SUMMARY OF THE GOVERNMENT DOCUMENT
approved by the Council of Ministers on 13 December 2011
Introduction

The National Spatial Development Concept 2030 (NSDC 2030) is the most important national strategic document that addresses the spatial planning management of Poland. It has been developed in accordance with the Act on Spatial Planning and Area Development of 27 March 2003. The arrangements and recommendations resulting from NSDC 2030 and applicable to the preparation of voivodeship spatial development plans (vsdp) have also been defined pursuant to the statutory requirements.

This document presents a vision of spatial development of Poland for the coming 20 years, defines goals and objectives of the national spatial development policy to facilitate its implementation as well as provides for the rules and mechanisms for coordination and implementation of public development policies featuring a significant territorial impact.

The novelty of tackling the problem of national spatial development as proposed in NSDC 2030 involves the changed perception of the role of the nationwide spatial policy in the implementation of the goals defined. NSDC 2030 suggests breaking with a current dichotomy of spatial planning and socio-economic planning at the national, voivodeship and local levels as well as in relation to functional areas. It correlates the objectives of the spatial policy and the regional policy, combines strategic planning with the programming of measures under development programmes and operational programmes co-financed from the EU resources, defines actions to be taken by the state in the legislative and institutional domains with a view to enhancing the efficiency of the spatial planning system and place-based development activities (including investment projects). Moreover, NSDC 2030 includes the maritime zone – which has so far been absent from national strategic documents – into the mainstream planning and extends the scope of cross-border interactions on land and sea.

According to the integrated approach to development issues applied in NSDC 2030 the entire Poland is perceived as the area on which socio-economic, environmental and cultural processes develop with different pace and with different effects. These processes are largely independent from the administrative structures established to manage them. This calls for the spatial policy to abandon the traditional approach to intervention, e.g. rural areas – city, in favour of an individualised approach to various territories defined based on socio-economic and spatial characteristics in a dynamic perspective.

In respect of implementation, NSDC 2030 offers:

- gradual and fundamental reorganisation of the system to be effected within a few years, accompanied by an introduction of a range of new legal and institutional measures which enable development of a consistent and hierarchical spatial planning and management system which shall be oriented towards the accomplishment of socio-economic objectives set with reference to the area concerned;
- defined investment priorities and entities responsible for their implementation;
- providing more European dimension to the national spatial policy;
- increased coordinating role of the spatial policy in relation to sectoral policies which have the strongest impact on the spatial development in Poland as a whole and its particular units of territorial administration.

In relation to voivodeship spatial development plans, NSDC 2030 imposes an obligation to implement the requirements and recommendations concerning a delimitation of functional areas and to implement spatial planning measures involving a development of strategies, plans and studies on spatial development.

Because of its strategic role, NSDC 2030 does not formulate any requirements or recommendations related to devising and outlining public purpose investment programmes; this is left to the strategic and implementation documents which are to be developed by the individual ministers and local government units.

Apart from legal and institutional measures, the spatial policy oriented towards the achievement of objectives set forth in NSDC 2030 shall involve funds (both domestic and external) allocated for investment projects under other policies, including in particular those which have a territorial dimension. The draft NSDC 2030 identifies the objectives of investment projects without determining the structure of expenditure or the volume of financial input.
which must be addressed in strategic documents, such as the Medium-Term National Development Strategy and other integrated strategies, delivery programmes and multi-annual financial frameworks. In combination with the Long-Term National Development Strategy, NSDP constitutes a framework for other strategic documents. It indicates the assumptions and desired targets of investments for decisions made within nine integrated strategies as well as other strategic and operational documents.

NSDC 2030 makes reference to two documents which are fundamental for the Polish spatial development policy, namely: the National Spatial Development Policy Perspective (NSDPC) (2001) and the Updated Perspective of National Spatial Development (UCNSD) (2005).

After the adoption of the NSDC 2030 by the Council of Minister, the Minister of Regional Development shall present a detailed plan of measures to be undertaken by the Council of Ministers and other public bodies in order to ensure full implementation hereof. The main objective of the action plan is to provide conditions for NSDC 2030 implementation which requires legal and institutional changes to be devised and introduced in order to streamline the spatial planning system and place-based development measures (including investment projects). The idea of the planned systemic changes is to build an integrated and multi-level system of coordinated planning and development, to terminate the dualism of spatial planning and socio-economic planning, to ensure that the development objectives defined at the strategic level are implemented at the local level of delivery and to protect the public interest. The action plan shall also include tasks related to the introduction of legislative grounds, principles and methods of formulating and coordinating public development policies with significant territorial impact and shall present a schedule of works together with entities responsible for effecting the above mentioned changes.

Spatial Development of Poland – Basic Definitions

Due to ambiguities in the relevant binding regulations, basic terms concerning spatial development and spatial policy have been defined for the purposes of NSDC 2030.

National spatial development shall be construed as the arrangement of basic spatial structure components on the territory of Poland and as links among these components. The basic elements of Poland spatial structure, subject to analyses and public policy impacts, include the components of the economic and social system, technical infrastructure, settlement network and (natural and cultural) landscape, as well as functional connections.

Spatial development policy of Poland outlines how the spatial development vision and national development targets are going to be achieved, in territorial terms, through its impact on the main spatial development components and through ensuring coordination of sectoral instruments. The spatial policy, as an integral part of the development policy, combines and coordinates nationwide measures with measures at other governance levels, including regional and local ones. Implementation instruments of the spatial development policy of the country include:

- spatial planning arrangements which are legally binding in relation of spatial development at the national, regional and local levels, or for isolated specific territorial complexes (functional areas),
- regulations, legislative acts other than spatial development plans, which have an impact on spatial development of the country;
- institutions and organisational solutions which determine efficiency and effectiveness of all activities of the state that have a spatial dimension,
- Investment projects set out in medium-term and operational strategies and programmes in the realm of different public policies.
The background of the National Spatial Development Policy has been set by a number of factors and processes which depend to but a little extent on the government and other public bodies. This background should, however, be taken account of formulating and implementing the National Spatial Development Policy, because it may have a great impact on the policy implementation and on the setting and feasibility of objectives. The most important identified issues include:

**Political background** where such processes as further European integration process, development of economic cooperation and the EU foreign policy towards the Eastern Europe, South-eastern Europe and the Middle East, as well as improvement of energy security, will have a significant impact on the spatial development of the country. NSDC 2030 assumes that until 2020 the eastern border of Poland is probably going to remain the external border of the European Union, which deteriorates the development opportunities of the Eastern Poland where social, economic and spatial development will be partly dependent on the political changes in Belarus, Ukraine and Russia at the same time the planned development of economic cooperation and liberalisation of the visa policy between the European Union and Eastern European countries will contribute to a growing demand for transport across Poland's eastern border, and thus to the development of transit infrastructure in Poland and its eastern parts in particular, which may mitigate the consequences of the lack of political integration, provided that the appropriate policy of the extension of border crossings is pursued. The lack of measures reducing Poland’s dependence on import of fuels from one direction (it concerns gas and crude oil) and the diversification of electric power generation (currently mainly coal and lignite), as well as modernisation of the transmission grid infrastructure and extension of cross-border connections under a common EU energy policy may result in threats for the development of the entire country and individual regions.

**Factors related to the historical spatial structure of the settlement network.** The polycentric, relatively regular distribution of cities of similar size with advanced tiered hierarchy and small predominance of the capital city over other regional centres, compared to other European countries, is of key importance for the development of the space of Poland. This spatial distribution of the settlement network facilitates achievement of sustainable development objectives: competitive economy, social and territorial cohesion and preservation of environmental resources. Major components of the settlement system include the largest cities: Warsaw, Cracow, Gdansk-Gdynia, Wroclaw, Poznań, Katowice – Upper Silesian Agglomeration, Łódź, Szczecin, Bydgoszcz and Toruń, as well as Lublin. However, those cities, except for the capital city, are not competitive in comparison to other similar-sized cities in the west and north of Europe in terms of infrastructure and functions. The Upper Silesian Agglomeration is a problem area in terms of its general spatial development. Incomplete transformation of the industrial structure in Łódź and an incomplete functional profile accompanied by limited population and market potentials in Szczecin, Bydgoszcz and Lublin constitute considerable barriers to development. All voivodship centres, as centres of growth and concentration of functions, play a special role in the settlement system. The smallest of them and those located along the eastern border require aid from regional policy to fully support the development and diffusion processes at the regional scale. The current processes of urbanisation and population concentration in constantly expanding areas surrounding major Polish cities will lead to the intensification of suburbanisation processes in the next 20 years which shall require an integrated spatial policy for all functional areas of those cities.

Another important category includes poviat cities with a population of 20-50 thousand that play an important role of providing public sector functions for rural areas. These centres are particularly important in rural depopulating areas since they ensure durability and spatial continuity of settlement. The settlement system in rural areas is largely dispersed and an average village is rather small. Depopulation process is intensifying, in particular in small villages of less than 100 inhabitants, located in peripheral eastern regions of Poland. In zones surrounding big and medium-sized cities, the settlement is gaining in intensity, and the economic structure is becoming increasingly diverse as a consequence of the development of non-agricultural functions, including production, services and residential functions, and the increase in commuting.

**Demographic determinants.** In accordance with the forecasts of GUS, the population of Poland will decrease within the next 10-20 years (the trend will intensify after 2020), with the greatest decrease expected in some peripheral areas (Sudety, Wysoczyzna Bielska and Białostocka, Warmia and Masuria adjacent to the Kaliningrad Oblast, and South Roztocze).
The mechanism will result in spatial concentration of the economy and the settlement system and will change the directions of impact on the environment. The greatest concentration of the population is observed in functional areas of major cities where the availability of labour force will increase at the expense of peripheral areas and regions. The growth of spatial mobility and the development of mass transport will have a positive impact on the development of the strongest economic centres and their functional areas. As Poland’s economic growth develops, emigration to the EU Member States is going to decrease. The growing attractiveness of the Polish labour market for foreigners will contribute to a gradual increase of immigration from non-EU countries. The immigrants will settle mainly in large cities. This will contribute to an even greater settlement network concentration, i.e. concentration of people in major cities and their suburbs, which without an appropriate urban and integration policy may lead to the accumulation of negative social and economic processes in certain urban areas.

**Economic processes with an important impact on spatial development.** The most important phenomena include the assumed increase in the importance of innovativeness which will enhance the position of cities and regions with appropriate research and development resources and the economic profile and will force the relocation of traditional low-tech and labour-intensive industries to countries with relatively cheap labour and low environmental protection standards. In spatial terms, this may mean further development potential concentration in the so-called core of Europe accompanied by a gradual shift (in case of involvement in the processes intended to increase innovativeness of the economy) of focus towards Northern and Central Europe. This is going to open up new economic and spatial development opportunities for Poland, in particular for its largest urban areas in the north, west and south-west.

At the same time, a relative decrease may be observed in the economic importance of regions and areas with traditional industries (coal mining, agriculture, material- and labour-intensive industries). Factors such as population concentration in urbanised areas and further concentration of economic activity based on establishing and developing global economic co-dependencies, accompanied by increasing purchasing power of the citizens and a growing mobility of the labour force, will increase the demand for transport services. This is going to support the development of the basic network of cities and change the transport system structure, contributing to the further increase in importance of: international, interregional and inter-agglomeration railway passenger transport.

**Technological changes, such as development of energy-saving technologies, development of “green” power sector and new technologies in transport,** will result in the reduction of the energy barrier to spatial development. This is going to favour areas capable of generating energy from renewable sources and characterised by low greenhouse gas emissions. New technologies and reduction of unit costs of their use will allow to add resources whose use is currently impossible or non-viable, such as solar energy and shale gas, to the spectrum of energy sources. In connection with the expected further concentration of economic activity in urban areas, there will be a greater need for the development of public railway transport between and within agglomerations.

**Cultural heritage determinants.** The importance of cultural heritage for spatial development processes is going to grow over the next twenty years - increasing wealth of the society and cultural transformations will cause both tangible and intangible cultural heritage assets to play a more important role in development. The location of those assets and the ability to include them in the development process will have a positive impact on the process of economic concentration, population concentration and an increased importance of culture and tourism.

**The condition and quality of the environment have** a very significant impact on the status and prospects of spatial development of the country and individual regions. Water resources, biodiversity, mineral resources and climate are crucial to the country’s spatial development.

Development opportunities and limitations are determined by availability of water resources with a quality suitable for the planned use. The total water resources of the country depend on the overall amount of precipitation, temporal distribution of precipitation, as well as natural and artificial water retention capabilities. Water resources in Poland are distributed unevenly: they are most scarce in central Poland. Ca. 38% of Poland is affected by droughts and excessive water resources exploitation. In order to establish the balance of the future water demand the following have to be taken into consideration: considerable permanent water needs of natural structures, increasing water consumption in urban areas, increasing water consumption due to functional changes in rural areas and changing needs of agricultural...
production. This means that it is necessary to increase retention and focus measures on water saving and on reducing the fluvial outflow to the sea.

Compare to the majority of European countries, Poland has more extensive natural assets and greater biodiversity. Urban natural enclaves in numerous cities have a high natural value as well. The territory of Poland is a mosaic of nearly virgin areas (Białowieża Forest), natural landscapes (large forest complexes, wetlands, maritime and mountainous landscapes, etc.), cultural landscapes (farmlands and urban areas) and locally degraded areas (open-cast mines, post-industrial areas and landfills).

The depletion of the most accessible deposits, growing mining costs and conflicts with other spatial development components or the lack of social acceptance for open-cast mining methods resulted in the reduced possibilities of acquiring minerals and mining of aggregate.

Until 2030, the expected climate changes may have moderate impact on the settlement network, farming and certain other economy sectors in the coastal region, waly, river valleys and mountainous areas. The indirect impact of climate change, in particular in the form of introduced standards and legal regulations with a preventive function and concerning the organisation of municipal management and energy production, is going to be more important. Greater expenditure will also be required for the development of water management facilities and removal of the effects of natural calamities.

Spatial development of Poland will also be affected by the determinants related to EU development objectives. The method of implementation of Europe 2010 strategy objectives and priorities and the place-based measures will be of crucial importance. For investment measures the most important development will include the cohesion policy after 2013, the reduction of financial structural transfers after 2020 and other EU policies with territorial impact, such as agricultural, fisheries, innovation or transport policy. In the European debate the increase of competitiveness is linked with the discussion on the methods of its achieving, including the importance of territorial dimension. On the one hand, there is an increasing pressure on the search for sectoral instruments, and on the other, the effect of the Lisbon Treaty provisions setting out territorial cohesion objectives and the place-based policy approach in development processes take effect. The establishment of a system for coordination of policies with territorial impact is of particular importance for Poland. The pressure on increasing the efficiency of the EU cohesion policy, effectiveness and ensuring its greater contribution to the achievement of EU’s overall goals will require better targeted investments.

National legal and institutional determinants. It is a general opinion that the legal system governing spatial planning in Poland is unsatisfactory. The facts that the system is regulated by several dozen acts of Parliament and that there is a great number of documents that have to be coordinated make it inconsistent and stalemated. Spatial planning is not integrated with investment planning which results in an imbalance and a mismatch between the supply of land with utilities and market demand. The system does not stipulate the function of planning documents and relationships between them. Nor does it lay down national spatial policy guidelines that should be followed in plans and programmes at all levels, in particular at the local level, because it is decisions taken at the local level that have the greatest impact on real spatial processes, especially urbanisation. The work on improving the organisation of the system by means of implementing an integrated development management model, in line with the “Assumptions for Poland Development Management System” provide for the establishment of a hierarchical system of strategic document and linking the social and economic planning system with the spatial planning to implement development objectives.

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1 Assumptions for Poland Development Management System, a document adopted by the Council of Minister on 27 April 2009.
Vision of the Spatial Development of Poland by 2030

The vision of the spatial development of Poland in 2030 is formulated in reference to the strategic challenges facing the Polish economy which are identified in the report Poland 2030 – Development Challenges as well as to the anticipated objectives of the development policy resulting from the document. Poland of the year 2030 is a well-developed, efficiently managed and safe country with established conditions for constant and sustainable development. This status results from economic, social, spatial and civilisation processes. It also reflects the responses of the development policy to long-term challenges and on-going development conditions related to the economic situation. In 2030, Poland is a country that offers development opportunities to individual citizens, safeguards their interests and acts as a reliable and active partner in international relations.

In 2030, the income of Poles reaches the average European level and the GDP per capita nears that of the EU average. Human capital indicators are above the average values and the standard of living, including access to public services, approaches a similar level.

The substantial intensification of modernisation and development processes in Poland, which is expected in the near future, will directly affect the acceleration and consolidation of the changes that have been observed in recent years (after Poland’s accession to the EU). The spatial situation of Poland in 2030 will be different from that of 2010 in terms of quality. This process is going to take place simultaneously with European spatial transitions dependent on the global development processes as well as by the advancement of economic and political integration within the EU and with its neighbouring countries.

The vision of spatial development of Poland is based on five desirable characteristics of the Polish territory: competitiveness, innovation, internal cohesion, biological richness and diversity, security and spatial order.

The Polish space is competitive and innovative owing to the potential of the polycentric network of metropolises.

The historically shaped polycentric character of the settlement structure is maintained and reinforced, so that social and economic development as well as territorial cohesion of the country are promoted. Due to the progress of urbanisation, between 75 and 80% of the Polish population live within the administrative borders of cities and in the zones surrounding large urban centres. The population is going to concentrate both in large urban centres and in their functional areas, with the largest growth rate occurring in metropolitan areas. The concentration of population is going to be accompanied by a further concentration of development potential, including economic potential. The core of the national economic system – and an important component of the European one – is the network of co-operation between cities structured on the framework of major urban centres. It forms a correlated, open network system of functional areas of major Polish cities which are spatially integrated at the domestic and international level through strong and multi-directional functional connections between their economic, social, educational and cultural functions as well as the R&D sector. In 2030, the key nodes of the network of functional connections between cities include:

- the capital, Warsaw, and the largest Polish cities: Upper Silesian Agglomeration (Katowice and other cities comprising the Metropolitan Association of Upper Silesia), Łódź, Cracow, Tricity (Gdańsk – Sopot – Gdynia with the main urban centre in Gdańsk; hereinafter: Tricity), Wrocław, Poznań, Szczecin, the emerging duopoly Bydgoszcz – Toruń, and Lublin,
- capitals of voivodeships of national significance where metropolitan functions of national and international importance consistently concentrate: Białystok and Rzeszów, Opole, Olsztyn, Kielce, Gorzów Wielkopolski and Zielona Góra.

The core settlement network also comprises regional centres connected to the main nodes which contribute to the sustainable development of the country: Częstochowa, Radom, Bielsko-Biała, Rybnik, Płock, Elbląg, Wałbrzych, Włocławek, Tarnów, Kalisz with Ostrów Wielkopolski, Koszalin, Legnica, Grudziądz, Słupsk.

Sub-regional and local centres are also connected to the metropolitan network. The functional connection of those centres to the largest cities reinforces the potential of the metropolitan network. At the same time, functional links with economically and socially weaker areas situated at a larger distance from the main centres of socio-economic life of the country (in Eastern and North-Eastern Poland, Western Poland, Central Pomerania) provide such localities with a development incentive.
In 2030, Warsaw ranks among the most important European cities in functional terms. It has well-established connections with other European metropolitan cities and is a financial and economic heart of Central Europe where international institutions and companies are based. As a result of the development of the polycentric metropolitan network, devolution is observed in the decision-making, control and administrative functions as well as in the national media. Within the network, the processes of integration and correlation between the functions of cities and their functional areas produce strong bi-polar and multi-polar systems: Warsaw – Łódź, Cracow – Częstochowa – Upper Silesian Agglomeration – Bielsko-Biała – Rybnik (a system connected to the Ostrava Conurbation in the Czech Republic), Gdańsk – Sopot – Gdynia, and Bydgoszcz. As a result of the intensified cooperation and the synergy of those links, the relations between those cities play an important role in the economic processes of Poland and Europe alike.

The country’s development is driven by the major cities, which at the same time provide a convenient living space, as supported by an active and multi-dimensional urban policy. As a result of the application of urban planning standards, the urban space is rationally managed and the spatial order is evident. City centres are not only a good location for the corporations and institutions, but also a space which their citizens voluntarily choose for their place of residence due to, inter alia, high quality of public spaces. Energy-intensive car transport within cities is effectively supplanted with integrated systems of public transport covering metropolitan areas – largely dependent on agglomeration railways – which prevents pollution and uncontrolled urban sprawl curbed by the efficient spatial planning system.

Functional connections between the largest cities facilitate the emergence of a single investment market based on daily direct economic contacts, intensive cooperation of universities and research centres and a significant extension of the market of cultural goods. In 2030, the largest cities of the metropolitan network are connected by means of efficient, multi-modal and integrated systems of transport infrastructure.

The Polish space is integrated and coherent – both externally and internally – allowing all citizens to participate in the development processes.

In 2030, the Polish space is integrated and coherent:

- as a result of the complementarity of functions and increased intensity of functional connections within the main nodes of the settlement system as well as between those nodes (integration) and the surrounding areas – where the measures for the multi-functional development of rural areas are cumulated – it contributes to a better territorial balancing of development by way of maximising the utilisation of the potential of Poland’s territory to create economic growth and promote employment, taking into account the specificity of individual areas,
- it provides all its inhabitants, regardless of their place of residence, with a possibility to participate in development processes and with access to services of general interest, particularly supporting the multi-functional development of rural areas (cohesion).

The integration of the Polish space proceeds based on several parallel processes at various levels of management in diverse spatial dimensions:

- at the local scale – this primarily concerns the integration of city centres and their functional areas as well as the integration of rural areas which takes place around the poviat capital cities,
- at the regional scale – this is primarily related to the integration between major cities and their direct background, i.e. sub-regional cities with the surrounding rural areas,
- at the national scale – this concerns functional integration within the urban network of cooperation and integration with problem areas of national importance, as defined in the regional policy,
- on the international scale – this is related to the functional integration of major cities, mainly with the centres situated at the heart of European activity, as well as the integration of individual cities and areas of socio-economic activity along the relatively narrow border zone; in the wider sense, this also includes vanishing of barriers and creation of the conditions for the Polish space to operate as an element of the European system in terms of economy, culture, environment, ecological networks, etc.
Fig. 1. Functional connections between main urban centres in 2010 and 2030

Source: MRD
Fig. 2. Directions of Polish spatial integration in 2010 and 2030

Source: MRD
In 2030, the functional areas of largest cities emerge as vast functionally integrated spaces tied by strong internal bonds of economic, social and institutional cooperation. The entire functional area of major cities is characterised by a high level of dynamic development, continuity, consistency and a high degree of urbanisation. Integrated public transport solutions and accessibility of social infrastructure, including housing and other types of infrastructure, as well as measures intended to revitalise degraded areas have a positive impact on citizen mobility as they eliminate barriers to the choice of the place of work or residence. Integration in the functional areas of smaller urban centres (which neither fulfil any significant national functions nor have any functional specialisation (e.g. in tourism)) takes place, first and foremost, as a result of the spatial concentration of urbanisation processes and expansion of the internal transport and communication connections.

In 2030, the processes of regional integration in all voivodeships proceed. Integration of this type is based on the potential of voivodeship capitals for the development of the entire voivodeships (as a result of the processes of diffusion of development). It also takes advantage of specific development factors (environmental, climate, cultural, related to energy sources, etc.) present in the particular territories situated beyond the functional areas of the voivodeship capitals. The space of voivodeships is integrating and correlating – with its own regional markets of labour, services and merit goods. Regional integration processes are more dynamic in those voivodeships where the strongest urban centres are located.

In 2030, Poland is spatially integrated at the national scale. The territory of the country is characterised by differences in the distribution of production forces and key macroeconomic indicators (such as GDP and income per capita) between individual voivodeships, as well as between urban and rural areas, and between Eastern Poland and the rest of the country. Those differences do not affect the development prospects of the inhabitants of particular country regions. All urban and rural areas, including those where jobs and population are on the decline, provide access to basic goods (telecommunications, transport, and business environment infrastructure) and basic public services (education, health, culture, sport, tourism). This guarantees a continuous improvement of the social capital quality and enables the participation of citizens in development processes – either in their place of residence or in the main urban centres situated at the distance of maximum 2 hours from their place of residence. This situation is achieved owing to the system of active regional policy as well as the equal opportunities system within sectoral policies.

In 2030, the Polish territory is far better integrated in international relations than now. In the wake of the processes of globalisation and integration within the European Union Warsaw and other metropolitan areas are functionally tied (primarily in economic terms) to other metropolitan areas of the EU. The main target of the connections formed by the largest Polish cities is the EU area extending from London to northern Italy, due to its economic potential. Other economic links are supplemented by relations associated with administrative, cultural and educational functions as well as with the sphere of science between Warsaw and the capitals of neighbouring countries: Vilnius, Minsk, Kiev, Bratislava, Prague and Berlin or even more distant countries: Copenhagen, Stockholm, Riga, Budapest and Vienna. Berlin has a special position among the above-listed cities as its rank and role – as a result of the processes of functional integration – affect the development of the western parts of Poland, supplementing the direct impact of the metropolitan centres of Western Poland. Other Polish cities – primarily major cities of the metropolitan network – are also involved in the construction of the connection network.

Due to the economic potential, growth and cultural proximity along the Polish borders, the strongest links will have emerged between metropolitan areas and regions of Western and South-Western Poland, on the one hand, and Saxony (Dresden and Leipzig), Berlin, the Czech Republic, northern Moravia (Prague, Brno, Ostrava) and north-eastern Slovakia, on the other. Despite the support of the regional policy, the processes of integration and formation of functional connections are far less advanced in the areas adjacent to both sides of the north-eastern border (with Kaliningrad Oblast of the Russian Federation) and the eastern border (with Belarus and Ukraine). This is due to persistent dissimilarities of economic and political systems as well as cultural differences between countries in that area (Russia, Belarus, Ukraine). However, integration processes with the EU are becoming stronger (especially in the economic dimension).
Fig. 3. Major components of the transport network in 2011 and areas with the worst travel time accessibility

Source: MRD in cooperation with the Institute of Geography and Spatial Organisation of the Polish Academy of Sciences (IGiPZ PAN)

Fig. 4. Inland waterways in Poland, 2011

Source: MRD in cooperation with the Regional Water Management Board (RZGW) in Cracow
Fig. 5. Vision of the development of primary components of the road network until 2030*: motorways and expressways, airports, sea ports, the Odra Waterway

Source: MRD in cooperation with the Institute of Geography and Spatial Organisation of the Polish Academy of Sciences (IGiPZ PAN)

Fig. 6. Vision of the development of primary components of the railway network until 2030*: high speed railways, conventional railways, airports, sea ports, the Odra Waterway

Source: MRD in cooperation with the Institute of Geography and Spatial Organisation of the Polish Academy of Sciences (IGiPZ PAN)
The Polish space is recognisable while preserving the rich assets of its natural and cultural heritage

By 2030, the distribution of the main forms of land use has not changed considerably at the national scale. The changes are of regional character and are primarily related to the expansion of major cities, depopulation, adaptation to climate change and trends in agricultural production. The development of settlement and location of investments takes into account physiographic analyses and environmental impact assessments. Preserved valuable and characteristic natural and cultural landscapes, as well as material cultural heritage, are used in socio-economic development and support the development of local economies. The forest coverage rate exceeding 30% and the development of ecological corridors crossing the territory of Poland have transformed i.a. the landscape of watersheds in Central Poland and helped maintain an appropriate ratio of developed and natural areas. The Government measures are aimed at concentrating settlement in scarcely populated or depopulated areas. The increased share of reused land in connection with rule of land regeneration rather than new areas development, identification of the areas permanently protected against building development in land development plans as well as new architecture and building standards all help limit the scope of irretrievably lost biologically active land, primarily in newly urbanised areas and in developed urban areas.

In 2030, special bird protection areas and special areas of conservation, comprising the European ecological network Natura 2000, cover over 20% of the Polish territory, including numerous watercourses and river valleys. Together with national parks, reserves, landscape parks, protected landscape areas and the strips of ecological corridors, the components of the Natura 2000 network form a joint system of nature and landscape conservation which is integrated with the system of protection for historic buildings, urban and rural complexes, cityscapes, historic monuments and culture parks. A consistent and hierarchical network of nodes and ecological corridors which forms part of the continental network has been established as a result of the functional unification of objects formally belonging to a range of area protection networks – primarily the Natura 2000 network, with good nature conservation record and protected rural complexes. The network nodes, i.e. biocentres, are formed by the areas with a permanent accumulation of the most valuable natural assets provided with varied formal protection: national parks, parts of landscape parks, large Natura 2000 sites, forest complexes, cross-border protected areas and geoparks. Three new National Parks will have been established: Mazurski, Turnicki and Jurajski. Moreover, several other existing parks will have been enlarged and the protected area of Bialowieza Forest and Kampinos Forest will have been extended. Many of them have been included in the UNESCO Network of Biosphere Reserves. Integrated protection also covers marine areas – valuable habitats and connecting corridors alike – underwater landscapes and underwater cultural heritage.

The promotion of cultural heritage contributed to an increase in Poland’s recognisability and attractiveness. The care about cultural heritage sites and the legacy of the former inhabitants of the Polish territory is conducive to the development of tourism and support the process of establishing the cultural identity of migrants. Landscapes important for the history of culture are protected in the same way as landscape features characteristic of specific geographic and natural regions, under a well developed network of culture parks and historic monuments integrated with the natural network.

The Polish space is resistant to various threats related to energy and natural security.

Compared to the first decade of the 21st century the spatial distribution of energy production and the availability of primary energy carriers have changed. Dispersed sources allow an optimal use of the capacity of a given area and streamlining of the costs of energy transmission from its production places to the consumers. The use of coal has been reduced to about 40% (from 58% in 2010). Coal and lignite deposits which are of strategic significance for the energy security of the country are protected in compliance with the rules applicable to the protection of strategic mineral deposits. Hard coal extraction takes place in extended and modernised mines of Upper Silesia and the Lublin Coal Basin. Lignite extraction from new deposits has started to ensure continuous operation of domestic power stations fired with this fuel. The role of renewable energy sources (RES) – such as biomass, geothermal, water, solar and wind energy – has been increased. The share of RES in the final energy consumption exceeds 15% and continues to grow. The role of renewable energy sources in electricity production has grown to about 19%. Nearly half (45%) of this type of energy is derived from wind power production.
The major part of the power of wind turbines is situated on land (ca. 90%), but marine areas are also used in the production of this type of energy. The largest wind farms are situated in the north of Poland, which has significantly helped to solve the problem of underinvestment in power engineering in that area. Spatial conflicts between the need to protect landscape and the demand for electrical power are minimised by a system of spatial planning arrangements. Two nuclear power plants are in operation and others are under construction. Those power plants produce over 10% of electric power.

The European energy production systems have been integrated. Poland has a well developed system of electric power connections within its territory and with the neighbouring countries, in particular Germany and Lithuania. The domestic power transmission network has been extended and enhanced, especially in Northern and Eastern Poland.

Poland has access to diversified sources of natural gas and petroleum. LNG terminals have been constructed in Świnoujście and a gas pipeline “Baltic Pipe” was connected to the transmission systems of Poland and Denmark. A connection to the German system in Lasów and a link to the planned gas pipeline NABUCCO crossing the Czech Republic have also been built.

Transmission lines between the northern and southern parts of the country have been improved. Extension of the gas grid enables the construction of natural gas power stations which also serve as a safety net for the RES-based dispersed power industry. The gas grid has been extended in the areas previously poorly supplied with gas in Podlaskie and Warmińsko-Mazurskie Voivodeships as well as in the northern part of the Mazowieckie Voivodeship. Other projects are carried out to increase natural gas extraction in Poland. The use of the Pomeranian Pipeline (Płock-Gdańsk) has been intensified. Selected commodity pipelines (radiating from Płock) have been extended. The capacity of petroleum and liquid fuel storage has been increased due to growing demand and in order to comply with the applicable standard of 90-day reserve of liquid fuel. A storage and trans-shipment facility has been built in the Gdańsk seaport and connected to the Naftoport terminal to allow the trade in liquid fuels and petroleum with other countries. At least nine natural gas storage facilities are in operation. Their capacity has been nearly doubled (compared to 2010) by increasing the volume of the existing storage facilities and by constructing new ones in the areas with a recently installed gas grid. The extraction of unconventional natural gas deposits has been launched that enable to gradually reduce dependence on imports of this fuel.

The policy of restoring space for rivers wherever possible has improved retention levels and flood security. River corridors are arranged, as far as possible, so as to retain excess water, slow down its flow and allow water to spill over in the valleys. Early warning systems and flood risk management plans have been designed and deployed. The areas most exposed to the threat of flooding and the influence of Baltic storms have been secured, the protection of cultural heritage sites has been ensured and the risk of floods in heavily urbanised areas has been reduced. Development in flood-land has been radically limited.

Structural measures of the “Programme for the Odra 2006” have effectively enhanced the safety of people living in the Odra River Basin and, at the same time, have restored the navigability of the river. The modernised Wrocław Water Junction, completed Racibórz Dolny and Kamieniec Ząbkowicki reservoirs as well as numerous polders that have been identified and created successfully protect cities situated on the Odra River by minimising the flood risk. In the Vistula basin, the reservoirs in Swinna Porąba and Katy Myscowa have been completed and smaller reservoirs in the upper section of the Vistula basin has also been built. River embankments have been rebuilt in the entire basin to ensure protection of Cracow, Będzin, Dąbrowa Górnicza, Mysłowice, Sosnowiec, Katowice, Bielsko-Biała, Rzeszów, Tarnów, Sandomierz, Warsaw, Płock, Tezew and other towns. The flood control programme for the Żuławy region has been carried out resulting in a considerably increased safety of land situated in the Vistula delta.

**Poland spatial order is ensured by a well-organised legal system and efficient public institutions**

In 2030, the Polish space is shaped in an orderly manner. The national spatial development policy, which constitutes an integral part of the development policy, actively supports the achievement of development objectives and helps to resolve spatial conflict and clashes by taking into account the conditions and requirements resulting from the characteristics of individual spatial components: economic and social system, infrastructure, settlement structure, natural and cultural environment. In the context of increasing
Fig. 7. The energy system and development areas of dispersed energy generation

Source: MRD
spatial structure variability and a direct connection between the spatial policy and socio-economic planning, the role of spatial planning – as one of the instruments for accomplishing the objectives of development policy – is on the increase. In 2030, the efficient management system – comprising instruments related to spatial planning, law, institutions and investments – allows the spatial policy to play a coordinating role in relation to other policies that influence spatial structures on all levels of planning. The Polish spatial management system is compliant with the subsidiarity principle, but its nature is hierarchical, i.e. the lower levels of planning have to take into account the projects important from the national or regional perspective. This is an integral element of the national development management system which provides possibilities for the implementation of investment projects. The national spatial planning system and European planning form a coherent system. The national system takes into account the EU vision of territorial development, the spatial dimension of policies aimed at delivering EU objectives and development strategies of European macro-regions, such as the Baltic, Danube, Central European or Eastern European macro-regions. In 2030, international development strategies related to spatial development plans for given areas provide the basis for planning in borderlands.

Rational spatial management is ensured by highly efficient and skilled state institutions. The administrative system ensures an efficient spatial coordination of various entities: objectives formulated as part of the spatial policy on various levels of socio-economic and spatial planning are implemented by the entire public administration.

The citizens and NGOs generally participate in the planning and development process, including spatial planning, which results from the need to take account of various interests on the stage of preparation of documents and before their implementation begins.

The national system of the spatial processes monitoring and the evaluation of the spatial and regional policy implementation constitutes the primary tool for the management of development measures with spatial dimension and for their coordination. The monitoring provides information on the effects of sectoral policies that influence the space and constitutes a basis for taking an action.
Objectives of spatial development policy by 2030

The National Spatial Development Policy is a means to achieve Poland development objectives nationwide. Taking into account the new paradigm of development policy, the strategic (unlimited in time) goal of the national spatial development policy may be defined as follows: **To effectively use the country space and its territorially diversified development potentials to achieve overall development objectives – competitiveness, increased employment, efficiency of the state and long-term social, economic and territorial cohesion.**

The goal thus formulated – provided the objectives and implementation tools are well selected – is implemented by all competent public bodies responsible for development at different governance levels, in different thematic areas and in different territories.

To ensure that the strategic goal of the National Spatial Development Policy is achieved, it is necessary to focus public bodies’ activities on selected thematic areas and territories. As regards an analysis of the situation in Poland, including the most important development determinants and trends, six interrelated objectives of the national spatial development policy by 2030 have been formulated.

**Objective 1. To improve the competitiveness of Poland major urban centres in the European context through functional integration while preserving the pro-cohesive polycentric settlement structure.**

Increasing the *competitiveness* of the economy in spatial dimension requires an effective use of the national spatial development structure. In spatial terms, the principal role in the process of increasing the economy’s competitiveness must be played by the potential of major urban centres construed as focal points of economic, social and cultural changes. Spatial policy (using planning, legal and, where justified, also investment instruments) will support the increase of competitiveness of Polish cities in relation to other cities in Europe while preserving the polycentric structure of the settlement system.

The spatial policy will support the competitiveness of the major cities in Poland by:

1. Encouraging the development of metropolitan functions in major urban centres,
2. Intensifying national and international functional connections between the main settlement network nodes,
3. Integrating functional areas of major urban centres.

The development of metropolitan functions, higher number and better quality of functional connections, functional urban areas integration and improved accessibility of the major economic growth nodes will not only enable the development of other urban areas, but also contribute to the improvement of living and development conditions in areas adjacent to major cities of the emerging metropolis network.

Actions intended to boost metropolitan functions will be supported mainly by the Government regional policy and other coordinated sectoral policies (e.g. the transport policy). Appropriate international policies of the Government and local governments, e.g. with respect to the concentration of functions with international importance, will also be very important.

Special attention will be given to establishing and intensifying connections between voivodship centres, including metropolises, and regional centres. This will be essential for making a full economic use of the polycentric settlement structure in Poland, balancing the development processes and including the largest possible territory in the most dynamic development processes.

Measures for development of functional urban areas will consist in developing and implementing regulations enabling an integrated spatial policy in functional urban areas.
Objective 2. To enhance internal cohesion and balance the territorial development of the country across regions by promoting functional integration, creating conditions for spreading development factors, multifunctional development of rural areas and using the internal potentials of all territories.

In order to ensure effective exploitation of the potential of the entire Poland, the spatial development policy must aim to ensure territorial cohesion of the country in different spatial dimensions, using the emerging polycentric metropolitan network. Territorial cohesion is intended to enable the entire population to participate in the development processes by ensuring access to high-quality jobs and public services that are a precondition for development opportunities. Spatial policy measures intended to achieve the territorial cohesion objective include: supporting nationwide cohesion, regional functional integration, supporting development diffusion to areas outside major cities and building territorial specialisation potential, as well as supporting cohesion in problem areas.

Having regard to the socio-economic structure, development barriers (including the location along the EU external border), the measures of the national spatial development policy supporting the territorial cohesion should focus on Eastern Poland. The territorial impact of the current economic processes shows that in order to ensure nationwide cohesion, the spatial development policy must also take into the account issues of Central Pomerania and Western Poland. In order to accelerate development and modernisation in both of the abovementioned regions, it is essential to take action to improve their functional integration with Central Poland and main development process focus areas, i.e.: a polycentric network of major urban centres, strengthening functions of major urban centres in the area, supporting restructuring of economy and using specific internal potentials of those areas. Important measures intended to ensure development of Eastern Poland, Central Pomerania and Western Poland include measures aiming to increase the concentration of urbanisation processes and strengthen the role of medium-sized and small cities located in those areas, and to support the restructuring of rural areas.
The objective of the national spatial development policy in rural areas of Eastern Poland, Central Pomerania and Western Poland is to use their non-agricultural assets (e.g. ecological and tourism potential, as well as any potential to generate energy using local resources), and by enhancing employment opportunities in more productive sectors of the economy. It will be induced by supporting the development of human resources, social capital and investments in social and technical infrastructure (such as transportation, telecommunications, low-voltage electrical energy and environment protection). An important part of the restructuring effort is to strengthen the role and quality of public institutions (including administration), which are administrating restructuring processes, stimulating activity and building partnerships between social groups.

In terms of planning measures, support will be granted for developing macroregional strategies for those areas, which may help define barriers and development potentials and coordinate the activities of various public entities.

Other important measures to improve nationwide cohesion include regional functional integration, supporting diffusion of development to areas outside major cities, and building potential for territorial specialization.

This objective aims to include not only the network of major voivodship and metropolitan cities, but also other areas of individual voivodships in development processes in order to use the economic potential of smaller cities and rural areas where agriculture is still predominant. The measures will focus on supporting regional integration processes around voivodeship cities and building conditions for growth diffusion to areas around major urban centres and for absorption of those processes. Agriculture will remain the key function of rural areas. Where appropriate, territorial specialisation should be promoted (in tourism, environment, various industries and agriculture), as it constitutes a valuable component to the income base of the region’s population. Support for regional diffusion processes will consist in offering support for small and medium-sized cities of particular importance for rural development, which act as catalysts encouraging the development of non-agricultural functions, incubators mobilising surrounding areas and are public service providers. Support for spatial and functional integration of rural areas, taking into account territorial diversification of those areas, will be accompanied by measures counteracting negative effects of urbanisation.
pressure, including those intended to preserve the environment and landscape.

Strategic interests of the state will be secured, in terms of both food production and other agricultural production, including the development of dispersed energy production based on various forms of biomass.

Support for cohesion in specific problem areas will supplement the measures related to functional integration of national problem areas, such as Eastern Poland, Central Pomerania and Western Poland, and to promoting regional diffusion based on a network of voivodship centres. NSDC 2030 (following NRDS 2020) specifies three areas in need of special support and suggests a number of measures to restore their development capacity, using mainly the instruments of the state regional policy:

- Support for areas with the worst access to goods and services that are prerequisites of development. Due to persistent territorial differences in this area, spatial policy aims to ensure a uniform accessibility standard for services of primary importance to development processes across the country. To this end, standards will be developed on the national level for all of the abovementioned thematic areas (with priority on education, health, sport, tourism, public transport, culture public utility services, including environmental protection services);

- Restructuring and revitalisation of degraded areas and cities aimed at reinstating their administrative, social and economic functions, and creating favourable conditions to reuse them through correlated interventions in the field of spatial planning, infrastructural investments, human resources and entrepreneurship;

- Reducing the peripheral character of borderlands. For political reasons, the situation on the external borderlands of the EU is more challenging than the situation of EU internal borderlands and requires a different approach. Integrated socio-economic and spatial planning (on both sides of the border) and coordination of regional and spatial policies are required. Cross-border development plans for subregional and local urban centres divided by border and for their borderlands will constitute an important growth factor as well.

Objective 3. To improve Poland's connectivity in different dimensions by developing transport and telecommunications infrastructure

As regards the transport system, the National Spatial Development Policy will aim, first of all, to improve territorial accessibility of Poland at different spatial levels. This objective will be implemented through alignment of transport investment priorities in medium-, and long-term strategic documents and EU guidelines on the Trans-European Transport Network. Priority will be given to transport projects, which are aimed at improving internal and external accessibility of Poland. These projects will generate an added value, as their implementation is going to result in the establishment of a coherent, sustainable transport system. Land and water investments intended to improve access to Poland from other European countries will also receive high priority. However, transit projects, and road transit projects in particular, will not be a priority for the in the accessibility component of the spatial policy. Connections between cities located farther away from major socio-economic centres, and the major city network will have a higher priority than links between those cities.

In order to enhance development diffusion processes, support will be given at a national level (in addition to regional measures) to investment and organisational projects aiming to improve access to major cities and the surrounding areas – i.e. sub-regional centres and rural areas. Improved accessibility will strengthen the centres that are nodes of the polycentric network of cities concentrating higher order public services and having the largest growth potential, thus ensuring development of sub-regional and local centres where basic public services are concentrated and creating new income and investment opportunities for inhabitants of rural areas.

As regards inland waterway navigation, priority will be given to the modernisation of the Odra Waterway, and in maritime navigation, to investments aimed at improving access to terminals of Polish sea ports of key significance for Poland (Szczecin, Świnoujście, Gdańsk and Gdynia) and auxiliary ports, such as Elbląg, in particular from inland waterways.

Another set of measures will be aimed at integration of telecommunications, primarily by supporting the development of ICT networks in rural areas and preventing digital exclusion of social groups and regions.
Fig. 11. Expected development of the road network compared to the development of airport network, sea port network and Odra Waterway – stage I*

Fig. 12. Expected development of the road network compared to the development of airport network, sea port network and Odra Waterway – stage II*

*Implementation of individual projects will depend on the transport policy of the Government.

Source: MRD in cooperation with IGSO PAS
Fig. 13. Expected development of the road network compared to the development of airport network, sea port network and Odra Waterway – stage III

Source: MRD in cooperation with IGSO PAS

Fig. 14. Expected development of the railway network compared to the development of airport network, sea port network and Odra Waterway – stage I

Source: MRD in cooperation with IGSO PAS
Fig. 15. Expected development of the railway network compared to the development of airport network, sea port network and Odra Waterway – stage II*

Source: MRD in cooperation with IGSO PAS

Fig. 16. Expected development of the railway network compared to the development of airport network, sea port network and Odra Waterway – stage III*

Source: MRD in cooperation with IGSO PAS
Public support for the development of telecommunications infrastructure will be harmonised with territorial cohesion measures intended to ensure access to basic public services and goods, which are considered prerequisites of development for rural populations.

**Objective 4. To develop spatial structures supporting the achievement and preservation of Poland’s high-quality natural environment and landscape.**

Natural assets of Poland include diversity of nature and landscapes, preserved thanks to the long tradition of applying protection measures and favourable agricultural condition. Their durability which is necessary to satisfy development needs of the society now and in the future requires a rational combination of socio-economic development and the protection of natural and cultural heritage. This entails spatial planning and development to reduce the number and scale of potential ecological conflicts related to development of roads and transmission infrastructure, to mitigate the risk of natural disasters, such as floods, and to control the progressing urbanisation of space. It will require public acceptance for constraints on economic use of environmental resources, in particular due to conservation restrictions or requirements of rational long-term planning. A set of such measures, provided for in the system of integrated development planning, will allow to prevent irreversible loss of spatial resources, biological and landscape diversity and to enhance the development of some, mainly water, resources. It will also have a positive impact on the quality of living of urban and rural populations.

National Spatial Development Policy will counteract fragmentation of habitats to a greater extent than now and provide solutions, which enable the best possible spatial ecological connectivity to be achieved. To this end, NSDC 2030 defines the basic ecological network of the country as a spatial system consisting of non-developed biocentres with varying formal protection status and of ecological corridors connecting the existing areas with high concentration of habitats and species, and the remaining space which is important for support for the natural system. NSDP calls for further functional integration of the existing forms of nature protection, including the national network of protected areas, consisting mainly of national parks, nature reserves, landscape parks, protected landscape areas and the European Natura 2000 network.

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**Fig. 17. Outline of future spatial policies for high nature value functional areas**

Source: MRD
The network comprises forests, cross-border areas and open areas around cities, including their green infrastructure, valuable wetlands, in-field trees, roadside trees and those natural and landscape structure whose protection is regulated by other laws than the Act on environmental protection. In order to designate the network of land supra-regional corridors, the generalisation based on the most often used systems should be adopted and supplemented by research. The core of the network consists of central European corridors of the Odra, Vistula and Bug valleys and the strips across the central Poland which were enhanced at the regional and local level by intentional biological development. Corridors for water organisms and birds are delimited separately.

New national parks must be established: Jurajski NP, Mazurski NP, Turnicki NP, certain existing national parks must be extended and new areas added to the network of landscape parks. The protection of the functions of ecosystems and landscapes on both sides of the border requires cooperation in development management at least in the following cross-border areas: Suwalsko-Wisztyniecki park, Biosphere Reserve “Three Forests”, UNESCO Tripartite Biosphere Reserve Polesie Zachodnie (currently organised), Vistula Spit and Vistula Lagoon, Bug River Valley corridor, Bug Gorge, Lower Odra Valley, Babia Góra, Pilsko Mountain and Białowieska Forest. To ensure ecological connectivity of existing and planned protected areas and satisfy living needs of all groups of organisms, the information must be supplemented by research and methodological guides facilitating the transfer of knowledge, i.e. physiographic information, to the implementation stage, i.e. management of ecological corridors as a form of landscape organisation.

Landscape occurs as a result of human activity in the given natural and cultural environment. It is a synthesis, an image of functions granted to ecosystems creating the surroundings of material culture objects that define the identity of the place, its historical and cultural assets. Development potential of numerous regions, with often low socio-economic parameters, is related to the uniqueness of their landscapes. Enhancement of spatial order at the level of cultural and natural landscapes management will be conducive for implementation of the European Landscape Convention. The main forms of landscape protection should remain the same, i.e. landscape parks, historical monuments, culture parts and, in the case of international rank objects, an entry to the list of UNESCO cultural or natural heritage. Legislative changes and principles of landscape management in the socio-economic development process were also specified, starting from...
identification of resources to analyses of scenic qualities in investment planning and environmental impact assessments.

The planning of infrastructural investments requires an individualised approach to preventing the fragmentation of natural space and protection of natural heritage, combined with care for the environment and quality of living in the extent dependent on condition of space. Easing environmental burden from pollutant emissions will be achieved mainly by planning of structures, in the process of urbanisation and building of technical infrastructure, which will allow to reduce demand for space and energy and decrease emissions of greenhouse gases, dust and noise, as well as to increase the carbon capture capacity.

In order to meet development needs, the access to water of appropriate quality must be ensured. Necessary measures will include i.a. integrated planning of municipal services management in functional areas. Water abstraction and waste water discharge will be balanced within units in a catchment. Integration of water management will also include flood and drought control and use of stormwater in urbanised areas.

The rules for management of other resources, including soils and strategic minerals, will be specified to enable efficient and early resolution of the conflict of interest concerning the land development and to manage other natural resources in the same geographical space.

**Objective 5. To enhance spatial structure’s resistance to natural disasters and loss of energy security and to develop spatial structures supporting national defence capabilities**

Spatial policy aimed at achieving national development targets must enhance country’s resistance to various threats, such as threats to energy security, natural disasters and defence threats. The main measures counteracting threats identified in NSDP include: counteracting energy security threats and appropriate response to such threats; improving protection against extreme natural and man-made disasters and developing spatial structures supporting national defence capabilities.

**Measures counteracting energy security threats include the** expanding the system of connections with neighbouring countries’ electrical grids, extension of internal grid - in particular improving security of supplies to major cities and Northern Poland, construction of power plants (including at least two nuclear power plants) and pro-ecological modernisation of baseload power plants, ensuring alternative natural gas and crude oil supply routes to Poland and a significant capacity increase in gas storage facilities, enhancing natural gas extraction opportunities, including extraction from non-conventional sources (shale gas) and increase in energy production from renewable sources. Systemic protection of deposits of energy raw materials is a very important element of spatial policy. Even if for economic, social or other reasons some known fossil fuel deposits remain unused (e.g. hard coal deposits in Śląskie and Lubelskie Voivodship and lignite deposits in the area of Legnica and Gubin), they should be treated as a permanent special strategic resource that must be protected by specific legal measures against various types of human activity, in particular investments.
In order to improve protection against extreme natural and man-made disasters under the National Spatial Development Policy, various regulatory, planning and investment measures will be implemented. Considering the types of natural disasters occurring in Poland, the most important investments will include water management projects. Regulatory and planning measures will include the obligation to include all levels of boundaries of flood risk areas in spatial development plans and planning appropriate measures to reduce them, taking into account the arrangements in the flood risk management plans. The Multi-sectoral Programme for Odra 2006 will be updated. Its status will be changed to an independent macro-regional sustainable development strategy. Similar strategies will be developed for the entire Vistula river basin and the Żuławy functional area, delimited taking into account is natural conditions and historical background.

The level of flood control will be increased also by means of investments. This objective will be achieved by implementing flood control hydro-engineering projects, based on water management needs verified by water region authorities. Meteorological and hydrological early warning systems will be developed and modernised. Automatic measurements and data transmission will be ensured by means of extending fast and reliable remote transmission systems, modernising forecast models and public information systems. Municipal infrastructure will be adjusted in order to address potential extreme hazards, such as floods, high or low temperatures and heavy rainfall. Priority will be given to building linear parallel infrastructure along river valleys and sea coast. In this context, the construction and modernisation of flood control infrastructure in the Baltic Sea coastal zone and in Żuławy.

Due to the risk of drought, available water resources must be increased. A retention rate equivalent to 12 -15% of the annual average outflow from the territory of Poland is to be achieved, as reflected in estimates of aggregate retention needs in river basins, taking into account also landscape retention. Planned locations of various types of reservoirs will be determined based on verification of previously defined needs, the region’s water demand compliant with its current development objectives and the water demand of the environment in the basins determined by the water administration.
Fig. 20. Integrated flood prevention measures

Fig. 21. Objectives related to ensuring energy security
Spatial development must take into account supporting national defence capabilities. This requires support for polycentric, decentralised settlement system and national economy system, ensure conditions for armed forces to perform their tasks, i.e. ensuring equal treatment of socio-economic development and broadly understood national defence; monitoring of changing locations of military facilities and taking that into the account during formulation of spatial development plans and ensuring favourable conditions for rescue operations, which requires the creation of green belts, dispersed and low housing structure and building a network of storage facilities (for food, fuel and equipment) and a healthcare network on city outskirts and in places intended for people relocated from hazardous areas. Defence requirements should be met during the development of the settlement network, location of industries which are important for national defence and development of technical infrastructure. In the transport sector it is recommended to build city bypass systems, locate marshalling yards and container terminals away from urban centres, build emergency bridges over rivers, and avoid placing transmission lines with important economic functions under major bridges. In the communication and energy sectors it is important to build star-shaped telecommunication networks and power lines, create independent regional power systems with multiple connections to the national system and ensure backup power supply to important recipients.

Objective 6. To restore and consolidate spatial order

Spatial order is the main objective of spatial development at all planning levels: national, regional, local and functional. In spatial planning, spatial order means structured arrangement and harmony of different space components and spatial structure functions. It is a criterion to judge the quality of spatial development changes in terms of efficiency of socio-economic processes and the quality of living.

Symptoms of the lack of spatial order in Poland include: frequent mismatch of land use and development and the natural, cultural or landscape value of an area, suburbanisation which destroys space value and is wasteful in economic and social terms, low public space quality, housing and architectural chaos.

Measures to restore and consolidate spatial order in Poland may be grouped as follows: introducing an integrated (coherent and hierarchical) socio-economic and spatial planning system at different governance levels, reorganisation of regulations ensuring efficiency and universality of the spatial planning system, strengthening of institutions and improving the quality of spatial planning. Integrated and hierarchical system of socio-economic and spatial planning will be introduced at all levels of development governance: national, regional, local and functional. Apart from relevant legal regulations, its appropriate functioning requires the introduction of new coordination mechanisms (such as territorial contract) and establishment of a strong coordination centre to harmonise the territorial dimension at all management levels with measures in the socio-economic sphere. Full coordination of objectives and territory related measures with sectoral measures requires the reorganisation of the state management system and public finance system and the acquisition of strategic programming skills at all management levels to involve participants of the “game for space”.

One of the basic measures required to increase the efficiency of the spatial planning system is to introduce a principle in legal regulations that brownfields must be used before the development of greenfields, and that greenfield development will be permitted only when brownfields are already fully developed and subject to compensation within the national, international and local systems.
Gmina studies of land development determinants and objectives will contain provisions binding not only for the local plan but also for every administrative decision specifying development conditions and for every construction permit in respect of statutorily regulated matters, in particular, land designation and use (division into the basic development and protection zones); the studies will be integrated socio-economic development documents laying down determinants and objectives of spatial development whose planning scope will encompass larger functional areas.

There will be a statutory obligation to draw up land development plans for areas designated for development in studies of conditions and objectives of spatial development for gminas which undergo intense development.

Minimum standards for provision of utilities and spatial development in urban areas; extensive development and access to technical infrastructure; as well as access to basic social services, including the protection of public interest, will be introduced by the act of the Parliament.

Regulations will be introduced to prevent scattered development, development alongside national and regional roads, development in areas without water and sewage infrastructure and in flood-risk areas.

**Strengthening of spatial planning requires institutional changes** at all administrative levels and the introduction of a spatial development monitoring and on-going assessment system. Public administration staff involved in development process planning, including spatial planning, and in implementation of measures laid down in those plans, will take part in continuous learning programmes and will constantly improve their knowledge and competences in the area of space quality and spatial policy issues. It will enable, inter alia, to determine the appropriate position of the planner in the organisational structure of central and local government administration.
Quality of planning will be improved also thanks to support provided at the national level to professional services involved in strategic planning and providing advice to regional and local planners. Standards will be defined for higher education programmes in spatial development treated as an interdisciplinary subject and offered by a wide array of higher education institutions (technical universities, universities and economic universities).

Spatial culture promotion will include civic education and popularisation of urbanised environment issues, in particular of active public participation in planning processes.

Spatial processes monitoring system will be built which will use spatial data infrastructure to evaluate measures taken by all stakeholders at all levels – from local, through regional and national to European level. Thanks to a link to the monitoring system for socio-economic situation and development policy effects, it will serve as a cooperation platform to determine objectives and measures with a spatial impact. Improving the quality of spatial measures requires measures aimed at enhancing territorial partnership for development process planning and management. Availability of information on work on planning document must improve (e.g. the obligation to publish relevant gmina resolutions in the Public Information Bulletin). Government information policy will be developed to popularise the best integrated spatial policy practices. Educational programmes promoting active economic and social stakeholders’ participation in spatial development and management planning will be elaborated and implemented.
Typology of functional areas

One of the processes affecting public policies across the world and particularly in Europe (including some EU Member States) is the transition from the sectoral approach to the integrated territorial approach. The territorial approach is oriented at the use of endogenous potentials of functionally defined territories, integration of public measures in the spatial dimension and multi-level governance.

NSDC 2030 assumes that similar integrated measures should be addressed to areas that share geographic (socio-economic and spatial) characteristics and are referred to as functional areas. From this perspective, the subject of the national spatial development policy is the entire territory of the country and its objectives and tools are diversified depending on the specificity of individual functional areas and targeted at using their specific geographic potentials determining their development. Only some of the functional areas can be classified as traditionally understood “problem areas”, i.e. areas where spatial conflicts and development dysfunctions occur and where public intervention at the national level is required.

After relevant amendments are introduced in the law, the functional areas specified in NSDC 2030 should be taken into account as an element of spatial and socio-economic planning at the national, regional and local levels and, where reasonable, they should constitute a separate category of spatial planning.

The set of functional areas is open – their number and geographic range depend on the purpose that their delimitation is to serve. In order to achieve the objectives of NSDC 2030, 22 functional areas have been designated and will be delimited at different levels of management (national, regional, functional). They can be divided into four basic types:

- Defined in relation to the entire settlement system, delimited based on the degree of urbanisation, covering urban areas – core cities and their functional zones – and functional rural areas,
- Delimited based on the type of development potential related to the presence of a particular spatial development phenomenon and conditions for development policy on the macro-regional scale,
- Delimited based on the possibility of spatial conflicts related to the method of using their environmental and cultural potential,
- Requiring restructuring and development of new functions with the use of regional policy instruments. Those are the areas where socio-economic problems accumulate raising a barrier to the achievement of spatial cohesion of the country.

The last two of the above categories contain only problem areas (pursuant to the applicable Act on spatial planning and development) of the spatial and regional policies, while functional areas of other types may, but do not have to, be considered as problem areas at an appropriate level of spatial planning.

The applicable Act requires the designation of metropolitan areas. In NSDC 2030 they correspond to urban functional areas as spatially continuous settlement system consisting of units separate in administrative terms. An urban functional area covers a compact urban area with a functionally linked urbanised zone. Those administrative areas may include urban gminas, rural gminas and urban-rural gminas. Functional urban areas can be further divided into four sub-types: voivodeship (including metropolitan), regional, sub-regional and local centres. This typology refers to the functions of urban centres in the settlement system of the country and is primarily based on their size. Some of the voivodeship centres, due to their role in the settlement system of the country and socio-economic importance in the development processes of the entire country, gain the status of metropolitan centres (Warsaw, Upper Silesian Agglomeration, Cracow, Łódź, Tricity, Poznań, Wrocław, Toruń-Bydgoszcz bipolar area, Szczecin and Lublin). Due to the need to strengthen metropolitan functions in order to ensure a more uniform development of the country based on a network of major Polish cities, all voivodship centres, regardless of their role in the national settlement network, must demarcate functional areas and prepare a development plan and strategy for an entire functional area.
Fig. 23. Urban and rural functional areas

Source: Prepared by MRD

Fig. 24. Functional areas with a specific spatial phenomenon at the macro-regional scale

Source: MRD
Implementation System of the National Spatial Development Concept 2030

The NSDC 2030 implementation system takes into account the following: the current legal framework applicable to spatial planning and development, as well as principles of the development policy.

The document proposes a fundamental reorganisation of the system, including introduction of the new legal and institutional solutions. Thus, the conditions for creation of a coherent, integrated and hierarchical spatial planning and management system in Poland shall be provided.

The changes demanded in NSDC 2030 are aimed at strengthening the coordinating role of the spatial policy in relation to these sectoral policies which have the most powerful impact on the spatial development of Poland as a whole and its particular territories as well as on its changes. Implementation of the national spatial policy is primarily the responsibility of the Government. In the new system, a dialogue and partnership in vertical relations become more important in order to counterbalance the emerging stronger hierarchical links between individual levels of planning.

An effective system must guarantee achievement of supra-local public goals. This involves the need for providing conditions that contribute to combining the goals of spatial policy with the measures at the regional level. To this end, the document proposes strengthening of the relation between spatial planning and socio-economic planning, as well as implementation documents.

Demands concerning the current system as well as the description of the new system have been formulated in the form of Objective 6 of NSDC 2030: To restore and consolidate spatial order.

The Action Plan for implementation of NSDC 2030, which contains proposals of issues, time limits and implementation entities responsible for the preparation of legal and institutional changes is an integral element of the process of implementing the visions and principles of the new system. The Plan specifies the tasks for the entities involved in the delivery of goals of the spatial planning policy, in particular for the competent ministers, mainly those responsible for policies having a strong impact on the spatial structures, and for the local-government units. The implementation of the Action Plan will enable spatial policy to perform its coordinating function.

In the NSDC 2030 an obligation was assumed to implement to spatial development plans of voivodeships the conclusions and recommendations concerning measures targeted at the functional areas indicated in the document, and to implement spatial planning measures in the form of strategies, plans and studies of spatial development.

The Concept emphasizes the need to implement specific projects, but it is not a document which provides a basis for implementation decisions. According to the hierarchical planning system, the particular projects will be carried out based on the plans, programmes and other operational documents provided for in the national strategic management system and adopted by the relevant bodies (usually by the Council of Ministers). Based on those documents decisions will be taken on the amount and methods of financing as well as on the precise time schedule. The investment policies resulting from NSDC 2030 are of general character – they identify the desired projects but their execution is left to relevant institutions and depends on the financial and administrative possibilities that are changing in time. Implementation of the projects carried out under various investment programmes and plans shall be subject to regular monitoring so that it is possible to formulate recommendations at the level of the Council of Ministers regarding the materialisation of the vision outlined in NSDC 2030.

As regards new projects proposed in NSDC 2030, their implementation is planned beyond 2020 and their total value will be lower than that of the projects (pursuant to governmental decisions) to be implemented in the period 2011-2020. NSDP demands construction of additional 750 km of motorways (compared to about 2000 km planned by 2020, of which 1100 km to be constructed in the period 2010-2020) and 800 km expressways (compared to 2800 km planned by 2020 and 5300 km by 2030). Considering that the largest investment effort in respect of roads and railways is planned by 2020, it can be presumed that the better possibilities of funding other basic infrastructure elements from the public budget will not arise earlier than after that date – including further improvement of the standard and speed of railways, large hydro-engineering projects, water transport projects. As regards air and ground-site infrastructure projects, especially the construction of the Central Airport, the model of its construction financing will include off-budget financing mechanisms.

NSDP may also be updated, in whole or in part, depending on the changing socio-economic circumstances and spatial development.