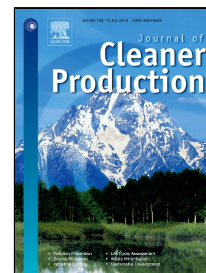


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## **Profit or Environment? A System Dynamic Model Analysis of Waste Electrical and Electronic Equipment Management System in China**

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### **Abstract**

In the past decade, sales of electrical and electronic equipment have undergone explosive growth worldwide, while at the same time, the life cycles of electrical and electronic equipment have been getting shorter. This has resulted in large numbers of waste electrical and electronic equipment (WEEE) being generated, which causes serious environmental problems that each country has to face. In this paper, we use the system dynamic method to analyze how China's "WEEE processing fund" policy, wherein levies or subsidies are set on appropriate targets, influences the economic and environmental conditions of participants in the WEEE management system. The simulation results suggest that the "WEEE processing fund" policy could improve the economic status of those receiving subsidies without losing the economic revenue from levies and improve the entire system's ability to recover and process waste equipment.

**Keywords:** Waste electrical and electronic equipment; Processing fund; System dynamic model; Economic and environmental effects; China

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