



## **Cost-Benefit Analysis of PPP (Public-Private Partnership) Models in Urban Solid Waste Management: Evidence from Bangladesh**

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### **Abstract**

The rapid increase in urbanization is one of the key factors that contributed to the increase in municipal waste management, which is a threat to environmental sustainability as well as municipal financial sustainability in Bangladesh. Public-Private Partnerships are being implemented to ensure efficiency and sustainability in municipal waste management services. The main objective of this study was to examine the cost-benefit potential of Public-Private Partnership systems in providing municipal waste management services, as opposed to traditional public sector systems, for Bangladesh. The study was based on secondary data collected from the Bangladesh Bureau of Statistics in its report titled 'Municipal Waste Management Survey 2022.' The study was based on a comparative cost-benefit model to examine the potential of each system in waste generation, collection efficiency, operational efficiency, and environmental sustainability. The results showed that Public-Private Partnership systems are effective in municipal waste management, as demonstrated by a relatively high collection efficiency and operational efficiency. The implementation of efficient waste handling techniques also resulted in

a positive environmental outcome. The study concluded that Public-Private Partnership systems are viable in providing municipal waste management services, which is a positive contribution to the sustainable development goals in Bangladesh.

**Keywords:**

Urbanization, Waste Management, Public-Private Partnership, cost-benefit potential, Environmental Sustainability