



मृत्यमैव जयते

पेयजल एवं स्वच्छता विभाग
जल शक्ति मंत्रालय
भारत सरकार

DEPARTMENT OF DRINKING WATER AND SANITATION
MINISTRY OF JAL SHAKTI
GOVERNMENT OF INDIA



Effective Plastic Waste Management in rural areas through Steel (Bartan) Banks & Ruthu Prema (MHM)

Siddipet District, Telangana.

SBM (G) Siddipet: An overview

SBM (G)- Siddipet where we stand.



Population : 10,12,065 (2011

Census

Total GPs : 499

Total Mandals : 23

Total Municipalities: :05

Total ODF plus GPs : :499

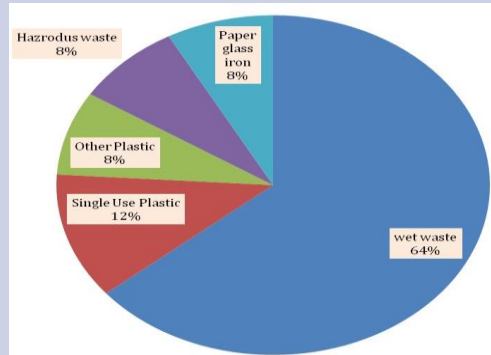
Total Steel Banks : 499

All GPs are declared as ODF Plus Model and District has 5 Star-Rating Category

Sectoral analysis of the Waste Generation

In Gram panchayats of Siddipet district, Out of the 36% of the total dry waste generated, 20% constitutes plastic waste alone. And 12% is single use plastic (**SUP**). Disposable plates & utensils are a major portion of the same. Another tough category of waste is sanitary & menstrual waste (8%) that is non biodegradable and non recyclable.

Steel bank and **Ruthu Prema** are our attempt to find solution to both of these issues.



Think of alternatives!

SWACHH BHARAT MISSION GRAMEEN, TELANGANA
ALTERNATIVES TO SINGLE USE PLASTIC

Single Use Plastic - SUP	Re-usable	Bio-degradable
Carry Bags 	<p>JUTE BAGS COTTON BAGS</p>	<p>PAPER BAGS</p>
Bottles 	<p>STEEL COPPER ALUMINUM</p>	<p>CLAY BOTTLE</p>
Glasses 	<p>STEEL COPPER ALUMINUM GLASS</p>	<p>PAPER GLASS CLAY GLASS</p>
Cups 	<p>STEEL GLASS GLASS</p>	<p>PAPER CUP CLAY CUP</p>
Cutlery 	<p>STEEL CUTLERY</p>	<p>WOODEN CUTLERY</p>
Plates 	<p>STEEL PLATE</p>	<p>LEAF PLATES / VISTARAKU</p>
Straws 	<p>STEEL STRAW</p>	<p>PAPER STRAW WOODEN STRAW</p>
Stirrers 	<p>STEEL STIRRER</p>	<p>WOODEN STIRRER</p>

Steel (Barthan) Bank: The idea

Why Steel Bank?

Having been grappling with the challenge of managing plastic waste especially disposable utensils, Siddipet district chose to tackle it through a creative and sustainable solution “Steel Bank”.



When and how the idea came?

This particular initiative started during *Kanti-Velugu* (state wide universal eye testing Program) in 2022. In this program, medical camps were conducted across all villages where food had to be arranged for 15-20 staff on a daily basis.

Natural choice for GP was to use plastic disposable plates, that were causing filth and problem of disposal, as a solution came the idea of steel bank!



What is Steel Bank

The steel bank concept involves the provision of a variety of steel utensils such as plates, spoons, glasses, bowls, basins, and more, that are kept as a bank at Gram Panchayat Office.

Here GPs use these items as part of regular meetings and rent them out to villagers for community programmes at nominal rates.



Steel Bank: Scope and economics

List of Items

Sl. NO	Items	Sl. NO	Items
1	MEAL PLATES	13	KABGIR
2	TIFFIN PLATES	14	DEKSHA 60 WITH LID
3	WATER GLASS	15	DEKSHA 50 WITH LID
4	TEA GLASS	16	BAGONA 20 KGS WITH LID
5	BESANS	17	BAGONA 10 KGS WITH LID
6	BUCKETS	18	SINGLE STOVE BIG
7	LADDLE (CURRY SPOONS)	19	DOUBLE STOVE LARGE
8	DONGA	20	SMALL TENT (COOKING)
9	RICE SERVING SPOONS	21	TABLES
10	WATER JUGS	22	DRUMS
11	CUTLARY TRAY	23	CARPETS
12	STEEL TUB	24	RACKS

Scope of Steel Bank

- ✓ Family events
- ✓ Cultural events
- ✓ Melas and National Days.
- ✓ All Community level events
- ✓ All Govt. Officials trainings, medical camps and meetings
- ✓ Election campaigns & trainings



GP Irkode, MPP Siddipet R

Cost economics

Sl. No	Details	Population of GP	Unit Cost (appx)
1	Steel Bank	Below 3000	1.50 Lakhs
		3000 to 6000	3.00Lakhs
		Above 6000	5.00Lakhs



GP Malyala, MPP Narayanraopet

Steel Banks: Operations and sustainability

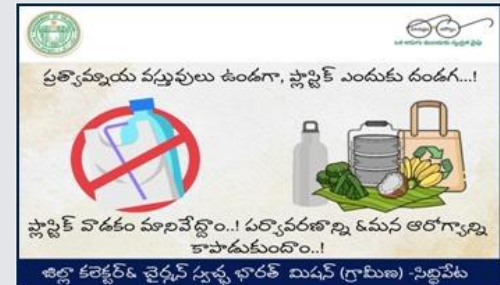
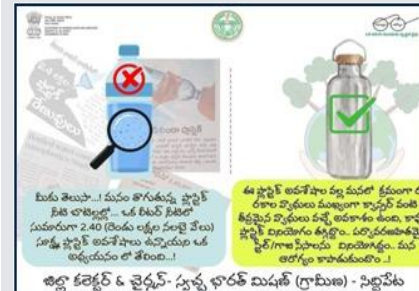
Management

- Initially the steel banks were established by Gram panchayats with 50-100 units of utensils and seed cost of Rs 15000/-. 499 such Steel banks established at each GP.
- Further they are being operated and maintained by SHGs of the same village who rent out the items at nominal rates for small community functions. The regular washing, cleaning and hygiene too remains responsibility of the group.
- Further 9 Mandal Samakhyas (Mandal Federation of SHGs) have opened big steel banks with over 500 units.
- They have Rs. 5.00 Lakhs worth steel utensils where 50% is invested by women themselves and 50% grants is received from CSR funds.



Enforcement and behavioral change

- IEC & IPC interventions :** The district has launched extensive awareness campaigns under IEC to educate the public about the environmental impact of plastic waste in general and disposable utensils in specific.
- Regulatory Measures:** The district administration has implemented and enforced regulations to control the production, distribution, and use of single-use plastics as per GO No. 40.
- Community Participation:** actively involved local communities in waste management initiatives.



Steel Bank: Impact

Health

According to studies, there are numerous health side effects of eating in plastic- especially cheap quality disposable plastic utensils.

This initiative not only reduced the filth of such plastic waste but also made the community more aware about its side effects like indirectly consuming micro-plastics having cancerous and indigestion effects.



Economic

Through this initiative, community /SHGs/gram panchayat get an additional income source. That income is utilized for further operations, maintenance and expansion.

SHG model of operation and renting mechanism ensures some economic incentives and that in turn makes it a self-sustainable model.

The long term cost economics also supports the steel utensils model as compared to the cost of purchasing disposable utensils every time.

Environmental

Plastic waste (expected 6-8 KGs per event) reduced, its collection, dumping and burning also reduced. (28 quintals per month)

Another alternative- paper plates usage also reduced significantly. Paper though a better option but has a high environmental cost!

S No	Description	No of GPs	Meeting per Month / Quarter/ Days	No of disposal Tea Glasses	No of Water Glasses	No of Disposal Plates	Total items	Reduced SUP Items in one Year worth in lakhs	Quantity in Qtls
1	GP Meetings @ Per Month	499	1	30	30	20	10040	1.21	2
2	Special meetings, important days observations	499	4	100	100	50	199750	2.00	4
3	Kanti Velugu (Eye -test Program)@300 members avg checkup including staff	499	1	600	600	400	899200	9.00	8
4	Praja Palana (Local Governance at GP level)	499	6	500	500	50	1497550	15.00	14
Total								27.21	28

Steel Bank: Success Story



Village Organization (VO) – Jhansi
GP – Ponnala, Siddipet Urban block

The Self Help Group women in the village, started Steel Bank worth Rs. 3.00 lakh. Out of that 50% fund was raised from the SHG and another 50% was from CSR.

So far 60 orders received from the same village and Rs. 50,000 earned in last 1.5 year.





Ruthu Prema- “Love your periods”

An Initiative For Sustainable Menstrual Hygiene Practice

Why Ruthu Prema

- To overcome the Cultural and religious taboos regarding menstruation.
- To reduce the menstrual waste in rural and urban areas by adoption of eco friendly MHM practices.
- To address the health and psychological issues related unhealthy menstrual methods empower the women and Girls.



What is Ruthu Prema

- An initiative to promote sustainable menstrual hygiene practice like use of **menstrual cups** in place of sanitary pads that are cost-effective and environmentally friendly.
- Implemented in two phases-
 1. Reaching out to field functionaries like ASHA, AWTs, doctors and panchayat Sachivs as “agents of change”.
 2. Reaching out to community through training camps by specialist doctors.



Implementation

- sensitization programs on MHM for adolescent girls in High Schools, Residential Hostels and colleges.
- Ruthu Prema Health Society - Registered society formed under societies registration Act,2001. No. 208 of 2023.
- The Sarpanch of Gurralagondhi village purchased menstrual cups for all eligible women in his village & this village was chosen to be declared as the first village to achieve **zero menstrual waste**.
- inspired from him, all villages of Siddipet (115 villages so far) and 43 wards of municipality began conducting special camps on Ruthu Prema where awareness and trainings were coupled with free distribution of menstrual cups.
- A dedicated website and app being developed.



Ruthu Prema- “Love your periods”

Impact

- Over 8513 women workers received menstrual cups in phase-1.
- Over 150 camps covering 1,33,417 women out of whom 53,067 were distributed menstrual cups in phase-2.
- More than 75% usage reported so far.
- 12,358 adolescent girls received Cloth pads.
- Usage of around 4 lakh pads reduced per month. As a result lesser cases of burning of used pads and smell of land fillings.
- Around 20 lakhs rupees worth of savings by the women.



MENSTRUAL HYGIENE MANAGEMENT (MHM)- FACTS

BASED ON THE FOLLOWING ESTIMATES

6 Number of the days per cycle

12 Cycles per year

40 Number of the Years spent Menstruating

Disposable Sanitary Products - compostable and compostable

The Average Life of the Product



One Time

Usage



Four napkins per day

Waste Generation in a Lifetime of a product (Based on above Estimates)

$$4 \times 6 \times 12 \times 40 =$$

11, 520



Reusable Sanitary napkins

The Average Life of the Product



One Year

Usage

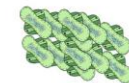


Six Pads per cycle

Waste Generation in a Lifetime of a product (Based on above Estimates)

$$6 \times 40/1 =$$

240



Menstrual cups

The Average Life of the Product



Five Years

Usage



One per cycle

Waste Generation in a Lifetime of a product (Based on above Estimates)

$$1 \times 40/5 =$$

8



SBM(G) Siddipet: Challenges and the way forward

- Despite the successes, challenges persist including issues related to caste and religious perceptions—behavioral aspects, capital expenditure and management issues.
- To address some of these, we realized that the change has to come from the society itself. Hence involvement of SHGs is a critical step forward.
- Telangana Municipality department has replicated the idea of barthan bank across all municipalities of the state.
- The SBM-G Telangana too is planning to replicate the same across all districts.

