

## The Use of Geographic Information System in Spatial Location of Waste Collection Points and the Attendant Impacts in Bida Urban Centre, Nigeria

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**Abstract :** Bida urban centre is faced with solid waste management problems which are evident in the processes of waste generation, onsite storage, collection, transfer and transport, processing and disposal of solid waste. As a result of this the urban centre is defaced with litters of garbage and offensive odours due to indiscriminate dumping of refuse within the neighborhood. The partial removal of the fuel subsidy by the Federal Government in January 2012 leads to the formation of Subsidy Reinvestment Programmes (SURE-P), the Federal Government's share is 41 per cent of the savings while the States and Local Government shared the remaining 59 percent. The SURE-P Committee in carrying out the mandate entrusted upon it by the President by identifying few critical infrastructure and social Safety nets that will ameliorate the sufferings of Nigerians. Waste disposal programme as an aspect of Solid waste management is one of the areas of focus for Niger State SURE-programmes incorporated under Niger State Environmental Protection Agency. The emergence of this programme as related to waste management in Bida has left behind a huge refuse spots along major corridors leading to a serious state of mess. Major roads within the LGA is now turned to dumping site, thereby obstructing traffic movements, while the aesthetic nature of the town became something else with offensive odours all over. This paper however wishes to underscore the use of geographical Information System in identifying solid waste sports towards effective solid waste management in the Bida urban centre. The paper examined the spatial location of dumping points and its impact on the environment. Hand held Global Position System was use to pick the dumping points location; where a total number of 91 dumping points collected were uploaded to ArcGis 10.2 for analysis. Interview method was used to derive information from households living near the dumping site. It was discovered that the people now have to cope with offensive odours, rodents invasion, dog and cats coming around the house as a result of inadequate and in prompt collection of waste around the neighborhood. The researchers hereby recommend that more points needs to be created with prompt collections of waste within the neighborhood by the necessary SURE - P agencies.

**Keywords :** dumping site, neighborhood, refuse, waste

**Conference Title :** ICGIS 2015 : International Conference on Geographic Information Systems

**Conference Location :** Paris, France

**Conference Dates :** May 18-19, 2015