The installed 2kWp solar power packs consist of 8 Nos. of 255Wp polycrystalline photovoltaic modules with 4 x 12V, 200Ah tubular battery, designed for feeding a maximum power of 1200W for 16 hours. These power packs provide lighting in the corridor, staircase, parking area, and elevator machine room in the multi storey buildings.

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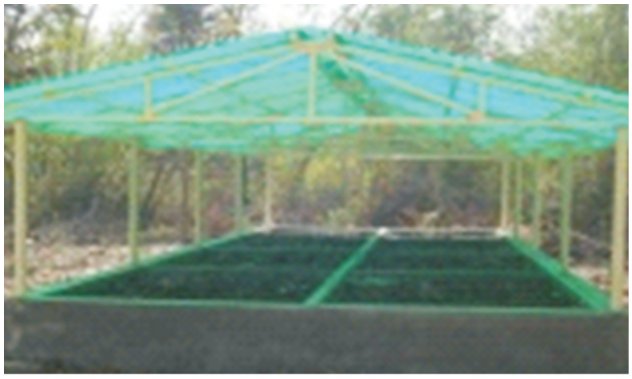
I.3: Vermiculture: An eco-friendly way of waste disposal

Civil Engineering Section of RRCAT has always been proactive in adopting such methods of waste disposal which encourages safe re-use of wastes. The centre has witnessed successful re-use of domestic effluent for horticulture purposes in colony area since more than two decades. The treatment of wet waste collected from houses, cafeteria and guest-house is carried out in bio-gas plant since August 2014. This plant produces methane which is used as cooking gas in the guest-house. In addition organic manure in solid as well as slurry form is also available as by product from this plant.



Picture I.3.1: The Vermiculture Shed

The centre has now addressed the problem of disposal of organic waste generated as bio mass owing to natural fall of leaves, routine horticulture operations leading to left out shrubs, hedges, lawns, soft wood, trimmed/pruned plants etc. These organic waste thus generated is collected and processed in beds using earthworms (Bio-reactor). The compost thus generated is clean, odorless, dry vermin casting in granular form is ideal for use as manure The process of conversion gets completed in about 45 to 60 days in beds.

Picture I.3.1: A heap of compost manure

The two vermiculture plants housed in sheds of size 9.50 m x 4.50 m are located near east side of Central Complex and near bio gas plant respectively which together yield 3 MT of vermin-compost per month. The photograph of the Vermiculture Shed is shown in Picture I.3.1. The Picture I.3.2 shows a heap of compost manure.

As such these plants are expected to yield 36 MT of vermin-compost per annum resulting in to direct savings of about Rs. 1.40 lakh/annum towards procurement of manure. In addition to this saving, the system has manifold intangible benefits pertaining to conservation of environment.

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