

Satellites to track waste dumping

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PICTURE this: Bangalore city generates nearly 3613 tonnes of solid waste per day. The municipality collects 1139 tonnes from public dust bins and about 200 tonnes are sent to processing units.

But a large percentage, estimates the Environment Association of Bangalore (EAB), is dumped in open spaces or remains uncollected!

EAB President and Joint Secretary, Department of Space Dr R G Nadadur blames the absence of effective waste management solutions and proper landfill sites as major causes for this burgeoning problem.

Urban waste management, he feels, requires careful planning. "Technology can play a vital role. Remote sensing imagery, generated by our satellites, can identify proper waste disposal sites, help design routing for transport of waste and even track illegal dumping," he said.

Inaugurating EAB's annual Urban Waste Management seminar here on Saturday, former Indian Space Research Organization (ISRO) Chairman and MP Dr K Kasturirangan, pointed out that satellite imagery had been used to identify forest encroachment in Maharashtra and analyze the impact of urban infrastructure on water sources in Karnataka.

Currently, the Indian Remote Sensing Satellite series, Resourcesat, Technology Experiment Satellite and CARTOSAT generate spatial data used for monitoring natural resources, flood mapping and land use. Geographic Information Systems (GIS) store and enable optimum use of this data.

ISRO Regional Remote Sensing Service Centre head P G Diwakar avers that GIS could help identify landfills and dumps on the basis of terrain characteristics, slope, drainage patterns



Garbage dumped on Basavanagar main road, attracting dogs and flies — Express photo

STINKING CITY

Source-wise generation of solid waste in Bangalore (tonnes per day)

Stake-holder	Volume	Percentage
Households	650	18
Commercial		
Establishments	1436	39
Hospitals, institutes	128	4
Industries	1399	39
Total	3613	100

(Source: EAB Seminar on Urban Waste Management, July 2006)

and soil permeability. GIS can also help devise the best routes for transporting garbage to disposal sites, and to design efficient collection and disposal strategies.

However, Dr Kasturirangan firmly believes

Remote-sensing imagery generated by satellites can identify waste disposal sites and even capture illegal dumping

that no single agency can deal with waste management. "We could design the best waste management systems but unless everyone, including government agencies, NGOs, waste generating institutions as well as citizens cooperate, we will not achieve success," he said.