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Abstract
During the period of 14th Five-Year Plan, modernization of space governance and optimization of regional economic layout are the important parts of planning and development. Since the reform and opening up, China's regional economic layout has adopted the guiding ideology of "some regions get rich first", which has rapidly driven the overall improvement of national strength, but the development gap between regions has continued to widen. The open economy and the non-state-owned economy are developing rapidly, but there are shortcomings in the security and advancement of the economic system, and the reform of the state-owned economy is still insufficient. China's space governance has made remarkable progress, but in terms of legalization and scientization, learning-oriented government and democratic governance, and systematic governance, there is a big gap with modernization requirements. During the 14th Five-Year Plan period, the key points of space governance modernization include: improving the space governance model in which the government, the market, the social organizations, and the public participate together; improving a regional policy system that puts equal emphasis on fairness and benefits, government regulation, and market optimization allocation, issues and goals, and constraints and incentives; and developing a new mechanism for regional coordination that meets the requirements of high-quality development. The major measures of the regional economic layout are continuously enhancing the energy levels of urban agglomerations, metropolitan areas and regional central cities, and practicing the new model of achieving balanced and coordinated regional development in the process of population economic agglomeration. It should take the opportunity of restructuring China's relatively complete industrial system as an opportunity to create a new pattern in the distribution of major productive forces, and launch the great project of high-quality development in northwest China to cultivate the new driving force of development and prosperity in relatively poor areas.

Keywords
14th Five-Year Plan; high-quality development; space governance; economic layout; territory; region
High-quality Development of National Territory Space Governance and Regional Economic Layout During 14th Five-Year Plan in China

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Abstract: During the “14th Five-Year Plan” period, modernization of space governance and optimization of the regional economic layout are the important parts of planning and development. Since the reform and opening-up, China’s regional economic layout has adopted the guiding ideology of “some regions getting rich first,” which has rapidly driven the overall improvement of national strength, but the development gap between regions has continued to widen. The open economy and the non-state-owned economy are developing rapidly, but there are shortcomings in the security and advancement of the economic system, and the reform of the state-owned economy is still insufficient. China has made remarkable progress in space governance, but in terms of legalization and scientificization, learning-oriented government, and democratic and systematic governance, there is a big gap with modernization requirements. During the “14th Five-Year Plan” period, the key points of space governance modernization include: improving the space governance model in which the government, the market, the social organizations, and the public participate together; improving a regional policy system that puts equal emphasis on fairness and benefits, government regulation, and market optimization allocation, issues and goals, and constraints and incentives; and developing a new mechanism for regional coordination that meets the requirements of high-quality development.

The major measures of the regional economic layout are continuously enhancing the energy levels of urban agglomerations, metropolitan areas, and regional central cities, and practicing the new model of achieving balanced and coordinated regional development in the process of population economic agglomeration. It should take the opportunity of restructuring China’s relatively complete industrial system as an opportunity to create a new pattern in the distribution of major productive forces, and launch the great project of high-quality development in northwest China to cultivate the new driving force of development and prosperity in relatively poor areas.

Keywords: 14th Five-Year Plan; high-quality development; space governance; economic layout; territory; region

Since the founding of the People’s Republic of China, the government has learned the governance model and layout experience of the Soviet-type economic planning, formulated five-year plans for national economic development, determined the production and consumption goals of major industrial and agricultural products, and regulated the proportion of investment in agriculture, light industry, and heavy industry, to achieve the inter-industry and interregional equilibrium of national economy [1]. With the progress in China’s governance capacity and governance system, the “five-year plan” has gradually expanded from the economic field to social, resource, and environmental fields and from the domestic economic development to the reform and opening up. At present, the “five-year plan” is becoming the highest principle for guiding administrative governance, development, and protection in China. The “five-year plan,” as the governance pattern of the system of socialism with Chinese characteristics, has attracted more concern from the international community, especially from the foreign dignitaries, and received more and more affirmations and compliments in recent years by virtue of its key role in national governance and the comprehensive construction of a well-off society in China [2]. Developed market economy countries take national territorial space planning as an important policy tool for coordinating the orderly development between sectors and regions in national governance; in other words, they can realize the planning intention and development purpose through the control of the most important resource—land. This is precisely what China has been lacking in the past.

Since the 18th National Congress of the Communist Party of China (CPC), the Central Government has attached great importance to the governance capacity and modernization of the governance system; national territorial space governance has been listed in the agenda and becomes an important part of the reform of government institutions in this round. Perfecting the territorial space development and protection...
system, improving the territorial space planning system, and giving play to regional comparative advantages to forming the space layout for high-quality development all have become the key contents of modernization construction \[^{[3,4]}\]. In this critical period, China has started to formulate the “14th Five-Year Plan” and propose a regional economic layout after over 40 years of rapid economic development, which is a scientific and reasonable choice \[^{[5]}\]. During the “14th Five-Year Plan” period, we should grasp the features and advantages of the system of socialism with Chinese characteristics, and focus on the major reforms and measures of space governance and regional economic layout according to the new requirements for high-quality development; we should boldly innovate the development idea, adopt new measures in practice, and foster new growth points and highlights, thus enabling the modernization of space governance and optimization of the regional economic layout to become the shining points of the “14th Five-Year Plan.”

1 Characteristics and problems of space governance and regional economic layout since the reform and opening-up

The outbreak of COVID-19 has seriously affected the global layout of the industrial chain, and the issue of national economic security has been put on the agenda again. China is at the turning point of completing the goal of constructing a well-off society and stepping into the modernization construction; the optimization of the regional economic layout is not only the strategic task of the “14th Five-Year Plan” but also the driving force and path of economic development during the “14th Five-Year Plan” period. The regional economic layout for high-quality development with complementary advantages based on opportunities helps to promote the reconstruction of the global economic landscape and elevate China’s overall national strength to a new level \[^{[6]}\]. The optimization of regional economic layout and modernization of governance systems have become key issues to be solved urgently. Since the reform and opening up, the evolution of China’s spatial governance and regional layout has presented distinctive features and remarkable achievements have been made. At the same time, a number of major problems have also arisen in the development process.

1.1 Characteristics and problems of regional economic layout

(1) In terms of guiding ideology, the rapid enhancement of the overall national strength has been focused and the concept of “some regions getting rich first” has played a key role. During the 40 years of reform and opening-up, China’s GDP has increased by 39.3 times, and the world ranking has risen from the ninth to the second. GDP in Beijing-Tianjin-Hebei Region, Yangtze River Delta, and Pearl River Delta (excluding Hong Kong and Macau) has increased by 43.5 times, with a contribution degree of 38.5% to the increase in the overall national strength (Fig. 1). At the same time, the unbalanced regional economic development has become a prominent problem in China; the absolute GDP gap between the coastal and western regions has increased by 30.8 times (Fig. 2). Although China has attached importance to coordinated regional development since the implementation of the large-scale development of the western region in 1999, “the regions that have gotten rich first getting richer faster” is still the dominant trend due to the lack of the corresponding institutional mechanism reform.

(2) In terms of strategic tasks, integrating China’s economy into the global economy, satisfying the domestic market demand, occupying the mid-and low-end in the global industry chain, and making up for domestic consumption shortage fields have become the focal points in economic work. In 2006, China’s foreign trade dependence reached its peak (65.2%), which was 32.0% in 2019 (Fig. 3). In 2018, the bulk commodities exported from China were aluminum, steel, copper, tea, and apples (Table 1). The products with the largest share in the global industrial market were cement, crude steel, coal, fertilizers, and generated energy (Table 2). It can be seen that in the global industrial division of labor, China has not got rid of the dilemma of relatively backward industrial competitiveness and profitability with low technology content and added value and high resource consumption and environmental pollution. The high-end frontiers and basic capabilities of the industry chain in China have their own “shortcomings,” and the system is still incomplete with insufficient security and resilience.

(3) In terms of institutional innovation, as driven by institutional reform, the status of the non-state-owned economy and the role of the market mechanism have been strengthened. Before the 21st century, the proportion of state-owned and state-holding enterprises in the total industrial output declined to less than half. As calculated based on the sales value of the industry, the proportion dropped to 1/5 in 2016, and the non-state-owned economy has become the main force of the national economy. On the one hand, top Chinese enterprises listed in “World Top 500” are those engaged in the new economy, such as Huawei Technologies Co., Ltd., China Pacific Insurance (Group) Co., Ltd. (CPIC), Amer International Group Ltd., JD.com, Weiqiao Textile Company Limited, Evergrande Group, Hengli Group, Lenovo, Geely Auto Group, Tencent Holdings Ltd., and Alibaba Group, most of which are non-state-owned enterprises and have become a new force in the market economy. On the other hand, the political advantage of the system of socialism with Chinese characteristics, namely bringing together the needed resources to accomplish great tasks, has not been fully leveraged in the fields where the state-owned economy is dominant, and the reform effects of major fields including the industrialization of scientific and technological achievements, the reform of state-owned enterprises, and the revitalization of northeast China are still far from what we have expected \[^{[7,8]}\].

Fig. 1 Changes in growth and proportion of GDP of China and three major metropolitan areas

The results are calculated based on the data of China Statistical Yearbook of previous years (GDP is calculated at the constant price for the base period of 1980, the same below); the statistical scope of the three major metropolitan areas: Beijing-Tianjin-Hebei Region—Beijing, Tianjin, and Hebei; Yangtze River Delta—Shanghai, Jiangsu and Zhejiang; Pearl River Delta—Guangdong.

Fig. 2 Changes in GDP per capita difference between the east and the west and per capita income gap between urban and rural households from 1978 to 2018

The results are calculated based on the data of the China Statistical Yearbook of previous years.

Fig. 3 Changes in total import and export volume and external dependence from 1978 to 2018

Table 1 China’s top five exported commodities in 2018

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Export amount (USD 100 million)</th>
<th>Proportion in gross export</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aluminum</td>
<td>152.50</td>
<td>0.61%</td>
</tr>
<tr>
<td>2</td>
<td>Steel</td>
<td>65.85</td>
<td>0.26%</td>
</tr>
<tr>
<td>3</td>
<td>Copper</td>
<td>61.53</td>
<td>0.25%</td>
</tr>
<tr>
<td>4</td>
<td>Tea</td>
<td>17.78</td>
<td>0.07%</td>
</tr>
<tr>
<td>5</td>
<td>Apple</td>
<td>12.99</td>
<td>0.05%</td>
</tr>
</tbody>
</table>

The results are calculated based on the data of the China Statistical Yearbook of 2019 (calculated at the constant price in 1980).

Table 2 China’s top five industrial products with the largest proportion of global production

<table>
<thead>
<tr>
<th>Product in China</th>
<th>Proportion in global production</th>
<th>Global ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>2 316 250 000 t</td>
<td>56.6%</td>
</tr>
<tr>
<td>Crude steel</td>
<td>928 300 000 t</td>
<td>51.3%</td>
</tr>
<tr>
<td>Coal</td>
<td>3 683 000 000 t</td>
<td>46.0%</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>58 420 000 t</td>
<td>28.8%</td>
</tr>
<tr>
<td>Generated energy</td>
<td>7 111.8 billion kWh</td>
<td>26.7%</td>
</tr>
</tbody>
</table>

The results are calculated based on the data of the China Statistical Yearbook of 2019; for fertilizer, the data of 2017 are adopted, and for the other products, the data of 2018 are adopted.

1.2 Evolution characteristics and major problems of space governance

In terms of governance measures, the focus has been transferred from “seeking projects” to “seeking strategies,” and the space governance system of regional strategy-planning-policy has played an increasingly important role. The system reform over the past 40 years has been the core engine of China’s rapid development, and space governance measures have brought practical effects and guided China’s reform in development philosophy, work objectives and priorities, and evaluation orientation. The establishment of four special economic zones and a series of opening-up arrangements throughout China have contributed to the basic pattern of “some regions getting rich first”; the setting up of economic and technological development zones, high-tech zones, national-level new zones, and free trade zones has accelerated economic growth and institutional innovation; the reform of “cities leading counties” has promoted the in-depth implementation of China’s urbanization strategies. In 1999, China started to implement the western development strategy and has gradually formed the overall strategy for the development of different regions; in 2002, China initiated the main function zone planning, which has been developed into the strategic and basic system, to support the development of resource-exhausted cities and contiguous impoverished regions; such actions have played an important role in China’s regional layout and space governance. In particular, since the 18th National Congress of the CPC, the Central
Committee of the CPC and the State Council have taken regional strategy as the core of constructing a prosperous and powerful country, and gradually determined the regional strategies such as the Beijing-Tianjin-Hebei Coordinated Development, the Yangtze River Economic Belt and Yangtze River Delta Integration, Guangdong-Hong Kong-Macau Greater Bay Area, and ecological protection and high-quality development of the Yellow River basin \[10\], all of which constitute the core of the construction of “Beautiful China.” In the regional strategic deployment, the government culture of emphasizing the role of planning, strategic positioning, and administration as planned has been gradually formed, and the government’s enthusiasm has continued to rise.

But it should be noted that the space governance system in China is still incomplete, and we are still relatively lagging in governance capacity and governance system modernization. Major problems are listed as follows:

(1) The legalization of space governance has not been fully realized. The territory is the ubiquitous and the largest public resource, and the law is the most powerful criterion for regulating the government, enterprises, and individuals in regional economic layout \[12\]. The legal system, as an organic component of the governance system, is also an important guarantee for the effectiveness of the governance system. In particular, with the strengthening of natural conservation, the supply of national territorial space resources has been increasingly scarce. However, the functions required by people’s living have become more abundant, and the mobility and coverage of various flows have become wider and wider; therefore, the governance will be weak or even ineffective without legal guarantee.

(2) The scientific level of space governance should be improved. The objects, approaches, and effects of the regional layout are quite complicated, and the uncertainty is getting stronger. As a result, the resilience of the economy, and diversification of development goals should be enhanced with different interest groups, geographical relationships, and temporal adaptabilities considered. It is an open, changing, and complex giant system \[13,14\]. Therefore, the scientific plan that can systematically solve the problems should be followed to get better solutions, make better decisions, and carry out correct and reasonable managements. At present, the scientific plan still fails to meet the demand in such aspects as the support of theoretical innovation, the cultivation of talents engaged in space governance, especially in the comprehensive space governance, and even the data collection and application mechanism.

(3) Governments at all levels have yet to be built into the learning-oriented regulatory authorities. The construction of service-oriented governments is a prominent manifestation of reform and progress in the governance system. However, government governance is still the main mode of China’s governance system for legal management, scientific decision-making, and the full play of subjective initiative to deal with management objects. Therefore, for improving the modernization level of administrative government, the leading cadres must grow into learning-oriented managers who understand China’s basic geographical and national conditions, grasp the basic principles of regional economic layout, and increase the consciousness of law-based exercise of State power and law-based government administration. However, no enough efforts have been made and no obvious effects have been achieved.

(4) The governance system has yet to be developed into a more open system with multiple subjects. The governance system should be adequately and reasonably intervened by the government, enterprises, society, and individuals. A healthy and progressive society can be formed through the joint constraints of laws, regulations, social ethics, and culture. Since government governance has always been taken as the main means in China, more effects are required in the utilization of market mechanisms, the exertion of social force, and the attraction of more people to participate in the governance. For example, urban planning and land use planning are not prepared in an open manner; no democratic means is adopted to make regional economic layout policies or implement supervision and evaluation when developing and implementing major strategies. Therefore, the modernization should be further improved based on the interaction between open and transparent democratization and law-based exercise of State power and law-based government administration.

In addition, there were relatively low-level mistakes in the modernization of the governance system, which has cost us a high price. For example, regional development planning has been repeatedly formulated in China. Only in Beijing, a large number of important plans have been issued in just 40 years, such as multiple revisions of the overall plan of Beijing, greater Beijing plan, capital circle plan, Beijing-Tianjin-Tangshan regional plan, Beijing-Tianjin-Hebei metropolitan area plan, Bohai Rim region cooperation development plan, and Beijing-Tianjin-Hebei coordinated development plan \[15\]. However, the regional plan has never been officially terminated, but always replaced by a new one. Furthermore, different plans have different functional orientations for the same region, and different plans may be made on the same subject, leading to mutual conflict. Different types of plans are inconsistent in the division of functional types, and the semantics of the same vocabulary may also be different; the data of the same type of land used in different plans are inconsistent, and the data of the same region may also vary due to the differences in statistical methods and scopes. Different plans usually collide with each other in time limits, spatial accuracy, and other problems \[16\].

2 Key points of the construction of space governance system during the “14th Five-Year Plan” period

The key to the transition from “low-quality” development to high-quality development lies in whether the governance...
system matching with high-quality development can be established as soon as possible. The current space governance in China cannot meet the requirements of coordinated regional development, ecological civilization construction, realization of modernization, and transformation of development strategies, which implies the urgent need for institutional innovation and profound reform; therefore, the modernization process of the relatively weak space governance system in national governance system must be accelerated. For upholding and improving the system of socialism with Chinese characteristics and promoting the national governance system and governance capacity modernization during the “14th Five-Year Plan” period, we should perfect the space governance pattern organized by the government, market, and society and organically coordinated by the public, establish the regional policy system with Chinese characteristics attaching equal importance to fairness and efficiency, government regulation and market optimization allocation, problems and goals, constraints and incentives, and local and overall development, solve the key problems of regional coordinated development, and establish a new regional coordination mechanism meeting the requirements of high-quality development.

2.1 Space governance model

The core contents of China’s space governance include space development strategy, law and planning, and regional policy system, which have been jointly implemented via government management, market mechanism, and social governance[17].

(1) Establish a governance model with the space development strategy directly implemented by the Central Committee of the CPC and Party committees at all levels. In the “Five-Year Plan” and vision development proposals, the strategic guidance, will, and requirements of the Party for space development should be clarified, and the strategic regional development deployment should be put forward. The implementation of the strategy by the Party should be the most distinctive feature of China’s governance model. The “14th Five-Year Plan” may focus on “over planning” based on “specific laws,” to develop a space governance model with legal effects. The laws concerning space governance issued in the “14th Five-Year Plan” period should be limited to the empowerment to space planning, and the specific scope of legal effects should be clarified, to avoid the disadvantages such as the conflicts between the lack of adequate research on laws and urgent issuance.

(2) Improve the regional development planning and national territorial space planning system. The regional development planning mainly focuses on major strategies across administrative regions and the coordination and resolution of major policy mechanism issues across administrative regions, as well as the national territorial space planning (“three areas and three lines”) and the layout of space protection, development, and governance [18], thus forming a “large” planning system of “administrative districts + X”①. Once the planning is approved and released, it will have the same legal effect and can be taken as the criterion for restraining the decision-making and behavior of government, enterprises, society, and individuals regarding space development. It is necessary to evaluate the implementation of space planning indicators, which can be used to replace the current performance evaluation method based on numerous indicator systems. Diverse proposals like Beautiful China, ecological civilization, high-quality development, and modernization all cover space governance and regional development, and the implementation progress of the goals and contents determined in space planning should be taken as the unified indicator system.

(3) Give full play to the role of market mechanism and social governance. The government should seize the opportunity of supply-side regulation of space resources and utilize the market mechanism to form a market mechanism management mode with clear reward and punishment. Public participation and supervision are encouraged and the third-party evaluation system for social organizations is improved, to form a social governance model of mass participation, information transparency, and implementation supervision.

2.2 Regional policy system

(1) Give full play to the leading role of the main function zone strategy and basic system. The regional policy system centering on the strategy formulation of main function zones can objectively solve the problem of fragmentation existing in China’s regional policies for a long time[19,20]. With the main function zone as the basic system, the regional policies involving finance, industry, investment, population flow, land, resource development, environmental protection, and performance appraisal that are in line with the main functional positioning should be improved. Of course, the main function zone strategy, planning, and basic system should also be improved in the “14th Five-Year Plan,” so as to better meet the requirements of regional policy integration. The performance appraisal of leading cadres serves as the “baton” in the regional policy system. It is required to clarify the high-quality development requirements for different types of main function zones and the requirements for the same main function zone with different geographical backgrounds and at different development stages according to their positioning, and implement the differentiated performance appraisals for leading cadres with different focuses. The government should promote the expansion of regional policy units determined based on administrative jurisdiction or type to geographic

① “X” refers to a cross-administrative unit area.
units, with the socioeconomic integrity and integrity of natural ecosystems taken into account; in addition, the primary and secondary basins of big rivers, as well as the important deltas, bay areas and other geographical units, are included as important types during the regional policy formulation, so as to realize their organic matching with regional policies.

(2) Pay attention to three changes or expansions in regional policy orientation, namely the transfer from government-led space resource allocation to market-led optimization of resource allocation, the expansion from problem-oriented policies focusing on supporting the poverty-stricken areas and old industrial bases to goal-oriented policies focusing on long-term stability in border areas and high-quality development and utilization of marine territory, and the expansion from restrictive policies of strict space control and industrial negative list to incentive policies stimulating population transfer, cross-regional application of resources driven by scientific and technological innovation, and creation of a power system for high-tech development in developed areas.

2.3 New coordinated regional mechanism

(1) Take the comparative advantages of different regions as the basis. The emphasis of giving play to regional comparative advantages lies in the implementation of the main function positioning of each region; the focus of the new coordinated regional mechanism should be placed on poor economic benefits due to the fulfillment of main functions and insufficient impetus to optimization and transformation due to the dependence on the development path. On the one hand, the ecological compensation and financial transfer payment led by the central government should be enhanced; the value realization mechanism of ecological products in a high-standard market system and the agricultural product price formation and benefit compensation mechanism based on government regulation, market regulation, and ecological enterprises should be established to deal with the relatively poor economic benefits in ecological areas and main grain-producing areas. On the other hand, the replacement of old growth drivers with new ones and the regional integrated development in urbanized areas, especially in central cities and urban agglomerations, should be expedited to improve urban quality and governance capabilities and promote the simultaneous improvement of the economy, social welfare, and ecological environment.

(2) The coordinated regional development mechanism aims to realize regional balanced development during the further agglomeration of population and economy. The market-led optimization of resource allocation should be emphasized to allow the further agglomeration of the economy in metropolitan areas, central cities, and city agglomerations, and realize the simultaneous agglomeration of the population in the process of economic agglomeration, to promote the regional balanced development. The fundamental way to the coordinated development of urban and rural areas lies in their synchronous development based on urban and rural characteristics. We should give full play to the advantages of urban and rural areas through coordinating and promoting new urbanization and rural revitalization strategies, so as to realize their respective values in the process of meeting diversified production and living needs.

There are two key points below: ① Breakthroughs were made in the mechanism to enable the urban people to live and work in the countryside and realize the two-way flow of urban and rural populations; ② The reform of rural collective property rights system should be deepened, and the market mechanism of the rural land sale, leasing and demutualization should be improved to enhance the urbanization of the rural population and satisfy the basic cost requirements for agricultural population urbanization.

(3) The new coordinated regional mechanism aims to improve the comprehensive quality of regional development while promoting steady growth of the regional economy. We should promote the developed areas, such as eastern coastal areas, to build an institutional mechanism that can encourage reform and innovation, to maximize the development vitality and potential and achieve the intensive and efficient utilization of resources, zero increase in environmental pollution, and industrial upgrading. Besides, we should drive the underdeveloped areas to accelerate the improvement of the “shortcomings” in the aspects of public service, governance capacity, and ecological endowment, and give full play to the advantages of resources and ecological endowments, thus forming a differentiated green development path with ecological protection and improvement of people’s well-being as the core; deploying and promoting the underdeveloped regions (relatively poor areas) to achieve prosperity is a “protracted war.” The difficulty in the coordinated regional development of China lies in the large relatively poor areas. The total relatively poor population and regional distribution are stable according to the national relative poverty line (below 50%–60% of the per capita income). On the one hand, we should promote the orderly migration of the population from relatively poor areas, realize the urbanization of the rural population during migration, and vigorously develop vocational education, so as to enable the rural population to migrate and settle down in urban areas and acquire wealth. On the other hand, we should establish and improve the conversion mechanism from green hills and clear waters into invaluable assets, transfer resource ecological advantages into economic advantages and realize their values through scientific and technological innovation and modern management system innovation, and innovate the distribution system after the realization of advantage resource values, thus forming a benign mechanism for local people to benefit from the conversion of resource advantages.
3 Strategic measures for optimization of the regional layout during the “14th Five-Year Plan” period

The development history of most countries in the world has shown that the regional economic gap will continue to widen before the GDP per capita reaches 10 000 US dollars. After the entry of the developed country list, the regional economic gap will start to narrow; the countries with the continuous widening of regional gaps tend to be caught in the middle-income trap[27].

China’s guiding ideology of economic development selected since the reform and opening-up has been proven to be correct, conforming to the basic laws of development. In the “14th Five-Year Plan” period, China will come to a turning point at which the regional gap starts to narrow [28]. The proportions of the population of ethnic-minority groups, the area of important ecological function zones, and the number of border counties in underdeveloped western regions account for 71%, 82%, and 6% of the whole country, respectively, so solving the regional economic development gap is of great significance to national unity, ethnic unity, and ecological security; the following new situations and requirements should be considered in the optimization of regional economic layout: ① Faced with the potential security risks in the global layout industrial chain, we should establish a relatively independent and complete industrial economic system to enhance our economic strength and affect the world economy geographical pattern and geo-economic relations. ② We should adapt to the new model of regional economic organization, pay attention to the effects of technological revolution, consumption upgrade and environmental ethics on the regional economy, and optimize regional economic layout on the basis of giving play to the regional comparative advantages, thus realizing the transformation of the regional economy to high-quality development. ③ We should adhere to government-led economic layout to achieve the reasonable allocation of national territorial space resources and supply-side structural reform, and optimize the regional economic layout to improve the economic efficiency and industrial competitiveness, thereby giving full play to the advantages of the system of socialism with Chinese characteristics in economic construction.

(1) Realize the coordinated development of regional economy in the expansion of economic clusters with the synchronous agglomeration of economy and population as the criterion. ① We should enhance the comprehensive carrying capacity of urbanized areas for absorbing the economy and population, reverse the trend of population agglomeration lagging behind economic agglomeration, and guide the synchronous agglomeration of economy and population, so as to achieve regional equilibrium. ② On a national scale, the economy and population tend to concentrate in urban agglomerations such as Beijing-Tianjin-Hebei Region, Yangtze River Delta, Pearl River Delta, and Chengdu-Chongqing Region; on the large-regional and provincial scale, the economy and population tend to concentrate in urban agglomerations and their inner metropolitan areas; on the prefecture and city scale, the economy is guided to concentrate in central cities. ③ We should foster the Pearl River-Xijiang River Economic Belt, extend the Yangtze River Economic Belt to Yarlung Zangbo, Lhasa, and Nyangqu rivers in Tibet, strengthen the Yellow River Economic Belt and the Lanxin Corridor, guide the economic flow between the east-west developed and underdeveloped regions, and promote the coordinated development of the regional economy.

(2) Take the opportunity of distribution of major productive forces to form a new regional economic layout. ① The industrial system construction model centered on comparative advantages of labor resources, focused on export processing, and oriented by the integration into the global industrial system should be reversed to target the key areas and weak links concerning national security, people’s livelihood guarantee, and regional coordination, clarify the positioning of the state-owned and non-state-owned economy, and stimulate their respective vitalities, thus jointly creating an independent, complete, safe, and competitive national industrial system. ② In the national industrial system, several relatively independent innovative regional economic complexes with a clear division of labor should be formed. The regional economic complexes should take national laboratories and national innovation centers as the core, the metropolitan areas or urban agglomerations as the hubs, and the complementary advantages of the cross-provincial regional economy as the basis, to construct an innovative industrial chain of basic research, application innovation, and manufacturing, and speed up regional economic integration. ③ A space layout system of major productive forces guided by strategic development zones should be established. The coastal areas should construct strategic competition zones oriented by international competition in cutting-edge technologies; the western border areas should construct strategic open zones focusing on the expansion of trade; the central and western regions should build strategic guarantee zones aiming to guarantee national security.

(3) Create a powerful engine for regional economic layout with metropolitan areas and urban agglomerations as the space carriers. ① We should continue to promote the synchronous aggregation of national population and economy to city agglomerations in Yangtze River Delta, Pearl River Delta, and Beijing-Tianjin-Hebei Region, thus quickening the synchronous and steady improvement in the proportion of population and economy, and creating world-class city agglomerations. The overall urbanization in the Shanghai-Nanjing-Hangzhou Region of the Yangtze River Delta and Guangzhou-Shenzhen-Zhuhai Region of the Pearl River...
Delta should be city accelerated. The Liaodong Peninsula and the Shandong Peninsula should be integrated based on the coordinated development of the Beijing-Tianjin-Hebei Region, to create the world’s largest bay area. ② We should explore the optimal allocation scheme of capital functions in national central cities, and propel the national central cities to a new level. The affairs management functions of Taiwan, Hong Kong, and Macau can be deployed in Fuzhou and Guangzhou, the financial center in Shanghai, the management function of state-owned enterprises in Shenyang, and the management functions related to “Belt and Road Initiative” and national parks in Xi’an, Urumqi, Xining or Chengdu in western regions. ③ In the metropolitan areas, we should follow the principles of giving play to the distinctive features of urban and rural areas and making urban and rural people have a better life, adapt to the trend of suburbanization and counter-urbanization, and explore the new mechanism of the bidirectional flow of urban and rural populations; in addition, we should deepen the reform of the rural land system and encourage the flexible deployment of new economic and consumption patterns in urban and rural areas, so as to form a new pattern of regional integration between urban and rural areas. ④ The functions of central cities should be enhanced. New municipalities directly under the Central Government can be set up. Yili, Manzhouli, Dandong, and Chongzuo are selected as the hub cities for stabilizing the borders that can enjoy the sub-provincial treatment with reference to the ones specifically designated in the economic plan.

(4) The high-quality development in the Great Northwest is focused to accelerate the pace of economic modernization in underdeveloped regions in China. ① We should take the Great Northwest composed of the Qinghai-Tibet Plateau and the Northwest Arid Region as a key strategic area for high-quality development, and deploy a protracted battle for the prosperity and development of the relatively poor areas. ② We should give full play to the comparative advantages of renewable energy and mineral resources, biological resources, natural and cultural landscapes, enlarge the development scale of renewable energy, expedite the green mining of mineral resources and upgrading of processing technologies, develop biomedical and health food industries with therapeutic or health-preserving effects, and strengthen the tourism industry based on the national parks. In addition, we should also activate the innovation potential of “third-line” state-owned enterprises and develop new strategic industries such as electromechanical system, electronic information, and artificial intelligence. ③ In areas where the resources are not enough to support the people, a new mechanism of migration, settling down in cities, urbanization, and prosperity should be established. In regions with resource advantages, the mechanism of converting green hills and clear waters into invaluable assets and innovating the distribution system after the realization of advantage resource values should be perfected to ensure that the local people obtain more benefits.

(5) Improve the open, cooperative, and win-win regional economic layout with the new regional economic integration as the link. ① In light of the domestic situation, we should strengthen the overall strength of the regional economy, accelerate the development of urban-rural integration, regional integration of urban agglomerations, and cross-provincial regional economic integration, and continue to promote the deep integration of Hong Kong, Macao, and Taiwan with the Mainland with economic cooperation as the link. ② Considering the global situation, we should change the international regional integration model oriented by sub-regional cooperation and regional interest communities, and step up the regional economic integration advocated by China, which is a new model of open and win-win cooperation between the developed and underdeveloped, between the short-range and long-range, and between the bilateral and multilateral, mainly involving the market and technical cooperation with the European Union, Japan, and South Korea, the comprehensive cooperation with developing countries approving China’s economic development model and participating in the “Belt and Road Initiative,” as well as the cooperation with neighboring countries for joint development of resources.

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