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NATIONAL CENTRE FOR REGIONAL DEVELOPMENT

NATIONAL CONCEPT FOR SPATIAL DEVELOPMENT for the period 2013-2025

The national space – our common heritage for the future

Sofia, 5 November 2012

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NATIONAL CONCEPT FOR SPATIAL DEVELOPMENT FOR THE PERIOD 2013 – 2025

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EXECUTIVE SUMMARY

The National Concept for Spatial Development of the Republic of Bulgaria for the period 2013-2025 has been elaborated as part of the project “Programming of regional development for the period 2014-2020”, financed by Operation 5.1: “Programming, management, monitoring, evaluation and control”, Priority Axis 5 “Technical Support” of OP “Regional Development 2007-2013”.

This is the first document of its kind concerning the spatial development of the territory for the past three decades, which covers the entire area of the country and is being elaborated under the conditions of restored property rights on land and forests in all its modalities, increased number of actors in the process of planning and governance of the territory, a more democratic decision-making process and membership of the country in the European Union.

The National Concept for Spatial Development for the period 2013-2025 (NCSD) is a mid-term strategic document, which outlines the directions for land-use planning, governance and protection of the national territory and aquatory and creates preconditions for spatial orientation and coordination of the sectoral policies. Together with the National Regional Development Strategy 2012-2022 (NRDS) it is a principal document in the most recent legislation of the country and a long-aspired instrument for integrated planning and sustainable spatial, economic and social development.

The structure of the document comprises four sections. The introductory *Section One*, “Major challenges and potential for development of the national space”, makes an overview of the political and legislative frameworks, the objectives, tasks and principles on which the NCSD is based, as well as the major factors influencing the national space.

The main objective of the National Concept for Spatial Development for the period 2013-2025 is “Spatial coordination of the processes in the national territory through establishing a spatial and land-use planning base and a regulator for implementation of both regional planning and individual socio-economic sectoral planning at the national level in the context of the common European spatial development for the purposes of achieving complex integrated planning”.

The NCSD was elaborated on the basis of the following more important principles:

- Integrated planning and complex treatment of all problems of the territory;
- Scientific approach to planning, mandatory for all spatial planning levels and activities;
- Priority protection of public benefit for guaranteeing the balance with individual interests in the implementation of the ideas and priorities of the national land-use planning policy;
- Publicity, transparency, partnership and public involvement in the decision-making process at all stages of work on the NCSD;
- Consistency, coordination and continuity of the planning process, contributing to the rational and adequate utilization of the experience accumulated over the years;
- Inter-disciplinary, trans-disciplinary approach and synergy in the generation of ideas promoting creativity and innovations;
- Concentration in terms of thematic scope, financial and geographic aspects, available resources and timeframe for the purpose of achieving more adequate behaviour in the use of the limited resources.

A major instrument used in the elaboration of the National Concept for Spatial Development is the Geographic Information System (GIS) with the proposed structured database of geo-spatial

data, which is used for analyses, testing of models, assessment of territories and core-cities and visualization of the results.

An analysis was made of the influence of the major geo-political, global, social, economic and ecological factors on spatial development and the most important challenges, which the country might face, were outlined. One of the gravest problems during the next decades will be the demographic crisis in all its multi-faceted manifestations. The decrease and ageing of population in Europe will continue and Bulgaria will make no exception. For this reason all possible demographic scenarios envisage diminishing of the population size.

Section Two is devoted to the theoretical fundamentals of the spatial model, its principal elements, parts of the macro-spatial structure – central over-urbanized territories and peripheral, under-urbanized territories, to which one more category has been added – natural, non-urbanized territories; the development poles and development axes, natural and cultural values of national significance. In this section the model for spatial development is selected, the formulated vision and the related strategic objectives and priorities are specified.

The spatial model for development of the national territory is a multi-layer one and synthesizes different layers of information, functions, processes and priority elements of diverse hierarchic ranks in a unified dynamic system. The alternative spatial models are based on the existing situation and the possible changes in the polycentric structure of cities evenly distributed on the territory of the country. The assessment of the possible alternatives of a limited, moderately developed polycentrism and strongly developed polycentrism prove that the most appropriate model for the country is the model of moderate polycentrism with opportunities for phased development over time depending on the impact of domestic and external economic, geopolitical and demographic factors. The general trend laid down in the Concept is overcoming the threat of orientation towards monocentrism, promotion of the movement from monocentrism towards moderate polycentrism, which expands and comes closer to developed polycentrism over time.

The National Concept for Spatial Development of Bulgaria for the period 2013-2025 creates a theoretical basis for the implementation of this model, which will guarantee the complex integrated planning, ensuring harmonic unity of social, economic, ecological and land-use planning. It does not plan resources, but rather measures, defines directions of the regional policy and the related spatial planning, orients the Managing Authority in the selection of the cities to be supported under the OPRD and coordinates sectoral policies by reorienting them with respect to the national space.

The NCSD covers the entire national territory but refrains from being omnipotent by orientating the traditional analysis of the environment-related components and factors towards territories, sites and processes **of national significance** and laying the focus on them. As regards human settlements in their capacity of bearers of the priorities of the national policy for spatial development, the NCSD pays special attention to both cities and larger villages, which occupy an important place in the polycentric settlement network.

The NCSD treats all the above mentioned elements of the spatial structure of national significance equally, but focuses on the elements of the urban structure because of the orientation of both OP “Regional Development” and the EU policies on cities and urban development. The diverse functional links and centres will build the skeleton of the spatial model for development of the country, integrating those territories, which we wish to preserve, study and demonstrate to the world; the latter will probably change our own perception about ourselves and thus help achieve the self-respect and feeling of belonging, which is very important for the successful realization of a considerable portion of the ideas laid down in the NCSD.

The selected vision of the NCSD is formulated in three brief messages:

- ***The national space of Bulgaria** – open to the world and integrated in the European space and in the European network of core-cities and axes of development, culture, science and innovations.*
- ***The well-preserved national resources** – the people, land, waters and forests, ores and minerals, natural and cultural heritage – a guarantee for the national identity.*
- ***Balanced and sustainable integrated development**, achieved through rational organization of the economic, social, transport, engineering, cultural and tourist infrastructure and ensuring smart economic growth, adaptivity to changes and equal treatment.*

From this vision the strategic objectives of the NCSD have been derived:

- Strategic objective 1: **“Integration in the European space”**

Development of national and cross-border/trans-border transport, energy, urbanization, cultural and ecological corridors with a view to achieving territorial cohesions, cooperation and integration within the region and in the European space.

- Strategic objective 2: **“Polycentric territorial development”**

Strengthening of a moderately polycentric network of core-cities with improved quality of the urban environment, contributing to the achievement of balanced territorial development and diminishing of the disparities between central urban and peripheral rural areas.

- Strategic objective 3: **“Spatial cohesion and access to services”**

Development of the national engineering and social infrastructure for improvement of the spatial cohesion of the regions and urban centres and the access to education, health care, social and culture-related services.

- Strategic objective 4: **“Well-preserved natural and cultural heritage”**

Preservation and development of the national system of protected natural and cultural values for the purpose of maintaining of the natural biological balance, the natural and cultural identity of the territory and for integrating their values into the modern life.

- Strategic objective 5: **“Promoted development of specific areas”**

Integrated planning and promoted development of areas with specific characteristics (Black Sea coast, Danube river basin, mountain, border and peripheral areas) with a view to preserving and effective use of their natural, economic, social and cultural development potential.

- Strategic objective 6: **“Competitiveness through growth and innovation areas”**

Increasing the competitiveness of the Bulgarian territory through government support for growth and innovation areas in the urban centres of the high levels of the polycentric model.

The next section, Section *Three*, devoted to the Strategy for Spatial Development, is the most substantial part of the document. It discusses consecutively all the elements of the spatial model, related to the national space – the polycentric urban network of core-cities, the development axes, the agglomeration areals and the development of the accompanying social infrastructure, transport and engineering infrastructure, the territorial manifestations of the sectoral policies, the natural and cultural values and the possibilities for their preservation, the areas with specific characteristics and the priorities for their development.

The NCSD builds upon and develops further the polycentric model of hierarchically ranked centres and development axes, proposed in the NRDS 2012-2022, by pointing the ways and means for their shift to a higher level. The assessment of the core-cities, ranked in 6 hierarchic levels, has been performed by means of a set of indicators, related to the demographic dynamics and their significance as administrative, transport, health care, educational, cultural, economic and tourist centres. Specific policy is proposed for stabilizing the network of small cities of fourth hierarchic level, since the direction of development of the peripheral rural and mountain areas will depend on the state of development of these cities. The NCSD does not neglect the smallest towns and villages of fifth hierarchic level, whose number is the largest, in which the primary provision of services to the population of the municipalities is effected and in which there are job opportunities outside occupation in agriculture – in the field of social services, trade, administration, industrial production and crafts, education and culture. Improvement of the urban environment and the quality of life in the cities, which is a focal point in the EU policies as well, will be achieved through the implementation of the projects laid down in the IPURD and establishing conditions for balanced urban development, beyond the regulation boundaries in the current Master Plans, which in the case of the big cities and agglomerations should be worked out including their zone of active impact (FUA).

In the course of the developing of the model of the spatial concept, social services provision and more specifically the sites, related to education, health care, culture, administrative and social care services play an important role for identifying the existing centres of the polycentric settlements system. The access to this kind of services, the culture- and education-related commuter trips and links are fundamental for the system of selection criteria.

The directions given in the NCSD are related to the development of the social services network on the basis of a more sustainable model, capable of counteracting domestic migrations and depopulation. A matter of particular significance is the equitable access to the most indispensable “life-saving” services. When people choose where to localize their business or the place of their permanent residence, the subsystems of health care and education occupy the first place after the aspects, related to the engineering and transport infrastructure. The indicators for the sites of the system are of a great importance for the lower levels in the hierarchic system as well, because the demographic balance and the retention of the population in active age depends on the availability of adequate educational institutions.

The proposals for development of the transport networks under the “grid” model are related to the most important axes of the Tran-European Transport Network (TEN-T) and the connections with the neighbouring countries and regions, as well as the destinations of the Pan-European Transport Corridors, which are not covered by the main axes, and some additional connections. If these priorities are realized, the national transport network will achieve a more rational spatial organization, ensuring connections among different European states via the territory of Bulgaria, connections with the neighbouring countries and between the major urban centres. The attainment of the aspired model of spatial organization and hierarchic ranking in the structure of the system of settlements will depend to a great extent on the spatial organization and functioning of the transport infrastructure, which conveys directly intensive flows of people, goods and services between the individual centres of the settlement network. The compatibility between the rank of the urban centres and their functions in the structure of the settlement network and the degree of their provision with transport services is a prerequisite for the sustainable functioning of this model. The road infrastructure of regional and local significance is of particular importance for the functioning of the polycentric model, since it complements the functions of the road network of national significance.

The elements of the engineering infrastructure are of almost equal importance and among them those of the highest significance for overcoming the territorial isolation are the ICT networks and services. The development of public information systems and guaranteed provision of Internet services for the entire public sector, including facilitated access for the handicapped, is a mandatory step towards the information society with all the advantages it can offer for overcoming of the barriers of time and space, respectively the territorial disparities in development.

The economic development follows the spatial structuring of the territory and the proposed polycentric model with its centres and development axes mobilizes the available resources depending on their potential and the requirements for attainment of social cohesion and ecological sustainability by creating competitive economically active zones. In the consecutively investigated economic sectors – from agriculture to innovations, logistics and clusters – the main objectives related to their linkage with the national space and their development priorities are highlighted as factors, ensuring the vitality of the national territory.

Special attention is paid to tourism, which from the point of view of its territorial development and orientation is considered not from the aspect of narrow sectoral planning but rather as an element of the integrated spatial planning. Territories with a potential for combining natural and cultural values, well-established traditions and positive experience in and potential for formation of clusters will be developed with priority. The development of balneological treatment, preventive and curative activities in the areas with potential and availability of mineral waters, appropriate microclimate and products for talassotherapy (sea water, curative mud, sea salt, lye and algae) will have an important place in the policy for development of tourism. This provides opportunities for development of centres for SPA and curative tourism even in smaller municipalities. In the majority of them, there are favorable conditions for combining preventive and curative activities with other attractions for diversification of the tourist product, which will make these complexes more competitive on the tourist market. For attainment of the strategic objectives of the NCSD, protection of natural and manmade resources and of the environment in the course of tourism development, it is also proposed to work out recommendations concerning the spatial/land-use planning of the agglomeration formations of a new type – tourism-based agglomerations.

The proposals for preservation and development of the potential of natural and cultural sites cover the entire complex of activities related to their protection, rehabilitation, exhibition and socialization for the purposes of converting them from obstacles to spatial development into drivers of growth. The existing possibilities for expansion of the network of protected areas and zones in those NUTS 2 level regions, in which they have the smallest relative share, will be taken advantage of. The border areas along our western and southern frontiers through the “Green belt” initiative will be incorporated as a matter of priority in the European ecological network, and the protection of biodiversity in the Eastern Rhodope Mountains and Strandja Mountains, with their multitude of unique for Europe species, will increase considerably the natural wealth of the country.

The conservation of cultural artifacts follows the principles laid down in the Cultural Heritage Act. The definition of the major objectives for development of the cultural heritage in the NCSD is performed against the background of the European cultural policies for protection and exhibition of cultural diversity in its multi-cultural dimensions, promotion of the national cultural industries and cultural cooperation, enhancement of the role of the individual regions and cities and promotion of cross-border/trans-border cultural relations. Seven thematic cultural spaces have been formed. They cover areas with concentration of significant cultural values from several different periods and of diverse types or with large concentration of cultural values of one type

but of important regional significance. In the NCSD priority in the development of the culture-related infrastructure is given to the Danube, South Bulgarian and West Bulgarian cultural spaces.

In the NCSD it has been decided to treat as territories with specific characteristics those parts of the national space, in which it is necessary to implement specific policies of land-use planning and development. Coastal areas (Black Sea coast and Danube river basin), mountain areas, border areas, areas at risk (demographic, economic and ecological) and areas for protection of the landscape, natural and cultural sites are identified as such territories. These areas are defined also as non-formal areas. Two of them – the Danube river and the Black Sea coast – have been defined and institutionalized and there are internationally consolidated strategic documents for their development. The remaining types of territories with specific characteristics may be united in a common category - “problematic” territories. The identification of territories with specific characteristics and problems provides an opportunity to focus the territorial addresses and the priorities of the sectoral policies and future operational programmes and to increase the possibility for implementation of the respective regional strategies. In this way ways and approaches for formulation and implementation of a targeted and integrated policy for preservation of their specifics and overcoming of the accumulated problems will be identified.

In the *fourth*, final part, entitled “The new philosophy of spatial planning”, the principal guidelines for application and management of the NCSD are systematized. The major recommendations towards the sectoral institutions, which are related in one way or another with the issues concerning the national space, are formulated and highlighted.

Similar to the National Development Programme “Bulgaria 2020”, the NCSD focuses on objectives, bearing on the interests of all the institutions, of the entire nation. For this reason the aim of making NCSD an effective tool for spatial development of Bulgaria should become common aim. The aspired end result is a balanced, viable concept, supported by all. This is not a concept, appertaining only to public institutions as regards implementation of their respective obligations. The NCSD creates a base for full-fledged involvement of the private sector as well by attracting significant investment initiatives with public participation.

This document is a “novelty” in the strategic planning practice in Bulgaria. Unlike the land-use plans, the NCSD does not impose norms and regulations. It plays a coordination and advisory role. Its guidelines lead to conflict-free implementation of functions, rational utilization of resources and good organization of the national space. Against the background of the marked sectoral approach in planning and investments during the recent decades, the philosophy of “voluntary association” and “integrated investments” is proposed as a counterpoint. The shift towards this new starting plane through implementation of the NCSD requires new thinking and behaviour patterns – from competition among the institutions, towards cooperation for attainment of common goals in the same spaces, innovative mechanism for coordination among the governance levels – a new “multi-storey” governance system; a new programming system, focused on a limited number of problems; and a new institutional framework, permitting effective implementation of the spatial strategy; not strictly sectoral, but rather an integrated system of programming and implementation of the government policies and programmes with territorial/spatial dimensions.

Despite the maximum openness during the process of its elaboration, the NCSD would hardly achieve its ambitious goals as early as with this first edition. The NCSD should be treated not just as a document, but rather as an aspired process. It should be permanently maintained, monitored and upgraded through timely updating.



Fig. 1: Administrative-territorial structure of the Republic of Bulgaria

General information about the Republic of Bulgaria

Area: 111,000.9 sq. km.

Population: 7,364,570 people (by 01.02.2011), urban population 5,338,261 people (72.5%)

Age structure: people aged 0-14 – 32%, people aged 15-64 – 63.8%, people aged 65+ – 18.5%

Share of the population with higher education: 19.6%

Population density: 66.3 people/sq. km.

Administrative division: 6 NUTS2 regions, 28 districts, 264 municipalities, 5,302 settlements (by 01.02.2011), 255 cities, 5,047 villages

Transport communication network: road network density 0.18 km/sq. km.

Mineral springs: 148 deposits

Protected territories: 5% of the territory of Bulgaria

Protected areas NATURA 2000: 35% of the territory of Bulgaria

2 sites belonging to the World natural heritage

7 sites of the World cultural heritage

1. MAJOR CHALLENGES AND POTENTIAL FOR DEVELOPMENT OF THE NATIONAL SPACE

The National Concept for Spatial Development of the Republic of Bulgaria for the period 2013-2025 is the first document of its kind concerning the spatial development of the territory for the past three decades, which covers the entire national space and is being elaborated under completely different political and socio-economic conditions, membership of the country in the European Union and changed attitude towards the contents and the role of spatial planning. It is the most important mid-term strategic document, which should harmonize sectoral policies, coordinate private and public interests under restored ownership rights on land and forest in all its modalities, increased number of actors in the process of spatial planning and governance, and a more democratic decision-making process.

1.1. Political and legislative framework

Bulgaria has a considerable historical experience in regional and spatial planning at the national level, on which this document builds upon and orients it to face the new global challenges, related to protection of resources and adaptation to climate change with due consideration of the fundamental principles of the modern policy for sustainable territorial development.

The European context

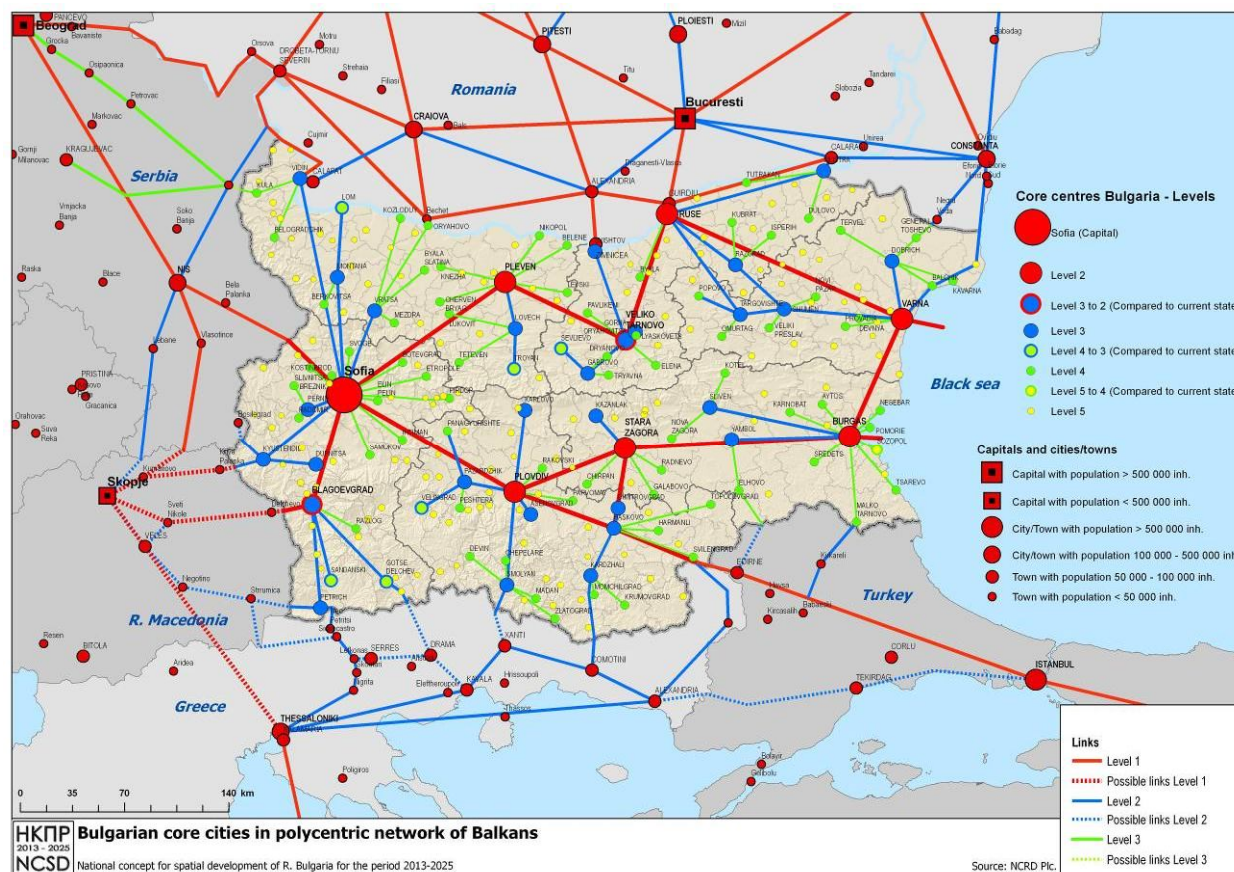


Fig. 2: Spatial connections – neighbouring countries

The National Concept for Spatial Development (NCSD) has been elaborated in the context of the major EU documents, concerning sustainable spatial and urban development. It sets the directions for balanced land-use planning, smart governance and integrated protection of the country's

resources in compliance with the goals of the “Europe 2020” Strategy for developing a competitive economy based on knowledge and innovations, reducing resource dependence and energy consumption, and economic, social and territorial cohesion.

The selected model for spatial development of the country has been inspired by the priorities for attainment of these objectives, approved in the *Territorial Agenda “Europe 2020” (TA 2020) “Towards an Inclusive, Smart and Sustainable Europe of Diverse Regions”*, which develops further the ideas of the *European Spatial Development Perspective (1999)*, the *Lisbon Strategy (2000)* and the *Göteborg Strategy (2001)*. They promote polycentric and balanced territorial development, integrated economic, social and ecological renovation and development of cities, rural areas and territories with specific characteristics, territorial integration and coordination of the policies, protection of natural and cultural values and adaptation to global climate change.

The major strategic objectives and priorities for the spatial development of Bulgaria take into account the guidelines of the *Fifth Report of the European Commission on Economic, Social and Territorial Cohesions: Investing in Europe’s future (2010)* concerning concentration of European and national resources and coordination of efforts for attainment of “Europe 2020” objectives in compliance with the specific challenges and the need for introduction of innovative instruments for management, financing and control, by means of which the implementation of the strategies for regional and urban development will be guaranteed.

The most important basic principles and approaches of spatial planning, laid down in the common European documents, which will affect our national policy and practice at all levels in the future and are reflected in the National Concept for Spatial Development for the period 2013-2025, are as follows:

1. Support for **balanced territorial development** through maintaining of a **hierarchical system of core-cities** at the national and regional levels as a tool for minimizing the manifested territorial disparities in economic development.

Such disparities are reported mainly for countries like ours, where, irrespective of the demographic drop, a significant population growth is observed in the capital city at the expense of the rest of the national territory. The role of cities as drivers of growth and centres of creativity and innovations is emphasized. Creation of innovative networks among cities competing at both European and global level is promoted. Small and medium-sized cities are assigned a significant role. Working out of strategies for “restoration of the urban economy” is underway; the economy, based on knowledge, creativity and innovations is strongly promoted.

2. Strengthening of the **links between urban and rural areas** at all levels through improvement of accessibility and employment opportunities, as well as planning of specific measures in support of peripheral and under-populated rural areas.

The main responsibility for development of the periphery is vested with the metropolis urbanized areas. The interaction and partnership between the urbanized cores and rural areas are enhanced, whereas the development of small cities in the latter strengthens their role as organizing centres.

3. Ensuring better accessibility and **linkage of cities and regions** through improvement of their transport and communication links, through development of regional and local transport networks and their connection to the European transport network.

Improvement of the transport connections of peripheral areas, both within the EU and with the neighboring countries, is of particular importance for building up severed connections and for integration of remote areas. Improvement of the access to electronic communication networks and provision of “universal service” in under-populated areas improves the access to

infrastructure, information and knowledge. Ensuring access to broadband Internet is an important prerequisite for increasing the competitiveness of business and above all of SMEs, a condition for reducing digital isolation, as well as an opportunity for improvement of the skills of people in active age and increase of their chances for realization on the labour market.

4. Careful planning of **sustainable urban development** through application of an integrated approach in the reconstruction and renovation of cities. Consistent coordinated solving of the economic, ecological, social and cultural issues, emerging in the cities, through concentration of resources for steady improvement of urban environment and the quality of life.

Measures for promotion of social integration and cohesion, which provide an opportunity for combating spatial segregation and social marginalization, are implemented in parallel with the projects for physical improvement of urban environment. Ensuring a proper mix of functions and social groups, mainly in big cities, minimizes the risk of social isolation and exclusion of a large portion of the population and helps preserve the vitality of cities.

Integration of the areas surrounding big cities in the strategies and plans for spatial development is sought for the purposes of more effective land-use planning. The intelligent spatial planning envisages curtailing of urban “sprawl”, rational and resource-saving management of the urban ecosystems (above all water, energy and waste disposal), increasing the share of renewable energy sources and reduction of CO₂ emissions, as well as efficient and environmentally-friendly improvement of public transport and broadening of the opportunities for alternative mobility.

5. **Territorial integration** in the border and transnational functional areas and cooperation for enhancement of the overall competitiveness.

Specific attention is paid to the external borders of the EU, to peripheral areas with well-preserved nature, lifestyle and traditions, which enrich the mosaic of natural and manmade landscapes and the cultural diversity in the EU.

6. Protection of the **natural and cultural heritage** through smart governance, which, in the era of globalization, contributes to preservation of regional identity and enhances the competitiveness of the regions and cities in the EU.

For the purposes of development of the European ecological networks on the national territory and for preservation of biodiversity, the necessary “green” and “blue” corridors between the protected areas of regional, national, international and pan-European significance have been ensured. The cultural landscapes of specific historical, aesthetic and ecological significance are being preserved, while any distorted by human intervention landscapes are being creatively restored by means of adequate re-cultivation measures. Integrated strategies for protection of the cultural heritage sites are being developed and the principles of integrated conservation of important urban ensembles and sights are strictly applied.

7. Alignment of the planning of spatial development of cities and regions to the **threats and challenges** of globalization, demographic changes, climate change and energy dependence.

Two decades after the World Summit in Rio de Janeiro, the emphasis in global and regional documents has been shifted to risk management, provoked by the increased number of natural disasters. These documents are based on the integrated and adaptive approach for protection of the population and the major territorial resources – land, water, forests, ores and minerals. Distortion of fertile land as a consequence of urban growth and construction of infrastructure, accompanying their development, are assumed to be the major reason for “sealing” of soils and

loss of some of their most important properties. Therefore, integrated approach has established itself as the major tool for management of seas, rivers and water resources, of wetland areas and the littorals. The planned preventive measures are aimed at limiting the scope of ensuing damages and minimizing of the vulnerability of settlement structures to natural disasters and accidents.

Taking due account of the fact that spatial planning does not plan funds, but rather measures and approaches, the European documents emphasize on the need that it should play a leading role in determining the priorities of sectoral policies, particularly of those having a significant impact on the territory (transport policy, agricultural policy, environmental protection policy, etc.).

The above listed guiding principles and approaches, some of which have been laid down in documents of European and international organizations as early as in the 1970s, served as a basis for the elaboration of the spatial development concept of the Republic of Bulgaria for the period 2013-2025 as well. They were creatively interpreted with a view to the national particularities of the Bulgarian territory and the best traditions of the Bulgarian national spatial planning system. This would guarantee preservation of the specifics and identity of our national space and its dignified integration in the spatial organization of the European continent.

National context

The National Concept for Spatial Development for the period 2013-2025 coordinates objectives and priorities with the most important documents of the country for cohesion into the European space through diminishing of the economic, social and regional disparities, protection of the most valuable resources and improvement of the quality of life.

In pursuance of the “Europe 2020” Strategy for smart, sustainable and inclusive growth, the *National Reform Programme of the Republic of Bulgaria (2012-2020)* defines the priorities for rapid overcoming of the crisis and increasing the competitiveness. The improvement of infrastructure, which will help ensure better linkage to Europe, to the centres of growth, innovations, science, business and culture is directly related to the development of the national space. The priorities, related to improvement of the quality of education and diversification of the forms of access to education, will enhance the competitiveness of the young generation and are reflected in the spatial polycentric model, in the policies for development of cities and their linkage to the adjacent rural areas. Creation of a better business environment in the country and in the EU and improvement of confidence in the institutions will be reflected through the upgraded administrative and institutional capacity and adequately reformed legislation in the course of implementation of the laid down proposals for spatial, social and economic development.

The National Development Programme: “Bulgaria 2020” (draft) lays the beginning of a constructive inter-institutional dialogue for formulation of the vision and the general long-term objectives of all national and sectoral policies, for converting the country into “an attractive place for living, work and investments”. It sets the directions for programming the strategic documents for implementation of the national and community policies during the next programming period 2014-2020, which together with the created institutional spirit and aspiration for cooperation, support the coordination and linkage of sectoral policies with spatial planning and the elaboration of a considerable portion of the proposals for development of the national space.

The National Concept for Spatial Development is directly connected with the *Operational Programme “Regional Development” (OPRD) for the period 2014-2020* and offers the territorial base for identification of its priorities and measures for attainment of balanced and sustainable territorial development, energy efficiency improvement and reduction of energy dependence, for sustainable and integrated development of the regions and cities, for improvement of the access to health care, education and social care services, for mitigation of poverty and social exclusion,

for developing effective transport, engineering, tourist and culture-related infrastructure. Thus the NCSD faces the challenge of striking a balance in the development of the national space on the principle of equitability of the regions, municipalities and settlements.

The National Concept for Spatial Development is also linked with the National Regional Development Strategy 2012-2022, approved by virtue of Council of Ministers' decision No. 696/24.08.2012, whose main goal is the achievement of "sustainable integrated regional development, based on the local potential, and cohesion of the regions in economic, social and territorial aspect". The three manifestations of cohesion – economic, social and territorial – are fundamental for the established strategic objectives of the document, which are elaborated further and linked to the objectives of the NCSD in order to find their targeted spatial dimensions in the upgraded model of spatial development.

1.2. The place of the NCSD in the system of strategic documents

The National Concept for Spatial Development for the period 2013-2025 should replace the National Complex Land-use Planning Scheme, envisaged in the Spatial Planning Act, which according to Article 100 had to define simultaneously the "*ways for achievement of the goals and objectives for land-use planning at the national level, linked to the general sustainable socio-economic development*". After more than 10 years of debates about the role and place of the National Complex Land-use Planning Scheme, concerning its scope and contents, the work on this new document has started under conditions of not fully clarified legislative status.

The new scope and contents of the National Concept have been outlined in the additional provisions of the Act amending the Spatial Planning Act as a proposal for amendment of the Regional Development Act, in an effort to find a better linkage between the two acts. According to Article 2a "*The concepts and schemes for spatial development determine the goals of the government policy for land-use planning ...*" and define "*the strategies for integrated spatial development with due consideration of the territorial potential and the principles of balanced development*" (Art. 7a, Paragraph 1).

In compliance with these texts, the National Concept for Spatial Development should become the leading document for both regional and spatial planning, together with the National Regional Development Strategy, as key strategic documents with pronounced territorial context and considerable impact on the national space.

The National Concept for Spatial Development, through its basic principles and priorities, should assist the work on elaboration of the regional development plans at NUTS 2 level, which is being performed in parallel during the period till December 2012 and in which more detailed guidelines about the spatial development of the regions and municipalities should be provided. At the next, lower hierarchic level, the NCSD will assist the developing of all the other documents related to strategic regional planning, the district strategies and municipal programmes, whose updating is pending, as well as the land-use plans of the territory of individual municipalities or groups of municipalities.

The legislative amendments to the two leading regulatory acts – the Regional Development Act (promulgated in SG No. 50/2008) and the Spatial Planning Act (promulgated in SG No. 1/2001) – also aim at compensating for the lagging behind in the field of land-use planning, which had to be coordinated with the land-use schemes and plans of a higher hierarchic level. On the other hand, the correct positioning of the NCSD within the package of strategic documents regulates its leading role in the linkage of the priorities of the proposed Operational Programmes for the next

programming period 2014-2020 with the documents for strategic regional and spatial planning. The coordination of objectives, priorities and measures, including within the sectoral policies, will gradually help the process of integrated strategic planning and achievement of the goals of the National Development Programme “Bulgaria 2020”, in which the key priorities in the field of education, transport, the energy sector, innovations and tourism shall find their most realistic dimension in the national space.

1.3. Objectives, tasks and principles of the NCSD

The National Concept for Spatial Development is a mid-term document with a period of validity from 2013 till 2025. These 12 years, in which assistance will be provided for correct orientation of the funding under the Operational Programmes during the next programming period 2014-2020 towards areas of accumulated disparities, but also towards areas possessing the most adequate conditions and untapped potential, are a short period of time as compared to the strategic horizons of documents of this kind in other countries, which have proven their effectiveness within several years after their approval. In the National Concept for Spatial Development of the Republic of Bulgaria the strategic horizon will be expanded till 2030 for the most important priorities in the field of transport and communications infrastructure and the technical and engineering infrastructure, since they are extremely important for the country's linkage to the neighboring countries and regions and for its opening to the globalizing world.

According to the definition of spatial development, approved in 2006 by the European Conference of Ministers Responsible for Spatial/Regional Planning and promulgated by the Council of Europe in the spatial development glossary a year later (in the section “Territory and Landscape”) spatial development is defined as “*evolution of the territories in all their dimensions (economic, social, environmental and physical)*”, and the planning itself refers to the methods used for distribution of people and activities in spaces at various scales, as well as for “*of the location of the various infrastructures, recreation and nature areas*”.

In 2008 the UN Economic Commission for Europe defined spatial planning as an activity oriented towards “*coordination or integration of spatial dimensions of sectoral policies through territorially based strategies, more complex regulations of land-use and of the contradictions among sectoral policies*” and assumed it to be a key instrument for development and effective governance, especially in the countries in transition.

Based on the above quoted definitions and in compliance with the Technical Specification, the **ultimate goal** of the National Concept for Spatial Development for the period 2013-2025 has been formulated as follows:

“Spatial coordination of the processes in the national territory through establishing a spatial land-use planning base and a regulator for implementation of both regional planning and individual socio-economic sectoral planning at the national level in the context of the common European spatial development for the purposes of attaining complex integrated planning”.

The methodological directions of the MRDPW concerning the elaboration of the National Concept for Spatial Development of the Republic of Bulgaria till 2025 link the formulated major goal to the national land-use planning policy, which according to Art. 1 of the Spatial Planning Act should guarantee protection of the territory of the country as national wealth, as well as “.... sustainable development and favorable living, work and recreation conditions for the population”.

The specific objectives and tasks, derived from the Technical Specification, may be summarized as follows:

- Achievement of the goals and objectives for spatial planning of the territory at national level, linked to the overall sustainable and balanced socio-economic development and available resources;
- Integration of land-use planning with regional and sectoral planning efforts through territorial coordination of sectoral policies, strategies, plans and programmes, related directly or indirectly to spatial development;
- Reduction of disproportions (disparities) in land-use, including overbuilding of the territory, without rejecting the regional policy principle of concentration and creation of optimal conditions for sustainability and planning in spatial development;
- Establishing a territorial base for promotion of the polycentric development of the urban network and improvement of the efficiency of the links between the central and peripheral areas, between the cities and the adjacent rural areas;
- Determination and identification of the territories possessing specific spatial characteristics on the basis of appropriate methodology and a system of indicators and identification of functional zones of important national and regional significance, which require implementation of a specific development policy;
- Elaboration of guidelines and principles for implementation of the spatial planning policy on the basis of land-use planning of the national territory for a pre-defined period of time;
- Identification of the tools to be used for implementation of real and active coordination among different hierarchical levels of spatial planning and the interventions by OPRD 2014-2020 and the other Operational Programmes.

In addition to its major tasks, the National Concept for Spatial Development for the period 2013-2025 assists the preparation of OP “Regional Development” and the coordination of the activities and priorities set with these of the Rural Development Programme for the purposes of achieving balanced development of the national territory. It provides the guidelines and justification for the selection of areas, in which concentration and integration of resources in support of tourism, protection and socialization of the cultural heritage, cross-/trans-border cooperation for preservation of natural values is possible.

The elaboration of the National Concept for Spatial Development for the period 2013-2025 takes advantage of principles, methods and procedures, which have established themselves in practice and guarantee the successful achievement of the set objectives. In addition to the traditional quantitative and qualitative methods, generally used in such a large-scale study, for the purposes of the NCSD and the other activities related to the multi-factor analysis and assessments, specific methods, approaches and instruments, based on the approved basic principles of work, were also used:

- ***Integrated planning***, which guarantees complex treatment of all problems of the territory, in order to make it possible for the NCSD to perform its fundamental role of a spatial framework and a basis of regional and sectoral planning efforts. This principle coordinates the socio-economic, regional and environmental planning, as well as the planning related to protection of the cultural heritage and cultural values, and links them to the spatial dimensions of land-use planning for the purposes of balancing the distribution and utilization of the resource potential. The NCSD integrates and directs sectoral policies aiming at horizontal and vertical integration at several levels – the EU,

national and regional. In territories and zones possessing specific characteristics, like the Black Sea coast and the Danube river shoreline, the principle of integrated planning and management of the territory and the aquatory is applied.

- ***The scientific approach in planning*** is a mandatory principle for all the levels and activities in spatial planning because of the scale of the study, the scope of the thematic fields, the changed priorities in the socio-economic and regional development in accord with the search for solutions to global challenges, and the huge volume of information. It assists decision-making through the arguments, concerning the conceptual solutions based on scientific grounds and knowledge of global practices.
- ***The priority protection of public interests*** will guarantee the balance with the individual interests in the realization of the ideas and priorities of the national land-use planning policy. In the efforts for protection of public interests, the territories of national and supranational significance will be treated with priority in order to regulate and ensure preservation of resources, related to the development of leading sectors and implementation of important sites of the engineering and transport infrastructure, conservation and socialization of important natural and cultural sites and their use as engines of development.
- ***Publicity, transparency, partnership and citizens' involvement in the decision-making process*** are leading principles in the process of elaboration of the NCSD, during all the stages of collection and updating of information and review of the intermediate results till the creation of the spatial model for development of the national territory, the approval, endorsement and application of the document, and the implementation of the priorities and measures set.
- ***Consistency, coordination and continuity of the planning process*** assist the rational and adequate use of the experience accumulated over the years in the course of developing important documents related to the entire territory of the country, from the Comprehensive Territorial Development Plan (1976) and the most recent document – the National Regional Development Strategy for the period 2012 – 2022. These principles are used for coordination of the strategic objectives and priorities set with the documents of a higher hierarchic order, for further elaboration of the major proposals of the NCSD, related to the major elements of the spatial structure – poles and development axes, agglomeration areals and their interaction within the national space.
- ***Inter-disciplinarity, trans-disciplinarity and synergy*** in the generation of ideas are applied in order to avoid sectoral approach and to synthesize the proposals for spatial development. The study and strengthening of important relationships and interactions in the spatial structure of the country, ensuing from the coordinated implementation of the sectoral policies, will activate the potential of the available resources to increase the Value Added and achieve synergy, economic and environmental sustainability in the medium- and long term.
- ***Concentration*** – thematic, financial, geographic, resource-oriented and timeframe-based, ensures more adequate behaviour with respect to the use of the limited resources wherever they are most indispensable or where they would have the greatest impact. This principle comprises also efficiency and effectiveness in the use of the limited resources and corresponds to the latest focuses of the cohesion policy through the identified in the NCSD growth poles and axes and areas and zones for intervention, which are of the highest national and regional significance.

A major tool used in the elaboration of the National Concept for Spatial Development is the **Geographic Information System** with the proposed structured database of geo-spatial data. This tool assists the decision-making process by means of additional GIS-based analyses concerning the structuring and organization of the national space. Following the approval of the National Concept for Spatial Development, the Geographic Information System will be used for the implementation and updating of NCSD, as well as for its adaptation to any significant subsequent changes in the Community and national policy for regional and spatial development.

1.4. Factors influencing the national space

Demographic dynamics rank among the **social factors** which give sense to spatial and regional planning and influence the entire development of the country. Birth rate drop, extension of the life span, increase in the number of representatives of the population in the most advanced age-group and the increase of the burden on the young people are some of the reasons for considering this problem to be a “time bomb”. **Population drop coupled with ageing of the population** is a factor, which has a grave impact not only on the economy and the quality of life, but also on the demand for specific social care and health care services, recreation and tourism, culture, administrative services and habitation. Part of that ageing population lives in hard to reach municipalities, situated in peripheral areas, in which in the majority of EU Member States, as a result of the regional policy of the respective state, the processes of depopulation have accelerated after the closure of the servicing centres.

Although at a somewhat reduced pace as compared to previous years, for the EU total still a certain increase of the population and continuing **migrations** towards the stronger developed countries in the central core has been reported. In the long term, however, the EU population diminishes and will undergo changes not only in its age structure, but also dramatic changes in its ethnic composition and religious bias. In the majority of the East European states, including Bulgaria, even in those with positive natural population growth and lower death rate than that in our country, population drop will also occur as a result of the persisting migration towards the more developed countries to the west and to the north, because of the slower rates of economic development in the period of crisis. This population movement will have a negative impact on the national space since there is a risk of depopulation of considerable areas, for which the NCSD should propose necessary adequate measures.

According to NSI data Bulgaria makes no exception and in the period between the two censuses 2001–2011 the population of the country has been diminishing by 0.7% per year on the average. The negative trends continue to aggravate and for a third time in the demographic history of Bulgaria a population drop in the period between two consecutive population censuses has been recorded. During that period population growth has been noted only for the Sofia (the capital) and Varna districts. There is a steady trend of depopulation of the smallest settlements. As at 1 February 2011 no inhabitants have been registered in 181 settlements. The age structure of the population in the mountain and border areas is gravely distorted and is not capable of ensuring reproduction of either the population in general or of the potential of population in active age in particular. Irrespective of the wish not to waste resources, particularly in the health care sector, a package of mandatory “life-saving” services will have to find its spatial dimension in all the problematic municipalities.

The aggravation of the age structure in our country may be accounted to a considerable extent to the large-scale emigration processes, mainly among the younger age groups. Emigration of entire young families (together with their children) has predestined the acceleration of the population

ageing process. Because of the increase of the overall death rate and the delay in the increase of the average life-span, the pace of population ageing is not yet exerting considerable pressure on the economy and the social systems, but with every year the risk is increasing. In Bulgaria the share of the population aged 65+ has increased from 16.8% in 2001 to 18.5% in 2011. At the same time in 2001 the people aged below 15 years accounted for only 15.3% of the population of the country, while in 2011 their share had diminished to 13.2%.

The growing number and share of old people aged 65+ places serious challenges to the social security system, the social benefits systems, health care and education and requires the developing of an appropriate network of specialized social-care services accompanied by medical services.

The other dimension of the demographic problem, accompanied by accelerated “brain drain” under the conditions of financial and economic crisis, and also the crisis in the system of values in the country, is the significant *diminishing of the capacity* for implementation of the forecasts of the sectoral strategies, of the NRDS and the NCSD, despite the planned access to education, information resources and innovations. The shortage of administrative, institutional and expert capacities will also result from the population drop and population ageing, from emigration rates and the deteriorating quality of education. This will endanger the success of any programmes and large-scale projects in all fields – those of innovations, modern technologies, health care, culture, tourism and probably also transport.

Geo-political factors, including the country’s location, its relations with the EU and the world, the transit flows, our sea border – an external border of the EU, rank next in terms of significance. Bulgaria has not always been peripheral – it has had its more central location on the continent, but after its accession to the EU our Black Sea border, our western border and part of the southern border have become *external borders* of the Union. Utilization of the peculiar shortcoming of being periphery, remote from the most important information and communication, knowledge and innovation, finance, business and culture networks, and transforming it into an advantage, will be sought through optimal opening of these borders and establishing connections with other important for the EU and the world transport corridors and axes.

Situated in Southeast Europe, our country is far from the West European states – France, Spain, Germany, and Great Britain – which generate the major transport communication traffic and provide high-quality educational, cultural, transport, financial, advisory and other services. The smaller distances to Poland, Ukraine, Russia and other Central and Eastern European countries ensure better opportunities for intensive transport traffic to and via Bulgaria. Bulgaria’s location in Southeast Europe is a *central and strategic one*. This advantage has not been entirely tapped and capitalized. A new model of spatial development of the national territory and the transport communication network is needed for the purposes of realizing the communication advantages with respect to the neighbouring countries – Macedonia, Serbia, Romania, Greece and Turkey. The advantages and shortcomings of the geo-political location of Bulgaria should be taken into account and utilized in a different manner with respect to neighbouring and other countries on the continent. The linkage of the national space of Bulgaria with other countries requires permanent assessment of the changes made in their spatial development policies and updating the approved strategic priorities and objectives. The proposed spatial model will support the sustainable competitiveness of the geo-political advantages of Bulgaria, including those related to its unique natural and cultural values and tourism.

The geo-political situation of Bulgaria has been assessed in two aspects – transport accessibility of the national territory from other countries and continents and assessment of the points of

transition and the stops (thresholds) to crossing of the state borders and the openness of the national space. The synergy effect of the accessibility to individual regions – the Black Sea coast and the Danube shoreline, also participates in the integral evaluation of the accessibility of the territory and the aquatory.

The developing of the transport infrastructure has a determining role for optimization of the transport accessibility of Bulgaria since it changes the profile of the European destination Bulgaria with respect to transit traffic. The positive effects of the *transit flows* might increase in the event of effective combination of the transport infrastructure with the charter air traffic. The distances between 500 and 700 km should be a major criterion for attainment of comfort and sustainability of the transportation of the flows of people and goods towards the Bulgarian borders.

The advantages of Bulgaria's location are related also to its *proximity to the countries in Southwest Asia and Northern Africa*, which compensates and transforms its peripheral location into a transitional one. The proximity to the two continents provides opportunities for expansion of the transport flows towards the country. The policy oriented towards the advertising of the natural, cultural and touristic wealth of Bulgaria in these regions should emphasize the accessibility of the national space. The active policy of "opening" the national space towards the neighbouring countries – opening of new border-crossing points, completion of the construction of Danube Bridge 2 (Vidin-Kalafat) and construction of new ferry complexes – is an additional advantage in the short term.

The spatial and functional connection of the trans-European transport corridors with the configuration of the national transport network in compliance with the EU White Paper 2011¹ is of strategic importance for the optimization of the transport accessibility to Bulgaria. For Bulgaria the advantages of its location should be tapped and capitalized through the new policy for land-use planning, consecutively transposed in all the documents, including in those related to regional development.

There is no other country in Southeast Europe whose territory is traversed by five pan-European transport corridors (the territory of Romania and Greece is traversed by 3, of Serbia and Macedonia by 2 and of Turkey by 1 PETC). This is the reason why the location of Bulgaria on the continent is estimated as strategic. In Central Europe the location of the capitals Vienna and Budapest gives them the advantages of being central transport and distribution junctions and earning considerable Value Added from transit traffic, in Southeast Europe such function should be performed by Sofia. It is only in these capital cities on the continent that three trans-European transport corridors get together and intercept. In our country a similar situation exists in Plovdiv. At the national level the spatial development policy should be oriented towards establishment of transport distribution and service centres of supranational and national functions (for the countries of Southeast Europe). The cities of Plovdiv, Varna, Burgas, Veliko Tarnovo, Ruse, Vidin, Silistra and Blagoevgrad possess the greatest advantages in this respect. The next lower level, should be oriented towards establishment of regional transport and distribution centres – the cities of Pleven, Kyustendil, Haskovo, Dobrich and Smolyan.

The border crossing opportunities characterize the openness of the national space and influence the spatial development policy. As at 2011 there were 35 border crossing points in Bulgaria, including 3 in the inland (Sofia, Plovdiv and Gorna Oryahovitsa) and 32 along the country borders. In Varna and Burgas there are 2 border crossing points each (on the sea port and airport

¹ White paper, Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, COM (2011) 144 final, http://ec.europa.eu/transport/strategies/2011_white_paper_en.htm

complexes). In order to evaluate the “openness” of the national territory, the indicator “length of country border per border crossing point” has been introduced. For 2011 the average length of the country border per border crossing point was 64.1 km. In recent years positive changes have been made for the functional opening of the national space of Bulgaria towards the neighbouring countries – a trend, which should be maintained in the future as well.

The next step in the evaluation of Bulgaria’s location should be the assessment of the **synergy effect of accessibility** to the national territory. In its essence and manifestation the synergy effect is cumulative, which will impose the need for assessment of the degree of development of the transport infrastructure in the neighbouring border areas. The spatial development policy of Bulgaria is oriented towards achievement of optimal and effective (in terms of the time needed for passing certain distances, prices and costs for reaching the destination Bulgaria) organization of the transport services with a view to earning Value Added – economic, social and ecological - by the settlements, municipalities, districts and regions in the country.

Among the **economic factors**, the factor having the strongest impact on the EU Member States, on society and the territories, is **globalization** with its new scale, with the economic, cultural and political dimensions of the current century. One of the greatest advantages of globalization is the liberalized access to markets and consumers. Under the growing competition Bulgaria is in an unfavorable position with respect to this indicator according to the estimates of the European monitoring of cities², but conditions should be created, through the land-use policy, for offsetting this shortcoming by offering business environment of better quality, high-skilled personnel and access to educational and social services related to localization of businesses in order to attract good-quality investments.

A considerable advantage of Bulgaria under the conditions of globalization will be its unique nature, cultural values from different epochs, the well-preserved lifestyle and traditions, especially in some remote municipalities and areas, which, once properly exhibited and branded, will make **Bulgarian identity** a leading aspect for certain target groups in tourism, which seek environment unaffected by urbanization. It is one of the tasks of the NCSD to indicate appropriate measures for the conservation of this identity.

The access to the major centres in the **global financing systems, to innovations and business networks** is the result of the combined effect of location, capacity, transport accessibility and condition of the information and telecommunication networks and might strengthen or reduce the disparities between individual regions and agglomeration centres. According to the Regional Innovation Scoreboard and the report of the Lisbon Council, in 2011 our best developed region, the Southwest Region, ranks 182nd among all 263 compared European regions with respect to the criterion “innovativeness of the economy”.³ Bulgaria lags behind in the field of innovations and in the development of knowledge-based economy and will have to overcome this shortcoming through correctly linked territorial proposals for developing knowledge and innovations centres, of R&D activities around the big cities, possessing adequate potential and available facilities, human resources and traditions in this field – Sofia, Plovdiv, Varna, Stara Zagora, Ruse and Pleven – specialised according to the characteristics of the region on the principle of the free economic zones.

The manifestations of the impact of globalizations on the cities is the result of the movement of capitals, localization of the headquarters of big companies, business activities, investments and highly skilled personnel, and takes the form of change in the living standard and the environment

² Cushman & Wakefield's European Cities Monitor 2011

³ Comprehensive ranking of cities in the global innovation economy, Global Innovation Agency
<http://www.innovation-cities.com/innovation-cities-index-top-cities-for-innovation-2011/>

through transfer of models for urban transformations. The modern vision of the environment will be realized through rational use of the potential of the cities, development of the social and cultural infrastructure and protection of the cultural heritage, as well as through restructuring and renovation of the existing manufacturing, warehousing and port zones, situated at the periphery of the cities and in their adjacent functional impact areas. Different tools will be used and support from other Operational Programmes will be sought for expanding the impact of the integrated urban regeneration and development beyond the regulation boundaries of the cities.

The above mentioned changes in the structure, role and place of cities in the polycentric system of settlements are only part of the **urbanization changes**, which are the next important factor of spatial planning. The sprawling, expanding, rapidly developing cities and the shrinking and suffering from depopulation cities and settlements are at the two poles. The problem remains unresolved despite the numerous research studies, the applied models for smart growth and the targeted policies, which in fact strengthen the polarization and the growing disparities between centre and periphery on global and European, regional and national scale. The capital of Bulgaria ranks 15th in the list of the largest cities in the EU. The recorded population growth in it during the period 2001-2011 was 10.3%, while for the cities with analogous characteristics in other countries it was around 5%. The National Concept for Spatial Development should propose a better scenario for balanced development and create conditions for concentration of resources from the different sectoral policies in the critical regions, including also horizontal measures for mitigating the consequences from this phenomenon and conservation of the still viable cities and villages.

The changes in the **hierarchy of cities** affect spatial planning in the event of shifting of the world centres of political power, of domestic and foreign trade, financial and consultancy services, high-quality professional services, the centres of the media industry, of consumption, art, culture, entertainment and fashion, which continue to be most attractive for living, work, business and tourism.⁴ Bulgaria, which remains far from such centres, can strengthen its links with near-by European capitals enjoying favorite location in the hierarchy of cities through joining trans-European networks and improve its connections with the urban centres in Southeast Europe and Asia.

Climatic factors – global warming, natural disasters, areas and zones at risk – also have considerable influence on the approaches used in spatial planning. These challenges, which occupy an important place in all European documents, have their reflection also on the elaborated concepts and strategies for spatial planning of the EU Member States, on the management of waters, land and natural values. Adaptation of the spatial planning approaches to **global warming** will ensure preservation of the ecological comfort in urbanized territories and reduction of the risks of **natural disasters**, classified in the UN Strategy for Disaster Risk Reduction as **hydrological, meteorological, geophysical and biological natural phenomena and disasters**.⁵ Among them the gravest threat in terms of manifestation and impact are floodings and droughts, extreme temperatures, storms, heavy precipitation, earthquakes and the resulting landslides, wind-provoked erosion, fires etc. In the spatial planning at the national level information is integrated about the phenomena and disasters and the priority measures from different national sectoral documents and documents on land-use, especially the location of the infrastructure at risk, in order to guarantee risk reduction and communication at all stages – from planning to the implementation of national plans and strategies. The territories at higher risk in Bulgaria are those along the Danube, the river valleys and the Black Sea coast. Climate change will affect also the

⁴ Hall, P., 1997, Megacities, World Cities and Global Cities

http://www.megacities.nl/lecture_1/lecture.html#World%20Cities%20and%20Global%20Cities

⁵ <http://www.unisdr.org/>

biodiversity and will lead to changes in the species composition and habitats. One of the possible solutions could be establishment of specific regimen for some depopulated areas in order to conserve them as natural wealth for the future generations.

1.5. Summary conclusions – the challenges of the spatial development

During the past decade the spatial development concepts in Europe have been influenced most strongly by the European Spatial Development Perspective (Potsdam, 1999), which resumed the subject of polycentrism and the linkage of settlements in networks, following the interactions within a hierarchic system of cities. The National Concept for Spatial Development of the Republic of Bulgaria 2013-2022 transposes this model from the National Regional Development Strategy 2012-2022 through the centres and development axes by enriching it and linking it to the land-use planning.

The major priorities of the “Europe 2020” Strategy for smart, sustainable and cohesive growth are defended in the NCSD 2013-2025 through the ideas for balanced distribution of the priorities between the urban centres and territories with good socio-economic development and the under-developed, vulnerable to demographic and economic risks areas and human settlements. The motives for this approach are related to the findings about the successful development of the medium-sized cities, which provide a different scale and quality of life, avoiding some of the disadvantages of the big cities and metropolis. In addition, the polycentric network is strengthened also through the targeted support for some smaller cities, important in the spatial structure of the country.

The NCSD assumes the approach of the EU Territorial Agenda (TA 2020) with respect to rural and cross-border areas, which also adds concern about preservation of the viability of the small human settlements to the polycentric spatial development and integrated urban development. This differentiated approach has been used in the proposals for targeted support for small cities and bigger villages in rural and border areas and for building of the severed connections with them, taking at the same time into account the specifics of the different rural and mountain areas and the access to the services, provided by medium-sized cities.

This broadening of the thematic range of the spatial concept across the core-cities, rural areas and important peripheries, linked by the main transport axes and connections of the country with the world and Europe, is supplemented in the NCSD also by the themes, related to the natural and cultural heritage, by strengthening coordination among the different sectoral policies for development of transport, engineering, cultural, social and touristic infrastructure in compliance with the recommendations of the Fifth Report on Economic, Social and Territorial Cohesion concerning the future of the cohesion policy after 2013.

In support of the national strategic objectives and priorities presented in the National Reform Programme 2012-2020 and the National Development Programme “Bulgaria 2020”, the National Concept for Spatial Development proposes construction of those important sections of the national road network, which will ensure better connections to Europe and the knowledge, education and innovations centres. It also supports urban regeneration and development by developing further the system of criteria for selection of the cities, eligible for support for the preparation of integrated plans, without limiting the opportunities for other cities to plan funding for similar activities as well.

The National Concept for Spatial Development takes into consideration the requirement of the Common strategic framework for integration of the sectoral policies and creates prerequisites for this by also indicating the possible ways for achievement of inter-sectoral integration in mastering and use of the national space. The priorities and thematic directions laid down in the

OP “Regional Development”, related to the steady improvement of the urban environment and the quality of life on the basis of a well-established and renovated engineering, social and ecological infrastructure in the big and medium-size cities, improved energy efficiency and sustainability of the demographic, climate and economic changes, are reasonably defended.

The building of alternative models for spatial development also takes into account the conclusions from the “Socio-economic analysis for the needs of OP “Regional Development” for the period 2014-2020”, which investigates the development of the settlements and administrative units of different ranks and identifies the existence of two regional development models – a monocentric one with clearly manifested disparities between centre and periphery and a two-pole model. The first one may be traced at the national level, where the Southwest Region plays a leading role, and at a regional level it is manifested in the three NUTS2 regions – South Central, North Central and Northeast. At the district level it is manifested through the concentration of population, activities and investments in the central municipality, in which the district centre is situated. At the national level the 2-pole model may be traced in the development of the two poles – Sofia and Varna, and at the regional level – in the development of the districts Burgas and Stara Zagora in the Southeast Region of NUTS2. At the district level pronounced 2-pole models exist in the districts Kyustendil, Lovech, Stara Zagora and Gabrovo. The territorial and social disparities will continue to be overcome by applying the EU principles of support for under-developed areas.

The more important advantages of and shortcomings in the development of the national territory and the impact of the processes underway as a result of global, economic, climate, social or urbanization factors, have been systematized in two groups and are assumed as major challenges:

The main *problems* are related to:

- Population drop and population ageing, depopulation of certain territories, mainly in border and peripheral municipalities, which threatens the future vitality of the entire region;
- Delayed connection of the national territory with the neighboring states and hence with the European communication-transport network because of the lack of adequate interest on the part of the governments of these countries, which have in due time built the most important for them connections with Europe and Asia;
- Remoteness of the country from the global and European financial capital cities, the centres of knowledge, innovations, business, governance, creative industries and cultural events, of high-tech and constancy activities, and significant lagging behind as compared with other Eastern European countries;
- The on-going growth of the population of the city of Sofia at rates exceeding twofold the rates of population growth of big cities of the same rank, which is a threat to the polycentric development in the country and the balanced development of the neighbouring municipalities in the Southwest Region and the Northwest Region;
- Excessive construction in the most attractive territories along the coast and in the mountains around the already established holiday-making and tourism areals and destruction of precious landscapes, overloading of the transport and engineering infrastructure and deterioration of the quality of the environment and the offered tourist services;
- Lagging behind construction of networks and facilities of the engineering infrastructure, which is a threat for the ecological balance and undermines the standard of habitation;

- Inadequate utilization of the opportunities provided by the ICTs because of low population density, remoteness and insufficient competition in a number of areas, low income rates and inadequate educational level, absence of access to new technologies, low quality of services, absence of applications with appropriate contents for the agricultural business and the businesses in rural areas, low awareness level or ageing population;
- Under-estimation of the role of cultural heritage as factor for economic growth, for generation of activities and attraction of interest and investments, inadequate coordination and concentration of projects related to identification, exhibition, socialization and valorisation of the cultural wealth of the country, especially of the artefacts of global and pan-European significance;
- Ineffective tapping of the opportunities provided by the protected areas of a lower rank and their integration with the sites of the immobile cultural heritage for strengthening the country's identity and enhancing the attractiveness of certain regions and specific areas.

The most substantial *advantages* of the country may be summarized in the following more important findings:

- Rich natural resources, diverse relief, landscapes of diversified nature, favourable climate and existence of numerous mineral springs of diverse properties and adequate discharge rate, habitats of rich biodiversity, preserving representatives of flora and fauna species of pan-European significance;
- Well-established network of human settlements of different ranks, relatively evenly distributed in the territory of the country, the majority of them possessing a specific atmosphere and preserved scale, outstanding lifestyle, well-preserved social relationships and traditions;
- Territories with unique nature and untapped potential for development of tourism, situated inland or along the periphery, combining natural and cultural values, offering recreation environment compatible with the modern requirements with respect to accessibility, bioclimatic comfort, communication links and balanced human presence;
- Existence of territories with favourable conditions for development of bioagriculture, with clean and fertile soils, adequate water resources, suitable climate conditions, traditional production lines and possibilities for diversification of the economic activities by means of setting up of enterprises of the processing industry;
- Relatively sustainable political and social stability and ethnic tolerance, typical for areas with mixed population as well.

The spatial model of the national concept is built on the summary conclusions, which define the direction of the priorities laid down in it:

- One of the most serious challenges the country is going to be faced with in the coming decades will be the demographic crisis in all its multi-faceted manifestations. The population of Europe will continue to diminish and age because of the delayed reforms in the policies of most countries with respect to support for family values, birth rate growth and retention of young educated people. Bulgaria makes no exception to the rule and follows the trends of the more developed countries, therefore all the possible demographic scenarios envisage population drop. This means that a very accurate selection of the centres of the polycentric development model will be needed.
- The targeted support for rural areas with potential for development of traditional production activities, as well as for diversification of economic activities, will be based on

the specific characteristics of the areas and on the integration of resources, nature, cultural and social values. By means of that support conservation of both the settlements, which are important existing centres of the polycentric urban network, and of the links among them, as well as of the most fertile and precious land for agricultural activities and earning a living for the local population, and characteristic culture landscapes, should be achieved.

- The important connection destinations of the transport infrastructure, which in their capacity of component parts of the European communication and transportation network will be implemented as a matter of priority, will need to be linked to the infrastructure corridors, featuring concentration of important elements of the engineering infrastructure. Such attitude with respect to the national space, based on a better spatial and functional organization and saving of resources, including savings from scale, will permit more conflict-free combination with other important corridors/ways, following historically established routes of the most significant ways traversing our country – cultural routes, biocorridors and migration ways of global significance.
- The principle of concentration of resources and orientation of the integrated territorial investments should be applied with respect to all thematic directions of the spatial concept. For that reason, in addition to the territories, characterized by concentration of significant elements of the European ecological network, it is necessary to identify the areals rich in cultural values of global, national and supra-national significance, in which priority financing should be provided for projects, which might help produce the fastest effects from the investments made and the implemented projects, hence the fastest rate of tapping the potential of the natural and cultural heritage for the purposes of generating additional growth.

2. MODELS AND SCENARIOS FOR SPATIAL DEVELOPMENT

2.1. Spatial models

Bulgaria has a convincing historical experience in centralized planning and governance of spatial development at three levels – municipal, district and national. That was the model of the settlement systems, which aimed at an even and balanced development of the entire territory. It used to be realized through networks of social services, employment and public transport, covering the entire national territory and articulated depending on the hierarchic structure of the settlements (functional type). That was an ideal model (similar to the micro-district and the district of a housing estate) with centralized (and absolutized) governance of all its substantial elements (jobs – people – housing – transport). The major disadvantage of that model was the inadequate attitude towards the village. The process of “urbanization” was also artificially created and misinterpreted and hence its consequences can still be traced in a significant portion of the settlements at the lower hierarchic levels.

With the abolishment of centrism our state shifted to the other pole – complete deregulation of spatial development. Part of this process affected regional development as well. The only regulators at work were the spontaneous forces of the emerging markets – of labour, services and real estates. After 20 years of “inertia-driven” spatial development the analyses of the municipal plans reveal strong polarity – concentration of over 90% of people and activities in the municipal centre. A similar picture is observed in the district strategies as well. The regional plans consolidate the trends of growing inequalities. The National Regional Development Strategy takes up this problem as a major challenge and addresses it by an adequate strategic package.

Two clear-cut theses stand out against this background:

- Visible/intensive processes of spatial polarization and motion towards monocentric models of development at all levels – municipal, district, regional and national – are underway in Bulgaria;
- Bulgaria needs a turn towards a polycentric model, however not at the expense of the energy of the well-established centre but rather through “supported opportunity” to make full use of the peripheries’ own resources.

“Supported opportunity” does not mean renewed direct intervention of the state in the desired process, but rather an effective implementation of a regional policy, which creates new competitive centres for selection of the location of investments, employment, education, recreation and life-long carrier.

2.2. Elements of the spatial structure

The spatial model for development of the national territory is a multi-layer one and synthesizes different layers of information, functions, processes and priority elements of different hierarchic ranks in a single dynamic system. The elements of the spatial macro-structure, systematized in three groups, comprise the territories as ‘area-based elements’ (polygons), the networks and development axes as ‘linear elements’, and the human settlements, the growth centres and the sites of different functional systems as ‘points’.

The group of *area-based* sites covers central, peripheral and non-urbanized territories (including protected ones); urban – rural areas; territories with specific characteristics (coastal areas, miscellaneous border areas, mountain areas, areas with concentration of cultural heritage landmarks and attractive landscapes), areas at risk (natural, economic or demographic). The territories with specific characteristics and their typology depend on the goals of the respective programmes and strategies, for which they are elaborated. They have been determined on the basis of groups of criteria, adapted to the country's scales and characteristics. The territories of the agglomeration areals – established ones, in the process of attenuation and emerging ones, mainly related to the development of tourism and recreation, also fall within this group.

Linear sites comprise the networks of road, communications and other engineering infrastructure, water currents, urban development axes, cultural and green corridors. These are the important connections in the territory of the country among the macro-structural elements and among the individual sites of national and regional significance, which form the main development axes and the supplementary linkages among human settlements, tourism-related sites, sites with landmarks of the cultural and natural heritage, centres of social services, which form the secondary axes of development and spatial connections. The aim is, in this way, to achieve equitability of access to diversified in terms of nature and significance services.

The *point* sites are human settlements (classified in hierarchic levels depending on their size and their role in the polycentric system); important sites of the transport, engineering, tourist, cultural and social infrastructure, among which also sites unified under the label “gateways”, marking the main entrances to the country and unique sites of the national cultural heritage of global, regional and national significance.

The spatial models for development of the national territory are based on the current state and the possible changes in the polycentric structure of cities, evenly distributed in the territory of the country. The assessment of the possible alternatives of limited, moderately developed and strongly developed polycentrism has proven that the most appropriate for Bulgaria is the model of moderate polycentrism with opportunities for phased development over time depending on the impact of a series of external and domestic factors, some of which are difficult to envisage at this stage. The general trend, laid down in the Concept, is that of overcoming the threat of orientation towards moderate monocentrism and stimulating the moderate polycentrism, which over time will expand and approximate developed polycentrism.

The National Concept for Spatial Development of the Republic of Bulgaria for the period 2013-2025 creates a territorial basis for implementation of this model, which will guarantee complex, integrated planning, ensuring harmonic unity of social, economic, ecological and spatial planning. It does not plan resources but measures. These measures will be realized using the resources of the sectoral programmes, on which NCSD will have an impact by means of ensuring their territorial orientation and coordination.

The NCSD covers the entire national territory but refrains from being comprehensive by orientating the traditional analysis of the components and factors of the environment towards territories, sites and processes of **national significance** and laying the focus on them. With respect to human settlements, the NCSD, in its capacity of carrier of the priorities of the national policy for spatial development, pays attention to both cities and larger villages, which occupy an important place in the polycentric settlement network. The NCSD defines the **macro-spatial structure** of the national territory by using the municipality as a basic **territorial module**, and by grouping municipalities it defines regions and territories with specific territorial characteristics: central and peripheral, urbanized and under-urbanized, developed and under-developed, coastal, border, mountain and other territories.

The NCSД also deals with **smaller territorial modules** – community land areas and groups of agricultural land units possessing common characteristics, in order to identify areals, which are not closed within the administrative boundaries of the municipalities, but play an important role in the spatial development of the country – significant potential, high natural or cultural value, or are threatened by phenomena of high risk potential.

The NCSД defines the territorial structure on a gross national scale with a view to outlining the territorial disparities and the problems related to development and spatial planning and for the purposes of formulating land-use planning policies for the different types of territories. In terms of the largest territorial structure one may mention the two main types of territories, typical for the European countries:

- the heavily urbanized central areas with intensive socio-economic development; and
- the under-urbanized peripheral areas with difficulties in their socio-economic development.

The central heavily urbanized areas are the territories of municipalities and groups of municipalities situated near big urban centres, whose advantage, unlike the peripheral areas, is the possibility for relatively short-distance and convenient access to jobs, services, education, culture and any other values offered by big cities.

The core of the central areas are the urbanized territories of big and medium-size cities (of the levels 1, 2 and 3), their surrounding areas (objects of suburbanization) and zones of impact (FUA, agglomeration areals). Apart from these, in the central areas (municipalities) there are also remote peripheral parts with small human settlements or without any human settlements.

The peripheral under-urbanized areas are the territories of the municipalities situated at large distances from the big urban centres and the services and jobs offered there. Among the peripheral areas in the country we distinguish external borderline peripheries and inland peripheries.

The central and peripheral areas extend over the territories of the formal territorial units – municipalities – and in this way share among themselves the entire territory of Bulgaria.

One may add to the two basic types of territories (central and peripheral), which determine the gross territorial structure, one more type of territories, which is particularly typical for Bulgaria:

- unurbanized natural territories for preservation of biodiversity

Natural territories occupy parts of the territories of the central and peripheral areas and partly overlap with them and in this way form areals of non-formal nature. They comprise the protected natural territories and protected areas under NATURA 2000, protected by virtue of the Protected Areas Act (SG, No. 133/1998) and the Biodiversity Act (SG, No. 77/2002). It is worth including in this group also other territories, in which there are no settlements and which are occupied by forests or are situated in the high-altitude parts of the mountains, along rivers, the sea and parts of the aquatory. In the NCSД they have been defined as territories for preventive protection and conservation under the existing manner of land-use.

The integrated policies for development and land-use planning of the national territory define principles and approaches for the future development of the central and peripheral areas and for strict protection and possible expansion of their unurbanized parts – the nature areals.

The next hierarchic level includes territories with specific characteristics as defined according to criteria, adapted for the country.

The big urban centres of national and supra-national significance from the network of European cities (MEGA, FUA) with emerging agglomeration nuclei and areals, national resorts, big industrial constellation, security and defence facilities, as well as the connecting urban corridors or development axes, are **important elements of the spatial model**.

The core-cities of high hierarchic level affect in functional and spatial respect the neighbouring settlements and in this way begin to form fields of impact or agglomeration formations of the FUA type. The capacity for forming a nucleus and an agglomeration areal is determined depending on the degree of development and the achieved hierarchic level of the core-city. Interrelations between the core-city and the neighbouring settlements is observed in the field of impact or in the agglomeration formation and that linkage is both functional and spatial. The agglomeration formations comprise the territory of municipalities linked both territorially and functionally. The regulation of agglomeration formations as an object of spatial and regional planning might lead to improvement of their governance through combining the efforts of the group of municipalities, on the territory of which the agglomeration is formed.

The infrastructure sites and networks of the transport, water economy, energy sector and communications infrastructure of national, regional and European significance – highways, airports, sea and river ports, high-speed railways, gas pipelines, oil pipelines, electronic communications networks etc., as well as the European transport corridors, are **elements of the gross infrastructure**.

The urban development axes are polycentric zones, formed in the course of integration of the development poles with the transport communications network of the country. In the framework of the Trans-European Transport Network (regionally structured in 4 zones) Bulgaria falls under the Black Sea Zone. It borders on the Mediterranean and the Adriatic-Ionian zones, which will have a strong influence on the spatial development of the country. The spatial development of the transport systems of the Central and Eastern European countries (including Southeast Europe) is subordinated to the 10 multi-modal transport corridors, which ensure maximum accessibility to all the parts of the continent. Five of these corridors traverse the Bulgarian space.

The urban development axes are not related only to the transport corridors, some of which overlap with ancient Roman ways across the country. These axes also coincide with the cultural corridors in Southeast Europe, which link some of the most valuable cultural landmarks in Bulgaria. Some of these Roman roads are migration ways and important bio-corridors, like for instance *Via Pontica* and *Via Aristotelis*, which impose, on one hand, a number of limitations related to protection of birds, and, on the other hand, attract specific groups of tourists for bird watching and photo-hunting. It is namely for that reason that the proposed urban corridors/urban development axes are not considered only from the point of view of the destinations of the Pan-European Transport Corridors, but also as cultural, “Blue” and “Green” links.

Elements of the cultural heritage are the territories with cultural and historical sites and landmarks, defined by virtue of the Cultural Heritage Act (promulgated in SG No. 19/2009) – surface, underground and sub-water archaeological sites and reserves, historical, ethnographic and architectural sites and complexes, models of gardening art and landscape architecture, industrial heritage sites, including corridors and areas of combined cultural and natural heritage.

The NCSD demonstrates equitable treatment of all the above mentioned elements of the spatial structure of national significance, but lays the focus on the elements of the urban structure because of the orientation of the OP “Regional Development” and the EU policies to cities and urban development. The diverse in terms of functional significance links and centres will build the skeleton of the spatial development model of the country, integrating those territories, which we aspire to preserve, study and demonstrate to the world; the latter will probably change our

own perception about ourselves and thus help achieve the self-respect and feeling of belonging, which are so important for the successful implementation of the ideas of the NCSD.

2.3. From monocentric to polycentric spatial development – selection of an urban model and scenario for spatial development

The selection of a model for urban development requires consideration of alternative possibilities for the future development of the urban network of the country and searching for the most appropriate, most desirable, but also most realistic alternative, which might be realized in the tangible timeframe horizon through support and linkage with a strategy of objectives and required actions. Starting from the baseline state, which represents a model in its own right, two extreme possibilities for urban development are reviewed – “extreme monocentrism” and “extreme polycentrism. The investigation of the two extremities helps, with a view to the real opportunities, to identify the model of “moderate polycentrism”, which may be achieved in the tangible future of the prospective timeframe of the concept (by 2025), and to define it as the selected model. In a more distant future this model will be further developed and will gradually and in stages approximate the “developed polycentrism” model by 2030 and 2050.

“Baseline state” Model

▪ The “Baseline state” model contains a **hierarchic system of core-cities** extending their influence over territorial areas of different sizes⁶:

- **Level One** – the capital city of Sofia, centre of European significance for the national territory – 1 core city

Note:

According to the European classification of ESPON Sofia is a city of 4th degree of the Metropolitan European Growth areas (MEGA) level.

- **Level Two** – big cities, centres of national significance for the territory of the regions – Plovdiv, Varna, Burgas, Ruse, Pleven, Stara Zagora – 6 cities

Note:

According to the European classification of ESPON only the cities of Plovdiv, Varna and Burgas belong to 2nd level (Transnational–national).

- **Level Three** – medium-sized cities, centres of regional significance for the area of the districts – district centres and other eminent cities – Vidin, Montana, Vratsa, Lovech, Gabrovo (3+), Veliko Tarnovo, Targovishte, Razgrad, Shumen (3+), Silistra, Dobrich (3+), Sliven, Yambol, Haskovo (3+), Kardjali, Smolyan, Pazardjik (3+), Pernik, Kyustendil, Blagoevgrad (3+), Svishtov, Gorna Oryahovitsa (4+), Kazanlak, Dimitrovgrad (4+), Assenovgrad (4+), Karlovo (4+), Dupnitsa (4+), Petrich (4+) – 28 cities.

⁶ The hierarchic ranking of the core-cities has been performed through assessment of their significance and role according to a number of criteria and indicators related to the population dynamics and the degree of development of their administrative, economic, transport functions etc.

Note:

According to the European classification of ESPON this level is called “Regional–Local”. The analysis of the current state and the existing functions of the cities reveals that:

1. *The cities from Level Three Veliko Tarnovo, Gabrovo, Shumen, Dobrich, Haskovo, Pazardjik and Blagoevgrad have potential possibilities to shift to Level Two in the event of appropriate future development and possible promotion;*
 2. *The cities Gorna Oryahovitsa, Dimitrovgrad, Assenovgrad, Karlovo, Dupnitsa and Petrich have been listed as belonging to Level Three, but in fact they are on the borderline between Level Three and Level Four. Depending on the influence of a variety of factors in their future development, they might categorically remain within Level Three or lose their significance and drop to Level Four.*
- **Level Four** – small cities of micro-regional significance for the territory of a group of municipalities (former “counties”) – $125 - 35 = 90$ cities

Northwest Region 16 cities: Belogradchik, Kula, Berkovitsa, Lom, Byala Slatina, Kozloduy, Mezdra, Oryahovo, Belene, Knezha, Levski, Cherven Bryag, Nikopol, Lukovit, Teteven, Trojan (4+);

North Central Region 11 cities: Dryanovo, Sevlievo (4+), Tryavna, Elena, Lyaskovets, Pavlikeni, Byala, Isperih, Kubrat, Dulovo, Tutrakan;

Northeast Region 10 cities: Balchik, General Toshevo, Tervel, Kavarna, Devnya, Provadiya, Veliki Preslav, Novi Pazar, Omurtag, Popovo;

Southeast Region 15 cities: Aytos, Karnobat, Nessebar, Pomorie, Sozopol (5+), Sredets, Tsarevo, Malko Tarnovo, Elhovo, Kotel, Nova Zagora, Tvarditsa (5+), Galabovo, Radnevo, Chirpan;

South Central Region 20 cities: Parvomay, Rakovski, Sopot (5+), Stamboliyski (5+), Hissarya (5+), Svilengrad, Harmanly, Topolovgrad, Krumovgrad, Momchilgrad, Ivaylovgrad (5+), Zlatograd, Madan, Devin, Chepelare, Velingrad, Panagyurishte (4+), Peshtera, Rakitovo (5+), Septemvri (5+);

Southwest Region 18 cities: Svoje, Samokov (4+), Ihtiman, Kostenets (5+), Elin Pelin, Pirdop, Zlatitsa (5+), Etropole, Kostinbrod, Botevgrad (4+), Slivnitsa, Breznik, Radomir, Bansko (5+), Razlog, Sandanski (4+), Gotse Delchev (4+), Tran (5+).

Note:

The analysis of the current condition and existing functions of the cities reveals that:

1. *The Level Four cities Sandanski, Gotse Delchev, Botevgrad, Samokov, Trojan, Sevlievo and Panagyurishte demonstrate certain possibilities, in the event of successful future development and possible promotion, to shift to Level Three and in the event of absence of such incentives to remain under Level Four.*
2. *The Level Four cities Sozopol, Tvarditsa, Sopot, Stamboliyski, Hissarya, Ivaylovgrad, Rakitovo, Septemvri, Kostenets, Zlatitsa, Bansko and Tran are listed under Level Four, but are on the borderline between Level Five and Level Four. Depending on their future development under the influence of a variety of factors they might remain within Level Four or lose their significance and drop to Level Five. Among them those having better chances are the resort cities.*

- **Level Five** – very small towns and villages centres of municipal significance for the territory of the respective municipalities – $264 - 125 = 139$ cities

Northwest Region 30 cities: Boynitsa, Bregovo, Gramada, Dimovo, Makresh, Novo Selo, Ruzhintsi, Chuprene; Boychinovtsi, Brussartsi, Valchdram, Varshets, Georgui Damyanovo, Medkovets, Chiprovtsi, Yakimovo; Borovan, Krivodol, Miziya, Roman, Hayredin; Gulyantsi, Dolna Mitropoliya, Dolni Dabnik, Iskar, Pordim; Apriltsi, Letnitsa, Ugarchin, Yablanitsa.

North Central Region 19 cities: Zlataritsa, Lyaskovets, Polski Trambesh, Strazhitsa, Suhindol, Borovo, Vetovo, Dve Moguili, Ivanovo, Slivo Pole, Tsenovo; Zavet, Loznitsa, Samuil, Tsar Kaloyan; Alfatar, Glavinitsa, Kaynardja, Sitovo.

Northeast Region 20 cities: Antonovo, Opaka; Venets, Varbitsa, Kaolinovo, Kaspichan, Nikola Kozlevo, Smyadovo, Hitrino; Krushari, Shabla; Avren, Axakovo, Beloslav, Byala, Vetrino, Valchi Dol, Dolni Chiflik, Dalgopol, Suvorovo.

Southeast Region 13 cities: Kamino, Primorsko, Ruen, Sungulare; Bolyarovo, Straldja, Tundja; Bratya Daskalovi, Gurkovo, Maglizh, Nikolaevo, Opan, Pavel Banya.

South Central Region 29 cities: Lyubimets, Madjarovo, Mineralni Bani, Simeonovgrad, Stambolovo; Ardino, Djebel, Kirkovo, Chernoochene; Banite, Borino, Dospat, Nedelino, Rudozem; Brezovo, Kaloyanovo, Krichim, Kuklen, Laki, Maritsa, Perushtitsa, Rodopi, Sadovo, Saedinenie; Batak, Belovo, Bratsigovo, Lessichevo, Strelcha.

Southwest Region 28 cities: Belitsa, Garmen, Kresna, Satovcha, Simitly, Strumyani, Hadjidimovo, Yakoruda; Bobovdol, Boboshevo, Kocherinovo, Nevestino, Rila, Sapareva Banya, Treklyano; Zemen, Kovachevtsi; Anton, Bozhurishte, Godech, Gorna Malina, Dolna Banya, Dragoman, Koprivshtitsa, Mirkovo, Pravets, Chavdar, Chelopech.

Note:

In addition to the very small towns there are also 38 villages, which are centres of municipalities, and 40 very small towns, which are not municipal centres.

Under this system of core-cities every centre of a higher level performs also the functions of centre for the lower levels. The areas of impact of the core-cities from the five hierarchic levels coincide respectively with: the boundaries of a municipality at Level Five, of a group of municipalities at Level Four, of a district at Level Three, of a region at Level Two and of the country at Level One.

The baseline model may be defined as a model with a manifested tendency towards monocentrism with respect to Sofia. At the national level weak counterweights of Sofia are the big cities of Level Two: Varna and Burgas in Eastern Bulgaria, Plovdiv and Stara Zagora in Southern Bulgaria and Ruse and Pleven in Northern Bulgaria. In Western Bulgaria there is no big city acting as counterweight for the capital. All big cities as a whole are commensurable with Sofia in terms of population size, economic contribution, development of science, higher education, health care, art and culture, which is an indication for a drive towards monocentrism.

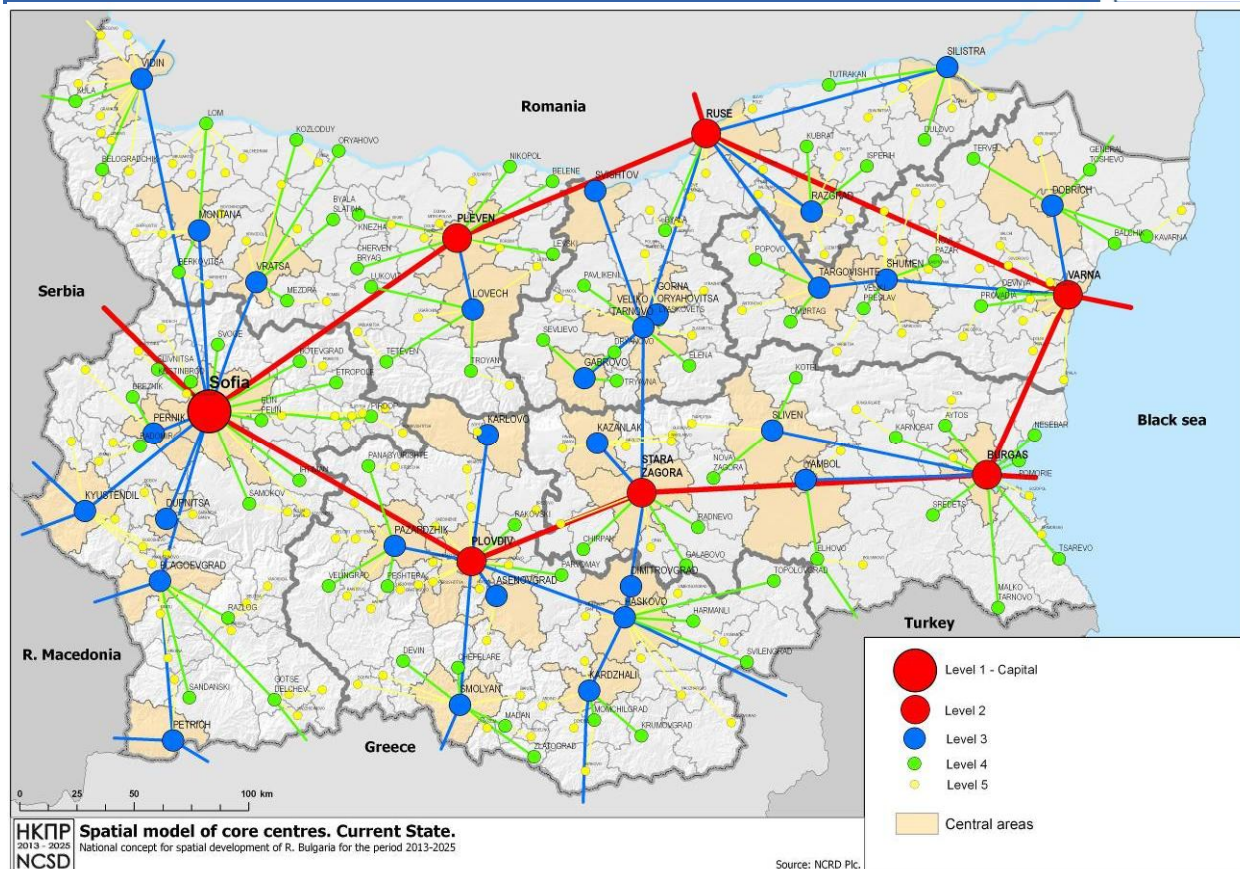


Fig. 3: “Baseline state” Model

The problem centre-periphery emerges at the regional level as well, since the big core-cities of Level Two have no equivalent counterparts of the same level. Only in the Southeast Region the centre Burgas has an equal in value counterpart – Stara Zagora, which plays a similar role with respect the South Central Region as well. Poor opportunities to achieve a counterpart function demonstrate Veliko Tarnovo with respect to Ruse, Haskovo with respect to Plovdiv and Shumen with respect to Varna. Very poor are the opportunities in the Northwest Region and Southwest Region for the cities of Vidin and Blagoevgrad, for instance. In the regions the medium-size cities of the lower Level Three, which are distributed more evenly in the national territory, play the role of counterweights of the big cities, and this situation is in favour of the possibility to minimize the centre-periphery effect in the territory of the regions.

The centre-periphery problem is manifested at the district level as well, although to a lesser degree than at the regional level and the national level. In six of the districts 8 Level Three cities manifest themselves as counterparts of the district centres: Svishtov and Gorna Oryahovitsa with respect to Veliko Tarnovo, Kazanlak with respect to Stara Zagora, Dimitrovgrad with respect to Haskovo, Karlovo and Asenovgrad with respect to Plovdiv, Dupnitsa with respect to Kyustendil and Petrich with respect to Blagoevgrad. In the remaining districts there are no cities having such pronounced characteristics and in them the counterparts are of the lower level – Level Four. Such are, for instance, Lom with respect to Montana, Trojan with respect to Lovech, Sevlievo with respect to Gabrovo and Popovo with respect to Targovishte.

“Extreme monocentrism” Model

This model might get realized under the conditions of continuous progressing demographic shrinkage, negative economic processes, lagging behind in the advanced technologies and innovations, delays in the development of the engineering infrastructure and ineffective implementation of the regional policy. The population size under this model will reach 7,154,000 people in 2015, 6,929,000 people in 2020, 6,691,000 people in 2025 and 6,450,000 in 2030. Only the population of Sofia will increase as a result of migration. At the national level the monocentric development of the capital city of Sofia will be strongly manifested – a city of MEGA European level, combined with the relatively weak counterweights Varna, Burgas and Plovdiv. The agglomeration area of Sofia will expand and extend over nine neighbouring municipalities.

At the regional level only Varna and Burgas, and partially Plovdiv will be established as pronounced regional centres. Their agglomeration areas will undergo no territorial expansion. Ruse and especially Pleven will lose their qualities of active regional centres. Their agglomeration areas will shrink into part of the territory of their municipality proper. There will be no counterparts of the regional centres in all the regions, with the exception of Stara Zagora, which will manifest itself in a twofold role of counterpart with respect to both the Southeast Region and the South Central Region. The agglomeration area of Stara Zagora will also get limited to part of the municipal territory.

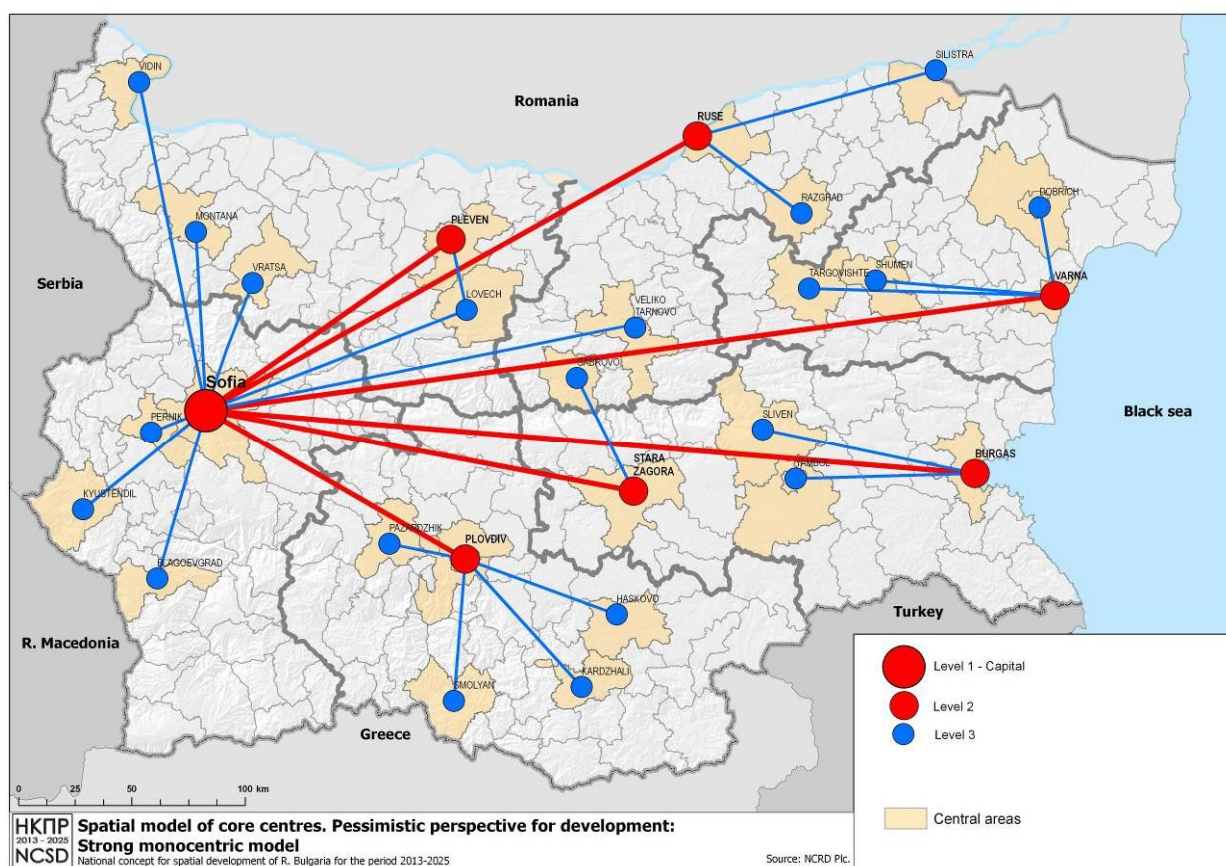


Fig. 4: “Extreme monocentrism” Model

The core-cities at the district level do not possess the potential to be effective counterparts or to compensate the absence of regional centres. Their agglomeration areas have fallen apart or

shrunk to the scope of the agglomeration nucleus or the scope of the city. Some of the district cities lag behind as compared to other Level Three cities, which are not district centres. A limited number of cities manifest themselves as centres of Level Four of importance for more than one municipality. Agglomeration formations of a tourist type have come to existence in a limited number of small towns with tourism-related functions.

The existing relative stability and balance of the settlement network is lost to a high extent. The consequence of this is the development of a small number of strong centres of Level One and Level Two and a small number of weak centres of Level Three and Level Four.

The central territories shrink and diminish their coverage to 8.6% of the national territory and 36% of the population in the 7 municipalities of big core-cities. The peripheral territories increase their coverage to 91.4% of the territory and 64% of the population and continue to be strongly vulnerable to global challenges and threats – climatic, energy and demographic.

The agglomeration processes are manifested in a fragmentary manner in individual activated sections of the major urban development axes - *in the Sofia Field and along the River Maritsa valley, as well as in the Varna and Burgas littoral*. No activation of agglomeration processes is observed in the cross-border axes.

Characteristic for this “Extreme monocentrism” scenario is the intensive development of the capital and a small number of urban centres of Level Two, which is connected with the decay of the centres of Level Three and Level Four and the formation of an expanded in terms of coverage and strongly vulnerable national periphery.

“Extreme polycentrism” Model

This model would evolve under conditions of lower rates of demographic shrinkage, stabilization of the economic processes, overcoming of the lagging behind in the advance of technologies and innovations, as well as in the development of the engineering infrastructure, and successful implementation of the regional policy. The population size under this scenario will reach 7,171,000 in 2015, 6,994,000 in 2020, 6,824,000 in 2025 and 6,657,800 in 2030.

At the national level the development of the capital as a city of MEGA European level is combined with a good development of the centres of national significance in the regions – Varna, Burgas, Plovdiv, Ruse, Pleven, Stara Zagora and those approximating them in terms of significance – Blagoevgrad, Veliko Tarnovo, Vidin and Haskovo. They all manifest themselves as centres of national significance of hierarchic Level Two.

In the regions a number of district cities manifest themselves as counterparts of the regional centres and in this way sets of two- and three-member centres – the main centre and supplementing regional centre/s - are formed. Such are Pleven – Vidin and Vratsa, Ruse – Veliko Tarnovo, Varna – Shumen and Dobrich, Burgas – Stara Zagora and Sliven, Plovdiv – Haskovo and Pazardjik, Sofia – Blagoevgrad, Pernik and Kyustendil.

At the district level other cities also manifest themselves as supplementary to the district centre. Such are Gorna Oryahovitsa, Svishtov, Kazanlak, Assenovgrad, Dimitrograd, Dupnitsa, Petrich, Sandanski, Gotse Delchev, Trojan, Sevlievo, etc. A broad network of evenly distributed small core-cities in the peripheral rural areas is formed. Promotion of the core-cities along the major urban development axes, overlapping with the European transport corridors, improves their chances for partnership with other European core-cities and integration in the European physical space. In the agglomeration areals, which have been in the process of shrinkage and falling apart, a restoration and intensification of the functional ties between the human settlements and the

centres sets in. The areals of Sofia and the cities of hierarchic Level Two expand. Symptoms of formation of agglomeration formations are observed in the case of cities of hierarchic Level Three as well.

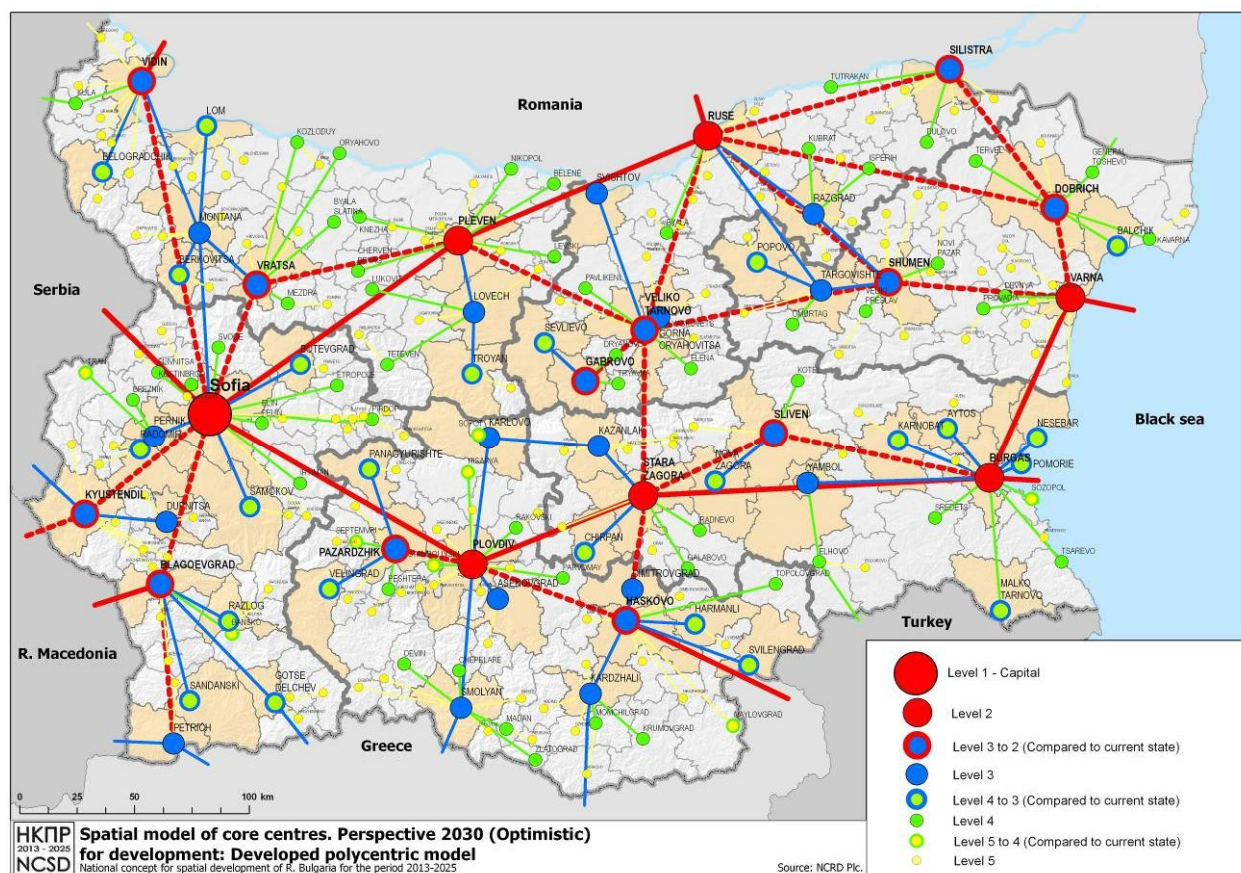


Fig. 5: “Strongly developed polycentrism” model

The cities of Level Four of significance for more than one municipality are strengthened and play a serious role for the provision of services to the peripheral areas while identifying chances for development, based on their own specific resources, traditions and culture at acceptable remoteness from the services of the big and medium-sized cities. Agglomeration formations of a tourist type emerge at a significant number of small cities, performing tourism-related functions.

With the development of a large number of core-cities the coverage of the central territories is enhanced and expanded and the inland and partially external periphery of the national territory is diminished. The central territories expand and increase their coverage to 32.6% of the national territory and 69.4% of the population in 72 municipalities. The peripheral territories diminish their coverage to 66.4% of the territory and 30.6% of the population in 192 municipalities.

Agglomeration processes develop actively along the directions of the major urban development axes and partially along the secondary axes. In the cross-border axes activation of the agglomeration processes is observed, above all in the couples of cities on both sides of the River Danube.

The intensive development of the capital, accompanied by the development of a large number of urban centres of Levels Two, Three and Four, which leads to increase in the central territories and diminishing of the periphery, is characteristic for this scenario.

“Moderate polycentrism” Model

The “Moderate polycentrism” Model is the selected model for the urban development during the prospective timeframe horizon. This model develops under the conditions of moderately reduced rates of demographic shrinkage and successful implementation of the regional policy, accompanied by overcoming of the economic difficulties and slight economic growth, moderate advance of the new technologies and innovations, expansion and upgrading of the engineering infrastructure. The model may be considered as an intermediate one – between strongly manifested monocentric and strongly manifested polycentric development. It might be qualified as moderate monocentrism, balanced by counterpart centres in the NUTS2 regions. The population size under this scenario will reach 7,160,000 people in 2015, 6,950,000 people in 2020, 6,735,000 people in 2025 and 6,519,000 people in 2030. Despite the demographic shrinkage, the concentration of the diminished population in a relatively small number of urban centres, namely Sofia, Varna, Plovdiv and Burgas, will continue.

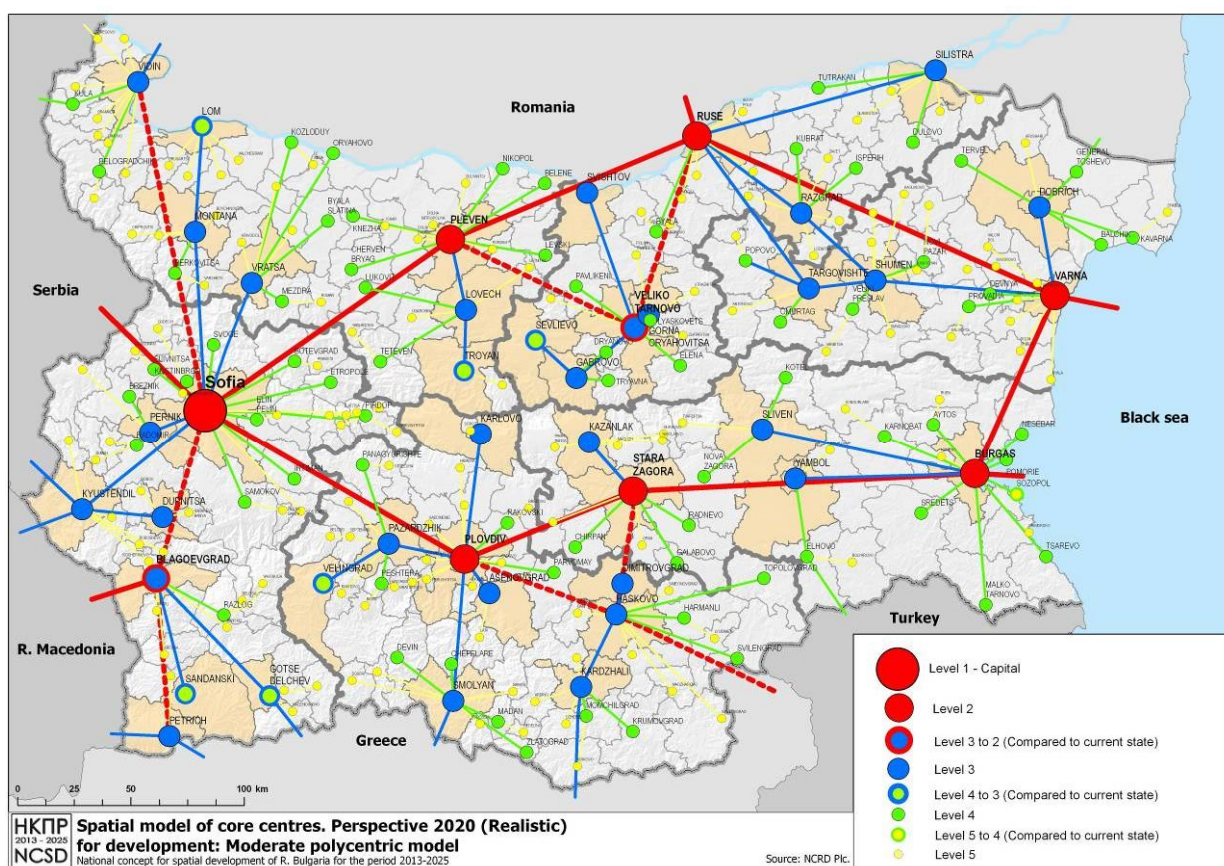


Fig. 6: “Moderate polycentrism” model

At the national level the development of the capital as a city of MEGA European level is combined with successful development of a limited number of Level Two centres of national significance. These are Varna, Plovdiv, Burgas, Ruse, Stara Zagora and Pleven. A group of medium-sized cities demonstrate potential to shift to hierarchic Level Two – Vidin, Vratsa, Gabrovo, Veliko Tarnovo, Shumen, Dobrich, Sliven, Yambol, Haskovo, Pazadjik, Blagoevgrad, Pernik and Kyustendil. The targeted regional policy contributes for the advance of the cities of Veliko Tarnovo and Blagoevgrad, and at a later stage of Vidin, with a view to their strategic location in the national territory, but they, except for Veliko Tarnovo, are still far from assuming the role of counterweight regional centres.

At the district level certain district cities have counterpart centres, which develop successfully, although with a reduced demographic potential. An adequate number of Level Four cities, which utilize specific local resources and traditions, advance successfully as centres of significance for a group of municipalities and play a certain role for strengthening of the development of the peripheral rural areas. Tourist centres have a notable presence among them.

Under the influence of the developing urban centres the central territories increase their coverage to 28.2% of the national territory and 67.2% of the population in 58 municipalities. Peripheral territories diminish their coverage to 71.8% of the national territory and 32.8% of the population in 206 municipalities. They continue to be vulnerable to the global challenges of climate, energy and demographic changes, but preserve their chances to resist these threats thanks to their stronger linkage with the central territories and the existence of a sufficient number of small core-cities of Level Four among them. Agglomeration processes develop in certain sections of the major urban axes and partially in the secondary axes. Partial activation of agglomeration processes is observed in the cross-border axes – at Ruse-Giurgiu, Vidin-Kalafat and Silistra-Kalarasi.

In the agglomeration areals of the big cities and of some of the medium-sized cities the functional ties among the human settlements are restored and intensified. In these areals the group of municipalities undertakes in an equitable cooperation joint actions in spatial planning and management of the processes of urbanization.

In the urban centres - the other big cities (Ruse, Stara Zagora and Pleven) and some of the medium-sized cities the processes evolve without population growth and the urban areals remain limited within the framework of the respective municipality. They manifest slight expansion of the nucleus-areal and integration of small neighbouring settlements. In the other medium-size core-cities the processes of urbanization are almost attenuated, the population in them diminishes and the urban areal has shrunk to the coverage of the nucleus and occupies part of the territory of the municipality.

Unlike these medium-sized core-cities, in which the agglomeration process has attenuated, in small cities with tourist orientation an enhancement of the agglomeration effect is observed and agglomeration formations of a tourist type are formed.

The intensive development of the capital, accompanied by the development of not very big number of urban centres of Level Two and Level Three, as well as the stabilization of a sufficiently large number of centres of Level Four, which leads to a relatively small increase of the central territories and diminishing of the periphery, as well as to bringing urban services closer to rural areas, is characteristic for this model.

After the prospective timeframe horizon (2025) this model should evolve towards the “developed polycentrism” Model with gradual increase of the number of urban centres of Level Two and Level Three and stabilization of the centres of Level Four and Level Five.

In this way, on the basis of the selected model the urban development of the territory may be oriented within the framework of its macro-structural parts: Western, Eastern, Northern and Southern Bulgaria.

In **Western Bulgaria** the Level One city of Sofia with its more than 1 million inhabitants will dominate over the medium-sized cities of Level Three: Blagoevgrad, Pernik, Kyustendil, Vratsa, Montana and Vidin. Without playing the role of counterweights, the medium-sized cities of Blagoevgrad and Vidin deserve specific promotion in order to shift in terms of significance to hierarchic Level Two and to organize more successfully the territory of the outer-most northern and southern parts of Western Bulgaria. The cities of Petrich and Dupnitsa demonstrate real

capacity to be centres of hierarchic Level Three and to play the role of counterweights of the district centres. Chances to join them in the role of counterweights have the Level Four cities of Sandanski, Gotse Delchev, Samokov and Botevgrad. In the northwestern peripheral border areas support will be important for the Level Four cities of Lom, Oryahovo, Belogradchik and Berkovitsa. In the southern periphery the cities of Petrich, Sandanski and Gotse Delchev deserve such support. The situation in the western peripheral territories, where Radomir, Breznik and Tran do not possess the potential to support Kyustendil and Pernik will continue to be more difficult.

In **Northern Bulgaria** the two big cities of Level Two – Ruse and Pleven will play a dominant role. Veliko Tarnovo, which demonstrates abilities and trends to shift from Level Three to hierarchic Level Two, will develop as their equal partner. The medium-size cities – district centres – Lovech, Gabrovo, Targovishte, Razgrad and Silistra, and also the cities of Svishtov and Gorna Oryahovitsa, are evenly distributed on the territory and will play the role of organizing centres of Level Three. The Level Four cities of Trojan, Sevlievo and Popovo will play the role of counterweights of the district centres. The other Level Four cities will not possess such capacities if they fail to become the object of specific national policy for small cities in peripheral rural areas. Certain areas in the northern part along the River Danube shoreline between Ruse, Silistra and Razgrad and between Svishtov, Pleven and Nikopol, as well as in the southern Balkan and Fore-Balkan parts between Targovishte and Veliko Tarnovo, between Omurtag and Elena and between Gabrovo, Trojan, Teteven and Lukovit, have been identified as problematic peripheral areas.

In **Southern Bulgaria** the big city of Plovdiv will dominate with counterpart the other big city Stara Zagora. These Level Two cities will develop as major poles of growth and development. The medium-sized city of Haskovo has chances for partnership with respect to both centres. The district cities of Pazarjik, Kardjali and Smolyan, together with Kazanlak, Assenovgrad, Karlovo and Dimitrograd as Level Three centres, will perform organizing and stabilizing role in the territory. The southern mountain and border areas of the Rhodopes Mountains and partially areas in the Sredna Gora Mountains and the Thracian Lowlands have been identified as peripheral territories. The Level Four cities of Panagyurishte, Chirpan, Svilengrad, Ivaylovgrad, Zlatograd, Devin and Velingrad deserve to be promoted in order to perform their organizing role in these peripheral rural, mountain and border areas. The peripheries in the southern parts of the Rhodope Mountains, where the cities of Dospat, Madan and Krumovgrad do not possess the potential to support Smolyan and Kardjali, will continue to be problematic.

In **Eastern Bulgaria** the two big cities of Level Two – Varna and Burgas – will develop as major poles of growth and counterweights of the capital. These cities are eastern “gateways” for the European Union and will develop as important transport and commercial centres in the European network of cities. The district cities Shumen, Dobrich, Targovishte, Sliven and Yambol, which are situated relatively evenly on the territory of the hinterland of the coast, appear as Level Three centres. Along the coast good development has been noted for the Level Four cities Balchik, Kavarna, Nessebar, Pomorie and Tsarevo, as well as Karnobat and Aytos in the hinterland. Promotion of General Toshevo is necessary in the northern periphery and of Elhovo and Malko Tarnovo in the southern periphery in order to allow them to implement their important role of Level Four centres for the peripheral rural and border areas.

The “Moderate polycentrism” Model adopted in the NCS D refers to the prospective timeframe horizon 2025. As compared to the other investigated alternative models – of “Strongly developed monocentrism” and “Strongly developed/extreme polycentrism”, it is more realistic under the current circumstances of demographic and economic development, limited resources and a small number of clear priorities concerning support for urban development during the next

programming period. This presumes concentration of resources in a limited number of core-centres supporting the urban development axes, which are important for preservation of the sustainability of the model and the overall spatial development of the country. The strongly developed polycentrism reflects the aspired vision and is related to the attainment of the strategic goals in a more distant perspective – after 2025.

Vision, strategic objectives and priorities

The vision of the National Concept for Spatial Development focuses on brief, but clear messages, related to characteristics reflecting the identity, history and basic values of society, as well as to the anticipated changes in the future. It is a synthesized description of the general idea about the development of the Bulgarian national space till 2025 and plays a unifying role for the national priorities and the factors, which are estimated to be of key significance for the spatial development of the country for the timeframe horizon, for which it is developed.

- ***The national space of Bulgaria*** – open to the world and integrated in the European space and in the European network of core-cities and axes of development, culture, science and innovations
- ***The well-preserved national resources*** – the people, land, waters and forests, ores and minerals, natural and cultural heritage – a guarantee for the national identity
- ***Balanced and sustainable integrated development***, achieved through rational organization of the economic, social, transport, engineering, cultural and tourist infrastructure and ensuring smart economic growth, adaptivity to changes and equal treatment

From this vision the strategic objectives of the NCS D have been derived:

- Strategic objective 1: “**Integration in the European space**”

Development of national and cross-border/trans-border transport, energy, urbanization, cultural and ecological corridors with a view to achieving territorial cohesion, cooperation and integration within the region and in the European space.

The following priorities have been identified as significant for attainment of this strategic objective:

- 1.1. Linkage of Bulgarian cities in axes for urban development, incorporated in the pan-European network of cities of transnational significance and in the pan-European development axes;
- 1.2. Management of a vast protected nature space in the national territory as a template of biological nature balance and as recreation environment of pan-European significance, linked with cross-border ecological corridors with neighbouring countries in Southeast Europe;
- 1.3. Linkage of significant localizations of the national cultural heritage in regional and pan-European cultural corridors;
- 1.4. Development of the national transport infrastructure as part of the Trans-European Transport Network (TEN-T), which ensures integration in the European space and connections with the major urban centres of neighbouring countries;
- 1.5. Development of the energy transportation infrastructure as part of the Trans-European Energy Network (TEN-E) and construction of system connections to the neighbouring

countries for the purpose of ensuring free energy movement and integration of the energy market;

- 1.6. Development and upgrading of the national electronic communications infrastructure and ensuring connection to the trans-European telecommunication networks as part of the development of a single European digital market.

- **Strategic objective 2: “Polycentric territorial development”**

Strengthening of a moderately polycentric network of core-cities with improved quality of the urban environment, contributing to the achievement of balanced territorial development and diminishing of the disparities between central urban and peripheral rural areas

The following priorities have been identified as significant for attainment of this strategic objective:

- 2.1. Support for integrated development of the capital in order to shift to a higher category of European Metropolitan European Growth Areas (MEGA); promotion of one more city (Varna) to be incorporated in the MEGA category in its capacity of European gateway at the Black Sea coast;
- 2.2. Expansion of the network of hierarchic Level 2 cities and phased incorporation of several more cities currently belonging to Level 3, possessing potential and strategic location, in order to balance the development of the major regional and district centres;
- 2.3. Maintaining of a broad network of 35 Level 3 cities and support for their integrated development through implementation of IPURD and synchronization of the sectoral policies;
- 2.4. Formulation of and adherence to a national policy for the small cities in peripheral rural areas – 90 cities of hierarchic Level 4, and support for their integrated development;

- **Strategic objective 3: “Spatial cohesion and access to services”**

Development of the national engineering and social infrastructure for improvement of the spatial cohesion of the regions and urban centres and the access to education, health care, social and culture-related services

The following priorities have been identified as significant for attainment of this strategic objective:

- 3.1. Development of the major and secondary transport axes for attainment of the “grid”-type model, oriented towards strengthening of the functions of the already established urban centres, expansion of their fields of impact and improvement of the access to the labour market and social services;
- 3.2. Development of the electronic communications infrastructure and ensuring conditions for broadband access to Internet to households and enterprises – an important prerequisite for the development and broad usage of high-quality electronic services by the administration, businesses and citizens in implementation of the Digital Agenda for Europe;
- 3.3. Achievement of free and socially equitable access to information and communication technologies in all areas, especially in the peripheral ones, and opportunity for decentralized jobs and provision of services of common interest;

3.4 Balanced coverage of the national territory by a network of sites of high-level public services provision in the fields of health care, education, social care and culture and improvement of the access to high-quality services;

▪ Strategic objective 4: **“Well-preserved natural and cultural heritage”**

Preservation and development of the national system of protected natural and cultural sites for the purpose of maintaining of the biological balance, the spatial natural and cultural identity of the territory and for integrating their values into the modern life

The following priorities have been identified as significant for attainment of this strategic objective:

4.1. Preservation of the identity of the natural and cultural heritage through effective protection and smart use of the economic potential of the protected natural and cultural values;

4.2. Increase of the elements of the National Ecological Network in the regions with the lowest share of protected areas and zones and its linkage to the European Ecological Network through cross-border cooperation for protection of natural values;

4.3. Incorporation of new natural and cultural sights in the UNESCO List of World Natural and Cultural Heritage;

4.4. Preventive protection of characteristic landscapes with preserved traditional land-use practices and high conservation value and rehabilitation of landscapes damaged by human intervention;

4.5. Ensuring equitable access to the entire totality of natural and cultural values – bearers of the historical memory and national identity;

▪ Strategic objective 5: **“Promoted development of specific areas ”**

Integrated planning and promoted development of territories with specific characteristics (Black Sea coast, Danube river basin, mountain, border and peripheral areas) with a view to preserving and effective use of their natural, economic, social and cultural development potential

The following priorities have been identified as significant for attainment of this strategic objective:

5.1. Integrated management and sustainable development of the Black Sea coastal municipalities, including through cross-border cooperation with neighbouring countries from the Black Sea Region, for introduction of an Integrated Maritime Policy;

5.2. Integration of the Bulgarian Danube municipalities and districts in the pan-European Danube Region and development of cross-border partnerships and Euroregions for integrated management of the river basin, protection of waters, soils and biodiversity and promotion of economic development and cultural exchange;

5.3. Support for mountain border areas through development of bioagriculture in municipalities possessing irrigated land, bio-stock-breeding in certified areas, eco-tourism in its most environmentally friendly forms, taxation preferences for conventional production lines (food-and-beverages production, clothing and wood-working enterprises), etc;

5.5. Realization of the European Green Belt Initiative for sustainable development and protection of nature in mountain border areas through setting up and joint management of cross-border protected areas;

5.6. Rehabilitation of damaged areas, restoration of the ecological balance and biodiversity, adaptation to climate change and reduction of the risks of natural disasters;

5.7. Promotion of social cohesion through ensuring access to on-line services for people living in under-populated and remote areas in order to prevent the tendencies for isolation of that portion of the population from the public and cultural life in the country.

▪ Strategic objective 6: **“Competitiveness through growth and innovation areas”**

Increasing the competitiveness of the Bulgarian territory through government support for growth and innovation areas in the urban centres of the high levels of the polycentric model

The following priorities have been identified as significant for attainment of this strategic objective:

6.1. Construction of high-tech parks in the big urban centres of hierarchic Level 2;

6.2. Construction of industrial parks and renovation of areas with conventional production facilities in core-cities of hierarchic Level 3;

6.3. Setting up of new free economic zones (in the country there are 6 free zones – Burgas, Vidin, Dragoman, Plovdiv, Ruse and Svilengrad). Such zones might be set up also in Petrich, Kyustendil, Malko Tarnovo and Silistra;

6.4. Investments in science, technologies and innovations, through creation of regional incubators, oriented towards “Smart economy” units and connecting element of the triangle of knowledge – between science, businesses and the state. Development and expansion of the R&D and educational network not only in terms of access to Internet for students, pupils, teaching staff and research fellows by also as a medium for incubation of modern Internet technologies.

6.5. Creation of career centres and regional units for mobility of researchers/scientists as part of the European mobility network.

6.6. Improvement of the competitiveness of the Bulgarian economy through ensuring a platform for innovations and research, which shall increase the GDP, and through facilitation and promotion of the use of broadband access for businesses with a view to introduction of new business strategies and provision of innovative services to the end users.

3. STRATEGY FOR DEVELOPMENT OF THE NATIONAL SPACE

3.1. Polycentric urban network – the basis of balanced development

The current demographic condition and the demographic forecasts reveal that in the tangible timeframe of the NCSD the processes of urbanization in the country will evolve under diminishing demographic potential. In 2011 the permanent population of Bulgaria was 7,364,570 people. The demographic forecasts indicate a population drop to 6,824,000 people and even to 6,691,000 people in 2025 and 6,450,000 people in 2030. As early as during the current period the demographic potential of the villages, which used to be the source of migration towards the cities, is exhausted. Migration is oriented from the small cities to the bigger ones and from there – to the still bigger ones. This migration, combined with the negative natural population growth, is the reason for the decrease in the urban population not only of small cities, but also of medium-sized cities and of the majority of big cities. Population drop affects unfavourably the development of urban functions, slows down the evolution of the process of formation of agglomeration nuclei and areals at some of the big and medium-sized cities and calls into question the potential of other cities to form agglomeration areals.

Despite the reduced demographic potential in the period 2001 – 2011, a positive mechanical population growth, oriented mainly towards the big cities, has been recorded for 66 municipalities. Their attractiveness is the predominant factor for the population influx. Sofia Municipality, with a population of 1,291,591 people by 2011, has the biggest mechanical population growth, followed by Varna Municipality. The increase of the population in the small human settlements around these cities reveals the existence of sub-urbanization processes and formation of agglomeration nuclei. The population has also increased in a number of cities along the Black Sea coast as a result of their tourist function. This indicates a development of the process of tourism-based urbanization, which points also to the emergence of a new type of agglomeration formations – tourism-oriented ones.

Under these circumstances the stability and economic activity of the cities are changing, which results in an increased disparities between the central, strongly urbanized territories, in which there are big cities, and the peripheral, under-urbanized territories, in which there are no such cities. This predetermines the existing model of urban development as a limited polycentric one with well-manifested tendency towards monocentrism with respect to Sofia. Relatively weak counterweights of Sofia are the big cities of hierarchic Level Two Varna, Burgas and Plovdiv, and still weaker ones are Stara Zagora, Ruse and Pleven.

The overcoming of these disparities is directly related to Strategic objective 2 – Polycentric territorial development – *“Strengthening of a moderate polycentric network of core-centres with improved quality of the urban environment, contributing to the achievement of balanced territorial development and diminishing of the disparities between the central urban areas and the peripheral rural area”*.

The major tasks for overcoming of the above mentioned disparities and curtailing of the processes of depopulation, as well as for expansion of the periphery by means of the spatial planning tools, are as follows:

- ✓ Promotion of the development of a polycentric network of core-cities (urban centres);
- ✓ Upgrading of the quality of urban environment in human settlements, which are existing centres of the polycentric network, through integrated regeneration and development;

- ✓ Setting in place of conditions for economic growth through promotion of alternative employment and building of new skills and knowledge, linked to the local resources and demand;
- ✓ Development of the system of good-quality social, health care, educational and cultural services on the principle of equitability;
- ✓ Reconstruction of the transport and engineering infrastructure for the purposes of improvement of mobility, communications and the access to services;
- ✓ Unveiling of the potential of small settlements, possessing characteristic natural and cultural values and its utilization as a driver of economic development.

Polycentric network of hierarchically ranked urban centres

The polycentric network of hierarchically ranked urban centres is developed on the basis of the model of the “moderate polycentrism”. The concept and the model use the classification of the urban centres in five hierarchic levels.⁷ In comparison with the studied alternative models – of strongly developed “extreme” monocentrism and strongly developed “extreme” polycentrism, – it is more realistic under the current circumstances of demographic and economic development, limited resources and a small number (although clear) priorities for support of urban development during the next programming period. This fact presumes concentration of resources in a limited number of core-cities, supported by the axes of urban development, which are important for preservation of the sustainability of the model and the overall balanced spatial development of the country.

The proposed urban model aims at preserving the vitality of the national territory and rational functioning of the polycentric network of human settlements, linked with the urban development axes and development centres in Europe through promotion of the development of big cities – growth centres – and targeted support for small cities, which are important because of their location along the national periphery.

The feasibility of promotion of certain urban centres is expressed in the form of proposal for their shift to a higher hierarchic level. The opportunities for Bulgarian cities to shift to higher hierarchic levels in the European classification as well have been corroborated. This will contribute also to the attainment of Strategic objectives 1 and 6 - *integration in the network of urban centres in Europe and in the neighbouring countries and further establishment and development of knowledge, innovations and economic growth centres*. This does not exclude the possibility under appropriate circumstances for other cities to also shift to a higher hierarchic level, while the model of “moderate polycentrism” might be closer to the model of “developed polycentrism, which is more suitable for achieving balanced territorial development.

At hierarchic Level One the NCSD envisages for the capital, as a centre of European significance, further promotion of the high-quality intensive development and curtailing of extensive development. The city of Sofia has the potential to shift to an upper category of European Metropolitan European Growth Areas (MEGA), which is determined by the scores for

⁷ Level 1 – the capital Sofia, centre of European significance for the national territory
 Level 2 – big cities, centres of national significance for the territory of the regions
 Level 3 – medium-sized cities of regional significance for the territory of the districts
 Level 4 – small towns of micro-regional significance for the territory of a group of municipalities
 Level 5 – very small towns and villages acting as centres of municipalities

population size, economic functions, competitiveness, linkage and knowledge.⁸ The realization of this objective depends on the overall socio-economic and cultural development of Sofia, supported by a wide range of policies and tools. Among these the implementation of the IPURD and the coordination of the spatial development with the forecasts of the Sofia Master Plan will play a very important role. Of importance is also the membership of Sofia in the European network for cooperation with other European cities and the invitation to be European capital of culture 2019, which mobilizes additional resources and acts as incentive for new initiatives.

Although the association of the capital with the neighbouring municipalities is already a fact, for the future development of the Sofia agglomeration it is important that the association of the group of municipalities in an agglomeration areal for joint actions in the fields of socio-economic development, protection of the environment, transport policy, policy in the field of tourism and spatial development is regulated by law. The requirement the Master Plan of a core-city of an agglomeration areal to be developed for the scope of the entire areal – the group of municipalities, also needs to be regulated through adequate provisions in the Spatial Planning Act.

For the big cities of hierarchic level Two, which are centres of national significance for the territory of the regions, the NCSD estimates that in addition to the three cities, included in the ESPON classification (Transnational-national) – Plovdiv, Varna and Burgas – three other cities possess the characteristics and the potential to be included in that category – Ruse, Stara Zagora and Pleven. The evaluation indicators used are population size, economic functions and competitiveness, functions in the fields of higher education, health care, social care services and culture. These six big cities might successfully act as counterweights to Sofia and cover the bigger portion of the national territory through their influence of strong urban centers – engines of growth, centres of R&D and innovations centres, providing high-quality public services. Among them the city having the biggest chances for shifting to a higher category in the European classification is the city of Varna, which has shown perspective demographic and socio-economic development in recent years, as an important R&D and educational, transport and cultural centre, a major “gateway” of the country along the EU external frontier and centre of the integrated maritime policy and coastal zones management.

In order to ensure more dense coverage of the national territory with such centres, the objective for phased adding to that level of at least three other cities is laid down in the NCSD. Initially Veliko Tarnovo possesses the biggest potential, since even at this stage it approximates in terms of socio-economic development of the Level Two big cities and plays a balancing role to Ruse and Pleven in Northern Bulgaria. At a later stage it is also important that Blagoevgrad, and later Vidin, provided they get adequate promotion, might acquire the characteristics of Level Two centres because of their important location in the northwestern and southwestern peripheral territories of the country, where there are no big cities and where they would contribute to the activation of the transport corridors and urban development axes. This advance might be realized through correct orientation of the projects in the zones of active impact, identified in the IPURD, in order to feel the synergy effect from their implementation in the overall revival and regeneration of the territory.

In the long term the cities Gabrovo, Shumen, Dobrich, Haskovo, Pazardjik, Pernik, Kyustendil and Vratsa also possess a certain potential to shift to Level Two in the event of successful development in the future. The Level Two cities, which will function as regional centres, will

⁸ Refer to European Spatial Planning Observatory Network /ESPON/11.1. Potentials for polycentric development in Europe

form the basic skeleton of the polycentric urban structure. Their cooperation in a network will have positive influence on the other centres of the lower hierarchic levels, situated in peripheral and rural areas.

The big cities Plovdiv, Varna and Burgas, which form agglomeration areals comprising groups of neighbouring small municipalities, need, like in Sofia, to have their Master Plans elaborated so that they cover the group of municipalities and not only the municipality of the big city. In this way, in addition to the IPURD, in compliance with which in the identified zones of impact projects, prepared for the next programming period 2014-2020, will be implemented, prerequisites will be created for implementation of projects in the agglomeration areal and for joining together the available resources for promotion of the socio-economic development and achievement of synergy effect.

For the core-cities of regional significance on the territory of the districts (hierarchic Level Three) the NCSD envisages that 25 cities will implement this role. These cities are the remaining 17 district centres, to which the cities of Svishtov, Gorna Oryahovitsa, Assenovgrad, Dimitrovgrad, Kazanlak, Dupnitsa, Petrich and Karlovo have also been added. The cities of Sandanski, Gotse Delchev, Trojan, Sevlievo and Panagyurishte manifest certain possibilities for shifting to Level Three as well in the event of suitable future development and possibly promotion. The cities of hierarchic Level Three are situated relatively evenly on the national territory and have the mission to supplement and balance the big cities in order to diminish the effect of monocentric development on the territory of the districts and regions.

The cities of hierarchic Levels 1, 2 and 3 form the basic existing network of urban centres in the national territory. The economic significance of these cities is expressed by the fact that they generate the major share of the Gross Domestic Product and demonstrate economic growth. Their role in the provision of high level public services is fundamental. In these cities the higher educational establishments in the country and the major R&D and innovation centres are situated. In them the basic system of high-value health care facilities is set in place. They are important centres of culture. The development of these cities will be realized through adequate synchronization of spatial planning with the regional development policy and the other sectoral policies. They have all been incorporated as objects of planning through the IPURDs, on the basis of which the resources and efforts for integrated urban development during the next planning period will be coordinated, leading also to improvement of the quality of life. Documents of great importance for realization of this development are the Master Plans of these cities in their capacity of territorial base for orientation of all investment initiatives and actions. Only a few of the above listed cities possess approved Master Plans or actual Master Plans in the process of approval. To the remaining ones the requirements of the Act Amending and supplementing the Spatial Planning Act will apply (promulgated in SG No. 80/26.10.2012).

For the small cities of micro-regional significance on the territory of groups of municipalities of hierarchic Level Four it is envisaged that 90 small cities shall have such a role. These cities play an extremely important role for the peripheral rural and mountain areas and provide jobs and elementary public services to more than one municipality. The criteria for selection of these cities are: suitable location on the territory of the districts, demographic size and existing functions of supra-municipal significance in the field of economy, the social sphere, education, health care and culture. The cities of hierarchic Level Four are spread evenly on the national territory: 16 in the Northwest Region, 11 in the North Central Region, 10 in the Northeast Region, 15 in the Southeast Region, 20 in the South Central Region and 18 in the Southwest Region. The cities Sozopol, Tvarditsa, Sopot, Stamboliyski, Hissarya, Ivalylovgrad, Rakitovo, Septemvri, Kostenets, Bansko and Tran are listed under Level Four, but they are on the borderline between Level Four and Level Five. Depending on their future development under the influence of socio-

economic and demographic factors, they might retain their place under Level Four or lose their significance and drop to Level Five. In the NCSД they have been placed under Level Four purposefully with a view to their importance for maintaining the level of provision of services to the adjacent territories. Among them at this stage the resort cities have undoubtedly better chances.

The stabilization of the network of small cities of hierarchic Level Four requires a specific national policy, since the direction of development of the peripheral rural and mountain areas will depend on the condition of these cities. The importance of small cities in rural areas is the object of special attention in the pan-European documents, concerning balanced territorial development as well. The NCSД recommends that all 90 cities of hierarchic Level Four shall be included for elaboration of IPURD for the next planning period so that on the basis of these plans activities for their integrated development could be implemented. The IPURDs of these cities can be developed using a simplified methodology and procedure, might not envisage limited zones for intervention and might pragmatically be oriented towards projects and activities of integrating nature and of importance for the population of the city, the municipality and the neighbouring small municipalities in compliance with the priorities laid down in the operational programmes. Since the municipalities, whose centres are cities of hierarchic Level Four, fall under the so-called “rural areas”, it would be appropriate for the implementation of their IPURDs to be supported by the RDP. The Master Plans of the cities provide the territorial base for implementation of all urban development activities. Since a very small number of Level Four cities have actual Master Plans, the latter should be developed in compliance with the requirements of the latest amendments and supplements to the Spatial Planning Act (promulgated in SG No. 80/26.10.2012).

The NCSД does not neglect the smallest cities and villages of hierarchic Level Five, which are at the same time the most numerous. Their number is 139 (38 villages and 101 very small towns) – municipal centres, which provide primary services to the population of the municipalities and jobs outside employment in agriculture – in the field of social services, trade, administration, industry and crafts, education and culture. An important condition for the linkage to the rest of the human settlements in the municipalities is also the access to convenient, well-established and maintained communication and transport links.

Cities to be supported under OPRD for the period 2014-2020

In the NCSД a range of cities is proposed, which are suitable for being supported under Operational Programme “Regional Development” for the period 2014-2020 – the “integrated urban development” instrument – through elaboration of Integrated Plans for Urban Regeneration and Development (IPURD). The proposal comprises all 35 cities of hierarchic levels 1, 2 and 3 in their capacity of major urban poles of growth and development. The support for the cities of hierarchic Level Four, which play a role in the development of the peripheral, rural and border areas, is of particular importance. At this level OPRD interacts with the RDP, which supports the majority of the Level Four cities. It is a matter of substantial importance at that level of core-cities to distinguish well between the two programmes in order to achieve the aspired impact under the conditions of limited resources.

In this respect, taking into account the possibilities of the OPRD for the period 2014-2020, the NCSД identifies that 32 Level Four cities, determined by applying of specific motives and the approved selection criteria, are eligible for support from OPRD.

The major motives are related to the need for promotion of a sufficiently large number of medium-sized and small cities, situated in peripheral rural, mountain and border areas. These cities are centres, which provide jobs and basic services of significance for more than one municipality, and in the future the good communication and transport connections with them will be of great importance.

The selection criteria are suitable location on the territory of the districts and good accessibility by transport, demographic size, available functions of supra-municipal significance in the field of economy, the social sphere, health care, education and culture. The selection of cities for support of integrated urban development by the OPRD is based on the specific criteria listed below. The city should:

1. be situated on a major or secondary development axis;
2. play an important role as counterweight in the development of the district in addition to the district centre (in every district there is at least one more city, performing similar functions);
3. be situated in a peripheral area (border or in the hinterland) in order to perform important links with neighbouring areas and human settlements, including across the frontier;
4. play the role of services centre for more than one municipality.

In addition to the system of criteria, the classification of AU and TU – the National Registry of Human Settlements (promulgated in SG No. 66/28.08.2012, non-formal section) has been used.

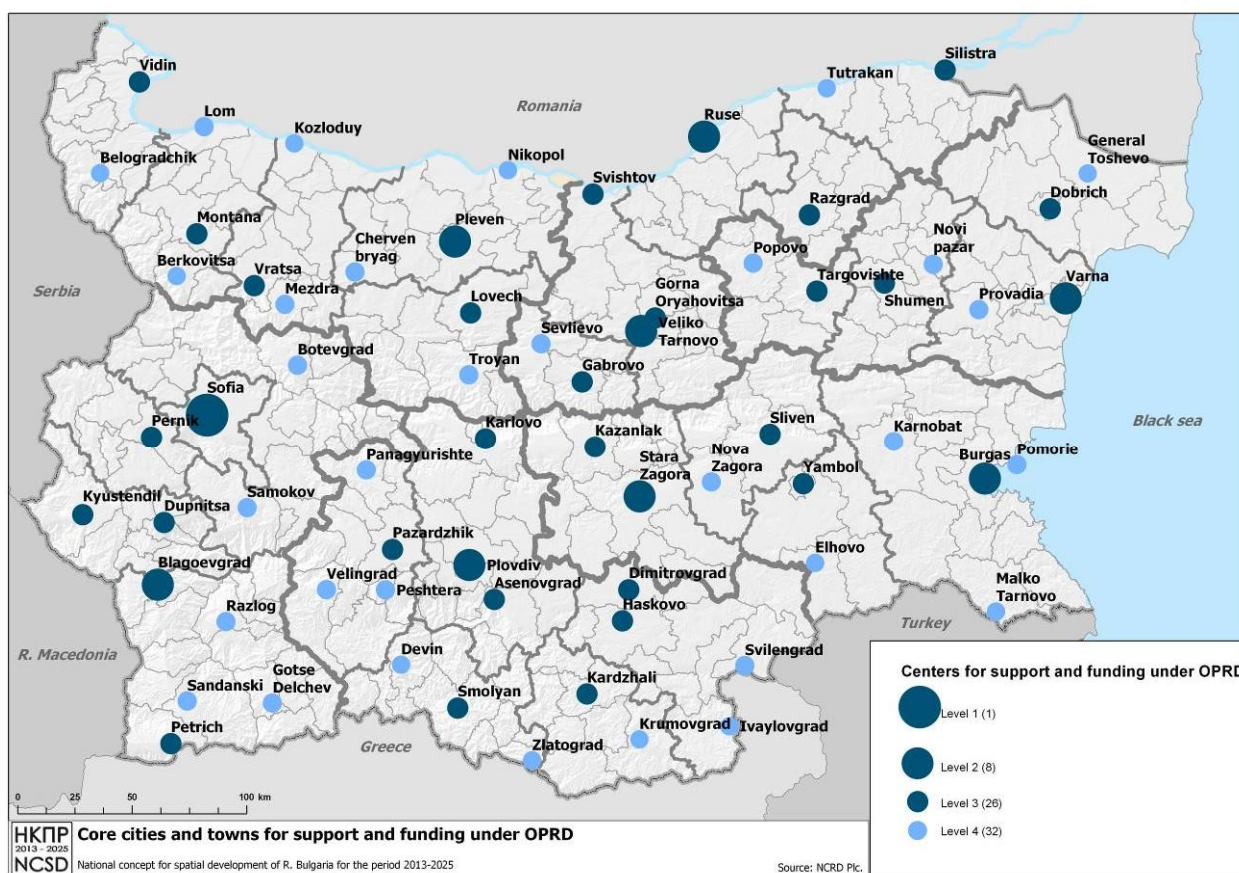


Fig. 7: Cities eligible for support under OPRD 2014-2020 (a total of 67)

The 32 Level Four cities, proposed for incorporation for support under OPRD on the basis of elaborated integrated plans, are as follows: Sandanski, Svilengrad, Samokov, Botevgrad, Trojan,

Sevlievo, Karnobat, Nova Zagora, Popovo, Peshtera, Pomorie, Razlog, Devin, Novi Pazar, Mezdra, Provadiya, Cherven Bryag, Kozloduy, Berkovitsa, Tutrakan, Elhovo, Belogradchik, Zlatograd, Nikopol, General Toshevo, Krumovgrad, Ivaylovgrad, Malko Tarnovo, and also Lom, Velingrad, Panagyurishte and Gotse Delchev, which are in the process of developing IPURD. Together with the Level 1, 2 and 3 cities, they form a group of a total of 67 cities (Appendix 2).

Agglomeration formations

The *agglomeration formations* in the national territory emerge if there is an urban nucleus with adequate economic, social and infrastructure potential. Agglomeration among settlements runs at different pace and intensity at the different hierarchic levels of core-cities and is realized in the zone of active impact. The manifestation of the integration links between the core-city and the neighbouring settlements is always one and the same, but the intensity is different and depends on the size and significance, i.e. on the hierarchic rank of the core-city.

The agglomeration formations comprise the territories of municipalities or parts of municipalities, linked territorially and functionally. The regulation of agglomeration formations as an object of spatial planning and regional development planning might result in improvement of their governance through joining the efforts of the group of municipalities, on whose territory the agglomeration is being formed. For the needs of the NCSД the following definitions have been assumed:

- An agglomeration nucleus is a core-city with neighbouring settlements and other facilities, spatially integrated in a common continuous spatial system
- The agglomeration areal is the active portion of the territory of the municipality or of the group of municipalities, in which intensive functional links between the core-city and other settlements and facilities are realized

During the period of transition at the end of the 20th c., as well as in the recent years of financial and economic crisis, processes of retardation of agglomeration have been observed. The major factors undermining the agglomeration processes are the demographic drop, the economic crisis, the lagging behind in the services sphere and in public transport. Despite the general decline, the already established spatial links support to a high extent the functioning of these formations and present an opportunity for emergence of new functions.

For the agglomeration formations it is important to enhance their competitive capacity through joining of resources and cooperation of the sectoral policies and to achieve the following:

- ✓ Upgrading of the business environment through investment in the basic infrastructure for the purposes of attracting investors' interest and stable global and national companies;
- ✓ Creating preconditions for diversification of economic activities and increase in the share of new technologies through linkage to the centres of education, science and innovations;
- ✓ Activating the interactions among the cluster formations within the scope of the agglomeration formations;
- ✓ Development of the connection infrastructure between the agglomeration areals and the neighbouring territories, the smaller cities and villages, thus improving the access to services, the quality of life and the capacity of the territory;
- ✓ Improving the conditions for tourism and recreation in the well-established tourist agglomerations through liquidation of the negative consequences from tourist

urbanization and taking into account the future development of the territory and its capacity.

In the NCSD four types of agglomeration areals with their respective scopes have been identified:

1. The first group comprises the agglomeration areals of big cities in the territory of a group of neighbouring municipalities – Sofia, Plovdiv, Varna and Burgas;
2. Agglomeration areals of big cities in the territory of their own municipality – Ruse, Stara Zagora and Pleven;
3. Agglomeration areals of medium-sized cities, shrunk to the scope of the nucleus in the territory of their own municipality – Shumen, Dobrich, Yambol, Sliven, Haskovo, Pazardjik, Blagoevgrad, Pernik, Vidin, Montana, Vratsa, Lovech, Gabrovo, Veliko Tarnovo, Targovishte, Razgrad, Silistra, Kyustendil, Smolyan, Kardjali, Assenovgrad, Dimitrograd, Kazanlak, Dupnitsa, Gorna Oryahovitsa, Svishtov.

In the majority of these medium-sized cities the agglomeration links are very weakly manifested, but they have potential for possible future manifestation with respect to the closest small human settlements.

4. Agglomeration formations of tourism-oriented type, developing under the influence of the contemporary processes of urbanization and the predominating tourism-related functions – Nessebar, Balchik, Kavarna, Pomorie, Sozopol, Primorsko and Tsarevo at the Black Sea coast and Bansko, Samokov, Smolyan, Sandanski and Velingrad on the grounds of their specific resources for mountain and balneologic tourism.

There are also other small cities with tourist functions in the Balkan Mountain Range, the Rhodope Mountains, Strandja Mountains, Sredna Gora Mountains, in the vicinity of the traditional mineral water resorts, which possess resources and potential for development of agglomeration links on the basis of integration of natural and cultural features, unique landscapes of high aesthetic value, mineral waters, suitable microclimate of proven curative characteristics, potential for environmentally friendly alternative modalities of tourism and recreation.

The tourism-related function has a strong influence on the development of the agglomeration areals of the big Black Sea cities Varna and Burgas as well, which affects their spatial and economic structure, the appearance and characteristics of their coastal zones within the boundaries of the urbanized territory and the adjacent rural areas and small human settlements.

Undoubtedly, in the course of the future urban development the agglomeration processes will continue to evolve and will lead to the emergence of agglomeration formations of industrial-urban nature and recreation-tourist nature. These formations will develop mainly along the development axes.

The identification and legal regulation of the agglomeration areals, which comprise a group of municipalities, should provide an opportunity for the member municipalities to associate for joint actions in the field of socio-economic development, protection of the environment, transport policy, tourism-related policy and, of course, in the field of spatial development. This is an issue, which requires statutory regulation and equitable treatment of the big municipality of the core-city and the component small municipalities. It is very important to regulate the possibility for the Master Plan of a big city to extend over the entire territory of the agglomeration areal and not to be limited only to the territory of the municipality, as the case with the Master Plans of Sofia, Plovdiv, Varna and Burgas is. The same applies to the Master Plans of the other big and medium-sized cities, which should also cover the entire agglomeration areal in the surrounding area of the core-city, together with the attracted settlements and other urbanized plots. The tourism-oriented

agglomeration formations should also be the object of land-use planning for their entire scope for the purposes of correct orientation of the investment intentions in the field of tourism and for protection of the environment from the excessive and unweighted tourist urbanization.

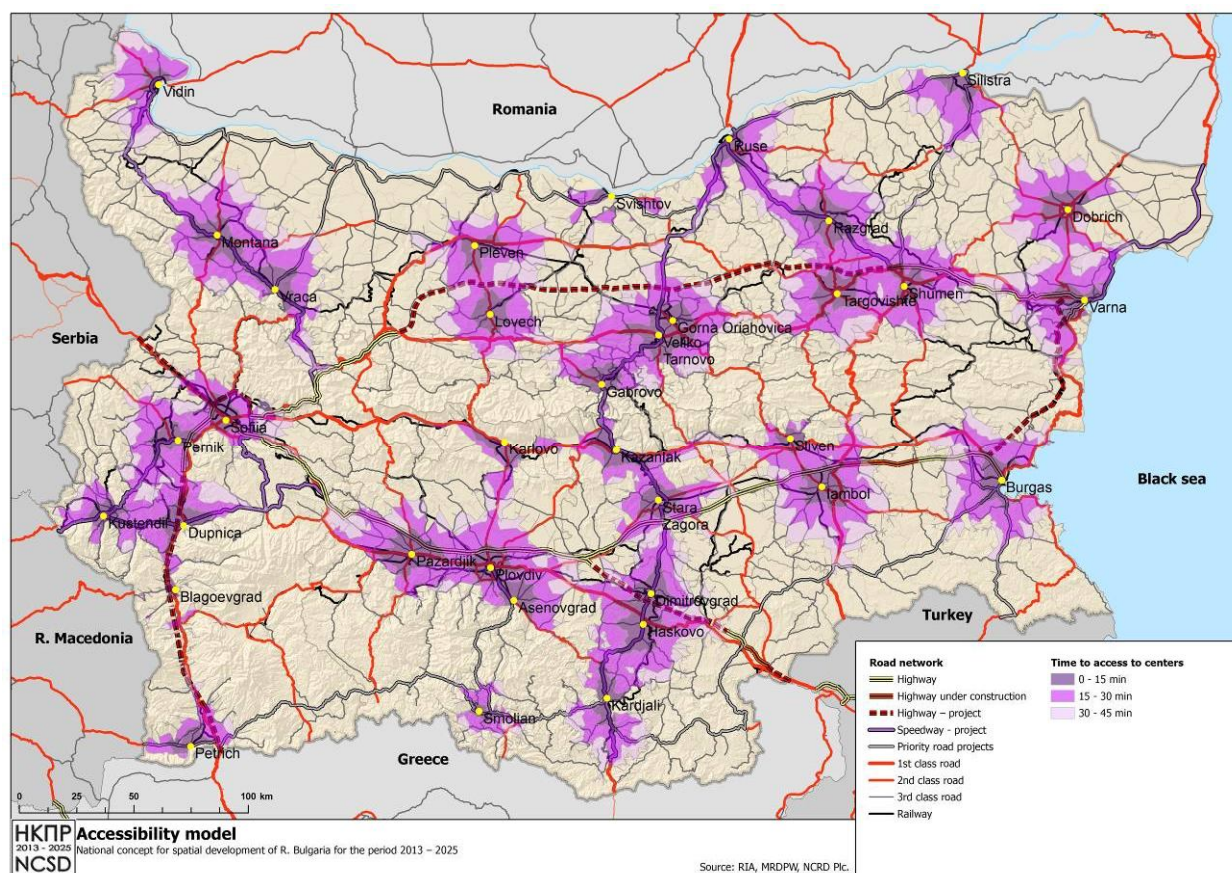


Fig. 8: Spatial model of transport accessibility

Axes of urban development

The *urban axes* laid down in the NCSD follow the scheme proposed in the Joint Paper of the Vishegrad Four Countries plus Bulgaria and Romania (V4+2) and elaborate further the ideas of the National Regional Development Strategy 2012-2022. The attainment of the strategic objectives of the NCSD depends on their rational building and localization on the territory of the country.

Through the development of this important element of the spatial model, the national space of Bulgaria will get connected with the development axes of the neighbouring countries and better accessibility to the growth, innovations, culture and education centres will be ensured. To this end it is necessary to:

- ✓ Complete the construction of the important geostrategic axes for the connections of the country with Europe and Asia and with the countries in the Danube and the Black Sea regions;
- ✓ Ensure a sustainable transport communication system in the national space for equitable access from the secondary axes to the major axes and to the centres of administrative, social, cultural and touristic services;

- ✓ Set in place the basic links for sustaining the polycentric model, thus creating preconditions for good interaction among cities and villages and with the hinterland, supporting them through its active economic performance;
- ✓ Set in place the missing secondary links in the remote and peripheral areas, including in those, which are of primary significance for access to natural and cultural tourism-related resources.

The major axes, which are of important structure-defining significance for the national territory, are developed along the routes of the major national and international transport corridors, along which the human settlements network of the country is integrated in the European one. Together with the transport destinations they form a peculiar “transport-and-urbanization grid”. The secondary axes are important above all for the structuring of the territory of the regions. They are situated along the transport corridors of regional significance. Two parallel and three meridian axes stand out as major axes of urban development of the national territory. The parallel axes are as follows:

1. Dragoman-Sofia-Plovdiv-Svilengrad-Istanbul, part of the PETC No. 4 (TRACECA), and its deviation Plovdiv-Stara Zagora-Burgas, as an important national axis;
2. Sofia-Pleven-Ruse and the connection with PETC No. 7 and PETC No. 9, and its deviation Sofia-Lovech-Veliko Tarnovo-Shumen-Varna;

It is typical for the parallel axes that they join in the capital Sofia. This, in addition to the manifested advantages, also has certain disadvantages and requires that near and more distant detours of the ‘bypass’ type be sought. Such detour, which should become a development axis, is the envisaged highway “Rila” from Ihtiman to Dupnitsa. It will have the capacity to activate additionally the development of tourism in the Northern Rila Mountains.

Two parallel axes, one along the Danube shoreline and the other in the Fore-Balkan fields, are emerging as secondary axes with chances to develop into main axes in the future.

The major meridian axes in north-south direction are as follows:

1. Western axis – Vidin-Vratsa-Sofia-Blagoevgrad-Kulata, part of PETC No. 4 – a priority for the EU and the Strategy for Development of the Transport System of the Republic of Bulgaria till 2020.

It will develop further to the north to the Danube at Vidin through the construction of a 4-lane high-speed road from Botevgrad to Vidin. To the south, the same development axis is supported along the River Struma valley by the highway, currently under construction, and continues to Thessaloniki and Athens. The activation of this axis will improve the connections of the capital with the core-cities to the north and to the south and will act as a serious support factor for the intention to promote the cities of Vidin and Blagoevgrad in the peripheral territories at the two opposite ends of Western Bulgaria.

2. Central axis – Ruse-Veliko Tarnovo-Gabrovo-Stara Zagora-Haskovo-Kardjali-Makaza, part of PETC No. 9 and connecting the country with Romania and Greece.

This major axis possesses relatively good urban development with the big and medium-sized cities and agglomeration areals from north to south – Ruse, Veliko Tarnovo, Gorna Oryahovitsa, Kazanlak, Stara Zagora, Dimitrovgrad, Haskovo and Kardjali.

3. Eastern axis – the future “Black Sea” (“Cherno More”) Highway, linking the national space with the countries from the Black Sea region.

The duplication of this axis by a panoramic Class 1 road along the coastline and the construction of cross-connections to territories and urban centres in the hinterland will reduce the pressure on the coastal areas and support the sustainable and integrated development of the Black Sea coast and its main urban centres and agglomeration areas.

The major axes perform important for the country connections by means of the PETCs Nos. 4, 7, 8, 9 and 10, with the countries of the Danube, Black Sea and Mediterranean regions, link the national airports, sea and river ports and railway stations. Some of them follow well-established routes (*Via Pontica*, *Via Diagonalis*) and are important cultural corridors, linking cultural values from different epochs, or are important migration ways for protection of biodiversity (*Via Pontica*, *Via Aristotelis*). They are urban axes, connecting the growth, innovation, business and culture centres, and hence are of geostrategic significance.

The secondary development axes are evolving in directions starting from the major axes or linking the major axes. Such axes are: Lom-Montana, Kozloduy-Vratsa, Nikopol-Pleven-Lovech-Trojan, Svishtov-Veliko Tarnovo, Ruse-Pazgrad-Shumen, Silistra-Dobrich-Varna, Sliven-Yambol-Elhovo, Karlovo-Plovdiv-Smolyan-Rudozem, Simitly-Razlog-Bansko-Gotse Delchev-Ilinden and Kyustendil-Dupnitsa-Samokov-Ihtiman.

The secondary axes complete the spatial development model and it is anticipated that they would activate the agglomeration processes and urban development. The existence of good communication and transport links would promote habitation in small settlements and would attract businesses providing for alternative employment in rural areas.

The secondary axes, with their significance at regional level, ensure the accessibility to and linkage of the regions and core-cities of Levels Three and Four on their area. In the process of implementation of the spatial development policy with respect to the Level Four core-cities it will be reasonable to give priority to those, which are situated along the directions of the development axes.

3.2. Social infrastructure

The functioning of the proposed polycentric urban development model is in close interrelation with the social infrastructure system. The development of its elements is influenced by the geographic location, the density of the settlement network, the concentration of population and the state policy. The selection of the elements of the social services system is predestined by their social significance and their protection by the Constitution. In this sense, those elements of the social infrastructure, which have the statute of national/regional and supra-regional, shall be the object of the spatial development concept. They perform the role of objective factor for better socio-economic development in the individual regions of the country and for more effective use of the potential of the national territory. The elements of the social infrastructure with the above mentioned statute contribute to diminishing of disparities among the NUTS 2 regions with respect to access to high level social services in the field of higher education, secondary education in general schools, municipal hub-schools and protected schools, vocational high schools and art schools, highly specialized hospital medical treatment, third-instance jurisdiction, etc.

The overcoming of the disproportions is connected with the implementation of Strategic objective 3 “Spatial cohesion and access to services” – *Development of the national engineering and social infrastructure for improvement of the spatial linkage of the regions and the urban centres and the access to educational, health care, social and cultural services.*

Health care

The state of the health care system in the country is of great importance for the development of the national territory and for overcoming the demographic disparities, from which also social and economic problems ensue later.

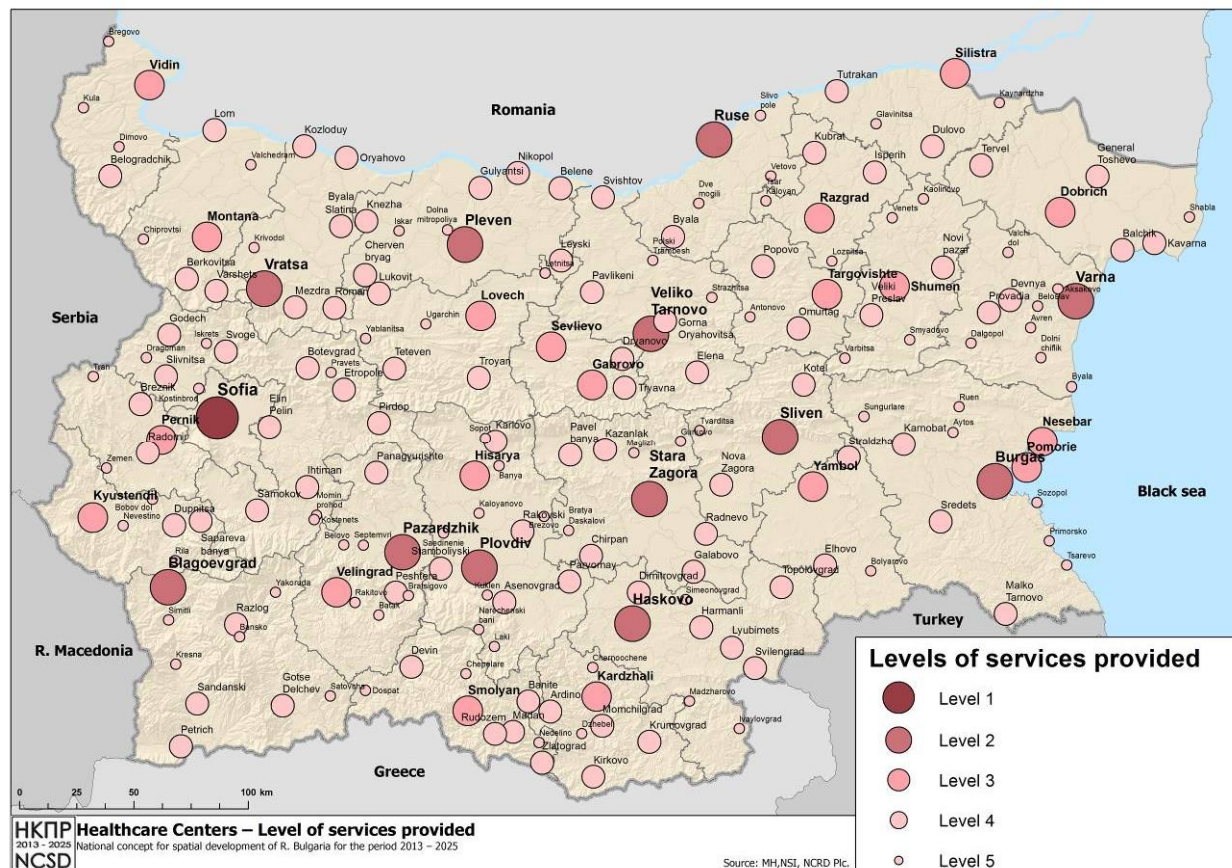


Fig. 9: Centres – levels of medical services provision

The proposals for and directions of development of the health care infrastructure are based on national strategic documents and priorities of institutional nature⁹ and are linked to the NCSD through the presented spatial model for polycentric development. In this sense, the proposed model for spatial development is oriented towards the provision of equitable access to good-quality medical care and services in the system of core-cities of diverse hierarchic rank. The attainment of this objective is related to spatial planning, but it is also subject to a series of factors, external to the system, among which the improvement of the quality of education, qualification, specialization and motivation of the personnel, the improvement of the quality and effectiveness of the medical services provided, the setting up of high-tech units for early diagnostic and timely treatment of illnesses of exclusive social significance are worth mentioning.

The prospects for development of the system are oriented towards ensuring of health care infrastructure adequate to the demographic structure of the population.¹⁰ It is anticipated that this will be achieved through an integrated approach to complex outpatient and hospital services for the purposes of ensuring equal access to all kinds of medical treatment – emergency, urgent,

⁹ National Development Programme of Bulgaria 2020 (Version 1); National Reform Programme (2011-2015) in implementation of the “Europe 2020” Strategy

¹⁰ Concept for restructuring of hospital medical care – MH, 2009

short-term and prolonged hospitalization within the framework of the necessary and adequate duration for recovery and maintaining of optimal health status. Hospital treatment will also be realized through transforming of ineffective hospital institutions for active treatment into institutions for long-term treatment, rehabilitation or other structures, providing adequate services.¹¹ This will affect mainly the municipal hospitals in the small municipalities, which are currently undergoing restructuring.

With respect to one specific category of medical institutions – Centres for medical and social care services for children (a total of 31), situated predominantly in district cities, their restructuring and deinstitutionalization is expected.

The proposals for development of the health care infrastructure have clear spatial parameters – balanced coverage of the territory of the country with health care institutions, construction and reconstruction of the transport infrastructure with a special emphasis on mountain and hard to reach areas, shortening of the time for access to health care services and using modern technologies for rapid diagnostics and consultations, including in the remote settlements.

Education

The network of higher educational establishments is relatively evenly developed across the country. The only exception is the Northeast Region. There are a total of 51 accredited higher schools in the country – universities, specialized higher schools and independent colleges. The leading university centres are Sofia, Plovdiv, Varna, Burgas, Veliko Tarnovo and Blagoevgrad (with more than one higher educational establishment).

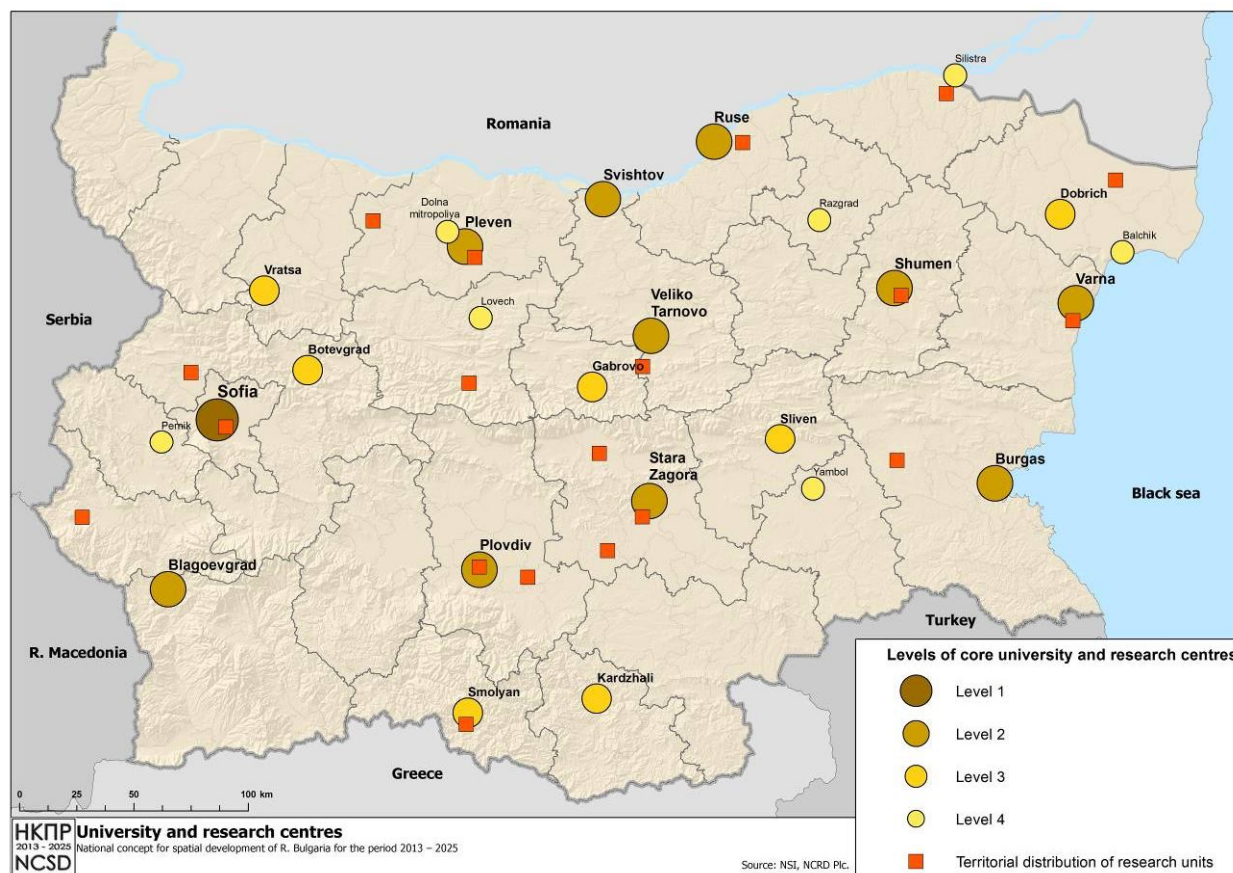


Fig. 10: University and R&D centres

¹¹ Project of the Strategic framework of the health care policy for improvement of the health of the nation during the period 2014-2020.

They are open for students from all over the country and are not subject to the requirements for regional distribution. They fully satisfy the country's needs. For comparison we should mention that in the West European states the university/population ratio is nearly 1 university per 600,000/1,000,000 inhabitants.

The national art schools (a total of 23) are a particular category of educational establishments for young talented children. Territorially they are located mainly in the city of Sofia (7), Plovdiv (3) and one in each of the cities Varna, Burgas, Ruse, Pleven, Stara Zagora, Kotel, Sliven, Kazanlik, Trojan, Tryavna, Smolyan, in the village of Shiroka Laka (Smolyan District) and the village of Kunino (Vratsa District). They have a strategic objective – conservation and development of the cultural identity of the nation, but in the current demographic situation a certain drop in the number of pupils and a risk of closing down of some of them is noted.

By 31 December 2011 a total of three hospital-type schools operate on the territory of the country: in Plovdiv, Kostenets and Momin Prohod. Two secondary schools for children with optical disorders also operate in Sofia and Varna and three boarding-type schools for children with hearing problems function in Sofia, Targovishte and Plovdiv.¹² On the territory of the country also ten health rehabilitation schools with a total capacity of 1,609 places operate.

The vocational high schools in agriculture, situated in Blagoevgrad, Haskovo, Kyustendil, Popovo, Sitovo, Breznik, Lukovit, Levski, Razgrad, Novi Pazar, Veliki Preslav, Aytos, Karnobat, Sadovo, Chirpan etc., occupy an important place in the group of specialized schools. Their retention is of great importance for the development of the rural areas and for human capacity building for the major activities in the sector.

Irrespective of the fact that elements of the system of national, supra-regional and regional nature are considered, there is one category of schools, which is an element of the state policy. These are the municipal hub-schools (a total of 800 for the 2011/2012 academic year according to Council of Ministers' Decree No. 326/2011) and the protected schools (a total of 119 for the 2011/2012 academic year according to Council of Ministers' Decree No. 8). The list of these schools is aligned to the significance level of the service centre for a group of human settlements in the district and the municipalities, while the selection has been made on the basis of the accessibility criteria – journey duration depending on the state of the road network, the relief and the number of pupils.¹³

The educational background structure of the population aged 7 and above has improved considerably in 2011 as compared to the previous years, following the clearly manifested trends towards increase in the number and the share of the population with higher and secondary education, while the number of people with elementary or lower education is diminishing. There are significant differences in the educational background structure with respect to permanent residence – almost $\frac{3}{4}$ of the urban population (71.6%) has graduated at least secondary education, while for the rural population this relative share is hardly 40.3%.

The reforms related to the modernisation of the educational system and ensuring accessible and high-quality education are estimated to be an important instrument for both meeting the long-term challenges facing society and assisting the recovery from the current economic crisis through ensuring personal, social and professional realization of the citizens. Education, and in particular higher education and its relations to R&D and innovations, plays an important role for the advance of the individual and society, for achieving economic growth and welfare.

¹² <http://sacp.government.bg/programi-dokladi/statistika/>

¹³ http://mon.bg/left_menu/documents/decrees/

The relatively big and persisting disparities in the localization of the higher education establishments cannot be defined as a significant problem and for that reason no big changes are expected in this respect. It is possible that by the beginning of the new planning period a higher school or a subsidiary of a higher school might be opened in Vidin in view of its new functions related to the infrastructure corridors and the fact that in three neighbouring districts of the Northwest Region there is no higher school.

As regards the national schools in arts and culture, the existing model will be retained. The municipal hub-schools and protected schools will continue to function in the future, but probably their number will be somewhat reduced and in the event of better transport connections improvement of the access and mobility might be expected as well.

For the purposes of creation of new jobs and realization of the acquired knowledge and skills it is necessary to establish closer links between the system of specialized schools and the demand in the respective region, in which they are localized.

Social care services

The system of social services in Bulgaria has developed considerably in the recent years thanks to the reforms oriented towards de-institutionalization and provision of more community- and family-based services for children and elderly people. The procedures and conditions for organization, provision and use of social care services in Bulgaria are set out in the Social Assistance Act (promulgated in SG No. 56/1998) and the Regulation concerning its application (promulgated in SG No. 133/1998).

The social services in the community and specialized institutions¹⁴ cover a broad spectrum of services related to social care for the vulnerable groups of the population. The rapid spread of these services is a reflection of their practical applicability, as well as of their important role for prevention of the risk of poverty and creating of conditions for adequate inclusion of the vulnerable groups in society. As a result of the successfully implemented in recent years policy, oriented towards de-institutionalization, a sustainable growth in the services provided in the community as an alternative to the institutionalized type of care is observed. Decentralized management of social care services has been introduced in Bulgaria. The municipalities manage and develop the services for people in disadvantaged position. This arrangement provides better opportunities for local authorities to study the concrete need of social care services of the inhabitants of the municipality. Mayors are authorized to assign the management of such facilities to Bulgarian physical persons, registered under the Commercial Act, and to legal entities, as well as to physical persons, performing commercial activities and legal entities, founded under the legislation of another EU Member State or any other state, belonging to the European Economic Area, which are registered with the Social Assistance Agency as providers of social services and have been licensed by the State Agency for Child Protection to provide social care services for children. The social care services can be provided also in the event of joint participation on the grounds of a contract signed between the state, municipalities, physical persons registered under the Commercial Act and legal entities.

The Social Assistance Agency with the MLSP and its territorial subsidiaries – 28 regional social assistance directorates, located in the district administrative centres, and 147 ‘Social assistance’ Directorates, provides methodological guidance concerning the provision of social care services in the specialized institutions and in the community.

¹⁴ Social Assistance Agency – list of services and institutions, September 2012

Although the activity of the Social Assistance Agency is oriented towards implementation of the state policy in the field of social care assistance and protection of children, it also has control functions through the Inspectorate with the Executive Director of the Social Assistance Agency with respect to the specialized institutions and community-based social care services for the elderly. The control over the provision of services in the community and the specialized institutions for children is performed by the State Agency for Child Protection. In Bulgaria there is a well-developed network of institutionalized and community-based services for children and elderly people (by September 2012 a total of 961 types of social care services were provided, including in 254 specialized institutions and 707 community-based services units, financed by the state budget). The number of community-based social care services for children is 333 and the number of specialized institutions for children – 92. The number of community-based social care services for the elderly is 374 and the number of specialized institutions as an activity delegated by the state for provision of social care services, is 162.¹⁵ In addition, on the territory of the country 31 centres for medical social care for children operate, which are under the management of the Ministry of Health.

The currently observed trend is on one hand to develop new community-based social care services and, on the other hand, to improve the operation of the currently existing social care services.

These sites are opened on the basis of requests from individual municipalities, but their social significance is on a higher territorial level. For the purposes of improving the coordination and integration of the social care services and ensuring equal access to good-quality social care services for people from the vulnerable groups, regulatory amendments were approved in 2010. A qualitatively new approach was introduced in the development and provision of social care services through planning at the municipal and the district levels on the basis of analysis of the demand for social care services. In this way, launching of social care services, corresponding to the concrete demands of the people from the target groups not only on the territory of the municipality, but also in the district, is guaranteed.

To date a total of 1 186 providers of social care services are entered in the Register of the Social Assistance Agency, to whom 3,319 certificates for provision of different kinds of social care services to children and elderly people have been issued.

A major advantage of the territorial dislocation of the sites in the social services field is their orientation towards human settlements of different ranks and the fact that in addition to the purely health-care and social care commitment, they also help create employment.

Despite the achieved progress, however, there are some grave challenges, whose overcoming imposes the adoption of complex measures and actions, oriented towards improvement of the quality of the provided services, ensuring real access to them and launching of new types of services, according to the individual needs of the target groups in view of the growing demand for such services.

The nature of the barriers to social inclusion of the vulnerable groups is complex and requires the application of an integrated and inter-sectoral approach in the provision of services. It is exactly for this reason that the major principles and directions of development of the social care services comprise continuation of the launched reform in the direction of modernization, development of integrated inter-sectoral services, corresponding to the specific needs of the recipients, ensuring of maximum access through mobility and flexibility of the services.

¹⁵ SAA, <http://www.asp.government.bg>

In this respect and with a view of the challenges in the field of social care services on the one hand, and their significant contribution to improvement of the possibilities for social inclusion of the vulnerable groups and creation of jobs, on the other hand, in the long term the policy in this field will be guided by the following priority objectives: de-institutionalization and broadening of the access to services through building of an adequate network of social services offered in the community and in domestic milieu; development and launching of models for preventive social care services, ensuring early intervention; improvement of the quality of services; setting up of a working mechanism for financing and achievement of sustainable increase of the funding for community- and family-based services; better interaction and coordination between the health care and social care services, etc.

The objective is to ensure adequate and effective social care infrastructure in the urban agglomerations, aimed at assisting the provision of a new type of accompanying services, replacing the institutional care for children.

By the end of 2012 sufficient accommodation capacity was ensured in the centres for handicapped people. The still persisting problem is the shortage of places in the centres for elderly people in the areal of the urban agglomerations. The resolution of this problem, however, is within the priorities of the municipalities, which do not as yet utilize fully the possibilities for public-private partnerships in this field. Part of the social care services for the different age groups might be localized in smaller human settlements with ensured transport accessibility to the rest of the services – health care, culture etc. An important direction of the social policy is its linkage to both the policies related to education and health care and the transport policies, as well as with the housing policy, which might be realized also in the process of development of the IPURD with respect to planning of the investment intervention of the social care sphere.

Culture

Within the system of culture, the sites of national significance are the object of study.¹⁶ The system comprises 22 national museums with branches, the majority of the sites being in the city of Sofia. There are 16 institutional units (national museums and their branches), of which 14 are situated in Sofia and 29 are regional museums in all the district centres except Sofia. There are 4 “national” art galleries. The museums and galleries exist as local culture sites in the majority of municipal centres.

The theatre institutions comprise the following state-owned formations: 28 dramatic theatres, including 22 in district centres and 6 in Sofia. In addition, there are 12 puppet theatres and 8 musical formations. They may be considered in the same manner as museums. Irrespective of their location in cities, which are development centres of high rank in the hierarchic system of settlements, some of these institutions continue to be unique because of the long-standing traditions, their repertoires, performers and soloists.

The listed systems are of particular importance for meeting the inhabitants’ demand. They are the backbone supplemented by the elements of the system at district and municipal level. The indispensable conclusions from the review of the basic institutional systems for public services can be summarized as follows:

- The provision of public services has entirely lost its complex nature and with minor exceptions does not fulfil the social element incumbent to it and its function as a structure-defining element of the territorial communities;

¹⁶ The landmarks of immobile cultural heritage are the object of a different analysis

- The institutional systems are evolving to the benefit of their social commitment, but under a distorted territorial model. This is particularly valid for the university centres.
- There is a tendency of increasing the remoteness from the access to certain elements of the social sub-systems in the services sector, caused by distortions in the provision of and other economic factors.

In the process of developing the spatial concept model the social services provision and more specifically the sites of education, health care, culture, administrative and social care services play an important role for identification of the existing centres of the polycentric system of human settlements. The access to this type of services, the culture- and education-related commuter trips and connections, irrespective of the scanty data on this issue, have been incorporated as fundamental in the system of selection criteria.

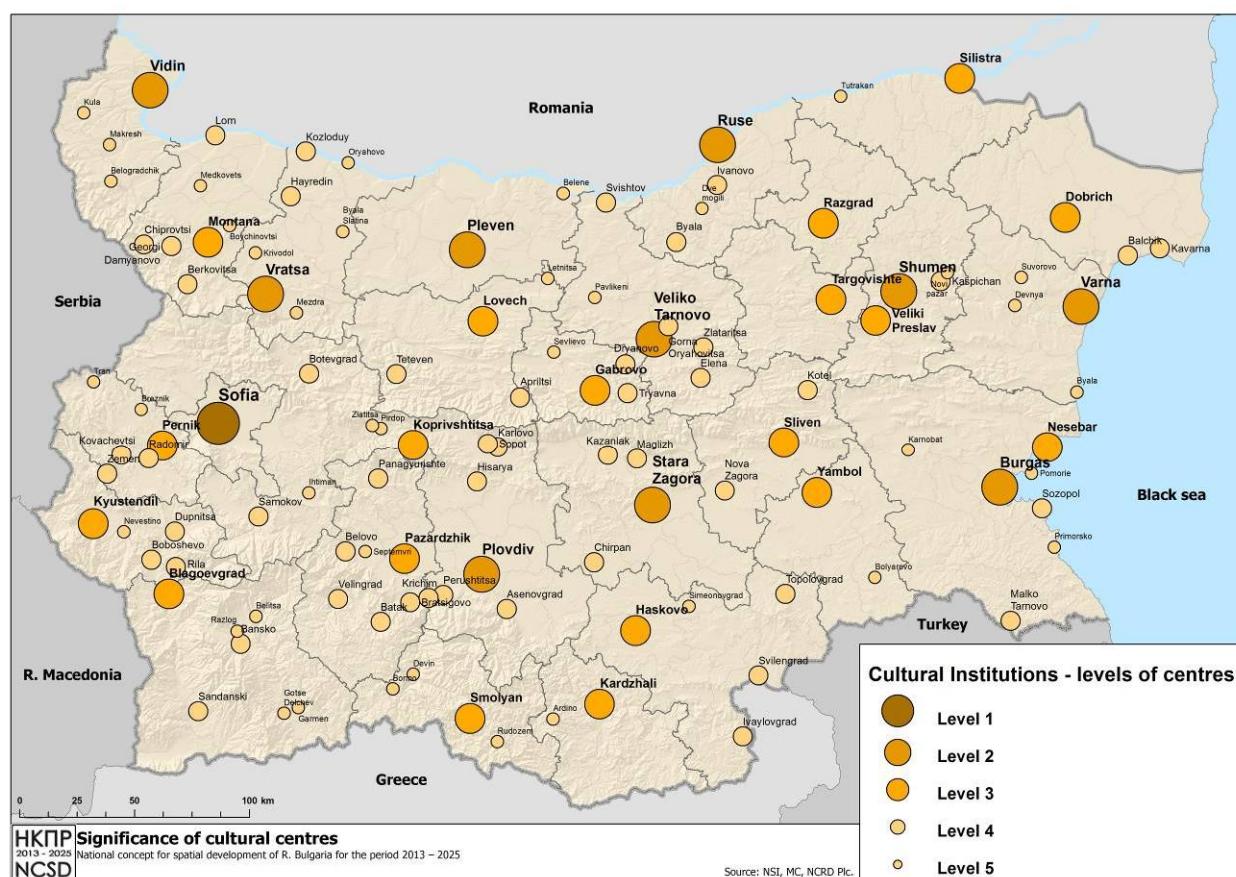


Fig. 11: Centres of cultural significance

The guidelines, given in the National Concept, are related to the development of the social services network under a more sustainable model, which could counteract domestic migrations and depopulation. The equal access to the minimum package of social services and accompanying services in the field of health care, education etc. is of particular importance. This is a problem, which has not been resolved in many other EU states and which accelerates the processes of imbalanced spatial development.

Among the indicators for evaluation of the potential of the cities and defining their place in the hierarchic system, the social infrastructure and the access to public services for the population of the settlements, linked in a single systems through the 'grid' of the transport infrastructure in the proposed polycentric model of spatial development, play an important role. When choosing a place for one's business and a place to live, the subsystems of health care and education rank

second only to the engineering and transport infrastructure. The indicators for the sites of this system are very important even at the lower levels in the hierarchic system, because the demographic balance and the retention of the active population and the families with children in the small settlements depends on the availability of adequate educational establishments.

3.3. Engineering infrastructure – links and accessibility

3.3.1. Transport infrastructure

Bulgaria falls in the Black Sea Pan-European Transport Zone. The ten multi-modal transport corridors, which are of European interest, represent a basis for the development of the transport infrastructure in Central and Eastern Europe, whereat Bulgaria has the advantage that its territory is traversed by five of them. The Southeaster major axis, connecting the European Union via the Balkans and Turkey with the Caucasus and the Caspian Sea, as well as with Egypt and the Red Sea is of the greatest significance in this respect. Connections with Albania and Macedonia, Iran, Iraq and the Persian Gulf are also envisaged.

As major sea-borne highways, the Black Sea routes and their connections to the Mediterranean Sea are included. This comprises the connections of Varna and Burgas ports with the ports in Ukraine, Russia, Georgia and Turkey.

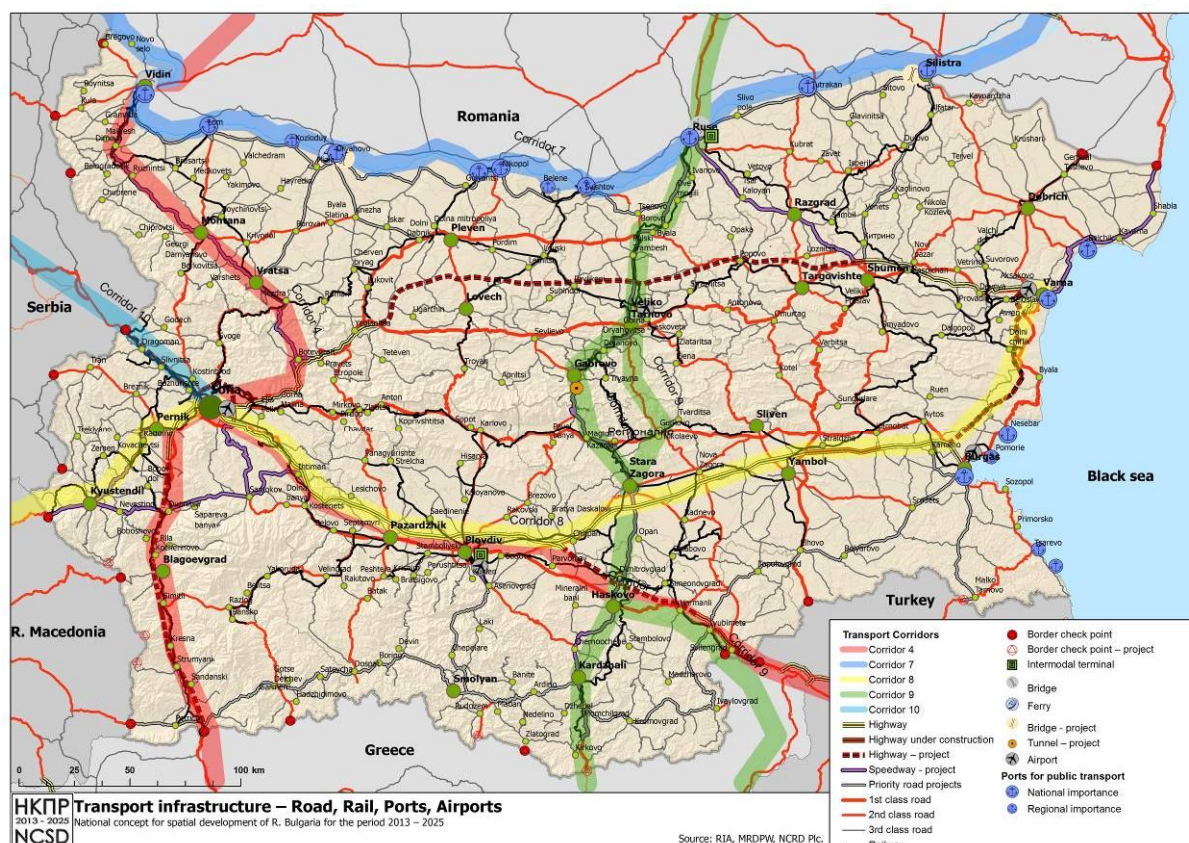


Fig. 12: Transport infrastructure

The fact that the territory of Bulgaria is crossed by five of the ten PETC gives great advantage to many of the main urban centres to join the Trans-European Transport Network (TEN-T), but the quality of the component infrastructure undermines this opportunity. A major problem, identified in connection with the characteristics and properties of the infrastructure along the above

mentioned directions, is the absence of unbroken, continuous and permanent transport networks, ensuring rapid and safe travel at longer distances. For this reason the good spatial situation of the Bulgarian transport network in the Trans-European Transport Network had not contributed to adequate spatial organization of the settlement network, due to lagging behind in the development of the component networks and infrastructure facilities.

The proposals and directions for development of the national transport infrastructure are oriented mainly towards the achievement of the priorities of the Strategic objective 1 – “*Development of the national transport infrastructure as part of the Trans-European Transport Network (TEN-T), ensuring integration in the European space and connections with the major urban centres of neighbouring countries*”.

These proposals are related mainly to the most important axes of the Trans-European Transport Network (TEN-T) and the connections with the neighbouring countries and regions, as well as with the directions of the pan-European corridors, which are not covered by the major axes and some of the additional connections. In the course of implementation of these priorities the national transport network will gain a more rational spatial organization, ensuring links between different European countries via the territory of the country, connections of Bulgaria with neighbouring countries and connections between the main urban centres.

The model of the transport infrastructure will be based on the currently developed configuration with centre Sofia in Western Bulgaria and the balancing centres Varna and Burgas to the east. It will develop in a ‘grid’-type modality with prominent and evenly spread parallel and meridian axes across the territory, ensuring moderate polycentric development of the human settlements system.

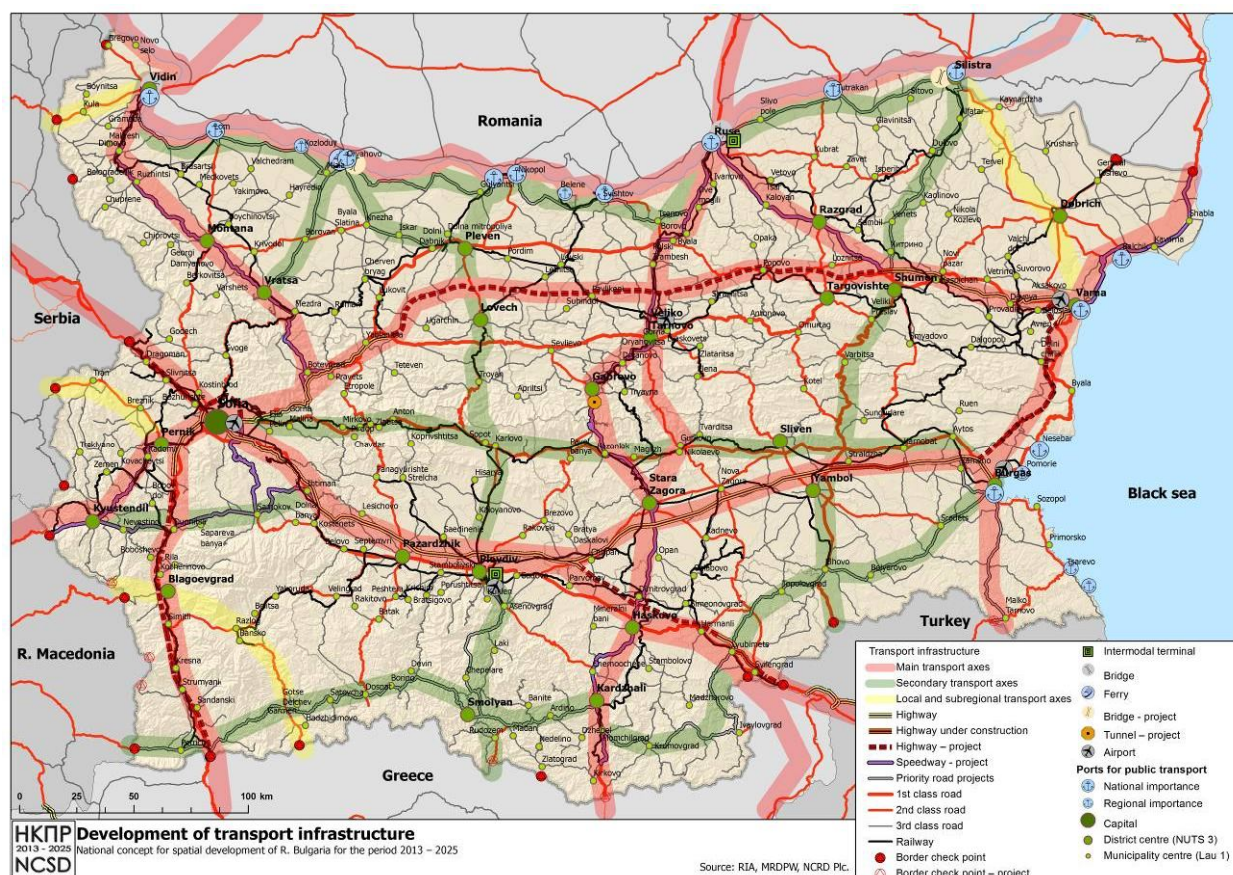


Fig. 13: Spatial model of the transport infrastructure

The main transport destinations/axes, characterizing this model, are as follows:

- ✓ Major western “north-south” axis (Romania/Vidin-Sofia-Kulata/Greece) via Bulgaria between Western Romania and Greece/Turkey along the route of PETC No. 4. It ensures the connection between Western Europe and Greece, traversing entirely only EU Member-States. This axis is formed by Priority Axis No. 7 of TEN-T for the road infrastructure and Priority Axis No. 22 for the railway infrastructure, connecting the important urban centres Dresden/Nurnberg-Prague-Vienna/Bratislava-Budapest-Arad-Bucharest-Constanta/Craiova-Sofia-Thessaloniki/Plovdiv-Istanbul.
- ✓ Major central “north-south” axis (Romania/Ruse-Stara Zagora-“Makaza” border-crossing point/Greece) as part of the destination of PETC No. 9, connecting Finland and Russia with Greece via Romania and Bulgaria. Without being part of TEN-T, PETC No. 9 ensures connections of the country with the important urban centres Bucharest, Kiev, Moscow, St. Petersburg and Helsinki to the north and Alexandroupolis to the south.

The construction of a high-speed road along the entire route of PETC No. 9 on the territory of Bulgaria and the opening of the “Makaza” border crossing point, as well as the construction of an intermodal terminal in Ruse and the modernization of the railway line along this destination will ensure its comprehensive operation.

- ✓ Major eastern “north-south” axis (Romania) “Durankulak” border crossing point-Varna-Burgas-“Malko Tarnovo” border crossing point/Turkey, connecting the Bulgarian Black Sea tourist centres with those in South Romania (in the area of Mangalia, Constanta and Mamaia) and Turkey to the south.

In contrast to the western and the eastern axes, this axis runs as part of the route of PETC No. 8 only in the section between Burgas and Varna, where the construction of the “Black Sea” Highway is envisaged. As part of the road infrastructure of PETC No. 8, which connects the Adriatic with the Black Sea Region, the “Black Sea” Highway is considered to be part of a future main ring road around the Black Sea and stands out in support of the priority for connection of TEN-T with the neighbouring countries and regions.

The extension of this axis to the north towards Romania is envisaged as a high-speed road and to the south, towards Turkey, as upgrading of the existing Class 1 road. Its development is of importance mainly for the utilization of the tourist potential of the coast and improvement of the transport services through stabilization of already established lower level urban centres.

- ✓ The major axis “west-southeast” is a long established transport destination in the country, ensuring the transport communications of Central and Western Europe with Asia and the Middle East along the well-known from the past destination “London-Paris-Calcutta” (the “Orient Express” railway line). As a connection between Belgrade, Sofia and Istanbul this axis is a combination of the routes of PETC No. 10, PETC No. 8, PETC No. 4 and PETC No. 9 and will develop as a priority for connection of TEN-T with the neighbouring countries and regions.

The development of this axis comprises the construction of “Kalotina-Sofia” Highway, the completion of the construction of “Maritsa” Highway and the modernization of the Sofia-Plovdiv railway line, as well as the construction of an intermodal terminal in Plovdiv.

- ✓ Southern “west-east” major axis (Macedonia/“Gueshevo” border crossing point-Kyustendil-Sofia-Plovdiv-Burgas/Varna), ensuring connection between the countries from the southwestern part of the Balkan Peninsula with the Black Sea ports along the

destination of PETC No. 8 - Durrës-Tirana-Skopje-Sofia-Plovdiv-Burgas/Varna, conveying traffic from and to the Adriatic region.

After completion of the construction of “Trakia” Highway and upgrading of the railway infrastructure, as well as the construction of “Black Sea” Highway, the southern major axis in the country will ensure the functioning of PETC No. 8. The missing connection “Gyueshevo-Kriva Palanka” between the railway networks of Bulgaria and Macedonia continues to present a problem. The project for construction of a railway line Sofia-Skopje is of strategic significance both with a view to the connection of the railway networks of the two neighbouring countries and to the comprehensive construction of the railway route along PETC No. 8.

The development of Varna and Burgas ports as ‘point’ elements of PETC No. 8 and important gateways of the country along the EU external border will support the functioning of the southeastern major axis for Europe, connecting the European Union via the Balkans and Turkey with Caucasus and the Caspian Sea, as well as with Egypt and the Red Sea.

- ✓ The northern “west-east” major axis (Sofia-Veliko Tarnovo-Shumen-Varna), currently split by the functions of the two Class 1 roads, will establish itself after completion of the construction of “Hemus” Highway. The significance of this national axis, ensuring rapid communications between Sofia and the Northern Black Sea coast and the less pronounced urban centres in Northern Bulgaria, as well as to the city of Ruse on the River Danube, is supported by the latest decision of the European Commission for incorporation of “Hemus” Highway in TEN-T in accordance with the new development policy till 2020.
- ✓ The far northern “west-east” major axis is formed along Priority Axis No. 18 of TEN-T (the River Danube), connecting all prominent European centres of the Danube countries. As a water-borne way this axis is mainly of international significance and has lesser influence on the spatial organization on a national scale. The existence of only one bridge across the river makes it rather a natural barrier than an integration axis.

As a national urban development axis, this priority axis of TEN-T will get established after the implementation of a number of envisaged projects. The commissioning of the second combined bridge Vidin/Kalafat will connect the road and railway networks of Bulgaria with those of Romania and the other EU Member States. The construction of bridges at Oryahovo-Beket and Silistra-Calarasi will also contribute to the enhancement of cross-border contacts and strengthening of the role of border cities as urban centres.

A very important project connected with this axis is the construction of a high-speed road Ruse-Shumen and upgrading of the railway line. The land connection Ruse-Varna represents an alternative segment of PETC No. 7 and provides faster connection between the transport main route “Rain-Main-Danube”/the port of Ruse - the port of Varna - the Caucasus countries - the countries of Central Asia, Iran and the Far East.

The modernization of the ports of Vidin and Ruse, which are parts of the TEN-T main network, and the ports Lom, Oryahovo and Silistra, incorporated in the broad-scale TEN-T network, will enhance the urbanistic role of these cities in the system of human settlements, while the construction of an intermodal terminal in Ruse will consolidate its role of a strong balancing centre in the northern part of the country.

The described major axes of the transport infrastructure model ensure the international connections of the country with the neighbouring and other EU Member States, linking mainly the major urban centres in the country and those of the neighbouring countries. Development of the secondary (in international aspect) axes, which are however of national significance for the balanced development of the system of human settlements, will also be necessary for the

implementation of the desired model of moderate polycentrism.

✓ Secondary Danube axis “Vidin-Silistra” (northern horizontal)

The further construction and upgrading of the road running along the Danube shoreline from Vidin to Silistra, including the construction of a bicycle lane, will contribute to the utilization of the potential of the peripheral shoreline areas and to the balancing of the system of human settlements. Together with the River Danube as waterway, this destination will have great significance for integration of the districts and municipalities situated along the river and strengthening of the territorial collaboration with the neighbouring border areas.

The improvement of the transport connections of the river ports with the future “Hemus” Highway, envisaged in the EU Danube Strategy, will also have an additional effect for strengthening of the smaller urban centres along the Danube shoreline.

✓ Secondary southern border axis “Petrich-Burgas” (southern horizontal)

The optimization and reconstruction of the roads along this destination will integrate the peripheral border areas along the southern border of Bulgaria and will improve the access of the municipalities to the respective district centres in the zones with manifested worst accessibility in Bulgaria. The setting up of such an axis with improved parameters will create better conditions for development of tourism and exhibition of the potential of mountain areas, including offer of joint regional tourist products with the border areas of the neighbouring countries – Greece, Macedonia and Turkey.

✓ Secondary Fore-Balkan axis “Sofia-Karlovo-Burgas” (central horizontal)

This transport destination in the central part of the country, established a long time ago, with its well-developed infrastructure along the shortest distance between Sofia and Burgas, is gradually losing its functions after the construction of “Trakia” Highway. Although it is not part of TEN-T, this destination has its national significance for re-distribution of the traffic among the main axes and for integration of the Fore-Balkan towns, which possess good potential for strengthening the network of human settlements.

✓ Secondary eastern axis “Romania/Silistra-Shumen-Yambol-“Lessovo” border crossing point/Turkey”

Although it is not part of TEN-T, this axis is well established. It conducts the traffic between Romania and Turkey along a Class 1 road. The envisaged upgrading of the road in the section Silistra-Shumen, together with the future high-speed road Ruse-Shumen and the connection with “Hemus” Highway, will facilitate the transport communications in the northeastern part of the country and will improve the transport accessibility.

✓ Secondary western axis “Nikopol-Pleven-Lovech-Plovdiv-Smolyan-Rudozem”

In contrast to the eastern secondary axis, the western one is not so well established, it is formed of Class 2 roads and does not conduct international traffic – the border crossing point at Rudozem is not yet constructed and the one at Zlatograd conducts limited passenger traffic; to the north the “Nikopol-Turnu Magurele” ferry operates.

The envisaged more direct connection Pleven-Knezha-Oryahovo will ‘untap’ the axis from the north, ensuring also access to the Oryahovo-Beket ferry (and a bridge in the future). The construction of a high-speed road Plovdiv-Assenovgrad, together with the upgrading of the Assenovgrad-Smolyan-Rudozem-Xanthi road, will improve considerably the connection between the main development centre in the South Central Region (the city of Plovdiv) with the mountain areas in the Central and Eastern Rhodope Mountains.

The major and the secondary axes of the transport infrastructure model will be developed through construction of new facilities of the road and rail infrastructure and modernization of the existing ones. Parallel with it the sea and river ports and the airports as elements of these axes, as well as the intermodal terminals will be upgraded and developed. The most important directions for the development of the transport system of the country are laid down in the “Strategy for development of the transport infrastructure of the Republic of Bulgaria till 2020”, prepared in line with the EU trans-European transport networks policy, oriented towards integration of the European space and diminishing of the isolation of peripheral regions.

On a national scale the achievement of the desired model of spatial organization and hierarchic ranking in the structure of the settlements system will to a great extent be predetermined by the spatial organization and functioning of the transport infrastructure, which conveys directly intensive flows of people, goods and services between the individual centres of the settlement network. The compatibility between the rank of the urban centres and their functions in the structure of the settlement network on one hand and the degree of their provision with transport services, on the other hand, is a precondition for the sustainable functioning of this model.

It is necessary to improve the provision of transport services to the human settlements situated far from the big urban centres, and the actions for improvement of the state-of-repair of the road network should be combined with the improvement of public transport. An aspect of particular significance for the functioning of the polycentric model is the road infrastructure of regional and local significance, which supplements the road network of national significance.

The regional nature of services provision by railway transport has a somewhat more different influence on the spatial organization of the system of human settlements. Till now Bulgaria had not undertaken steps for construction of high-speed railway lines, which might improve the domestic and international connections of the big urban centres with population above 200,000 inhabitants with those in the other regions and the neighbouring countries. The globalization process and the striving for enhanced competitiveness and territorial cohesion call for launching the construction of high-speed railway connections which will help new conditions for spatial development set in.

In this respect, special attention should be paid to the connection of Sofia with the capitals of the neighbouring countries and the big MEGA centres in the region, such as Istanbul and Athens, as well as along the destination Danube Bridge 2 – Budapest.

The further construction and upgrading of the national transport system and its development as part of TEN-T will satisfy the requirements for mobility in the framework of the polycentric European territory, including the neighbouring countries, coupled with improvement of the communications in the national territory and of the urban environment.

3.3.2. Engineering infrastructure

Energy system

The specifics of the energy system, connected with the used resources, protection of the environment and improvement of quality of life, define it as indirectly influencing the spatial organization, the social and regional policies. At the same time, the networks and facilities of the energy system burden the territory most tangibly due to the strict regulations with respect to servitudes.

Bulgaria is strongly energy dependent since it imports more than 79% of its primary energy resources. In terms of major energy sources it relies mainly on imported Russian fuels – oil, natural gas, good-quality coal and nuclear fuel.

With a view to reducing the dependence on imported energy resources and simultaneous reduction of the harmful impact of the energy generation processes on the environment, the use of local energy resources is defined as the major goal of the energy strategy of the country. Low-quality lignite coal is a significant energy resource available locally.

Thanks to the crossroads geographic location of Bulgaria, a significant potential for improving the security of energy supply exists in the increase of the transit of Russian and Asian energy resources (natural gas, oil) towards the western and southern countries, as well as the possibility for diversification of the sources and suppliers of energy resources. If in the future gas pipelines are constructed from Central Asia towards Bulgaria (and Central Europe), the country might become part of an alternative corridor.

Overcoming of the energy dependence, efficient use of the available resources and rational location of the networks and facilities in the national space is related to implementation of the priorities of Strategic objective 1: *“Development of energy transportation infrastructure as part of the Trans-European Energy Network (TEN-E) and building of system connections with neighbouring countries for ensuring free movement of energy and integration of the energy market”*.

The energy infrastructure in the country will develop in compliance with the European energy policy and the principles of “Energy 2020” – a strategy for competitive, sustainable and secure EU energy sector, whose basic principle is guaranteeing of free energy movement. The new challenge for 2020 is to provide the basic network, along which electricity and natural gas will be transported to the locations where they are needed. Further efforts for upgrading the energy infrastructure are envisaged, especially in the new Member States, which have acceded to the EU after 2004, as well as in less developed regions, so that the energy infrastructure across Europe is compatible with the transmission means in other strategic sectors like telecommunications or transport.

The development of the energy infrastructure will be oriented towards achievement of the target priorities for the respective type of energy:

- ✓ For electricity: security of supply, capacity for connection to the grid of the installations for energy generation from RES and transmission to the major centres of energy consumption; enhancement of market integration and competitiveness; energy efficiency and intelligent electricity use;
- ✓ For natural gas: diversification of sources as well as diversification of suppliers and gas transportation routes; enhancement of competition through increased level of interconnection, promotion of market integration and reduction of the concentration of the market.

Power transmission network

The specifics of the functions of the electricity power system impose that it is brought to every human settlement via different types of networks and facilities, whereat its spatial location does not influence directly the spatial organization of the settlements network. At the same time, the joint operation with the power systems of the neighbouring countries imposes the need for mandatory inter-system connections, which determines their joint spatial organization. The power transmission grid of Bulgaria has 400 kV connections *in situ* with all the neighbouring countries.

Renewable energy sources, as important local inexhaustible resources, will be a priority of the national energy policy. For achieving RES energy share of over 16% in the gross energy end-use in the country after 2020, both the potential of hydro-energy and the potential of other sources of clean energy (wind, solar energy, geothermal waters and biomass) will be used to the maximum extent.

The anticipated substantial increase of the installed capacities and electricity production from RES, mainly by wind farms (mainly in the Northeast Region) and photovoltaic plants (mainly in the Southeast Region) is related to the accelerated development of the power grid for connection of the output of these plants, as well as with the need of balancing supply and demand in real time, in view of the considerable variability of the output of the RES power plants. It is necessary by means of the respective economic mechanisms to manage in an optimal manner the process of investments in wind power plants and photovoltaic plants in order to implement the EU Directive on production and consumption of electricity from RES on one hand and, on the other, not to undermine the quality of management of the power system of Bulgaria and the security of electricity supply.



The future development of the electricity transmission network is related to priority construction and connection of new RES, as well as with improvement of the security of the system work:

- ✓ construction of a second inter-system connection Bulgaria-Greece (400 kV power transmission line “Maritsa Iztok – Neo Santa”);
- ✓ construction of two new 400/110 kV substations in the regions of the village of Vidno (Kavarna Municipality) and the village Svoboda (Dobrich Municipality) in view of the expected increase of the power generation from RES in Northeastern Bulgaria;

- ✓ increase in the transmission capacities of the 110 kV grid in Northeastern Bulgaria, thus creating the necessary technical conditions for connection of the planned RES power plants of new construction.

The development of the energy system is also related to the need for reducing the energy costs, which will be achieved through reconstruction of the existing facilities and implementation of energy efficiency projects in households and industry.

Gas transportation network

The gas distribution networks in the European countries cover more than 80% of the municipalities, while in Bulgaria natural gas is accessible for only 15% of the total number of municipalities in the country. More than 50% of the households in the EU are gasified, while in Bulgaria their share is hardly 3%. For that reason Bulgaria has imminent interest in and will participate directly in the implementation of the EU strategic initiatives for construction of the necessary infrastructure and diversification of energy supplies to the EU, namely a Southern gas corridor for natural gas supply from sources in the Caspian Sea area and the Middle East, access to liquefied natural gas and inter-system connections along the North-South axis in Central, Eastern and Southeast Europe.

The future EC initiatives for connection of the supply routes between the Baltic Sea, the Adriatic Sea and the Black Sea, along the natural gas axis North-South, are based on the strengths of regional cooperation with a view of supporting the implementation of energy infrastructure projects and improvement of the market-based development in the region.

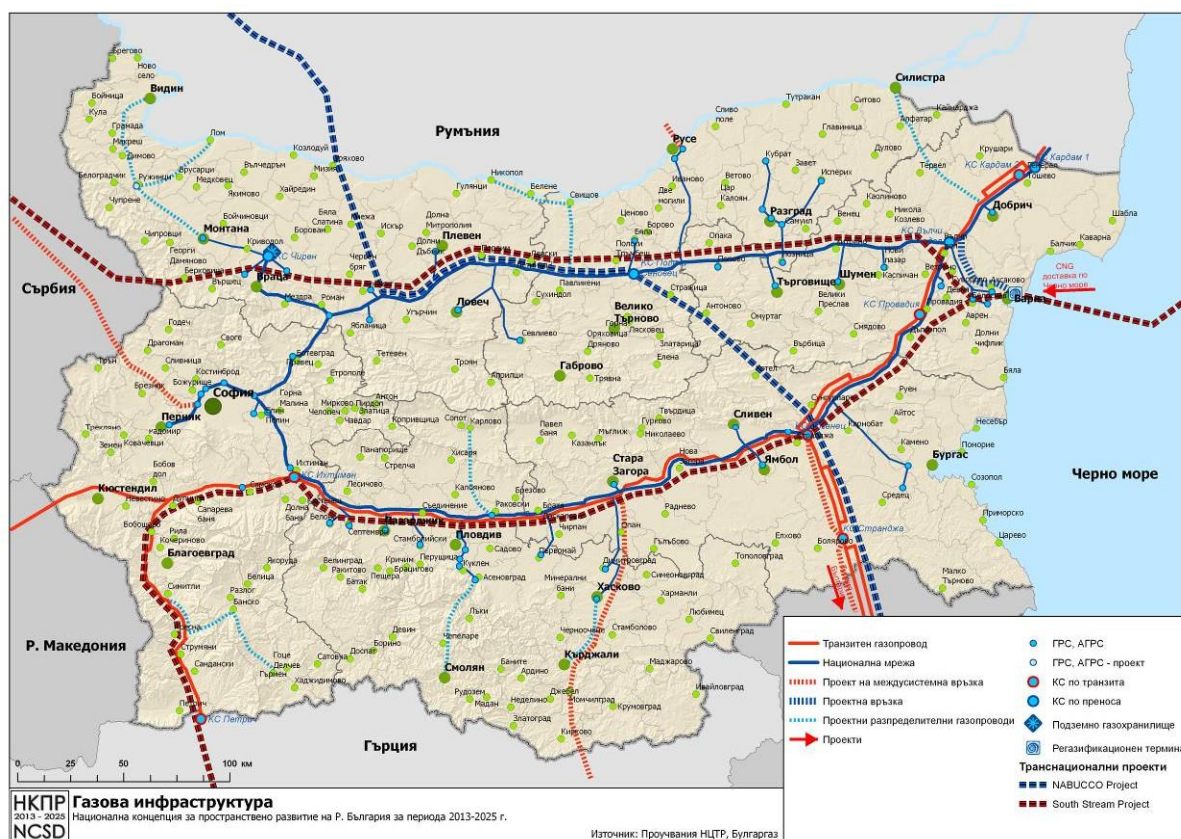


Fig. 15: Gas transportation network in Bulgaria, Source: official website of Bulgartransgas

In view of the high dependence in the field of natural gas and the unsatisfactory energy infrastructure in the country, these initiatives are of specific importance both for Bulgaria and the entire region of Southeast Europe.

The existing transit gas transportation network with one inlet CS Kardam (import from Russia via Romania) and three outlet points towards Turkey, Greece and Macedonia, will be optimized through the construction of terminals for import of liquefied and compressed natural gas, through which alternative gas supplies to the country will be realized, as well as through construction of the missing infrastructure – inter-system connections with the neighbouring countries. The following projects will be implemented:

- ✓ construction of re-gasification terminal for liquefied natural gas (LNG), through which natural gas will be supplied not only for Bulgaria, but also for third countries, via the well-developed Bulgarian gas transportation network;
- ✓ delivery of compressed natural gas (CNG) from Azerbaijan via the Black Sea;
- ✓ gas inter-system connection with Turkey, which will allow supply for Bulgaria of natural gas from Azerbaijan, Turkmenistan, Iraq, Libya, Egypt etc., as well as of alternative supplies of LNG at the Marble Sea terminal (Katar, Oman, Nigeria);
- ✓ construction of gas pipeline Bulgaria-Romania (Ruse-Giurgiu) – trans-border reversible gas pipeline of indicative length 25 km, connecting the Bulgarian gas transportation system at the Ruse-Iztok Automated Gas Distribution Station with the Romanian gas transportation system in the region of Giurgiu;
- ✓ construction of gas pipeline Greece-Bulgaria with approximate length 168.5 km, connecting the Greek gas transportation system in the region of the city of Komotini with the Bulgarian gas transportation system in the region of the city of Stara Zagora;
- ✓ gas inter-system connection Bulgaria-Serbia, which will allow the delivery of natural gas for Bulgaria via Serbia from the EU gas transportation system and from alternative to Russia suppliers of natural gas;
- ✓ construction of transit gas pipeline “Nabuco” and transit gas pipeline “Southern Stream” (direct connection RU-EU);

Through the access to alternative sources and import routes opportunities will be created for achieving more competitive conditions in the import of natural gas from gas suppliers like the countries from the Caspian Sea region and Asia Minor, as well as from Algeria, Egypt, Libya, Katar, Oman, UAE, Nigeria etc.

Through the inter-system connections the security of gas supply for Bulgaria will be improved and the negative effects for the national economy from potential crises resulting from full or partial disruption of supplies from the currently one and only source will be avoided.

The national gas transportation network in the country will develop further in the direction of expansion of gasification of households through construction of new gas transportation networks and automated gas distribution stations, since the construction of gas distribution networks and gasification of households for making better use of the advantages of direct use of natural gas at home is as yet in its initial stage.

Communication system

Unlike the transport system, the communication infrastructure shapes the space virtually through improvement of the access to information and knowledge, jobs and services. The developed and modern electronic communications infrastructure and digital services ensure the foundations for a

large portion of the economic activities in modern society and represent by themselves a big economic sector. The electronic communications infrastructure contributes to the raising of the living standard and the quality of life of the modern citizens, helps overcome the isolation of specific groups of the population and assists their inclusion in the social, cultural and economic life of the country.

At the European level the priorities in the field of information and communication technologies (ICT) are outlined in the “Europe 2020” EU strategy for growth and more specifically in one of its leading initiatives – the agenda in the field of digital technologies in Europe known also as “Digital Agenda for Europe”. The latter aims at overcoming the barriers to free provision and use of digital electronic communication services in the framework of the EU, irrespective of the national frontiers and creation of a single digital market as a precondition for the embarking of the EU in the digital era.

The agenda emphasizes explicitly on the need to guarantee spreading and development of broadband access for everyone, increase speed through both fixed and wireless technologies and facilitate investments in innovative, very fast, open and competitive infrastructures, which will act as the arteries of the future digital economy.

The development of an open and competitive market for electronic communication services depends to a considerable extent on the possibilities and conditions for building of new electronic communication infrastructures and upgrading of the existing ones.

It is necessary to promote the broad spread of the electronic communication infrastructure and its upgrading with priority of the remote and under-populated areas, setting up public locations for access to the network (for instance telecentres). A matter of particular importance is the launching of measures at the national level for support of investments in building modern high-speed broadband networks – reducing the administrative burden, facilitation of the procedures and shortening of the deadlines with respect to activities related to building of electronic communication networks or new networking facilities through amendments in the legislation and improvement of the coordination among the competent local and central authorities, reduction of the construction costs through ‘breaking’ of the monopoly in the use of the linear engineering networks of transport, water supply and sewerage, electricity supply and distribution etc. with a view to their joint use by the enterprises, building electronic communications infrastructure.

The development of the communication system is oriented towards attainment of the priorities of Strategic objective 3 “Spatial cohesion and access to services” – *Attainment of free and socially equitable access to information and communication technologies in all areas, especially in peripheral rural areas, and possibility for decentralized work and provision of services of common interest.*

The access to Internet is secured in the urban centres. Problems exist mainly in the villages, where the degree of equipment of the companies and households with PCs is quite low and it is necessary to set up public places for access to the network (telecenters). This aggravates the territorial disparities in the use of ICTs and in development in general.

The conducted studies about the current state of the broadband access in the Republic of Bulgaria, as well as the European analyses of the development of broadband access, come to similar conclusions, namely that our country lags behind the other EU Member States in terms of the connection rates and the use of these technologies by the businesses and individual users, as well as in terms of the rates of use of that service. The penetration of the broadband access in the Republic of Bulgaria by January 2011 was 14.9% as compared to 13.00% for the same period the previous year, compared to an EU average of 26.6%, taking into account the fixed subscriber

lines per 100 inhabitants. This is due to the highest extent to the situation in the remote and under-populated areas and rural areas, where most often the infrastructure for provision of broadband access is non-existent.

The national strategy for development of the broadband access in the Republic of Bulgaria 2012-2015 (draft) takes into consideration the impossibility for the market forces to ensure timely broadband services at affordable prices for all citizens, irrespective of their geographic location on the territory of the country, which preconditions the need for state intervention for the benefit of the public. The state intervention is envisaged to be in compliance with the classification of the European Commission in the “Community guidelines for the application of the state aid rules in relation to the rapid deployment of broadband networks” (EC Guidelines), where three types of regions have been defined, depending on the already existing level of broadband access.

The relevant analysis conducted in Bulgaria, and especially that with respect to the situation in the remote and under-populated rural areas, has specified more accurately the areas, in which the need for state intervention is greatest and which represent a priority target.

The compiled picture of the broadband access coverage by human settlements using the criterion “number of providers” has helped identify the areas, which represent “white zones” according to the classification in the EC Guidelines for the application of state aid rules and in which intervention on the part of the state is permissible.

Certain areas of the country fall under the so-called “digital isolation”, which places the population in these areas in an inequitable position with respect to the opportunities for training and access to information and electronic services in the framework of the electronic government. The overcoming of this isolation will diminish the territorial disparities and contribute to territorial cohesion and better spatial organization.

It is necessary to expand the access to and the use of the ICT networks and services in view of the growing role of information, especially in the smaller cities and the villages, where public places for access to information are the only opportunity for many users. Setting up of public information systems and guaranteed provision of Internet services for the entire public sector, including facilitated access for handicapped people, is a mandatory step towards the information society with its advantages for overcoming the barriers of time and space, respectively the territorial disparities in development.

In the drafts of the updated National Strategy for Development of Broadband Access in the Republic of Bulgaria (2012-2015) and the National Operational Plan for Implementation of the Strategic Objectives for Development of Broadband Access in the Republic of Bulgaria (integral part of the Strategy) it is envisaged that by 2018 access to broadband Internet will be ensured for 100% of the households, schools, community centres (“chitalishta”), mayor’s offices, health care and higher educational institutions and small and medium-size enterprises in the country.

3.4. Spatial dimensions of resources-based economic development

The economic development follows the spatial structuring of the territory and the proposed polycentric model with its centres and development axes mobilizes the resources in accordance with their potential and the requirements for social cohesion and ecological sustainability by creating competitive economically active zones.

3.4.1. Agriculture and forestry – current state, objectives, development prospects

Agriculture

After its accession to the EU Bulgaria is competing on the single European market with some of the most developed economies. In contrast to the situation in our country, these states have modern systems for land management, including land banking, re-allotment and measures for improvement of life in the rural areas.

The problem with the fragmentation of plots and the not fully built and heavily depreciated infrastructure of the rural areas is fundamental for Bulgaria. The necessity for a new legislative framework, ensuring conditions for both aggregation of agricultural land and its complex land-use planning has been corroborated.

The second problematic sphere is related to the hydro-melioration facilities. They are an important aspect of planning of agricultural areas, in addition to the location and shape of the plots and the maintenance of the road network in these areas. Along with the process of restitution of ownership rights, the institutional framework of the hydro-melioration system was dismantled, which resulted in disruption of the irrigation systems and drastic reduction of the irrigated areas. This is the main reason for the poor state of our intensive agriculture. This is also in contradiction with the growing risks of climate change. To date there is no strategy concerning the development of hydro-meliorations. The awareness is there, but there is no policy how to integrate the development of agricultural areas with that of the other types of territories – urbanized territories, areas for environmental protection, forest areas, water sector areas and territories for transport facilities.

A problematic sphere of very similar nature is the infrastructure for protecting agricultural land and the national infrastructure from the harmful impact of waters. Drainage and improvement of the conditions of exploitation have been implemented for a total area of more than 350,000 acres, comprising agricultural plots, human settlements, farming and other sites and the national infrastructure. These are the available quantitative data. The qualitative assessment, however, reveals the critical physical state-of-repair of part of the facilities, the obsolete and heavily depreciated condition of the drainage systems and their inadequate capacity, the system deficits with respect to resources for rehabilitation, reconstruction and maintenance. This negative list continues with many more findings causing serious concern.

- ✓ Concession contracts for extraction of inert (quarry) materials have led to multiple violations of the natural river beds and increased risk of river bank erosion and flooding;
- ✓ The engineering security of many embankments has been distorted as a result of unauthorized cutting through of passes;
- ✓ The coordination among the institutions concerning certain aspects of the responsibility for protection against the harmful impact of waters is inadequate;

After the commotions accompanying the restoration of ownership on land and the disappearance of the previous business entities, large amounts of land were deserted and cast to oblivion as wasteland. As a result of the stimulating role of direct payments, a steady trend towards diminishing of the share of untillied agricultural land emerged (up to 8% in 2010).

Among the productive activities in the agrarian sector, which have decisive importance for vulnerable peripheral areas, are: oriental tobacco-growing in the Eastern Rhodope Mountains, fruit-growing in Southwest and North Central Regions and bio-agriculture. Tobacco-growing is the major occupation for 60,000 families on an area of 600 km². Sustainable and effective

tobacco production will develop in compliance with the principles of free economic and market-based relations, but parallel with it opportunities should be sought for new alternative jobs and sources of income. Fruit-growing demonstrates signs of revival after the drastic shrinkage in the recent 10 years (more than 50%). Improved varieties, facilitated production technologies and favourable market conditions are stimulating factors, which should be made best use of in the traditional fruit-growing areas. In Bulgaria biological agro-production is in its early stage. After the aborted national programme for bio-agriculture (during the current planning period) solution of this unutilized resource needs to be found.

In summary, the spatial dimensions of the problems of the agrarian sector are as follows:

- ✓ Parcelled out ownership and slow process of aggregation for more efficient use of the fertile land plots;
- ✓ Unutilized potential of irrigated lands, heavily depreciated hydro-melioration facilities;
- ✓ Depopulation and ageing of the population in most rural areas. Grave vulnerability and excessive dependence on agriculture.
- ✓ Loss of soil fertility as a consequence of water and wind erosion, mono-crop agriculture, salinisation, oxidation and mechanical degradation;
- ✓ Heavily depreciated and/or missing basic infrastructure (roads, water supply and sewerage) in rural areas.

The strategy for development of the agrarian sector and rural areas in the Republic of Bulgaria by 2020 proposes as a major goal a competitive, environmentally-friendly agriculture and vital rural areas, ensuring conditions for dignified labour and life.

The major directions and actions are as follows:

- ✓ Ensuring security of food supply and production of agricultural produce having high value added under sustainable management of natural resources through innovations;
- ✓ Mobilizing the potential of rural areas for achievement of balanced social and territorial development;
- ✓ Restoration and modernization of the hydro-melioration infrastructure, ensuring efficient use of water (low water losses), affordable prices and good management;
- ✓ Restoration and reconstruction of the facilities for protection against the harmful impact of waters;
- ✓ Promotion of the development of bio-agriculture – possibilities for diversification of agricultural activities in certain areas of the country, threatened by depopulation. This is particularly suitable for areas, where the larger portion is environmentally clean and characterized by unique nature. Combination of bio-agriculture with nature is a valuable resource for eco-tourism and a base for sustainable local economy.
- ✓ Aggregation of agricultural land plots – new regulations for allotment, projects for aggregation (with incorporation of state and municipal land stocks). Anticipated result: aggregation of agricultural plots and diminishing of wastelands.
- ✓ Even development of the individual production lines in the plant-growing sector – promotion of intensive production lines – vegetable-growing, fruit-growing and nuts.
- ✓ Support for production lines in sensitive areas;

- ✓ Sustainable use and management of natural resources – promotion of practices contributing to adaptation to climate change and compatible with protection and improvement of the environment, natural resources, soils and genetic diversity.

A leading principle in the policy for development of rural areas is the protection of soil fertility and overcoming of the consequences of climate change, mitigation of erosion processes and the processes of desertification through appropriate hydro-melioration measures. This will assist the resolution of part of the problems related to food supply for the population.

The lands of the highest category should be the object of strict protection from actions aimed at change of their designation and urbanization. The land resources, traditional agrarian landscape and biodiversity are part of the national wealth of the country. Their preservation, rehabilitation and adequate management are important aspects of the main objective in this field – sustainable development of rural areas in Bulgaria.

Forestry

Bulgarian forests ensure about 85% of the water supply in the country or approximately 3.6 billion m³ resource of pure potable water. They are the foundation of the “green” economy and play a significant role for reducing the GHG emissions in the atmosphere by acting as carbon dioxide sinks.

The management of Bulgarian forests is a key factor for protection of biodiversity and the rich diversity of landscapes in the country. The land and forests serve as habitats of more than 80% of the protected plant species, more than 60% of the endangered animal species and the populations of 43 endangered species of global significance. 8 of the 12 landscape complexes defined in the National Strategy for Protection of Biodiversity are on forest land. About 10% of their area falls within the boundaries of the protected areas.

The sustainable forest management and protection of biodiversity create additional opportunities for maintaining the attractiveness of the rural areas and the development of job creating activities, whose potential has not yet been fully tapped. The Bulgarian forest sector performs a number of other social functions as well by providing opportunities for recreation and tourism.

The high natural potential for production of timber, the good strategic localization of the timber industry sites and the great demand for timber in Bulgaria and the neighbouring countries are prerequisites for development of activities ensuring income generation from sales, including from the sales of timber, from utilization of hunting resources, wood-processing and production of biomass.

The National Strategy for Sustainable Development of the Forest Sector 2006-2015 aims at achieving sustainable management and multi-functional care for forests, oriented towards development of an economically viable sector, contributing to the regional development, especially the development of rural areas.

The multi-aspect usage of forests presumes also a number of directions for development and actions:

- ✓ Care-taking – increase of the afforested areas and improvement of the state of forests;
- ✓ Protection – improvement of the sustainability and healthy state of forests, including their adaptivity to climate change and anthropogenic impacts;
- ✓ Protection against forest fires – mitigation of the risk of fires and creation of prerequisites for timely detection and extinguishing of forest fires;

- ✓ Security – creation of a new model for protection of forests from encroachment and violation acts;
- ✓ Utilization of timber – creation of regulatory, technical and technological conditions for utilization of the wood-producing potential of forests and improvement of their milieu-shaping functions;
- ✓ Biological and landscape wealth – protection and rehabilitation of the components of biological and landscape diversity through integration of conservation targets in the forestry practices and the nature-friendly management of forests;
- ✓ Tourism and recreation – development and utilization of the tourism-related potential of forests, integration of tourism in the traditional forest management activities;
- ✓ Social functions – increase of employment in the sector and social benefits from forests;
- ✓ Forestry industry – development of competitive forestry industry for processing of timber and production of products with high value added;
- ✓ Non-timber products and hunting farms – creation of regulatory and organizational conditions for sustainable use of medicine herbs, fungi and forest fruits; improvement of the state of and population in hunting farms.

Taking into account the expected impact of climate change on the territory of Bulgaria, manifested in lasting droughts and desertification, it is necessary for the utilization of the economic functions of forests to comply with their preservation, curtailing of the export of deciduous timber and restoration of deciduous forests.

3.4.2. National concentrations of production and business activities – mining, energy generation, processing and logistics industries

The major concentrations of economic activities from the mining and processing industries, outside the human settlements, based on concession contracts and available deposits (including the period after 2020) are important for the land-use planning of the national territory.

Mining industry

Coal mining¹⁷

These mining activities are realized mainly in the “Maritsa-Iztok” mines. Their area is about 240 km². In addition to being the largest site in Southeastern Europe, the mines are also the biggest employer in the country. The mining complex operates in close unity and in a closed cycle with the three thermal power plants (TPPs).

Unfortunately, the scale of the production volumes is also accompanied by considerable environmental problems – the largest affected territories with delayed re-cultivation and the biggest dust pollution rates nationwide. The practices with respect to the resolution of this problem demonstrate different approaches but the alternative preferred by the local population in recent years is monetary indemnification and change of residence to alternative human settlements.

Another localization is the Pernik coal basin – mines for open-pit coal extraction, which supply TPP Pernik and TPP Bobov Dol. The major directions are again connected with rehabilitation of

¹⁷ Only coal extracted under the open-pit method, which accounts also for the major national deposit ((2.074 billion tons), is taken into account

the landscapes damaged by the mining activity, the phased re-cultivation and secondary use of the affected terrains.

Non-ferrous ore mining

Two economic entities operate in the country – “Assarel Medet” Plc and “Elatsite Copper” Plc., which extract copper- and gold-containing ores. Beside extraction they perform also ore floatation. The two sites are situated on the “north-south” axis Etropole-Panagyurishte (22 km in a bee-line). The major problem after extraction of the ore masses is the re-cultivation of the terrain and ensuring the safety of the tailing reservoirs. Both sites are technologically linked with the copper-producing plant “Aurubis Bulgaria” near Pirdop.

Lead-and-zinc ores are extracted in underground mines by 4 mining companies – “Rudmetal”, “Gorubso Zlatograd”, “Gorubso Laki” and “Gorubso Madan”. The floatation factories are situated in Rudozem, Madjarovo, Laki and Ustrem. Non-ferrous metals production (mainly lead, zinc, gold, silver and platinum) is located in Kardjali and Plovdiv.

Analogous to the agrarian policy, the policy with respect to the ores and minerals has clear-cut social, environmental and economic dimensions. For this reason it requires an inter-disciplinary approach and inter-institutional coordination. The mining and processing of ores and minerals creates risks for the environment and frequently causes damages in terms of air pollution (mainly dust particles), contamination of soils and waters, lasting destruction of the relief and the landscape. All these impacts happen despite the fact that mining is a specific object of the environmental protection legislation.

In the long term the measures for restructuring of the sector should comprise also measures for liquidation of the side effects from mining activities.

Energy sector

The energy sector continues to be the leading sector of the Bulgarian economy with clearly manifested export orientation. Bulgaria possesses a diverse energy production mix, comprising nuclear, thermal and RES (hydro-, wind- and solar) power plants. The total energy dependence of the country on imported primary energy resources is gradually diminishing – from 52.5% in 2008 to 40.2% in 2010 (above all due to the decline in the economic activities).

The main local resource is lignite coal. The natural gas deposits are modest but they still provide a buffer to abrupt price increases. Nuclear energy is reported as a local source and contributes to a high extent to the increased energy independence. Combined heat and power generation (co-generation) by the district heating plants demonstrates trends towards increase after their alignment with the European requirements concerning production capacities. The measures for promotion of energy efficiency and RES energy and construction of new capacities (TPPs and NPP) will have a positive impact on the energy dependence indicator, but not in the short term.

Bulgaria possesses good resources of alternative energy sources – wind energy, significant solar potential and limited planned growth of the capacities for energy production from biomass by 2020. The measures for promotion of the use of biofuels in transport, which is expected to lead to production of biofuels on a larger scale and broader use of biomass, have direct relation to land-use as well.

The major priorities in the Energy Strategy, related to spatial planning and protection of the environment, are reduced to guaranteeing the security of energy supply, attainment of the targets for RES energy and improvement of energy efficiency.

Processing industries

Production of refined oil products

The major site of national significance for production of refined oil products is “LUKOIL Neftochim Burgas” Plc, which is the biggest oil-processing plant on the Balkan Peninsula. The company is of structural importance for the national economy.

Chemical industry

Several strategic and export-oriented productions are worth noting:

- ✓ Production of soda (calcinated soda, caustic soda and sodium bicarbonate) based on the deposits of rock-salt, limestone and technologically-clean waters in Devnya; predominantly export-oriented;
- ✓ Fertilizers and preparations for plant protection: “Neochim” – Dimitrovgrad; “Agropolychim” – Devnya; and “Agriya” – Plovdiv;
- ✓ Pharmaceutical and cosmetic products – “Sofarma” plc, “Biovet” plc, “Balkanfarma Trojan” plc, “Balkanfarma Razgrad” plc and “Chayka Farma” plc.; among the producers of cosmetics and essential oils worth noting are nearly 23 producers of essential oils and 47 producers of perfumery and cosmetic products, which have sound export positions as well. These two lines of activity are linked in territorial clusters.

The rest of the economic sectors develop their activities mainly within the areals of urban centres of different types. They are either dependant on local raw materials or require an adequate number of skilled labour force. The so-called “high mobility” production facilities are mainly in the knitwear, clothing and footwear sectors and are typical for the smaller cities and the villages.

All the above described production activities develop in parallel with mandatory measures for protection of the environment, for efficient use of the available resources and for energy efficiency.

Logistic activities

The transition of five PETC via the territory of the country, its membership in the EU and the improving infrastructure begin to transform Bulgaria into a preferred logistic destination and a key distribution centre for companies operating simultaneously on the European and Asian markets. The future demand for areas for logistic purposes will be determined specifically by the big retail chains, by international companies moving some of their activities abroad, as well as by companies active in the fields of logistics and shipment.

Using as a starting point the system of transport corridors and the existing transport infrastructure, the cities of Vidin, Ruse, Varna, Burgas, Sofia and Plovdiv are expected to establish themselves as major logistics and intermodal centres in the country. Particular attention should be paid to the gaining popularity logistics outsourcing, which means assigning of the logistics activities to an external provider. In this field Bulgaria could become operator-distributor of “requests”-“goods”-“services”.

3.4.3. Tourism – seaside, mountain, SPA, cultural and ecological/alternative tourism

In the NCSD tourism as a sector is considered above all in the aspect of its territorial development and orientation. Account is taken of the fact that touristic development is more strongly dependant on the environment-related factors than on the development of the sector

itself. The touristic development of the country should be treated not in a narrow sector-specific perspective, but as an element of the integrated spatial planning.

Bulgaria possesses exclusively rich and diverse recreation and touristic potential. The conducted studies have found that about 50% of the national territory possesses large resource potential for development of tourism. In practical terms every municipality possesses resources for development of some kind of recreation and tourism. However, this does not mean existence of conditions for provision of comprehensive touristic products in all the municipalities. The coastal and mountain areas are traditionally very attractive for tourism. These attractive but also very sensitive territories require specific attitude and special policy with respect to land-use planning, development and protection.

The “Tourism” sector is developing under the impact of a number of factors and is in a situation of constant search for alternative solutions (modalities, territorial organization and nature of the tourist product). The tourism-oriented development is connected with re-assessment of the processes of urbanization evolving under conditions of incessant increase of the exploitation of nature and anthropogenic resources, exceeding of the limit capacity of tourist destinations. Measures are sought to counteract the established seasonal nature and monotony of the tourist product, the quality of the environment and the transformation of the recreation landscapes into heavily urbanized ones.

In the process of utilization of the tourist resources, serious territorial disproportions have been observed between the Black Sea littoral and the hinterland, more particularly the mountain areas. These disproportions create difficulties for the functioning of the tourist system on a national scale. At the littoral there are risk territories demonstrating tapping of the available resources up to and beyond their limits, excessive burden and difficulties in exercising of control. This is a problem of strategic importance. At the same time the considerable potential for development of alternative forms of tourism in the inland remains untapped.

The major objectives of the tourism-related spatial planning are as follows:

- ✓ Improvement of the infrastructure – transport, engineering, social and tourist at the national, regional and municipal level;
- ✓ Preservation, protection and upgrading of the qualities of the tourism-related resources – natural, cultural and anthropogenic;
- ✓ Inter-institutional coordination – between the ministries and institutions having to do with tourism and its environment.

The success of the “Tourism” sector and its contribution to the general progress of the country are closely related to the need for achieving environmental, socio-cultural and economic sustainability of all the manifestations of the tourism-related industry at all the territorial levels. Tourist development should recognize and support the identity, culture and interests of the local population.

One of the main tasks related to the developing of a national strategy and policy for development of tourism has also not been implemented. Decisions are made on the basis of individual documents focused on eco-tourism, cultural tourism, rural tourism etc. Formation of cluster structures with the objective to unify the funding and experience in development of tourism is also limited. The promotion of “development of tourism-oriented areas for the purposes of overcoming disproportions in the geography of tourism in the country” might be realized through appropriately envisaged measures in the elaboration of regional development plants for NUTS2 regions.

Quite often cultural heritage has been viewed as an engine for the development of tourism-related infrastructure, which in turn generates processes and activities in the human settlements. For this reason in addition to the integrated approach in cultural heritage management, it is necessary to study also the possible clusters, of which the diverse cultural values might be part. In this field it is possible to distinguish among:

- ✓ “Seaside tourism” cluster: “Black Sea tourist cluster”, covering the districts Dobirch, Varna and Burgas. It would be feasible to develop and offer integrated products, comprising seaside, ecological, cultural and rural tourism.
- ✓ “Skiing tourism” cluster: comprising the most prominent skiing destinations – Bansko, Smolyan, Chepelare and Borovets. This cluster will be expanded also through the Vitosha zone.
- ✓ “The tree rivers” cluster¹⁸ – the River Tundja in its northern end (“The Valley of Thracian kings”), the River Maritsa valley (Plovdiv, the village of Starosel and Kozi Gramadi, Pazardjik and Assenovgrad) and the River Arda in its southern stretches – Perperikon, Tatul;
- ✓ “Balneology and SPA centres” cluster, such as Kyustendil, Velingrad, Varshets, Devin, Pavel Banya, the city of Banya, Banite Municipality (Smolyan District), Gorna Banya, Ovcha Kupel and Bankya, Narechenski Bani, Burgaski, Slivenski, Starozagorski and Haskovski Mineral Baths, form a dense network of centers of not fully developed potential.

The National Strategy for Tourism envisages the following:

- ✓ Increasing the share of specialized touristic modalities – further elaboration and establishment of new tourist products (cultural-historical, SPA and wellness tourism, rural and eco-tourism, religious, congress, adventure, golf and yacht tourism);
- ✓ Broader incorporation in the tourist supply of comprehensive, attractive and economically viable regional tourist products and destinations in the inland.

Tourism-oriented municipalities/areas

This group includes municipalities possessing tourist potential which have been subject of studies of the tourist resources and tourism-related regioning of the country. The typology is conditional, since it may comprise municipalities and areas from all the other categories, in which there are suitable natural and cultural values, touristic infrastructure *in situ*, operating calendar of cultural events, which attract tourists and interest from the country, the region and the world.

Regardless of the fact that all municipalities will have the opportunity to receive financing for development of tourism, the NCSD specifically highlights two types of tourism-oriented municipalities – municipalities, in which there is a need for measures promoting sustainable and balanced development of tourism, and municipalities, in which there is need for overcoming the harmful impacts of the touristic expansion.

The NCSD specifies those areas/areals where concentration of natural and/or cultural values of national and world significance exists and to which projects, financing and partnerships should be oriented as a matter of priority. These are the territories around the Burgas Bay, together with the aquatory and the sub-terrain archaeology (from Nessebar to Sozopol), the region of the ancient Bulgarian capitals, together with the Ivanovo rock monasteries, the “Sveshtari” tomb vault etc., the region of the Thracian kings together with the Rose Valley, the cultural landmarks in Plovdiv,

¹⁸ Analysis of the territorial development of tourism - MEET 2011

from the mounds near Kazanlak to Starosel to the south, the area around Sofia with the Sofia Aton to the Rila Monastery to the south. In this way all the sights of the world cultural heritage, situated in the territory of the country will be covered, as well as those nominated in recent years.

The NCS D proposes that the following requirements shall apply for the plans related to the development of tourism:

- ✓ At the national level – more adequate balance between coastal areas and the inland territories;
- ✓ At the regional level – more balanced development within the individual tourist areas and within the NUTS 2 regions;
- ✓ At the local level – diversification of tourism supply with new “alternative” forms of tourism depending on the available resources in the regions and municipalities;

Special attention in the policy for development of tourism should be paid to the development of balneological treatment, preventive and curative activities in the territories possessing potential and available mineral waters, suitable microclimate and products for thalassotherapy (sea salt, curative mud and lye, algae). This provides chances for development of centres for SPA and curative tourism in the municipalities of Sofia (Bankya, Gorna Banya, Ovcha Kupel), Burgas, Pomorie, Stara Zagora, Kyustendil, Sliven, Haskovo, Velingrad, Devin, Sandanski, Hissarya, Varshets, Dobrinishte, Separeva Banya, Pavel Banya etc. In most municipalities there are favourable conditions for combination of preventive and curative activities and for diversification of the tourist product, that will make these complexes more competitive on the tourist market.

In view of the strategic objectives of the NCS D, including protection of the natural and anthropogenic resources and the environment in the process of tourism development, it is necessary to also draft recommendations concerning the spatial/land-use planning of the tourism-oriented agglomeration formations.

3.4.4. R & D Centres

Bulgaria has a Strategy for Development of R&D Activities¹⁹, elaborated on the basis of the understanding that research, technology development and innovations are drivers of the modern economy in contemporary societies.

The tools for implementation of the policy in the field of research and innovations are oriented towards the national thematic programmes in priority fields and the sectoral programmes, developed and implemented jointly with the sectoral ministries and agencies. It is envisaged to render support to research complexes in the priority directions and specific mechanisms for conducting research on emerging needs requiring urgent intervention.

Innovations are the best way for recovery of the Bulgarian economy and handling the challenges facing society. The exit from the financial and economic crisis will depend on the export-oriented innovative enterprises. The stable fiscal and macro-economic position of the country permits improvement of the environment for innovative export-oriented enterprises through the introduction of a sustainable and modern government policy concerning innovations. The major strategic goal of the country in this area is the development of a competitive industrial base and modern innovative structure, aimed at transforming the Bulgarian economy into a knowledge-based economy, capable of sustainable growth and having the capacity to face the challenges of the globalizing world.

¹⁹ National Strategy for Development of R&D Activities 2020 - www.minedu.government.bg

The innovation potential of the economy will be increased through technology renovation and improvement of labour productivity, increased number of employees in the high-tech sectors, increase in exports of high-tech products and attracting investments in high-tech sectors.

The development of a highly productive industrial base and modern innovative infrastructure is possible only through promotion of innovation activities and R&D. One of the operational goals in this respect, related to the development of the national space, is setting up of adequate infrastructure – R&D and innovations-oriented – incubators (at least one in every district), R&D centres for top technologies, centres for technology transfer and technology parks.

The Innovations Act (draft) regulates the public relations with respect to the national priorities in the field of innovations, the conditions for implementation of the state policy on innovations, the incentives for innovations and the creation of a fund for innovations. The modern regulatory framework will guarantee sustainability of the policies, introduction of modern organization and management of the innovation processes, applicable throughout the national innovations system.

The access to high-speed and super-high-speed Internet will play a key role in the provision of a platform for support of innovations in all economic sectors, similar to what has been done in the past for the energy supply and transport sectors. The introduction of super-high-speed open and competitive networks will stimulate a favourable cycle of development of the digital economy, which will provide opportunities for new services, requiring broadband access, which should gain speed and fuel the growing demand on the part of citizens and businesses. The development of the economy of the future will be based on structured networks, governed by knowledge-based economy with Internet as a centre. Networking and interactive application will guarantee a broad application of distance-learning forms, access to and transfer of adequate knowledge for pupils and students, as well as for professionals wishing to upgrade their skills or change their subject field in connection with the dynamic changes of the labour market. Building of safe and reliable electronic communication networks for access to broadband Internet will promote innovations and economic growth.

The units for development of R&D activities and innovations will be located in the centres of hierarchic levels 1, 2 and 3 under the “Moderate polycentrism” model. These units will be set up within the state higher schools and their subsidiaries, BAS and the Academy of Agriculture, as well as within the specialized agrarian institutes with their experimental stations and fields. More specific institutions of this type will be the university hospitals, national centres for protection of public health, the National Office on Plant Protection, the National Public Library “St. St. Cyril and Methodius”, the National Museum of History, the National Archaeological Institute and Museum with BAS and the National Polytechnic Museum.

Parallel with this mobility of scientists and research fellows will be promoted, and the development of career centres and regional units for researchers’ mobility as part of the European mobility network will be supported.

Clusters

A significant potential for economic development and improvement of the competitiveness of the national economy exists in the territorial specialization of economic activities. It is based on the availability and similarity of local physical, social and natural resources. The cooperation of companies, municipalities and human settlements and the mutual complementing of activities provide opportunities for increase in the production output, launching of new business activities and innovations. The combination of traditional and innovative sectors is a basic principle in Bulgaria’s strategy concerning investments.

The created clusters operate mainly under conditions of strongly developed economies and for this particular reason the current economic crisis casts doubt on the efficiency and activeness of the already existing formations.

Promotion of the association of companies with smaller municipalities will support regional development and economic growth. It will improve the investment environment for attraction of new companies and creation of jobs. All this will help achieve Strategic objective No. 6 of the NCSD: “Competitiveness through zones of growth and innovations”.

The possible configurations of arrangements give opportunity for unification of activities of different strategic significance and sectoral orientation, namely:

- ✓ Clusters of the traditional sectoral policies, oriented towards intensively developing sectors;
- ✓ Private strategic alliances among a limited number of companies for the purposes of achieving “critical mass” for development of applied science projects or services, which would not be affordable for individual companies;
- ✓ Negotiations of lesser strategic significance among mutually production connected enterprises;
- ✓ Joint activities with research centres and combining of resources with a view to ensuring the necessary expert and institutional potential for management of big investment projects;
- ✓ Geographic concentration in a common network of enterprises belonging to one sector or to a vertical production chain;
- ✓ Links among enterprises in the form of national and international alliances with an “anchor” in a given region;
- ✓ Creation of industrial zones comprising networks of enterprises, which develop “solid” business relations along the value added chain, leading to higher internationalization of both the entire network of enterprises and the region as a whole;
- ✓ Strengthening of significant links between interconnected sectors – for instance agriculture, food-and-beverages production, tourism, etc., which have a share of structural importance in the regional or national economy;

Several more significant cluster formations exist and operate in the territory of the country:

The cities and municipalities with established university and R&D centres – Sofia (BAS, the Technical University), Varna, Plovdiv, Ruse and Gabrovo – possess potential to develop clusters in the field of information and communication technologies, and thus increase their rates of growth, value added and research intensity, improve the market positions of the participating companies and institutes and enhance their export potential.

The Blagoevgrad-based cluster “Mechatronic and automation” unites high-tech companies active in the field of machine building, hardware and software from Sofia, Blagoevgrad, Velingrad and Vratsa, institutes with the BAS, university units of the Technical University of Sofia. Clusters in the field of microelectronics and industrial digital systems may develop with success in the municipalities of Sofia, Gabrovo, Ruse, Silistra, Plovdiv, Stara Zagora and Blagoevgrad.

On the territory of Plovdiv and Panagyurishte the cluster “Lasers and optics” operates, which comprises 14 manufacturing companies and covers more than 90% of the production potential in this subsector. It may develop further also on the basis of the research potential of the Technical

University of Sofia in order to attain its leading objective of becoming part of the single European economic space.

In the municipalities of Radnevo, Galabovo, Nova Zagora and Simeonovgrad the cluster “The energy core of Bulgaria”, founded in 2005, operates. It comprises mainly the enterprises from the energy sector in the Maritsa basin – TPP “Maritsa Iztok 2”, “Maritsa Iztok” mines, “Brikel” plc and power distribution companies. In addition to its importance for the economy, it also plays an important role for the spatial development of the country due to the fact that its activity extends over vast territories, to which the policy for protection and rehabilitation of the environment is oriented as well.

The municipalities of Panagyurishte, Pirdop, Zlatitsa, Mirkovo, Chelopech and Strelcha participate in the “Srednogorie med (Sredna Gora Copper)” cluster, formed on industrial-regional principle.

Clusters “Furniture and wood-working industry” operate with companies from Trojan, Teteven, Velingrad and Razlog. They unite mainly micro- and small enterprises in the sector.

In the municipalities of Sofia, Kyustendil, Dupnitsa, Blagoevgrad, Belitsa, Kresna, Petrich and Sandanski the cluster “Inter Moda Trading”, organized on industrial-geographic principle, operates. Potential for development of clusters of this type on the basis of operating enterprises, which create jobs for women in smaller settlements, exists in other municipalities as well.

On the territory of Montana District (between Byala Slatina and Knezha), Yambol District (Tundja Municipality), Silistra District (Kaynardja Municipality), Blagoevgrad District (Simitly), Ruse District and Targovishte (Popovo) and Pleven District (Dolna Mitropoliya) the development of “Textile Cluster Silk”, oriented towards revival of silk-worm breeding (sericulture) and production of natural silk in Bulgaria, is envisaged. The new plantations of mulberry-trees, farms and training centres will be concentrated around the enterprises for buying up and processing of cocoons and their broad areals.

On the territory of Sofia industrial cluster “Electric motor vehicles” operates with 48 companies, whose activity is oriented towards introduction of electric motor vehicles in Bulgarian cities, which should be envisaged in the IPURD of the core-cities of the agglomeration areals and taken into consideration during construction of the transport infrastructure of the country.

The geography of the cosmetics and essential oils cluster comprises the centres of cosmetic industry – Sofia, Plovdiv, Karlovo, Kazanlak, Shumen and Rudozem. It has a broad areal of action and is export-oriented.

The “Agriculture and foodstuffs” cluster is oriented towards production of healthy foodstuffs and is linked to organic agriculture and stock-breeding. It provides an opportunity for employment of people with lower educational level in areas outside Sofia, in mountain and peripheral municipalities. A possibility exists for development of a wine-producing cluster here, which may attract also activities in the field of tourism, and its member-units might operate in traditional vine-growing areas in different part of the country.

The cluster “Transport and logistics” offers diverse employment for people with different educational levels and is suitable for the big cities, in which all the transport communication systems are present – Sofia, Plovdiv, Stara Zagora, Burgas, Varna and Ruse.

The cluster “Tourism” ranks as a priority cluster for the country and at the same time may correspond to some of the above listed clusters and attract companies developing tourism-related accompanying services and in this way create additional jobs and diversify the tourist product.

Extremely favourable conditions for development of clusters exist in the cross-border areas, in which diverse activities in the field of tourism, cultural heritage, environmental protection, bio-agriculture and stock-breeding, education and culture might be combined. The activity of these clusters will expand the territorial scope of economic and innovation activities, which in turn will leads to creation of employment, maximum use of the territorial potential and activation of the territories.

3.5. Natural and cultural values – guarantee for the national identity

3.5.1. Natural values

Protected nature areas account for a significant portion of the non-urbanized territories in the national space. The major long-term objective with respect to natural and protected areas ensues from Strategic objective 4 Preserved natural and cultural heritage – *Preservation of Bulgarian nature through development and effective functioning of the National Ecological Network and promotion of the sustainable development of the national territory*. The following are worth mentioning in terms of specific objectives:

- ✓ Preservation of the identity of the natural heritage and the exclusive biodiversity;
- ✓ Effective protection and utilization of the economic potential of the natural and protected territories of international significance;
- ✓ Increase in the elements of the National Ecological Network in the regions with the lowest share of protected areas and zones;
- ✓ Creation of cross-border ecological corridors, management capacity building and support for the opportunities for increase in the income of the communities living in these protected natural territories through environmentally-friendly use of the nature wealth.

Bulgaria ranks among the countries with the largest biodiversity in Europe thanks to its very diverse climatic, geological, topographic and hydrological conditions. These conditions make possible the existence of biota, comprising 94 mammal species, 383 bird species, 36 reptiles, 16 amphibian species, 207 Black Sea and fresh water fish species, about 27 000 insects and other invertebrates, between 3,500 and 3,750 superior plant species and more than 6,500 lower plant species and fungi. The effective control over the implementation of the enforced legislation with respect to protected areas and zones, sensitive ecosystems and important habitats is a prerequisite for preservation of the identity of the natural heritage and conservation of biodiversity. This, in turn, will contribute to the development of important educational, research and innovation programmes and initiatives of considerable Value Added.

The National Ecological Network, which comprises protected areas and protected zones (33), extends over about 35% of the territory as compared to about 5% in 2005. The fact that more than one third of the national territory is placed under active nature protection creates new challenges for the land-use planning and places additional barriers to possible activities in these areas.

The National Ecological Network comprises protected areas, declared in compliance with the Bulgarian special legislation, and protected zones as part of the European Ecological Network “NATURA 2000”. At the end of 2011 the number of protected areas was 954 with a total area of 582,112 ha (5.2% of the national territory). The number of protected areas has increased since 2004 by 94 new ones. Since 2000 the number of reserves (55) and managed reserves has remained unchanged, which is evidence of exhaustion of the unaffected parts of nature outside the coverage of the National Ecological Network. Slight diminishing of the number of nature

landmarks has been reported as compared to the situation in 2000, although since 2004 their number has remained unchanged. Considerable increase in the protected localities has been noted; their number has abruptly increased from 132 in 2000 to 504 in 2011. There is high probability for future growth of the numbers for this type of protected areas. The national parks remain without change – three for the entire 11-year period (2000-2011), while the number of nature parks has increased from 5 in 2000 to 11 in 2011. The number of protected plant species has increased sharply from 389 in 2000 to 574 in 2011.

The established directorates for management of the activities in the national and nature parks and the accumulated experience provide grounds to take account of the existence of such important structures, related to protection of the environment and risk management, which perform also additional information, research, control, education and tourism-related activities, in the process of defining of the relative weight and significance of the urban centres.

A certain increase has been noted also in the area of the protected areas. From 2000 till 2011 their total area has increased from 4.6% to 5.2%. Bearing in mind also the dropping off of historical localities from the list of protected areas, this increase is even bigger. The most significant increase of the area has been noted for the protected localities – from 26,292 ha in 2000 to 76,883 ha in 2011. There is slight increase in the area of the reserves, while the managed reserves almost retain their area with an insignificant decrease. There is a notable increase in the area in the case of the nature parks – from 180,274 ha in 2000 to 256,456 ha by the end of 2011, while the area of nature landmarks diminishes.

The territorial distribution of protected areas demonstrates a considerable contrast. Among the regions, the Southwest Region stands clearly out with the highest share of protected areas – 8.89%. Next in rank is a group of three regions with a share of protected areas above the national average (5.39% - 6.05%) – Northwest, South Central and Southeast Regions. The other two NUTS 2 regions – the North Central and the Northeast – have shares considerably below the national average (2.02% - 1.11%). These are the regions, towards which the efforts for identification and declaration of new protected areas should be oriented.

At the district level the differences are even more pronounced. In the group with the highest share of protected areas (10%-18%) fall 5 districts: Gabrovo, Burgas, Blagoevgrad, Sofia-city and Kyustendil. In the second group, that of districts with share above the national average (5.5% - 10%), fall the districts of Lovech, Plovdiv, Pleven, Sofia District and Vratsa. The third group (0% - 4%) comprises the remaining 17 districts in the country. A finding that gives grounds for serious concern is the fact that in 8 districts the protected areas are below 1% - Haskovo, Yambol, Razgrad, Shumen, Smolyan, Targovishte, Vidin and Veliko Tarnovo.

By 2011 by virtue of decisions of the Council of Ministers the following have been approved: 118 protected zones under NATURE 2000 for protection of wild birds (area of 2,566,588 ha which accounts for 22.6% of the territory of Bulgaria) and 231 protected zones for protection of habitats (area of 3,391,225 ha or 30.55% of the territory of the country). The Council of Ministers has approved a total of 339 protected zones under NATURE 2000, covering a total of approximately 35% of the national territory to date. As compared with the data from the official bulletin of EC by 2010, the zones under NATURE 2000 in Bulgaria were about two times more than the European average – 18%.

The distribution of the protected zones by NUTS2 regions demonstrates higher participation of the South Central Region (44.5%) and Southwest Region (39.5%). Almost equal is the share of protected zones in the Northeast Region (26.5%) and the North Central Region (21.5%). The protected zones in the regions of Southern Bulgaria cover a larger area than those in Northern Bulgaria. The reasons should be sought in the better preserved ecosystems there, situated in hard

to reach locations, as well as the higher degree of biodiversity. On the contrary, the high degree of economic utilization, mainly for agriculture, in Northern Bulgaria, has resulted in destroying of the primary ecosystems and their conversion into agro-landscapes and for that reason these of higher value in nature-protection respect represent a more limited share. This finding is even more obvious in the analysis by districts. Out of the total of 14 districts in Northern Bulgaria only 4 have a share of protected areas above the national average – Silistra, Varna, Lovech and Montana. In Southern Bulgaria 4 districts have a share below the national average – Stara Zagora, Yambol, Pernik and Sofia-city, and one is near to the national average – Plovdiv District with 33.1%.

The proposals for spatial development of the natural and protected territories are oriented towards attainment of Strategic objective No. 4 of the NCSD: Preserved natural and cultural heritage – *“Protection and development of the national system of protected natural and cultural values for maintaining of the biodiversity, the spatial natural and cultural identity and for integration of their values in modern life”*.

This may be achieved through:

- Increase in the area and territorial development of the National Ecological Network (NEN)

The NCSD proposes that the areas of the protected areas continue to increase by orienting their development predominantly towards the territorial-administrative units possessing the lowest share. In view of the limited availability of undisturbed eco-systems and their fragmentation, one may come to the conclusion that Bulgaria has reached the threshold with respect to protected territories under the strictest regime – reserves and managed reserves. This is corroborated also by the fact that during the recent 10 years there have been no newly declared ones. Under the other categories a certain increase is possible, but achieving the national target of 6% protected areas of the total area of the country by 2015 is a hardly attainable objective. For this reason we reckon that 6% protected areas by 2020 is a realistic target. As regards the stage by 2025, it is possible that the share of protected areas might go up to 6.1%-6.2%.

The biggest opportunities for increase in area exist in the case of protected sites, where in recent years also the highest growth has been observed. Nature parks also have potential for increase. In the NCSD the emphasis with respect to increase in the share of protected areas has been oriented with priority to the Northeast Region and the North Central Region – the NUTS2 regions with the smallest share. These are the districts of Targovishte, Razgrad, Shumen, Vidin and Veliko Tarnovo, in which the protected areas are below 1%. In Southern Bulgaria the emphasis is on the districts of Haskovo, Yambol and Smolyan. The NCSD proposes that by 2020 the protected zones under NATURA 2000 should reach up to 37% of the national territory, including the aquatory, and by 2025 – not more than 38%, which is the optimal limit.

- Emphasis on natural territories of European and global significance

The natural protected areas of international and European significance represent to the highest extent the identity and value of the Bulgarian natural wealth. Their recognition and estimation on an international scale act also as preconditions for gaining economic benefits, above all in the field of tourism.

Bulgaria, as a signatory of the Convention on Protection of the World Cultural and Natural Heritage (UNESCO, 1972), has a total of 11 sites included in the World Heritage List: 2 for natural heritage and 9 for cultural heritage. The sites of the world natural heritage are “Pirin” National Park and “Srebarna” Reserve (included in 1983).

The Republic of Bulgaria joined the “Man and Biosphere” Programme (MAB) in 1977 declaring 17 biosphere reserves. To date there are 16 biosphere reserves in the country: *Ali Botush, Bayuvi Dupki – Djindjiritsa, Bistrishko Branishte, Boatina, Djendema, Dupkana, Kamchiya, Kupena, Mantaritsa, Parangalitsa, Srebarna, Steneto, Uzunbodjak, Tsarichina, Chervenata stena and Chuprene* (the *Marichini ezera* reserve has been excluded from the list of biosphere reserves in 2002).

In 1995 with the approval of the Seville Strategy and legislative framework about the biosphere reserves new requirements were introduced concerning the functions and zoning of these territories. To date the Bulgarian biosphere reserves do not meet the zoning requirements introduced by this strategy. Because of the fact that the majority of the existing reserves are under strict regime, their protection regime does not permit performing of activities related to the sustainable use of the natural resources, i.e. the development function is not performed.

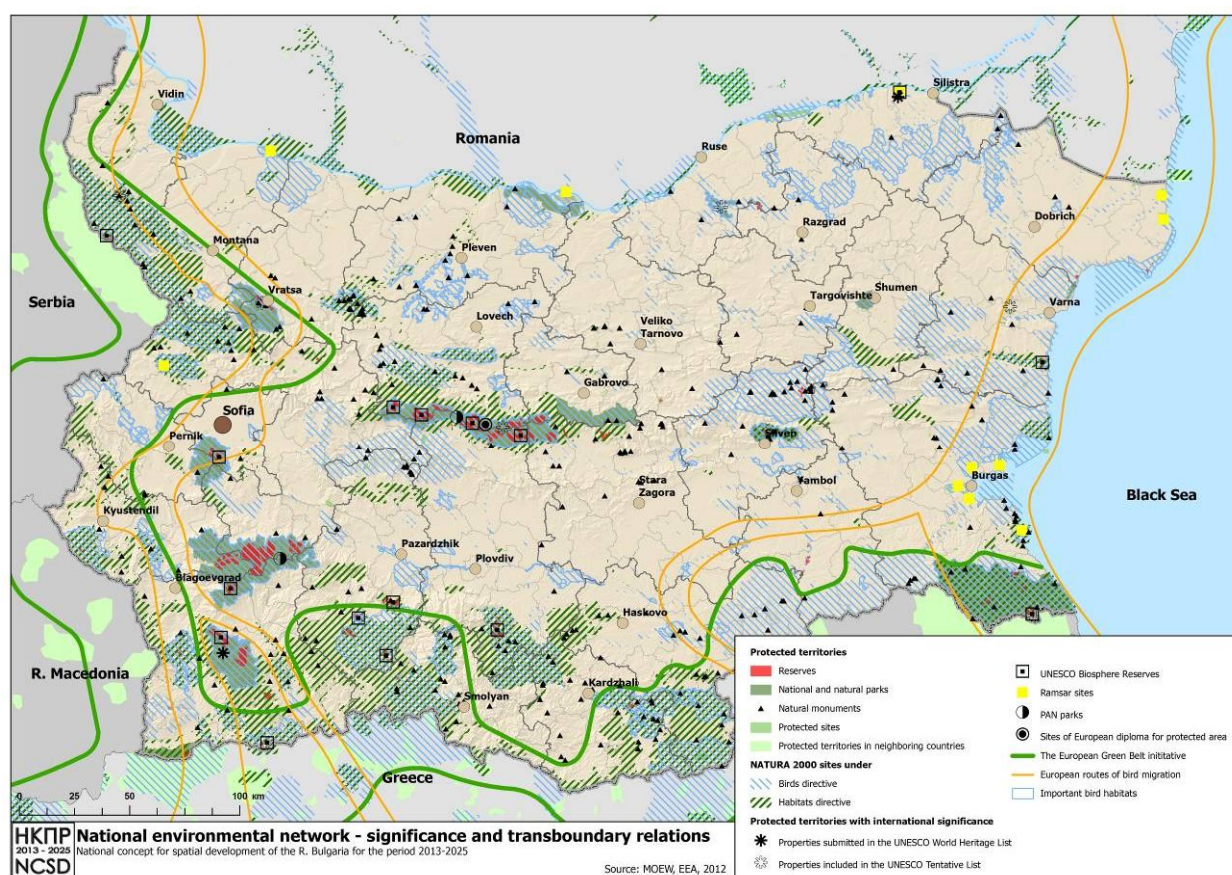


Fig. 16: National Ecological Network – importance and cross-border connections

This imposes the need of re-consideration of the network of biosphere reserves in the Republic of Bulgaria and undertaking efforts for declaration of at least one post-Seville biosphere reserve. In this sense the “Strandja” Nature Park is the first Bulgarian protected area, which is eligible to be proposed for approval under the new requirements. By 2020 the studies related to identification of the potential of other sites, above all natural parks or parts thereof, will continue with a view to investigating the opportunities for their meeting the requirements of the Seville Strategy (1995) and the legal framework concerning biosphere reserves and possibly their nomination for biosphere reserves from the Republic of Bulgaria in the future.

The Ramsar Convention is the first of the modern global inter-governmental agreements for preservation and sustainable use of natural resources and continues to be the only agreement

oriented to specific ecosystems. The Republic of Bulgaria is one of the first countries, which acceded to the Convention, which was approved on 2 February 1971 in the city of Ramsar, Iran. The Convention was signed in our country without obligation for ratification in pursuance of Council of Ministers' Decision No. 389 of 18 November 1974. The policy concerning the protection and sustainable use of wetland areas is being developed by the MOEW, which is responsible for the implementation of the Ramsar Convention.

The declaration of a location for "Ramsar location" does not impose specific limitations on the exploitation of the wetlands. On the contrary, it supports fishing and the use of any other resources – reed, mud, wild life, salt etc. within reasonable limits, ensuring the long-term utilization of these places in the future.

To date in the list of the Convention on wetlands of international significance (the Ramsar locations) Bulgaria is represented by 11 Ramsar wetland areas with a total area of 35,380.2 ha, accounting for 0.32% of the territory of the country. These are "Atanasovsko" Lake, the "Belene" Islands complex, the "Durankulashko" Lake, the "Ibisha" Island, "Srebarna" Lake, "Shabla" Lake, "Poda" protected site, the "Pomoriysko" Lake, the "Ropotamo" Complex, the "Srebarna" Lake, the "Vaya" Lake and the Karst Complex "Dragomansko" marshland. There are favourable opportunities for new proposals for incorporation in the list of Ramsar sites of other wetlands as well, especially in the inland.

All the Ramsar sites or parts thereof are declared as protected areas under the Protected Areas Act enjoying different categories of protection, depending on the target and object of protection – managed reserves (the "Atanasovsko" Lake, the "Srebarna" Lake, the "Ibisha" Island and the "Ropotamo" Complex), protected localities (the "Durankulashko" Lake, the "Shabla" Lake, the "Pomoriysko" Lake, "Poda", the "Vaya" Lake and the "Aldomirovsko" marshland), and Nature park – "Persina".

Because of the fact that the ecosystems of the wetland zones comprise habitats, which are the subject of protection under the Directive on Habitats, as well as that the wetlands proper are habitats of rare plant and animal species under the Directive on Habitats and the Directive on Birds, all the wetland zones have been declared as protected zones (NATURA 2000 zones) under the provisions of both directives.

Currently a new up-to-date National Plan for Protection of Wetland Zones in the country for a 10-year period – 2012-2022, is in the process of elaboration and approval. The major goal of the plan is to ensure a basis for planning and implementation of activities, related to the protection and sustainable management of the most important wetland zones in the country. A list of wetland zones (approximately 20), complying with the requirements of the Ramsar Convention about wetland zones of international significance according to the criteria of the Convention – potential Ramsar sites, will also be included in the plan. During the period of implementation of the plan they shall be added to the list of the Convention – the "Ovcharitsa" Dam, the "Mandrensko" Lake, the "Seven Rila lakes", the "Choklyovo" marshland, the "Rozov Kladenets" Dam, the "Orsoya" breeding-ponds, the "Kalimok" Complex, the "Vardim" Island, the Kaliakra-Tyulenovo coast etc.

Two parks have been certified in the network of PAN parks in Bulgaria: the "Rila" National Park and "Central Balkan" National Park, which comply with the severe criteria for environmentally friendly human intervention in and around the parks. Prospects for incorporation in the PAN parks network exist also for the third national park, as well as for the natural parks in the country, which will help regulate the sustainable development of tourism and will generate additional growth. This task is subject to implementation during the stage up to 2020.

The “Central Balkan” National Park is the first Bulgarian protected area, which has received a European Diploma of Protected Areas. This is a recognition of the qualities of the Bulgarian natural wealth – wildlife nature areas of European significance, unique in terms of biodiversity, conserved during centuries, in harmonic unity with the lifestyle, labour and spiritual traditions of the local people, as well as in terms of the motivation and preparedness of society to preserve, popularize and develop it.

- Development of cross-border cooperation

All the Bulgarian protected zones under NATURA 2000 have their extensions on Romanian territory as well. This applies to the Danube shoreline, but also to Dobrudja and the contact zone on the Black Sea. The same is valid also for the protected zones along the Bulgarian-Greek border. Broadening of the cooperation in the field of protected nature areas with these EU Member States and especially with the Republic of Romania is in compliance with the principles, goals and objectives of the European Ecological Network NATURA 2000 and the Danube Strategy, of the cross-border cooperation programmes Romania-Bulgaria and Greece-Bulgaria, and of the Joint Operational Programme for cross-border cooperation “Black Sea 2007-2013”. The first joint projects for ecological cooperation in the protected nature areas are already a fact (Project “Cross-border ecological corridor Ruse-Giurgiu 2007-2013” etc.). The NCS D proposes that the cross-border cooperation should extend to all zones under the NATURA programme in the border areas with the Republic of Romania and the Republic of Greece through building of ecological “blue” and “green” corridors.

The NCS D treats in analogous manner the protected areas along the border with Turkey or those along the borders with Serbia and Macedonia, which have their natural extensions in the EMERALD zones. This might be achieved through elaboration or updating of the plans for management of the protected zones within the scope of the cross-border ecological corridor and capacity building for their management or drafting of projects under the “Parks without frontiers” Initiative.

The joint initiative of the International Union for Conservation of Nature (IUCN) and the “European Green Belt” NGO is considered as recognition for the unique nature of these border areas. The initiative will promote protection of the preserved nature along the borders and the connection of these areas in a pan-European environmental network. The Balkan countries joined the initiative in 1999, at the same time when the concept of a Balkan Green Belt was created. The mountains along the borders of Bulgaria with the Republic of Serbia, the Republic of Macedonia, the Republic of Greece and the Republic of Turkey (Western Balkan Range, Kraishite, Ossogovo, Vlahinska, Malashevska, Ograzhden, Belassitsa, Slavyanka, the Rhodopes Mountains, Sakar and Strandja) act as a key element of the concept. Their protection and sustainable development will contribute to the implementation of the most comprehensive nature protection initiative in United Europe. The idea could be implemented through models for sustainable development of cross-border mountain areas and identification of alternatives for economic development in line with protection of local nature and promotion of their economic potential. The promotion of methods, which do not damage the ecosystems (organic agriculture, sustainable tourism etc.) and preserve the beauty of the landscape, will help preserve the viability of some of the small villages, situated in the border areas.

In accordance with the Ramsar Convention, wetland zones complying with the requirements of the Convention for declaring them as cross-border wetland zones, have been also identified. These areas are the wetland zones alongside the Danube River. It is expected these wetland zones to be declared as cross-border wetland zones by Romania and Bulgaria in the near future. In particular these are the wetland zones “*Srebarna-Ieserul Calarasi*”, “*Belene Islands-Suhaya*

Complex” and “*Ibisha Island-Bistret*”. During the next 3-year period of implementation of the Ramsar Convention (by 2015) Bulgaria as a party to the Convention, should support the Republic of Romania and participate along with it in the declaration of the cross-border wetland zones along the Danube River. The same objective has been laid down in the Resolution COP11 R22 approved by the latest Conference of the Parties (COP11).

Ecology

For all sectoral policies, including regional policy and spatial planning of the territories, it is obligatory a linkage between the environmental policy objectives, on the one hand, and the socio-economic development, construction of the transport and infrastructure corridors, development of urban and rural settlements, on the other, to be established.. Protection and rehabilitation of the ecological balance and adaptation to climate change for the purposes of protection and effective use of resources and reduction of the risk of natural disasters determine the leading directions of all the proposals contained in the National Concept for Spatial Development. This guarantees achievement of the desired vision and implementation of the strategic objectives for preservation of the natural and cultural heritage, for sustainable urban development and improvement of the quality of life.

The general long-term strategic objective of the National Strategy for the Environment²⁰ (2005-2014), reflected in the NCSD, is “*improvement of the quality of life for the population of the country through ensuring healthy and favorable environment and protection of the rich natural heritage on the basis of sustainable management of the environment*”. Influence on the spatial development have priorities, related to ensuring good quality and adequate quantity of water; achievement and maintenance of high quality of the environment in human settlements; protection of the natural heritage and preservation of wide biodiversity; implementation of Bulgaria’s commitments for mitigation of global ecological problems, some of which are related to desertification and degradation of soils. The measures laid down in Priority 4 for integration of the environmental policy in the policies for development of the regions and economic sectors like industry and energy, agriculture and transport are the most important regarding to the spatial organization of the national territory. Therefore, the ecological objectives of the NCSD might be achieved through:

- ✓ Creation of prerequisites for protection of the air, waters, and soils cleanliness and protection of ground and subaquatic riches;
- ✓ Limitation and elimination of damages and/or destruction of the major components of environment – geological base, land and soils, ground and surface waters, trans-border waters and water systems, flora and fauna species and their habitats, landscape, natural and cultural values;
- ✓ Mitigation of the harmful impacts of physical factors such as noise, vibrations and radiation, improvement of the sanitary conditions of the environment and protection of human health;
- ✓ Preservation and enrichment of biodiversity, conservation of traditional landscapes and recovery of landscapes damaged by human activity;
- ✓ Adaptation to climate change and reducing the risks related to physical and cultural values, human health and human life.

²⁰ http://www2.moew.government.bg/strateg_plans/index.html

The priority objectives in regard to achievement of the common European objectives are also related to the implementation of the integrated policy for protection of the environment and recovery of the Black Sea (Integrated maritime policy) and the Danube Strategy. Development of ecological infrastructure is an issue of utmost importance at regional and district level.

Improvement of the air quality is one of the most significant ecological goals. The measures should be implemented with priority to the zones, in which the pollution limits are exceeded by several indicators. These are: Sofia agglomeration (excl. the mayoralities of Bankya and Pancherevo); Plovdiv agglomeration (the municipalities of Plovdiv, Assenovgrad and Rhodopi); Varna agglomeration (the municipalities of Varna, Devnya and Beloslav); Burgas agglomeration (the municipalities of Burgas and Kameno); the “*Maritsa-Iztok*” zone (the municipalities of Galabovo, Radnevo and Opan) and the municipalities of Svishtov, Ruse, Pernik, Kardjali, Pirdop, Zlatitsa, Stara Zagora, Dimitrovgrad and Sliven. By 2020 it is necessary to achieve marked improvement of the air quality in these zones so that by 2025 – the air quality is close to the threshold values.

Regarding the waste management sector²¹, the most significant projects to be completed are construction of regional landfills for municipal solid waste, waste composting complexes and hazardous waste collection sites, since they service large areas and need additional infrastructure and secure transport access. In addition to the localization-related factors, it is also important how these sites fit in the landscape and their integration with other systems for energy generation for residential and industrial use. Before the end of the first stage (2020) the construction of regional landfills for municipal solid waste should be completed and more efficient waste management should be launched, which should be a major task for the stage till 2025.

In the land/soils subsector of utmost significance are the measures and regulations related to the prohibitive regimes for agricultural land designation changes (especially those of high category and the irrigated land), the absence of prohibitive regimes for the lower categories of arable and irrigated land. The ensuing results are lasting and irreversible transformations in land use, build-up and sealing of soils and hence loss of land in its capacity of valuable resource connected with production of food for the population. An important territorial priority is the recultivation of land damaged by the extraction of ores and minerals (above all in the Maritsa-Iztok area), problematic areas contaminated with heavy metals (the areas of Sofia, Assenovgrad, Kardjali, Zlatitsa-Pirdop and Pernik), as well as the areas affected by uranium mining, especially in the resort zones. With respect to the two stages of implementation of the NCSD, the principal task should be oriented towards re-cultivation of damaged land and soils. In the course of the stage till 2020 the recultivation of the plots, the extraction activities on which have been definitely discontinued, shall be completed.

The regulations and policies²² related to protection of biodiversity usually act as barriers for territorial development, but also as promoters for environmental protection (vegetation/forests, animal world, habitats), for creation of territorially isolated clusters in the field of tourism, local economic development or bioagriculture.

The Third Action Plan on Climate Change²³ envisages concrete measures for reduction of GHG emissions in all sectors in compliance with the country's policy in this field and the undertaken commitments, including those under the National Development Programme "Bulgaria 2020". It

²¹ National Programme for waste management activities for the period 2009-2013; National strategic plan for construction and demolition waste management on the territory of the Republic of Bulgaria for the period 2011-2020

²² Analyzed in detail under another section

²³ <http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=760>

may lay the foundations of adaptive planning or of improvement of the process of spatial planning and will comply with the specific objectives declared in the NCSD with respect to the specific territories, exposed to ecological risk of flooding, landslides etc.

In the NCSD the reduction of the risk of natural phenomena and disasters is connected with the following groups: geological (landslides, landslips, erosion and earthquakes), hydrological (floods, droughts), meteorological (extreme temperatures, storms, fires as a result of droughts and/or high temperatures) and biological risks (epidemics and calamities). In territorial respect at this stage this priority should be oriented predominantly to the Northwest Region, which falls within the group featuring the highest degree of vulnerability to climate change in the EU. Specific measures should be envisaged also for the South Central Region and the North Central Region, which fall within the next most vulnerable group.

Adaptation to climate change and the increasing occurrences of natural disasters imposes the need for integration in one single plan of all measures, which should be undertaken in all the sectors in the country. The NCSD might supplement it by schemes and maps of the risk-exposed zones and territories as regards the ecosystems and forests, transport infrastructure, including mobility, engineering infrastructure, including energy supply and energy efficiency, agriculture, economic development and human health. For the elaboration of such a plan/map in the set of graphic materials enclosed with the NCSD reliable data is required, which shall be added as a separate layer in the GIS database. On that basis and the generated layers it will be possible to perform risk assessment and envisage steps for risk management and communication requirements.

At this stage an assessment of the risk of flooding along the Black Sea coast has been performed by the Black Sea basin directorate. An analogous assessment for the Danube Region is in the process of elaboration. There are forecast data about areas threatened by flooding, falling under the scope of the other two basin directorates, respectively the Western Aegean Sea Region and the Eastern Aegean Sea Region.

With respect to seismic risk up-to-date information is also required concerning the zones of higher risk on the basis of new seismic regioning of the country, irrespective of the Ordinance of the MRDPW, approved on 29.12.2011, concerning the design of buildings and facilities in earthquake-exposed areas in compliance with the need of application of the European standards and codes.

Areas with recorded landslides, observed by the two companies for geo-protection in Varna and Pernik, have been included in the database of the MRDPW. In the NCSD priority in the struggle against landslides is envisaged for the municipalities along the Northern Black Sea coast and the Danube shoreline.

Since the MOEW is preparing part of the documents related to risk assessment and adaptation to climate change by 2014, this layer of information may be added to the created GIS database with the NCSD.

3.5.2. Territories with cultural values

In the recent years there was a certain re-orientation of the EU cohesion policy in the direction of a policy strengthening the domestic competitive potential of the regions. In this sense the spatial development of the territory will be focused to a higher degree on the domestic potential (the already available potential, as well as the yet undiscovered potential of a given territory) and specify more precisely the intervention in spatial (territorial) context with local and/or regional

specifics. Focusing of the specifics of the location, also with respect to natural and cultural resources and the individual advantages of the cities, villages and areas on the basis of material and non-material values and links, will play a leading role in the policies for spatial planning and regional development.

The objectives of the cohesion policy are to enhance the socio-economic convergence and coherence among the Community regions and cities, thus ensuring the quality of life. This fundamental approach in spatial development is also a starting point for the spatial policies, related to the tangible and intangible cultural heritage of Bulgaria, which are laid down in the NCSD and are in direct relation to the quality of life of Bulgarians. Account is taken also of the changed attitude to cultural values and broadening of the spatial coverage of the cultural heritage – from the unit value of an artefact to the ensemble with its surrounding and the overall urban or natural environment, from the interior of a building and its structure to the characteristic scenery, from the cultural corridors/itineraries to the subwater cultural heritage.

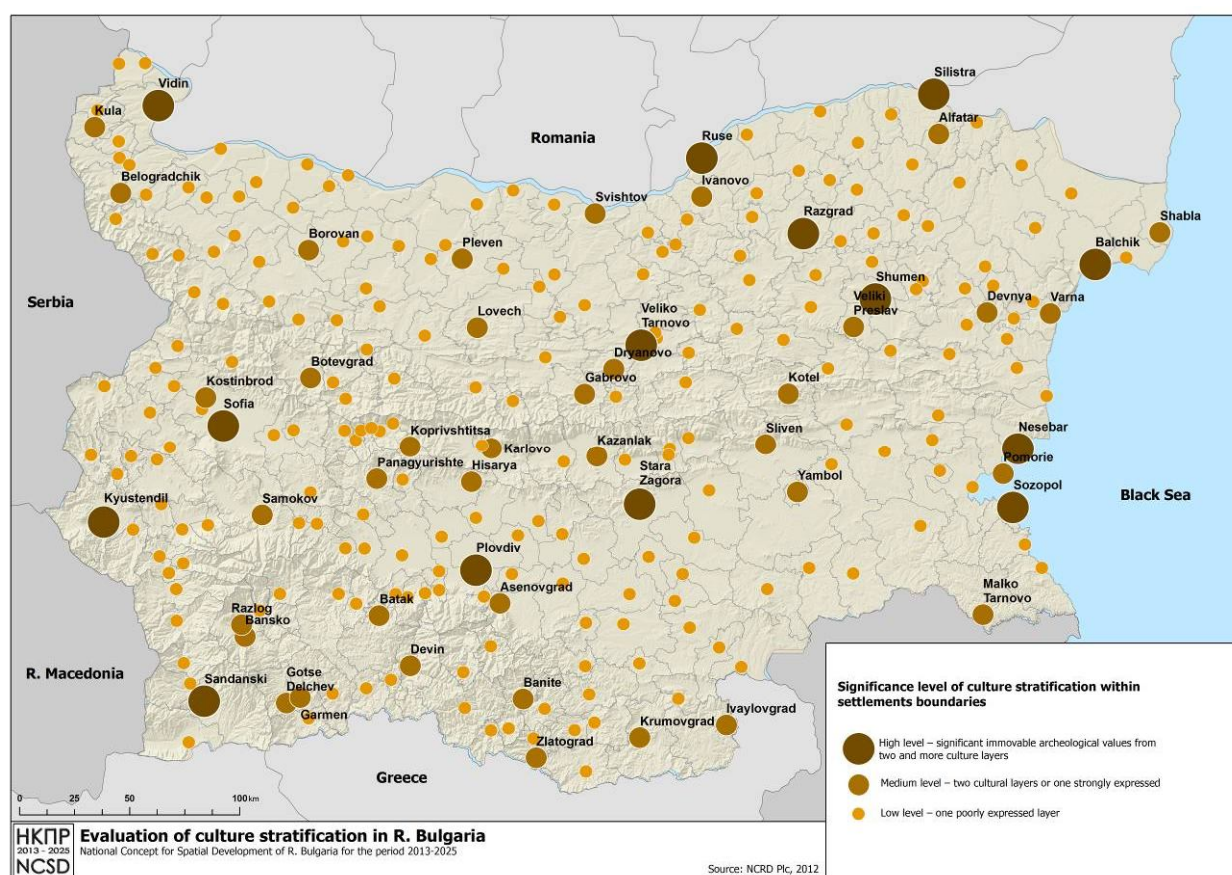


Fig. 17: Cultural heritage layers in human settlements

The major directions in preservation of cultural values in their variety of time periods and types are related to preservation of their unique characteristics through integrated conservation and active protection, public concern and renovation in the broadest sense of the word, preservation and development of the spirit of the location and the spatial identity, and development of their potential to the benefits of economic growth.

The priorities for attainment of this objective are as follows:

- ✓ Implementation of planning policies aimed at ensuring links between people and the specific cultural values using the method of integrated conservation and integration of development in the natural, urban and historical milieu;

- ✓ Promotion of protection and socialization of cultural values and the high quality of the environment as a factor of sustainable development, economic incentive and touristic attraction for cities and villages;
- ✓ Unification of the decentralized powers and functions of the regional and local levels of management with the expertise and financial decentralization for the purposes of achieving high quality and sustainability of the environment.

The above listed priorities are related to Strategic objective 4 of the NCSD – “Preservation of natural and cultural values” and contain the achievement of several sub-objectives through balanced and coordinated policies in the planning of the territory of the country as part of the European space, following the criteria for social and economic cohesion, achievement of competitiveness and sustainability and overcoming the disparities in the development of urban and rural areas.²⁴

In the NCSD cultural values are considered as an expression of the incorporation of the cultural heritage in the unified general spatial policy of the country, which in turn will influence the urban and land-use planning policies. The spatial concept and the major objectives for development of the cultural heritage are formulated in a new social and political situation and in the framework of the European territorial and cultural space, as well as against the background of the European cultural policies for protection and exhibition of the cultural diversity in its multi-cultural dimensions, promotion of the national cultural industries and cultural cooperation, enhancement of the role of the individual regions and cities and promotion of cross-border cultural relations.

Taking due account of the fact that the major concern of the European²⁵ and national spatial policy is preservation of the cultural diversity *vis-à-vis* the practical impossibility for comparing cultural and historical values because of their specific significance for local communities and the culture of the country as a whole, the NCSD outlines several spatial models, which are accommodated through the system of spatial modules, administrative and non-formal areas, territories possessing specific characteristics and the centres and axes of urban development, whereat the majority of the latter follows the routes of important cultural and bio-corridors.

The system of the six NUTS 2 regions is part of the territorial structure of the European Union and is most immediately involved in the European inter-regional links and at the same time strengthens the feeling of belonging of Bulgarian citizens to the European culture and the sense of their own European identity. In terms of number of cultural values, the Southwest and North Central Regions rank first. The system of cultural routes in Southeastern Europe comprises transition via the country of five corridors: the Danube corridor, the diagonal corridor (*Via Diagonalis/Via Militaris*), the Black Sea corridor *Via Pontica*, the Western trans-Balkan corridor and the Eastern trans-Balkan corridor.

The Northwest Region (NUTS2) is closest to Central and Western Europe and falls partially under the European supra-region of the countries of the Black Sea basin with two of its districts – Vidin and Pleven. In its historical development it has been a strategic and frontier region – Danube-based border of the Roman Empire, of the Eastern Roman Empire/Byzantium, of the Mediaeval Bulgarian state and of the Ottoman Empire. It has had intensive natural links to Central and Western Europe and the countries along the River Danube during different historical periods. On its territory 3,883 immobile cultural landmarks are situated, recorded in the registries of the National Institute on the Immobile Cultural Heritage, as well as hundreds of others, which

²⁴ European Spatial Development Perspective (ESDP, 1999)

²⁵ Territorial Agenda of the EU 2020. Towards an Inclusive, Smart and Sustainable Europe of Diverse Regions, 2011, Goedeoloe, Hungary (<http://www.eu2011.hu/files/bveu/documents/TA2020.pdf>)

have not been included in them and which provide solid grounds for proposing the realization of the potential of that territory through integrated exhibition of its cultural and natural features. The territory of the region is traversed by the *Danube Cultural Itinerary*, the *European ways of Jewish heritage*, the *Green belt – the longest habitat chain in Europe* and the *Western trans-Balkan cultural corridor*.

Potential for development of cultural tourism, respectively of the economy, including in connection with the intensification of the links along the lower stretches of the River Danube and the development of navigation, are the Roman cities and fortresses – along the strategic Roman road passing via Montana-Vidin-Belogradchik-Kula and connecting the Lower stretches of the River Danube with Rome and along the Danube *limes*²⁶, as well as the *Via Traiana* running from the southern city of *Hadrianopolis* via Plovdiv (*Philippopolis*) towards Serdika and Vidin. The cultural landmarks, connected with the influence of the Saxon ore-mining, provide information about the economic and cultural relations with Western Europe by land and along the River Danube. In this region there are interesting landmarks of the Orthodox religion and Catholicism. Historical sights, localities and itineraries bear witness to Bulgarian resurrections for independence, historic personalities and the spirit of Botev's exploit – the Botev trail. In addition to the cultural values from the period of the Bulgarian Renaissance, the settlements here have preserved also non-material heritage – the emblematic tradition of Chiprovo carpet weaving, etc

In this region the “*Vrachanski Balkan*” Nature Park is situated. There are interesting rock formations and the largest number of caves with traces of human activity, mineral waters and centres with long traditions in balneo-treatment. The western peripheral areas fall within the boundaries of the European Green Belt.

The North Central Region (NUTS 2) falls partially under the European Danube transborder supra-region with four of its districts – Veliko Tarnovo, Ruse, Razgrad and Silistra. Its territory is traversed by the European *Danube Cultural Itinerary* and the *European ways of Jewish heritage*. The region needs specific targeted policy for protection, socialization and popularization of its cultural values also as a resource for its economic development. There are a total of 5,480 immobile cultural landmarks, including 10 reserves.

The Bulgarian Mediaeval capitals and cities and their development during the late Middle Ages and the New Era possess great potential. These are Veliko Tarnovo with its unique urban profile and the Tarnovo Aton, landmarks going back to Ancient Rome (common for the European cultural space) and the cities along the Danube *limes*, together with the Late Mediaeval human settlements, architectural reserves and complexes, urban developments from the late Middle Ages and the New Era including modern European architecture from the end of the 19th c. and the early 20th c. - Ruse, Svishtov, Silistra and Gabrovo, which are also centres of education and culture. The cultural interactions between the Orthodox Christianity and Catholicism are characteristic for these territories. The existing museum and festival infrastructure is well developed but needs specific support policies.

Thematically worth noting here are the *Ivanovski Rock Churches* and the *Sveshari Tombvault*, the Bridge of Master Kolyo Ficheto at Byala, the “*Russenski Lom*” National Park, the “*Srebana*” Biosphere reserve, and part of the “*Central Balkan*” National Park with the park management directorate in Gabrovo.

The Northeast Region (NUTS 2) falls partially under the *European supra-region* of the countries from the Black Sea basin with two of its districts – Varna and Dobrich. Its territory is traversed

²⁶ the Roman fortress “*Kamistra*” along the Misiya road: across *Avgusta* (Harlets), *Regina* (Kozloduy), *Cebus* (Tsibar), *Pomodiana* (Stanevo), *Almus* (Lom) etc.

by the European *Danube Cultural Itinerary*, the *Eastern Trans-Balkan Cultural Itinerary*, the “*Via Pontica*” cultural corridor and the *European ways of Jewish heritage*. There are a total of 3,180 immobile cultural landmarks, including 7 reserves.

A real impetus for the development of the region and landmarks from the Bulgarian Middle Ages period, the capitals of the first Slavonic state, the sights of the *Preslav Literary School* – the literary and cultural centre of Bulgaria and the Slavonic world, the early agricultural societies in Europe from the Neolith era, the ancient fortresses and Black Sea colonies, urban culture from the times of Ancient Rome, Byzantium, the Ottoman Empire and the modern times – urban culture and art of the modern Bulgarian state from the end of the 19th c. till the Second World War and after it. This region is related to the military maritime history of the country, with the specific development of the cities as holiday-making locations with well-developed educational, cultural, museum and festival infrastructure.

Thematically within the scope of the region fall the ancient Bulgarian capitals Pliska, Veliki Preslav, the Madara Horseman landmark and the ancient settlements near Devnya, Varna, Byala and Obzor, as well as the sights of the natural heritage – the nature parks “*Shumensko Plato*” and “*Golden sands*”. The city of Varna is famous for its exclusively rich calendar of cultural events and is candidate for European capital of culture 2019.

All the three NUTS 2 regions, which border on the Danube River to the north with, are of particular importance for the establishment of the Danube *limes* as world heritage area and for preparation for its incorporation in the UNESCO List together with the other European states, via which runs the river.

The Southeast Region (NUTS 2) falls partially under the *European supra-region* of the countries from the Black Sea basin with one of its districts – Burgas. Its territory is traversed by the *Eastern Trans-Balkan Cultural Itinerary*, the “*Via Pontica*” cultural corridor and the *European ways of Jewish heritage*. In this region also one of the three cities in the country, Burgas, is situated, having a well-established urban zone of impact and relatively stable demographic picture. There are 4,270 immobile cultural landmarks, including the city of Nessebar from the UNESCO World Cultural Heritage List in the region.

The sites and complexes related to the Ancient Thracian civilization, Antiquity and Middle Ages, the historical coastline cities and former colonies, 12 archaeological reserves from the epoch of the Late Middle Ages and the New Era, towns with specific traditional local and urban architecture, also have a good potential for development. Together with the nature landmarks and the submarine archaeology, the culture of the early agricultural communities in Europe from the epoch of Neolith and the non-material heritage, they represent an impressive “hinterland” for the littoral holiday-making zone and prerequisite for diversified branding of touristic products.

Here fall the thematically outlined zones with concentration of ancient settlements, tomb vaults and with the biggest concentration of dolmens in Strandja Mountains (Zabernovo, Malko Tarnovo and Russocastro etc.), the ancient landmarks in Sozopol and Debel, the Roman baths near Burgas *Aqua Calidae*, the ancient town of Kabile – Yambol, the Neolith settlements in Stara Zagora, etc. Territories with high concentration of cultural landmarks of only one period but representing great importance for the region are those with concentration of dolmens in the border zone with Turkey, which is a prerequisite for joint projects in the framework of programmes for cross-border cooperation. The “*Strandja*” Nature Park, within which the two reserves “*Uzunbudjak*” and “*Silkosiya*” are situated, with which the beginning of nature conservation activities in Bulgaria is connected, and the participation of the border areas in the European Green Belt, improve the chances for implementation of joint projects. Among the intangible values possessing the highest chances for incorporation in the UNESCO List is fire-

dancing. In addition to this potential, the diverse mineral springs and the traditions in balneological treatment in Burgas, Pomorie, Sliven, Pavel Banya and Stara Zagora are of significance for the development of tourism.

The South Central Region (NUTS 2) is traversed by the *Via Diagonalis/Via militaris* cultural itinerary, the *Eastern Trans-Balkan cultural itinerary* and the itineraries in the cultural area of the Rhodope Mountains, the cultural itinerary “The architecture of the 20th c. totalitarian regimes (project), the *European ways of Jewish Heritage*, the Green Belt (along the border with the Republic of Greece and the Republic of Turkey). The ancient Roman road *Via Trajana*, connecting Edirne (*Hadrianopolis*) via Plovdiv (*Philippopolis*) with Serdika and Vidin, is also running through the region. The region is saturated with immobile cultural landmarks (a total of 5,275). A famous reserve is that under the name “The ancient town of *Philippopolis and Ancient Plovdiv*”.

A real impetus for realization of the cultural and economic openness of the region and its identity, are the ancient Thracian civilization, the Late Antiquity and Mediaeval culture, late Middle Ages and the New Era – specific traditional local rural and urban architecture in the Rhodope Mountains area, the unique urban profile of Plovdiv with outstanding development during Antiquity, the late Middle Ages and during the New Era and its formation with explicit significance for the country in the framework of the modern European culture.

The Southwest Region (NUTS2) is the most developed European region in the country, centre of cultural life, which requires targeted policy for making full use and valorisation of the cultural values. It is relatively homogenous as cultural space and possesses a remarkable cultural potential: 7,348 immobile cultural landmarks under the protection of law – historical and cultural artefacts from Antiquity, the Middle Ages, the New Era and the new and the latest history. The territory of the region is traversed by the following European cultural corridors: the *Western Trans-Balkan Corridor*, the “*Via Diagonalis/Via Militaris*” *Diagonal Corridor*, the *European ways of Jewish heritage and the Green Belt*.

This region, with historical spatial relations with Western Europe and the Mediterranean area, possesses remarkable landmarks, linking its history to Ancient Rome (the Roman cities and fortresses *Serdika*, *Pautalia*) along the strategic Roman road, connecting the lower stretches of the River Danube with Rome, as well as *Via Traiana* connecting Edirne (*Hadrianopolis*) via Plovdiv (*Hadrianopolis*) and Serdika to Vidin. The archaeological sites from Ancient Sofia give the capital new prospects and make it equal to the big European centres of ancient civilization. There are opportunities for development on the theme of religious centres and the ways of Christian culture and religious tolerance. The traces of the most recent history, architecture and art, the rich cultural life of the highest quality, enhance the potential of the city and the region.

In the scope of the region fall the nature parks “*Vitosha*”, “*Rila Monastery*” and “*Belasitsa*” and the national parks “*Rila*” and “*Pirin*”, numerous reserves and nature landmarks, which is a prerequisite for combination of natural and cultural sights in the development of diverse forms of tourism adequate for the local environment and degree of protection.

During the study of the current state and the assessment of the potential of the national space due account was taken of the links of the natural and cultural sites with the system of urban development axes formed along the corridors of the TEN-T and the transport networks of national significance. In the majority of cases they overlap with the traditional links with the Western European civilization since antiquity till the modern era, with the routes towards Asia, form part of the cultural corridors in Southeast Europe and the Balkan Peninsula, cover the destinations of the migration ways of birds, which traverse the country along the Black Sea and the valleys of the rivers Danube, Maritsa, Struma and Mesta.

The cultural wealth of the big cities from the first three hierarchic levels, the natural and cultural values of their adjacent surrounding urban and rural areas, have been studied and evaluated based on several major criteria, depending on their significance for the world cultural heritage, for Europe and our country, the concentration of immobile cultural landmarks of different epochs (rich stratification) and concentration of immobile cultural landmarks from only one epoch of great importance for the region. The peripheral areas of municipalities with centres small towns and villages have also been studied. They have been selected using three main criteria: registered sites, representing values of world (from the UNESCO World Heritage List) or national significance, archaeological reserves (according to data submitted by the National Institute for Immobile Cultural Heritage and annex to the Cultural Heritage Act) (175 out of 210 small human settlements, centres of municipalities), areas representing parts of cultural spatial axes, outlined in the macro-spatial structure of the country. The potential for tourism-related infrastructure has been used as additional criterion.

For the purposes of optimal practical application of the objectives and policies of the NCSD, the principle of integrated planning should be applied for ensuring the right of access to project financing of a group of human settlements, parts of a common spatial territorial structure with thematically defined zones.

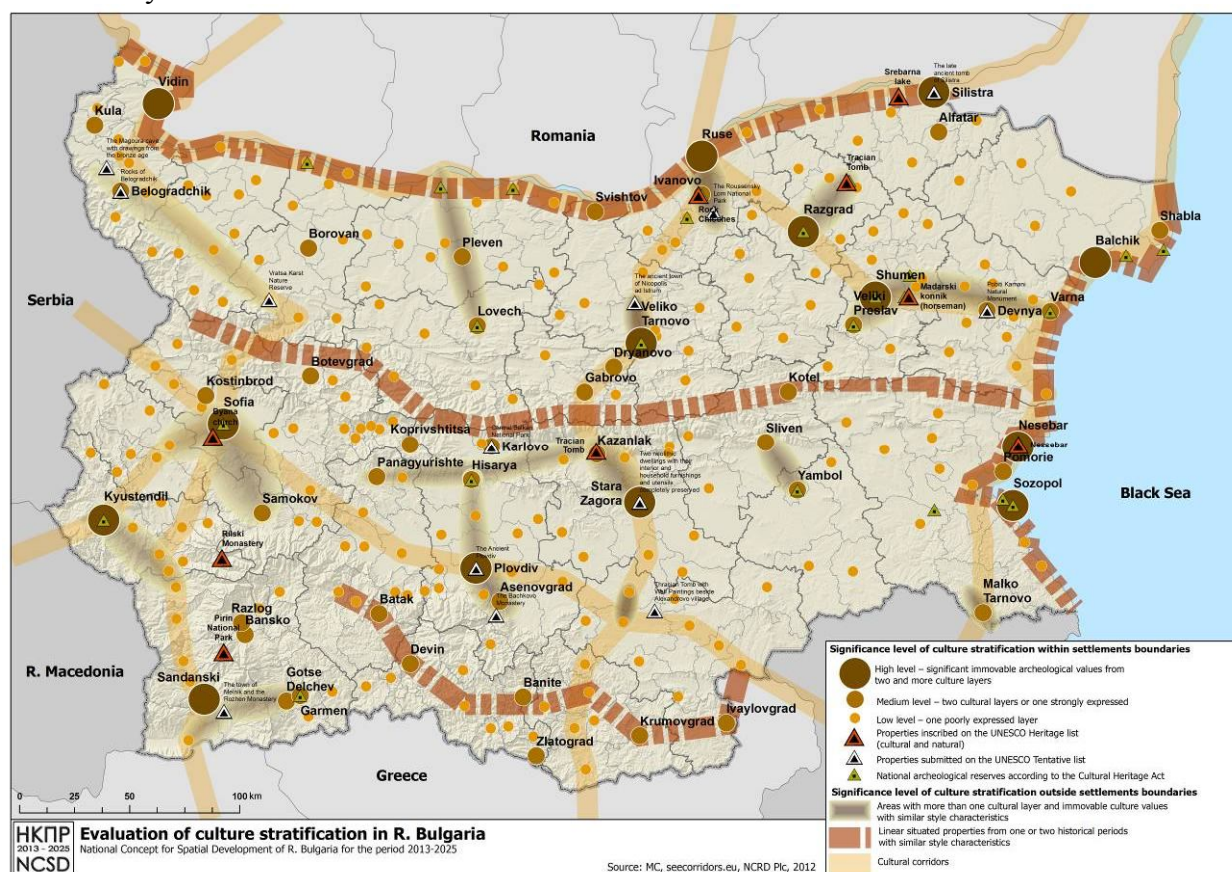


Fig. 18: Cultural layers outside human settlements

One of the principal policies of the NCSD is the conscious focus on the specifics of the location, the internal potential of the cultural resources and the individual advantages, on the basis of the material and non-material linkages between the territories at different levels – from the level of the individual “location”, village, city, municipality, to region and regions, and precise specification of the intervention in the spatial context with its local and/or regional specifics. The setting in place of local infrastructure and local basic services in rural areas, including for

activities related to recreation and culture, the renovation of the villages and the activities directed towards restoration and improvement of the cultural and natural heritage of villages and of the landscape have been evaluated as “principal element of every effort for implementation of the potential for growth and promotion of the sustainability of rural areas”.²⁷ The NCSD proposes the following territories with concentration of cultural values:

1. **Danube cultural space** – comprising the following summary thematic focuses: “Antiquity”, “Early Christianity”, “Late Bulgarian Mediaeval period 17th-19th c.”, “Europe and the Ottoman Empire 14th-19th c.”, “Neo-baroque”, “Neo-classicism”, “Secession”, “Romanticism”, “20th c. Internationalism and modernism”

Ancient towns and fortresses along the Danube *limes*, *Ivanovski* rock churches, the “*Sveshtari*” Thracian tomb vault, the “*Sboryanovo*” Locality, Master Kolyo Ficheto – “*Sv. Bogoroditsa*” Church, Svishtov, the bridge at Byala; historical urban cores from the end of the 19th c. and the early 20th c. – Vidin, Svishtov, Ruse, Silistra; Jewish art; Catholic art; memorial places – Belene, Vidin, Silistra; “*Rusenski Lom*” Nature Park and “*Srebarna*” reserve.

2. **Black Sea cultural space** – comprising the following summary thematic focuses: “Antiquity”, “Late Bulgarian Mediaeval period 17th-19th c.”, “Byzantium”, “Europe and the Ottoman Empire 14th-19th c.”, “Traditional architecture, traditions and customs”, “Neo-baroque”, “Neo-classicism”, “Secession”, “Romanticism”, “20th c. Internationalism and modernism”, “Natural and cult phenomena”, “Subaquatic archaeology – sunken settlements”

Early agricultural communities in Europe from the period of Neolith – Varna; ancient fortresses and Black Sea colonies – ancient settlements *Odessos*-Varna, *Aspros*-Byala, *Heliopolis/Theopolis*-Obzor, *Mesembria*-Nessebar, *Anhialo*-Pomorie, *Apolonia*-Sozopol, *Deultum*-Debelt; tomb vaults and dolmens in Strandja – Zavernovo, Malko Tarnovo, Russokastro, Kalovo; “*Golden sands*” Nature Park, “*Strandja*” Nature Park, fire-dancing, archaeological reserves, architectural reserves, architectural sites and complexes – Nessebar, Sozopol, Varna, Yaylata (Kavarna).

3. **Western cultural space** – comprising the following summary thematic focuses: “Antiquity”, “Bulgarian Mediaeval period 9th-14th c.”, “Late Bulgarian Mediaeval period 17th-19th c.”, “Byzantium”, “Europe and the Ottoman Empire 14th-19th c.”, “Traditional architecture, traditions and customs”, “Neo-baroque”, “Neo-classicism”, “Secession”, “Romanticism”, “20th c. Internationalism and modernism”, “20th c. totalitarian architecture, art, symbols”, “Christian art”, “Natural and cult phenomena”

Ancient and Mediaeval towns and fortresses - *Nicopolis ad Istrum*, Garmen; *Samuil Fortress*, Petrich, Serdika, Sofia, Bononia, Vidin, *Pautalia*, Kyustendil, *Kamistra*, *Avgusta* (Harlets), *Regiana* (Kozloduy), *Cebzus* (Tsibar), *Pomodiana* (Stanevo), *Almus* (Lom), *Razaria* (Archar), Belogradchik; Mediaeval churches and monasteries (Radomir, Breznik, Dragoman, Samokov, Svoje, Botevgrad, Tran, etc.), the “*Sofia Aton*”, Sofia (cultural layers from antiquity till the present); Saxon ore-mining and the economic and cultural links with Western Europe; Bulgarian Renaissance – Bulgarian uprisings for independence, the “*Botev trail*”; non-material heritage – tradition in Chiprovtsi carpet-weaving, traditional local rural and urban architecture – architectural sites and complexes (Melnik, Dolen, Kovachevitsa etc.); religious centres and ways of the Christian culture – Orthodox Christianity and Catholicism – Mediaeval churches and monasteries (Georgui Damyanovo, Miziya, Mezdra, Montana, Chiprovtsi, Chuprene etc.);

²⁷ Regulation of the European Parliament and the Council concerning support for the development of rural areas from the EAFRD (proposal), 2011

“Vitosha” Nature Park, “Belasitsa” Nature Park, “Vrachanski Balkan” Nature Park, “Pirin” National Park, “Rila” National Park.

4. **Southern cultural space** (*Via Diagonalis*) + **“Rhodope Mountains”** – comprising the following summary thematic focuses: “Antiquity”, “Roots of European identity. Thracians”, “Bulgarian Mediaeval period 9th-14th c.”, “Late Bulgarian Mediaeval period 17th-19th c.”, “Byzantium”, “Europe and the Ottoman Empire 14th-19th c.”, “Traditional architecture, traditions and customs”, “20th c. Internationalism and modernism”, “20th c. totalitarian architecture, art, symbols”, “Christian art”, “Natural and cult phenomena”;

Ancient cities – *Philippopolis*-Plovdiv, *Verea*-Stara Zagora, *Kabile*-Yambol; Christian art – Assenovgrad, Bachkovo Monastery; prehistoric and Thracian settlements, dolmens, tomb vaults and Mediaeval fortresses in the Rhodope Mountains (Devin, Borino, Chepelare, Krumovgrad, Topolovgrad, Kardjali, Ivaylovgrad etc.); traditional architecture – Shiroka Laka, Smolyan, Zlatograd etc.

5. **Cultural space “Fore-Balkan”** – comprising the following summary thematic focuses: “Roots of European identity. Thracians”, “Late Bulgarian Mediaeval period 17th-19th c.”, “Traditional architecture, traditions and customs”, “20th c. totalitarian architecture, art, symbols”;

The valley of Thracian kings, architectural sites and complexes – Kotel, Zheravna; urban culture 18th-19th c. – Karlovo, Kazanlak, Sliven, the Rose Valley.

6. **North Central cultural space** – comprising the following summary thematic focuses: “Bulgarian Mediaeval period 9th-14th c.”, “Late Bulgarian Mediaeval period 17th-19th c.”, “Byzantium”, “Christian art”, “Traditional architecture, traditions and customs”;

The Mediaeval Bulgarian capital Veliko Tarnovo, the Tarnovo Aton, architectural sites and complexes – Veliko Tarnovo, Arbanassi, Lovech, Gabrovo, Tryavna, Elena, Teteven.

7. **Northeast cultural space** – comprising the following summary thematic focuses: “Antiquity”, “Bulgarian Mediaeval period 9th-14th c.”, “Late Bulgarian Mediaeval period 17th-19th c.”, “Europe and the Ottoman Empire 14th-19th c.”, “Traditional architecture, traditions and customs”;

The ancient city *Abritis*-Razgrad, the Bulgarian Mediaeval capital – Pliska and Veliki Preslav; the Preslav Literary school; Madara; ancient fortresses and Black Sea colonies – Devnya, Varna; nature parks – “*Shumensko Plato*”; urban architecture and cult complexes – Shumen, Razgrad; urban culture and art of the modern Bulgarian state from the end of the 19th c. till the Second World War and after – historical cores.

In the NCSD priority in the development of the culture-related infrastructure is given to the “Danube” cultural space, the Southern cultural space and the Western cultural space.

3.6. Territories with specific characteristics

The identification of territories with specific characteristics is a traditional instrument for spatial orientation of policies and programmes for attainment of the desired objectives. The review of these different types of territories reveals diverse symptoms/criteria, according to which they have been identified, but also significant overlapping. The NCSD has decided to treat as territories with specific characteristics parts of the national territory, which require implementation of specific land-use planning and development policies. The coastal/shoreline areas (the Black Sea coast and Danube river), mountain areas, border areas, areas at risk and the

territories for protection of landscape, natural and cultural values have been identified as such. These territories are defined as “non-formal areas”. Two of them – the Danube river shoreline and the Black Sea littoral, are defined and institutionalized and internationally consolidated strategic documents for their development exist. The Black Sea coast is the object of a special law as well (The Black Sea Coast Spatial Planning). The remaining types of territories possessing specific characteristics may be summarized in a joint category – “problematic” areas. The identification of territories possessing specific characteristics and problems will provide an opportunity to focus the territorial addresses and priorities of the sectoral policies and future operational programmes, to enhance the probability for implementation of the respective regional strategies. Thus ways and approaches for formulation and implementation of a targeted and integrated policy for preservation of their specifics and overcoming of the accumulated problems will be found.

Black Sea Coast

The determination of the scope of the Black Sea coastal areas demonstrates certain differences, since the littoral comprises also the territory of the hinterland, which is defined in a different manner. In the Black Sea Coast Spatial Planning Act the territory of the littoral is limited to the coastal beach strip, part of the aquatory and part of the hinterland with two zones, which extend to 2 km in depth. However, the territories of the coastal municipalities are also regarded as the object of spatial planning. Members of the Association of Black Sea Municipalities are 21 municipalities. According to the joint Operational Programme “Black Sea 2007-2013”, the entire Northeast Region and Southeast Region of NUTS 2 are defined as coastal. These boundaries go beyond the zone of active impact of the Black Sea, which in some parts of lower altitude of the coast and flatland nature may reach maximum up to 40 km.

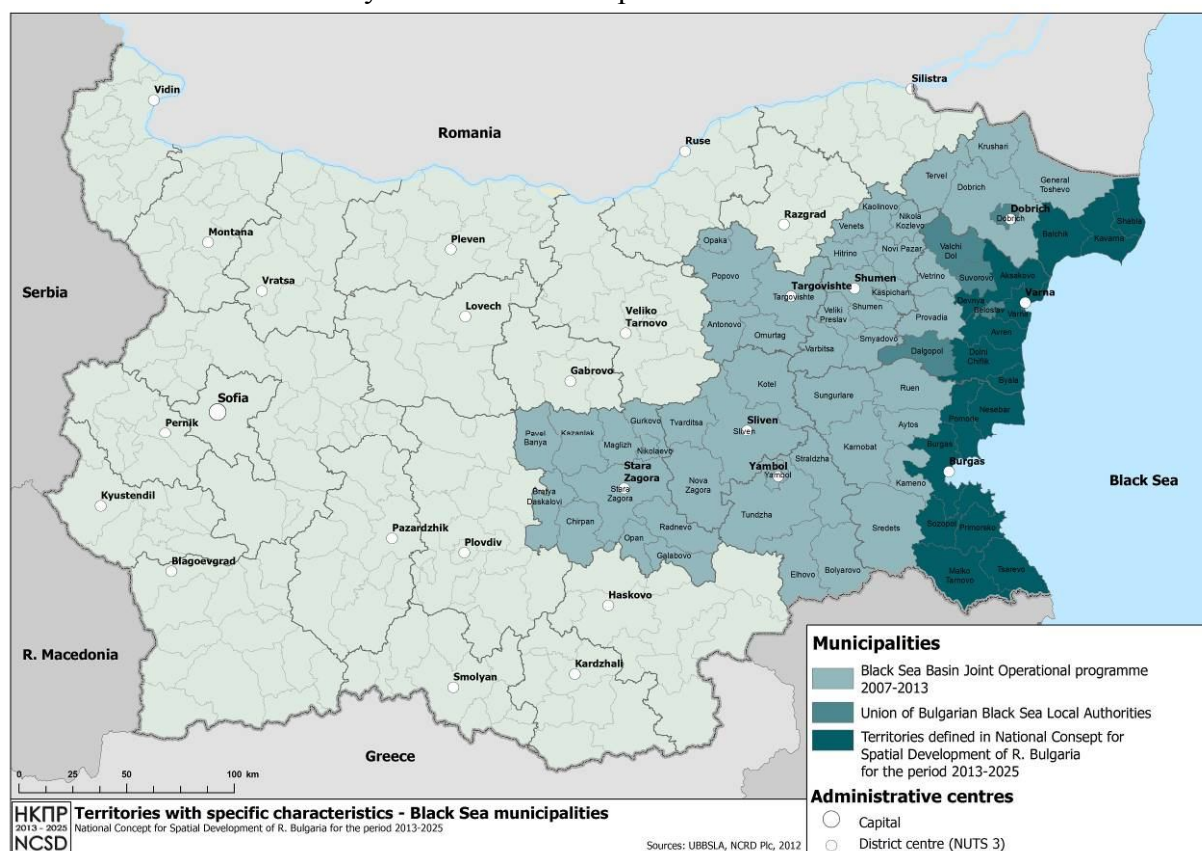


Fig. 19: Territories with specific characteristics – Black Sea municipalities

In the NCS, 14 municipalities have been assumed as coastal. The major criterion for their selection was their coastal location, in view of the need for integrating and coordinating the policies for spatial planning and management of the territory and aquatory during the next programming period. Of the total of coastal municipalities the municipalities and agglomeration areas of Varna and Burgas fall under the category "central", the rest of the municipalities fall under the category "peripheral".

The delimitation of the Black Sea municipalities/areas should create conditions for integrated management of our littoral, for focusing on the areas of pan-European significance – gateways of the country and the EU.

The Black Sea areas are the object of a special EU programme (Joint Operational Programme of the Black Sea basin 2007-2013). This programme is financed from the European Neighbourhood and Partnership Instrument – ENPI. Its objective is “sustainable economic and social development of the regions of the Black Sea basin” through economic support, joint mitigation of challenges and direct cooperation. Transposing the objectives of this programme, the NCS makes a territorial application for a strategically important for the development of the territory element – the “Black Sea” Highway, which shall pass sufficiently away from the coastline. The proposal is that this highway will continue as a 4-lane Class I road to the north to Shabla with connection towards Constanta and Tulcha and to the south – from Sozopol to Rezovo towards Istanbul. In this way the strategic objective for improved “cohesion” will be realized and conditions will be created for valorisation of the specific potential of the region (tourism, agriculture, industry, pulsating labour markets, pulsating trade and the specific attraction resource of “*Via Pontica*” – not only an ornithological way but also the route of an ancient Roman road). In this way the eastern meridian development axis along the Black Sea coastline will be activated and enriched with unique individuality and specifics.

Danube shoreline area

There are differences in the determination of the Danube shoreline area as well. A total of 34 municipalities have self-identified themselves as Danube municipalities through their membership in the Association of Danube Municipalities. This scope has been adopted also in the draft-paper “Elaboration of socio-economic analysis for the needs of OPRD for the period 2014-2020”. According to the programme for cross-border cooperation between Bulgaria and Romania 2007-2013 the municipalities belonging to all the districts, which border with Romania, and the District of Razgrad, have been recognized as Danube municipalities.

In the NCS 23 municipalities bordering on the River Danube have been recognized as Danube municipalities. Of the Danube municipalities, the municipalities of Vidin, Svishtov, Ruse and Silistra fall in the category of "central" ones, the remaining municipalities fall under the category "peripheral". In the process of this systematization the socio-economic indicators, functional linkages, traditions, location with respect to the transport corridors and the significance, which they are assigned in the Danube Strategy²⁸, as well as in other international documents, have been duly taken into account. Among the “central” ones the territories of the municipalities of Vidin, Ruse and Silistra are of pan-European significance because of their linkage to the trans-European transport corridors. Added to them is also the city of Lom, which is assigned greater weight in the polycentric network of cities in the National Concept for Spatial Development of Romania.

²⁸ http://ec.europa.eu/regional_policy/cooperate/danube/index_en.cfm

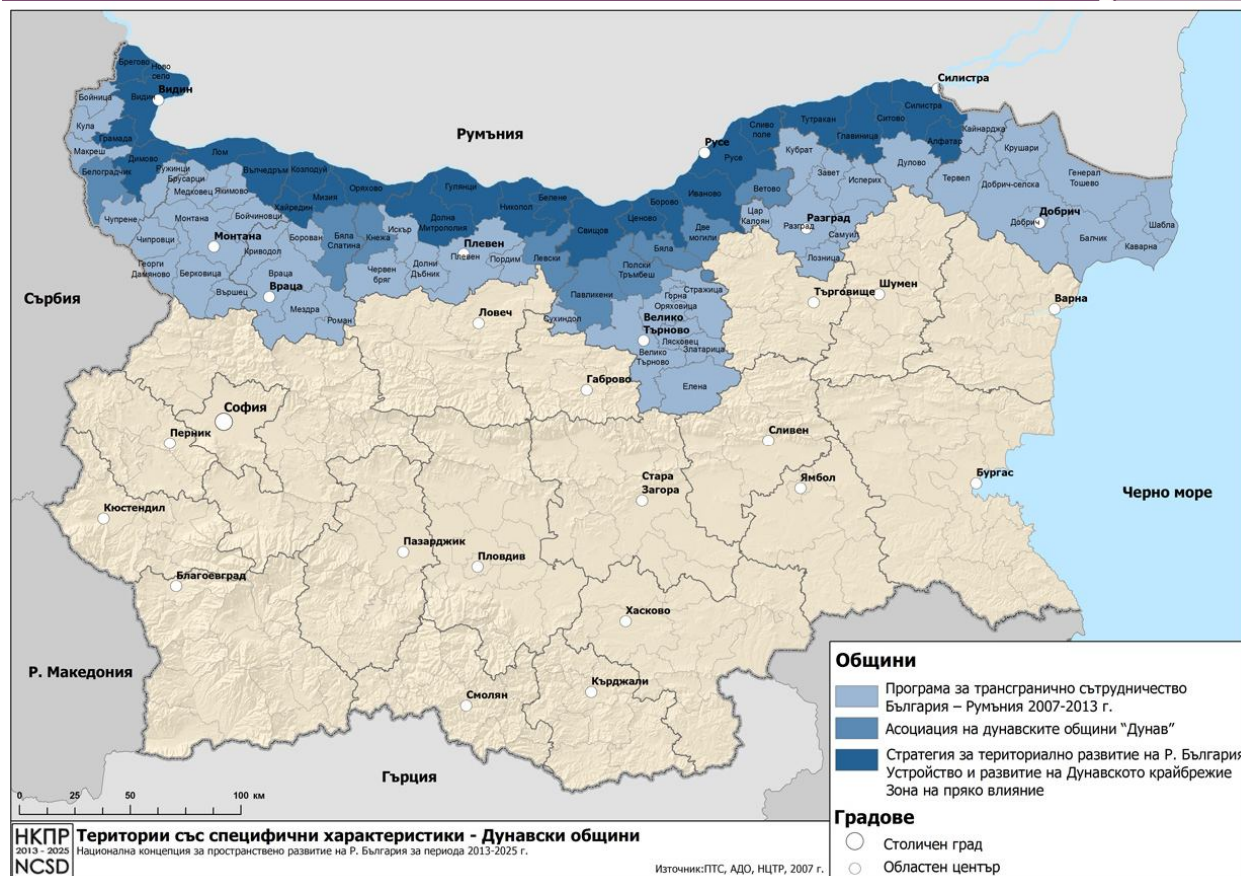


Fig. 20: Territories with specific characteristics – Danube municipalities

The Danube Strategy builds on three major pillars: “linkage” (improvement of accessibility, transport connections and communications along and to the Danube and efficient use of the energy resources), “environment” (improvement of the quality of waters, preservation of the rich biodiversity, risk prevention and management) and “competitiveness” (improvement of the competitive capacity of the regions through innovations, education, culture, tourism, multi-cultural dialogue and preservation of the regional identity and rich cultural heritage). These actions aim at ‘triggering the potential’ of the region. The NCSD specifies in addition as significant the intervention for improving the reliability of the waterway not only through measures for dredging and renovation of the navigation systems, but rather through design and construction of facilities with lockage guaranteeing year-round navigation from Vidin to the Black Sea. This proposal of the NCSD represents supra-structure of the Danube Strategy.

In the NCSD the importance of the Danube development axis has been highlighted, although currently it shows only rudiments of formation in certain sections along the shoreline. This axis is indicated as secondary, but in a not so distant future it will have to develop as one of the major parallel development axes in the national territory. It is supported by Priority axis 18 of TEN-T (the River Danube), which connects all the eminent European centres from the Danube countries. This priority axis of TEN-T will establish itself as a national urban development axis after the implementation of a number of projects, among which construction of new bridges in addition to Vidin/Calafat. Such are the bridges at Oryahovo-Beket and Silistra-Calarasi, as well as a second bridge at Ruse-Giurgiou. This will contribute to the strengthening of cross-border relations and the role of border cities as urban centres, which will form agglomeration formations at both sides of the river.

In different documents mountain, rural and border areas/municipalities are defined as territories with specific characteristics and conditions. The high degree of overlapping and the similarity of the problems they face are characteristic of them, which provides grounds for defining them as “problematic” territories.

Mountain areas/municipalities

There are three different delimitations of mountain municipalities: (a) that of NORDREGIO; (b) according to the Ordinance for determination of the criteria for under-developed areas and their territorial coverage (promulgated in SG No. 20/2008); and (c) according to the categorization approved in the National Regional Development Strategy for the period 2012-2022.

In the NCSD the last typology was adopted, according to which 109 municipalities with 1,714 human settlements were identified. As a module for determination of mountain areas the community land has been used, which meets one of the three criteria (altitude above 700 m above sea level, average gradient above 20% or altitude of 500 m a.s.l. and gradient above 15%). Only a small number of mountain municipalities fall under the category of "central" ones, the predominant number of them fall under the category "peripheral".

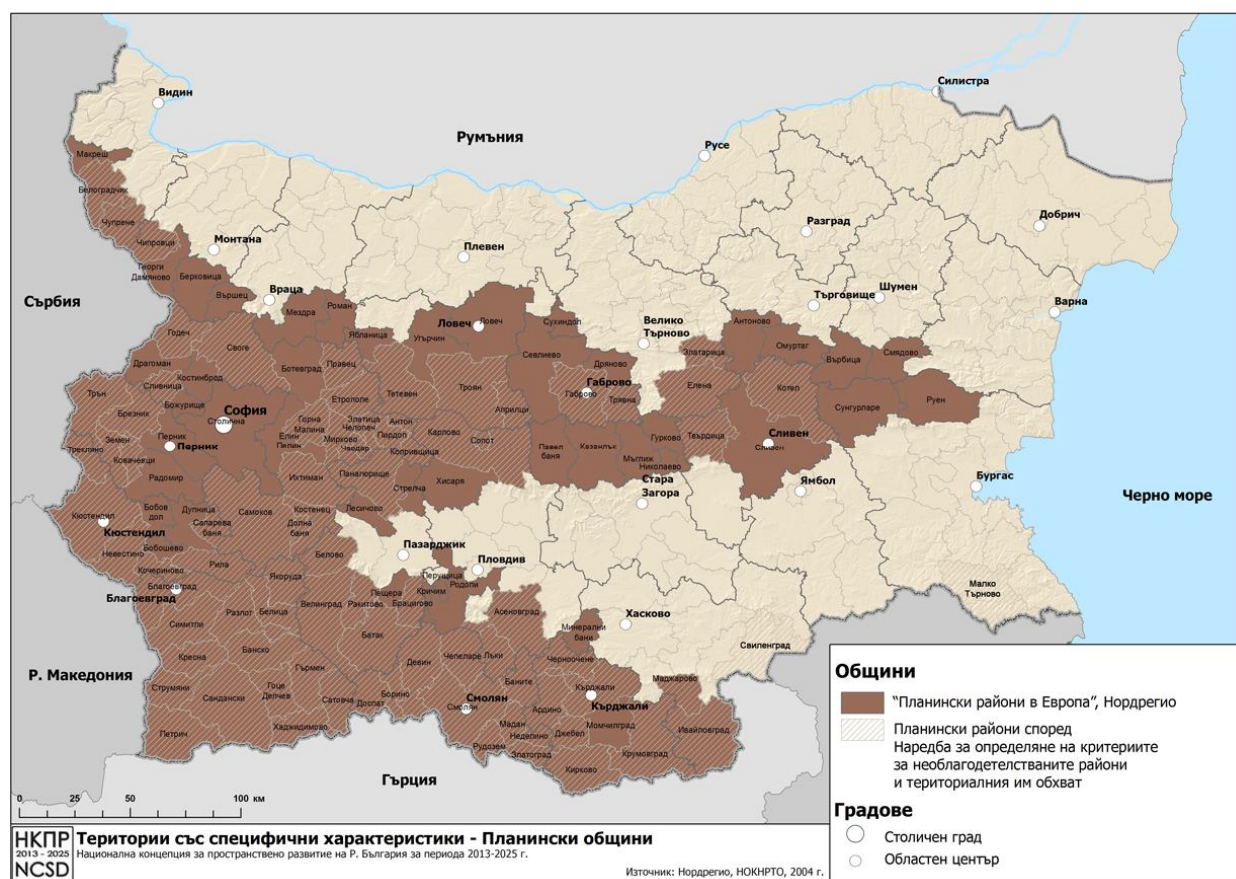


Fig. 21: Territories with specific characteristics – mountain municipalities

In the majority of these municipalities there are considerable untapped resources for developing different forms of tourism based on nature and anthropogenic components of the environment – protected areas and zones, landscapes of exclusive natural beauty, traditional scenery, material and non-material cultural heritage, unique system of small human settlements and hamlets, huddled in the mountain and demonstrating typical silhouette and Bulgarian architecture. Therefore, these municipalities will be eligible for support for development of tourism.

With respect to these territories the NCSD gives priority to the development of Strandja Mountains and the Eastern Rhodope Mountains because of the concentration of unique for the country and Europe nature and cultural values and potential for implementation of cross-border projects there.

Border areas/municipalities

In the NCSD 43 municipalities, which border on land with the state border, are assumed as "border" municipalities. Only four of them (Smolyan, Petrich, Blagoevgrad and Kyustendil) are in the category "central" municipalities, the rest are peripheral ones. Most of the border municipalities along the western and southern borders may be assigned to the category "mountain" municipalities.

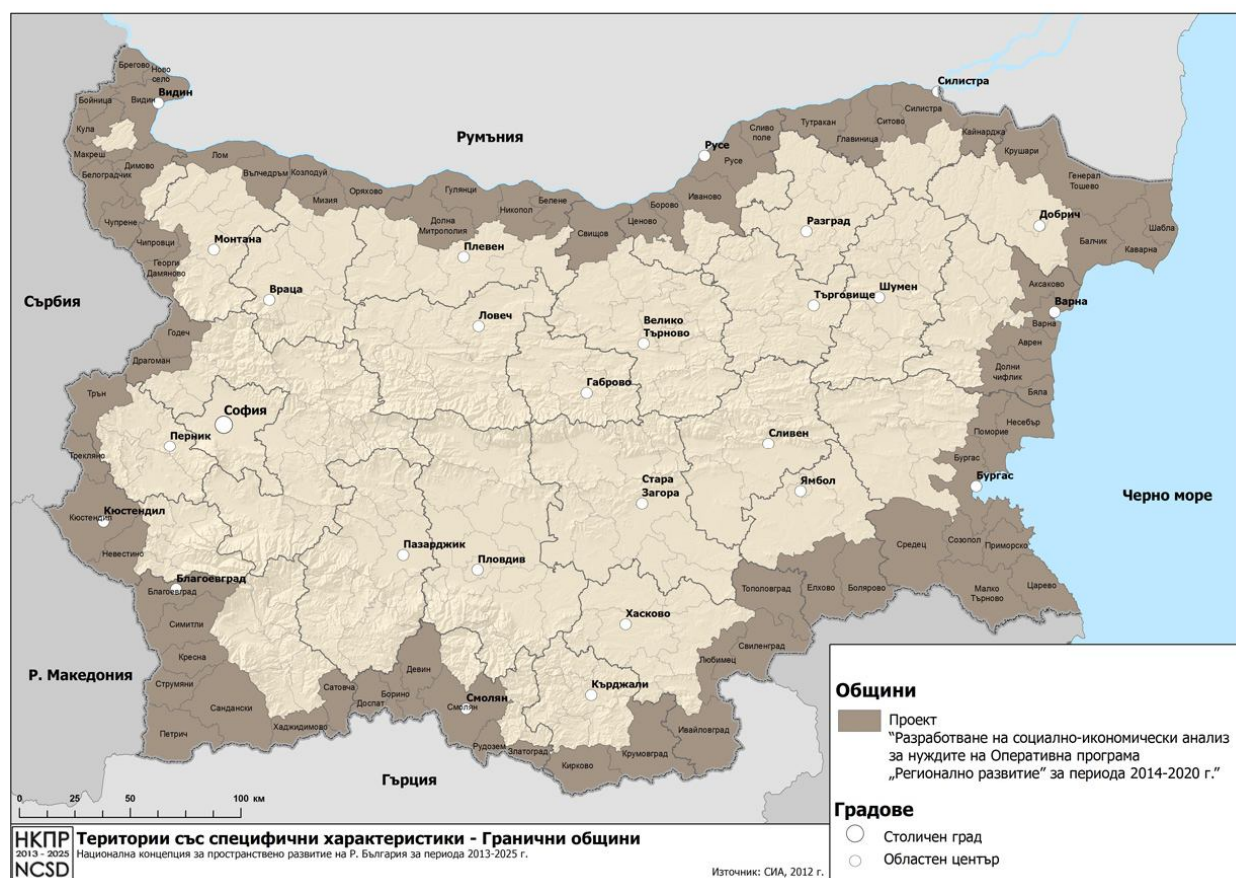


Fig. 22: Territories with specific characteristics – border municipalities

Rural areas/municipalities

In the RDP a total of 231 municipalities, which have as a centre a settlement with a population below 30,000 inhabitants, have been defined as "rural". These municipalities account for 81% of the territory of the country and 42% of the population. They are beneficiaries of support under the measures related to settlement environment and infrastructure. At the same time, in the framework of OPRD, 178 municipalities are involved in the activities under Priority Axis 4 – "Local development and cooperation". This typology has been accepted in the NCSD, but with the reservation that these are the municipalities without an established core-city – a big or medium-sized city. Their denomination as "rural municipalities" is not correct, since in every municipality there are villages and a city. For this reason the NCSD assumes the division of municipalities into "urban" and "rural" as conventional, in order to give an opportunity to the small human settlements, situated in municipalities with big or medium-sized cities of hierarchic

Levels 1, 2 and 3 as a core-city, to be eligible to support from the RDP. The cities of hierarchic level Four, which remain outside the list of cities, eligible to support under the OPRD, will also rely on the RDP for elaboration of IPURD.

Almost all "rural municipalities" fall under the category "peripheral" and face difficulties in their socio-economic development. But they feature different location with respect to the communication and transport infrastructure and different access to the services providing centres. The NCSД proposes differentiation of rural municipalities depending on their location in the national space and the proposed polycentric spatial model.

- ✓ Rural municipalities situated close to an urban centre of Level 1-3, within the 30-minutes isochrones, enjoying good access to the services provided by cities;
- ✓ Peripheral rural municipalities, remote from an urban centre of Level 1-3, outside the boundaries of the 30-minutes isochrones, suffering from difficult access to the services provided by cities – more vulnerable to risks and requiring specific policy;
- ✓ Rural municipalities, important agrarian, industrial and tourist centres, whose resources, potential and traditions might be harnessed for improving the quality of life.

The proposed division of these small municipalities in three groups will help the elaboration of the policies for development of rural areas, tailored according to their specific characteristics and requirements.

The overlapping of these types of areas (coastal, border, mountain and rural) and the possibility for one and the same municipality to be assigned to each of the three types is obvious. They share one common characteristic – progressive diminishing of their population and economic potential. For that reason the NCSД suggests targeted support for those among them, which play an important role in the polycentric development model and are situated along the main transport communications and cultural axes of urban development.

Territories at risk

This additional characteristic applies also to a large extent to areas/municipalities suffering from critical population drop and reduction of economic activity. Three subgroups have been identified depending on the type of the risk of negative climatic, geological, physical, demographic or social phenomena, disasters and accidents.

- Territories at environmental risk. These territories comprise areas threatened by hydro-meteorological risk (extreme air temperatures and inversions, storms, heavy rainfalls, etc.), hydrologic risks (flooding, droughts, gulp pollution of water areas and currents, etc.), and geological risks (landslides, landslips, erosion, and abrasion). Already damaged areas, which need urgent measures for recultivation and rehabilitation, are also included in this list.

The NCSД proposes to treat with priority the areas occupied by active landslides along the Black Sea coast and the Danube shoreline.

- Territories at demographic risk. This subgroup comprises all human settlements/municipalities and areas suffering from grave demographic problems – population drop (more than 30% over a 10-year period) and ageing of the population, depopulation.

With respect to these areas and zones on the territory of the country the NCSД proposes specific policy and measures oriented towards utilization of the potential of those among them, which

possess adequate potential to take up activities in the fields of culture, tourism and social care services.

- Territories at economic risk. Human settlements/municipalities, in which there is a high percentage of steady unemployment, concentration of poverty, criminality and all the ensuing negative impacts, are included in this category.

Splitting the municipalities/areas into these groups will help the additional more precise delimitation of municipalities/areas at risk, which are in urgent need of targeted support.

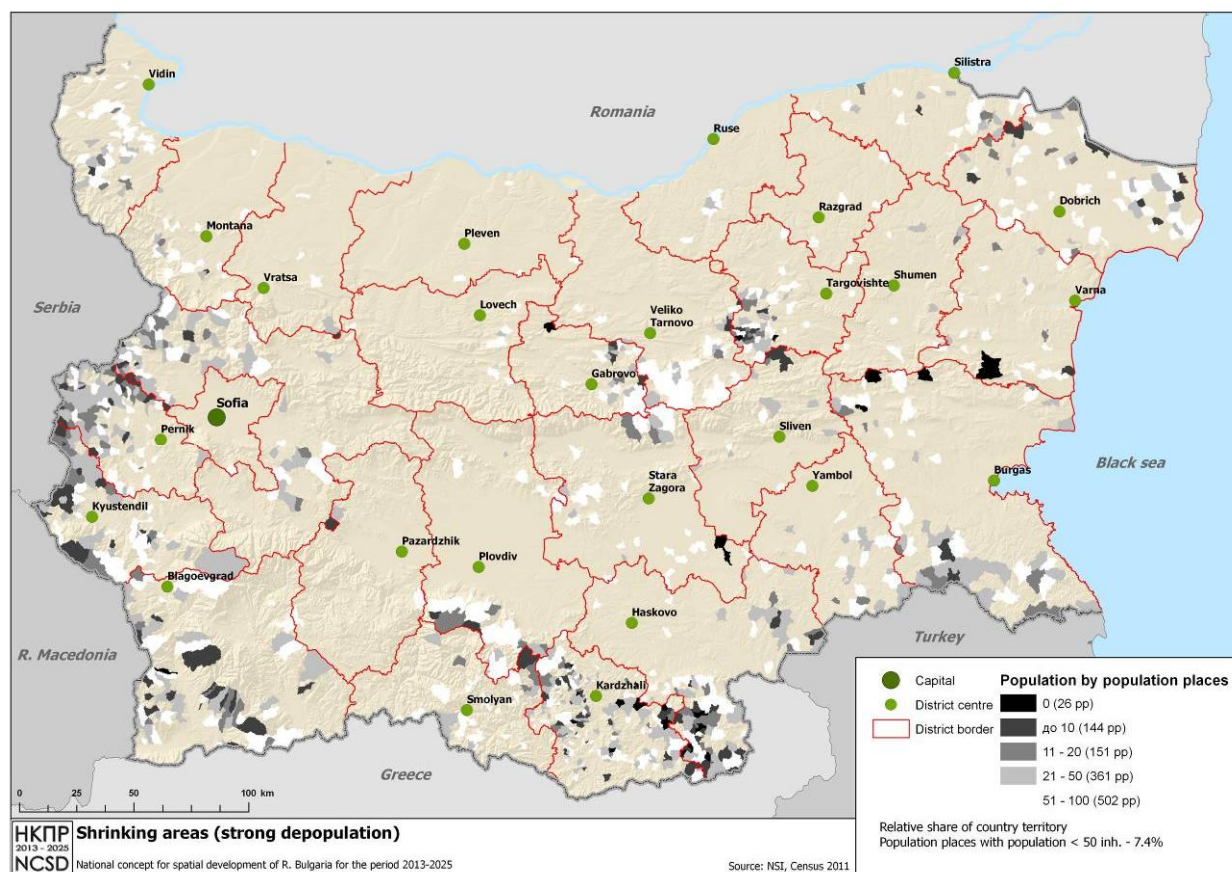


Fig. 23: Territories affected by depopulation

The studies of the three types of municipalities – mountain, border and rural – in the framework of the NCSD revealed not only the high degree of overlapping of these specific/problematic categories, but also their correlation with the category “territories suffering from depopulation”. This fact gives grounds to point community land areas with extremely low habitation density (from “zero” to 100 people in the whole community land area) as spatial addresses of the specific problematic areas and respective policies for dealing with them. Depending on their localization and spatial grouping these community land areas form the following types of areals:

- ✓ Community land areas with very low habitation density and very low agrarian potential in the western and southeastern border areas. For these territories it is recommendable to implement a policy conducive to their integration in the “Green system” and the European Green Belt.
- ✓ Community land areas with very low habitation density and low to medium agrarian potential and specific political significance in the southern border areas – above all in the Eastern Rhodope Mountains. For these territories it is recommendable to implement a

policy for support for subsidized production and activities ensuring means of livelihood for the local population.

- ✓ Community land areas with very low habitation density and high agrarian potential in the northeastern border areas of Dobrudja. For these territories it is appropriate to implement a policy of promotion of agrarian production, predominantly of cereals.

Community land areas with very low habitation density, situated in inland mountain peripheries of the national territory. For these territories it is appropriate to implement a policy of promotion of the development of alternative forms of tourism.

Territories for protection of the landscape, natural and cultural values

In these territories it is proposed to include the following types of territories, systematized depending on the degree of significance of the protected values:

- ✓ Areas, zones and sites of the National Ecological Network, including such of supra-national, global significance, for protection of biodiversity, of individual endangered species and their habitats, important biocorridors;
- ✓ Areas saturated with natural values, with characteristic cultural landscape or of outstanding natural beauty, which so far have been outside the scope of the territories, protected by virtue of the Protected Areas Act and the Biodiversity Act;
- ✓ Areas for preventive protection, in which protection will extend to forests, fertile agricultural land and river valleys, which build important links in the National and European Ecological Network, 'blue' and 'green'/biocorridors, etc.

The assumed typology takes into account the approved definitions in accordance with the Protected Areas Act, the Biodiversity Act, the Water Act, the Forests Act, The Cultural Heritage Act and the Soils Act. Account has also been taken of Community and international documents approved by our country as well, in which there are texts, which have not as yet been transposed in our legislation, since the documents translated in Bulgaria are applied directly. Among them are the European Landscape Convention (2000), the Charter for the Conservation of Historical Towns and Urban Areas (Washington, 1987), the Charter for the Protection and Management of Archaeological Heritage (1990), the Charter for the Protection and Management of Underwater Cultural Heritage (1996), the International Cultural Tourism Charter – Managing Cultural Tourism at Places of Heritage Significance (1999), additional declarations, principles and guidelines for protection of small human settlements, industrial sites, the language, identity and cultural itineraries.

4. THE NEW PHILOSOPHY OF SPATIAL DEVELOPMENT

The National Concept for Spatial Development (NCSD), similar to the National Development Programme “Bulgaria 2020”, focuses on goals and interests common to all the institutions, the entire nation. For the NCSD to turn into an effective instrument for spatial development of Bulgaria it should become all-embracing. The aspired end result is a balanced, viable concept, supported by each and everyone. This is not a concept addressed only to the public institutions for implementation of their inherent responsibilities. The NCSD creates a basis for full-fledged participation of the private sector as well by attracting significant investments by means of public involvement.

This document is a “novelty” in the strategic planning of Bulgaria. Unlike the Master Plans, the NCSD does not impose norms or regulations. The NCSD coordinates and consults. Its guidelines lead to conflict-free implementation of functions, rational use of resources and good organization of the national space. It challenges the pronounced sectoral approach of planning and investments during the recent decades by the philosophy of “voluntary cooperation” and “integrated investments”. The shift towards this new launching base through the implementation of the NCSD requires:

- ✓ Changes in thinking and behaviour – from competition between the institutions to cooperation for achievement of common objectives in almost overlapping spaces;
- ✓ New mechanisms for coordination among the different governance levels – a new “multi-storey” governance system;
- ✓ New system of programming, focused on a limited number of issues;
- ✓ New institutional framework, permitting effective implementation of the spatial strategy;
- ✓ Not strictly sectoral but rather integrated system of programming and implementation of the government policies and programmes with territorial/spatial dimensions.

Despite the maximum openness in the process of its elaboration, the NCSD would hardly attain its ambitious goals right away with this first edition. The NCSD should be treated not as a spontaneous fixed-for-ever document, but rather as a dynamic document, subject to permanent updating, monitoring and upgrading in order to respond to the changing circumstances and the requirements of the inter-sectoral, integrated planning, for which it provides an up-to-date spatial base. The intermediate assessment of the outputs from the implementation of the NCSD should best be performed by the middle of the next programming period.

Implementation of the NCSD

The NCSD contains six strategic objectives: “integration in the European space”, “polycentric territorial development”, “territorial cohesion and access to services”, “preserved and valorised natural and cultural heritage”, “promoted development of specific areas” and “competitiveness through growth and innovation zones”.

Each of these objectives goes beyond the prerogatives of an individual institution. Defending its mission of spatial coordinator, the NCSD contains only integrated objectives and tasks. For this reason their achievement presumes collaboration and cooperation of different public institutions. In practical terms this cooperation will be realized through partnerships, involving institutions with the corresponding competences and specialization. Many of the activities related to the implementation of the NCSD will require commitment on a broad social base through structures of the civil society. The gradual building of such non-formal network of partnerships for spatial development is the correct road towards the implementation of the NCSD through:

- ✓ Strengthening of coordination and cooperation in planning with spatial impacts – both vertical (between the different governance levels) and horizontal (between the sectoral policies and administrations);
- ✓ Taking into account the functional interactions between the different territorial units and neglecting their formal boundaries (strengthening the inter-municipal, inter-district and inter-regional cooperation);
- ✓ Reconciliation of the contradictions between the objectives and interests of the different sectoral policies and implementation of solutions of balanced, inter-sectoral interest.

Institutionalization of the NCSD

The MRDPW is formally the responsible authority for elaboration and implementation of the NCSD. According to its legal status the NCSD should be in compliance with the key sectoral strategies with spatial dimensions – transport, environment, energy, economy, tourism, health care and education. However, in order to implement its role of spatial regulator and coordinator, the NCSD should:

- ✓ Ensure inclusion of its spatial aspects, principles and restrictions in the respective sectoral policies and programmes;
- ✓ Formulate clear obligations and responsibilities for support and application of the NCSD postulates.

In addition to its current legal status, the NCSD stands in need of also the following:

- ✓ Legally regulated obligation that the respective sectoral policies and programmes be aligned to the NCSD postulates;
- ✓ Establishment of a permanent working group at the MRDPW, comprising representatives of all directorates related to the implementation of the NCSD;
- ✓ Assignment of obligation to a concrete structure/unit in the MRDPW to monitor the implementation of the NCSD. This unit shall play the role of an information desk and contact point for all stakeholders;
- ✓ The institutions, which are directly related to the NCSD, shall create their own structures and mechanisms, guaranteeing the inclusion of the NCSD in the policies and programmes in the relevant policy areas.

The implementation of the NCSD will be also guaranteed through its mandatory building in at the lower planning levels – regional, district and municipal (through the respective spatial development schemes).

The setting up of the aspired network of broad partnerships will require much time and human resources. It would be unrealistic to expect tangible results as early as during the first years after the approval of this concept.

Management, updating and control of the implementation of the NCSD

The usual monitoring is limited to maintaining up-to-date data by preliminary approved indicators for which information is reliably secured. For the NCSD this is not sufficient or more exactly this is not the right approach. In addition to results (the merits for which rest with the sectoral policies and programmes), the NCSD will need survey of the changes and development trends in the complex systems of territorial structures – centres, agglomerations, specific territories, the changes in the ranking of the cities, the changes in the urban territories, the

mastered new territories etc. The management of the huge volume of information is not possible without the created GIS platform, which needs regular updating and maintaining.

By means of its package of strategic objectives the NCS D defines the major directions of spatial development. In the framework of these directions the sectoral policies should formulate their priorities and choose the spatial coordinates of their actions. In this way a tentative model and integration policy for spatial development during the next 10-15 years will be set up. Only the directions/objectives are relatively stable. The concrete actions will be a permanently open system and the object of operational/executive decisions.

Seen from aside, this document is a reflection of the state of the public debate on the issues related to spatial development in Bulgaria. After a break of nearly 3 decades, this NCS D personifies a new start of the state policy for spatial development. The fundamental criterion for how adequate this policy is will be 'what has been realized and with what success'.

Through the organization of the NCS D in a package of strategic development directions²⁹ (not sectoral goals), the attention is focused on ensuring broad public understanding of the problems of the spatial policy, on the possibilities for public review and on the inter-sectoral substance of the object of the concept. This does not mean that the sectoral policies shall not monitor and report their contribution to the implementation of the NCS D.

As already mentioned, the coordination of the processes related to the implementation of the NCS D should be assigned to a specialized structure of the MRDPW. This structure will not only plan, coordinate and manage the general processes on implementation, but will also promote and support the setting up of partnership networks among the stakeholders. It will assist the process of monitoring of the NCS D implementation and the evaluation of the operational programmes.

Major recommendations to the sectoral policies

The postulate that the NCS D will be implemented through the sectoral policies was presented several times till now. Now it will be used as a launching base for addressing several key messages to those, who will implement it in the future.

The agglomeration policy – key to prosperity

The Level One and Level Two centres, as well as their agglomeration areals, are the spatial focus of the economic policy and the aspirations for innovations, clusters and growth zones. In the context of the new integrated development plans the urban centres will receive adequate support and incentives for development. The relationship between the core and its zone of impact are not regulated as yet. The agglomeration is one of the aspired forms of cooperation and namely cooperation is fundamental for the implementation of the NCS D. The policy for promoted development of the agglomerations as associations of equally treated municipalities may be realized through regulatory provisions for joint actions to the benefit of common development, starting with the elaboration and approval of Master Plan for the entire territory covered by the specific agglomeration, as well as through common plans and rules for development, public works and functional enrichment of the zones of impact.

Equitable relations between rural areas and cities

The second key message of the NCS D to the sectoral policies is related to diminishing of the disparities in the territorial development (a principle of the regional policy as well) and utilization of the potential of urban and rural areas. The unilateral opinion that rural areas service urban

²⁹ Integration in the European space, polycentric development, spatial cohesion and access to services, natural and cultural heritage – protection and utilization, specific areas – promoted development

areas (or *vice versa*) is not shared in this concept. Urban and rural areas, preserving their autonomy, should cooperate through integrated spatial development for achievement of sustainable economic growth, ecological and social balance. The ‘individuality’ of the different areas, the specific material and non-material resources of the cities and their rural areas should be taken into account in the planning documents and in the process of implementation of the sectoral policies at all levels.

Rural areas have different structures and problems. Those in the zones of impact of the big cities and in the developed touristic locations are difficult to compare with the peripheral rural areas, which occupy nearly 60% of the national territory and cause serious concern. Unilateral, targeted measures would hardly revitalize them. Building a new type of partnership with the adjacent cities is necessary – partnerships ensuring jobs and services provision on the spot, without necessity of resort to long commuter trips. At the same time, rural areas should not turn into functional extensions of agglomerations. Not treating it as a panacea, the improved transport accessibility to and public services provision in the small core-cities would contribute to the development of the internal potential of rural areas, containing opportunities for employment in tourism, agriculture and forestry, in the processing industry etc. At the locations where the potential of the population in active age is still preserved, it would be feasible also to envisage development of projects for ensuring access to ICTs.

Strengthening of the territorial projections of sectoral policies

The sectoral policies with spatial dimensions should assume the NCSД vocabulary, deal with “space” and “spatial development” as a unity of object and problem. The elaboration of a common point of view (including common terminology) is a necessary step towards the implementation of the NCSД. This is absolutely necessary for the planning of: transport arteries and corridors (transport policy); locations for extraction of raw materials (economic policy); locations for development of tourism (tourism-related policy) etc.

The voluntary commitment for mutual information exchange and cooperation of the institutions while planning measures with spatial dimensions will contribute to prevention of contradictions and waste of resources.

The increasing spatial and functional relations with neighbouring countries provide grounds for active incorporation of the areas for cross-border cooperation in the sectoral planning. The development and functioning of the zones for cross-border cooperation also needs specific governance structures. Since it is not possible for such structures to emerge spontaneously, they should be created and supported by the state.

The main aspects of the spatial policy have just been declared. In the near future its crossing points with the sectoral policies should be identified. It is well-known that spatial development is a direct function of sectoral planning. This is true with particular force for the transport infrastructure, the power transmission lines, product transportation pipelines etc. As a conclusion of the aforementioned, it is necessary to ensure common spatial orientation of the sectoral policies.

Partnerships – the new driving force of spatial development

Each of the objectives of the NCSД presumes partnership among several stakeholders and competent parties. In this way the partnerships turn into an indispensable instrument for spatial development. Because of the lack of real experience, it is necessary to elaborate methodological guidelines in the context of the NCSД, explaining the idea, organization and functioning of such partnerships.

5. APPENDICES

5.1. Abbreviations

AU	Administrative Unit
BAS	Bulgarian Academy of Science
CEMAT	Council of Europe Conference of Ministers Responsible for Spatial/Regional Planning
CM	Council of Ministers
CNG	Compressed Natural Gas
CO ₂	Carbon dioxide
CS	Compress Station
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
ERDF	European Regional Development Fund
ENPI	European Neighbourhood and Partnership Instrument
ESPON	European Spatial Planning Observatory Network
EU	European Union
FUA	Functional Urban Area
GIS	Geographic Information System
GHG	Greenhouse Gas
ICH	Immobile Cultural Heritage
ICT	Information and Communication Technologies
ICV	Immobile Cultural Values
IPURD	Integrated Plan for Urban Regeneration and Development
IT	Information Technologies
IUCN	International Union for Conservation of Nature
LNG	Liquefied Natural Gas
MAB	Man and Biosphere
MAF	Ministry of Agriculture and Foods
MEET	Ministry of Economy, Energy and Tourism
MEGA	Metropolitan European Growth Area
MH	Ministry of Health
MOEW	Ministry of Environment and Waters

MRDPW	Ministry of Regional Development and Public Works
MTITC	Ministry of Transport, Information Technologies and Communications
NCR	North Central Region (NUTS2)
NCRD	National Centre for Regional Development
NCSD	National Concept for Spatial Development
NRDSNEN	National Ecologic Network
NER	Northeast region (NUTS2)
NGA	Next Generation Access Networks
NGO	Nongovernmental Organisation
NIICH	National Institute for Immobile Cultural Heritage
Nordregio	Nordic Centre for Spatial Development
NP	National Park
NSI	National Statistic Institute
NRDS	National Regional Development Strategy
NUTS	Nomenclature des unités territoriales statistiques
NWR	Northwest Region (NUTS2)
OECD	Organisation for Economic Co-operation and Development
OP	Operational Programme
OPRD	Operational Programme “Regional Development”
PAN	Foundation for European wilderness protection
PC	Personal Computer
RDP	Rural Development Programme
PETC	Pan-European Transport Corridor
R&D	Research and Development
RES	Renewable Energy Sources
RIA	Road Infrastructure Agency
RU	Russia
SAA	Social Assistance Agency
SACP	State Agency for Child Protection
SCR	South Central Region (NUTS2)
SER	Southeast Region (NUTS2)
SG	State Gazette
SME	Small and Medium Enterprises

SPA	Sanus Per Aquam
SWR	Southwest Region (NUTS2)
TA	Territorial Agenda
TEN-T	Trans-European Transport Network
TEN-E	Transeuropean Energy Network
TRACECA	Transport Corridor Europe-Caucasus-Asia
TTP	Thermo Energy Plant
TU	Territorial Unit
UAE	United Arab Emirates
UN	United Nations
UNESCO	United Nations Education, Science and Culture Organisation

GLOSSARY

Agglomeration areal – active part of the territory of a municipality or a group of municipalities, in which intensive functional links between the core-city and other settlements and sites are realized

Agglomeration nucleus – a core-city by itself or spatially linked with its neighbouring settlements and other sites in a common unbroken spatial system

Urban development axes – (polycentric zones), spaces of linear nature, formed in the course of integration of the development poles with the transport-communication network of the country

Bio-corridor – area of habitats, in which linkage of wild life populations is realized, which had been separated as a result of human intervention

Blue corridor – administrative, technological and physical facilitations, granted by the port and customs authorities for the purposes of faster transition via the ports of goods originating from EU Member States

Break-points – non-compatibility across the frontiers, mainly with respect to the development axes (missing continuations of axes across the frontiers of the states or different levels as per the planning documents of the states) and the transport networks

Cultural corridor – traditional territorial direction in a given area, along which cultural values, ideas and innovations circulate in a permanent continuity of relations, influences and interactions

Cultural itinerary – traditional way, materially dominated historical route, corresponding to a specific historical function and objective; comprises material and non-material cultural phenomena

Green belt – territorial linkage of non-urbanized areas through connecting agricultural or mountain under-urbanized territories between them in a single natural space of linear nature

Transport corridor – land area of linear nature, which might comprise a highway, railway line, navigation canal or their combination

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3.	Dr Petko Evrev	Land use planning
4.	Eng. Hristo Dechev, MSc	GIS
5.	Stoyko Doshekov, MSc	Socio-Economic analyses and prognoses
6.	Eng. Svetla Vassileva	Transport and Engineering infrastructure
7.	Emil Nikitov, MSc	Ecology and risk prevention, natural values
8.	Stoycho Motev, MA	Spatial Planning, Tourism
9.	Maria Novakova	Information and GIS visualisations
		Experts
10.	Eng. Nadejda Jarlovska	GIS, geodesy, TI analyses
11.	Dimitar Dimitrov, MSc	Demography and human resources
12.	Krassina Tsekova, MLA	Landscape
13.	Dr Miryana Jordanova	Heritage
		Collaborators
14.	Moyko Kermektchiev, MSc	GIS, Analysis Master plans of big cities
15.	Irina Angelova, MA	GIS, EU documents analyses
16.	Eng. Diana Antonova	GIS, Agglomerations analyses
17.	Eng. Natalia Deneva	GIS, Transport network assessment
18.	Nikolai Enchev, MSc	GIS, Operational programmes analyses
19.	Dr Milena Tasheva-Petrova, MA, MSc	Sectoral policies and strategies analyses
20.	Velina Pandjarova, MA	Heritage
21.	Milen Kolev, MSc	GIS, Information sources
22.	Margarita Atanasova, MSc	GIS database
23.	Veronika Ivanova, MSc	Organisation and coordination
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24.	Stefan Staynov, MA	BULPLAN Ltd
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