

KERALA'S WASTE MANAGEMENT

NEWS: Kerala launched the 'Vruthi' campaign on October 2, 2024, to tackle the growing waste crisis through community engagement and behavioural transformation.

WHAT'S IN THE NEWS?

About Kerala's Waste Management Campaign

- Campaign Identity – Vruthi:
 - "Vruthi" is Kerala's grassroots waste management initiative that promotes both mental and environmental cleanliness.
 - It aims for holistic participation involving bureaucrats, elected representatives, schools, civil society, sanitation workers, and volunteers.
- Slogan – "My Waste, My Responsibility":
 - Emphasises individual accountability for waste generation and management.
 - Encourages citizens to actively engage in source segregation, recycling, and proper disposal, rather than relying solely on civic bodies.
- Malinya Muktham Nava Keralam:
 - Translates to "Waste-Free New Kerala", aiming to integrate sanitation, waste management, and public health as core pillars of development.
 - Campaigns are localised and decentralised, respecting the autonomy and diversity of communities.
- Solid Waste Management Rules, 2016 (SWM Rules):
 - Kerala's campaign strictly adheres to these national guidelines, which include:
 - Segregation of waste at source into biodegradable and non-biodegradable.
 - Decentralised waste processing (e.g., composting at household or ward level).

- Scientific disposal of residual waste to prevent environmental pollution.
- Extended Producer Responsibility (EPR):
 - Kerala enforces EPR to ensure that manufacturers and producers take responsibility for the post-consumer stage of their products.
 - Reduces burden on municipal systems by encouraging producers to collect, recycle, or dispose of packaging and product waste.

Kerala's Waste Management Model Vs Swachh Bharat Mission (SBM)

Aspect	Kerala Model	Swachh Bharat Mission (SBM)
Approach	Bottom-up, community-driven with high local ownership	Top-down, centrally led with state-level implementation
Focus Area	Behavioural change, community participation, and localised strategies	Building infrastructure like toilets, and achieving sanitation coverage targets
Technology Orientation	Technology-neutral; both traditional (composting) and modern (BSF) promoted	Technology-specific; predefined infrastructure and solutions
Local Government Role	Strong role for panchayats and urban local bodies with planning flexibility	Limited local autonomy; actions must conform to national targets and funding mechanisms
Public Participation	High engagement through schools, art groups, Haritha Karma Sena, and cultural campaigns	Moderate; mainly through centrally funded awareness drives
Funding Utilisation	More financial devolution to local bodies; need for greater capacity-building	Linked to achievement of pre-set goals; monitored centrally

Aspect	Kerala Model	Swachh Bharat Mission (SBM)
Adaptability to Local Contexts	High adaptability with innovations like Black Soldier Fly composting, Windrow composting, etc.	Lower adaptability due to uniform national standards and designs

Kerala's Waste Management Innovations

A. Black Soldier Fly (BSF) Composting

- Uses larvae of Black Soldier Fly (*Hermetia illucens*) to rapidly decompose organic waste.
- BSF larvae are capable of consuming large volumes of food waste within days.
- The process yields:
 - Protein-rich larvae biomass which can be used as animal feed (sustainable protein source).
 - Compost residue suitable for use as a soil conditioner.
- This method is cost-effective, low-emission, and suitable for urban food waste recycling.

B. Windrow Composting

- Involves piling organic waste into elongated rows (windrows), which are regularly turned to maintain aerobic microbial activity.
- Effective for large-scale composting operations, particularly at community or municipal levels.
- Helps in:
 - Reduction of pathogens and harmful microbes.
 - Elimination of odour and control of moisture levels.
 - Production of high-quality compost for agriculture and landscaping.

Future Roadmap

- Sustainability of Efforts:
 - Continued success depends on consistent public engagement and institutional support.

- Without sustained state or local government support, the momentum may dissipate, making local capacity-building and accountability mechanisms crucial.
- Breaking Social Inertia:
 - Behavioural transformation among households, businesses, and institutions is essential.
 - Campaigns must go beyond awareness and help citizens internalise waste as a personal and civic responsibility.
- Building People's Collectives:
 - Formation of citizen groups, Resident Welfare Associations (RWAs), school eco-clubs, worker collectives, and business associations to ensure ongoing participation.
 - These stakeholders play a key role in monitoring, implementation, and peer education, reinforcing accountability and social norms.

Conclusion

- Kerala's participatory model integrates decentralised governance, policy innovation, and community mobilisation in waste management.
- By blending traditional composting techniques with modern waste processing technologies, and promoting behavioural change, Kerala offers a replicable, adaptable, and sustainable model.
- This approach not only ensures cleaner public spaces but also fosters public health, environmental conservation, and social responsibility—a framework other Indian states can emulate.

Source: <https://www.thehindu.com/news/national/kerala/how-is-kerala-handling-its-waste-problem-explained/article69563939.ece>