

# Research and application of GEP——China’s experience in natural capital accounting—a review

haijiang Yang<sup>1</sup>, xiaohua Gou<sup>1</sup>, weijing Ma<sup>1</sup>, zhenyu Tu<sup>1</sup>, and dingcai Yin<sup>1</sup>

<sup>1</sup>Lanzhou University

January 4, 2022

## Abstract

Under the background of global climate change and the human activities, the stock of natural capital and the the ability of ecosystem services are facing increasing pressure, and the contradiction between natural capital protection and people’s livelihood development is also increasing. Therefore, it is urgent to integrate ecosystem value estimation into the development decision-making of countries all over the world. As a new ecosystem research method, ecosystem gross product (GEP) accounting is widely used in China, and often used to reflect the effectiveness of regional ecological protection and the coordination relationship between development and protection. We found that : (1) GEP accounting can reflect the overall situation of ecological environment and service quality, and help decision-makers and managers formulate and implement sustainable development strategies and ecological protection policies. (2) The contradiction between the depletion of global ecosystem capital and the development of people’s livelihood continues to intensify. About 68.7% of developing countries facing “low-low development model” (low GEP and low GDP). (3) We have constructed the path model of GEP working system and the path model of ecological protection compensation mechanism in China. The GEP accounting system of “from point to area, from top to bottom”, the parallel evaluation strategy of GDP and GEP and the comprehensive ecological compensation system of “vertical and horizontal combination” implemented can be popularized to countries all over the world.

## Hosted file

Manuscript.docx available at <https://authorea.com/users/453846/articles/551628-research-and-application-of-gep-china-s-experience-in-natural-capital-accounting-a-review>

## Hosted file

image.docx available at <https://authorea.com/users/453846/articles/551628-research-and-application-of-gep-china-s-experience-in-natural-capital-accounting-a-review>