

Research on Construction Methods for Standard System of Green Economy in Guizhou Province

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Abstract. The standardization of green economy is an important prop and technical support for speeding up and promoting the ecological civilization construction and is of great significance to the building and implementation of relevant systems. However, the ecological civilization construction in China is still in its early stage and the standardization of green economy faces a lot of challenges. At present, the ecological civilization pilot zone in Guizhou has achieved its initial success and all aspects of the work have been carried out in an orderly way. Meanwhile, the requirements for the construction of the green economy system are increasing day by day. It is necessary to summarize the demonstration experience of the pilot program, replicate and promote the model of success and boost the development of ecological civilization construction in depth and breadth. In Guizhou, the standard system of green economy construction faces many challenges in its advancement, and combined with the key tasks of the construction of the national ecological civilization pilot zone of Guizhou, this research builds the standard system of green economy in Guizhou, sorts out the existing national, industrial and local standards for supporting the key fields of ecological civilization construction in Guizhou, promotes and implements these standards with great diligence, focuses on the development of a series of key standards for supporting the green economy construction in Guizhou and embodying the local feat, establishes the standard system of ecological civilization construction with Guizhou characteristics, which can be compatible with different levels of standards, strengthens the building of local standardization capacity, and boosts and builds a long-term mechanism for the standardized ecological civilization construction.

1 Introduction

Guizhou is an important ecological barrier of the upstream areas of the Yangtze River and the Pearl River, so it faces structural problems in terms of ecological environment, which are prevalent in China, and also encounters special problems, e.g. land degradation and stony desertification are relatively serious and the infrastructures of ecological environment protection badly lag behind; Guizhou also has daunting and urgent tasks of accelerating its development and alleviating poverty and has to combat the following serious challenges: resource and environmental constraints are tightened and the spatial layout of urban development and agricultural ecology has to be optimized, and the existing ecological civilization system cannot meet the demands for transferring the mode, adjusting the structure, optimizing the supply side and promoting the green development.

The research on the standard system of green economy in Guizhou is prepared to analyze the development trend and status and problems of standardization in the relevant fields at home and abroad,

and establish and improve the standard system of green economy construction in Guizhou through the investigation of the status of standardization development in the relevant fields (e.g. relevant policy mechanisms of ecological civilization construction and sustainable development at home and abroad, pilot program situation and green development) [1-3], so that the fundamental system role of the standard can be played in ecological civilization construction to carry out a variety of construction actions as per the corresponding standards; meanwhile, based on the pilot experience and results, a batch of local standards suitable for green economy construction of Guizhou should be studied and laid down by reference to the international advanced standards to fully play the leading role of standards in ecological civilization construction, so as to boost the construction of the National Ecological Civilization Pilot Zone (Guizhou) and promote the cooperative development of ecological environment[4].

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2 Process Research Method for Standard System

A standard refers to the unified provisions of repetitive things and concepts for the purpose of obtaining benefits, while a standard system means that the standards within a certain scope form a scientific, organic set by inherent relation. As an effective method of systematizing and scientizing the standardization tasks in a certain field, the standard system in this field is established to exhibit the standardization tasks of this field. If the process method is applied to research and analyze the standard system, all basic processes of the management activities are researched, analyzed and determined in accordance with the common characteristics of business management activities under market economic conditions. Then, the objects of standardization are analyzed for all processes based on the basic connotations of standard and standardization concepts, that is, their approaches, steps, procedures, methods, resources, conditions and other factors are summarized to extract specific standards. Finally, a standard system table is constructed on the above-said basis [5].

3 Components of Standard System Framework of Green Economy in Guizhou

In accordance with the “promotion of technical innovation and restructuring and improvement of development quality and effectiveness” and “comprehensive promotion of saving, recycling and high efficiency of resources and boosting of the fundamental conversion of utilization methods” stipulated in the Opinions of the CPC Central Committee and the State Council on Accelerating the Ecological Civilization Construction, the sub-system of standards for green economy development has been created, and the following seven subsidiary sub-systems are divided as per the major task of “carrying out and promoting the institutional innovation test of green development” specified in the Opinions on the Establishment of Unified and Standardized National Ecological Civilization Pilot Zones and the Implementation Plan for the National Ecological Civilization Pilot Zone (Guizhou).

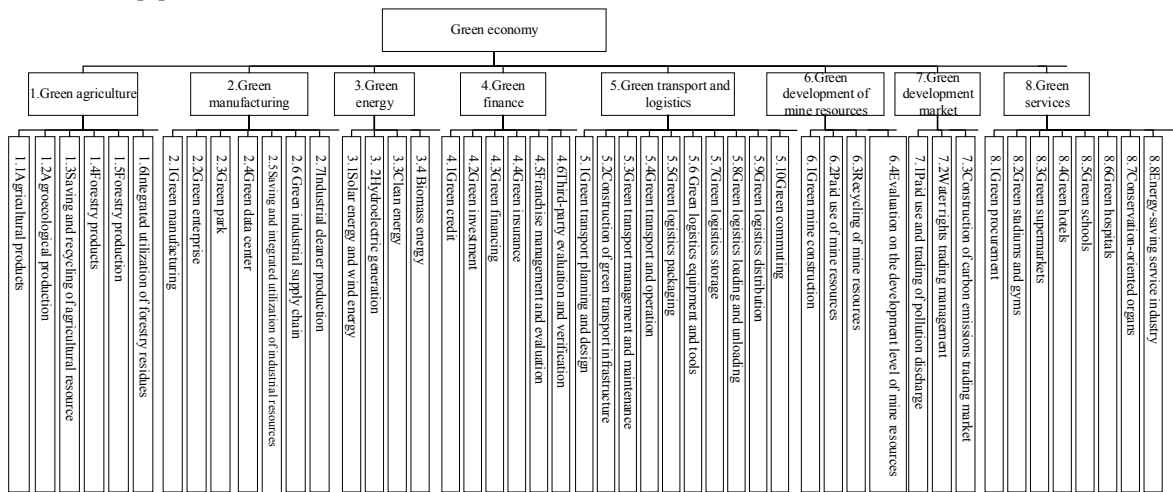


Fig. 1 System of Standards for Green Economy

In terms of green agriculture, this standard sub-system consists of the standards for agricultural products, agroecological production, saving and recycling of agricultural resources, forestry products, forestry production and integrated utilization of forestry residues, etc. as per the Technical Guidelines on Green Development in Agriculture of 2018-2030 promulgated by the Ministry of Agriculture and Rural Affairs of the People’s Republic of China, covering various links (e.g. seed selection, planting, processing, transport and recycling) during the full life cycle of agricultural and forestry products.

In terms of green manufacturing, the standard sub-system can be subdivided as per the Guideline for Building of Green Manufacturing Standard System issued by the Ministry of Industry and Information Technology and the direction of major industries of Guizhou, including green manufacturing, green enterprise, green park, green data center, saving and

integrated utilization of industrial resources, green industrial supply chain and industrial cleaner production.

In terms of green energy, a key role of mandatory standards (e.g. system energy efficiency and engineering construction) in standardizing and leading green energy activities should be played and highlighted, and pursuant to the major development direction of new energy of Guizhou, this part is divided into solar energy and wind energy, hydroelectric power generation, biomass energy and clean energy.

In terms of green finance, the relevant standards for green credit, green financing, green investment, green insurance, franchise management and evaluation, and evaluation and certification of green projects, etc. will be included as per the existing economic foundation and industry situation of Guizhou as well as the current standard system, with the aim to support the innovative development of green finance in Guizhou and boost the overall requirements for the standards of green finance reform and innovation in Gui’an New Area.

In terms of green transport and logistics, a set of scientific, comprehensive, reasonably-classified subsidiary sub-systems for standards, which can not only meet the requirements for national green traffic development, but also support the green transportation construction and planning of Guizhou, will be established in accordance with the Standard System of Green Transport promulgated by the Ministry of Transport of the People's Republic of China, mainly including the standards for green transportation planning and design, construction of green transportation infrastructure, green traffic management and maintenance, green transportation and operation, green commuting, green logistics packaging, green logistical equipment and tools, green logistical storage, green logistical loading and unloading and green logistical distribution.

In terms of green development of mine resources, the standards for green mine construction, paid use of mine resources, recycling of mine resources and evaluation on the development level of mine resources, etc. will be

specifically divided in accordance with the relevant requirements for improving the green development mechanism of mineral resources in Guizhou.

In terms of green development market, this part mainly consists of the standards for paid use and trading of pollution discharge, water rights trading management and construction of carbon emissions trading market, with the aim to actively explore the trading rules and modes of carbon emissions trading market involving forestry carbon sink, establish and improve the paid use and trading system of pollution discharge, carry out the pilot program of water rights trading and formulate the measures for the administration of water rights trading.

In terms of green services, the three aspects of changing consumption concept, advocating green consumption and adhering to low-carbon lifestyle will be highlighted, mainly consisting of the standards for green procurement, green stadiums and gyms, green supermarkets, green hotels, green schools, green hospitals, conservation-oriented organs and energy-saving service industry.

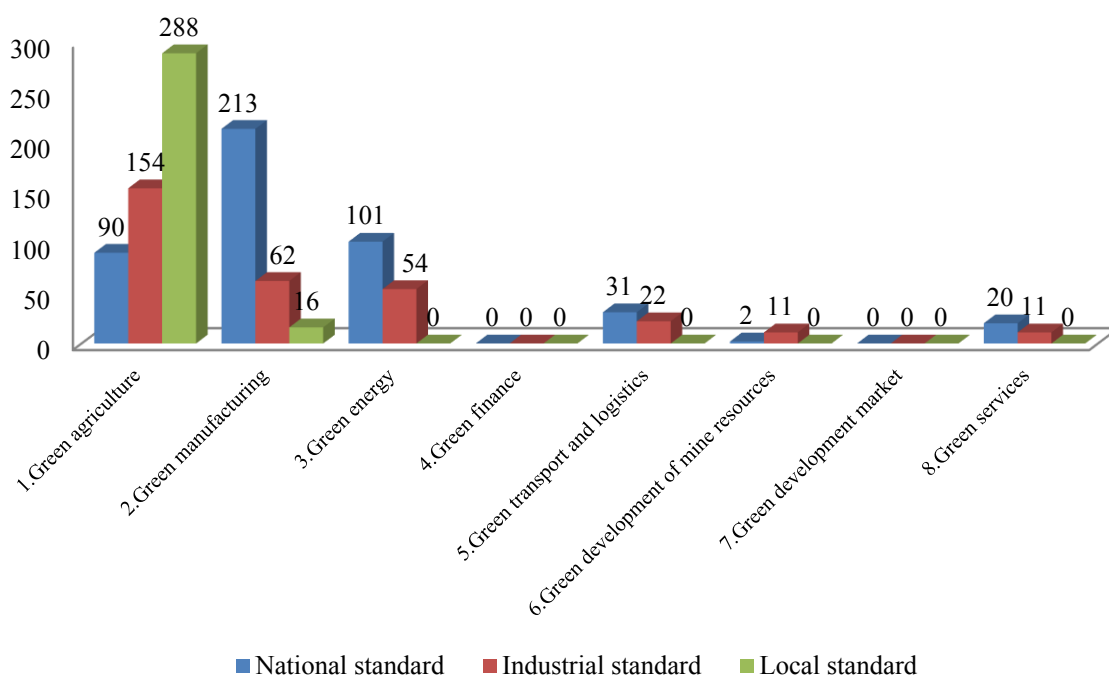


Fig. 2 Quantitative distribution of standards for Green Economy

4 Suggestions for the Standardization Development of Green Economy Construction in Guizhou

By seizing the opportunity of creating a national ecological civilization pilot zone in Guizhou, standardization is first boosted in the national ecological civilization pilot zone according to the construction of national pilot program for circular economy standardization, demonstration of energy-saving standardization, green manufacturing and green finance as well as the scientific and innovative implementation path of “analysis & reference — highlight of key points

— system implementation — publicity & training — platform setup — continuous promotion”.

(1) Highlight of key points and establishment of requirements. The standard system framework for ecological civilization construction of Guizhou should be created and the existing national, industrial and local standards relating to ecological civilization should be sorted out, so as to study the list of important national and local standards to be formulated and modified, which can embody the characteristics of Guizhou and also effectively support the construction of national ecological civilization, and solidify the pilot experience and results of the construction of ecological civilization pilot zone.

(2) Demonstration and leading effect of the pilot zone. The demonstration project of standardized ecological civilization pilot zone should be carried out to lead and support the implementation of ecosystem protection and restoration system, environmental protection management system, integrated governance system of rural environment, green industry development system, efficient utilization system of resource saving and recycling and ecological protection market mechanism, etc.

(3) Combination of publicity and training and emphasis on the subsequent matters. A batch of standardization personnel who are proficient in technologies and standards and pay more attention to practice should be cultivated and the soft strength of the construction of standardized ecological civilization increased. The standard publicity, implementation and training system should be established, to improve the awareness of standardization, and cultivate the ecological concept. The training of the construction of standardization system of ecological civilization should be jointly held to train the personnel of relevant department in terms of the basic knowledge of standard preparation and the path, method and basic contents, etc. of the construction of standard system of ecological civilization.

Acknowledgments

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