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अमृत महोत्सव



सत्यमेव जयते

पंचायती राज

समाज, पंचायत, सत्य, विकास



CLEAN & GREEN VILLAGE



Rashtriya Gram Swaraj Abhiyan

State Project Management Unit (SPMU), Maharashtra State, Pune

Technical Support by UNICEF, Maharashtra and PriMove, Pune



OUR INSPIRATION AND PILLERS OF STRENGTH



Shri. Eknath Shinde
Chief Minister,
Government of Maharashtra



Shri. Giriraj Singh
Minister,
Rural Development and Panchayati Raj,
Government of India



Shri. Devendra Fadnavis
Dy. Chief Minister,
Government of Maharashtra



Shri. Kapil Patil
Minister of State for Panchayati Raj,
Government of India



Shri. Girish Mahajan
Minister,
Rural Development and Panchayat Raj,
Government of Maharashtra



Shri. Sunil Kumar
Secretary,
Ministry of Panchayati Raj,
Government of India

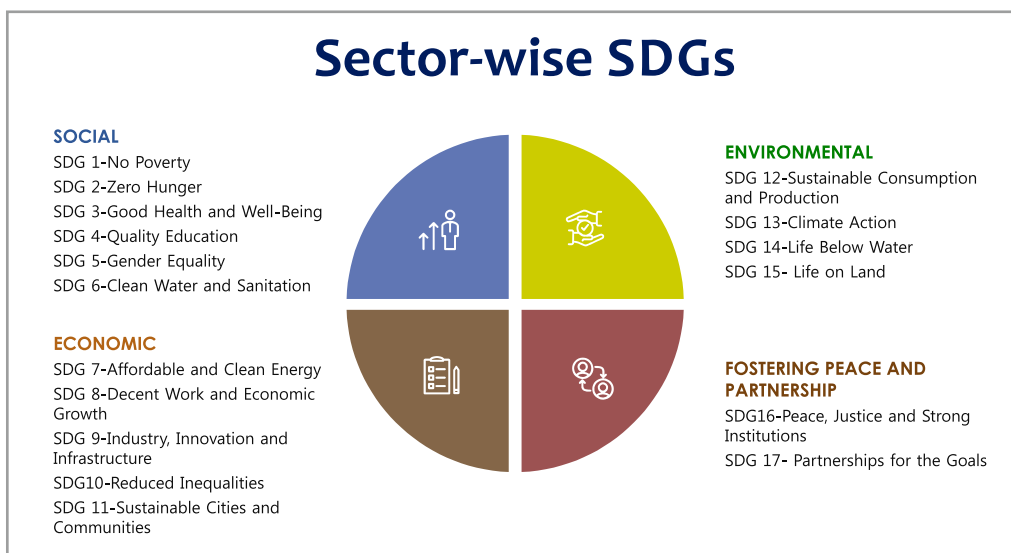


Shri. Rajesh Kumar
Additional Chief Secretary,
Rural Development and Panchayat Raj Department,
Government of Maharashtra



ABOUT SUSTAINABLE DEVELOPMENT GOALS

Sustainable Development Goals are a group of 17 goals adopted by the United Nations Member States in 2015 to ensure peace and prosperity for people and the planet, for today and for tomorrow.



- To bring balance between social, economic and environmental sustainability while development of villages
- Each goal has specific targets; total 169 targets across 17 goals
- India is signatory to this UN Resolution and committed to implementation of SDGs
- Ministry of Panchayati Raj, Government of India has divided these goals into 9 themes, one of which is 'Clean and Green Village'



CLEAN AND GREEN VILLAGE

- This theme caters to following goals - SDG 6 Clean Water Sanitation, SDG 7 - Affordable & Clean Energy, SDG 12 Responsible Consumption and Production, SDG 13- Climate Action, SDG 14-Life below Water and SDG 15-Life on Land.

Vision



Creating a village for the future of our children, which is lush and green with nature's bounty, using renewable energy, clean, protecting environment and climate resilient.



A. CLEAN VILLAGE

“Clean village” refers to a village having access to safe & adequate drinking water and sanitation services, low-pollution, low-emission world in which cleaner air, water, and oceans enable people to lead healthy, productive lives.

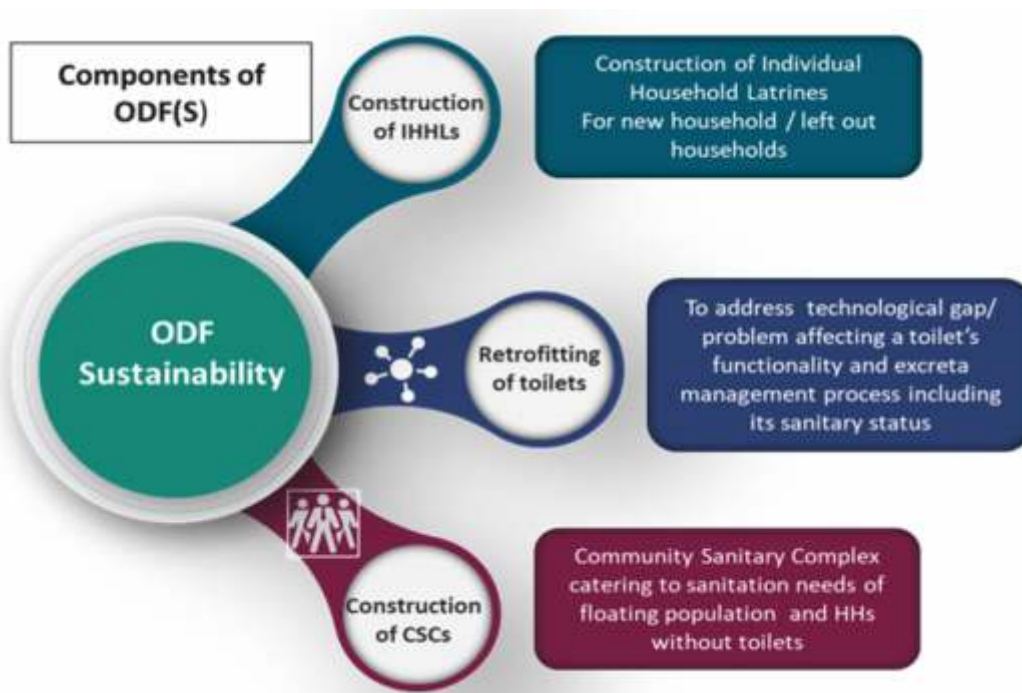
- To transform into clean or ODF Plus, a village has to sustain its Open Defecation Free (ODF) status, ensure solid and liquid waste management and become visually clean. There are 5 components of a clean village- ODF Sustainability, Biodegradable Waste Management and GOBARdhan, Plastic Waste Management, Greywater Management and Faecal Sludge Management.
- The Gram Panchayats have a central role in creating clean villages by leading the planning and implementation of all the above components.



Component 1: ODF Sustainability

ODF Sustainability means that all households in a village, as well as the Primary Schools, Panchayat Ghar and Anganwadi Centre, have access to a toilet and that continued behaviour change communication is ensured in the village through Information, Education and Communication (IEC).





GP level actions for ODF sustainability



Component 2: Biodegradable Waste Management and GOBARdhan

What is Biodegradable Waste?

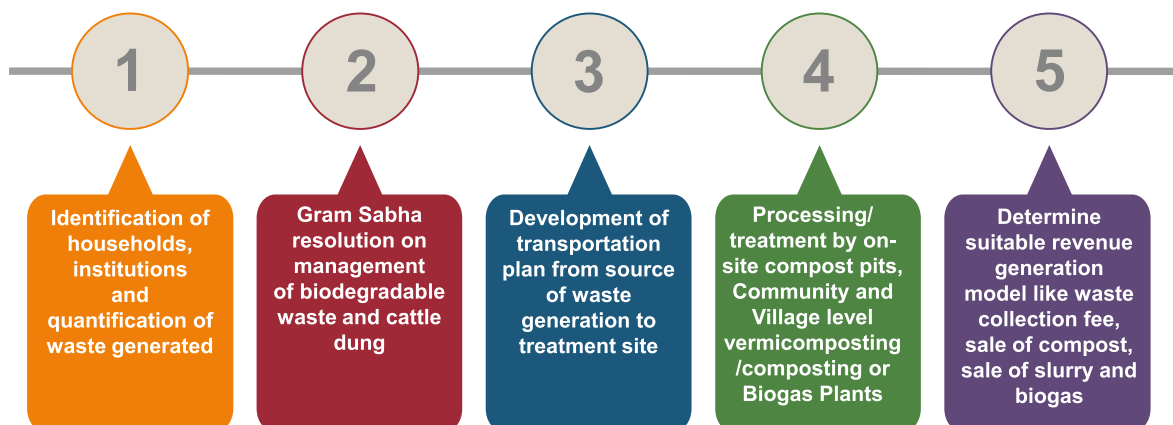
Biodegradable waste comprises kitchen and institutional waste, animal waste, crop residue, discarded fruits and vegetables, and other organic waste such as garden waste in rural areas.



- Need for Biodegradable Waste Management
- Improper management of Biodegradable Waste leads to serious problems including an increase of water-borne and vector-borne diseases such as diarrhoea, malaria, dengue, cholera and typhoid. It may also lead to environmental pollution and contamination of water bodies, particularly in the monsoon season.
- Strategy for Implementation
- As far as possible, and especially for smaller gram panchayats, household /institutional

level processing of biodegradable waste is preferred. Where decentralized level processing is not possible, community-level waste management should be planned. For the management of waste at the community level, the following steps need to be followed-

Steps for community level BWM



- Technology options for Biodegradable Waste Management
- Earthen pot composting (Individual household level)
- Pit Composting (individual households and community level)
- Pile Composting (Community level)
- Permanent Tank Composting (Community level)
- Vermi Composting (Community level)
- Windrow Composting (Community level)
- Rotary Drum Composting (Community level)



GOBARdhan

GOBARdhan scheme aims to ensure cleanliness in villages by converting bio-waste including animal waste, kitchen leftovers, crop residue and market waste into biogas and bio slurry. Under the program, individual and community level, biogas plants can be constructed at villages/ Blocks/District.

Some popular biogas plant design options

- Household-level options- Floating-Drum Type / KVIC Model Biogas Plant, Deenbandhu Model Biogas plant
- Large capacity plants for Dairy Farm / Gaushala / Poultry Farms / Institutes / Villages- Fixed Dome PAU Janta model biogas

Component 3: Plastic Waste Management

What is Biodegradable Waste?

Biodegradable waste comprises kitchen and institutional waste, animal waste, crop residue, discarded fruits and vegetables, and other organic waste such as garden waste in rural areas.

Plastic waste management refers to the collection, storage, transportation, and disposal of plastic waste in an environmentally safe manner. As per the 4 R's, the first three R's — refuse, reduce and reuse — are responsibilities of the households. For the fourth R — recycle — the recyclable plastic will be handed over to scrap dealers for further recycling and non-recyclable waste, having shredded/separated into combustible fractions, will be recovered at cement industry or used for road construction or any other recovery method.



Steps for Plastic Waste Management at GP level





Component 4: Greywater Management

Wastewater from bathrooms or kitchens that has no fecal contamination is called Greywater. Following are the suggestive options for Greywater management based on size of GPs-

<p>GPs with less than 5000 population</p> <p>In very small GPs, decentralised and household centric approaches like individual soak pits/ leach pits/magic pits/kitchen garden are more feasible and preferred. For comparatively larger villages, community level soak pits may be planned based on the terrain, groundwater level and density of population.</p>	<p>GPs with more than 5000 population</p> <p>Should plan for a conveyance system like underground / small bore sewers / closed drainages and treatment systems like WSP / DEWATS / constructed wetlands and other treatment systems</p>
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Principles for planning of greywater management systems in a village

Reduce: Judicious use of water which will result in the generation of a minimum quantity of Greywater

Reuse: Reuse of Greywater for purposes such as kitchen garden, vehicle washing, toilet flushing etc to the maximum possible extent.

Recharge: Recharge of ground water with Greywater by adopting technologies such as soakage pit, leach pit etc.

✓ Separation of Black Water (if any) and Greywater

✓ Treatment of Grey water at the nearest possible point from the point of generation

Technology options

Household level interventions	Community level Interventions	Conveyance systems
<ul style="list-style-type: none"> • Soak Pit • Leach Pit • Magic Pit 	<ul style="list-style-type: none"> • Community Leach pit • Waste Stabilization Ponds • Constructed Wetland (CW) • Decentralized Wastewater Treatment System (DEWATSTM) • Phytoid technology 	<ul style="list-style-type: none"> • Covered surface drains • Small Bore Sewers

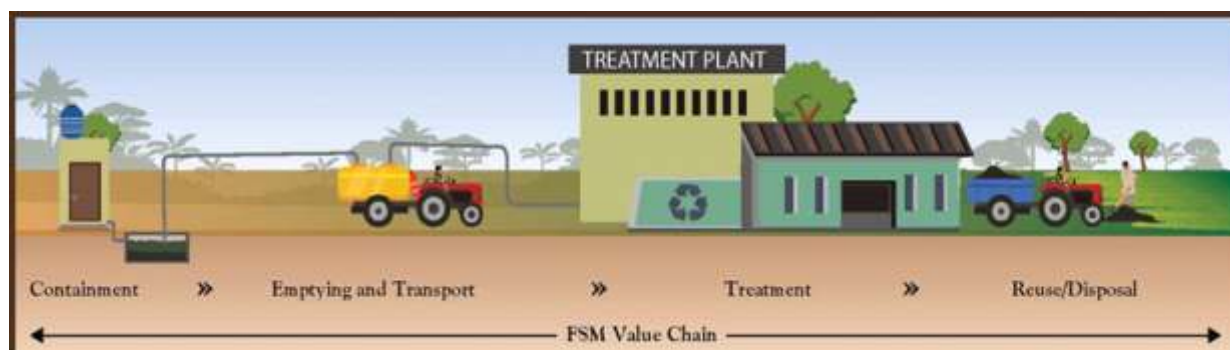


Component 5: Faecal Sludge Management

Faecal Sludge Management (FSM) deals with the provision of safe management of faecal sludge/excreta generated in toilets. FSM is primarily required for toilets connected to septic tanks. However, Single pit toilets that cannot be retrofitted into twin pit toilets need to be considered while planning for FSM.



FSM implementation focuses on strengthening the value chain (shown below) through emphasizing on safe containment of FS in septic tanks/single pits, mechanized emptying of FS, transportation of all emptied FS to the treatment plant, treatment of all collected FS, and its safe reuse.



Three fold approach for FSM

Urban rural integration

Cluster villages to utilize existing infrastructure (STP/ FSTP)



In-situ treatment

Promoting twin pit toilets
Converting single pits into twin pit toilets

Establishing new FSTPs

Cluster villages and construct new FSTPs dedicated to the cluster

GP level activities for Faecal Sludge Management

- ☑ Rapid appraisal of all toilets, its containment system, need for retrofitting of toilets; preparation of village action plan and inclusion of retrofitting and other FSM activities in the GP Development Plan.
- ☑ Retrofitting of all toilets with focus on : Single pit toilets to twin pit toilets; Septic tanks toilets to be connected with soak pit
- ☑ Ensure display of contact information for registered/licensed service providers or call centre at prominent places
- ☑ Regulating/issuing notices for overflowing of containment, discharge of untreated or partially treated black water



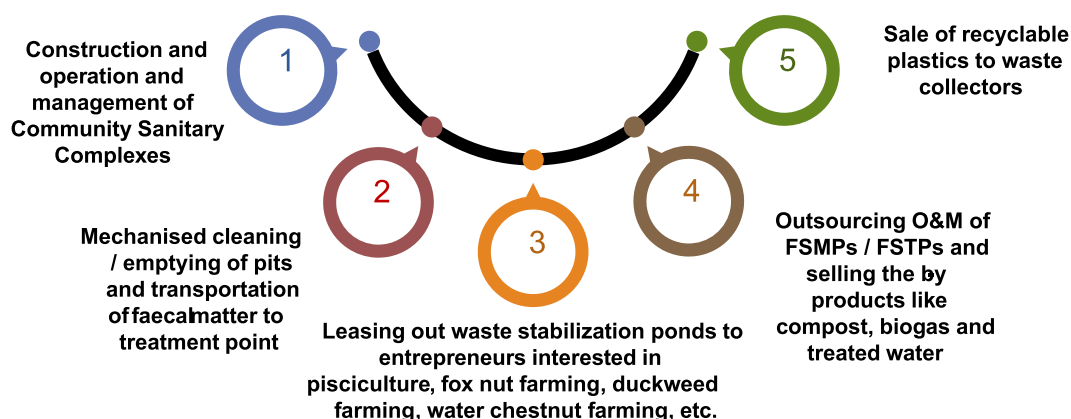
Creating awareness on:

- Need, importance of mechanized desludging
- Harmful effects related to reuse of untreated emptied sludge into agriculture
- Empty pits/septic tanks from licensed/ register operators
- Pay user fee for emptying and/or tariff, if any, towards FSM services on time
- Reporting any illegal disposal in drains, water bodies, open land, etc.

Business models for SLWM

It is important to focus on scalable and commercially viable solutions to make the sanitation economy attractive to private businesses. These will provide for efficient and decentralized O&M of services, help recover costs over a period, and support operation, thereby ensuring sustainable services. The benefits of private sector engagement in sanitation include expertise in service delivery, transfer of technology and innovations as well as long term sustainability of service provision.

Indicative GP level business models for SLWM



A. GREEN VILLAGE

"Green" refers to a world in which natural resources, including oceans, land, and forests, are sustainably managed and conserved to improve livelihoods and ensure food security, and most importantly protect the environment for future generations.



**Following are the components of a Green Village:**

- 1) Access to clean energy in the Panchayat – use of renewable energy for various activities in the Panchayat.
- 2) Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle – use of various chemical fertilisers for farming.
- 3) Effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices – how to conduct fishing in a sustainable manner by reducing endangerment for different species of fish.
- 4) Increase scientific knowledge, develop research capacity and transfer marine technology – resource mobilisation and capacity building to improve ocean health and to enhance the contribution of marine biodiversity.
- 5) Provide access for small-scale artisanal fishers to marine resources and markets – creating facilities for fishing and forming Fish Farmer Producer Organisations (FFPO) consisting of small-scale farmers.
- 6) Protection and conservation of water bodies, wetlands, forests, etc. – saving water bodies, wetlands, forests and other natural resources from overexploitation, pollution, random and haphazard usage, and encroachment; promoting community based management of natural resources.
- 7) Promote the implementation of sustainable management of all types of forests – creating plant nurseries, implementing social forestation, conducting plantation drives, ensuring survival of newly planted trees and plants, etc.
- 8) Combat desertification; restore degraded land and soil – soil conservation measures, increasing net sown area.
- 9) Take urgent action to end poaching and trafficking of protected species of flora and fauna – appropriate action against poachers and traffickers, community surveillance to identify and report poachers and traffickers, etc.
- 10) Mobilize significant resources from all sources and at all levels to finance sustainable forest management

ROLE OF GPs TO MAKE VILLAGES CLEAN AND GREEN

A GP that chooses to focus on becoming a Clean and Green Village would need to have clarity regarding the major works that need to be focused upon. In order to become a Clean and Green Village, the GP would need to address ecological, economic and equity issues under this theme by upholding rules and regulations diligently, fostering co-operation, and ensuring proactive participation by the entire community. This will lead to a green, clean, non-toxic, low carbon, self-reliant, eco-resilient rural India. For this purpose, the GP should:

ENSURE

- Visual cleanliness in the village and its surroundings
- Segregation of waste at household and community level
- Sustainable use of individual and public toilets and provision of new IHHLs and CSCs if required
- Community-based management of natural resources forests, water bodies and sacred groves
- Installation of wall paintings, posters, public displays to disseminate information about climate mitigation and adaptation, environmental conservation and safe disposal of waste



FACILITATE

- Awareness generation in the community on reducing wastage and adverse impact on environment
- Discussions in Panchayat and the community on in-depth understanding of the term climate change and its impacts
- Creation of a system to disseminate this information to the community on SLWM, proper use of toilets, water and forest conservation, sustainable use of natural resources, etc.
- Proper collection , treatment and disposal of solid and liquid waste
- Mapping of land use, water bodies, forest, slopes, wet lands, degraded forest within the GP



PROMOTE

- Measures to reduce environmental pollution
- Measures to reduce and eliminate single use plastic
- Use of solar energy
- Sustainable tourism within the Gram Panchayat, which creates jobs, local culture and local produce
- Planting of natural vegetation in high-slope areas, barren and other common lands and alongside roads
- Organic Farming and Sustainable fishing
- Efficient and optimum use of natural resources

RESOURCES AVAILABLE

Scheme mapping with respect to SDG targets and will enable the GPs to implement the above action points at local level. This can also serve as guideline for the GDPD to modify their developmental activities and further help in achieving the desired targets at GP level.

List of Schemes for Clean Village

- Swachh Bharat Mission (Rural)
- Swachh Bharat Kosh
- Mission for Protection and Empowerment of Women
- Jal Jeevan Mission
- 15th FC grants

List of schemes for Green Village

- National River Conservation Programme (NRCP)
- Conservation of Natural Resources and Ecosystems
- National River Conservation Programme
- Environment Protection, Management and Sustainable Development
- Decision Support System for Environmental Policy, Planning and Outcome Evaluation
- Ground Water Management and Regulation
- Flood Management & Border Areas Programme



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