

# **VILLAGE WASTE MANAGEMENT PLAN FOR VILLAGE PANCHAYAT SURLA, BICHOLIM**



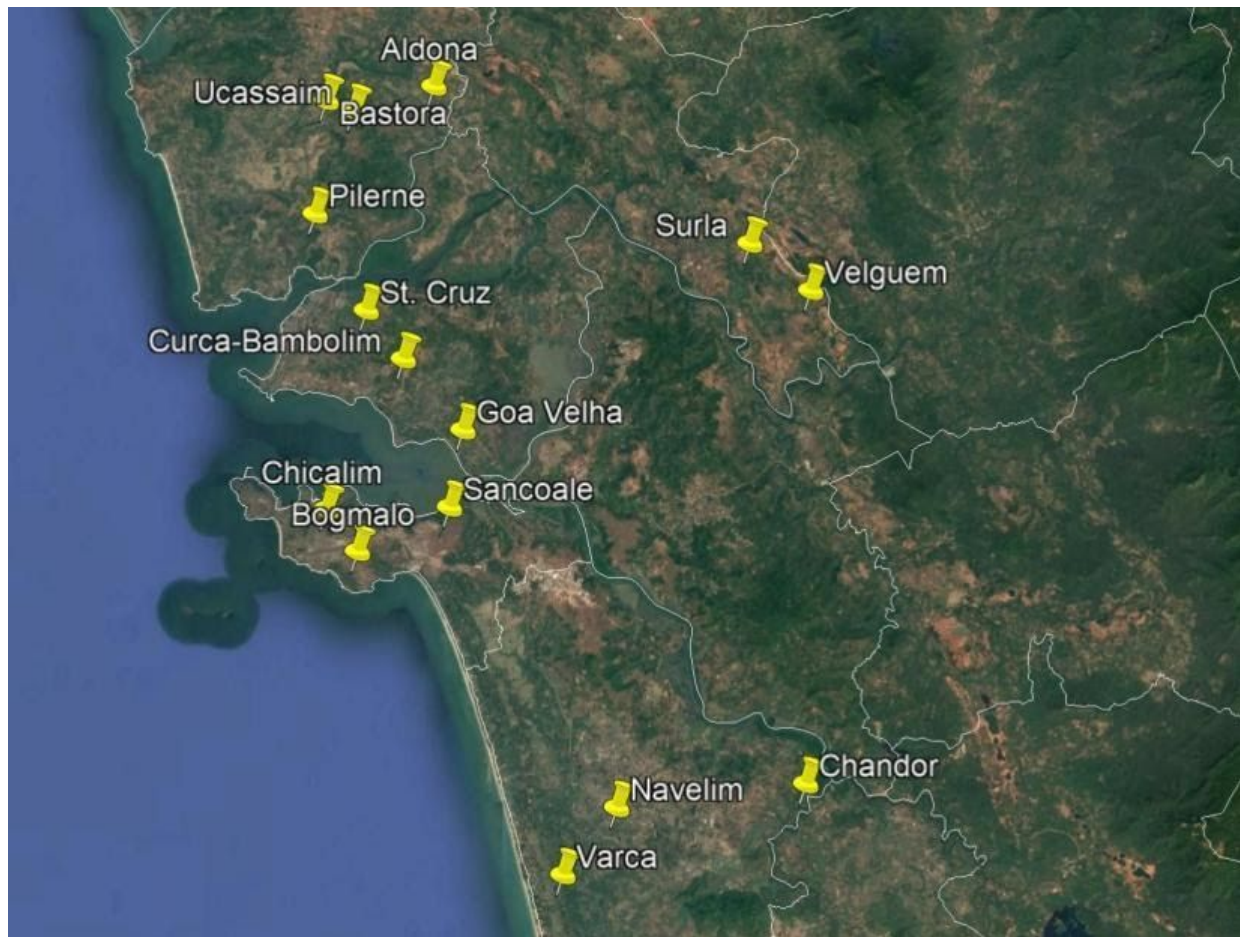
## **Acknowledgement**

The Sarpanch & Village Panchayat of Surla would like to express deepest appreciation for the Goa Waste Management Corporation (GWMC). Special thanks to Managing Director, GWMC Mr. Sanjit Rodrigues for initiating and supporting the waste management plan for Village Panchayat Surla. We would also like to thank the Mineral Foundation of Goa for initiating the Neetal Gram project in the Panchayat since 2014 and supporting the Panchayat in effectively managing its waste. Special thanks to Shri. Parag Rangnekar, Programme Manager, Shri. Shivdas Dessai, Project Co-ordinator and Shri. Sujit Naik, Field Officer of Mineral Foundation of Goa for their invaluable support. We also thank Bicholim Taluka Incharge Mr. Shravin Corgaonkar of the GWMC for assisting and monitoring this Village Panchayat with respect to Waste Management and Mr. Richard Fernandes, Incharge of Village Waste Management Plan for assisting in making this handbook.



# INDEX

<b>Chapters</b>	<b>Contents</b>	<b>Page No.</b>
<b><i>Chapter 1</i></b>	<b>INTRODUCTION</b>	<b>5</b>
<b><i>Chapter 2</i></b>	<b>AWARENESS STRATEGY</b>	<b>12</b>
<b><i>Chapter 3</i></b>	<b>COLLECTION STRATEGY</b>	<b>13</b>
<b><i>Chapter 4</i></b>	<b>MONITORING STRATEGY</b>	<b>15</b>
<b><i>Chapter 5</i></b>	<b>ENFORCEMENT STRATEGY</b>	<b>16</b>
<b><i>Chapter 6</i></b>	<b>GRIEVANCE REDRESSAL STRATEGY</b>	<b>17</b>
<b><i>Chapter 7</i></b>	<b>STORAGE AND SORTING CENTRE VIEW,PLAN,SECTION</b>	<b>18</b>
<b><i>Chapter 8</i></b>	<b>COSTING AND ECONOMICS</b>	<b>19</b>
<b><i>Chapter 9</i></b>	<b>CLUSTERS</b>	<b>20</b>
<b><i>Chapter 10</i></b>	<b>PANCHAYAT MAP WITH WARD BOUNDARIES</b>	<b>21</b>

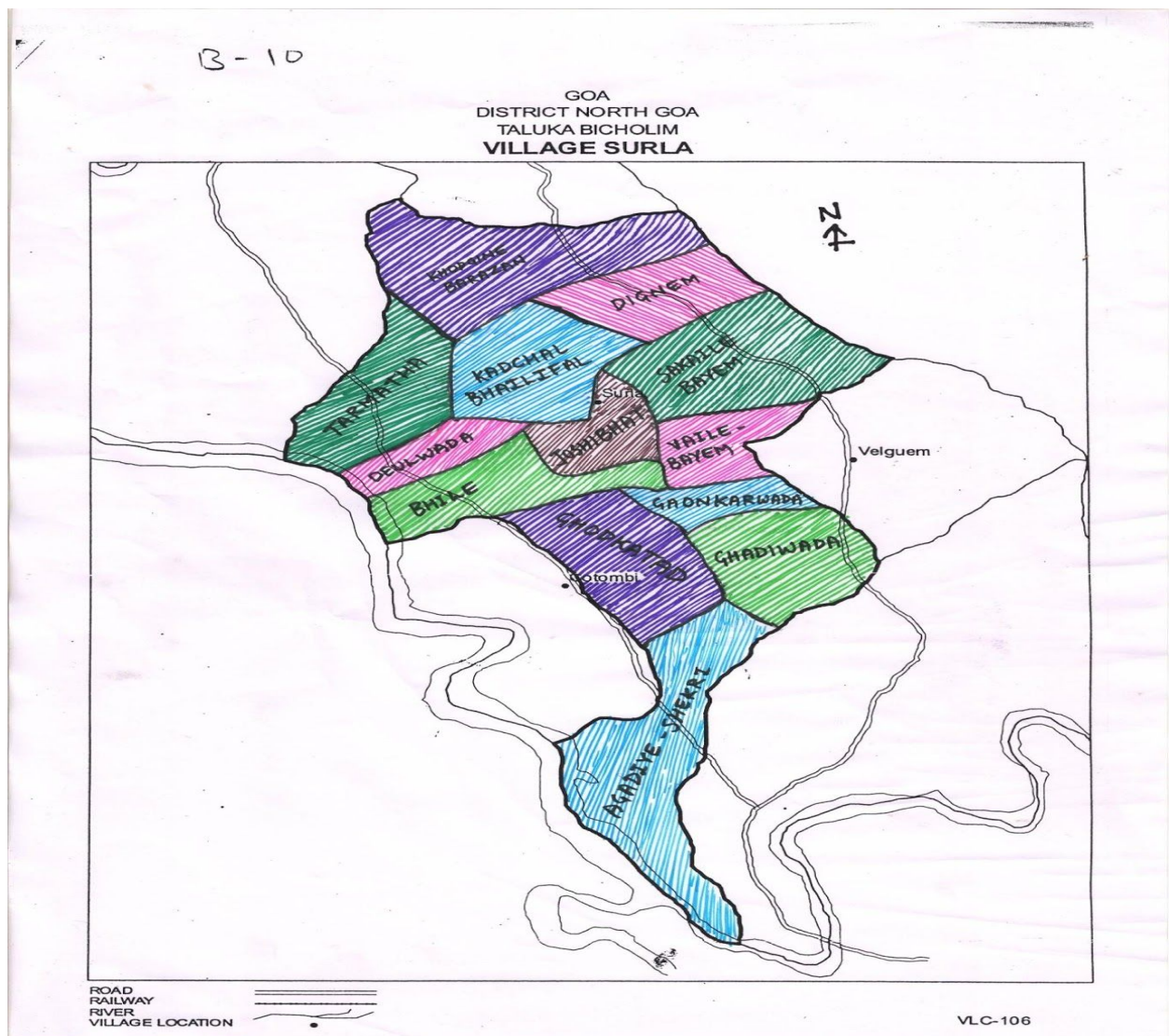


## Chapter 1: Introduction

### ABOUT SURLA VILLAGE

Surla is a village situated in Bicholim taluka in the North Goa District. It is situated 16km away from sub-district headquarter Bicholim and 42km away from district headquarter and capital city of Panaji. The total geographical area of the village is 1693.64 hectares. Agriculture and mining related activities are the primary sources of livelihood for the people of Surla. Surla has a total population of 3,818 (2011) with 997 households.

### WARD WISE SCHEDULE MAP FOR THE COLLECTION OF DRY WASTE





The village has 9 wards as per the electoral division. The ward details along with the elected representative and his/her designation is provided in Table 1

**Table 1: Ward details of V.P. Surla**

Ward No.	Wadas in the wards	Number of house holds	Elected Representative	Designation
1	Tarwada, Tarmatha, Deulwada, Siddheshwar Nagar, Bhile	215	Mr. Mahendra B. Shirodkar	V.P. Panch
2	Joshibhat, Kadchal, Khadpan, Bhailifal	131	Mr. Subhash S. Fondekar	V.P. Panch
3	Khodgine, Barazan,	86	Mrs. Surekha D. Khodginkar	V.P. Dy. Sarpanch
4	Dignem, Sakaile Bayem, Dergunwada	78	Mr. Bholo Nagesh Khodginkar	V.P. Panch
5	Bayem, Bhamaikarwada	130	Mrs. Anita A. Kundaikar	V.P. Panch
6	Bayem. Mharegal Vaile-Bayem	110	Mr. KrishnaK. Bayenkar	V.P. Sarpanch
7	Ghadiwada , Dhatwada	55	Mr. Chnadrakant A. Ghadi	V.P. Panch
8	Ghadiwada, Agadye, Mestawada, Shekren, Akshan	85	Mrs. Vinita S Ghadi	V.P. Panch
9	Gaonkarwada Mestawada Ghodkatad	107	Mr. Prashant R. Gaonkar	V.P. Panch



#### THE ELECTED REPRESENTATIVES OF V.P. SURLA

The detailed household data is attached as Annexure-I. Analyses of the data shows that 10 – 15 % of households are rented, while 85 Number of houses are not occupied. The village has 74

number of commercial establishment. The following educational institutes cater to the student community of the village

1. Govt. high School, Bhile
2. GPS, Kodgini, Bayem, Kadchal, Tarmatha, Ghadiwada,

The Mineral Foundation of Goa, under its Neetal Gram Programme, chose Surla for creating a model village that manages its waste in a decentralized manner. The project was started in 2014 during the time the Dry Waste Collection Scheme of the Goa govt. was floated. Surla along with Velguem was the first village in Bicholim taluka to get connected to the scheme. Under the scheme, a collection centre of 5000 sq.m. was constructed by the Foundation in S.N. 247/0 for storage and processing of the collected household waste. The Panchayat with support from the Foundation initiated awareness, training and door-to-door collection of dry waste from households by appointing a team of two labours and a vehicle to make task of collection easy. The Panchayat further carries out level two segregation of the collected waste into recyclables that are sold to recyclers and the non-recyclables are collected by the govt. under the Dry Waste Collection Scheme.

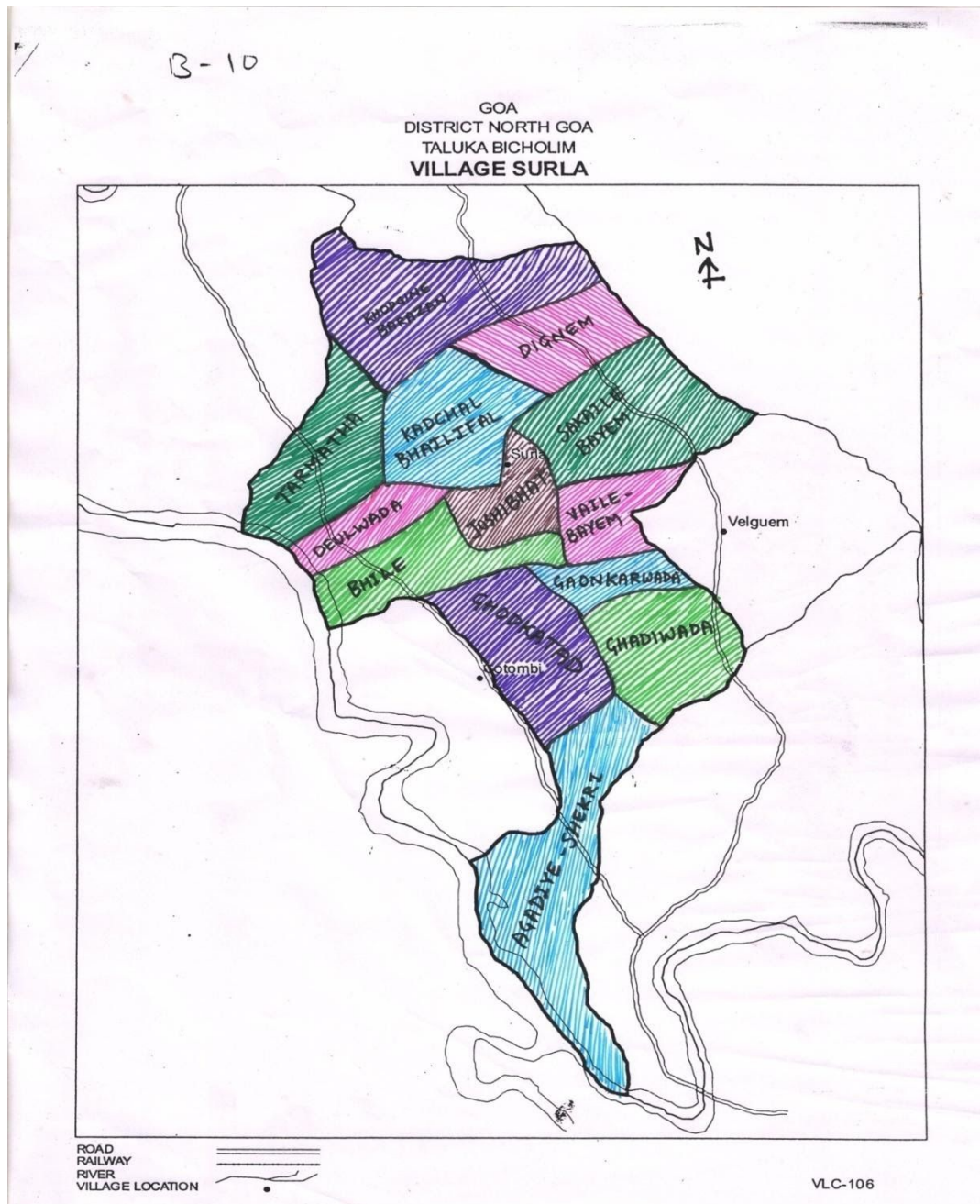
The Panchayat has also constituted the Village Waste Management Committee as mandated under the Goa Non-Biodegradable Garbage (Control) Act, 1996 on 15/07/2017. The list of members is provided in Table 2

**Table 2: Village Waste Management Committee**

Sr. No.	Name	Designation
1.	Hon'ble Chief Minister Dr.Pramod Sawant	MLA & Ex-officio Member
2	Shri. Subash S. Fondekar	Chairperson
3.	Shri. Bholo N. Khodginkar	Member
4	Shri. Mahendra B. Shirodkar	Member
5	Shri. Nilesh B. Naik ( local resident)	Member
6	Shri. Pramod A. Narvekar (local resident)	Member
7	Shri. Vinod Haldankar (S.I. – Health)	Member



A Detailed mapping exercise for the Panchayat was carried out that included identification and marking the village boundaries ward boundaries, collection centre, collection route, black spots, etc.



Garbage Shed of Village Panchayat Surla at Kulan Bayem-Surla. Land Bearing Sy. No. 247/0



## **BLACK SPOTS/DUMPS**

Identification & Physical verification of Black spots by the Village Panchayat Secretary

1. at Kulan -Surla
2. at Khodgine-Surla
3. at Tarmatha near Ferry Point
4. at Ghodkatad-Surla
5. at Kulan Near Garbage Shed

## **Details of Site**

### **Site Details**

Site Area	NA
Survey No	247/0
Land Status	Applied for Authorization
No. of Households	997 + 74 Commercial
Quantity of Dry Waste	1.ton Per Month
Frequency of Collection(door-to-door)	Twice a Month
Frequency of Collection (centre - plant)	Twice in 1.5 months
Special Waste Type	E-Waste, Tubelights
Number of Workers Engaged	2- Collection & 2- Sorting
Vehicle used for collection	Vehicle No. GAO4-T-4072 (TATA ACE)





**WARD WISE COLLECTION OF DRY WASTE SCATTARED IN THE VILLAGE.**

## **Chapter 2: AWARENESS STRATEGY**

While a lot has been done in the past to create awareness on the issue of waste, following will be the strategy for awareness generation so as to reach various sections of the Society

1. Compile a list of NGO's/Youth clubs/MahilaMandals/SHG's/Sports Club and any other social group with the village and reach out to them for creating awareness about the efforts being taken by the panchayats and also make an appeal to support the programme and volunteer for a cause
2. Each Panch member will make a door-to-door visit to all the houses in his/her ward to speak to the households about the issues that they face as well encourage those that do not segregate to start doing so. This visit will be done once in 3 months.
3. The Panch members will also have a common meeting of all ward members at a common location to appraise them about the progress and also address certain

issues faced by the community. External resource persons can be invited for these sessions.

4. The Panchayat body will have a monthly review meeting, other than the regular fortnightly meetings, to discuss only the SWM subject at a convenient date and time to all members.
5. Special emphasis is to be given to educational institutes since the student community is the future of the village and the State. Two sessions are to be held in each educational institute in each semester. While the first session will include introducing the students to the basics of waste management and explaining the work being done in the Panchayat, the second session should include some activity such as a quiz, best out of waste or an exposure visit to the collection centre.
6. The Panchayat will also put up to roadside hoardings at the entrance and exist of the village so that not only the local community but commuters also know about the work being done by the Panchayat.
7. As a motivation towards segregating waste the Panchayat will also award small prizes for those giving good amount of waste.

### **Chapter 3:COLLECTION STRATEGY**

The collection as is being done at present is working well though the efficiency needs to improve. The following strategy is suggested:

1. Collection to be carried out every fortnight in two clusters (namely Cluster I & Cluster II). Since Surla has 836 households, and has to be serviced in two days keeping efficiency of workers to collect in a day and hence Cluster I will be serviced (door to door collection) on 13<sup>th</sup> and 28<sup>th</sup>, Cluster II on 14<sup>th</sup> and 29<sup>th</sup> of every month. The collection will be done by a team of two male labours supported by a vehicle. Further, 5 days each after every collection are marked for second level segregation which will be done by a team of two women labours. 1 or 2 days are extended if the waste collected is more in quantity.
2. Surla being a typical rural village with independent houses, the wet waste is traditionally taken care off by feeding to pets, cattle or using as manure for trees



and in the garden. Hence, it was decided that only dry waste will be handled by the Panchayat.

3. The Panchayat has decided to follow the existing worker model for collection instead of the contractor model, since the present model is working well without any hitches. To boost participation of rural youth and as a livelihood option, panchayat may also identify a youth group to do door to door collection. The panchayat may also work on other cost effective model. The contractor model can be thought of in the future if the need arises.
4. Sy. No. 247/0 under the ownership of the Village Panchayat Surla has been identified for handling of waste within the village. The present collection centre is situated on the same plot. An area of 5000sq.mtrs, from within this survey number, is identified for the purpose of setting up the collection and processing facility by the GWMC. The application for seeking NOC is attached herewith along with the form I & XIV, plan of the area and demarcation of 5000 sq.mtrs. and the application to the GSPCB in the prescribed format
5. It was decided to adopt a No Community Bin Policy. However waste generated by an existing Market yard is much more and is not feasible to store till the time collection happens. It was decided to allow cage bin made by the yard owner with a written guidelines that he should take ownership of the bin and lock it once he closes the yard. In case in future if any need arises for placing the bin in common place, strategically it will be ensured that the ownership and safety of bin will be vested upon interested party.
6. The village of Surla celebrates *Zatras* (temple fairs) at the following temples:
  - a. Mallikarjun Temple, Ghadiwada
  - b. Siddeshwar Temple, Deulwada.
  - c. Ajoba temple, Ghadiwada.
  - d. Satya Narayan temple, Bhailefal.
  - e. Laxmi Narayan temple, Bayem.
  - f. Sateri temple, Vaile Bayem.
  - g. Navdurga temple, Gaonkarwada.
  - h. Narayan temple, Gaonkarwada.
  - i. Chidamber temple, Digne.

As a strategy it has been decided to get the Mahajan Committees on board by writing letters to them in this matter and seek their co-operation. All the shops are

to be given bags for collection of waste and Panch members along with volunteers and the Temple Committee members should monitor the usage of these bags.

7. The Panchayat has few black spots (marked on the map). The black spots will be cleared one time by employing outside labours followed by fortnightly cleaning by the Panchayat appointed labours for 6 months and later the frequency can be reduced to monthly. The same applies to road side cleaning.
8. The call login for collection to be done by GWMC will be done by the Secretary and alternatively by the Clerk in the absence of the Secretary. It was also decided to maintain a register of the call logs to be done by the Panchayat.
9. It was decided to pay the labours on monthly basis to keep them motivated. Also a master roll for labours to be kept in the panchayat. Further, to support the ongoing efforts the labours to be provided with gloves, masks, gumboots (during level two segregation at the centre), android based basic phones to operate APP, T-shirts and caps and raincoats for the monsoons.
10. The centre should have a fire extinguisher, tube light rack, white-board with markers to write instruction, targets as well data on collected waste. A single wheel wheelbarrow is also proposed to carry waste locally at the centre.

#### **Chapter 4: MONITORING STRATEGY**

1. Panch members will conduct random labour monitoring during the collection days. The Panch members of respective wards will meet the labours on the scheduled route to interact with them while also observing if the work is being done properly.
2. During the monthly review meeting on Waste Management Garbage management committee should be invited for discussions and making planning strategies as well.
3. It has been observed that there is no information shared with the Panchayat about the visit of the GWMC contractor for collection of waste. The date and especially the time needs to be conveyed to the Panchayat so that Panchayat representative can be deputed to the collection centre.

## **Chapter 5 :ENFORCEMENT STRATEGY**

1. It was noticed that the good work being done by the Panchayat and the recognition it has received as one of the 15 selected Panchayats by the Govt. of Goa, has not reached the community and is not being appreciated. Hence, it was decided that a pamphlet be printed detailing the work done so far as well as the recognition the Panchayat has received. This will also act as an awareness strategy. Further, the same pamphlet while attributing this success to the people of Surla, will also have a section detailing individual responsibilities as per the law of the land as well as fines that can be attracted for not following them. This information is to be circulated to each and every house with a register to be maintained and signed by the receiver. This is a strategy that will help the Panchayat levy fines in the future for defaulters.

2. Panchayat has also decided that the acceptance of Garbage Tax from the villagers will be put up during the Gram Sabha.

## **Chapter 6: GRIEVANCE REDRESSAL STRATEGY**

It was decided to keep complaint register in the village Panchayat office. The calls of grievances will be received by Village Panchayat Peon and accordingly noted on register. All the complaints recorded will be discussed and resolved in monthly review meeting and the acknowledgement will be sent to concern person.

## Chapter 8: Costing and Economics

Surla Village Panchayat has been sanctioned Rs. 3,00,000 by Directorate of Panchayat as their first & Second instalment towards solid waste management.

### Monthly Expenses

**Labour charges: Rs. 400.00 for Collection and Rs. 350.00 for segregation.**

Number of labours: 4 (2 for collection and 2 for segregation)

Total cost for labours: Rs. 14,600.00

**Transportation charges: Rs. 6,000.00**

Total Expenses for a month 20,600:00

**Vehicle maintenance cost:**The vehicle is outsourced and hence the Panchayat does not have to bear the maintenance cost

### Breakup of Estimates for Type C MRF

Item	Estimate
Civil Works	17.5 Lakhs
Electrical	2.5 Lakhs
Plumbing	2 Lakhs
Site Development	1 Lakh
Equipments	0.8 Lakhs
Misc	1.2 Lakhs
<b>Total Estimate</b>	<b>25 Lakhs</b>

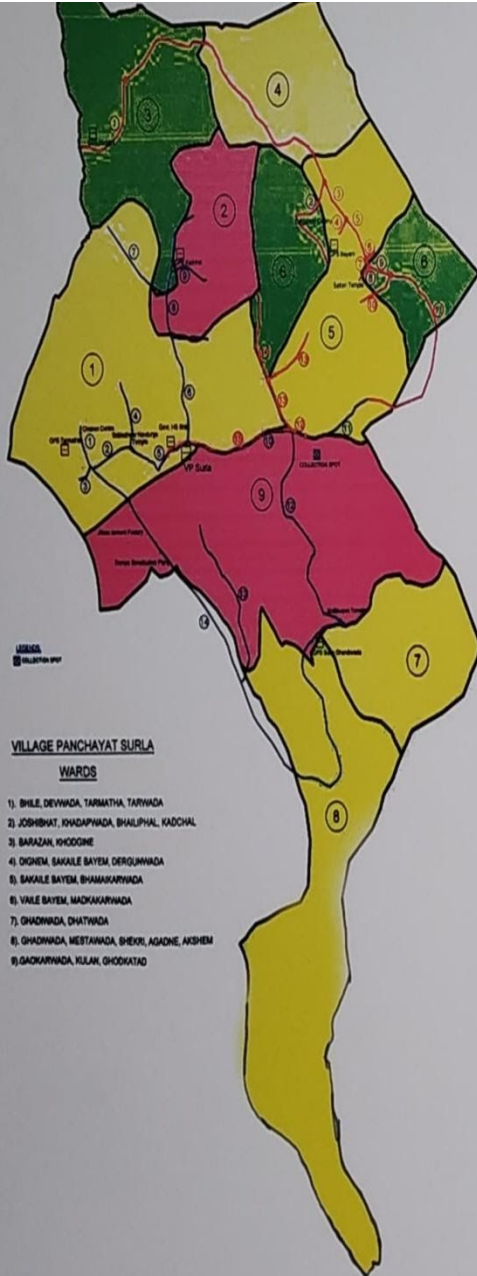
## Chapter 9: Clusters of Village Panchayat Surla

### Cluster-I

Sr.No	Ward No	Address	House Hold	Date
1	3	Khodgine-Surla	76	13 <sup>th</sup> , 15 <sup>th</sup> & 28 <sup>th</sup>
2	4	Dignem-Surla	78	13 <sup>th</sup> , 15 <sup>th</sup> & 28 <sup>th</sup>
3	5	Salgaonkar Colony	70	13 <sup>th</sup> , 15 <sup>th</sup> & 28 <sup>th</sup>
4	5&6	Bayem-Surla	180	13 <sup>th</sup> , 15 <sup>th</sup> & 28 <sup>th</sup>
5	1	Bhile-Surla	128	13 <sup>th</sup> , 15 <sup>th</sup> & 28 <sup>th</sup>
Cluster-II				
1	1	Tarwada-Surla	36	14 <sup>th</sup> ,29 <sup>th</sup> & 30 <sup>th</sup>
2	1	Tarmatha –Surla	53	14 <sup>th</sup> ,29 <sup>th</sup> & 30 <sup>th</sup>
3	1	Deulwada-Surla	48	14 <sup>th</sup> ,29 <sup>th</sup> & 30 <sup>th</sup>
4	2	Bhailifal Surla	81	14 <sup>th</sup> ,29 <sup>th</sup> & 30 <sup>th</sup>
5	9	Gaonkarawada-Surla	72	14 <sup>th</sup> ,29 <sup>th</sup> & 30 <sup>th</sup>
6	7&8	Ghadiwada-Surla	140	14 <sup>th</sup> ,29 <sup>th</sup> & 30 <sup>th</sup>
7	9	Ghodkatad-Surla	35	14 <sup>th</sup> ,29 <sup>th</sup> & 30 <sup>th</sup>
		Total	997	

### Chapter 10: Garbage collection vehicle (TATA ace) Route Map





**Surla  
Cluster - I**

Sr. No.	Ward No.	Address	House Hold	Dates of Garbage Collection
1	3	Khodgine-Surla	76	13, 28
2	4	Dignem-Surla	78	13, 28
3	5	Saigaonkar Colony	70	13, 28
4	5 & 6	Bayem-Surla	180	13, 28
5	1	Bhile-Surla	128	14, 29

**Cluster - II**

1	1	Tarwada-Surla	36	14, 29
2	1	Tarmatha-Surla	53	14, 29
3	1	Deulwada-Surla	48	14, 29
4	2	Bhailfal-Surla	81	15, 30
5	9	Gaonkarwada-Surla	72	15, 30
6	7 & 8	Ghadiwada-Surla	140	15, 30
7	9	Ghodkatad-Surla	35	15, 30

Total Household = 997