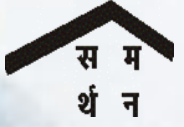


# Water Security Plan

 WaterAid



**GRAM PANCHAYAT : MUGLI**

# Water Security Plan

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Community Participatory process

**Gram Panchayat: Mugli**  
**Block: Sehor**  
**District: Sehor**

**Technical Support :**  
**Samarthan : Centre for Development Support,**  
**Sehor (MP)**

**Financial Support:**  
**Water Aid India**

## INTRODUCTION

### 1.1 BACKGROUND

THE National Rural drinking water security plan to insure water with an aim of integrated sustainable ecofriendly development of whole village. Ministry of drinking water has set the objective of delivering sustainable, equitable and quality of water to rural population aim to achieve drinking water security for all rural house hold.

### 1.3 Project Area

Mugli Gram panchayat is located in Asta block 56 KM From district head quarter sehere .Agriculture is the main income source of villagers. In agriculture major crops are soya been, wheat, maize, gram, masoor are cultivate by farmers.

### 1.4 Preparation of water safety plan

A- Jal choupals is organized in village to sensitization about the plan and ensure the involvement of community and obtain the various data like rainfall, Agriculture pattern, water uses of pattern in community and live stocks in villages. Restructure of V.W.S.C and a brief orientation of committee and G.P. members for sustainable planning.

### 1.5 Component of water security plan

- 1 sanitary infection of all water sources
- 2 water sources mapping
- 3 water quality testing of water sources
- 4 water budgeting
- 5 water sources safety plan
- 6 Approval of proposed plan in Gram sabha.

### 1.4 Demographic

Description	Details
NO. of house hold	352
Male Population	927
Female population	873
Total population	1800
NO. of hand pump	7
NO. of wells	01
NO. of bore wells	72
OTHER Water body if any.	No. (pipe water supply )

### 1.5 Location and detail of Existing hand pump , wells with water quality and Yields of sources.

S.NO.	Location/I.D.	Taste of water	Color of water	Odor in water	Turbidity	Ph	T.D.S. 500-2000	Total hardness 200-600	Fluoride 1-1.5mg/l	Chloride 250 -1000	Nitrate 45 mg/l	Iron 0-5mg/l.	E-coli- 0 in 100 ml.	Is source is safe for drinking	Yield of water sources per day in liters
1	School wala	Acceptable	Colorless	Odorless	1	7.0	400	400	nil	360	10	0.1	0	Yes	8000
2	Road wala	Acceptable	Colorless	Odorless	2	7.0	300	260	nil	500	15	0.5	0	yes	8000
3	Mandir wala	Acceptable	Colorless	Odorless	1	6.0	500	250	nil	250	10	0.2	0	yes	8000
4	Kishan lal wala	Acceptable	Colorless	Odorless	1	7.0	462	460	nil	400	10	0.1	0	yes	8000
5	Goan bahar	Acceptable	Colorless	Odorless	2	7.5	302	600	Nil	300	10	0.3	0	yes	8000
6	Sitaram wala	Acceptable	Colorless	Odorless	1	7.0	462	460	nil	400	10	0.1	0	yes	8000
7	limwala	Acceptable	Colorless	Odorless	2	7.2	302	600	Nil	300	10	0.2	0	yes	8000
8	Pipe water supply	Acceptable	Colorless	Odorless	2	7.2	300	600	Nil	300	10	0.2	0	yes	8000

There are 7 hand pump and pipe water supply in village and water quality test result are above. The source are safe for drinking all parameters as per norms water quality tested before rainy seasons. No bacteriological and chemical contamination found in water. Water is Acceptable in community.

## 2.0 Water Budgeting Process.

### 2.1 domestic water usage

At present there are 352 families and 1800 population in Mugli panchayat as per baseline data 2018 .today we insure the water security of upcoming 5 years .in 2023 the population is around 370 families in village. And population is around 1850 .Therefore water security plan is for 1850 population.

Table 2.2 Domestic water Requirement.

Purpose or usages of water	NO. of families	Per families per day usage (liters)	Total usages in liters per day	Total water usages per year in liters
Toilets	352	50	17600	6424000
Bathing	352	75	26400	9636000
Cooking and drinking	352	45	15840	5781600
Washing dishes	352	25	8800	3212000
Coolers	178	30	5340	640800
Houses and vehicle (bike) washing	196	20	3920	125440
Hand washing	352	20	7040	2569600
Kitchen garden	67	10	670	244550
Cleaning drain	115	10	1150	419750
Worshipping	352	5	1760	6424000
Fire fighting	352	50	17600	6424000
Total				41901740

Table 2.3 water Requirement for Animal husbandry.

Animal	NO. Of Animals	Water per Animal per day use (liters)	Per day water use in (liter)	Yearly water use (liters)
Cows	144	50	7200	2628000
Buffaloes	98	60	5880	2146200
Goats	26	8	208	75920
Dogs	32	2	64	23360
Ox	30	60	1800	657000
Total				5530480

Table 2.4 Rabi crops water use

Name of crops	No. of Acre	Liter per Acre water	Total water uses in liters
Wheat	1172	124666	146109255
Mustard	29	65500	1899500
Gram	116	20000	2320000
Onion	88	90000	7920000
Garlic	58	62500	3625000
<b>Total</b>			<b>161873755</b>

Table 2.5 Kharif crops water use.

Name of crops	No. of Acre	Liter per Acre water	Total water uses in liters
Soyabeen	1310	1086160	1422869600
Maize	51	1086160	6191120
Ground nuts	43	1086160	48877200
Arhar (tuar)	39	1086160	42360240
		<b>Total</b>	<b>1526815120</b>

Note - water use in Agriculture calculate as in 1 Acre need A water taker capacity of 4000 – 5000 liter.

Table 2.6 Total water use in both crops.

Rabi crops	Kharif crops	Total water use in liters
<b>161873755 liters</b>	Average 500 M.M. Rain is Equal = 20 inch If 1 inch Rain fall in 1 Acre land is equal = 54300 liter. Therefore 20*= 1086160 *1463= 1589052080 liter	161873755 liters Due to rainy season kharif crops water not included

Table 2 . 7 Total water Demand of Mugli village in liters

Domestic use	Animal husbandry use	Agriculture use	Total water Demand in liters
41901740	5530480	161873755	209305975

1	H.P . school wala Discharge @1000 liter per hour (1000*8*240)	1920000	1	72 bore well pump discharge water in liters @5 h.p. 140 L.P.M. (72*720*140*20)	145152000
2	H.P . Roadwal Discharge @1000 liter per hour (1000*8*240)	1920000			
3	H.P . mandir wala Discharge @1000 liter per hour (1000*8*365)	2920000			
4	H.P . kishanlal wala Discharge @1000 liter per hour (1000*8*300)	2400000			
5	H.P . goan wala Discharge @1000 liter per hour (1000*8*240)	1920000			
6	H.P . sitaramwala Discharge @1000 liter per hour (1000*8*240)	1920000			
7	H.P. limwala Discharge@ (1000*8*240)	1920000			
10	Well- 1 Discharge @1000 liter per hour (300*8*240)	576000			
	Total ( Agriculture electric pump + handpump and wells + output water) = 160648000 liters				

**Total demand of in village = 209305975**

**Total Availability in village = 160648000**

**Total Deficiency = 48657975**

**( Four crore eighty six lac fifty seven thousand nine hundred seventy five Liter of water.)**

## Water Safety Plan Jahagirpura Village.

Water sources location	Issue / problem	Risk level	Action Required /curative measure	When Duration / Frequency.	Responsibility
Goan bahar	Water stagnate	Medium	Filling sounding Area	Before rainy season	V.W.S.C. / panchayat
.Limwala	Faulty drainage of hand pump	Medium	Repair faulty drainage	Before rainy season	V.W.S.C. / panchayat
Kishanlal wala	Hand pump plate form is broken and faulty drainage	Medium	Reconstructed hand pump Apron fully.	Before rainy season	V.W.S.C. / panchayat
Sitaram wala	Hand pump plate form is broken and faulty drainage	Medium	Reconstructed hand pump Apron fully	Before rainy season	V.W.S.C. / panchayat

A sanitary infection survey of all water source in village are with community and inspect the physical condition of water sources like Apron condition , water stagnating ,leach pit toilets in 10 meter, pedestals loosing status, and any other source of water pollution within 10 meter of water sources.

Proposed work plan for Gram sabha approvals intervention to insure water security to all community, livestock and Agriculture uses are below.

Particulars	NO./ UNIT	Estimated costing	Recharge or collected water in liters	Agency/ Dept.
5 roof water harvesting unit (Govt. building) School primary, school middle, community building, Aganwadi center ,panchayat bhavan.	5	20000*5= 100000 Rs	100000 liter ( 1000 square feet roof Area collect 100000 liter water of water in season 5*100000=500000 Liter)	Concern dept./ Individual
Constructed a pond outside the village ( 20 hectare)	5000 square meter	5000*500 Rs =2500000	IF 30 Inch rain fall in season the lack collect = 50000000 Liter	Water resource dept.
<b>Total</b>		2600000 Rs	50500000 liter water gain from above the structure.	