



Theoretical Consideration on Designing the Index System for Evaluation on Good and Fast Development of Jiangsu's Economy and Society

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This paper is one of the achievements of research subjects of the society and science institute of Jiangsu. Subject Number: 08-B-27

Abstract

Evaluation on good and fast development of Jiangsu's economy and society is one of the most important problems in the research area of Jiangsu's sustainable development. This paper having researched the function of the indexes for evaluation on good and fast development of Jiangsu's economy and society, designs the integrated indexes and index system for evaluation on good and fast development of Jiangsu's economy and society, on the basis of the comparison and analysis on various evaluation indexes.

Keywords: Good and fast development of Jiangsu's economy and society, Index system, Design

Jiangsu has achieved great success in the process of developing economy and society, but never got rid of extensive growth mode that is high input, high consumption, high emission, disharmony, hard circulation and low efficiency. Such grim situation of resources requires people in Jiangsu to establish and carry out scientific concept of development when they design the town planning. People should give full consideration to environmental sustainability rather than only focus on the GDP growth, and firmly regard resource conservation and energy reduction as a rule, to propel the economic and social development of Jiangsu.

1. The indexes for evaluation on good and fast development of Jiangsu's economy and society and their functions

Indexes can generally be divided into two categories. One is descriptive indexes, and another is normative ones. The former mainly reflects the reality, such as resource or environment situation, while the latter is used to measure the gap between the real and reference situation, or compare the real with the reference situation.

The indexes for evaluation on good and fast development of Jiangsu's economy and society comprehensively show the information about the development of Jiangsu's society-economy-and-nature compound ecosystem in a concise way. Through this information, people can clearly understand the situation and process of good and fast development of Jiangsu's economy and society, exchange opinions with each other and take measures to solve problems in the purpose of making Jiangsu's economy and society not deviate from the track of good and fast development.

Jiangsu's society-economy-and-nature compound ecosystem is a rather complicated system. Therefore, it is difficult to evaluate the compound ecosystem by one or several indexes, as the evaluation process involves many aspects like ecology, environment, economy and society. Under this circumstance, the index system for evaluation is born. It follows the principle of sustainable development and shows the quality and level of the compound ecosystem development.

2. The integrated indexes and index system for evaluation on good and fast development of Jiangsu's economy and society

The index system for evaluation on good and fast development of Jiangsu's economy and society is an index collection which meets some principles, including purpose and scientific principles (the index system should reflex scientific connotation of sustainable development, and the index choice, index weight factor determination, data selection, calculation and synthesis should be based on the generally accepted science theory, statistics theory as well as the administration and decision theory. Besides, people should comprehensively consider such various aspects as population, resource, environment, economy, society and the coordination between them, making the index system not only meet the demand of sustainable development, but also avoid the overlap among the indexes), convenience and

feasibility principles (the indexes should have features that can be measured and compared, and their calculation method should not be too complex. Moreover, the data involved in the index system can be found or calculated in the Chinese statistics system, so it is easy for people to operate), independence and objectivity principles (the indexes should remain independent to keep the index system concise. Besides, the data for designing indexes should be based on the reality), completeness and importance principles (the index system is a whole to reflex the main feature of the compound ecosystem), simplicity and correlation principles (the indexes should be as simple as possible on the basis of completeness to make the index system easier for people to understand and use), character of level and comparability principles (the index system should have more reasonable and clear level and structure. In addition, the consistent access should be applied in the selection and calculation of the index data for the convenience of comparison with similar regions), acceptance and innovation principles (the indexes should be understood and accepted by majorities).

For the sake of convenience, according to the framework of the research system of the construction of good and fast development of Jiangsu's economy and society and the general research methods of science, ecology, economy and sociology, with the operational features of Jiangsu's society, economy and industrial parks, the index system can be divided into three subsystems, that is society index subsystems, economy index subsystems and nature index subsystems. Supposing n items index in this system, we consider they are made up of macroeconomics evaluation indexes and conservation-of-resource economy indexes. The conservation-of-resource economy indexes mainly consist output indexes, resource consumption indexes, comprehension utilization of resources indexes, reuse of renewable resources indexes and waste disposal reduction indexes. Among them, output indexes mainly refer to gross product produced by resources consumption, the ratio of which is the higher the better, because it means that the efficiency of resource utilization is high.

The indexes reflex "3R" principles in the recycling process of production from resource exploitation and utilization to waste emission. Waste disposal reduction indexes are used to describe the extent of the reduction of the ultimate emission of industrial solid waste and wastewater. The indexes help to reduce resource consumption and waste production from the source, aiming at reducing the ultimate emission of waste and alleviating the environmental pollution.

The indexes reflex the situation of the emission and disposal of main wastes in the process of consumption. Resource consumption indexes indicate the amount of resources consumed due to producing per product or GDP.

The indexes reflex the situation of the utilization of main energy and raw materials and the waste emission, showing the situation of recycling six traditional wastes. Resource productivity, recovery of resource, and the rate of circular utilization, adoption of clean production technology, ultimate disposal of wastes, environmental protection as well as the index for evaluation on the ecological detection system meet the demand of conservation and circular utilization of resources.

The indexes reflex the quality of resource and environment development, which mainly reveal the extent of transferring such wastes as industrial solid waste, industrial wastewater, municipal solid waste and agricultural straw to resources. The index of social resource utilization, the rate of green coverage, wastewater disposal, safe disposal of solid waste and the air quality rating belong to this kind of indexes.

All these indexes above are designed for the construction of good and fast development of Jiangsu's economy and society, which are comprehensive, concise and easy to be operated. What's more, when these indexes are applied in the regions with different features and functions in Jiangsu, people can added some other indexes according to their demands.

3. Closing remarks

Building good and fast development of Jiangsu's economy and society, and developing circular economy become the ideal goal of development and environmental administration. While many questions are raised, one of which is how to evaluate sustainable development. Good and fast development of Jiangsu's economy and society has much connection with every people and area. However, people with different backgrounds often have different understandings about it. Therefore, it is difficult and complex to design integrated evaluation indexes and an index system accepted by most people. Obviously it needs a long time, but it is badly needed in the practice. Consequently, people have to balance or compromise between scientific criteria and the demand of social and economic practice, in order to design and improve the index system for evaluation on good and fast development of Jiangsu's economy and society. The existing indexes still can't meet the demand of practice, though the research area of designing the index system for evaluation on good and fast development of Jiangsu's economy and society has achieved great success. So it will be an important research task in a quite long time of the future. The index system for evaluation on good and fast development of Jiangsu's economy and society should be based on the province situation of Jiangsu, reflecting whether the economy and society achieve coordinated development, resources are utilized efficiently and the problems appeared in the economic construction of Jiangsu. During the process of designing the index system, people should build and improve the

operational and monitoring mechanism of good and fast development of Jiangsu's economy and society, meanwhile making a good plan and balance of the process of good and fast development of Jiangsu's economy and society, to serve the implementation of the eleventh five year plan and the policies of Jiangsu's social and economic development.

References

- National bureau of statistics of china. (2006). Instructions of evaluation indexes of circular economy. Chinese website.
- Yan, Xingfang. (2008). *Circular economy*. Chinese industrial and commercial joint press,1.
- Zhao, Jingzhu. Theoretical research on indexes for evaluation on society-economy-and-nature compound ecosystem.