

## **The Evolution Trend and Structural Decomposition of China's Green Value-added: 1978-2017**

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The 40 years of China's reform and opening up to the world is not only a history of rapid economic development, but also a history of environmental pollution and environmental governance: the spread of environmental pollution and initial governance stage I (1978-1992), and intensified environmental pollution and scale governance stage II (1992-2002), and the deterioration of environmental pollution and comprehensive governance stage III (2002-2012), and moderate control of environmental pollution and eco-civilization construction stage IV (2012-2017). This paper explores the evolution trend and structural decomposition of China's green value-added by constructing a non-competitive input-output table for China's environmental pollution from 1978 to 2017. The data used in this paper are based on Chinese Environmentally Extended Input-Output (CEEIO) database (<http://www.ceeio.com>) and non-competitive input-output table by Chinese Academy of Sciences, and combined with China environment statistical yearbook. The main conclusions are as follows: Firstly, in the course of 40 years of rapid economic growth, the pollution production coefficient has been increasing continuously, and the green value-added index has continued to decrease; Secondly, the structural decomposition shows that investment and exports play a key role in the economic growth of the 40 years of reform and opening up to the world, but with serious pollution problems, especially in stage II and stage III; Thirdly, the pollution generated by the raw material industry (represented by the coal mining and processing industry) and the processing industry (represented by the textiles industry, petroleum refining and nuclear fuel industries) has not been effectively and timely treated. Pollution treatment work of these industries needs to be strengthened in the future.