

CITY COMPOST SAVES INDIAS SOILS AND CROPS

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INDIA RECYCLED ITS FOOD WASTES SINCE VEDIC TIMES TILL PLASTICS ENTERED THEM

City managers can help save India's soils and reduce food costs for all by collecting food waste unmixed, to produce farmer-affordable compost.

City compost replaces scarce cowdung and soil micronutrients .

It is free of weed seeds, saving scarce farm labour . Its drought-proofing humus holds 75,000 lites water for plants with every 1% organic matter. ²



COMPOST QUALITY DEPENDS ONLY ON GOOD WINDROW MANAGEMENT, NOT ON SIEVING MACHINERY

Height of heaps max 2.5 m, base 3.5m wide

Turn first after 4-5 days, then weekly 4-5 times to avoid leachate and methane formation in airless centre of heaps.

This stabilised waste meets MSW Rules, no sieving or compost sale needed. Use it to make vermicompost or to cover old open dumps . If plasticss-free, use it to restore degraded sodic soils to fertility.

CANT AFFORD DIESEL FOR WINDROW TURNING? TRY STACK COMPOSTING



**NO TURNING OF STACK,
NO LABOUR OR ENERGY,
NO LEACHATE. WAIT 60 DAYS,
THEN SIEVE STABILISED WASTE**

Lay wooden poles criss-cross over stones to make a 2m wide platform 30cm above ground. Cover with matting or palmleaves

Daily add a THIN 15 CM LAYER OF WET WASTE on platform, sprinkle with diluted fresh cowdung, cover with dry leaves or coarse compost for smell and fly control.

Uses same area as windrows for stabilising.⁵



COMPOST PLANT PROBLEMS AWAITING SOLUTIONS

Seasonal demand, no place to store mid-season: Provide decentralised storage depots near buyers as is done for urea.

Woven-HDPE sacks weaken and tear after 1-2 months compost is packed in them.

So how to handle bulk transport and storage near farmers?

Solve the seasonal working capital crunch



SOLUTIONS REQD FOR COARSE FRACTIONS

FCO limit of Minus 4mm for compost means pile-up of upto 50% wet waste input as coarse organics 4-100 mm.

Rich in humus, it is hard to dry, so is unwanted as RDF in cement plants which prefer high-calorie dry plastics.

Coarse organics needs time to break down in soil. Microbe-rich, it is very good for tree pits if plastics-free. So cities need to supply strictly segregated wet waste.



TOTAL LACK OF AGRICULTURE EXTENSION ADVICE ON COMPOST BENEFITS

Fertiliser companies over-promote only highly subsidised urea, so **Carbon is now a Limiting Nutrient** in Indian soils.

Urea uptake is only 40% by plants, 60% is runoff to surface waters. Compost holds all this nitrogen for slow release. IPNM Will avoid urea imports and help farmers

Compost improves shelf life, colour, flavour of fruits and veg. Less pesticide needed.



DROUGHT-PROOFING thru IPNM **=Integrated Plant Nutrient Mgt**

Compost use saves ~65% water needs, drought-proofs farmland and will increase buying power for fertilisers.

Decentralised stock-points and DBT Direct Benefit price support to farmers will enable them to procure it as needed for use with urea or for organic farming.



SUPPORT PRICE FOR COMPOST PRODUCTION

Compost needs to be sold at average Rs 2400/ton ex-factory for break-even.

Farmers want it at Rs 2000/ton at farm.

Support price can go part to composters, partly for transport to farm gate.

Whatever is fixed should preferably be indexed to cost of diesel or WPI Index

