

RECYCLING UNIT and ACTIVITY OF DRC



The college aims to become a zero-discharge campus. Thus it has set up a recycling unit on campus which houses paper recycling machines and leaf shredder machines. These machines help to make recycled paper, and the leaf shredder machine helps to make manure. The functioning of the recycling unit is improving daily with the manufacture of tons of manure used in-house or sold outside, preparation of ceramic pots with medicinal/antipollution plants, making of white and brown recycled paper, and use of these papers for painting. EVS students are given hands-on training here. Since its inception in 2015, this unit has been used to process shredded leaves into manure, recycle paper and cartons, provide potted plants for gifting and also provide folders, paintings, and carry bags made from recycled paper. This year we have added a new shredding machine which has helped increase manure yield. The recycling unit's earnings have been used to procure and install Aerobin for the canteen's vegetable peel composting. The details of the activity are summarized below:

Recycling Unit Activity in DRC in the last Five Years (2015-2022)

Activity	Academic Year								
	2015	2016	2017	2018	2019	2020	2021	2022	Total
Paper Recycled Off Campus (Kg)	3380	8478	1942	320	1758	0	8210		
Paper Recycled On Campus (Kg)	0	0	3	4	5	30	8	80	130
Leaves Recycled On Campus (Kg)	0	1500	1000	1251	1038	1605	1651	1828	9873
Manure Made on Campus From Leaves (Kg)	0	3000	2000	2502	2077	3210	3303	3656	19748
Recycled Paper Made On Campus (No)	0	130	260	390	500	427	45	300	2052
Folders Made from recycled Papers (No)	0	0	31	48	52	40	0	0	171
Carry Bags made from recycled Papers (No)	0	0	5	10	50	1168	1118	116	2467
Paintings Made on recycled paper (No)	0	0	0	30	15	20	0	0	65
4 "Potted Plants supplied (No)	0	0	245	156	52	0	6	0	459
6" Potted Plants supplied (No)	0	0	162	322	125	0	0	170	779
8-12" Potted Plants supplied (No)	0	0	1	7	27	0	0	0	35
Bamboo Planters with potted plants supplied (No)	0	0	0	0	32	31	6	150	213
Insecticide made on campus (No of vials)	0	150	31	50	0	0	0	0	0
Calendering Service for Paper given to outsiders (No of papers)	0	0	0	0	30	0	0	0	30
Students trained at Recycling Unit (No)	0	50	50	200	218	202	25	325	1070
Workshop held for Community training on waste management (No)	0	1	0	0	8	0	0	0	9

Impact of Recycling Activity on Campus Environment till 2021

Parameter affected by	Rate of Manure recycling	Impact	Rate of Paper Recycling	Impact of
Amount of CO2 production saved	1 Kg of CO2 Produced/ 5 kg of Green Waste Burning	$48276 \times 5 = 241380$ CO2 saved by Green Waste Recycling	680 kg of CO2 Produced/1000kg of Paper Burnt	16413.84kg of CO2 saved by Paper Recycling
Amount of Area Saved	300kg of Green Waste occupies 1 sq. m	$48276 / 300 = 160.92$ (12.68 sq. m x 12.68 sq.m) area saved by green waste recycling	1000kg of paper waste occupies 3 cub m of area	72.41m ³ area saved by paper recycling
Area of Land fertilised by manure made	1500kg manure can fertilise 1 acre land	$16902 / 1500 = 11.268$ acre land can be fertilised		

Research Activities

- Composting Maturation analysis
- Compost quality analysis
- PTEs and pathogens contamination analysis of the compost

Activity	Total (In 6 Yrs.)
Paper Recycled Off Campus (Kg)	24088
Paper Recycled On Campus (Kg)	50
Leaves Recycled On Campus (Kg)	48276
Manure Made on Campus From Leaves (Kg)	16902
Recycled Paper Made On Campus	1752
Folders Made from recycled Papers	171
Carry Bags made from recycled Papers	2351
Paintings Made on recycled paper	65
4 "Potted Plants supplied	459
6" Potted Plants supplied	609
8-12" Potted Plants supplied	35
Bamboo Planters with potted plants supplied	69
Insecticide made on campus	231
Calendaring Service for Paper given to outsiders	30
Students trained at Recycling Unit	745
Workshop held for Community Training	8

