Waste Management and Sustainability

Waste management refers to collection, transportation, disposal or recycling and monitoring of waste. This term is assigned to the waste material that is produced through human activity. Mostly, waste is managed to get resources from it and to avoid its adverse effect over human health and environment. Waste is not something that should be discarded or disposed with no regard for future use. It can be a valuable resource if addressed correctly, through policy and practice.

With rise in environmental degradation, there has been a shift in focus from productivity to sustainability. The Sustainable Development Goals cannot be met unless Waste Management is addressed as priority. The practice of Waste Management must be made sustainable, such that it is economically viable, socially acceptable and environmentally beneficial.

Waste Management at Indraprastha College for Women

The Eco Club at IP College has spearheaded the Waste Management Drive on Campus. In order to create and maintain a waste neutral campus, The Eco Club has undertaken four major types of Waste Management projects including Leaf Litter Management, Paper Waste Management, Food Waste Management and Electronic Waste Management. The projects have been successfully implemented with participation and coordination of the College community.

The College Staff - teaching and non-teaching, support staff and the student community in collaboration with various institutions located in Delhi NCR have together worked on these projects. The successful implementation of these projects have helped make IP College a Zero-Waste Campus where all waste generated is efficiently recycled and reused.

Message from the Principal

“The College regards Environmental Consciousness as one of its Best Practices, and Waste Management an integral part of that consciousness. The ECO Club has over the years, successfully implemented and streamlined that initiative. The present Report summarizes the efforts made by the College community to optimize recycling and put into practice simple integrated and sustainable steps to nurture a Green Campus.”

Dr. Babli Moitra Saraf, Principal, Indraprastha College for Women, University of Delhi
**Paper Recycling**

Paper recycling refers to reprocessing of used paper. Recycling paper preserves trees and forests. Every ton of recycled paper saves about 17 trees. Recycled paper serves as an environmentally friendly resource for paper manufacturers, saving cost and energy.

A simple but effective step of initiating the Waste Paper Collection Drive in the College has successfully culminated into the production of spiral notebooks, writing pads and table stationary. The waste paper accumulated from across the College is collected by our partner NGO, JAGRUTI (the College began its association with the NGO in 2012) in order to take on the process of recycling and providing the College with Spiral notebooks, writing pads and printer grade paper in return. Upon realizing the potential that paper recycling holds, and to diversify the product range obtained on recycling of the waste paper, IP College entered into another agreement with a Gurugram based organisation, Green-o-bin.

Paper waste is generated in IP College premises largely at the Library, IP Hostel, KG Hostel, College Office and the Staff Room. The paper is collected in designated bins across the College; it is then segregated and stored. Once the desired quantities are reached, the paper is picked up by the partnering organisations for recycling.

![Spiral Notebooks from Recycled Paper](image1)

![College Souvenir](image2)

**E-Waste Management**

Electronic waste or "E-Waste" refers discarded computers, Office electronic equipment, entertainment device electronics, mobile phones, and television sets etcetera. A rapid change in technology has resulted in a fast-growing surplus of electronic waste.

IP College has successfully entered into an agreement with a Delhi based organisation called Greenscape Eco Management for recycling of the electronic-waste generated in the College campus.
Leaf Composting

Garden waste is any organic material that results from gardening activities or the natural growth or life-cycle of trees, shrubs, plants or lawns. Leaf litter, garden cuttings, branches from tree clippings, twigs, dead plants and so on which is not useful in any form, can be classified as garden waste. Leaf litter forms a large part of the garden waste, since it is generated on a daily basis.

Leaf composting is a process of recycling garden waste to create dark, rich, earthy matter that can be used in gardening as manure or compost. The compost increases the porosity of the soil, raises the nutrient composition, and creates a living ‘blanket’ over plants; thereby making gardening easier and more environment friendly as the dependence on fertilizers decreases largely, resulting in a healthier garden.

The fallen leaves are collected in the composters. Care is taken to maintain moisture levels, the leaf litter must not turn very dry, and microbes are added to help break down the leaves, turning them into manure. Six leaf composters were installed in the College campus in April, 2015. The College also has a Composting Pit which takes care of the additional garden waste. The pit relies on the process of natural decomposing, accelerated by earthworms and bacteria, breaks down organic matter into manure.
Food Waste Management

Food waste includes left-over food, and preparation waste such as vegetable peals. This organic waste can be biodegraded by composting, and reused to fertilize the soil. By redistributing nutrients and high microbial populations, food compost reduces water runoff and soil erosion by enhancing rainfall penetration, which has been shown to reduce the loss of sediment and nutrients. Additionally, recovering and recycling food waste diverts organic materials from landfills thus reducing methane emissions.

After sufficient research, a pair of Aaga composters were installed at IP College in June 2015 in collaboration with a Bangalore based organisation, Daily Dump. The drums were placed behind the College canteen for smoother operation. The canteen, on an average, produces close to 10 - 15 kg of food waste on a daily basis. Waste is collected in designated dustbins and at the end of each day, is fed into the Aaga. A sufficient quantity of coco-peat is added to absorb moisture and for keeping foul smell away. Food waste is high in water content; care is taken to extract the leachate daily. Aaga provides a small tap at the bottom for this purpose. Microbes are added to aid the process of decomposing. The Compost/Manure is harvested from the small door on the Aaga frame.

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Aaga Installed Near the College Canteen