4 051	4 872	3 036	1 336	1 700	5 887	2 715	3 172
75 - 79	6 155	2 629	3 526	2 040	818	1 222	4 115	1 811	2 304
80 - 84	4 319	1 694	2 625	1 488	554	934	2 831	1 140	1 691
85 - 89	2 191	836	1 355	798	281	517	1 393	555	838
90 - 94	578	156	422	261	69	192	317	87	230
95 - 99	138	52	86	46	21	25	92	31	61
100 +	13	2	11	4	1	3	9	1	8

Source: National Statistical Institute

Table Structure of the population in Kardzhali district in 2021, by place of residence, sex ratio and age dependency ratios

Statistical regions Districts	2021				
	Population structure by place of residence		Sex ratio	Ratio of the population aged under 15 and aged 65 and over to the population aged 15 to 64	Ratio of population aged 65 and over to population aged 15-64
	%		number of women per 1000 men	%	%
	city	village	Total	Total	Total
Total for the country	73.1	26.9	1 065	56.7	34.0
South Central Region	67.0	33.0	1 064	57.0	34.1
Kardzhali	40.1	59.9	1 022	56.0	34.1

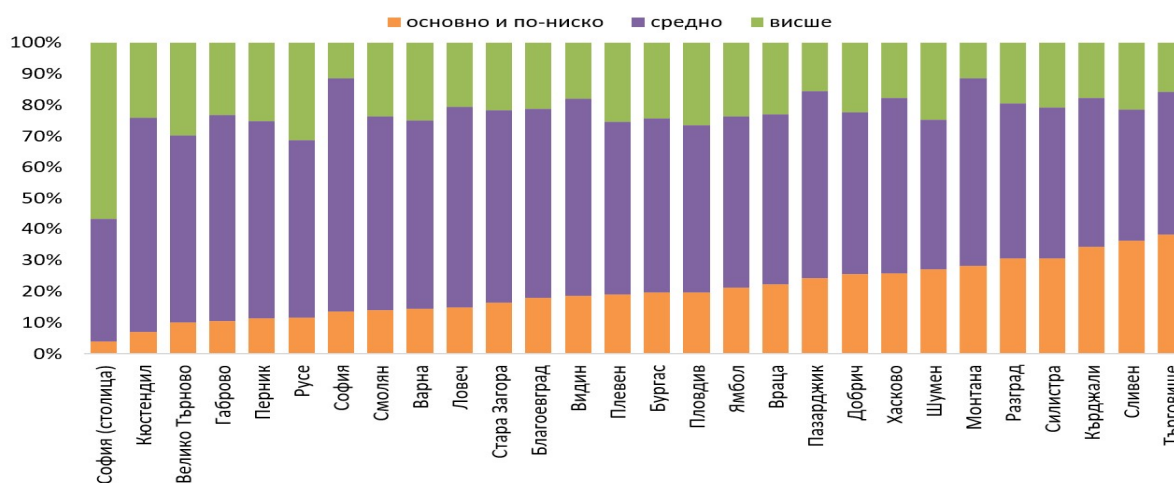
Source: National Statistical Institute

#### - Educational level of the population

Districts with unfavourable structure are Sliven, Kardzhali, Silistra, Razgrad, Montana.

Относителен дял на населението на възраст 25-64 г. по степен на завършено образование (%), 2020 г.

Източник: НСИ



In the period 2009-2020, the share of the population aged 25-64 with primary and lower education decreased by 5 percentage points, while the share of graduates increased by 6 percentage points.

Table Graduates in 2021 By level of education, statistical area, statistical region and district (Number)

Statistical zones, statistical areas and districts	Basic education				Secondary education			
	Total	general education schools	special schools	art and sports schools	Total	mainstream and special schools	art and sports schools	vocational schools
Total	59 697	58 299	47	1 351	43 034	25 203	1 756	16 075
Kardzhali	1 246	1 246	-	-	924	676	-	248

Source: National Statistical Institute

### 3. ECONOMY OF THE REGION (1)

#### 3.1 Development of Gross Domestic Product (GDP) - Gross Value Added (GVA)

- GDP development, data by sector and by prefecture/district (administrative unit)

According to NSI data, the GDP in Kardzhali region for 2020 is BGN 1,760 million, compared to the national GDP of BGN 119,951 million. The GDP per capita of the district for 2020 is BGN 11 034, compared to the average GDP for Bulgaria BGN 17 299.

#### GDP and GVA table with data for 2020.

NUTS code	Statistical zone	GVA, Million BGN		GDP, Million BGN	
		2011	2020	2011	2020
EN	BULGARIA	70 807	103 977	81 124	119 951
BG42	South Central Region	9932	15 233	11 374	17 574
BG425	Kardzhali	753	1 525	863	1 760

Source: National Statistical Institute

- GDP per capita - development (last decade)

Table GDP per capita - development (last decade)

NUTS code	Statistical zone	GDP per capita, BGN 2011 г.	GDP per capita, BGN 2020 г.
EN	BULGARIA	11 040	17 299

<b>BG42</b>	<b>South Central Region</b>	7 707	12 505
BG425	Kardzhali	5 660	11 034

Source: National Statistical Institute

- GDP/GVA by sector (primary, secondary, tertiary sector) and by main sector of economic activity

GVA by economic sector with data for 2020.

		GVA by economic sector		
NUTS code	Statistical zone	Agrarian	Industry	Services
EN	BULGARIA	4 205	26 297	73 474
BG42	South Central Region	919	5 619	8 696
BG425	Kardzhali	197	697	632

Source: National Statistical Institute

- Specific GDP characteristics (most dominant sectors/industries)

Industry in Kardzhali district is a reflection of the economic processes developed in the national economy and the south central region. In recent years, the gross domestic product in the district, although at a low rate, has been growing, which is typical for most regions in the country.

According to NSI data, the GDP in Kardzhali region for 2020 is BGN 1,760 million, compared to the national GDP of BGN 119,951 million. The GDP per capita of the district for 2020 is BGN 11 034, compared to the average GDP for Bulgaria BGN 17 299.

The area has great potential for attracting foreign investment.

Foreign direct investment (FDI) in non-financial sector enterprises in Kardzhali region as of 31 December 2020 amounted to EUR 256.4 million, which is 20.1% less compared to 2019. Their share in the total amount of foreign investments made in the country is 1.0%, respectively 8.8% of foreign direct investments within the South Central Region.

In 2020, the highest value of foreign direct investment was made in industry (mining, manufacturing and other industries; water supply; sewerage services, waste management and remediation) - 249.8 million euros, or 97.4% of all investment. In the trade; repair of motor vehicles and motorcycles; transport, storage and post; hotels and restaurants sector, EUR 2.8 million, or 1.1% of the total amount of FDI made in the district, was invested.

Table Business demography and high growth enterprises by NACE Rev. 2 and NUTS 3 regions  
Population of active enterprises in t - number

year	2015	2016	2017	2018	2019
<b>Kardzhali region</b>	4 891	5 139	5 219	5 188	5 221

Source: National Statistical Institute

**Tourism:**

In April 2022, there were 50 accommodation places with more than 10 beds - hotels, motels, campsites, lodges and other short-term accommodation places. The number of rooms in them was 842 and the number of beds - 1 672.

The total number of bed nights across all accommodation recorded in April 2022 is 9,826. The number of nights in 1 and 2 star accommodation is 7,360 and the number of nights in 3 star accommodation is 2,466.

In April 2022, 76.9% of the total number of overnight stays of Bulgarian citizens and 61.1% of the total number of overnight stays of foreign citizens were in 1- and 2-star accommodation, while in 3-star accommodation they were 23.1% and 38.9%, respectively.

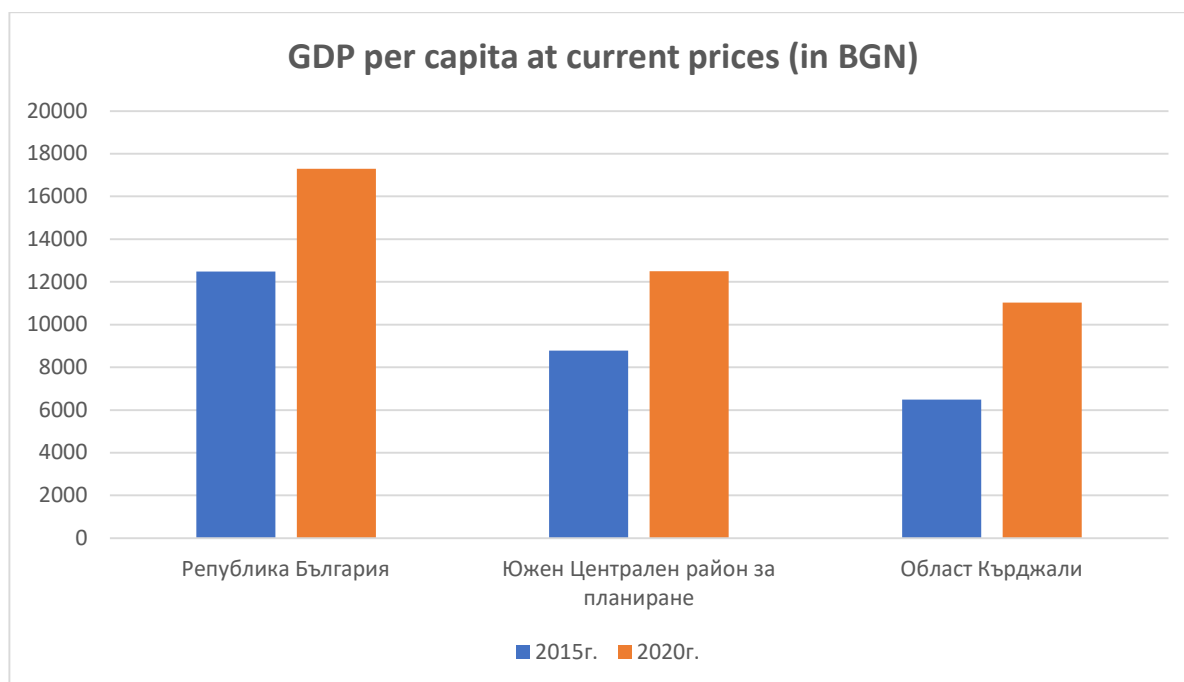
Most of the overnight stays were made by foreign nationals from Turkey - 74.9%, followed by Greece - 6.8%, the United Kingdom - 3.2% and Italy - 2.4%.

Table GDP per capita at current prices (in BGN)

Region / Years	2015г.	2020г.
<b>Republic of Bulgaria</b>	<b>12483</b>	<b>17299</b>
South Central Planning Region	8783	12505
Kardzhali region	6483	11034

Source: National Statistical Institute

In 2020, in Kardzhali district, GDP per capita at current prices has increased to BGN 11 034, with a 70.2% growth since 2015. At the same time, on a 2020 basis, the regional GDP relative to national and SADC level data appears to be 63.8% and 88.2%, respectively, indicating the low value added of local economic activities.



According to the chart above, in contrast to the lower absolute values, the growth rate of GDP at current prices for Kardzhali region in 2020 on the basis of 2015 (70.2%) is higher than those at the level of Bulgaria (38.6%) and South CPRD (42.4%), which indicates a better structuring of the business in the region in the last 5 years in terms of the value added generated relative to the population.

### 3.2 Active population - Employment - Unemployment

#### - Dynamics of the economically active population

According to the preliminary data of the National Statistical Institute (NSI) - OSI Kardzhali, the number of employed persons under employment and service relationship in Kardzhali district by the end of December 2021 will increase by 0.2 thousand, or by 0.7% compared to the end of September 2021, reaching 31.5 thousand. Compared to the end of the third quarter of 2021, the number of persons employed in the private sector increased by 0.7% (to 22.1 thousand) and in the public sector - by 0.6%, reaching 9.5 thousand.

At the end of December 2021, compared to the same period of the previous year, the total number of persons employed under employment and service relationships increases by 6.8%. Compared to the end of December 2020, public sector employees increase by 7.8% (or by 0.7 thousand) and private sector employees by 6.4% (or by 1.3 thousand).

In the fourth quarter of 2021, the average monthly wage for the district increased by 3.4% compared to the third quarter of 2021 and reached BGN 1 205. For the public sector, the average monthly wage is BGN 1 502 and for the private sector - BGN 1 077. In the fourth quarter of 2021, the average gross monthly wage for Kardzhali district increased by 1.2% compared to the same period of the previous year.

LABOUR FORCE AND ECONOMIC ACTIVITY RATES OF THE POPULATION AGED 15-64 IN 2021						
Statistical zones Statistical regions Districts	Workforce - thousand.			Economic activity rates - %		
	Total	men	women	Total	men	women
Total	3 155.3	1 689.2	1 466.1	72.0	76.2	67.7
South Central	613.6	330.8	282.8	68.9	73.5	64.2
Kardzhali	71.5	39.0	32.6	69.0	74.3	63.7

Source: National Statistical Institute

According to the table above, the workforce in Kardzhali district in 2021 represents 2.3% of the workforce at the national level and 11.7% of the workforce at the level of the South-Central Development Region. At the same time, the indicator for the economic activity rate is relatively the same as that of the SADC and 3 percentage points lower than that of the national level, mainly in view of the specificity of the region in terms of increased labour migration and the lack of a sufficiently accurate picture of the working population of the district in other EU countries.

Table Labour market dynamics in Kardzhali district by years 2016-2020

Indicators / years	2016	2017	2018	2019	2020
Average number of persons employed under the employment relationship (number)	30 599	30 749	31 313	31 428	30 245
Average annual salary of employees (BGN)	8 335	9 285	10 419	11 356	12 705
Economic activity rate - 15 - 64 years (%)	61.0	61.5	60.7	65.1	62.8
Employment rate - 15 - 64 years (%)	60.0	60.5	58.6	63.7	61.9
Unemployment rate (%)	(1.7)	(1.6)	(3.3)	(2.0)	(1.4)
Unemployed persons registered in the labour offices as of 31.12. (number)	7 012	6 594	5 745	5 537	4 853
Proportion of population aged 25-64 with tertiary education (%)	15	13.8	16.8	18.6	17.6
Proportion of population aged 25-64 with secondary education (%)	54.7	53.1	47.5	47.7	48.1
Proportion of the population aged 25-64 with primary education or less (%)	30.3	33.1	35.7	33.7	34.3

Source: National Statistical Institute

- Employment by manufacturing sector and by industry - development (last decade)



Table Employed persons in Kardzhali district by years 2011-2017

Employment Kardzhali district	2011	2012	2013	2014	2015	2016	2017
Total	74,049	75,406	74,442	73,195	72,757	69,671	68,882
Agriculture, forestry and fisheries	37,132	36,184	36,82	35,983	34,119	30,914	29,591
Industry (excluding construction)	13,721	14,295	13,466	13,437	14,178	14,262	14,099
Including: manufacturing	12,648	13,171	12,354	12,335	12,922	13,017	12,901
Construction	2,072	1,868	1,863	2,131	2,376	2,331	2,739
Trade, transport, hotels and restaurants	9,33	10,202	8,777	8,687	9,059	9,65	10,149
Creation and dissemination of information and creative products; telecommunications	0,121	0,137	0,13	0,163	0,135	0,156	0,162
Financial and insurance activities	0,302	0,223	0,215	0,196	0,204	0,195	0,19
Real estate transactions	0,108	0,092	0,161	0,131	0,077	0,089	0,093
Professional and scientific research; administrative and support service activities	0,622	1,415	1,811	1,074	1,064	1,079	1,208
Public administration; education; human health and social work	9,876	10,28	10,349	10,425	10,693	10,045	9,554
Culture, sports and entertainment, household repairs and other activities	0,765	0,71	0,85	0,968	0,852	0,95	1,097

Source: INFOSTAT (latest data as of May 2022)

Fig. Employment by year in Kardzhali district in thousands of persons (2011-2017)



Source: Author

Employed persons and average gross wages in Kardzhali district in the first quarter of 2022

Date 18.05.2022

Category, Statistical offices / Departments Statistical Research TSB South

According to preliminary data of the National Statistical Institute (NSI), the number of employed persons under employment and service relationships in Kardzhali district at the end of March 2022 will decrease by 0.6 thousand, or by 2.0% compared to the end of December 2021, reaching 30.9 thousand. Compared to the end of the fourth quarter of 2021, employees in the public sector decreased by 0.6% (to 9.4 thousand) and in the private sector - by 2.6%, reaching 21.5 thousand.

At the end of March 2022, compared to the same period of the previous year, the total number of persons employed under employment and service relationships decreases by 2.7%. Compared to the end of March 2021, public sector employees increase by 2.1% (or 0.2 thousand), while private sector employees decrease by 4.7% (or 1.1 thousand).

In the first quarter of 2022, the average monthly wage for the district decreased by 15.2% compared to the fourth quarter of 2021 and reached BGN 1 022. For the public sector, the average monthly wage is BGN 1 385 and for the private sector - BGN 930.

In the first quarter of 2022, the average gross monthly wage for Kardzhali district decreased by 10.5% compared to the same period of the previous year.

#### - Unemployment development (by sector/branch)

The unemployment rate in March was 7.5% against 4.7% for the country. The unemployment rate is unchanged compared to the previous month, and compared to March 2021 is lower by 1.6% /9.1%/.

As of 31.03.2022 the number of registered unemployed persons in the labour offices of Kardzhali district is 4 539, as compared to the previous month a decrease of 42 people is reported, and compared to March 2021 the registered unemployed are 975 less /5 514 for March 2021/.

The municipality with the lowest unemployment rate is Kardzhali - 4.0%, while the municipality with the highest unemployment rate is Ardino - 16.1% and Dzhebel - 13.4%.

Kardzhali district ranks 20th in the unemployment rate among the 28 districts in the country.

Newly registered persons during the month were 631 and were from different economic activities according to the classification of economic activities. Those registered from the Services sector accounted for 35.8% /226/, 27.7% were registered from the Industry sector /175/, from the Agricultural sector - 2.4% /15/. Unemployed persons who did not specify the sector from which they were laid off during the month were 215 - 34.1%.

As of 31.03.2022, 2 479 women /54,6%/ and 2 060 men /45,4%/ were registered in the labour offices in Kardzhali district. The number of women decreased compared to the previous month by 53 persons /2 532/, the number of men increased by 11 persons /2 049/.

The age distribution of the unemployed is characterised by an increase in the share of the different groups with increasing age.

As of 31.03.2022, the age groups with the largest share are over 55 years - 40.7% /1 846/ and 50 to 54 years - 13.9% /629/. With the lowest relative share are young people under 19 - 0.3% /14/.

As of 31.03.2022 the unemployed over 50 years are 2 475 - 54,5% of the total registered.

As of 31.03.2022, the number of registered young people under 29 years of age is 321, their share is 7.1% of all unemployed persons. Unemployed youth decreased by 8 persons compared to the previous month /329/.

The registered long-term unemployed with a stay in the labour office for more than 1 year in Kardzhali District are 718 and account for 15.8% of all registered unemployed. Compared to the previous month the number of unemployed persons decreased by 28 persons /746/.

The low level of education and qualification determines the length of stay of people with primary and lower education on the labour market.

The segmentation of the labour supply on the regional labour market by education is characterized by the persistent dominance of the unemployed persons with primary and lower education - 2 349 persons or 51.8%. Compared to the previous month the number of unemployed persons decreased by 15 persons (2 364).

Graduates make up 7.5% and number 342. They decreased from the previous month by 6. /348/.

The unemployed with secondary education, including vocational secondary education, accounted for 40.8% of the total population and numbered 1 848. They decreased by 21 compared to the previous month /1 869/.

Table Unemployment rate in Kardzhali district, by municipality

LINKS		2021 г.	2020 г.	Growth / p.p./
<b>Bulgaria</b>	<b>Country average</b>	<b>5,5</b>	<b>7,4</b>	<b>-1,9</b>
District	Kardzhali			
Municipality	Ardino	16,5	17,5	-1,0
Municipality	Dzhebel	14,0	18,3	-4,2
Municipality	Kirkovo	9,1	12,6	-3,4
Municipality	Krumovgrad	10,0	11,6	-1,6
Municipality	Kardzhali	4,8	6,2	-1,4
Municipality	Momchilgrad	7,7	8,6	-0,9
Municipality	Chernoochene	14,4	13,5	0,8

Source: Employment Agency (Annual Survey 2021 / Unemployment rate in the country by municipality)

According to the table above, only the municipality of Kardzhali has an unemployment rate (4.8%) below the national average (5.5%). In some of the other municipalities, such as Ardino, the unemployment rate is three times higher than the national average (16.5%), suggesting a concentration of jobs in the largest municipality and a corresponding lack of sufficient jobs in the smaller ones on the periphery of the district.

By occupation the registered unemployed are:

- 24.2% /1 100/;
- specialists - 12.5% / 564/.
- without specialty and profession - 63,3% /2 875/.

The registered unemployed persons outside the group of employed, students and pensioners are 50. The number of people who started work in these groups during the month was 11.

Table Average annual number of registered unemployed and average annual unemployment rate

District	Unemployed persons (number)		Growth		Unemployment rate* (%)		Growth (p.p.)
	2021 г.	2020 г.	Number	%	2021 г.	2020 г.	
<b>Country average</b>	<b>181 486</b>	<b>241 413</b>	<b>-59 927</b>	<b>-24,8</b>	<b>5,5</b>	<b>7,4</b>	<b>-1,8</b>
Kardzhali region	4 971	5 889	-917	-15,6	8,2	9,7	-1,5

\*Determined as the share of registered unemployed persons in the labour offices to the economically active population 15-64.

Source: Bulgarian Employment agency

- Results of studies on occupational perspectives - critical trends, data and labour market needs for competences, specialisations, skills

In March 2022 in Kardzhali district 338 unemployed persons were employed. Of these, 212 persons have been placed on the primary labour market, 13 on programmes and 113 on schemes of the Operational Programme for Human Resources Development.

75 of the total number of people employed are workers, 85 are professionals and 178 are unemployed without qualifications.

By level of education, there were 57 persons with higher education, 156 with secondary education and 125 with primary education and below.

In March in the Labour Offices of Kardzhali district were registered a total of 446 vacancies, 323 on the primary labour market and for subsidized employment under programs - 123, of which under schemes of the Operational Programme "Human Resources Development" - 122.

### Occupational structure of the registered unemployed in 2021 and share of the total unemployed by districts

District	Working profession		Specialists		Without qualification	
	Number	Title	Number	Title	Number	Title
About the country	42 947	23,7	40 500	22,3	98 039	54,0
Kardzhali region	1 201	24,2	667	13,4	3 104	62,4

Source. Bulgarian Employment agency

Fig. Occupational structure of the registered unemployed in 2021.

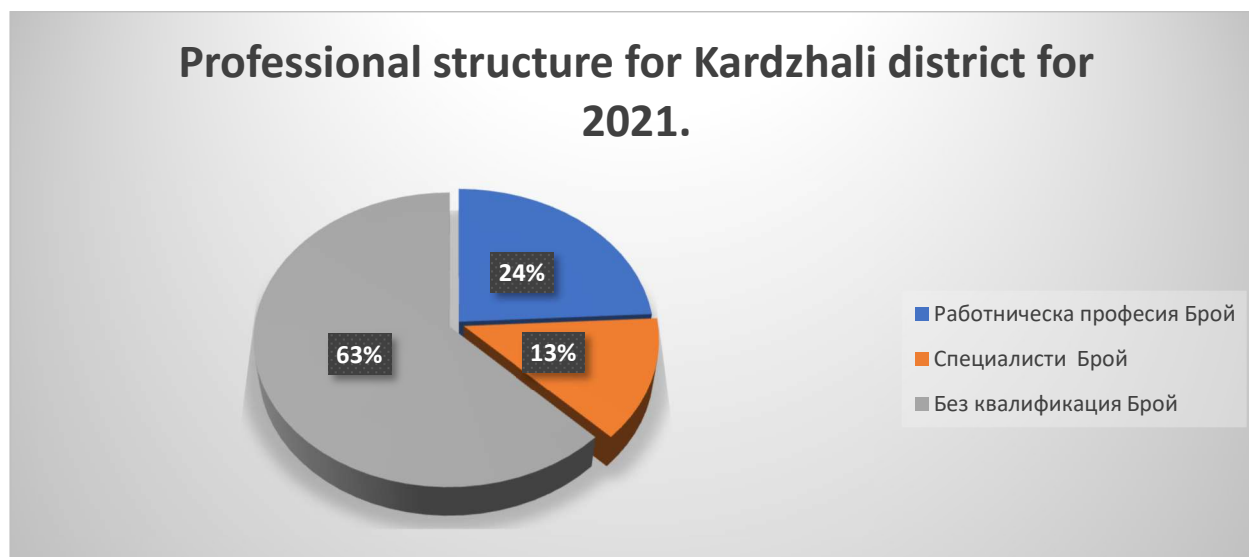
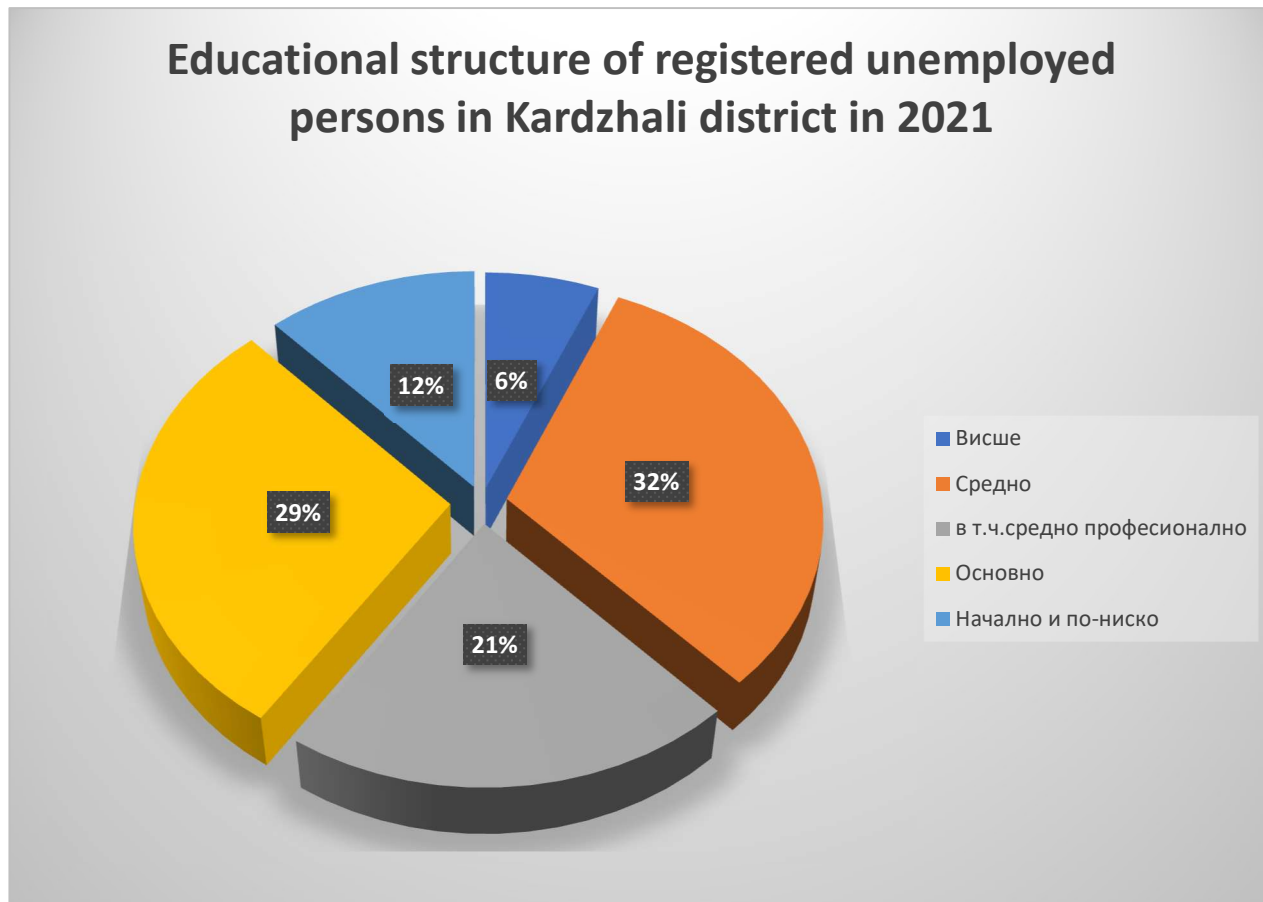


Table Educational structure of the registered unemployed in 2021 and share of the total unemployed by districts

Areas	Higher		Medium		<i>including secondary vocational</i>		Mainly		Primary and lower	
	Number	Title	Number	Title	Number	Title	Number	Title	Number	Title
About the country	24 081	13,3	81 588	45,0	57 246	31,5	32 666	18	43 151	23,8
Kardzhali region	402	8,1	1 996	40,2	1 343	27,0	1 825	36,7	748	15,0

Source: Bulgarian Employment agency

Fig. Educational structure of the registered unemployed in 2021 in Kardzhali district and share of the total number of unemployed by district



### 3.3 Primary sector

- Main characteristics of the primary sector (agriculture and livestock farming) (main agricultural land, main crops, quality products, PDO-PGI, etc., products highlighting the identity of the region, export-oriented products)

The district has good traditions in livestock breeding and agriculture, as well as a raw material base for the development of non-ferrous metallurgy, gold mining, timber, mineral processing, mechanical engineering and light industry.

According to the latest data, the number of beef cows in Bulgaria is 142 583, with the largest number in Blagoevgrad region - 22 118, followed by Kardzhali - 19 398.

Cow Farm - Momchilgrad



Traditionally developed industry for Kardzhali district is the intensive farming of freshwater fish - mainly carp, sturgeon, trout, etc. by the sat method. The breeding bases are mainly located on the large dams - Kardzhali and Studen Kladenets.

"Alpha-Comfort" Ltd., - dam "Minzuhar" municipality Chernoochene. The reservoir of 113.4 acres serves for breeding and fishing. The planned annual yield is 10 tons.

"Sturgeon" expanded its nursery farm from 42 to 70 net cages in the dam "Kardzhali", s. Brosh.

In the dam "Studen Kladenets" "Cisco Aqua" Ltd. farms carp, catfish and American carp on 157 acres.

Fish satchels - Kardzhali lake



The timber industry is very well developed. Timber is exported to the interior of the country and abroad, and the wood is not deep-processed in the region. Timber harvesting is an activity mainly carried out by the state forest enterprises, of which there are six in the territory of Kardzhali District.



- Degree of processing of agricultural production - Enterprises processing crop and livestock production

Table State of the agricultural sector and agriculture in Kardzhali district

NUTS		EN	BG42	BG425
Type of territory		About the country	SADC	Kardzhali region



Total	<i>sq. km</i>	110996,8	22365,31	3210,59
Urbanised area	<i>sq. km</i>	5133,16	846,69	84,9
	%	4,62	3,79	2,64
Territory of transport	<i>sq. km</i>	2975,79	572,71	41,25
	%	2,68	2,56	1,28
Agricultural territory	<i>sq. km</i>	60598,78	9855,99	1232,86
	%	54,6	44,07	38,4
Forest territory	<i>sq. km</i>	36773,08	10154,1	1738,66
	%	33,13	45,4	54,15
Territory occupied by waters and bodies of water	<i>sq. km</i>	2074,57	514,3	73,46
	%	1,87	2,3	2,29
Protected area	<i>sq. km</i>	1545,98	122,94	9,05
	%	1,39	0,55	0,28
Disturbed territory	<i>sq. km</i>	470,56	44,01	4,35
	%	0,42	0,2	0,14
Not shown[1]	<i>sq. km</i>	1424,93	254,57	26,05
	%	1,28	1,14	0,81

The agricultural territory in Kardzhali district is only 38.4%, compared to the indicators for the South Central Regional District - 44.07% and for the country - 54.6%. This largely implies the smaller contribution to the generated GDP in the agricultural sector for the district.

Table Arable land by type of crops grown in Kardzhali district for 2020.

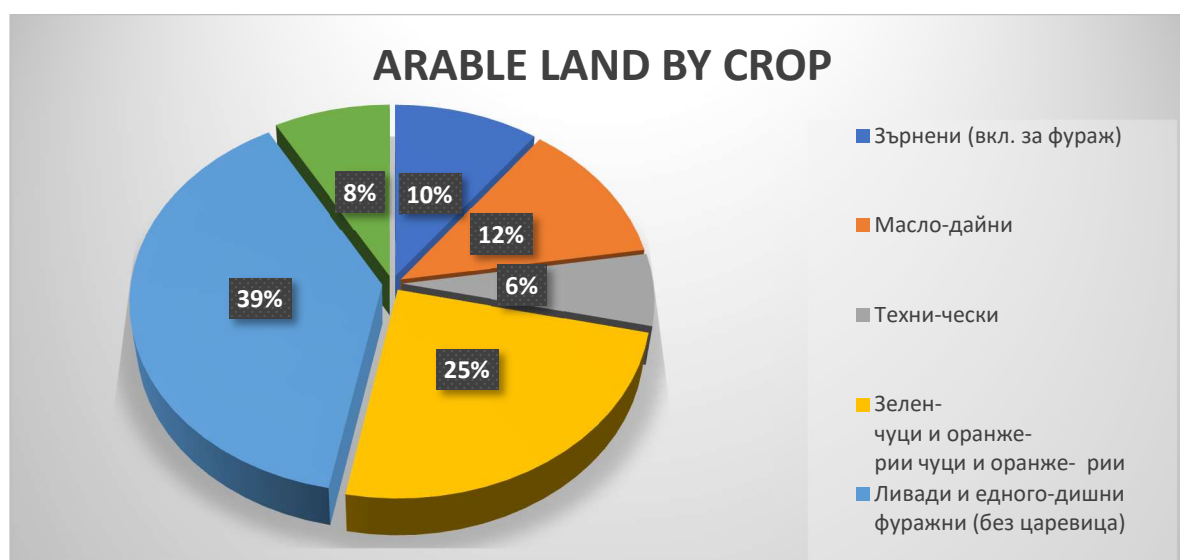
Main categories	Cereals (incl. fodder)	Butter-days	Technically	Green-chucks and orange-rias	Meadows and annual fodder crops (excluding maize)	Ugari	Arable land
1	2	3	4	5	6	7	8
<b>BULGARIA</b>	<b>2 087 673</b>	<b>983 024</b>	<b>67 276</b>	<b>75 666</b>	<b>135 403</b>	<b>137 707</b>	<b>3 486 748</b>
<b>South Central</b>	<b>202 143</b>	<b>118 799</b>	<b>11 134</b>	<b>19 119</b>	<b>37 226</b>	<b>26 435</b>	<b>414 856</b>
Kardzhali	492	590	295	1 181	1 870	394	4 822

Source: National Statistical Institute

Kardzhali district accounts for 0.14% of the country's arable land, while its relative share in the total territory of the Republic of Bulgaria is 2.89%. The average supply of arable land per inhabitant is 2.99 hectares and is twice lower than the national average. This is a factor revealing the specificity of the region with a low degree of consolidation of agricultural holdings and a low degree of investment in technological modernization of local farming. This is largely determined by the low level of supply of agricultural land due to the local geographical characteristics.

The analysis of the data in the Land Balance of the territory of Kardzhali District, compared to the national average, shows a critically lower relative share of arable land as a share of agricultural land - only 5.05% , compared to Bulgaria - 66.70% and South Central Regional District - 50.85%. In Kardzhali District the arable land has decreased by 9.26% in only 1 year - 2020/2021, which may be due to the Covid-19 situation, but definitely the ongoing 20 years general trend of decrease by more than 16%, indicates insufficient interest and therefore serious outflow from practicing agriculture.

Fig. Arable land by type of crops in Kardzhali district for 2021 in %



Source: National Statistical Institute

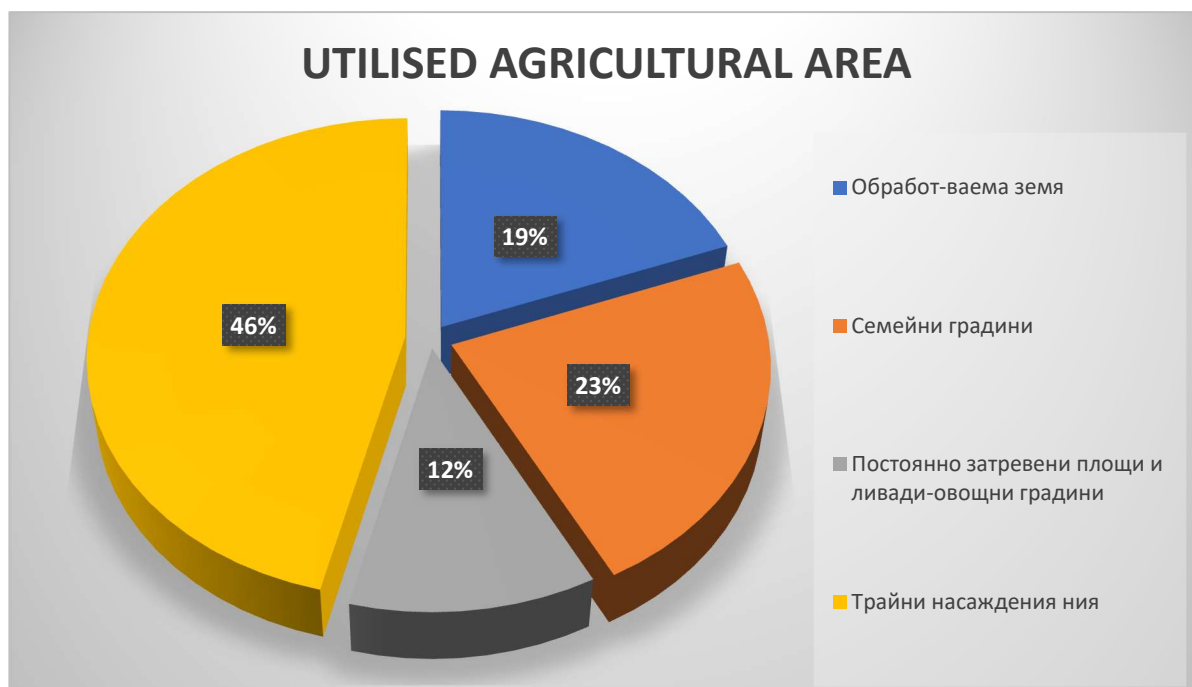
Table Utilised agricultural area by land use in Kardzhali district for 2021.

Main categories	Arable land	Family gardens	Permanent grassland and meadow orchards	Permanent crops	Utilised agricultural area	Area with agro-economic purpose
1	2	3	4	5	6	7
<b>BULGARIA</b>	<b>3 486 748</b>	<b>13 728</b>	<b>1 397 079</b>	<b>149 042</b>	<b>5 046 597</b>	<b>5 227 350</b>
<b>South Central</b>	<b>414 856</b>	<b>3 395</b>	<b>324 663</b>	<b>41 313</b>	<b>784 227</b>	<b>815 788</b>

Kardzhali	4 822	1 378	87 479	1 673	95 351	95 450
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Source: National Statistical Institute

Fig. Utilised agricultural area by land use in Kardzhali district for 2021 in %



Source: National Statistical Institute

Table Gross value added at current prices in the agricultural sector in 2020 in Kardzhali region /millions BGN/

NUTS code	Statistical zone	Agrarian
EN	BULGARIA	4 205
BG42	South Central Region	919
BG425	Kardzhali	197

Source: National Statistical Institute

According to the data of the TSB Kardzhali, the gross value added at current prices produced in the district in 2020 in the sector "Agriculture and Forestry" is 12.9.% of the total GVA, which is a very high indicator compared to that in the same sector for the country - 4% or for the South Carpathian Region - 6%. This sector is characterized by overemployment, low efficiency and low level of commercialized production.

For the period from 2018 to 2020, the agriculture and forestry sector is decreasing its relative share in gross value added at current prices compared to the national and district economy.

The specific geographical and climatic conditions of the Kardzhali Region, the migration processes in the region, the privatization and restructuring of most of the industrial and processing enterprises - this is part of the complex system of objective and subjective factors that have had a significant impact on the processes and structural development of the agricultural sector.

The completed land reform and the ongoing agrarian reform have created appropriate favourable conditions for the promotion of private farmers and agricultural cooperatives in the district. The state and development of agriculture in Kardzhali district are directly dependent on a number of factors, the main ones being:

In accordance with the provisions of the Law on Support to Farmers (LASF), a Register of Farmers has been established and is functioning at the Ministry of Agriculture. With each passing year the number of registered farmers in Bulgaria is increasing - in 2010 there were 22,833 and in 2020 - 8,678 farms, which indicates a decrease in the total number by approximately 62% over a 10-year period.

The utilised agricultural area in Kardzhali district in 2021 is 583 950 ha and has increased more than 2 times compared to 256 558 ha in 2010.

At the same time, the data from the 2020 census of agricultural holdings in Bulgaria show that. 54 590 cattle and buffaloes (8.6% of the total number in the country), 9 679 dairy cows (4.1% of the total number in the country), 78 589 sheep (6.1% of the total number in the country), 7 589 goats (3.1% of the total number in the country), 2 275 rabbits (3.5% of the total number in the country), 14 344 bee colonies (1.6% of the total number in the country).

#### - Size of holdings - enterprises

##### Current state of the land stock

The specific natural - climatic and geographical conditions to a large extent determine the main profile of specialization of agriculture and forestry in Kardzhali district, but to be complete the analysis of the conditions is necessary to make a comparative analysis of the state of the land stock.

Table Percentage of territory, settlements and rural areas compared to the country, region and rural areas by districts in the South Central Region for 2020.

District	Territory Settlements		Territory Settlements		Territory Settlements	
	Rural areas		Rural areas		Rural areas	
	area in km <sup>2</sup>	%	Issue	%	Issue	%
Bulgaria	111001		5302		231	
Rural areas in Southern central region	18219,14	81,46 %	919	47,36 %	51	21,65 %
Rural areas of the district Kardzhali	2631,26	14,44%	352	38,30 %	6	12,00 %

Source: National Statistical Institute and author's calculations.

Of the South Central Region , Kardzhali District has the largest share in terms of number of rural settlements (38.30%).

In terms of aggregated environmental indicators, Kardzhali District falls in the part of regions with lower pollution, with the parameters indicated in the table below:

Table Pollution Ranks

District	Air (a)	Water (b)	Noise (c,d)	Sum	GDP per capita of population to the national average (rank in descending order 1-29)
Kardzhali	26	71	10	107	25

Remarks:

a - sum of the ranks of the selected air quality indicators - low ranks indicate a cleaner environment

b - sum of the ranks of the four water indicators

c - the districts are ranked according to the proportion of points exceeding the noise limit values

(Low values indicate less noise pollution.

d - the indicator for municipal waste is excluded as the majority of districts have very high levels of waste collection - 99%.

Source: 'Agribusiness and Rural Areas - Economy, Innovation and Growth', Proceedings of the Jubilee Scientific and Practical Conference, Science and Economics Publishing House, University of Economics - Varna, 2020.

Together with Smolyan, Kardzhali is the region with the smallest farms in the country.

The total amount of agricultural land in Kardzhali District is 954.5 thousand hectares as of 31.12.2021, compared to 1 367.7 thousand hectares as of 31.12.2000.

The fragmentation of the land, reduction in irrigated areas; outdated facilities, insufficient investment and new technologies, lack of integration with the food industry, etc., created after the completion of the process of restoring its ownership, creates obstacles to the development of modern and efficient agriculture. Market-oriented and economically viable agriculture requires the availability of aggregated land for use and ownership.

Table Distribution of utilised agricultural area by tenure by statistical regions and districts\*

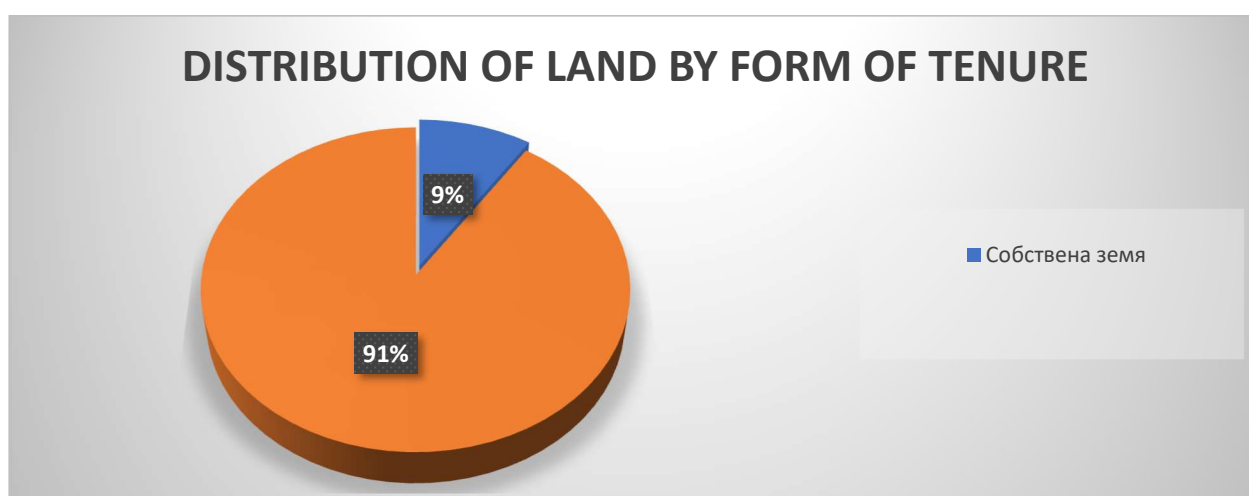
Statistical regions and districts	Utilised agricultural area of holdings (ha)	Own land	Land rented or leased, other uses and common land
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	Number of farms	Area (ha)	Number of farms	Area (ha)	Number of farms	Area (ha)
<b>BULGARIA</b>	<b>127 278</b>	<b>4 564 152,4</b>	<b>85 509</b>	<b>409 118,4</b>	<b>97 024</b>	<b>4 155 034,0</b>
<i>South Central</i>	<i>42 076</i>	<i>671 270,8</i>	<i>30 704</i>	<i>81 435,7</i>	<i>30 525</i>	<i>589 835,1</i>
Kardzhali	8 685	58 406,3	7 395	5 464,7	7 741	52 941,6

\*Areas data are presented as integer values, so totals do not correspond to physical amounts.

Source: National Statistical Institute

Fig. Distribution of land in Kardzhali district in 2020 by tenure.



Source: National Statistical Institute

Table Holdings and categories of utilised agricultural area in Kardzhali district in 2020.

Statistical regions, districts and municipalities	UAA of the outdoor holding		Arable land		Average area		Relative share	
	Holdings (number)	Area (ha)	Holdings (number)	Area (ha)	UAA of the outdoor holding for 1 holding (ha)	Arable area per 1 holding (ha)	Use of UAA on the outdoor farm (%)	Functioning farms (%)
<b>BULGARIA</b>	<b>126 001</b>	<b>4 562 443</b>	<b>75 243</b>	<b>3 317 071</b>	<b>36</b>	<b>44</b>	<b>72,70%</b>	<b>40,28%</b>
<i>South Central</i>	<i>41 449</i>	<i>670 710</i>	<i>25 261</i>	<i>389 711</i>	<i>16</i>	<i>15</i>	<i>58,10%</i>	<i>39,06%</i>
<i>Kardzhali</i>	<i>8 678</i>	<i>58 395</i>	<i>4 072</i>	<i>3 696</i>	<i>7</i>	<i>1</i>	<i>6,33%</i>	<i>53,08%</i>
Ardino	693	6 844	531	57	10	0	0,83%	23,38%
Dzhebel	739	3 914	191	79	5	0	2,02%	74,15%
Kirkovo	1 089	3 661	939	396	3	0	10,82%	13,77%
Krumovgrad	1 999	17 187	1 154	1 330	9	1	7,74%	42,27%

Kardzhali	1 717	10 649	702	1 261	6	2	11,84%	59,11%
Momchilgrad	1 298	9 755	85	78	8	1	0,80%	93,45%
Chernoochene	1 143	6 385	470	497	6	1	7,78%	58,88%

Source: National Statistical Institute

The average utilised agricultural area per farm in Kardzhali District in 2020 is 67.2 ha, compared to 161.82 ha on average for the South Central Region and 362.1 ha on average for the country.

A characteristic feature of Kardzhali District is that compared to the neighbouring districts and compared to the average statistics for Bulgaria, the percentage of agricultural land under cultivation in cooperatives is low. Another characteristic feature is the low percentage of the population whose main livelihood is agriculture.

The continued division of hereditary estates is leading to a reduction in the average size of estates, and this cannot be compensated for by too little land consolidation through exchanges and purchases. The reason for this is that the agricultural land market in the district, unlike in the more developed agricultural regions of the country, is not developed.

This process is further aggravated by the lack of a regulatory framework that would oblige the association of farmers and the consolidation of the used areas and, for this reason, the unification of agricultural properties can only be carried out through a freely expressed desire on the part of the owners, which is apparently not strong enough at this stage.

Table Average prices of agricultural land transactions in the period 2010-2021 - BGN / ha

Statistical zones	Years											
	Statistical regions											
Areas	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>BULGARIA</b>	<b>279</b>	<b>398</b>	<b>547</b>	<b>594</b>	<b>684</b>	<b>732</b>	<b>761</b>	<b>872</b>	<b>941</b>	<b>948</b>	<b>952</b>	<b>1106</b>
South Central	230	292	364	357	474	442	412	538	660	679	635	674
Kardzhali	354	-	265	-	-	-	169	-	-	-	-	-

Source: National Statistical Institute

Unfortunately, there is no up-to-date data on the agricultural land market in Kardzhali district.

Table Average prices of agricultural land lease/rental contracts in the period 2010-2021

BGN/ha

Statistical zones	Years											
	Statistical regions											
Areas	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>BULGARIA</b>	<b>23</b>	<b>30</b>	<b>34</b>	<b>38</b>	<b>41</b>	<b>42</b>	<b>44</b>	<b>46</b>	<b>48</b>	<b>48</b>	<b>45</b>	<b>54</b>
South Central	13	20	22	24	26	27	26	31	31	31	31	34
Kardzhali	14	15	14	14	16	16	14	21	7	26	30	29

Source: National Statistical Institute

According to the official data provided by the NSI, the average prices of lease/rent contracts for agricultural land in the period 2010-2021 in Kardzhali district have ranged from BGN 14 to BGN 29/ha, which for example for 2021 is below the average levels for the South-Western region BGN 34/ha and the national average BGN 54/ha, respectively.

### **Changes in the structure of land ownership**

The processes of restructuring and adaptation of agriculture in the Kardzhali region have the characteristics of a difficult and slow process, but have their typical regional characteristic. In the territory of Kardzhali District there are 7 Municipal Offices of Agriculture and Forests, which deal with the restoration of ownership of agricultural land, forests and forest land.

The restoration of the agricultural land to the owners and their heirs has been fully completed - 100%. 1 292 872 hectares of agricultural land have been restored in all 460 land districts.

This fact is a very good prerequisite, using the market forms of stimulation, the agriculture in Kardzhali district to begin to come out of the difficulties and to overcome the negative trends in its development over the last 15 years. Analyzing the results of the restoration of ownership of agricultural land, there is an increased activity of farmers in the processes of restoration of land ownership. The prerequisites being created for stimulating the real land market have not yet yielded their positive results, but in the near future they should approach land owners.

The liquidation of the material base concentrated in the former collective farms and the slow process of returning the land to its real boundaries have made it difficult to implement the agrarian reform in the district. The land has been fragmented into several times smaller plots than it was before collectivisation, especially due to the increased number of heirs. Many of the heirs of agricultural land live in other districts or outside Bulgaria. Farmers in the sector allocate virtually no funds for investment, and new machinery is bought very rarely. Difficult investment and revolving credit has a negative impact on the smooth running of agricultural operations. As a result of these reasons, significant areas in the district remain uncultivated each year.

### **- Current situation in agricultural trade**

The dynamics of agricultural production on the territory of Kardzhali District will continue to be particularly uneven in 2020-2021. Variations in the level of crop and livestock production from one year to the next are primarily due to amplitudes in domestic and foreign demand for agricultural products and the specific market following the cessation of the main traditional crop in the district - tobacco. Poultry farming in the region has also grown significantly in recent years, with the number of poultry reared in Kardzhali increasing by more than 50% in the last 10 years, including egg production.

The number of goats and bee colonies reared in the district also increased by about 12% and 6% respectively during this period.

In Kardzhali region 6% of the country's sheep population is reared, and in the last 5 years their number has increased by 2% on an annual basis and the sheep milk produced by 5%.



In 2020, nearly 10% of all cattle in the country will be reared in Kardzhali district, which ranks the district second after Plovdiv district, with 22% more cattle claimed under direct support schemes in 2020 compared to 2019.

Agriculture in Kardzhali district is among the main sectors of the district's economy in 2020, with gross value added of nearly BGN 197 million or 12.9% of total GVA.

Vegetables and perennial crops account for the largest share of the district's arable land, about 47% and 28% respectively in 2019. The area under oilseeds is also increasing substantially. There has also been a significant increase in the area of plum, walnut, cherry and sunflower plantations in the district - by four times, more than twice, 33% and 36% respectively. The area of pepper applied for is 3% more, representing over 7% of the national total.

The upcoming admissions under the Rural Development Programme, for the last period in Kardzhali region have received about 61 million leva under the investment measures and over 34 million under the compensatory measures.

Source.

Producers market - Kardzhali



Table Data on subsidies paid for 2021 in Kardzhali district

Description measure	Amount in BGN
Organic livestock farming	20 561,67
Organic beekeeping	58 331,75
Organic plant production	247 747,22

Restoration and maintenance of grasslands of high natural value (HNV-1)	62 478,77
Reimbursement of Financing Discipline (Reimbursement of FD), pursuant to Article 26 of Regulation (EU) No 1306/2013 and Article 8, par. 1 of Regulation (EU) No 1307/2013.	122 491,54
Soil erosion control	20 992,79
Measure 12/Nature 2000	191 367,06
Measure 14-Animal welfare.	38 983,94
Measure 19 - Leader	527 093,94
Measure 21 - Kovid 1	3 015 970,06
Measure 6 - Farm and business development	1 516 425,00
Measure 7 - Basic services and rural regeneration	5 195 451,28
The measure is a support scheme for farmers and aims to create preferential conditions for the fuel they use for mechanised activities in primary agricultural production, by applying a reduced excise duty rate on diesel	133 720,15
National Beekeeping Programme	59 362,55
Conservation of endangered indigenous breeds	2 887 290,27
Payments De Minimis 2020 land	592,66
Payments De Minimis 2021 animals	1 905 170,00
Sub-measure 13.1/NP 1 - Mountain areas	2 868 268,86
Sub-measure 13.2/NP 2 - Other	545 354,91
Sub-measure 13.3/NP 3 - Specific	136 120,79
Sub-measure 4.1 'Investments in agricultural holdings' and 4.2 'Investments in processing/marketing of agricultural products'	1 045 796,46
Supply of milk and milk products - supply and distribution of products - R.1308/2013, Art.23(1)(a)	150 441,87
Fruit and vegetables available in schools - supply and distribution of products - R.1308/2013, Art.23(1)(a)	64 437,45
Development of farms and enterprises	4 209,50
Single area payment scheme (SAPS)	3 799 939,39
Young Farmers Scheme (YFS)	16 236,12
Bound aid scheme for buffaloes	7 320,58

Scheme for coupled support for vegetables - greenhouse production (GSP)	1 868,45
Scheme for coupled support for vegetables (tomatoes, cucumbers, gherkins and aubergines) (NW-DACS)	22 320,37
Bound aid scheme for vegetables (potatoes, onions and garlic) (NW-CLS)	3 041,42
Scheme for coupled support for vegetables (carrots, cabbages, melons and watermelons) (MPA-MPA)	17 138,82
Bound aid scheme for vegetables (pepper) (SP-P)	225 648,12
Scheme for coupled support for beef cows and/or heifers (CCS)	2 809 409,90
Scheme for coupled support for beef cows under selection control - EWSC (meat)	591 741,74
Scheme for coupled support for dairy cows (CCS)	1 218 369,61
Scheme for coupled support for dairy cows in mountain areas (5-9 animals) - SMIK (pl)	117 425,07
Scheme for coupled support for dairy cows under selection control - EWSC (milk)	819 620,05
Scheme for coupled support for ewes and/or goats in mountain areas (10-49 animals) LU (PL)	510 594,64
Scheme for coupled support for ewes and/or goats under breeding control (CSG)	1 045 661,91
Fruit coupled support scheme (basic group) - SP (basic)	226 507,15
Fruit (plums and table grapes) coupled support scheme - SP (other)	98 576,73
Scheme of coupled support for protein crops (SPC)	191 457,94
Payment scheme for agricultural practices that are beneficial for the climate and the environment - Green Direct Payments (GDP)	2 457 922,93
Redistributive Payment Scheme (RPS)	2 197 901,76
Transitional national decoupled aid scheme for cattle (TDA 1)	1 387 905,40
Transitional National Aid Scheme for sheep and/or goats coupled to production (TAS 3)	1 703 842,71
Transitional national aid scheme for tobacco decoupled from production (TNA)	17 357 512,73
School fruit - accompanying educational measures 20/21- R.1308/2013, Art.23(1)(c)	1 289,03

School milk - accompanying educational measures 20/21- R.1308/2013, Art.23(1)(c)	2 600,41
Total amount	57 650 513,47

Source: Public Agro Fund

Risks:

According to the official statistics of IAG, Kardzhali district for 2021 has the highest number of fires in forest areas - 85, where the most forest areas were burned - 1 907,6 ha.

### 3.4 Secondary sector

- Main characteristics (main forms of activity)

The area has great potential for attracting foreign investment.

Significant economic growth was recorded in the construction and textile, knitwear and food industries.

Manufacturing industry occupies an important place in the economic development of Kardzhali district. This sector accounts for most of the expenditure on fixed tangible assets. Companies in the sector specialise in the processing of non-ore and ore minerals, the manufacture of plastic products, bentonite, perlite and zeolite products, and post-metalworking products. Metal processing and production of plastic products is represented by Monek-Sug JSC - Kardzhali, Pnevmatika-Serta JSC - Kardzhali, Dzhebel-96 Ltd - Dzhebel, Formoplast JSC - Kardzhali and Kirkovo Ltd - Kirkovo.

The main enterprise for extraction and production of bentonite, perlite and zeolite products is "Imeris Minerals Bulgaria" AD in Kardzhali (former "Bentonite" AD).

Significant investments in the region include:

"Teklas Bulgaria AD, specialized in the production of rubber water compounds and plastic pipes for the automotive industry. 100% of the production is exported to Germany, Canada, Hungary, Czech Republic, England, Russia, Mexico, Australia, Poland, Spain, South Korea, USA, Italy, France and other countries. The company is the largest investor and employer on the territory of the Kardzhali region, and since its entry into the market in Kardzhali in 2006 it has already built 3 plants with a total value of 68 million BGN. The intention is to bring the total number of employees to 2,000 people.

"Balkan Mineral and Mining EAD, a subsidiary of Dundee Precious Metals - Canada, developing the Khan Krum gold deposit at Ada Tepe, Krumovgrad Municipality. The enterprise is for mining and processing of gold-bearing ores, which built a flotation plant on the Krumovitsa River, 3 km from the town of Krumovitsa. Krumovgrad.

The mining industry is represented by the extraction of non-ore minerals and lead-zinc ore. The leading enterprises in the sector are Gorubso-Kardzhali JSC - Kardzhali and Imeris Minerals Bulgaria JSC - Kardzhali.

The significant sub-sectors of the manufacturing industry for the region are the textile and clothing industry, where a significant part of the foreign direct investment is located. The largest

manufacturers are: "Artex-Bulgaria" Ltd - Momchilgrad, "Modak" Ltd - Kardzhali, etc. The companies in the food and beverage sector are mainly oriented in bakery, confectionery, dairy and meat processing. The leading companies in these industries are "Hleboproduction" JSC - Kardzhali, "KIPS" Ltd - Kardzhali and ET "Alada" - Byal izvor.

The most dynamically developing sector in Kardzhali district is construction. In this sector the expenditure on fixed tangible assets doubled in the last year. The main representatives in the sector are Ardastroy Ltd - Kardzhali, Savarona Ltd - Kardzhali, Rodopastroy Ltd - Momchilgrad and Patstroengineering JSC - Kardzhali.

#### - Number, size and structure of enterprises by industry

The total number of enterprises employed in the secondary sector in Kardzhali district by 2020 is over 620. The majority of them are micro and small enterprises, while the share of medium and large enterprises is less than 2%. Over 70% are employed in light industry, followed by construction, mining and manufacturing.

#### - Export

The majority of medium and large enterprises are export-oriented, which is most pronounced in the extractive and manufacturing industries due to the predominance of foreign ownership and is further conditioned by the highly developed sewing sector, mainly for the EU.

#### - Large companies in the sector

"Teklas-Bulgaria EAD



"Dundee Precious Metals AD



"Imeris-Bulgaria EAD



"Pnevmatika-Serta" AD



#### - Sectors in crisis - emerging sectors

During the period 2020-2021, all businesses in the secondary sector definitely experienced difficulties and even many went bankrupt, due to the imposition of highly constrained supply chains and complex operational requirements. This has also largely created opportunities for the development of alternative supporting industries, locally.

### 3.5 Tertiary sector

#### - Main characteristics (main forms of activity)

The largest number of registered business units are in the Retail trade, repair of personal and household goods sector. The main activities are retail and wholesale trade. The leading companies in this sector are "Billa Bulgaria" AD, "Kaufland", "Lidl", "Vasmar" Ltd - Kardzhali, "Partners Bulgaria" Ltd, ET "Mario-73-Mariyan Stoyanov" - Kardzhali, "Galenit" AD - Kardzhali, Hypermarket Kaufland Kardzhali, BILA Kardzhali and Lidl Kardzhali.

The next sector in order of importance for the Region is Transport and Communications. It is among the most progressive in recent years. Leading companies in the sector are Arpezos Bus Ltd - Kardzhali, Autotransport-Yug-2000 JSC - Kardzhali, ET "Marietta-Dimiter Dimitrov" - Kardzhali.

#### - Number, size and structure of companies by industry:

The total number of enterprises employed in the secondary sector in Kardzhali district by 2020 is over 2,800. The majority of them are micro and small enterprises, the share of medium and large enterprises is less than 1.8%. Over 50% are employed in retail trade, followed by service, tourism and transport firms.

- Large companies in the trade and services sector

Large companies in these sectors are mainly in the retail sector - representatives of large hypermarket chains, such as:

"Bill" ,

"Kaufland,

"Lidl,

- Tourist infrastructure

By 2021, the number of accommodation places in Kardzhali district has increased from 52 in 2020 to 68, while the number of overnight stays has almost doubled from 72 726 to 134 749. This is largely due to the removal of restrictive measures from the Kovid-19 pandemic, as well as with the higher number of tourists visiting the district.

- Sectors in crisis - emerging sectors

During the period 2020-2021, all tertiary sector companies definitely experienced difficulties and even many of them went bankrupt due to imposed regulatory and market constraints. At the same time, sectors related to basic necessities and those related to home delivery and services have increased their presence.

## **4. DEVELOPMENT PROGRAMMES**

### **4.1 Programmes 2021-2027**

- The key strategies

Integrated Territorial Development Strategy of the South Central Region for Level 2 Planning

Kardzhali Municipality Integrated Development Plan 2021 - 2027

Ardino Municipality Integrated Development Plan 2021 - 2027

Integrated Development Plan of Dzhebel Municipality 2021 - 2027

Krumovgrad Municipality Integrated Development Plan 2021 - 2027

Integrated Development Plan of Krikovo Municipality 2021 - 2027

Integrated Development Plan of Chernoochene Municipality 2021 - 2027

### **4.2 Innovation**

Innovation Strategy for Smart Specialisation 2021-2027 (ISIS) (in draft)

- The main thematic axes of the Strategy(s)



The strategy is one of the key conditions for granting Bulgaria access to the resources of the two EU programmes for Bulgaria under the IDP - the Competitiveness and Innovation in Enterprise Programme 2021-2027 (CIP) with a budget of BGN 3 billion and the Research, Innovation and Digitalisation for Smart Transformation Programme 2021-2027 (RIDIT) with a budget of just over BGN 2 billion. The total budget of the programmes is over BGN 5 billion.

The strategy defines five thematic areas where Bulgaria has a competitive advantage and capacity for smart specialisation.

The first is "Informatics and ICT" - this is one of the fastest growing sectors in the economy, focused on the development of software and information systems, as well as a sector with high export potential, attracting significant foreign investment.

The second is "Mechatronics and Microelectronics" - covering the design, technology, manufacturing and operation and application of mechatronic systems and integrated circuits (chips) in a wide range of sectors - information technology, communications, automotive, mechanical engineering, aerospace, agriculture, medicine, consumer electronics, etc. An example of a mechatronic approach with proven potential for the country is automated machinery and robotic and automation systems.

The third one is "Industry for Healthy Living, Bioeconomy and Biotechnology" - focusing on innovations in the field of clean production / production of bio-products - food, cosmetics, medicines made from Bulgarian raw materials and offering medical, healing and recovery services.

The fourth is "New Technologies in Creative and Recreational Industries" - modernising industries and business sectors with creative input, urban and rural regeneration, product and service design, content production and digitisation.

The fifth is "Clean Technologies, Circular and Low Carbon Economy" - reducing resource consumption in all economic sectors and spheres of public life, stimulating a circular economy (produce-use-dispose), increasing resource and, in particular, energy productivity while following the principles of the circular economy and stimulating the introduction of low-carbon, resource-efficient and zero-waste technologies.

The vision of ISIS is to develop Bulgaria as a hub for medium- and high-tech innovation in strategic areas with established capacity and market positions. Also to support and establish Bulgaria as a sustainable, modern and innovative entrepreneurial ecosystem. The main objectives of the Strategy include improving the research system and innovation performance of enterprises.

The draft ISIS presented is a further developed and updated edition of the document from the 2014-2020 programming period, developed in line with the UN Sustainable Development Goals and the six priorities of the European Commission for 2019-2024 - The European Green Pact, A Europe fit for the digital age, An economy for people, A stronger Europe on the world stage, Strengthening our European way of life and A new impetus for European democracy.

#### - Knowledge production and innovation in the field

The scientific activity in Kardzhali region develops along two main lines:

- Research and scholarly activity by HEIs and public research centres and
- Research and Development Centres of enterprises and members of NTS-Kardzhali

#### - Transfer of innovation - a pledge of links. research institutions and the business community

Technology transfer is an important and integral part of the innovation process. Government laboratories, research institutes, universities are motivated and supported by the applied technological use of their research.

In today's world, the strategy for survival and development of societies and states is mainly based solely on the desire for leadership in various fields of activity. The term "innovation", which has many definitions, is used to refer to the creation of new models, prototypes, technologies and products and their transformation in the modern world.

Technology transfer is the main form of fostering innovation from the development stage to commercial deployment.

This concept includes all sorts of ways to turn an idea into a commercial product: transfer of patents, technical documentation, exchange of scientific developments, creation of joint ventures, etc. .

At the current stage of the world economy's development, technology transfer serves as one of the sources of economic independence, as it provides economic actors with strategic opportunities for domestic market development and new emerging industries, borrowing and adapting the achievements of more developed countries embedded in the transnational infrastructure of global markets. Taking into account the potential of each economic entity, it is necessary to develop its own approach to technology transfer in relation to the organisation of production and innovation policy.

In Kardzhali this transfer is expressed along several lines:

- from public science centres to businesses;
- from related foreign companies (parent holding companies) to domestic companies;
- from independent researchers to local enterprises.

#### 4.3 Policies and action plans for employment, human resources and entrepreneurship development

##### - Key strategies

- Employment Strategy of the Republic of Bulgaria 2021-2030. The document has been developed on the basis of the results achieved in the previous Employment Strategy Update 2013-2020 and the country's experience as a full member of the EU. The economic and social challenges in recent years as well as the impact of the COVID-19 pandemic on society have been taken into account. The actions in the Strategy are also linked to Bulgaria's commitments in the area of employment, stemming from the need to implement the European Pillar of Social Rights Action Plan;
- Regional Programme for Employment in Kardzhali Region - 2021 with the aim of Increasing employment in Kardzhali Region by providing employment to unemployed persons from disadvantaged groups on the labour market in Kardzhali Region as a prerequisite for overcoming their social isolation and for their full integration into society.

## **5. DEVELOPMENT ORGANISATIONS AND BODIES SUPPORTING ENTREPRENEURSHIP**

- Local development organisations

- Commitment of public institutions and local organisations in the field of regional development

The implementation of state policy in the field of regional development is based on the principles formulated in the Regional Development Act, namely:

-A unified approach to planning and programming;

-Concentration of resources to achieve regional development objectives;

-Partnership, publicity and transparency at all levels in planning, programming, financing, monitoring and evaluation;

-Complementing funding from national public sources when co-financing with other sources;

Inter-ministerial coordination of the activities of the competent authorities in the planning and programming process, resourcing, implementation, monitoring and evaluation;

-Coherence with other structural policies, instruments and actions at international, national and regional level.

In order to implement the objectives and priorities of the Regional Development Strategy of the Kardzhali Region, in addition to the above-mentioned principles, the principles of:

-Decentralization ;

-Subsidiarity ;

-Sustainable Development;

-Strengthening partnerships;

-Citizen participation in the planning process.

The actions of the public institutions and local organizations in the field of regional development are aimed at achieving vertical coordination - between the Regional Development Council, the Regional Development Council and the municipalities, horizontal coordination - between the different units, agencies and actors at the regional level, and effective complementarity in the implementation of the objectives and priorities of the Regional Development Strategy of the Kardzhali Region.

There is also a need to establish functioning information channels that enable direct communication, exchange of information and deepening of partnership between structures at different levels of governance. Monitoring and control provide a basis for comparison, synthesis and effectiveness of strategic planning. The good results of the implementation of the strategic process reinforce the importance and authority of the Regional Development Council, the Regional Governor and local partners, and this depends mainly on successful coordination between regional institutions in the implementation of regional policy.

Local institutions and their involvement in the regional development is an inevitable necessity, because government bodies are effective when they think and act strategically, when they care about the future and how to build it together. But without the development of administrative capacity it is

impossible to absorb the funds from the Pre-accession and Structural Instruments and the Cohesion Fund.

- Organisation and coordination of activities to achieve objectives

The responsibilities for the implementation of the Regional Development Strategy of Kardzhali Region are clearly divided between the partners from Kardzhali Region and the municipalities. It is particularly important to maintain constant contact and communication between the District Administration, municipalities, businesses and NGOs as they are the main partners in the development and implementation of the District Development Strategy. The successful implementation of the Strategy depends on good coordination between them.

The local partners in the development and implementation of the Regional Development Strategy of Kardzhali Region are the municipalities, the decentralized structures of the Ministry of Regional Development and Public Works, the Ministry of Labour and Social Policy, the Ministry of Environment and Water, the Ministry of Agriculture and Forestry, the Ministry of Education and Science, the National Statistical Institute, executive agencies, regional organizations of the nationally represented employers' organizations, regional organizations of the

The regional governor and local authorities are the main actors and partners in the process of formulation and implementation of regional policy in the region. Their functions in the management, monitoring, evaluation and control of regional development are defined by the Regional Development Act. They are involved in the process of defining regional policy, being obliged to develop strategic planning documents for the relevant levels and to participate in the development of the NSRF. They participate in the bodies established by the Regional Development Act for the purpose of managing and monitoring regional development - the Regional Development Council, the Regional Development Council, the NSRF Monitoring Committee and the Partnership Council.

#### Regional Development Council

Ensures the broad and effective participation of all partners in the planning, financing, monitoring and evaluation of regional development measures in the planning area. Discusses and approves the draft regional development plan and acts as a monitoring body for its implementation. On the basis of the annual report on the implementation of the Regional Development Plan, it shall report on the implementation of the objectives and priorities of the National Regional Development Strategy. The Regional Development Council discusses and agrees on the draft regional development strategies and coordinates the provisions of the regional development strategies for the respective planning area.

#### The District Governor and the District Development Council

Participate in the implementation of the National Strategy for Regional Development through the elaboration, public discussion and implementation of the Regional Development Strategy, support the preparation and implementation of municipal development plans, participate in the formation of regional and local partnerships in the preparation, financing and implementation of projects implementing the planning documents at regional and local level.

## Local authorities

Participate in the implementation of the objectives and priorities of the National Regional Development Strategy through the formulation and adoption of municipal development plans and implementation programmes, through the mobilisation of local financial, human and organisational resources, including those of the private and non-governmental sector, for the implementation of the measures and projects of these plans and programmes, for the development and implementation of local initiatives of more than municipal importance, for the provision of information and publicity on local development actions. In a number of cases, the municipalities will be the concrete implementers of projects, and in others, the beneficiaries of the implementation of projects resulting from the absorption of EU funds. The involvement of socio-economic partners, NGOs and the private sector in regional development policy within the framework of the Regional Development Strategy will be widely taken into account. In the process of work on the strategy they enrich the central, regional and local authorities with new ideas based on their practical experience and support decision-making with greater public consensus, participate in the implementation of partnerships at local and regional level for the implementation of the strategy, contribute with their own resources to the implementation of activities on the objectives and priorities of the strategy.

## Employers' organisations

Support the implementation of the Regional Development Strategy as an object and beneficiary of policies and actions related to regional development. They also have significant capacity to support the information, education and training, mediation and other components of its implementation actions. They participate as members in the Regional Development Council.

## Employee organisations

Key partner of the authorities at central, regional and local level in the process of regional policy formulation and implementation. Participate as members of the Regional Development Council.

## NGOs

They have the function of a useful corrective in the preparation of the Regional Development Strategy and a real actor in its implementation. They have a wide range of possibilities to support information, education and qualification, marketing and other components of its implementation. Many of them will be directly involved in the implementation of projects and actions for regional development financed by European and national funds. A factor for their successful involvement in the implementation of the strategy is the improvement of partnership mechanisms and procedures.

## - Research institutions

### Public:

NTS-Kardzhali

Mining and Geological University "St. Ivan Rilski", branch Kardzhali

Paisii Hilendarski University - Lyuben Karavelov Branch, Kardzhali

Transboundary Research Centre "Environment and Health" at RZI-Kardzhali

Private:

Scientific Research Centre at Teklas-Bulgaria EAD

- Institutions for education and training

Kardzhali region has the necessary network of educational institutions with an optimal structure for the current needs for education, vocational training and obtaining higher education degrees.

There are 175 educational institutions in the district as follows:

- kindergartens -74;
- schools - 87;
  - Primary - 2;
  - Basic - 53;
  - SOU - 15;
  - Spiritual High School - 1;
  - profiled high school - 1- "Hristo Botev" high school
  - special schools -1;
  - vocational schools -13;
  - vocational college - 1;
- service units - 10;
- homes for care and education of children deprived of parental care - 1;
- higher education institutions - 3

By municipality:

1. Ardino: schools - 9 pcs., service units - 1pc., kindergartens - 5 pcs.;
2. Dzhebel: schools - 7 pcs., service units - 1pc., kindergartens - 8 pcs.;
3. Kirkovo: 9 schools, 0 service units, 19 kindergartens;
4. Krumovgrad: 12 schools, 2 service units, 8 kindergartens;
5. Kardzhali: schools - 33 pcs., service units - 4 pcs., kindergartens - 24 pcs., higher educational institutions - 3 pcs.; vocational college - 1 pcs.
6. Momchilgrad: 9 schools, 2 service units, 7 kindergartens;
7. Chernoochene: 7 schools, 0 service units, 3 kindergartens.

There are also 7 hostels and boarding houses functioning in the district / mainly in the municipal centres.

There are a number of problems in the field of education in the district, namely:

The seven municipalities in the district, located in the southeastern Rhodopes, are characterized by mountainous and semi-mountainous rugged terrain, with a large number of small settlements and neighborhoods, with poorly developed communication links and infrastructure. Their demographic parameters are determined by low population growth in the last ten years. Increasing migration has in some places led to drastic depopulation of settlements and a reduction in the number of pupils, leading to school closures.

All this reflects in a peculiar way on the state of the school network and the educational process, creating additional difficulties in building an optimal model of the school network, which is characterized by fragmentation and inefficiency.

Different types of schools, depending on where they are located, in a small municipality, or in a remote location from the municipal centre, allow for low class occupancy or merged classes.

The trend is a decrease in the number of students and classes.

Material - technical base

In most of the schools in the district, the facilities have been upgraded as a result of projects.

- Research and development institutes

Under ISIS 2014-2020, the innovation development of the region was supported by prioritising smart specialisation in three thematic areas, namely "Mechatronics and Clean Technologies", "Informatics and ICT" and "Healthy Lifestyle Industries and Biotechnologies". These three thematic areas, with their respective sub-areas, were considered as priority areas for Kardzhali region.

- Product promotion institutions - businesses (fairs, export organizations, etc.)

"Producers' Market - Kardzhali EAD, gr. Kardzhali

- Professional organizations - Chambers - Associations, etc.

Chamber of Commerce - Kardzhali (CCC)

Kardzhali Chamber of Commerce and Industry (KCCI)

Regional Economic Development and Investment Agency - Kardzhali

Business Association "KRIB - KARJALI"

Regional Chamber of Crafts - Kardzhali

"Community Development Association South"

- Other cooperative forms (clusters, cooperatives, producer groups, etc.)

Ardino-Dzhebelle LAG

LAG "Kirkovo-Zlatograd"

LAG "Mineralni bani - Chernoochene"

LAG "Momchilgrad-Krumovgrad"

LAG "Stambolovo-Kardzhali 54"

## **6. AREAS FOR TARGETED IMPACT**

A specific point in the coordination of the two documents - the Regional Development Plan of the planning area and the Regional Development Strategy - is the need to link the territorial scope of the targeted impact areas with the specific long-term development objectives and priorities of these areas under Article 7, paragraphs 4 and 6 of the Regional Development Act.

The territorial scope of the areas of targeted impact has been determined in advance by the Regional Development Council, according to the defined criteria /Regulation on the definition of indicators for the delimitation of the types of areas of targeted impact, 2004/, when developing the Regional Development Plan, in order to be able to determine their specific objectives and priorities in the development of the Regional Development Strategy. By regulating the scopes of the Focused Impact Areas already in the process of developing the Regional Development Strategy, clarity is brought and the strategic planning process at all three levels (district, regional, municipal) is supported.

The Regional Development Act regulates six areas for targeted impact:

### **6.1. Economic growth area**

It is characterized by highly developed economic and service functions in terms of its development, good communications, educational centers, high population concentration, positive economic growth. It is a region that has significant internal potential for accelerated development of a knowledge-based economy and the achievement of high economic growth to be consistently extended to neighbouring territories through their territorial integration by means of interconnected industries, business networks and clusters serving high-end functions. Supporting its development involves a high and rapid return on the costs incurred. The effect expected to be realised is national through their contribution to national growth and the quality of growth, on the one hand, and territorial through the diffusion of growth into the surrounding territory and the spreading of their positive impact to neighbouring territories, on the other. This is a region that should be supported mainly in the completion of competitive infrastructure, the development of their innovation potential and technological development.

The territorial scope of this region does not include municipalities of Kardzhali District.



## 6.2. Area in industrial decline

Covers an area in which restructuring of industrial structural enterprises is taking place or has taken place, leading or has led to a decline in production, an increase in unemployment, low income and displacement. An area in industrial decline is a typical target of targeted regional development policy in a number of countries. It is also the subject of one of the regional objectives of the Structural Funds of the European Union (Objective 2) for the period up to 2007.

/areals undergoing socio-economic changes in the industrial or service sectors/.

In order to successfully support socio-economic changes in the industrial sectors of this region, the specific objectives of the regional development policy are: to achieve diversification of the economy; to create conditions for the utilization of the existing potential /physical, human, etc./ for economic development; to ensure access to and implementation of new technologies and industries; to improve the educational structure and retraining of the workforce; to support the development of small and medium enterprises as an alternative

The municipalities of Kardzhali and Momchilgrad are included in the territorial scope of this region.

## 6.3. Backward border area

This area is characterized by a border location, low level of socio-economic development, displacements, poor technical infrastructure. Its development will be stimulated by improving transport accessibility, economic revitalisation and increasing employment. A key instrument of regional policy in the region is the development of cross-border cooperation, which will realise benefits for their development in terms of transport and social infrastructure, economic development, including the development of tourism, improving the skills of the workforce and its integration into the labour market, increasing the attractiveness of the regions for new investment and the quality of life in them.

The municipalities of Kirkovo and Krumovgrad are included in the territorial scope of this region.

## 6.4. Backward rural area

It is a region where the majority of the working age population is employed in agriculture and forestry, characterised by a low level of development of transport, technical and social infrastructure, a low level of education and qualification of the working age population, limited employment opportunities, a high level of unemployment, low incomes of the population and depopulation.

The specific objectives of the regional development policy in relation to rural areas are: development of a vibrant agricultural sector, diversification of the structure of the economy in line with local potential, creation of alternative sources of employment and income; stabilisation of demographic and settlement development; preservation of the specific natural and cultural heritage.

The municipalities of Ardino and Chernoochene have been identified in the territorial scope of this region for Kardzhali District.

## 6.5. Neglected mountainous area

It covers an area in the mountains of the Republic of Bulgaria with an altitude of more than 500 m or less than 500 m, but with an average depth of relief of more than 150 m between the lowest and highest point per square kilometre, with an average density of relief of more than 1.5 km per square

kilometre and an average slope of relief of more than 7 degrees. It is characterised by a low level of technical and social infrastructure, limited natural conditions for agricultural development, a small and ageing population, unemployment and low incomes.

The specific objectives of the regional policy for the lagging regions are: creation of productive employment, development of sustainable economic activity and achievement of economic growth; construction of basic /mainly technical/ infrastructure for the needs of economic development; development and/or improved access to education and health infrastructure; professional qualification of the workforce and provision of services for economic development; stabilisation of small towns in rural areas.

Within the territorial scope of this region for Kardzhali District are defined the municipalities of Ardino, Dzhebel, Kirkovo, Krumovgrad, Momchilgrad and Chernoochene.

Providing financial scheme for development of infrastructure, SMEs, agriculture, processing of produce to final product, utilization of ecological potential of mountains etc. in backward mountainous and border areas and in areas in industrial decline through tax concessions, preferences and incentives will stimulate their development.

Poverty estimates (based on NSI data for 2021)

In 2021, the poverty line for Kardzhali district is BGN 444.67 on average per person per month per household. At this level, 22.0% of the district's population was below the poverty line.

Compared to the previous year, the poverty line increased by 10.4% and the relative share of the poor increased by 0.9 percentage points (Table 1).

The social protection system is essential for poverty reduction. Data for 2021 show that if household income includes pension income but excludes other social transfers (benefits, social and family allowances and supplements), the poverty rate rises from 22.0 to 24.4 per cent, or by 2.4 percentage points. Correspondingly, when pensions and other social transfers are excluded, the poverty rate rises to 37.0%, or by 15.0 percentage points

## 7. SWOT ANALYSIS

STRENGTHS	WEAK SIDE
<p><b>ECONOMICS</b></p> <ul style="list-style-type: none"> <li>● Presence of a well-developed economic sector including automotive industry, garment industry, food industry and mining industry.</li> <li>● Priority is given to the manufacturing industry, which has a leading position in the economic structure of Kardzhali District.</li> <li>● Presence of traditional industries for the region - metalworking, pneumatic equipment, mechanical engineering, instrument making</li> <li>● Development of enterprises in the automotive sector. Presence of large enterprises in the sector.</li> <li>● Presence of enterprises with foreign participation, with sustainable markets for the sale of their products.</li> <li>● Increase in technologically upgraded enterprises.</li> <li>● Increase in export-oriented enterprises</li> <li>● Stressful location of the region, through which passes the European transport corridor /EETC/ No 9 Helsinki - Alexandroupolis;</li> <li>● Kardzhali region is rich in ore and non-ore minerals, including deposits of quality marble and facing materials, gneiss, tuffs and limestones, bentonite, perlite zeolite, etc.</li> <li>● The presence of direct transport connectivity between the district's municipal centres, ensuring the development of local supply chains across all economic sectors;</li> <li>● Suitable infrastructure for the development of small, medium and large businesses in the municipal centers - the presence of clearly defined industrial zones both in the urban part and in the suburban part provides opportunities for the development of new highly innovative industries /automotive and automotive parts/ by attracting foreign</li> </ul>	<p><b>ECONOMICS</b></p> <ul style="list-style-type: none"> <li>● Obsolete equipment, characterised by high running costs for some enterprises;</li> <li>● High cost of energy carriers;</li> <li>● Lack of sustained economic growth, bottlenecks in supply chains and high inflation due to the presence of crisis events such as wars and pandemics in the 2020-2022 period;</li> <li>● High levels of "toll manufacturing" and low levels of value added</li> <li>● A small share of large enterprises (0.2%) operate on the territory of Kardzhali district, as the business in the district is mainly composed of micro companies (over 92%);</li> <li>● Low levels of productivity and resource efficiency in most SMEs, due to a low share of high-tech enterprises;</li> <li>● Strong technological obsolescence and low degree of competitiveness of enterprises in Kardzhali district;</li> <li>● Concentration of business in the district center-Kardzhali and weak diffusion of business in the other settlements of the district;</li> <li>● Lack of a unified information system for the tourist flow, lack of a unified advertising and marketing product for the district, lack of a functioning partnership between all tourist sites in Kardzhali district;</li> <li>● Lack of modern markets for agricultural produce in small settlements in the district and modern irrigation facilities for the development of intensive agriculture;</li> <li>● There has been a continuing subsequent negative impact of the COVID-19 crisis leading to business closures in Kardzhali district.</li> </ul>

investors;

- High economic activity rate 15-64 years old (67.9% , 2021)
- Low unemployment rate (1.7% 2021)
- A steady upward trend in foreign direct investment in non-financial corporations over the last 5 years of 82%.
- Favourable climatic conditions for crop and livestock production (Temperate climate with positive temperatures and predominantly sunny days).
- Large-area regions for the production of environmentally friendly plant and animal products (organic farming).
- Tradition and qualification of farmers in the cultivation of technical crops.
- There are traditions in beekeeping, fish production, etc.
- Presence of irrigation systems in irrigated areas,
- Experience in the production of aquatic crops
- Opportunities for establishing permanent vineyards and fruit crops
- 100% restored land ownership
- Availability of veterinary services
- Presence of relatively large numbers of cattle
- Modern dairies built and milk buying organised
- Traditions in sheep breeding
- Suitable conditions for sheep rearing (landscaped facilities, grazing and climate)
- Availability of conditions for fish farming development (in the Studen Kladenets and Kardzhali reservoirs and in micro-dams)
- Overall, the number of existing markets for the supply and purchase of agricultural produce is sufficient.

#### SOCIAL AND HUMAN RESOURCES

- Availability of cheap and skilled labour.
- Over the last five years, the total population of the district has increased by 6.6% (2017-2021).

#### SOCIAL AND HUMAN RESOURCES

- Presence of negative natural growth and increased inward migration;
- Deepening the process of demographic ageing of the population;

- Life expectancy for Kardzhali district is higher than the national average
- One of the few districts in the Republic of Bulgaria with a low relative share of the population aged 65+ in the total population of the district - less than 21.3% (NSI, 31.12.2020).
- The age dependency ratio 26 in Kardzhali district (46.7% in 2018 and 54.68% in 202027) is lower than the national average (56.4%), i.e. there are less than two persons of active age (1.82 persons) per person of dependent age (under 15 and over 65).
- Good technical infrastructure for social activities, education and health;
- The availability of specialized training facilities.
- Availability of qualified teachers
- Availability of specialised institutions for the elderly and home-based services for people with disabilities in Kardzhali region;
- Presence of potential for the development of social and cultural activities, taking into account functioning community centers in the various settlements of the district of Kardzhali, and in the municipal center for museum, gallery and theaters;
- Established sports infrastructure, diverse sports facilities, potential for sports development
- Introduced a programmatic approach to planning activities in the Directorate of Humanitarian Activities - annual preparation, adoption and implementation of the Plan - Program and Sports Calendar for the development of youth, school, sport for all and sport for excellence;
- Total average household incomes are increasing.
- Income from savings is growing.
- Bad loans and credit are declining.
- Relatively sufficient satisfaction of families with their own housing.
- Increase in the number of private cars - cars and trucks.
- Presence of a concentration of young people in the cities and the elderly in the villages;
- Relatively low wages for workers in the district - 75% of the national average;
- Shortage of skilled labour;
- Weak level of entrepreneurial initiative - the sources of income are mainly formed by wages, with its relative share being the largest;
- The highest share is accounted for by total consumer spending;
- Lack of resources for leisure, cultural recreation, education and health.
- More than 50% of registered vehicles are between 10 and 20 years old;
- The rate of increase in total average incomes is accompanied by a higher increase in total average household expenditures (impoverishment of the population);
- There is no equilibrium between supply and demand for jobs, with demand outstripping supply many times over .
- Lack of continuity of workforce in traditional industries - over 55 average age of engineers and skilled workforce in traditional industries;
- Sustained migration of young and skilled professionals to other more developed regions and EU countries.
- Risk groups are formed on the regional labour market, which are unequal in relation to the other entities offering their labour force - unemployed persons without a specialty, with primary and lower education, long-term unemployed persons with registration over 1 year, etc.
- Presence of a group of "professionally unemployed" and persons benefiting from social benefits in other EU countries, refusing to work at the wage rates in Bulgaria - presence of conflict between the social systems of EU

- The employment rate in Kardzhali is higher than the national average.
- Increased private sector activity in a dynamic business environment.
- The unemployment rate has been on a continuous downward trend.
- Reduces the average number of unemployed women.
- The average number of unemployed young people aged up to 29 is falling.
- A well-developed health care network with medical specialists
- Availability of a sufficient network of educational institutions with an optimal structure for education, vocational training and higher education

countries and the labour market in Kardzhali region;

- Sustained employment of women in low-skilled occupations in the garment industry, agriculture, etc. in poor working conditions and low pay.
- Presence of formal employment in the agricultural sector due to lower levels of social security contributions, encouraging registration as self-employed farmers;
- Outdated facilities in vocational schools;
- Decrease in the number of students, including dropping out a large number of minority groups, before the secondary level;
- Closure of schools;
- Outdated material extra-curricular facilities (ritual houses, community centres);
- Increasing proportion of the population in need of inclusion in social services;
- Insufficient capacity of existing social homes and centres and the need to build new ones;
- Shortage of skilled personnel with appropriate education and experience to work in a range of sectors in the real economy;
- Although there are a sufficient number of social, cultural and historical sites in Kardzhali district, including for sports, there are certain infrastructural problems that hinder the use of their potential;
- There is a lack of balance of health care facilities (concentration of specialists and specialised departments in the district centre);
- Increased internal migration processes to more developed settlements and districts. Positive mechanical growth in the last 5 years (895 people on average per year 2016-2020, with a higher proportion of women compared to men 469:426 people respectively);
- Increasing share of ageing population.
- Shortage of skilled people of working age

## TRANSPORT AND INFRASTRUCTURE

- Strategic geographical location of Kardzhali district
- Technical infrastructure network: internet, electricity, water, etc;
- The passage of the European transport corridor No 9 through the Kurdzhali region (Helsinki- St. Petersburg -Pskov- Moscow- Kaliningrad- Kiev- Lubashevka/Rozdilno `Ukraine-Kishinev-Bucharest - Ruse - Veliko Tarnovo - Stara Zagora - Haskovo- Kardzhali- Momchilgrad - Podkova - Alexandroupolis
- Preconditions for enhanced cross-border cooperation with the Republic of Turkey and Greece
- A higher number of sunny days (202.7) than the national average, as well as higher average monthly temperatures than the national average, are prerequisites for the construction of renewable energy facilities and for the development of crop production.
- The water courses and water areas of the territory of Kardzhali district occupy a percentage above the national average (1.8%) and is a prerequisite for the development of irrigated agriculture and water tourism.
- Presence of inexhaustible deposits of non-ore minerals
- Energy, plumbing and telecommunications systems built,
- Provided good access to high-speed Internet within the municipal center - the city of Kardzhali, and the settlements outside it;
- Presence of potential for renewable energy

to be involved in the provision of social services;

- In terms of the existing sports infrastructure in the educational institutions, they are in need of major overhaul. This weakness can be seen as the absence of sufficient incentive to retain the younger generation in the district.

## TRANSPORT AND INFRASTRUCTURE

- Remoteness from developed industrial centres - high degree of outgrowth;
- Restriction of freight transport up to 1.5 tonnes to Greece via the Makaza-Nimfea BCP;
- The implementation of intra-district connectivity may be compromised with the continued depopulation of the area and the reduction of the population of the settlements in Kardzhali district;
- The underfunding of the construction of inter-municipal connectivity, including bypass routes (e.g. bypass road of Kardzhali), not only deteriorates the infrastructure of the district, but also leads to the deterioration of living conditions both in the district centre and in other settlements;
- There is a need to modernize the existing regional road structure, which due to continuous lack of finances is in a deplorable condition, leading to depopulation of villages /Kardzhali district is the leader in this indicator with only 40.2% of the roads in good condition/;
- There is uneven infrastructure development in the territory of Kardzhali district, with a ray-oriented infrastructure centered in the town of. Kardzhali with several main transport rays;
- Lack of balance in development between urban and rural areas;
- Poor condition of technical, road and transport infrastructure. 85% of the republican

generation located on Municipal infrastructure sites.

- There is a gas transmission network, part of the route of the gas connection with Greece, and from here there is gasification of both domestic and industrial subscribers in the town. Kardzhali
- 87% of the population is centrally supplied with water.
- Kardzhali region has good water sources in terms of quantity and quality
- The total density of the entire republican road network in Kardzhali District /0.187 km/sq.km/ is higher than the national average and is generally sufficient.
- 99% of the total length of the national road network in the district is paved.
- Well organized bus transport, fully satisfying the needs of the population.
- All settlements of Kardzhali District electrified.
- The electricity network has capacity for additional load.
- Geographical and climatic conditions suitable for the conversion of solar energy into electricity and heat.
- Availability of a resource (within 1 million tonnes per year) of biomass suitable for energy production.
- Suitable natural conditions for the construction of wind power plants and small hydropower plants.
- The common border with the Hellenic Republic, the proximity to the Republic of Turkey and the cultural and historical heritage of the region define Kardzhali as a region of cross-border importance and potential for integrated cooperation and growth.
- Kardzhali district shares a common border with Xanthi, Rhodopi and Evros prefectures on the Greek side with a length of about 90 km.
- High teledensity
- Fiber optic cable lines have been built to the municipalities of Kardzhali, Momchilgrad,

road network in the district is third class, half of which - former IV class in unsatisfactory or poor condition;

- Presence of multiple landslides with significant rainfall during winter and spring seasons that compromise existing infrastructure;
- Poor condition of much of the built water supply network in Kardzhali district and poor water quality;
- The development of the industrial zones and the development of industrial production in the town. Kardzhali is faced with the need to build a specialized wastewater treatment plant - WWTP, of industrial producers;
- Poor condition of the road and pedestrian street network in villages and town;
- Insufficient level of adapted infrastructure for people with disabilities;
- There is an insufficient provision of small settlements in Kardzhali district with Internet access and distance learning opportunities for students.
- A comprehensive analysis and realistic assessment of the opportunities in terms of both resource endowment and potential market segments is lacking;
- Morally obsolete infrastructure around the dams Kardzhali and Studen Kladenets;
- Unimproved and fragmented farmland.
- High level of farmland fragmentation, leached and eroded soils
- Multiple non-functioning irrigation installations
- Few water user associations under current irrigation management law;
- Shortage of nurseries for seedling production and cold storage;
- Relatively small number of legal farmers registered, shortage of farmers' organisations;
- Lack of a unified cadastral map of the



Dzhebel, Kirkovo and Chernoochene.

- The implemented digital telephone transmission to the telephone exchanges ensures 99 % digitalization of long-distance connections.
- The signal coverage of the licensed national television stations is 100% for the whole territory of the district.
- There is maximum coverage of GSM-networks of national operators.
- The degree of urbanisation has shown a minimal upward trend over the last three years
- Favourable border location - about 90 km common border with the Hellenic Republic.
- Kardzhali district falls in the transitional Mediterranean climate zone.
- Close proximity to the Mediterranean Sea.

region;

- The agricultural land market in the district is not developed and the price is relatively inflated;
- Too small (fragmented) livestock holdings - cattle are raised on a household basis (average 2-3 dairy cows per family) in the absence of intensive technologies;
- They are raised mainly for milk and to satisfy their own meat needs;
- Insufficient control in the use of breeding males leads to a deterioration of the breed;
- Insufficient milk yield due to lack of selection and improper breeding;
- Lack of established collection points under European legislation;
- Presence of abandoned and demolished facilities;
- Malkistadas low-producing animals raised mainly for meat (sheep);
- Micro-dams are not designed for intensive fish farming;
- The markets available for the supply and purchase of agricultural produce do not comply with the requirements for suitable land, buildings and general conditions for this type of produce;
- Presence of mostly young coniferous forests, with undeveloped road network and vulnerable to fires;
- Insufficient effectiveness of the forest protection system;
- There is no updated vision for the development of forestry activities;
- Timber harvesting is not in line with annual growth (450 thousand m<sup>3</sup> vs. 200 thousand m<sup>3</sup>)
- Predominant grazing and illegal logging;
- The existing water mains are past their sell-by date and are not being used wisely;
- Existence of a sewerage network only in large settlements, while in the rest septic tanks

<p>ECOLOGY AND ENVIRONMENT</p>	<p>and soak wells are used;</p> <ul style="list-style-type: none"> <li>• There is no motorway road network on the territory of Kardzhali District;</li> <li>• The main roads are depreciated and out of service;</li> <li>• Lack of bypass roads of the municipal towns in Kardzhali District;</li> <li>• Insufficient length of Class III roads in Kardzhali District with a bearing capacity of 10 t/axle.</li> <li>• Overall unsatisfactory assessment of the condition of the road surface of the municipal road network;</li> <li>• Presence of a non-modernized railway line for speeds up to 60 km/h;</li> <li>• Unbuilt railway connection with the Hellenic Republic;</li> <li>• Abandoned (non-functioning) air transport infrastructure;</li> <li>• Low level of energy efficiency in the use of heat in industry and households;</li> <li>• High percentage of buildings in the region without modern thermal insulation - over 90%;</li> <li>• 3.5% of the biological resource is used for heating (deciduous firewood and wood pellets);</li> <li>• Insufficient project and financial readiness for electricity production from wind power plants and MWPP;</li> <li>• The gas transmission and distribution network in the region is poorly developed;</li> <li>• Limited amount of geothermal energy sources available;</li> <li>• Low absorption of funds under existing EU-funded programmes in the region - €886 per capita;</li> <li>• Very limited cultural and social contacts on both sides of the border;</li> <li>• There is cable TV only in the community centers;</li> <li>• Depopulation of small settlements</li> </ul>
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- More than 50% of the population is connected to the sewerage network in Kardzhali district.
- Reduce direct discharge of untreated wastewater into water bodies and reduce infiltration into the sewerage system;
- Garbage collection, garbage collection and segregation of household waste is organized in all settlements in Kardzhali district.
- Established garbage collection schedules from the individual settlements on the territory of the municipalities in Kardzhali district
- Existing Waste Management Programme for the territory of the municipalities in Kardzhali district.
- Two of the largest dams in Bulgaria - Kardzhali and Studen Kladenets - are located in Kardzhali district;
- In Kardzhali district, measures have been taken to reduce the economic and social impact of the landslide processes, with two landslides being strengthened and three more in the pipeline;
- Kardzhali region is a region with specific flora and fauna with representatives of several zoogeographical zones with rare extinct species included in the Red Book of Bulgaria endemics and relicts and a wide variety of valuable medicinal plants;
- There are structures in place to monitor and protect the environment;
- On the territory of Kardzhali district there are predominantly regions with no recorded pollution from anthropogenic activities;
- Established structure for forest management and governance
- Emerging forest ecosystems based on reforestation in the last 50 years amounting to 1 000 000 ha
- Favourable conditions for hunting and the presence of significant stocks of red deer, wild boar, roe deer, hare, partridge, muntjac and pheasant, as well as mouflon and fallow deer;

(townships and neighbourhoods);

#### ECOLOGY AND ENVIRONMENT

- High levels of environmental pollution, including contaminated soils with lead, cadmium and zinc along the Arda River
- Insufficient effective management of the hunting resource - poorly developed international trophy hunting;
- Not enough hunting tourism opportunities offered by external structures and organizations for the region;
- High wolf, jackal and stray dog population levels;
- Severely declining stocks of native game species (wild boar, roe deer)
- The waste removal to the regional landfill in Kardzhali is economically weak;
- Insufficient potential and structures in place at municipal level for biodiversity conservation, development and enhancement;
- Unsatisfactory condition of the sewerage collectors;
- Presence of numerous potential air pollutants are large industrial enterprises located in the city of Kardzhali and in some other settlements;
- Potential pollutants, such as the dewatering installation of the "Tailings Storage - Kardzhali 2", are present in the area of the district centre;
- The annual average concentration levels of lead aerosols and cadmium aerosols are above the limit values;
- Wastes are not universally collected separately;
- In the production zones in Kardzhali and in the lands of some villages, there are old environmental contaminations of the soil with heavy metals;
- Presence of many unregulated landfills and old pollution;

**TOURISM AND CULTURAL HERITAGE**

- Kardzhali region has a unique cultural and historical heritage, folklore, customs, traditional crafts, a memorable inspiring spiritual environment and emerging ambitions for tourism development.
- Well-established cultural traditions of mutual celebration of different ethno-cultural festivals
- Many cultural monuments have been preserved;
- Presence of a unique historical heritage. The numerous cultural and historical monuments with which the area is filled - Perperico, Tatul, Ustra, Monek South, etc. stand out.
- Kardzhali region is a centre of cultural values. Their origin is connected with the multinationality of the population and the tolerance between ethnicities and religions;
- Along with the historical ones, there are a number of unique natural attractions in the area - the Utrobata Cave, the Stone Wedding, the Stone Mushrooms, etc.;
- Traditional cuisine in Kardzhali is a mix between European and Asian cuisine;
- The cultural calendar of Kardzhali district is filled with numerous events, including the annual holding of various festivals, competitions, fairs, cultural and sports events;

- Presence of landslides and strong landslide processes determined by geological, tectonic, climatic, hydrological, engineering geological and other factors.
- There is surface denudation and channel erosion along the river banks.
- There is no environmental protection and monitoring centre in the district.

**TOURISM AND CULTURAL HERITAGE**

- The bed base is concentrated in the regional centre of the town of. Kardzhali and is not directly connected with tourist routes, recreation and rest;
- Low occupancy of the bed stock, concentrated mainly along the route of the transit flow to Greece;
- Many of the monuments are not maintained and are not marked on the tourist routes;
- Insufficient use of the tourist potential of the district, including due to poor infrastructure connectivity between the different natural and cultural attractions;
- Unregulated relationships regarding the use of the tourism potential of historical and natural sites that are exclusive state property;
- Poor use of natural features, including water bodies, which have not been a priority of national regional development measures. .

**OPPORTUNITIES**

**ECONOMICS**

- Formation of local and regional clusters and business networks, as well as potential for building related industries based on existing ones;

**FLOODS**

**ECONOMICS**

- The application of inefficient economic mechanisms and the refusal to implement integrated connectivity projects with neighbouring municipalities will deepen the

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| <ul style="list-style-type: none"> <li>● Availability of support for the implementation of the network approach by SMEs (networking within European initiatives, measures and operations);</li> <li>● Availability of support for start-ups in all sectors and creation of an environment to strengthen them;</li> <li>● Opportunities to support smart green businesses, biodiversity and environmental conservation;</li> <li>● Potential of mineral deposits - zeolite, bentonite, etc.</li> <li>● Encouraging through appropriate national measures and programmes, including fish with the financial support of the Maritime Affairs, Fisheries and Aquaculture Programme for the period 2021-2027, the establishment and registration of fish farms for breeding, rearing and fattening of fish in the dams located on the territory of the Kardzhali region, including the construction of fish auction sites, cold storage facilities for fish, factories and workshops for processing fish and fish products;</li> <li>● Promotion of social entrepreneurship in Kardzhali region in different spheres of the economy;</li> <li>● Availability of opportunities to increase the competitiveness of enterprises by exploiting local labour and resource potential;</li> <li>● Availability of conditions for increasing the competitiveness of the local economy by financing projects with European funds;</li> <li>● Development of infrastructure serving farmers and those involved in fish farming and aquaculture (auction houses, laboratories, etc.);</li> <li>● Improve local tourism by creating conditions for building and sustainable development of tourism potential and increasing tourist flow;</li> <li>● Exploiting the potential for the development of hunting, fishing and cultural-historical tourism in Kardzhali region;</li> <li>● Targeting public funds to build infrastructure in industrial zones;</li> <li>● Livelihood creation and retention in the</li> </ul> | <ul style="list-style-type: none"> <li>current trend of disconnection;</li> <li>● Civil opposition and the emergence of public discontent threatening the implementation of investment projects in certain industries;</li> <li>● The implementation of projects to promote the economic and social development of Kardzhali district could be hampered by insufficient investment interest and/or inadequate qualifications and lack of motivation of the local community;</li> <li>● Insufficient absorption of the allocated funding, from the state budget and EU funds;</li> <li>● Disinterest on the Greek side in expanding the possibilities under the OETC No. 9 and the regional BCPs for freight transport and exchange of goods;</li> <li>● Suspension of mining from ores;</li> <li>● Inability to follow the course of technological development;</li> <li>● Changes in price levels and inflation with the country's accession to the Eurozone;</li> <li>● Insufficient level of foreign investment;</li> <li>● Deepening economic crisis and inability to absorb EU funds;</li> <li>● Stopping/delaying integration processes;</li> <li>● Economic crisis and collapse of the energy market;</li> </ul> |
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district;

- Access to raw materials and European Union markets.
- Access to financial resources and technology from the European Union.
- Cross-border cooperation with Greece and Turkey.
- Development of deposits of non-ore minerals.
- Development of gold deposits .
- Production of garments and collections , own brand;
- Conversion to the cultivation of other types of industrial crops (oilseeds and herbs);
- Renovation and construction of new highly efficient and cost-effective irrigation systems;
- Creating conditions for a real agricultural land market by creating a unified cadastral map of the region;
- Creation of conditions for farmers' associations supported by external donors;
- Financial opportunities for the establishment of nurseries for the production and acclimatization of perennial planting material;
- Use of new varieties of perennial crops with quality planting material and marketable species and variety composition;
- Restoring heavy metal contaminated soils and increasing their fertility;
- Building large-scale competitive livestock farms;
- Support the establishment of local small and medium-sized enterprises for the processing of agricultural and livestock products;
- Formulation of a comprehensive concept for forest management in Kardzhali district, in line with the municipal development plans;
- Stimulating better conditions for the formation of local businesses to carry out forestry activities;
- Development of eco and fishing tourism around the dams of KARDZHALI and Studen Kladenets;

- Development and implementation of a unified marketing strategy for tourism development in the district;
- Supporting small and medium-sized businesses through programmes and measures funded by the European Union;
- Search for alternative forms of family business in the tourism industry and agriculture, including through the adaptation of the existing housing stock;
- Integration of persons from third countries into the labour market of Kardzhali region;
- Helping small and medium-sized businesses to create jobs through programmes and measures funded by the European Union;
- Provision of conditions for opening new Higher Education Institutions in Kardzhali and other municipal centers;
- Modernisation of the learning process according to EU requirements;
- Developing a comprehensive strategy for the development and preservation of the historical and cultural heritage and traditions of the region;
- Stimulating cross-border cultural and domestic contacts with neighbours from Greece and Turkey;
- Modernization and reconstruction of the water supply network;
- Construction of sewerage system in all settlements over 500 people;
- Improving existing and building new infrastructure to develop regional and cross-border links;
- Reconstruction of the railway network in the district and creation of conditions for railway connection with the Hellenic Republic;
- Retrofit and upgrade existing air transport infrastructure;
- Construction of a complete gas transmission and distribution network in Kardzhali district;
- Increased application of technologies for the use of bio-mass for energy production (pellets and others).

- Development of the renewable energy sector, through the construction of small hydropower, photovoltaic and wind power plants;
- Promoting the mass use of solar panels for DHW;
- Opportunity to build a Euroregion together with Haskovo Region and interested regions from the Hellenic Republic and the Republic of Turkey in order to improve the infrastructure in the region, socio-economic cohesion and environmental improvement.
- Increased participation in EU programmes and use of other opportunities for cross-border cooperation;
- Technological upgrading and expansion of telecommunications infrastructure;

#### SOCIAL AND HUMAN RESOURCES

- Using the necessary potential to create the appropriate motivation and retention of young people in the region of Kardzhali;
- Stimulating social entrepreneurship by exploiting opportunities for diversification of social services and innovative application in all sectors of the economy in the area;
- Developing the education sector and improving the quality of training, in order to meet the needs of the local labour market;

#### TRANSPORT AND INFRASTRUCTURE

- Development of the infrastructure of GCP-Macaza and optimal functioning of OETC No. 9.
- Opening of other BCPs of regional importance - Avren, Egrek, Tihomir, Shumnatitsa, Benkovski-Challa, etc.
- Comprehensive improvement of the regional

#### SOCIAL AND HUMAN RESOURCES

- Continuing negative demographic processes;
- Insufficiently motivated and qualified staff to service social activities and social institutions in Kardzhali district;
- Unavailability of co-financing to implement certain projects in Kardzhali district;
- Potential emergence of public discontent threatening the implementation of social investment projects;
- Lack of motivation on the part of the local population and civil society to engage in the process of educational, social and cultural transformation;
- An increasingly ageing skilled workforce;
- Impeding integration processes;

#### TRANSPORT AND INFRASTRUCTURE

- The improvement of the quality of life of the inhabitants and the exploitation of the opportunities for economic and social development may be hampered by the deterioration of the ecological condition and of the existing sewerage network in some of the settlements in Kardzhali district;
- Insufficient funding from the state budget



road network and connectivity to Corridor 9 and Transport Corridor 4 and 10;

- Potential for combining the different modes of transport and their efficient use by creating intermodal links for road, rail and transport, sea and air transport;
- Stimulating PPPs and investment in major infrastructure projects;
- Prioritization and integration of the available historical, cultural and natural potential for the development of integrated tourism;
- Potential for development of transport infrastructure (water, land);
- Implementation of energy efficiency measures and production;
- Creation of infrastructure for collection, storage, warehousing and export of agricultural produce;
- Established gasification of industrial zones can serve as an incentive to attract potential investors and to develop local businesses.

#### ECOLOGY AND ENVIRONMENT

- Implementation of wastewater treatment plants;
- Developing an assessment of contaminated sites and waters and ending current contamination;
- Creation of a unified MSW management system;
- Establish a separate waste collection system.
- Creation of conditions for anti-erosion measures in the municipal and private land fund.
- The presence of significant water bodies such as the dams: the Kardzhali and Studen Kladenets, as well as the passage of the Arda River through the middle of the town of Kardzhali are a good prerequisite for the development of the fisheries and aquaculture subsector, on the one hand, and the production of energy from renewable sources (micro and large hydroelectric power plants);
- There are extensive areas that can be designated as an Ecologically Clean Area,

and European Union funds to build new and improve existing infrastructure;

- Ongoing process of division of hereditary estates resulting in a reduction in the average size of estates;
- Delay the establishment of water user unions by region;

#### ECOLOGY AND ENVIRONMENT

- Insufficient progress in tackling environmental problems;
- Presence of natural disasters;
- Insufficient funding from the state budget and other donors for environmental protection;
- Lack of interest in investing in the eco and bio industry;
- Presence of low Natura 2000 coverage and protected areas;
- The regional landfill operates with only one cell that will fill up in the next 4-5 years, which could lead to an environmental disaster if a new one is not built;
- Presence of massive landslides with significant rainfall during winter and spring seasons that compromise existing infrastructure.
- Presence of ongoing water and soil contamination;
- Presence of calamities from diseases, pests and forest fires destroying large areas of newly created ecosystems

which allows the development of organic production and enables local producers to certify themselves as organic producers;

- Well-developed cross-border cooperation for economic cooperation
- Presence of favourable natural and climatic conditions, including the highest number of days with sunshine, for the development of agriculture.
- Construction of a new water treatment plant serving the industrial zones to attract potential foreign investors in high-tech and sustainable industries;
- In the territory of Kardzhali district there are many protected areas under the Protected Areas Act, which gives the opportunity for the development of organic farming and organic production;
- Increase in energy efficiency, implementation of renewable energy sources, reduction of greenhouse gas emissions and fossil fuel use in Kardzhali district can be tangible with the use of appropriate environmental protection programs and measures;
- The potential of the available animal species, habitats and other natural attractions provides many opportunities for development, as well as responsibilities related to the use of the land and forests in these areas and the consideration of regional development projects;
- The development of the Kardzhali region is linked to the opportunities for exploiting the natural and geographical features and potential of the river. Arda (opportunities for the development of river/reservoir infrastructure and river/reservoir tourism)
- The high level of air purity in Kardzhali district, above the average European air quality index, is a prerequisite for the development of various environmentally friendly economic activities.

#### TOURISM AND CULTURAL HERITAGE

- The availability of cross-border connectivity

#### TOURISM AND CULTURAL HERITAGE

- Changes in the natural conditions, including

<p>as well as inter-municipal connectivity to create regional tourism routes;</p> <ul style="list-style-type: none"> <li>• Creating opportunities for eco, bio, sports, fishing and other types of tourism that have the potential to attract visitors from the country and beyond;</li> <li>• Synchronise economic policy and use business to attract visitors to the various potential tourist sites.</li> </ul>	<p>landslides, floods and others may not only threaten the preservation of the various potential tourist sites, but also compromise the development of tourism in Kardzhali district;</p> <ul style="list-style-type: none"> <li>• The poor ecological condition of the Kardzhali district may negatively affect potential tourists along the river. Arda and the dams Kardzhali and Studen Kladenets;</li> </ul>
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#### **Annex 1** List of abbreviations used

Abbreviation	Definition
GDP	Gross domestic product
BDS	Gross value added
HPP	Hydropower plant
RES	Renewable energy sources
Plumbing	Water supply and sewerage
GCPP	Border crossing point
EE	Energy efficiency
EU	European Union
IAG	Executive Forest Agency
IARA	Executive Agency for Fisheries and Aquaculture
SME	Small medium-sized enterprises
NUTS	Planning areas
OETC	Trans-European Transport Corridor
RUG	Regional Forest Management
MSW	Municipal solid waste

CBC	Cross-border cooperation
TKZS	Worker cooperative agricultural holding
TP	Territorial division
TSB	Territorial Bureau of Statistics