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**TOWARDS A SUSTAINABLE SOLID WASTE COLLECTION APPROACH:
A CASE STUDY OF BATANGAS CITY, PHILIPPINES**

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Abstract:

In spite of the financial, human, and institutional resources committed and high priority given by the public sector, solid waste management has remained as a major challenge in Batangas City. The growing amount of uncollected solid waste has been complicating the management process, creating environmental problems, adversely affecting human health, and deteriorating aesthetic values.

The collection efficiency of user free (environmental protection fee) is very poor in the city. There is a disparity in the rate of user fees among residential households, commercial establishments, and industrial sector. The gap between resource generation and expenditure in solid waste will be made greater, if not checked on time. Without adopting preventive measures, the growing amount of waste generated in the city cannot be managed with limited resources using a public-monopoly management basis.

Based on its findings, this case study recommends four major alternative schemes and necessary policies in order to improve the city's solid waste management system. The First Scheme focuses on a waste preventive approach, which includes influencing consumption patterns, sorting at the source, composting, recycling, and reusing as its major strategies. The Second Scheme involves a cross-subsidy system, which is a socialized approach based on the 'polluters pay' principle. On the one hand, this scheme recommends the imposition of a garbage fee by recovering the operating costs and compensating a part of potential risks or social costs created by the solid waste. On the other hand, it prescribes a subsidy for low-income families. The Third Scheme suggests that the city government revise its existing fee structure. The major bases of recommendations in this scheme are the income level of the people, the cost of basic utilities, willingness to pay, and the cost involved in management. The Fourth Scheme prescribes alternative management approach, which includes privatization and a community approach towards solid waste management as its major strategies. Basically, cost efficiency and service effectiveness are the driving forces of privatization. The community approach is driven towards more independent community and self-reliant development.

The current phenomenon of waste generation has long term socio-economic and environmental impacts in the city. Given limited resources, the heavy subsidies for the solid waste sector cannot be sustained in the long run. If an appropriate fee structure is adopted (as in schemes two and three), the sector would then be able to equitably provide efficient services to all city dwellers. In addition, the pressure on public funds will be removed and the increased level of investments could be diverted towards the socio-economic development of the city. The prescribed intervention mechanisms will help improve sanitation conditions by raising consciousness and providing efficient service on a responsibility-sharing basis. It will also minimize the incidence of environmental damage, promote public health and safety, and prevent diminishing aesthetic values.