

FOREIGN EXPERIENCE

DOI: 10.15838/esc/2015.5.41.12

UDC 338, LBC 65.9(5Chin)

© Zhang Yihong

Case Study of Integration of Economy and Ecology in Jiangxi: an Approach to Regional Sustainable Development



Zhang Yihong

Assistant Researcher, Master

Institute of Industrial Economics, Jiangxi Academy of Social Sciences
Nanchang, China

I. Problem introduction: theoretical and realistic background

At a stage of rapid industrialization and urbanization, China has been unavoidably confronted with a major problem in achieving sustainable development, i.e. how to coordinate the relationship between economic development and environmental protection with an increasingly prominent contradiction.

(1) Theoretical basis

The economic and ecological systems, with their own circulation channels, are both independent and interdependent of each other, as economic development is based on ecology while the ecological protection and construction are also dependent on economic development. Only one-sided pursuit of economic development will utterly

break the ecological balance of nature and cause revenge from the nature, such as the sequela of “Treatment after Pollution” in western countries and the haze arising in some more developed provinces of China. The simple ecological construction and protection cannot either rapidly develop the economy or continuously improve people’s living standards, even causing a vicious circle from poverty, development at the expense of environment to poverty. Thus it is imperative to make an organic unification of economic and ecological systems to advance the integration of economy and ecology, finally achieving sustainable development.

(2) Realistic choice

Globally speaking, the western developed countries have realized that it has been a trend

to pursue the economic and ecological integration, and the industrial civilization values are not fit any more for the current economic and social development trend. And in China, it is also clearly recognized that a simple pursuit of economic development is not advisable, and instead it starts to transform to the sustainable development path, gradually forming such development modes as ecological economy, low carbon economy and circular economy and so on. In Jiangxi province, its economic development is to a great extent overly dependent on the extensive consumption of natural resources. With the vanishing of comparative advantage of traditional production elements and an obvious contradiction among sustainable development of economy, environmental capacity and resource bearing capacity, the province is faced with a double pressure of insufficient development and economic transformation. Therefore, it is necessary to push the economic and ecological integration development and support a long-term and high-quality development at a minimum cost of resources and environment, which is the realistic choice for Jiangxi province to achieve its sustainable development.

II. The basic advantages and constraints of Jiangxi economic and ecological integrative development

Sustainability is an important indicator that is used to measure the integrative development of regional economy and ecology. From the five systems of sustainability, the basic advantages and constraints of

integrative development of regional economy and ecology can be concluded (*table 1*).

From table 1, we can see that the basic advantage of Jiangxi economic and ecological integrative development is its good living environment, while the constraint is insufficient development. It can be specified as follows:

(1) Basic advantages

1. Prominent ecological advantage

In 2013, the forest coverage rate in Jiangxi reached 63.1%, ranking the first of China. The province conducted an in-depth campaign of clearance, clean water and unpolluted land, with the water quality compliance rate of surface water monitoring section in Jiangxi province at 80.8%, which was nearly 10% higher than the national average, as well as the monitoring sections in Wuhe and Dongjiang source reserves being in II-class water quality and the urban centralized drinking water quality compliance rate at 100%. Therefore, Jiangxi ecological environment quality remains in the front rank of the country. According to the “Beautiful China” provincial standard of construction (2013) research report” and “Beautiful China” provincial capitals and sub-provincial city level building (2013) research report”, the air quality, the total water resources indicators volume and water quality, wetlands, biodiversity, etc. are in the top 5 in Jiangxi Province and Nanchang.

2. Good basis of ecological industry

Firstly, the ecological agriculture is in the lead of the country. By the end of 2013, the total of three products and one indication in

Table 1. The rank of sustainability in thirty-one provinces of China

| Region | 1. Living support system | | 2. Development support system | | 3. Environment support system | | 4. Social support system | | 5. Intelligence support system | | 6. Sustainable development capacity | |
|----------------|--------------------------|----------|-------------------------------|-----------|-------------------------------|----------|--------------------------|-----------|--------------------------------|-----------|-------------------------------------|-----------|
| | Index | Rank | Index | Rank | Index | Rank | Index | Rank | Index | Rank | Index | Rank |
| China | 106 | | 116.3 | | 102.2 | | 111.3 | | 111.8 | | 109.5 | |
| Beijing | 106.6 | 14 | 126.1 | 3 | 104.1 | 6 | 117.6 | 1 | 116.8 | 1 | 114.3 | 1 |
| Tianjin | 104.3 | 25 | 129.2 | 1 | 102.9 | 12 | 115.5 | 3 | 115.3 | 3 | 113.4 | 3 |
| Hebei | 103.9 | 26 | 117.1 | 11 | 101.2 | 21 | 111.8 | 13 | 107.8 | 27 | 108.4 | 22 |
| Shanxi | 102.1 | 29 | 114 | 23 | 99.4 | 27 | 111.4 | 16 | 109.6 | 17 | 107.3 | 24 |
| Neimenggu | 107.2 | 11 | 114.6 | 19 | 100.7 | 25 | 113.1 | 9 | 109.2 | 20 | 108.9 | 18 |
| Liaoning | 107.7 | 9 | 119.9 | 9 | 101.9 | 18 | 113.9 | 6 | 111.5 | 10 | 111.0 | 8 |
| Jilin | 107.8 | 6 | 116.2 | 12 | 101.1 | 22 | 112.8 | 10 | 110.4 | 14 | 109.6 | 12 |
| Heilongjiang | 109.5 | 2 | 115 | 16 | 102 | 17 | 113.5 | 7 | 111.6 | 9 | 110.3 | 11 |
| Shanghai | 102.6 | 28 | 127.6 | 2 | 105.8 | 3 | 116.3 | 2 | 115.5 | 2 | 113.5 | 2 |
| Jiangsu | 106.4 | 15 | 123.2 | 5 | 105.3 | 4 | 114.7 | 4 | 112.7 | 5 | 112.4 | 4 |
| Zhejiang | 106.8 | 12 | 123.2 | 6 | 106 | 2 | 114.5 | 5 | 111.3 | 11 | 112.4 | 5 |
| Anhui | 105.2 | 23 | 114.2 | 22 | 103.8 | 9 | 109.3 | 27 | 110.9 | 13 | 108.7 | 20 |
| Fujian | 107.8 | 7 | 121.6 | 7 | 103.5 | 11 | 111.4 | 17 | 112.2 | 7 | 111.3 | 7 |
| Jiangxi | 108.2 | 4 | 114.6 | 20 | 105.3 | 5 | 110.2 | 24 | 108.2 | 23 | 109.3 | 16 |
| Shandong | 106 | 17 | 121.2 | 8 | 102.5 | 14 | 113.3 | 8 | 110.4 | 15 | 110.7 | 10 |
| Henan | 105.4 | 20 | 115.3 | 15 | 101.6 | 20 | 111.5 | 14 | 108.2 | 24 | 108.4 | 21 |
| Hubei | 106.1 | 16 | 115 | 17 | 104.1 | 7 | 111.2 | 19 | 111.3 | 12 | 109.6 | 13 |
| Hunan | 108.4 | 3 | 114.5 | 21 | 103.7 | 10 | 110.3 | 22 | 109.5 | 18 | 109.3 | 17 |
| Guangdong | 105.4 | 21 | 124 | 4 | 104 | 8 | 112 | 12 | 112.2 | 8 | 111.5 | 6 |
| Guangxi | 107.5 | 10 | 113.4 | 24 | 102.5 | 15 | 108.7 | 28 | 108 | 25 | 108.0 | 23 |
| Hainan | 110.3 | 1 | 117.9 | 10 | 106.3 | 1 | 110.3 | 23 | 110.1 | 16 | 111.0 | 9 |
| Chongqing | 105.9 | 18 | 116.2 | 13 | 102.4 | 16 | 110 | 25 | 112.6 | 6 | 109.4 | 15 |
| Sichuan | 107.8 | 8 | 114.9 | 18 | 101.9 | 19 | 110.5 | 20 | 109.3 | 19 | 108.9 | 19 |
| Guizhou | 102.7 | 27 | 109.9 | 28 | 101.1 | 23 | 108.7 | 29 | 107.9 | 26 | 106.1 | 28 |
| Yunnan | 105.1 | 24 | 110.6 | 26 | 102.6 | 13 | 108.3 | 30 | 107.3 | 28 | 106.8 | 26 |
| Xizang | 108 | 5 | 97.8 | 31 | 97.2 | 31 | 105.2 | 31 | 98.7 | 31 | 101.4 | 31 |
| Shanxi | 105.3 | 22 | 116.1 | 14 | 100.9 | 24 | 112.3 | 11 | 113.2 | 4 | 109.5 | 14 |
| Gansu | 102 | 30 | 107.8 | 29 | 99.6 | 26 | 109.4 | 26 | 109.2 | 21 | 105.6 | 29 |
| Qinghai | 105.7 | 19 | 106.9 | 30 | 98.9 | 29 | 110.4 | 21 | 105.6 | 30 | 105.5 | 30 |
| Ningxia | 102.0 | 31 | 110.5 | 27 | 99.1 | 28 | 111.3 | 18 | 109.1 | 22 | 106.4 | 27 |
| Xinjiang | 106.8 | 13 | 111.1 | 25 | 98.8 | 30 | 111.5 | 15 | 106.9 | 29 | 107.0 | 25 |

Data resource: China Sustainable Development Report 2014

Jiangxi reached 2,100, of which pollution-free agricultural products came to 1,115, green food reaching 480, organic food reaching 445 and geographical indications of agricultural products reaching 60, which ranked the first 10th in the country. Secondly, it quickens the tempo of new industrialization. In 2013, the ten strategic emerging industries have attained the mainly operating income of 181.9 billion US dollars, with year-on-year growth of 17%, and also fueled the provincial industry income growth by 6.2% with contribution rate of 37.5%. Thirdly, modern service develops rapidly. In 2013, the provincial modern service got an added value of 37.1 billion US dollars, whose proportion in the provincial GDP increased by 0.69% from 15.34% in 2012 to 16.03%.

3. Rich experience in ecological practice

The Provincial Party Committee and Provincial Government have always paid high attention to the ecological environmental protection and ecological civilization construction. Since the early 1980s, Jiangxi province started the implementation of Mountain-River-Lake project. After entering the new century, it clearly comes up with a development concept that not only gold mountains and silver mountains are needed, but clear waters and green mountains are much more desirable. After the 17th National Congress of the Communist Party of China, the development strategy of ecological province and green development was put forward. On the 13th Jiangxi Provincial Congress of Party Representatives, it set a grand goal of constructing a rich, harmonic

and beautiful Jiangxi. And on the first meeting of the 12th session of the National People's Congress, the Provincial Government also put up with a higher goal that Jiangxi ecological civilization construction would be in the lead of the country in the next five years. Such a series of strategic measures have brought helpful exploration and practice to the in-depth ecological and economic integrative development, and gained rich ecological practical experience.

(2) Constraints

1. The insufficient economic development is the economic constraint of Jiangxi economic and ecological integration development.

In 2013, GDP per person in Jiangxi was 5119.69 US dollars, equivalent to only 75.8% of the national average, and its most economic indicators were on the latter rank in the central regions and the country. Therefore, we must make it clear that there is no fundamental change that Jiangxi is still an undeveloped province with insufficient economic development, and its weak economic foundation cannot provide financial support for ecological construction by transforming large amounts of funds. For more details, please see *table 1*.

2. The low urbanization level is the social constraint of Jiangxi economic and ecological integration.

The urbanization level is an important indicator of social support system, and also greatly affects Jiangxi economic and ecological integrative development. In 2013, the urbanization rate of Jiangxi province was 48.87%, nearly 5% lower than that of the

Table 2. The rank of GDP per person of each province, municipality and autonomous region in 2013

| Region | GDP per person (dollar) | Rank | Region | GDP per person (dollar) | Rank |
|-----------|-------------------------|------|----------------|-------------------------|-----------|
| Tianjin | 15760.74 | 1 | Heilongjiang | 6057.3 | 17 |
| Beijing | 14888.93 | 2 | Xinjiang | 6003.48 | 18 |
| Shanghai | 14442.33 | 3 | Hunan | 5913.11 | 19 |
| Jiangsu | 12031.87 | 4 | Qinghai | 5871.43 | 20 |
| Zhejiang | 11033.26 | 5 | Hainan | 5674.77 | 21 |
| Neimenggu | 10881.93 | 6 | Shanxi | 5605.63 | 22 |
| Liaoning | 9959.38 | 7 | Henan | 5515.91 | 23 |
| Guangdong | 9430.15 | 8 | Sichuan | 5230.37 | 24 |
| Fujian | 9309.68 | 9 | Jiangxi | 5119.69 | 25 |
| Shandong | 9071.59 | 10 | Anhui | 5098.28 | 26 |
| Jilin | 7618.57 | 11 | Guangxi | 4919.64 | 27 |
| Shanxi | 6883.59 | 12 | Xizang | 4234.33 | 28 |
| Chongqing | 6880.95 | 13 | Yunnan | 4062.13 | 29 |
| Hubei | 6868.7 | 14 | Gansu | 3919.47 | 30 |
| Ningxia | 6331.19 | 15 | Guizhou | 3691.47 | 31 |
| Hebei | 6232.1 | 16 | China | 6750.1 | – |

Table 3. The rank of urbanization rate of each province, municipality and autonomous region in 2013

| Region | Urbanization rate(%) | Rank | Region | Urbanization rate(%) | Rank |
|--------------|----------------------|------|----------|----------------------|------|
| Shanghai | 88.02% | 1 | Shanxi | 51.31% | 17 |
| Beijing | 86.30% | 2 | Hainan | 51.10% | 18 |
| Tianjin | 78.28% | 3 | Jiangxi | 48.87% | 19 |
| Guangdong | 67.76% | 4 | Qinghai | 48.51% | 20 |
| Liaoning | 66.45% | 5 | Hunan | 47.96% | 21 |
| Zhejiang | 62.96% | 6 | Anhui | 47.86% | 22 |
| Jiangsu | 62.85% | 7 | Hebei | 46.51% | 23 |
| Fujian | 60.76% | 8 | Sichuan | 44.90% | 24 |
| Neimenggu | 58.71% | 9 | Guangxi | 44.82% | 25 |
| Chongqing | 58.34% | 10 | Xinjiang | 44.47% | 26 |
| Heilongjiang | 56.90% | 11 | Henan | 42.40% | 27 |
| Hubei | 54.51% | 12 | Gansu | 40.13% | 28 |
| Jilin | 54.20% | 13 | Yunnan | 39.31% | 29 |
| Shanxi | 52.56% | 14 | Guizhou | 37.83% | 30 |
| Shandong | 52.17% | 15 | Xizang | 22.75% | 31 |
| Ningxia | 52.02% | 16 | China | 53.70% | – |

Table 4. The rank of regional innovation capacity of each province, municipality and autonomous region in 2013

| Region | Composite index of regional innovation | Rank | Region | Composite index of regional innovation | Rank |
|-----------|--|------|--------------|--|------|
| Jiangsu | 57.58 | 1 | Hainan | 24.10 | 17 |
| Guangdong | 53.00 | 2 | Neimenggu | 23.73 | 18 |
| Beijing | 50.73 | 3 | Heilongjiang | 23.55 | 19 |
| Shanghai | 47.18 | 4 | Jiangxi | 23.53 | 20 |
| Zhejiang | 42.40 | 5 | Guangxi | 23.06 | 21 |
| Shandong | 37.73 | 6 | Hebei | 23.02 | 22 |
| Tianjin | 36.13 | 7 | Jilin | 22.64 | 23 |
| Chongqing | 33.88 | 8 | Guizhou | 22.60 | 24 |
| Anhui | 29.75 | 9 | Gansu | 22.20 | 25 |
| Fujian | 29.33 | 10 | Shanxi | 21.68 | 26 |
| Liaoning | 28.85 | 11 | Yunnan | 21.32 | 27 |
| Hubei | 28.71 | 12 | Xinjiang | 20.39 | 28 |
| Hunan | 28.25 | 13 | Ningxia | 20.32 | 29 |
| Shanxi | 27.68 | 14 | Qinghai | 17.65 | 30 |
| Sichuan | 27.16 | 15 | Xizang | 17.39 | 31 |
| Henan | 26.21 | 16 | – | – | – |

country, and ranked 19th in the country. More details can be seen in *table 3*.

3. Insufficient capacity for independent innovation is the intelligence constraint of Jiangxi economic and ecological integration development.

Since the reform and opening up, the independent innovation ability is growing, but has been hovering at a low level in Jiangxi. As shown in *2013 China's Regional Innovation Energy Report*, Jiangxi's regional innovation capacity ranked 20th in 2013, is lagging behind in the country. For more details, please see *table 4*.

4. The government performance appraisal emphasizing GDP indicators is the biggest constraint of Jiangxi economic and ecological integration development.

For more than 30 years of reform and opening up, Jiangxi province has made remarkable progress in its economic power. However, the provincial environmental protection administration mostly just applies sanctions to extreme serious polluting enterprises and their pollution behavior, which will not directly restrain economic growth. The problem comes from nothing more than overly pursuing economic growth, particularly the GDP growth appraisal.

III. The way of achieving Jiangxi economic and ecological integration development

To achieve the economic and ecological integration development, Jiangxi province needs to focus on the improvement of economic benefits and grasp the construction of the national ecological civilization demonst-

ration province, transforming ecological resources advantages into market competition advantages, seizing and developing new marketplaces and finally achieving Jiangxi's sustainable development.

(1) Insist on ecological priority and construct a harmonious and beautiful green ecological system

Firstly, it needs to vigorously implement the engineer operation of *Forest in Urban and Rural Areas, the Green Channel*, continuously improve the urban and rural greening level, and thus construct a green ecological barrier for the beautiful Jiangxi. Secondly, it needs to speed up the progress of ecological restoration, put more emphasis on the construction of river source conservation ecological function areas in Poyang Lake nature reserve and Dongjiangyuan, concentrate on the construction and protection of ecologically fragile function areas such as two provincial ecological function reserves of Zhang river source and Gong river source in the source area of Ganjiang river, Wuyi mountains and Luoxiao mountains etc., and strengthen the restoration and protection of wetland ecosystems such as Poyang Lake and Fairy Lake. Thirdly, it needs to strengthen the prevention and control of key areas, focus on the implementation of the environmental disposal engineering on five mines including Gannan rare earth mine concentrated area, Gannan tungsten mine concentrated area, copper and gold mine concentrated area of northeast Jiangxi, Jiurui copper and gold mine concentrated area and iron mine concentrated

area of central Jiangxi, reinforce the control of air pollution, rural non-point source pollution and industrial point source pollution, and enforce the water pollution control of Wuhe and Dongjiang river, etc.

(2) Insist on green development and construct an efficient, low consumption ecological economic system

Ecological economy is the best juncture to promote economic and ecological integration. Firstly, it needs to develop strategic emerging industries, give impetus to strategic emerging industries scale and then form some new pillar industries to support the future development. Secondly, it needs to rebuild and upgrade traditional competitive industry, actively push its circular economy and rebuild traditional competitive industry as high-end, environmental protection and high-tech advanced manufacturing industry. Thirdly, it needs to give full play to green, patina and red tourism resource advantages and vigorously develop tourism. Fourthly, it needs to boost efficient ecological agriculture, promote agricultural standardized production and management, enforce to construct the production bases of pollution-free agricultural products, green food and organic food, and build a series of green ecological brands known at home and abroad.

(3) Insist on urbanization and expand development space of economic and ecological integration

It needs to take the human-oriented urbanization as the core to promote new-type urbanization construction, in which farmers

can easily come in, stay and live a better life. Firstly, it needs to strengthen the employment and entrepreneurship trainings for transferred labor force. It is necessary to establish a targeted rural transferred labor training system, thus educating laborers with knowledge, technology and expertise, improving their employability skills and increasing their labor remuneration. Secondly, it needs to deepen the reform of the household registration system. It is necessary to relax the condition of being settled in the town, transform rural population with legal and stable occupation and residence in the town into urban residents, and gradually phase out dual household registration system. Thirdly, it needs to perfect social security system. It is necessary to implement a policy of identical treatment that farmers who move to the city will be given the same access to employment, health care, housing and pension for the aged as people who already live there. Thus, it will guarantee that children of migrant workers can enjoy the rights to compulsory education and are treated equally as local urban students in some aspects like entrance requirements. Fourthly, it needs to improve the rural land transfer policy, having farmers be real citizens. The government should provide them information, policies and legal services and conduct them that the transfer of land use

rights must occur on a compensated, voluntary basis and in accordance with the law, so as to free them from worries for daily necessities after moving to the town.

(4) Promote the innovation of government performance appraisal system and improve government performance evaluation system

According to the decision of the 3rd Plenary Session of the 18th CPC Central Committee, it needs to perfect and promote the evaluation system for measuring economic performance, rectify the bias for simply evaluating the government performance with economic growth rate, without merely focusing on GDP and its amount. It is necessary to put more emphasis on some indicators such as resource consumption, environmental damage, ecological benefits, excess production capacity, technological innovation, safety production and new debts etc. Meanwhile, it should establish different evaluation goals on ecological civilization construction by putting emphasis, limitation and prohibition on developing different areas, refine and do research on regional standards and form a goal and task evaluation system with shared responsibilities but not the same, and also enhance the formulation and implementation of specific supporting policy and measures.

References

1. Unswervingly Advance Along the Road of Socialism with Chinese Characteristics for Building a Moderately Prosperous Society in All Respects. *People's Daily*, 2012, no. 11, p. 18.
2. A Report on Jiangxi Provincial People's Government Work in 2013. *Jiangxi Daily*, 2013, no. 2, p. 6.
3. Biaohong Tao, Gengying Jiao. An Analysis on Construction of Ecological Economic System of Jiangxi Province. *Truth Seeking*, 2010, no. 1.
4. Yancheng Wu. Promoting the Synchronized Development of Eco-Building and Economy. *Farmers Daily*, 2012, no. 8, p. 29.

Information about the Author

Zhang Yihong – Assistant Researcher, Master, Institute of Industrial Economics, Jiangxi Academy of Social Sciences (Nanchang, China)