

## **Evaluation methods, progress and prospect of carbon budget system under dual carbon background**

Liu Zhuohan\* and Shen Shigang\*\*

*\*school of Chemistry and Materials, hebei University  
180 Wusi Dong Lu, Lianchi District Baoding City, Hebei Province  
E-mail: shensg@hbu.edu.cn*

### **Abstract**

In September 2020, China declared to achieve carbon peaks by 2030 and carbon neutralization by 2060. Based on the literature review, this paper analyzes the current status of the carbon revenue and expenditure system. It expounds on the methods and progress of the carbon revenue and expenditure system. On this basis, some suggestions are put forward from four aspects: primary data, accounting methods, and technical means. The current research progress and existing problems were reviewed, and suggestions for future research ideas were put forward, in order to provide a methodology reference for accurate estimation of carbon sinks in terrestrial ecosystems in China, and provide scientific support for the development of carbon neutral emission reduction policies in China.

**Key Words:** carbon neutral, Carbon peaking, Sequence selection treatment, Transmembrane protein,

### **1. Introduction**

To promote human product, human well-being is the common goal of all countries in the world [1]. Through the summary of the previous detours, we understand that the development that takes into account the needs of the present and future generations is the most in line with the fundamental interests of the people, and the most in line with our national conditions, and this is the sustainable development we have chosen. In China, the Chinese government has formulated the Guiding Opinions on Accelerating the Establishment and Improvement of an Economic System for Green, Low-carbon and Cyclic Development, stipulating that carbon emissions will peak by 2030, be carbon neutral by 2060, and strive to gradually achieve net zero carbon dioxide emissions [2, 3]. In addition, some Nordic countries have developed and implemented a Pigou tax regime that helps to achieve carbon neutralization through tax policies [4]. According to a study of the University of Victoria in Australia, creating, expanding, and disseminating knowledge and learning about carbon neutrality will ultimately help countries achieve their goal of carbon neutrality, this initiative and policy are reflected in university educational institutions [5]. Develop initiatives, policies, and measures to reduce greening. As an essential part of the global ecosystem, carbon revenue and expenditure system accounting is an essential basis for scientific assessment of global greenhouse gas emissions and climate change policy. Accounting of carbon revenue and expenditure system involves not only data collection, integration, coordination, and comparison between different sectors, but also horizontal comparison and evaluation between different scales.

While writing this paper, we collected and sorted out the domestic and foreign scholars on carbon accounting research results and carried out extensive discussions. Among them, not only to sort out and summarize the research results of foreign scholars, but also based on the current needs of China's carbon accounting, made some recommendations. The research results mainly focus on the following two aspects: First, the various types of carbon accounting methods are summarized and compared. The other is to study the inconsistency of carbon sinks between different sectors and regions due to differences in development, technology, and market mechanisms. In