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## **Study on MFA and index system of circular economy in China**

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### **Abstract**

“Circular Economy” is the new economic development mode, which can make the quick development of human beings correspond with nature. Using efficiency and circular reuse of resources is the elementary characteristic of “circular economy”. In recent years, China has been using “circular economy” theory as the measure to solve the problem between economic development and environment deterioration, and trying to turn its production and consumption mode to a sustainable way. Finding out the measurable indexes and founding the index system of circular economy is now the most important project of our country. This article introduced the methodology of Material Flow Analysis (MFA) and its detailed application rules to study the whole material flow process: resource exploitation, production, consumption, waste generation, recycles and reuse in China from 2000 to 2004. The method in indicating national resources investment, waste generation and recycling in China was described. Analysis shows that MFA is a feasible and effectual measure to investigate the circular economy development at the macro national level. This article proposes the developmental target for building a national circular economy society and, indicates that MFA will be the most important method to propel the construction of the circle economy in China. To unify national conditions of China, this article further proposes several major index of Chinese circular economic indicator system should be included. The index will provide the theoretical basis on which to formulate circular economy development goals and discover the disparity between China and the international counterparts.

**Key words:** Material Flow Analysis (MFA); circular economy; index system