

Study on the Strategy of Undertaking Industrial Transfer in Southern Hunan under the Background of Guangdong-Hong Kong-Macao Greater Bay Area

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Abstract: The paper examines the current situation and challenges of industrial transfer in southern Hunan within the context of the Guangdong-Hong Kong-Macao Greater Bay Area. It draws conclusions on undertaking industrial transfer in this region based on its abundant land, mineral, and labor resources, as well as its strategic location adjacent to the Pearl River Delta. Despite facing issues such as weak industrial agglomeration, inadequate infrastructure, and environmental pollution, southern Hunan has potential for industrial development through selective transfer from Guangdong, Hong Kong and Macao. This can be achieved by fostering regional clusters, improving transportation systems and infrastructure, investing in education and high-tech talent training, promoting government cooperation, prioritizing environmentally friendly industries and enforcing strict environmental regulations.

1. Introduction

In October 2011, the southern Hunan Industrial Transfer Demonstration Zone was established as the fourth national industrial transfer demonstration zone in China. In November 2018, the National Development and Reform Commission issued the Overall Plan of Southern Hunan and Xiangxi Industrial Transfer Demonstration Zone. The promulgation of the Outline of the Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area on February 18, 2019 has significantly accelerated the speed and scale of industrial transfer in the Pearl River Delta region. As a national demonstration area to undertake industrial transfer, southern Hunan is facing great historical development opportunities. On one hand, aligning with the industrial transfer of the Guangdong-Hong Kong-Macao Greater Bay Area and leveraging comparative advantages and policy benefits within the demonstration zone will facilitate accelerated construction of a modern economic system in southern Hunan, hasten regional modernization, and drive transformation towards a more sustainable economic development model^[1]. On another hand, serving as a "bridgehead" between Hunan Province and Guangdong Province positions southern Hunan to facilitate deeper cooperation between Hunan Province and the Guangdong-Hong Kong-Macao Greater Bay Area while bolstering

cross-regional coordination mechanisms and benefit sharing mechanisms. Simultaneously promoting active flow and optimal allocation of production factors such as manpower and capital between these two regions will harness capital, technology, services from eastern coast alongside labor force & natural resources from Hunan to foster positive interaction between eastern & western regions thus forming a coordinated new development pattern based on complementary advantages^[2].

2. The current status of industrial transfer in southern Hunan

2.1. Current situation of industrial structure development in southern Hunan

In 2011, the state approved the establishment of an industrial transfer demonstration zone in southern Hunan, leading to gradual undertakings by the cities of Yongzhou, Hengyang and Chenzhou to facilitate industrial transfer from the eastern coast, particularly towards the Guangdong-Hong Kong-Macao Greater Bay Area. Analysis of the gross regional product and industry composition in southern Hunan from 2011 to 2023 indicates a gradual optimization of its industrial structure and a positive trend towards industrial upgrading, as illustrated in Table 1^[2].

Table 1: Industrial structure of the three cities in Southern Hunan, 2011-2023 (Unit: 100 million yuan)

Year	GDP	primary industry	Secondary industry	The tertiary industry
2011	4026.07	668.86	1981.32	1675.89
2012	4534.56	724.1	2239.01	1571.45
2013	5030.41	769.25	2454.6	1806.57
2014	5570.58	820.26	2674.14	2076.18
2015	6031.85	901.51	2778.74	2351.6
2016	6609.63	1340.35	2671.11	2598.16
2017	7198.68	1000.84	2953.84	3244.00
2018	7243.52	835.01	2708.73	3699.78
2019	7800.38	966.91	2642.08	4191.39
2020	8119.27	1119.59	2800.7	4198.98
2021	8870.97	1135.57	3137.73	4597.67
2022	9480.47	1219.59	3348.64	4912.23
2023	9797.28	1228.38	3395.66	5173.22

Data source: National Economic and Social Development Bulletin of three cities in southern Hunan.

The regional GDP of Yongzhou reached 249.583 billion yuan in 2023, representing a 4.2% increase. The primary, secondary and tertiary industries contributed 13.8%, 46.4% and 39.8% to the city's economic growth, driving the GDP growth by 0.7%, 2.4% and 2%. The value added of the primary industry accounted for 17.7% of the regional GDP, while the secondary industry accounted for 32.4%, and the tertiary industry accounted for 49.9%. Furthermore, these industries contributed to the city's economic growth by rates of 17.5%, 20.6% and 61.9% respectively, driving the city's GDP growth by 0.7, 0.9 and 2.6 percentage points.

In 2023, the regional GDP of Hengyang City reached 419.087 billion yuan, representing a 5.3% increase from the previous year, which is 0.7% higher than the provincial growth rate. The per capita GDP based on the permanent population was 64,108 yuan, showing a 6.3% increase. The three industrial structure is distributed as follows: primary industry at 11.0%, secondary industry at 33.1%, and tertiary industry at 55.9%. These sectors contributed to economic growth with percentages of 7.3%, 44.7%, and 48.0% respectively.

Chenzhou City, strategically positioned as the southern gateway of Hunan Province, enjoys a

unique geographical advantage. The projected GDP for 2023 is estimated to reach 311.058 billion yuan, reflecting a notable 5.0% increase from the previous year at comparable prices. The value added of the primary industry reached 32.534 billion yuan, marking a substantial 3.8% growth; the added value of the secondary industry amounted to an impressive 1200.3 billion yuan, showing a robust 6.3% increase; and the added value of the tertiary industry totaled an encouraging 158.491 billion yuan, indicating a commendable rise of 4.2%. The ratio of tertiary industrial structure stands at an optimal level of 10:4:38:6:51.

2.2. The economic scale of southern Hunan following the implementation of industrial transfer.

In 2018, the Southern Hunan Industrial Transfer Demonstration Zone was rebranded as the Southern and Western Hunan Industrial Transfer Demonstration Zone. The demonstration zone is dedicated to implementing the "three highs and four news" strategy, actively advancing market-oriented reform by optimizing the investment environment, and harnessing the potential of various supporting platforms^[4]. With a vision to become a leading hub for industrial transfer in the central region, the demonstration zone has made significant strides in achieving its objectives.

Table 2: Economic development status of southern Hunan in 2023

	Yongzhou	Hengyang	Chenzhou	southern Hunan	Hunan	Proportion
GDP (in 100 million yuan)	2495.83	4190.87	3110.58	9797.28	50012.9	19.59%
Per capita disposable income (in Yuan)	28781	36685	33323	32929.67	35895	--
Local government revenue (in 100 million yuan)	163.30	195.61	188.03	546.94	3360.5	16.28%
Growth in fixed asset investment (%)	-5.9	9.7	7.3	7.8	-3.1	--
Actual foreign direct investment employed (in US \$100 million)	0.41	0.49	1.59	2.49	14.4	17.30%
Inward investment (in 100 million yuan)	865.32	1139.52	1612.09	3616.93	15062.3	24.01%

Data source: 2023 National Economic and Social Development Statistical Bulletin of Hunan Province and 2023 Statistical Bulletin of three cities in southern Hunan Province.

In 2010, the aggregate GDP of the three cities in southern Hunan stood at 326.911 billion yuan, with a per capita regional GDP of 19,644.33 yuan. The local general fiscal budget revenue amounted to 17.16 billion yuan, representing 15% of Hunan's total revenue. The per capita disposable income was reported at 15,337.06 yuan and the actual utilization of foreign capital reached US \$1,328.83 million, accounting for a quarter (25%) of the total foreign capital utilized in the Hunan region.

As indicated in Table 2, the regional economic aggregate of southern Hunan in 2023 reached 979.728 billion yuan, marking a significant increase of 199.69% compared to 2010. The per capita disposable income also saw a substantial rise to 32,929.67 yuan, reflecting an increase of 114.71%. Furthermore, the regional budgetary revenue experienced a notable growth of 54.694 billion yuan, representing an impressive surge of 218.73%. Additionally, the utilization of foreign capital accounted for 17.30% of the total utilization in the province in 2023 and demonstrated remarkable effectiveness. Moreover, fixed asset investment in southern Hunan grew at a rate nearly 10% higher than that of the province.

2.3. The status of inbound investment promotion in southern Hunan

The annual increase in foreign investment acceptance in southern Hunan has shown a consistent upward trajectory (Table 3). In 2021, the domestic investment inflow of Yongzhou City grew by 31.36%, Hengyang City by 27.85%, and Chenzhou City by 26.79%, roughly matching the 29.1% growth rate of Hunan Province in the same year. However, due to the impact of the epidemic, there has been a decline in growth rates for 2022.

Table 3: The situation of joint investment in the three cities of southern Hunan from 2017 to 2023

Year	Yongzhou		Hengyang		Chenzhou	
2017	267.86	----	319.32	----	547.2	----
2018	314.84	17.54%	461.15	44.42%	643.7	17.64%
2019	372.76	18.40%	563.46	22.19%	763.3	18.58%
2020	456.81	22.55%	667.84	22.42%	909.61	19.17%
2021	600.06	31.36%	853.86	27.85%	1153.32	26.79%
2022	692.14	15.35%	983.7	15.21%	1332.04	15.50%
2023	865.32	25.02%	1139.52	13.64%	1612.09	17.37%

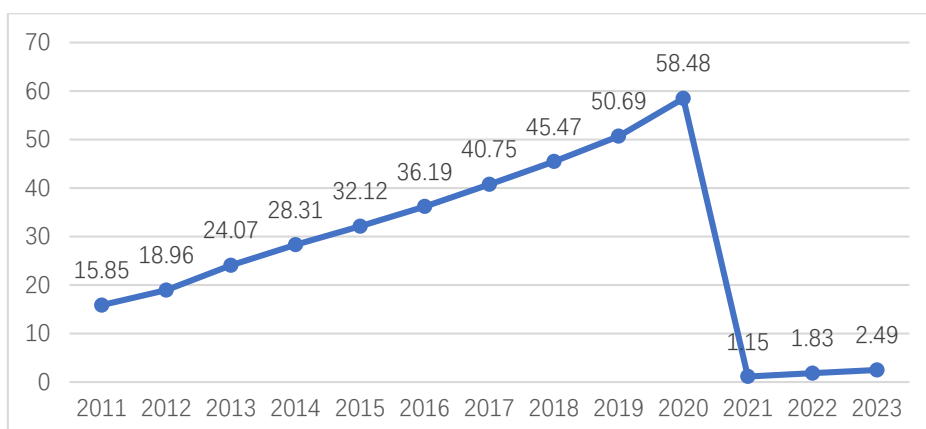
Data source: National Economic and Social Development Bulletin of three cities in southern Hunan.

In recent years, relying on its own advantages, southern Hunan has actively undertaken the industrial transfer of the Guangdong-Hong Kong-Macao Greater Bay Area. Southern Hunan has undertaken more than 200 investment projects of the world's top 500. In 2023, the actual domestic funds in place are 361.693 billion yuan, accounting for 24.01% of Hunan Province. Guangdong Province accounted for 61.4% of the total investment, Jiangsu 12.4%, Zhejiang 6.9%. Among them, Hunan Free Trade Zone Chenzhou District, established in September 2020, takes the initiative to undertake industries from the Guangdong-Hong Kong-Macao Greater Bay Area. After more than three years of development, in 2023, the new introduction of "Top 500 projects in three categories" 40 projects, 196 projects in Xiangshang Huichen, investment of more than 200 million yuan 260 projects, the actual use of foreign investment of 160 million US dollars, ranking second in Hunan Province, an increase of 50.12%. 80% of them are from the Guangdong-Hong Kong-Macao Greater Bay Area, and a number of major projects such as Sany Chongneng, Zhicun Lithium and Qibin Solar Energy Phase II have been completed and put into operation in Chenzhou. In 2023, Yongzhou introduced 34 projects with an investment of more than 1 billion yuan, 33 projects of "Top 500 in three categories", 42 new foreign trade performance enterprises, and introduced 86.532 billion funds from outside the province throughout the year, of which more than 80% came from the Guangdong-Hong Kong-Macao Greater Bay Area. In 2023, Hengyang City has introduced 354 investment projects of more than 50 million yuan, with a total investment of 174.537 billion yuan.

2.4. Utilization of foreign capital in southern Hunan

Since the implementation of reform and opening up, our country's level of openness to the outside world has been steadily increasing. With the establishment of the Southern Hunan Pilot Free Trade Zone, the local government has taken a leading role in continuously improving the business environment and providing comprehensive support services, resulting in a continuous influx of foreign investment. The graph in Figure 1 illustrates the growth of foreign direct investment in southern Hunan in recent years. The annual foreign direct investment in the three cities of southern Hunan has been steadily increasing, reaching 5.848 billion US dollars in 2020. This rapid growth can be attributed to improvements in the foreign investment environment, infrastructure, and the expansion of opportunities for international engagement. However, due to the impact of the epidemic

over the past three years, actual utilization of foreign capital in southern Hunan has seen a significant decline, with figures dropping to \$115 million in 2021, \$182 million in 2022, and \$249 million in 2023.



Data source: National Economic and Social Development Bulletin of three cities in southern Hunan.

Figure 1: Foreign direct Investment in Southern Hunan, 2011-2023 (US \$100 million)

2.5. The status of key industries in the three cities of southern Hunan.

In terms of industrial transfer, Chenzhou city is focused on developing the mineral processing industry, equipment manufacturing industry, healthcare industry, and cultural tourism. The Chenzhou High-tech Zone's advanced non-ferrous metal new materials have been selected to be part of the national innovative industrial cluster. The "Yongxing model" for the rare and precious metal industry has been promoted nationwide. The lithium new energy industry has been included in the province's efforts to create national industrial clusters. With a focus on constructing non-ferrous metal deep processing and new materials as well as R&D and production base for electronic information products, Chenzhou aims to establish a new industrial development pattern known as "one nuclear, two corridor and three points". As a result of these efforts, Chenzhou has become a demonstration zone for cooperation with Guangdong, Hong Kong and Macao in Hunan province while also serving as an important growth pole for Hunan's rise.

Hengyang City is vigorously developing the "one nuclear, two electricity, three color, four new" ten leading industries. With a focus on advanced manufacturing, electronic information, and modern service industries, and leveraging its strong industrial base and superior location conditions, it has successfully attracted 21 top 500 enterprises such as BYD, Huatai Automobile, and SF Express Group to invest in the city. Hengyang is also emerging as an important nonferrous metal deep processing base in the country and a key destination for industrial transfer in the central and western regions.

The city of Yongzhou emphasizes the three major characteristics of "industrial development, environmental leadership, and cultural innovation", with a focus on automobile production and parts, biomedical technology, deep processing of agricultural products, and intelligent manufacturing industries. By phasing out outdated production capacity and attracting key projects such as Kaisheng Shoes, Huawei Water-saving Technology, the China-Cuba Biotechnology Joint Innovation Center, and the Huawei (Yongzhou) Cloud Computing Data Center to settle in Yongzhou. Adhering to the concept of sustainable development, Yongzhou is committed to establishing the Xiangjiang Hundred Billion Industrial Belt, the Green Economic Belt around Yangmingshan Mountain Range, and the new processing trade corridor along Lanning Road as well as promoting economic cooperation within Hunan-Guangdong-Guangxi border national Economic Zone.

3. Challenges in the southern Hunan region hinder the industrial transfer of the Guangdong-Hong Kong-Macao Greater Bay Area

3.1. The strengthening of industrial agglomeration needs to be further enhanced

The province of Hunan is a major agricultural region, with the industrial sector primarily concentrated in the northern area while the southern region has a relatively weaker foundation. In recent years, there has been some development in the processing and manufacturing industry in southern Hunan; however, the agglomeration effect for undertaking industrial transfer is not strong. Taking Hengyang City as an example, in 2023, it achieved a regional GDP of 419.087 billion yuan, marking a 5.3% increase over the previous year - a growth rate that is 0.7 percentage points higher than that of the province as a whole. The city's industrial growth rate was at 7.1%, with actual foreign investment amounting to \$49 million USD.

Power transmission and transformation, non-ferrous metal smelting, steel pipe and deep processing, electronic information and other industrial chains have experienced accelerated fission and are beginning to take shape. However, these industries are predominantly traditional in nature; there remains insufficient development within emerging sectors such as new energy vehicles, equipment manufacturing, biomedicine, and new chemical materials. Furthermore, the lack of leading enterprises hinders their ability to connect with related supporting industries.

Some foreign investors have expressed difficulty finding suitable local supporting enterprises or raw materials that meet enterprise standards; consequently they often need to purchase supporting products from eastern regions or abroad which directly increases operational costs and diminishes the regional investment environment.

3.2. Inadequate infrastructure

The southern Hunan region possesses the necessary hardware and software conditions to undertake industrial transfer, but lacks complete comprehensive supporting measures. The infrastructure construction is relatively weak, industrial development facilities are not perfect, and transportation costs are high. In 2023, Yongzhou's cargo turnover reached 8.453 billion tons kilometers, with road cargo turnover increasing by 22.4% and water cargo turnover increasing by 14.0%. Hengyang's cargo turnover was 12.305 billion tons kilometers, with road cargo turnover increasing by 9.9% and water cargo turnover increasing by 0.5%. Chenzhou's freight turnover was 18.529 billion tons kilometers, with road freight turnover increasing by 10.3% and water freight decreasing by -7.3%. Infrastructure investment in Yongzhou City decreased by 29.2%, while Hengyang City saw a decrease of 2.2%, and Chenzhou city experienced an increase of 17.5%. There is a lack of service outlets in credit, finance, insurance industries in the three cities of southern Hunan which increases transportation cost for enterprises as well as their financing cost.

3.3. Insufficient high-caliber personnel

The demographic factor is the most dynamic force in productive resources and a significant driving force for regional economic development. According to the 2020 seventh national census, the total population of the three cities in southern Hunan is 16.602 million, with the rural population accounting for 46.96% at 7,796,748. The quality of the rural labor force exhibits an olive-shaped distribution, with a larger number having junior high school education and a smaller proportion having high school education or above, indicating that overall labor quality is not very high. Southern Hunan has a total of 16 colleges and universities, with Changsha far surpassing it in this aspect. The number of college students totals 208,923, including 138,823 in Hengyang City, 32,711 in Chenzhou

City and 37,389 in Yongzhou City.

The number of colleges and universities in the region is limited to only five institutions which are not considered high-level. There exists a significant gap between these universities and those of higher caliber as well as a disconnect between academia and industry. Despite efforts by regional governments and enterprises to attract professionals, many local colleges and universities have made commendable strides in providing education tailored to community needs; however due to historical and regional constraints it remains challenging for businesses and educational institutions to efficiently cultivate a large pool of high-quality talent resulting in an inadequately skilled labor force within the three cities of southern Hunan that cannot adequately support industrial development thus serving as a key impediment to economic growth.

3.4. Intense competition among local governments

In southern Hunan, there are a total of 38 industrial parks across three cities, with 11 in Hengyang City, 15 in Chenzhou City, and 12 in Yongzhou City. Taking the non-ferrous metal industry as an example, enterprises have settled in Hengdong Economic Development Zone, Leiyang Economic Development Zone, and Changning Shuikoushan Economic Development Zone. Jinhua Copper Industry represents Hengdong Industrial Park while Minmetals Copper Industry represents Changning Shuikou Mountain. The enterprises located in Chenzhou Science and Technology Industrial Park and Yichang Changchong Industrial Park are involved in non-ferrous metal processing and smelting as well as mechanical and electrical manufacturing. In order to attract investment more effectively, there is a certain level of competition among regional governments. There are 23 enterprises in Chenzhou Jiahe Economic Development Zone, with the primary focus on processing agricultural products. This creates a certain level of competition with Jianghua Jiuheng Industrial Park in Yongzhou. During the planning and construction process of the park, the regional government has established industrial parks in various counties (cities) within the region, leading to competitive relationships among these local governments. However, there is a lack of necessary communication and coordination among the local governments of the three cities when it comes to long-term strategic deployment such as industrial agglomeration and division of labor^[5]. Furthermore, when attracting investment through industrial park planning, there is a lack of long-term vision for industrial division of labor and agglomeration, as well as distinct characteristics and rational layout^[6].

3.5. Polluting the local environment

The three cities in southern Hunan are primarily focused on the following industries: non-ferrous metal smelting and rolling, non-metallic mineral products, electrical machinery and equipment manufacturing, food processing, and transportation equipment manufacturing. During the process of industrial transfer, non-ferrous metal smelting and rolling industry has the highest industrial waste gas emissions, while also leading in total industrial wastewater discharge. The non-metallic mineral products industry ranks first in total industrial solid waste emissions.

Since 2011, the proportion of industrial wastewater, industrial waste gas, and industrial waste in the total discharge of Hunan Province has been steadily increasing. The undertaking of industrial transfer will undoubtedly have a significant impact on the ecological environment of the region. According to statistics, for every percentage point increase in foreign direct investment, there is an additional 2323,947 tons of industrial wastewater, 0.590736 tons of industrial waste gas, and 0.6655 million tons of industrial waste generated. This clearly indicates that the undertaking of industrial transfer in southern Hunan has a substantial impact on the regional environment^[7].

4. Suggestions and measures for the industrial transfer of the Guangdong-Hong Kong-Macao Greater Bay Area to the southern Hunan region

4.1. Foster the development of industrial cluster systems

The characteristics and trends of industrial development in the Guangdong-Hong Kong-Macao Greater Bay Area include industrial clusters, enterprise clusters, and supporting facilities for the industrial chain. However, the overall industrial supporting facilities in southern Hunan are still relatively underdeveloped and imperfect, which severely hinders the supply of raw materials for enterprises' production. Industrial parks serve as carriers for undertaking industrial transfer, accelerating industrial agglomeration, and cultivating industrial clusters. When attracting investment to the park, it is essential to introduce the entire industrial chain and focus on leveraging the leading demonstration role of key enterprises to promote their continuous development and growth in line with each city's characteristics. This will help extend the industrial chain, enhance product added value, and accelerate the cultivation of industrial clusters. Furthermore, it is crucial to fully utilize the demonstration role of industrial parks in undertaking industrial transfer by actively exploring scientific methods while addressing problems and contradictions that may arise during this process. Additionally, rational layout planning for park locations should be implemented along with infrastructure improvements to enhance their attractiveness and capacity for undertaking projects related to industry transfer.

4.2. Improve infrastructure construction

The underdeveloped infrastructure is a significant constraint on the economic growth in southern Hunan. It is crucial to increase investment in infrastructure construction and expedite the building of the high-speed railway from Yongzhou to Guangzhou via Qingyuan, as well as the railway from Yongzhou to Jiangxi via Chenzhou. Furthermore, efforts should be made to accelerate the development of Lingling Airport, Chenzhou Airport, Xiang-gui Canal, and other major transportation projects. Establishing a comprehensive "in and out" three-dimensional transport network that actively connects with the industrial transfer of the Guangdong-Hong Kong-Macao Greater Bay Area is essential. Additionally, improving the efficiency of Hengyang-Liuzhou Expressway, Hengyang-Daoxian Expressway, Yongzhou-Chenzhou Expressway, Guilin-Xintian Expressway and various national and provincial highways will help create an efficient circulation traffic pattern in the demonstration area and form a one-hour economic circle within southern Hunan's three cities. In terms of planning and layout priority for transportation projects within this demonstration zone should be given along with key support based on development planning policy subsidy standards to ensure safe and efficient services for regional economic development.

4.3. Enhancing the workforce's skill set

Currently, the industrial transfer demonstration zone requires high-level and key talents to facilitate the adjustment and optimization of regional economic and industrial structure, as well as industrial upgrading. By the end of 2023, there will be 32 provincial engineering technology research centers and 8 provincial key laboratories in the three cities of southern Hunan. It is essential to fully leverage the leading role of high-level innovative and scientific personnel. If conditions allow, enterprises should establish enterprise schools to provide standardized work training for workers, enhance their cultural level and work skills, establish a personnel training mechanism for management and professional technical personnel. For versatile talents, relevant systems such as talent introduction, allocation, training and utilization should be established; policies on talent

introduction and evaluation standards should be adjusted appropriately; procedures for talent introduction should be simplified. The establishment of funding policies, reduction/exemption policies, incentive policies and technology investment policies related to talent introduction should be expedited to continuously improve labor skills in the region in line with its economic development needs.

4.4. Enhance collaboration among local governments in the region

Rational division of labor and cooperation among industries should be implemented to enhance the core competitiveness of enterprises and optimize the structure of regional economic development. In the process of industrial transfer in the Guangdong-Hong Kong-Macao Greater Bay Area, Hengyang City should focus on developing electronic information, new materials, new energy, equipment manufacturing, intensive processing of mineral products, and other industries. It should also vigorously promote modern logistics and ecological and cultural tourism, establish itself as a central region hub for industry and commerce, and become an important base for advanced manufacturing and modern services in the central region. Chenzhou should concentrate on developing nonferrous metal deep processing, biomedicine, advanced manufacturing, and other industries to position itself as a key city connecting Hunan, Guangdong, and Jiangxi. Yongzhou City's focus should be on automobile production & parts manufacturing; biomedical industry; mineral processing; agricultural product processing with an aim to become a bridgehead linking with ASEAN countries in the central region. Based on each city's location characteristics, resource endowment, industrial structure, leading industries, market structure, carrying capacity, natural resources environmental protection conditions etc., scientific development plans for industrial transfer within this area shall be formulated reasonably. Eliminating administrative barriers market barriers institutional barriers between these three cities formulating an integrated government enterprise service platform including market access finance transportation talent etc., further expanding policy space among these three cities undertaking industrial transfer forming mechanism participation collaboration cooperation among these three cities.

4.5. Implementing stringent environmental regulations

Under the guidance thought of socialism with Chinese characteristics in the new era, the government of the southern Hunan region is implementing the development concept that regards clear water and green mountains as valuable assets, and the environment in the region is gradually improving. By influencing consumer demand and producers' behavior choices, stringent environmental regulations can alter total social demand, promote energy conservation and emission reduction by enterprises, drive technological progress, and optimize regional industrial structure. We will improve environmental laws and regulations according to actual circumstances, optimize the environmental supervision mechanism, and appropriately raise environmental regulation standards^[8]. The current environmental protection laws and regulations have been in place for many years; however, there are legal provisions that do not align with reality or even contradict it entirely. Therefore, government departments should make timely amendments based on reality, strengthen environmental supervision within their jurisdiction, and effectively implement the river chief system and lake chief system. Emphasis should be placed on covert environmental regulation while intensifying publicity efforts for environmental protection.

5. Conclusion

This paper conducts an analysis and exploration of the challenges associated with industrial

transfer in southern Hunan. It describes the current situation and issues related to industrial transfer in this region within the context of the Guangdong-Hong Kong-Macao Greater Bay Area. The conclusions drawn regarding industrial transfer in southern Hunan are based on actual conditions observed in three cities within this region. Southern Hunan boasts abundant natural resources and labor, as well as improved industrial supporting facilities. Its strategic location adjacent to the Greater Bay Area provides a clear advantage. Furthermore, there is a continuous optimization of the industrial structure, with a declining proportion of primary industry. As the fourth national demonstration zone for undertaking industrial transfer, it can fully leverage its policy comparative advantages and play a significant role in facilitating industrial transfer within the Greater Bay Area.

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