# Research on Countermeasures for Adhering to Scientific and Technological Innovation Leading Regional Coordinated Development

DOI: 10.23977/ieim.2023.060602

ISSN 2522-6924 Vol. 6 Num. 6

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*Keywords:* Technological innovation; coordinated regional development; high quality development

Abstract: In the context of the new era, coordinated regional development is an inevitable requirement for achieving the glorious vision of common prosperity, as well as a necessary process to comply with high-quality development. Our country has made a series of achievements in the past process of regional coordinated development, but there are still some problems, including uneven development between the east and west, large gaps in urban and rural regional development, and insufficient innovation in regional coordinated development. To solve these practical problems, it is necessary to recognize the relationship between scientific and technological innovation and regional coordinated development, which complement each other. Therefore, to adhere to the guidance of regional coordinated development through scientific and technological innovation, this paper believes that the main countermeasures include improving the policy implementation system, scientifically promoting adaptation to local conditions; establishing a scientific and technological innovation platform to support the development of urban and rural areas; stimulating the innovative vitality of the main body and promote the transformation of scientific and technological achievements.

#### 1. Introduction

The strategy of coordinated regional development is conducive to promoting high-quality development of regional economy and achieving common prosperity. However, in the pursuit of high-quality development goals, regional coordinated development has gradually exposed some problems. In the new era, it can be seen that scientific and technological innovation plays an important leading role in the coordinated development of regions, which suggests that we should strive to find a realistic path for scientific and technological innovation to lead the coordinated development of regions, thereby solving practical problems.

### 2. Problems Existing in Current Regional Coordinated Development

In order to accelerate regional economic development, China's regional development strategy has undergone a long historical transition process and achieved a series of significant achievements. [1]

However, there are still some problems that need to be addressed urgently in the new era.

#### 2.1. Unbalanced Regional Development in the East and West

The gap between China and developed countries has indeed been narrowed, but for the emphasis on the development of the eastern coastal areas while ignoring the development of the western regions, and the failure of the eastern regions to achieve common prosperity in accordance with the expected strategy of "first rich driving later rich", it has instead led to significant regional development imbalances. Secondly, in terms of talent cultivation, the overall scientific research strength of universities in the western region is far inferior to that in the eastern region, and the quality of talent in the western region is not high and the brain drain is serious. Finally, in terms of scientific and technological innovation, the eastern region has a good scientific and technological innovation environment, diverse innovation activities, and a high degree of industrialization. However, it is more difficult to form a stable scientific and technological innovation chain in the western region.

### 2.2. Large Gap between Urban and Rural Regional Development

In recent years, with the assistance of policies such as rural revitalization, high-quality development, and targeted poverty alleviation, China's urban-rural integration process has continued to advance, creating favorable conditions for achieving the strategic goals of high-quality development and common prosperity for the people. However, it should also be recognized that there still exist problems such as the large income gap between urban and rural residents, and the imbalance in public service resources, which greatly restrict the coordinated development of urban and rural areas.

First, in terms of household income, the urban-rural income ratio in 2020 is still as high as 2.56 (see Table 1), and the absolute difference in per capita disposable income between urban and rural residents has expanded from 4493.2 yuan in 2001 to 26702.3 yuan in 2020, although the per capita disposable income gap between urban and rural residents in China has gradually narrowed in recent years. [2] Secondly, in terms of public services, there is still a gap in the quality of basic public services enjoyed by urban and rural residents in the fields of health care, education, and so on. Thirdly, in terms of education, there is a significant gap in the quantity and quality of teachers, teaching equipment, and student resources in rural education, compared to urban areas.

| Year | Town(Yuan) | Village(Yuan) | Times difference<br>between urban and<br>rural residents<br>income | Year | Town(yuan) | Village(yuan) | Times difference<br>between urban<br>and rural<br>residents income |
|------|------------|---------------|--|------|------------|---------------|--|
| 2001 | 6859.6     | 2366.4        | 2.90   | 2011 | 21809.8    | 6977.3        | 3.13   |
| 2002 | 7702.8     | 2475.6        | 3.11   | 2012 | 24564.7    | 7916.6        | 3.11   |
| 2003 | 8472.2     | 2622.2        | 3.23   | 2013 | 26955.1    | 8895.9        | 3.03   |
| 2004 | 9421.6     | 2936.4        | 3.21   | 2014 | 28843.9    | 10488.9       | 2.75   |
| 2005 | 10493.0    | 3254.9        | 3.22   | 2015 | 31790.3    | 10772.0       | 2.95   |
| 2006 | 11759.5    | 3587.0        | 3.28   | 2016 | 33616.2    | 12363.4       | 2.72   |
| 2007 | 13785.8    | 4140.4        | 3.33   | 2017 | 36396.2    | 13432.4       | 2.71   |
| 2008 | 15780.8    | 4760.6        | 3.32   | 2018 | 39251.0    | 14617.0       | 2.69   |
| 2009 | 17174.7    | 5153.2        | 3.33   | 2019 | 42358.8    | 16020.7       | 2.64   |
| 2010 | 19109 4    | 5919.0        | 3 23   | 2020 | 43833 8    | 17131 5       | 2 56   |

Table 1 Per capita disposable income of urban and rural residents from 2001 to 2020

#### 2.3. Insufficient Innovation

The issue of homogeneity is a bottleneck restricting the coordinated development of regions.

Specifically, it is manifested as follows. First, there is a lack of clear understanding of innovation and development. The government lacks unified planning and layout for regional development. Secondly, there is a lack of industrial foundation for innovative development. In some regions, industrial homogeneity is serious, and industrial transformation and upgrading lag behind. Finally, there is a lack of strategic planning for innovative development. Currently, there is a widespread tendency in various regions of China to attach importance to economic growth rather than technology and innovation, resulting in a lack of unified planning for regional innovation and development, and difficulty in forming joint forces and overall advantages. [3]

### 3. The Necessity of Adhering to Scientific and Technological Innovation

In the new era, a correct understanding of the relationship between scientific and technological innovation and regional coordinated development has important strategic significance for using scientific and technological innovation to lead regional coordinated development.

## 3.1. Scientific and Technological Innovation is a Key Factor in Achieving Coordinated Regional Development

Scientific and technological innovation is an indispensable force in building a new pattern of coordinated regional development. It will directly affect the pattern of regional economic development. Specifically, scientific and technological innovation is used as technical support to promote coordinated regional development. In the process of planning for coordinated regional development, the government can formulate differentiated new regional development policies based on more intuitive data brought about by technological innovation. The scientific and technological innovation also can make up for deficiencies in coordinated regional development. It means that the government can use the power of technological innovation to help underdeveloped regions eliminate their own development barriers and obstacles.

### 3.2. Regional Coordinated Development is the Realistic Driving Force for Promoting Scientific and Technological Innovation

Taking scientific and technological innovation as a technical support can eliminate development barriers for regional coordinated development, while regional coordinated development also provides practical impetus for scientific and technological innovation. There is an imbalance in the economic and social development of different regions in China. [4] To achieve coordinated regional development, it is necessary to strengthen the development process of scientific and technological innovation. For example, the practice of "coordinated development between Beijing, Tianjin, and Hebei" has inspired us to promote the flow of scientific and technological innovation elements across regions and promote the sharing of scientific and technological resources.

# 3.3. Scientific and Technological Innovation and Regional Coordination Jointly Promote High-Quality Development

Looking back at the development process since the founding of New China, it is not difficult to see that the country and government have formulated regional development strategies that meet specific stages in different periods based on different realities, ultimately in order to build a high-quality and coordinated regional development pattern and enhance people's happiness. [5] Therefore, scientific and technological innovation and regional coordinated development complement each other and jointly serve to promote high-quality development.

### 4. An Analysis of Countermeasures for Leading Regional Development

The report of the 19th National Congress of the Communist Party of China further proposed to accelerate the construction of an innovative regional coordinated development strategy. Therefore, it is necessary to adhere to the overall idea of scientific and technological innovation leading regional coordinated development, and implement a more practical and efficient regional coordinated development strategy.

### 4.1. To Improve the Policy Implementation System and Scientifically Promote Adaptation to Local Conditions

Currently, there is a large gap in the development level between the eastern and western regions and between urban and rural areas in China. In this case, coordinated regional development should be guided by scientific and technological innovation, follow the principle of adapting measures to local conditions, and adopt a differentiated coordinated regional development strategy. First, the characteristics of development in different regions should be viewed with a macro perspective to optimize resource allocation. Secondly, the analysis should be based on the reality of a certain area. Based on the reality of poor ecological environment in the western region, technological progress should be taken to repair the ecological environment as the focus of regional coordinated development.

# 4.2. To Establish a Scientific and Technological Innovation Platform to Support the Development of Urban and Rural Areas

Establishing a scientific and technological innovation platform is conducive to fully understanding the innovation resources of different regions, thereby providing a data prerequisite for formulating targeted development strategies. Firstly, it is necessary to strengthen the capacity for scientific and technological innovation and explore an indicator system that can measure innovation resources in various regions. Secondly, it is necessary to establish a shared scientific and technological innovation information platform that allows free comparison and query between different regions. Finally, it is necessary to establish a strict testing and evaluation platform, strengthen dynamic monitoring and evaluation, regularly publish regional coordination and scientific and technological innovation capability reports, and provide feedback for scientific and technological innovation.

### 4.3. To Stimulate the Innovative Vitality of the Economic Subject and Promote the Transformation of Scientific and Technological Achievements

Leading regional coordinated development with scientific and technological innovation should stimulate the innovation vitality of the economic subject, and promote the transformation of scientific and technological achievements. First, it is necessary to implement national innovation preferential policies to support the development of technological enterprises; Secondly, it is necessary to implement the development plan for high-tech enterprises and promote enterprises to increase investment in scientific research; Third, it is necessary to guide and encourage universities and research institutes to establish scientific and technological innovation research bases, providing a platform for innovation entities. [6]

#### 5. Conclusion

In summary, while China has made significant achievements in regional coordinated development, there are also some problems, so it is necessary to provide technical and dynamic support through the power of scientific and technological innovation. Finally, through improving the policy implementation system, establishing a scientific and technological innovation platform, and stimulating the innovation vitality of the economic subject, scientific and technological innovation can lead to coordinated regional development, thereby promoting high-quality development of the regional economy.

### Acknowledgements

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