

# RIPPLE EFFECT

MULTIPLE BENEFICIAL RESULTS OF USING THE SE200 IN 10 VILLAGES OF  
KURUPAM, ANDHRA PRADESH

(2012-2013)



BY BEACON AHEAD INSTITUTE WITH SUPPORT FROM ZILLA SAMAKHYA AND  
GRAMEENA PUNANIRMANA KENDRAM



**Report prepared for:**

DRDA, Zilla Samakhya (Vizianagaram) and  
Society for Elimination of Rural Poverty,  
Rural Welfare Department  
Government of Andhra Pradesh  
India

**As part of the tripartite agreement between:**

- Zilla Samakhya – Vizianagaram
- Beacon Ahead Institute - Hyderabad
- Grameena Punarnirmana Kendram - Kurupam

**Report documented and designed by:**

Beacon Ahead Institute team:

Ms. Madhu Katkar – Vice Chairperson

Ms. Priyam Varma - CEO

Ms. Jane Verrall - Product Design Lead

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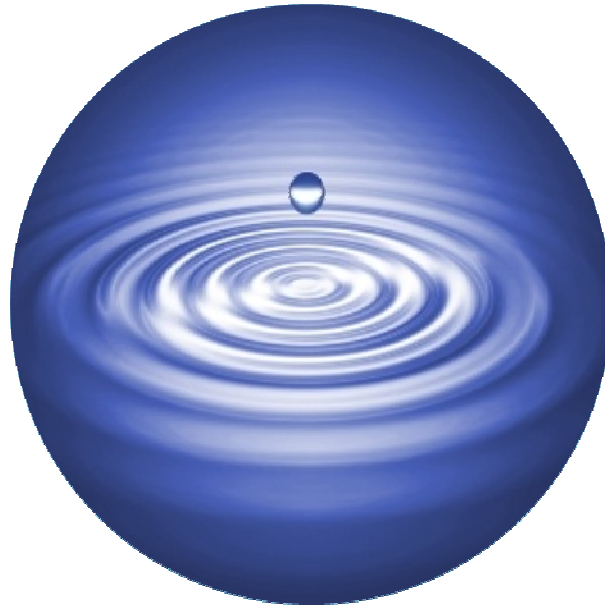
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# RIPPLE EFFECT

MULTIPLE BENEFICIAL RESULTS OF USING THE SE200 IN THE  
10 VILLAGES OF KURUPAM, ANDHRA PRADESH



**SAFE DRINKING WATER**  
**BETTER HEALTH**  
**COMMUNITY WELLBEING**  
**INCOME GENERATION**



## ACKNOWLEDGEMENTS

We wish to thank all the people of the 10 villages of Kurupam who participated in this pilot field test by using the SE200 and provided their valuable feedback and time during the many visits during the project period.

We wish to herewith acknowledge the support and encouragement of SERP (Society for Elimination of Rural Poverty) which gave Beacon Ahead Institute this opportunity to help provide safe drinking water to the villages of Kurupam. We thank Mr. B. Rajshekhar – CEO (SERP) for his support to this project.

We especially wish to thank Mr. P. Chinnathataiah - Director, Social Security (IKP) for his encouragement and guidance during the course of this pilot project. His guidance has been most crucial in achieving success of this project.

We are very grateful to all the help that Grameena Punarnirmana Kendram has provided during this project. Mr. K. Sanyasi Raju (Secretary GPK) and his team have done remarkable work in identifying the villages, briefing the people several times, arranging all the visits to the villages and being a monitoring agency to effectively promote the use of the SE200. GPK has indeed been a bridge between the people at the village level, the Government and non-government organizations.

We also wish to thank the officials stated herewith for their support and encouragement without whose help; this project would not have been successful:

Ms. Jyothi – Project Director – DRDA, Vizianagaram

Mr. Vasudeva Rao-Joint Director – Medical services - GoAP, Ex Project Director - Vizianagaram

Ms. Rajyalakshmi – District Project Manager, DRDA, IKP, Vizianagaram

Ms. S. Aruna Kumari, Assistant Project Manager, DRDA-Call Center, IKP, Vizianagaram

Ms. H. Laxmi - President of Zilla Samakhya, Vizianagaram

Mr. P. Govindu – Manager - Zilla Samakhya Vizianagaram

All the staff and people who provided their assistance in the completion of this project.

~\*~





## LIST OF ABBREVIATIONS

SERP – Society for Elimination of Rural Poverty

IKP – Indira Kranthi Patham

DRDA – District Rural Development Agency

CEO – Chief Executive Officer

RPD - Regional Project Director

DPM - District Project Manager

APM – Assistant Project Manager

BAI – Beacon Ahead Institute

GPK – Grameena Punarnirmana Kendram

CDI – Cascade Designs Inc

SHG – Self Help Group

NRHM – National Rural Health Mission

SE200 – Smart Electrochlorinator 200

NGO – Non Governmental Organization

TDS – Total Dissolved Solids

UV - Ultraviolet

MDG – Millennium Development Goals

NSF – National Science Foundation (USA)

EPA – Environmental Protection Agency

MoU – Memorandum of Understanding

MIS – Management Information System

TSP – Technical Service Person



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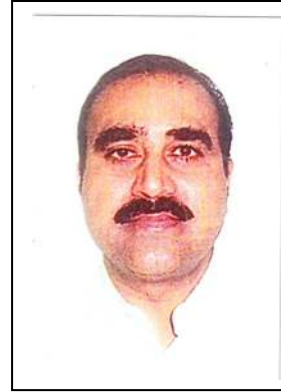


# MESSAGES



## MESSAGES

### SERP



I am very happy that IKP has given a great opportunity for all the women folk in AP to have a secured future for their families and communities. As part of this I am happy to reiterate that AP government is committed to integrate various components for the holistic development of families and communities.

In this connection we are happy to integrate SE200 developed by Cascade Designs Inc, USA with the training and support provided by Beacon Ahead Institute, Hyderabad to provide safe drinking water to all the families as a pilot project in Kurupam tribal mandal of Andhra Pradesh to cover 10 villages.

This can be replicated across other areas based on its standardization, affordability and success. I am happy to introduce this project in a tribal mandal for providing safe drinking water and to improve health conditions of all the people living in remote areas. I congratulate DRDA Vizianagaram and Zilla Samakhya - Vizianagaram for accepting to pilot this project. I wish them all success and encourage them to take up many more such initiatives in future. Also appreciate all the work that Grameena Punarnirmana Kendram has put forth in the completion of this project.

**Mr. P. Chinnathataiah**  
**Director-Social Security (IKP)**  
**SERP**

## MESSAGES

### DRDA



Provision of safe drinking water is directly a sound investment for better health for the communities.

The SE200 pilot project has demonstrated safer operation and usage of the device for community purposes. It has also demonstrated ripple effect for water, environment and sanitation benefits for the tribal communities who comprise the target population.

DRDA considers it to be a privilege to be part of this pilot project initiated by Zilla Samkhya, Vizianagaram, Beacon Ahead Institute, Grameena Punarnirmana Kendram and hope to take this initiative forward on a large scale.

Ms. Jyothi  
Project Director  
DRDA, Vizianagaram  
Andhra Pradesh

## MESSAGES



Water is one among basic needs. Provision of safe drinking water is mandatory for any governance.

The SE200 pilot project initiated by Zilla Samakhya, Beacon Ahead Institute and Grameena Punarnirmana Kendram is a step in this direction with support from SERP and DRDA, Vizianagaram. The converging efforts are directed towards benefitting the most deserving sections of the population.

The impact should result in upscaling the project for wider coverage. I herewith wish this project all the best in providing safe drinking water through an innovative mechanism of the SE200.

  
11/6/13

**Mr. Vasudeva Rao**  
**Joint Director: Medical & Health Dept. , GoAP**  
**Former Project Director- DRDA, Vizianagaram**





## Zilla Samakhya



It is a privilege to be part of this pilot project which is very helpful for the people in the remote areas. This can be replicated to other mandals as safe water is a primary need for the people.

With the use of the SE200 device the people have reported that there are no side effects and that there is an improvement in the water quality. Taking also the impact on the expenses involved for the communities more and more villages can afford to use the device to ensure better health.

The operational instructions also suggest that anyone in the village can understand the procedures and operate the device and that no specialized efforts are required for the same. With additional training more people can have access to better health with safe drinking water. Involvement of SHG members will become accountable for better results and will generate success of the project. I wish this project all the success in covering more and more mandals as they go on working for the welfare of the communities and ensuring better health.

*H. Laxmi*

**Ms. H. Laxmi- President**  
**Zilla Samakhya-Vizianagaram**

## Zilla Samakhya



The pilot project introducing the new device SE200 has generated a lot of interest in the people. It is a very useful innovation for the concerned population. The demand generation and its utilization have demonstrated that it can serve to solve the water problems in these areas which are known to be prone to water borne diseases.

The interaction with the people has shown that the people are satisfied with the functioning of the device and it is been very helpful to be able to purify water with less expenditure for the entire community usage.

The involvement of the Village organization is also crucial in implementing the project at the local level. The village organizations can be given two devices for better coverage and reach out.

The dosage can also be distributed once a week among the households. Training to the youth members can be scaled up for the operation of the device and to cover the entire village and nearby hamlets.

This project has roped in the interest of the NGO and the government officials and it should be taken forward on a large scale to also match the NRHM mission.

*P. Govindu*

**Mr. P. Govindu**  
**Manager, Zilla Samakhya-Vizianagaram**



## DRDA



It is good to be associated with a need based program for the tribal communities. The tribal communities themselves receive programs very well as they understand the benefits that are planned by the projects of the government and non-government organizations.

In this pilot project it is clear that the communities are willing to use the device for safe guarding their health. They are also not having any other alternative to purify drinking water in these areas.

The NGO (GPK's) identification of the specific villages demonstrates the good networking of the NGO at the local level and to understand the local specific needs of these families and communities.

The utilization of chemicals is completely absent in the operation of the SE200 device and salt is commonly available in every household. It is very safe to use the device and is accessible and affordable by the communities. The people need not go to far off places to fetch safe drinking water. The device is easy to use and on the whole it is simply superb.

*S. Aruna Kumari*

**Ms. S. Aruna Kumari**  
APM-Call Center, IKP-DRDA, Vizianagaram

## Grameena Punarnirmana Kendram: GPK



The pilot project has been an overall demonstration of a new innovation. The existing systems should identify the need based project and encourage the same especially in the remote tribal areas.

The people in the villages are willing to pay for the device as it is also easy to use. The sources of water in these areas vary and there are also many water borne diseases that are prevalent. Jaundice is highly prevalent in all these areas along with Malaria which is rampant.

The communities have been very positive in their approach to the utilization of the device SE200 which can also bring about changes in their livelihoods. This can be seen mainly as an asset creation for each and every village.

*K. Sanyasi Raju*

**Mr. K. Sanyasi Raju**  
Secretary-Grameena Punarnirmana Kendram-Kurupam



# EXECUTIVE SUMMARY





## EXECUTIVE SUMMARY

The present pilot project across the selected villages in the Kurupam Mandal was to enable the poor to lead more healthier and productive lives through improved management of water resources.

The selected villages were prone to several water borne diseases and some which have resulted in death. The villages do not have any methods of treating water and were aware of the need for safe drinking water. It was due to these reasons that the Governmental agencies and the people had a keen interest in using methods of water treatment that would be easy to use as well as result in decreasing the health hazards that they were facing. The **Smart Electrochlorinator (SE200)** water treatment device is one such easy to use device that converts salt and water into Chlorine which when mixed into drinking water, disinfects water making it safe for drinking. Each batch of Chlorine can treat up to 200 liters of water in 5-6 minutes.

As the SE200 device is easy to use, it is portable and can treat large quantities of water, the Governmental and non-governmental organizations as well as the communities were highly motivated in promoting the use of this device as part of the pilot field test. The pilot field test was conducted in ten villages of the Kurupam Mandal as per the Tripartite Agreement between Zilla Samakhya of Vizianagaram, Beacon Ahead Institute of Hyderabad and Grameena Punarnirmana Kendram of Kurupam.

The pilot field test was conducted from August 2012 to February 2013. Training was imparted to Master Trainers in each village regarding the operation of the device. During the project period, the effective use of the SE200, the impact of safe drinking water on the community, the interest levels of the users and the community perspectives were constantly monitored.

The overall impact has been a better status in health conditions which has resulted in reduction of deaths in the villages due to water borne diseases. There is a marked increased interest in utilizing the device to treat the water and the neighboring hamlets and villages have also gained awareness towards water safety.

The usage of the SE200 has resulted in greater community cooperation and a demand has been generated among the people to have one device in each village. The willingness of the people to take forward this initiative in a larger scale is clearly visible.





## INTRODUCTION AND BACKGROUND





## INTRODUCTION

Water is the basis of life. It is only when we have access to safe drinking water that communities can be healthy and aim to lead a good quality of life. In various areas, the sources of drinking water can vary i.e., bore wells, tap water, rivers, streams etc and this will also result in the many levels of contamination affecting the water quality. Depending on the kinds of water contamination, the methods of treatment are determined. In areas having brackish water and toxins, the best method of treatment would be desalination and distillation. Distillation of water can result in removal of TDS (total dissolved solids), iron, bacteria, viruses etc. For removing fluoride from water, reverse osmosis system results in treating the water effectively and making it very safe for consumption. UV method of treatment is also another method which removes bacteria in the water using Ultraviolet rays.

The areas in and around the Kurupam Mandal have access to drinking water through bore wells, river water and streams. However the communities did not have access to any method of treatment of the water obtained through the sources. This resulted in many communities suffering from health problems and diseases such as diarrhea, malaria, fever, coughs and colds etc.

It was due to these reasons that the Governmental agencies and the people had a keen interest in using methods of water treatment that would be easy to use as well as result in decreasing the health hazards that they were facing. The **Smart Electrochlorinator (SE200)** water treatment device is one such easy to use device that converts salt and water into Chlorine which when mixed into drinking water, disinfects water making it safe for drinking. Chlorine is one of the significant chemicals used worldwide to disinfect water and make it safe to drink. SE200 produces consistent and safe amount of Chlorine per batch within a span of 5-6 minutes. Each batch of Chlorine can treat up to 200 liters of water.

As the SE200 device is easy to use, it is portable and can treat large quantities of water. The Governmental and non-governmental organizations as well as the communities were highly motivated in promoting the use of this device as part of the pilot field test. The pilot field test was conducted in ten villages of the Kurupam Mandal as per the Tripartite Agreement between Zilla Samakhya of Vizianagaram, Beacon Ahead Institute of Hyderabad and Grameena Punarnirmana Kendram of Kurupam.

## BACKGROUND OF THE KURUPAM MANDAL

### About Kurupam:

Kurupam is the main town in the Kurupam Mandal, Vizianagaram District, and Andhra Pradesh State. Kurupam is located 83.9 km distance from its District Main City Vizianagaram. It is located 559 km distance from its State Main City Hyderabad.

Kurupam mandal has a population of 46,439 in 2001. Males consist of 23,241 and females 23,198 of the population. The average literacy rate is 46%, below the national average of 59.5%.





Male literacy rate is 57% and that of females is 35%.

### Kurupam Kingdoms

Vyricherla Kishore Chandra Suryanarayana Deo, of Kurupam princely family is member of Lok Sabha

---

#### Revenue Villages and Panchayats:

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There are 95 revenue villages and 23 panchayats in Kurupam mandal. The 23 panchayats are as mentioned

below:



1. Biyyalavalasa (village and panchayat)
2. Chintamanuguda (Village famous for tamarind trees)
3. G.Sivada (village and panchayat)
4. Gotivada (village and panchayat)
5. Gujjavai (village and panchayat)
6. Gumma (village and panchayat)
7. Gummidiguda (village and panchayat)
8. Jarada (village and panchayat)
9. Kitchada (village and panchayat)
10. Kurupam (village, panchayat and mandal headquarters)
11. Mondemkhallu (village and panchayat)
12. Neelakantapuram (village and panchayat)
13. P.Levidi (village and panchayat)
14. Peda Gottili (village and panchayat)

15. Podi (village and panchayat)

16. Tittiri (village and panchayat)



- 17. Udayapuram (village and panchayat)
- 18. Uridi (village and panchayat)
- 19. Valasaballeru (village and panchayat)
- 20. Vobbangi (village and panchayat)
- 21. Voosakonda (village and panchayat)
- 22. Yegulavada (village and panchayat)

## BACKGROUND ABOUT THE SELECTED 10 VILLAGES



The selected villages are mostly tribal communities which are coming into contact with the non-tribals. The smallness of the villages gives a seemingly self-sufficient look.

Some of the villages and hamlets are on hilltops and are remote. The hilly rocky areas make it difficult to reach the villages and cover larger populations. The combination of the forest with hills presents an undulating topography and makes the area look picturesque. The areas are interspersed with reserve forest. The soil within the limits of the

villages is fertile. The villages get water from reservoirs, streams and spring water other than bore wells and regular wells.

### Tribes:

The villages comprise of Savaras, Jatapus, Gadabas and Kondadoras. The Savaras mostly live on hilltops and in some dry lands; Jatapus are mostly nomadic tribes; Gadabas are seen in towns and villages and also have many hamlets; Kondadoras are known as area heads. The Kondadoras are the dominant tribe and are considered as superior to the others though all the tribes co-exist in the Kurupam mandal. Each tribe has its own remarkable ethnic segregation. Apart from the tribes



Kurupam also has Scheduled Caste communities.

### Housing:

People use asbestos sheets for roofs apart from a few thatched huts and tiled houses. The Indiramma housing constructions are going on in many areas from two years.

### Fire wood:

People use firewood on a large scale for

cooking and for fencing needs. The entire area displays burning of trees. Deforestation norms are making the people light a fire in the opening of trees and eventually the tree falls off and they report that it is a natural decay and later use the same for fencing and other purposes.

### **Flora and fauna:**

The entire area is rich in its flora and fauna. The landscape around the villages is colorful and is surrounded by abundant dense vegetation. The vast stretches of terraced agricultural lands are found around the village with clusters of shady trees and shrubs. Stray patches of shifting cultivation are also found.



The trees most commonly found are Mango, tamarind, date palm, cashew nut, gooseberry and various other plants. Certain medicinal herbs also grow alongside. The fauna consists of domestic animals such as goats, sheep, oxen, cows, cats, and dogs. In the surrounding forest hyenas, bears and rabbits are also seen. Snakes are seen from time to time. Among birds, fowls, crows, sparrows and pigeons and certain other birds of migratory nature are spotted.

Orri, kandulu (*Cajanus cojan*), jonna (*Sorghum Valgore*), junumulu, senaga, nuvvulu (sesame), sodi (ragi), samalu, gantalu (*Pennisetamty hoidae*), bananas, cashewnuts and mangoes grow in abundance. Minor forest produce such as tamarind, soap nuts adda leaves, marking nuts, broom sticks, gooseberries, gum, honey, variety of tubers and the like comprise among the 400 varieties of minor forest produce. Food gathering is thus a subsidiary activity where the geographical conditions mainly determine its availability.

### **Religion:**

Most of the people have converted to Christianity.

### **Livelihood:**

Their main occupation rests on shifting cultivation which is also called podu cultivation. They are also wood cutters. People live by selling minor forest produce. The minor forest produce is sold or exchanged for rice and clothes. Traders visit these villages frequently. They are also working in tanneries and also live by selling jaggery and locally made liquor.

### **Shifting cultivation:**

Due to various environmental constraints shifting cultivation is resorted to. This has been in practice from a long time as it caters the major food needs of the tribal communities. The crops are watered by the running streams along the slopes. The tribal communities know the



uncultivated ecological zones and seasonally exploit them to diversify their staple diet.

**Nearby market:**

For most of their needs the people go up to Mundenkulu. The bus point is near Aaviri.

**Demand for the SE200 device:**

The usage of the device by the selected villages has created a demand in other neighboring villages and hamlets. The occurrences of diarrhea are making the people to opt for the chlorine producing device which is also serving the entire community.

**Spin off benefits:**



Meeting with Cluster Representatives about the SE200

The mahila mandals and the youth Sanghas can actively participate in the preparation and distribution of the chlorine solution. This is seen as an asset creation and as a common property resource. Its accessibility and ease of usage calls for greater participation and willingness among the target populations. The community responsibility and participation is seen at each and every household level. Involvement of the groups promotes better results to ensure success of the project.



## PURPOSE OF THE PROJECT AND THE FEATURES OF THE SE200

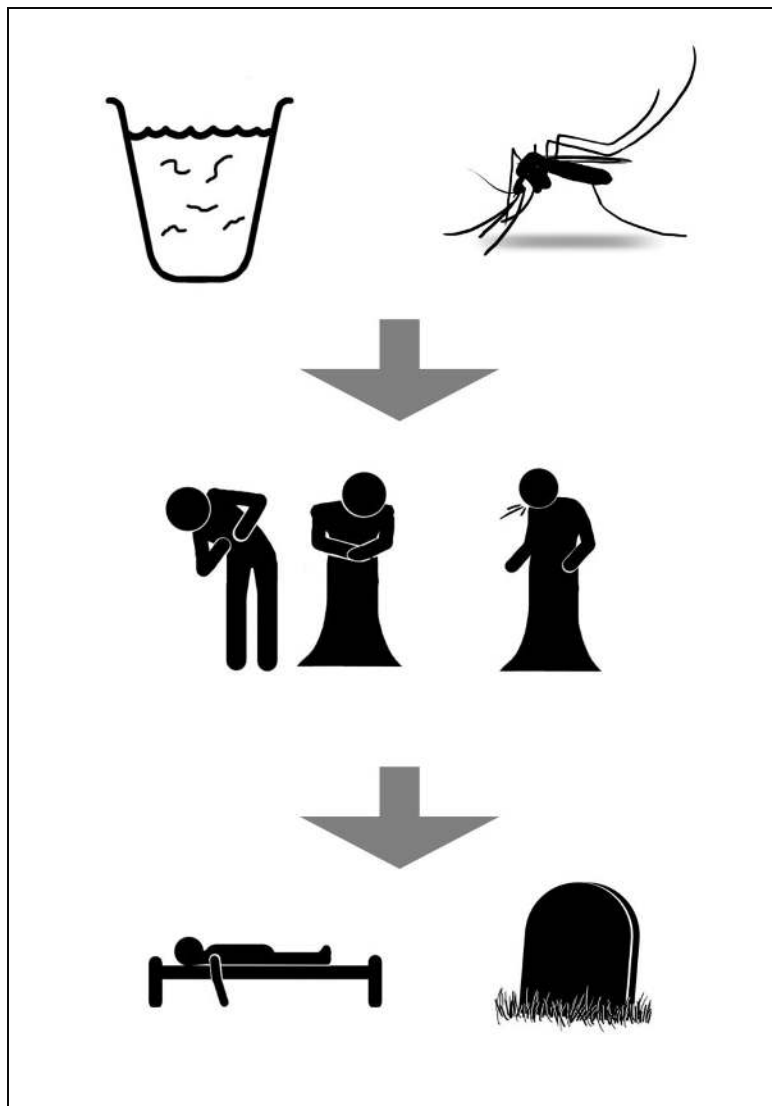




## PURPOSE OF THE PILOT FIELD TEST

While addressing the health needs of the people in Andhra Pradesh, it was stated by the DRDA that the people in the tribal villages of Vizianagaram district are frequently falling ill, and that many deaths were caused by unsafe drinking water, malaria and other diseases. DRDA and SERP are working towards providing safe drinking water to the people of these villages, and Beacon Ahead Institute and Grameena Punarnirmana Kendram aim to work in coordination with these agencies to implement a process of spreading awareness, supplying SE200 devices, monitoring their use, and evaluating the user responses, in order to further scale up the use of the SE200 in many other villages.

The following diagram highlights the problems that were faced by the villages before the SE200 was given to them:







## THE BASIC PROJECT OBJECTIVE TO WHICH THE CONTRACT IS RELATED

To supply and implement ways to provide safe drinking water through the use of the SE200 devices in the tribal villages of Kurupam Mandal, Vizianagaram district.

## FEATURES OF THE SE 200 DEVICE

The SE200 device has been developed by Cascade Designs Inc based in Seattle, USA. Cascade Designs, Inc's (CDI) **Smart-Electrochlorinator 200** (SE 200) is designed for community water purification. CDI has world-class expertise in water treatment.

The SE200 produces a safe level of chlorine from ordinary salt and water very consistently.

- Each batch of chlorine takes about 6 minutes.
- Each batch of chlorine treats 200 liters of water.
- The SE200 device can run on car or motor cycle battery especially in areas where there is intermittent power supply.
- The SE200 has been tested in 10 countries in Asia and Africa.
- The SE200 has a lifespan of approximately 10 years with low maintenance.
- It is approved as a safe technology for drinking water by the NSF of USA
- Selling chlorine can be an effective way of generating income.
- The device can treat up to 50,000 liters of water a day.

SE200 has passed the U.S Environmental Protection Agency (EPA's) Guide Standard and Protocol for Microbiological Purifiers as it inactivates viruses, bacteria, protozoan cysts Giardia and Cryptosporidium in clean and dirty waters. It can purify water from any kind of source and can treat large quantities of water in less span of time. It is economical, reliable and no pumping is required to make it work. This product has been field tested in ten countries including India.

BAI is aiming to work towards promoting the Millennium Development Goals (MDGs) of which the **Goal 7: Ensure environmental sustainability** is our prior focus. The Goal 7 states the following:

- Proportion of population with sustainable access to an improved water source, urban and rural
- Proportion of urban population with access to improved sanitation

In this connection, BAI is working towards promoting the SE200 in India as this will encourage the Goal 7 of the MDG. As this device is meant for community water purification, it would be an ideal means to reduce the illnesses in the tribal villages that are caused due to unsafe drinking water. BAI in coordination with DRDA, Zilla Samakhya-Vizianagaram aimed to do the following in order to encourage and implement ways to provide safe and sustainable means of providing safe drinking water to the tribal villages:


- a) Supply SE 200 devices along with its accessories: power supply unit with cord, plugs to attach to car or motor cycle battery

- b) Provide training to the concerned people, selected by Zilla Samakhya and Grameena Punarnirmana Kendram, who would ensure that the device is used effectively
- c) Conduct a follow up visit of device performances and user reviews
- d) Evaluate the use in coordination with the district level authorities
- e) Provide assistance in terms of service and repairs as per the need

This project will evaluate the usage and performance of the device and would help create awareness of safe drinking water, as this is an important area that needs attention and would help save many people's lives.

The below listed documents highlight details about the SE200 water treatment device:

**FACT SHEET**




## The SE200 Electrochlorinator Water Treatment System

**Placing the power of water back into the hands of the people.**

Seattle-based outdoor company Cascade Designs, Inc. and PATH, a global health NGO, have partnered to develop the innovative Smart Electrochlorinator (SE200) – a water treatment system that represents an unparalleled micropreneurial opportunity for water sales virtually anywhere on the globe. In just 5-7 minutes, the SE200 creates a chlorine solution with proven Smart Electrochlorinator technology, treating 200 liters of water. Smart circuitry makes it easy, safe and reliable to use with minimal direct training, and the system's only consumables are salt.


With an SE200-based water kiosk business, operators can earn a stable income while strengthening their local economies and providing a sustainable source of clean water for themselves and their neighbors.



**The SE200 Entrepreneurial Model**


**Sustainable:**

- Locally available supplies; no need to rely on outside funding or questionable distribution networks
- Virtually unlimited, on-demand production to meet the varied needs of locations worldwide.



**Efficient:**

- Treats 200 liters of water in less than seven minutes.
- Treats up to 40,000 L from one fully charged battery.
- On-demand production using only a battery and common salt eliminates shelf life and distribution concerns associated with bottled bleach alternatives.



**Reliable:**

- Smart Circuit technology produces a consistent chlorine concentration, without requiring accurate timing or measurements.
- Solar compatible operation for off-grid use.
- Requires no installation or maintenance.

**Low Cost/High Return:**


- Low capital and operational costs allow for rapid loan pay-off and profitability.
- Treating water costs less than 2 paise per liter, for the device, salt and electricity, averaged over 5 years of use.

**Easy to Use:**


- SE200 can be an income-generating tool for any community member, regardless of previous business experience or education.
- Proven intuitive and easy to operate in over 10 field trials with minimal training and an illustrated user manual that eliminates language barriers.

**SE200 Target Specifications**

Treated Water Volume per run	200 liters (55gal)
Water Treatment Rate (liters/min)	approximately 20
Residual FAC goal in treated water	2 ppm
Power Sources	Power: 12 Volt Battery
Run Time	> 7 minutes
Capacity (80 Amp Hour Battery)	200 runs (40,000 liters)
SE FAC produce in reaction cell	0.65
Price Target	Rs. 25,000
Approximate cost per 1000 liters	Rs. 17



**For more information contact [emergingmarkets@cascahedesigns.com](mailto:emergingmarkets@cascahedesigns.com)**



Thanks to our partners: World Vision, Herve Corcos, PureFlow Kenya, Antenna Technologies, The Lemelson Foundation, the Laird Norton Family Foundation, and the US DHS/C and the Grameen Visi, BTO team.

## BROCHURE:

The portable, easy-to-use SE200:



Photo: PATH

Crores of Indians lack access to safe drinking water.

The SE200 makes fresh chlorine.

Chlorine is an effective treatment for disinfecting water.

Cascade Designs, Inc. is committed to delivering quality products for low income people.

Cascade Designs has world-class expertise in water treatment technologies.

For more information, contact:  
Emerging.Markets@Cascadedesigns.com

or

Cascade Designs, Inc.  
Emerging Markets Division  
4000 First Ave. South  
Seattle, WA. 98134  
USA.



A Washington State Product



The SE200  
Electrochlorinator

Water Treatment System

from  
Cascade Designs, Inc.

with support from the  
Washington State  
Global Health Fund

Beacon Ahead  
Institute promotes  
health in India.



Beacon Ahead provides distribution, training and service for the Cascade Designs SE200 Water Treatment System in India.

Beacon Ahead Institute  
#8 Meghna Paradise  
Picket, AOC Centre  
Secunderabad, AP 500 015  
info@BeaconAhead.com



Villagers making chlorine to treat their drinking water with the SE200, after a training session in Kurupam.

### Reliable

The SE200 is dependable:

- It produces consistent, fresh chlorine in each batch.
- It is made by a company with a broad range of technology and products, and a 40 year history of manufacturing.



Interacting with Self-Help Group (SHG) cluster representatives as they learn about the SE200 and electro-chlorination.

### Simple

The SE200 is safe and easy to use:

- Add salt and water to the SE200, and press a button.
- In 6 minutes, the SE200 makes chlorine that disinfects 200 Liters of water.
- The cost is less than 2 paise per liter of water.



People in rural villages telling us that their water is causing illnesses, and that they are interested in learning how to make their water safe to drink.

### Versatile

Use the SE200 to:

- Treat drinking water in:  
Communities  
Schools  
Hospitals  
Disaster relief sites
- Disinfect cooking and hospital surfaces
- Generate income



## **DURATION OF THE PILOT FIELD TEST**

The pilot field test was conducted from August 2012 to February 2013. During this period, the effective use of the SE200, the impact of safe drinking water on the community, the interest levels of the users and the community perspectives were constantly monitored.





## **ROLES AND RESPONSIBILITIES OF THE ORGANIZATIONS DURING THE PILOT FIELD TEST**





## ROLES AND RESPONSIBILITIES OF THE THREE ORGANIZATIONS DURING THE PILOT FIELD TEST

### ZILLA SAMAKHYA - VIZIANAGARAM:

The Zilla Samakhya of the Vizianagaram district was an important monitoring and implementing agency during the duration of this agreement. The following were the important roles and responsibilities that the Zilla Samakhya undertook as part of this agreement:

- a) The agency reviewed the proper and effective means of the project monitoring and implementation
- b) The Zilla Samakhya was the official administrating and financial authority during the course of the project implementation

### GRAMEENA PUNARNIRMANA KENDRAM:

Grameena Punarnirmana Kendram (GPK) is a NGO based at the Kurupam village. The NGO is working closely with the villages in the Kurupam area and are having significant networks which greatly helped in the project implementation. The following are the important roles and responsibilities that the Grameena Punarnirmana Kendram undertook as part of this agreement:

- a) Identifying villages in which the SE200 device is required and can be used
- b) Identifying individuals who could be trained and be an important part of the Income Generation Program through the SE200 device
- c) Identifying Master trainers who can be trained and can impart training to others at the village level
- d) Identifying persons who are troubleshooters in finding problems or service needs for the SE 200 devices at the village level.
- e) The NGO was a coordinator between the Zilla Samakhya and Beacon Ahead Institute
- f) The NGO helped in monitoring and providing feedback about the device usage and performance etc to Zilla Samakhya and Beacon Ahead Institute.
- g) GPK had 1 Coordinator and 2 organizers during the study period who did the following:

### Job Description for the organizers:

- Interaction with the community in the villages
- Creating awareness about better health, water borne illnesses and water treatment through the SE200 device.
- Communication and coordination between villages, Zilla Samakhya and Beacon Ahead Institute.
- Monitoring the proper use and functioning of the device by the village members
- Conducting survey and assisting during meetings with the villages.
- MIS
- Providing regular reports of feedback and status to Zilla Samakhya and Beacon Ahead Institute.





## **BEACON AHEAD INSTITUTE:**

Beacon Ahead Institute (BAI) is a registered trust working in India. The Institute works in five sectors and focuses on innovations for rural development and tribal welfare. In the health sector, BAI strives to spread awareness regarding the importance of safe drinking water and promote the use of the SE200 water treatment device.

The roles and responsibilities of Beacon Ahead Institute (BAI) were as follows:

### **1. Supply SE200 devices**

- Supply ten SE200 devices to the concerned officials at DRDA/GPK.
- The total package of the SE200 consisted of the SE200 water treatment device, power supply unit with cord, plugs to attach to car or motor cycle battery. The package is inclusive of the shipping of the device from the company in Seattle (USA) to India and the 30% import duty.

### **2) Training Component**

(See pages 32 - 39 for detailed training aspects that were covered during the project period)

### **3) Follow up and review**

- In coordination with the DRDA, the Zilla Samakhya and the NGO - Grameena Punarnirmana Kendram, BAI monitored the effective use of the SE200 device in the villages
- The BAI team visited the villages and interacted with the trained personnel regarding the performance, usage and the problems or inconveniences faced by them in a particular duration after the installation
- During these visits, the BAI team reviewed the feedback by the users and effectively provided solutions to the problems or inconveniences faced.
- BAI provided all the feedback to the concerned officials.

### **4) Services and repairs:**

For minor repairs, BAI will provide free service and repairs to the SE200 devices as part of the warranty period which will last for two years. The detailed description of such repairs is as stated below:

1. Replacing a malfunctioning SE200
2. Replacing a malfunctioning power supply adapter
3. Changing or repairing the plug cord
4. Repairing loose connections
5. Providing new battery clips
6. Providing new plastic brine bottle, or new Chlorine preserving bottle, or new dosage spoon

Notes:

1. Repairs or service charges for the damages to the SE200 device and power supply adapter will be charged to the concerned officials as these would need new replacement parts, etc.
2. Damage due to abuse or misuse is not covered.
3. If the Service Plan is adopted, these services and repairs will be done in Hyderabad, at no extra cost except for sending the parts to BAI.

For an additional Rs. 20000/- for 10 devices (Rs. 2000/- per device), BAI will provide full warranty for the SE 200 and the power supply unit for 2 years.

- Devices that are not functioning correctly must be sent to BAI in Hyderabad, Andhra Pradesh.
- The device/s will be evaluated, and then repaired or replaced at BAI's discretion and expense.
- Devices will be shipped, at BAI's expense, to the DRDA office in Vizianagaram.

**Note: If the service plan is not adopted, BAI will service and repair or replace devices and power supplies at DRDA's expense.**

#### 5) Evaluation:

(See pages 39 - 45 for detailed training aspects that were covered during the project period)

#### PRODUCTS/END PRODUCT THAT WOULD BE SUBMITTED BY BEACON AHEAD INSTITUTE AS PART OF THIS AGREEMENT:

- 1) SE200 devices
- 2) Training materials for using the SE200
- 3) Videos of the training sessions
- 4) Reports of field observations of the SE200 use, and recommendations for the follow up and evaluation visits
- 5) A video documentary and photo presentation of the evaluation

#### BUDGET

#### COST FOR GRAMEENA PUNARNIRVANA KENDRAM SERVICES:

Items	Quantity	Estimated unit cost	Amount (INR)
Honorarium for GPK Organizers	2*7 months	5000	70,000
Travel expenses to and from villages (3 visits per village * 10 villages * 7 months)	210	100	21,000
Food expenses	210	50	10,500

Meeting expenses (with Beacon Ahead Institute)	4	500	2000
Stationary and supplies	-----	-----	1,200
Total			1,04,700
Admin costs	20% of total	-----	20,940
<b>Grand total</b>			<b>1,25,640</b>

**\*Amount in words: Rupees One lakh, twenty five thousand, six hundred and forty only.**

**\*Note 1: Admin costs are inclusive of Income tax.**

#### **BUDGET FOR BEACON AHEAD INSTITUTE:**

<b>Items</b>	<b>Quantity</b>	<b>Estimated unit cost</b>	<b>Amount (INR)</b>
Consultancy Fee (Including DA)	73	3000	2,19,000
SE 200, power supply unit with cord, (this is inclusive of the shipping and the import duty)	10	15,000	1,50,000
Service Plan (this is inclusive of repairs and shipping from BAI to DRDA Vizianagaram)	10	2,000	20,000
Transportation: Hyderabad to Vizianagaram - Round trip train tickets	7	2,400	16,800
Boarding and Lodging will be provided by DRDA office	NA	NA	NA
Stationary and supplies	-----	-----	1,200
Local Transportation will be provided by DRDA office	NA	NA	NA
Total			4,07,000
Admin costs	20% of total	-----	81,400
<b>Grand total</b>			<b>4,88,400</b>

**\*Amount in words: Rupees Four lakhs, eighty eight thousand, four hundred only.**

**\*Note 1: Taxes as applicable (Sales Tax, etc.) to be borne separately**

**\*Note 2: Admin costs are inclusive of Income tax.**

**\*Note 3: All logistic arrangements for the entire project period to be arranged by DRDA/SERP/Zilla Samakhya.**

**TOTAL COST OF THE CONTRACT**

<b>Items</b>	<b>Amount (INR)</b>
GRAMEENA PUNARNIRVANA KENDRAM EXPENSES	1, 25, 640
BEACON AHEAD INSTITUTE	4, 88,400
<b>GRAND TOTAL</b>	<b>6, 14, 040</b>

**\*Amount in words: Rupees Six lakhs, fourteen thousand and forty only.**

~\*~



# TRAINING COMPONENT





## SELECTION CRITERIA

### Selection Criteria for the ten villages:

The villages selected for the pilot study of the SE200 were based on the below stated criteria:

- ✓ Villages that constantly suffered from ailments and illnesses pertaining to unsafe drinking water as contamination was evident in the source water
- ✓ Villages that reported many deaths due to illnesses such as malaria, diarrhea and other water borne diseases
- ✓ Villages that had no means of treating drinking water
- ✓ Villages that are remote in accessibility or those that had high population
- ✓ Villages that were willing to use the SE200 device

## TRAINING TO 10 VILLAGES:

- BAI team provided training to a few selected members from each village where the SE200 was set up.
- This training was given in a span of 1 hour per village.
- During the training, the following aspects were highlighted:
  - I. Importance of safe drinking water
  - II. Features of the SE200 and its chemical properties
  - III. Safe and consistent use of the SE200
  - IV. Taught people about the amount and kinds of power supply that can be used to run this device
  - V. Training was given regarding the salt and water brine
  - VI. Signals of the SE200 in case of low power or low salt
  - VII. Dosage for number of liters
  - VIII. Cleaning and monitoring of the device
  - IX. Contact information in terms of service needs or repairs
  - X. Warranty aspects

## FIRST TRAINING VISIT

The following photos highlight the training given to the three villages that were given the SE200 devices and the training to the Master trainees from these villages:



Interactions with the Master trainees



Training while demonstration of use of the SE200



Training on running the SE200 on car battery



Dosing of water with the Chlorine produced by the SE200

## SECOND TRAINING VISIT

The following photos highlight the training given to the seven villages that were given the SE200 devices and the training to the Master trainees from these villages:





Briefing the master trainees and village members about the SE200



Training the Master trainees about the instructions to use the SE200 during demonstration and dosing levels



People from the villages drinking the water treated by the SE200

## POSTERS

After the training, posters were developed and given to the respective villages to promote awareness regarding the SE200. Three posters were developed and given, the details of which are provided below:

- SE200 Instructions
- Frequently asked questions about the SE200

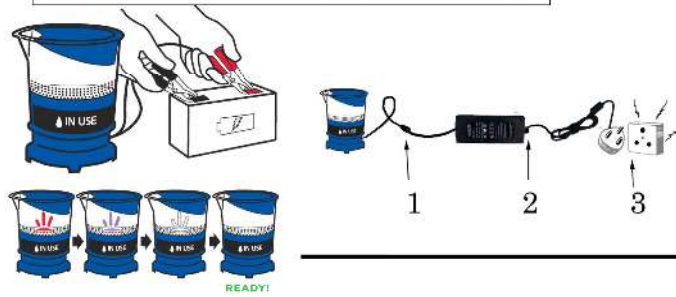
The copies of the posters are duly enclosed for review:

# SE200 Instructions

## 1 Make Salt Brine



## 2 Connect the SE200 to a battery OR to the power adaptor:



## 3 Fill SE200 with salt brine and press start

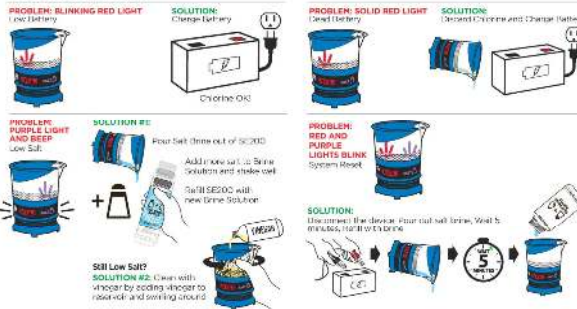


## 4 Chlorine Creation



Half a Spoon for 10 Liters Binde	Full Spoon for 20 Liters	One batch of full solution for 200 Liters
Then mix the chlorine into the drinking water		

## Trouble Shooting



## Warnings



## FREQUENTLY ASKED QUESTIONS ABOUT THE SE200 DEVICE

Q 1. How cost effective is the use of this device?

Answer: This device is for community water purification. If the device is used for 5 years, then the drinking water will cost less than 2 paise per liter to treat.

Q 2. How much salt would be needed to treat 200 liters of water?

Answer: A tablespoon of salt is enough to treat 200 liters of water.

Q 3. How safe is the SE200 device for water purification?

Answer: The technology in the SE200 meets the water purification standard of the Environmental Protection Agency (EPA) of the USA. The SE200 device has been field tested in 10 countries, including India.



Q 4. How much of the solution do we use for purifying water?

Answer: For 10 liters - put half spoon of solution through the blue spoon provided in the SE200 kit  
For 20 liters - put full spoon of solution through the blue spoon provided in the SE200 kit  
For 200 liters - pour the entire solution from one batch of the SE200

Q 5. Will this solution treat brackish (salty) water?

Answer: Yes, the SE200 will kill the germs in the water, but the water will taste salty, as the SE200 cannot remove the salt from the water.

Q 6. How long can you store the Chlorine solution produced by the SE200, and how?

Answer: The Chlorine solution can be stored for a month if it is kept in the brown bottle. This brown bottle should be kept in a cool and dark place as it would then preserve it well.

Q 7. Can this chlorine solution be used for any other purpose?

Answer: Yes, for any use that chlorine is commonly used, such as sterilizing cooking and hospital surfaces.

Q 8. By using the chlorine solution and mixing it in water, will the water taste different or medicinal?

Answer: The water will taste the same mostly. The chlorine amount is very less, enough to kill the germs in the water, but not so much that the taste is bad.

Q 9. How do we mix the solution in the water?

Answer: The best way of mixing it would be to first pour the solution in the container and then fill the container with water as it would then mix thoroughly. If you add the chlorine solution to water that is already in the vessel, then use a clean spoon to stir the water to mix in the chlorine.

Q 10. As soon as we mix the solution in water, does it become safe to drink?

Answer: No. You must wait at least 30 minutes after adding the solution to the water. It takes 30 minutes for the Chlorine to purify water and kill the germs in the water.

Q 11. Can you reuse the salt and water mixture in the transparent bottle?

Answer: Yes, the salt and water mixture in the transparent bottle can be reused. Salt water never becomes bad to use, as salt water is similar to the water in the sea, and it lasts for a long time

Zilla Samakhya

Beacon Ahead Institute

Grameena Punarnirmara Kendram



## FREQUENTLY ASKED QUESTIONS ABOUT THE SE200 DEVICE

Q 12. Can solar energy be used to run the SE200?

Answer: Yes, with a 12 Volt battery. Use the solar panel to charge the 12 Volt battery. Disconnect the solar panel from the battery, and then connect the SE200 to the battery and run the SE200 according to the instructions. If the red light in the SE200 lights up, indicating a low or dead battery, then charge the battery and follow the SE200 instructions for disposal of the chlorine solution, if necessary.



Q 13. What is the warranty for the SE200, and who will provide service and repairs for the device?

Answer: 2 years is the warranty for this device. Beacon Ahead Institute will provide service and repairs for the device.

Q 14. What do we have to do when both the red and purple lights flash?

Answer: This signal usually indicates system reset, meaning the SE200 has had to stop itself. Follow the instructions for resuming use of the SE200.

If the red and purple lights flash when you are trying to use the device through a car or motor cycle battery, then ensure that the car or motorcycle is not switched on. The car or motorcycle battery will have enough power even when the vehicle is not switched on or started.

Q 15. How should we clean the device?

Answer: The device should be rinsed with water once in a day. Drain the water from the SE200 after rinsing. Do not use soap or any other detergent to wash the device. The SE200 is a water proof device but please ensure that water is not accidentally poured on the power connectors.

Vinegar can be used to clean the SE200 occasionally. See the instructions.

Q 16. Do we have to remove the lid of the device while cleaning it?

Answer: No the lid of the device should not be removed while cleaning.

Q 17. When bleach is readily available in the market, why do we have to use this device to make Chlorine?

Answer: Bleach in bottles in the market is affected by storage temperature and light, so it may not be very strong. The SE200 makes fresh chlorine of the same strength every time, so it's easy to make sure that the right amount of chlorine is used to disinfect the water.

Q 18. How is this method of treatment different from other ways of treating water?

Answer: Boiling kills the germs in drinking water with heat. This method uses a small amount of chlorine to kill the germs, and so the water doesn't have to get hot. The SE200's chlorine, when mixed with drinking water, stays in the water and prevents germs from contaminating the water, for days after the treatment.

Q 19. How many liters can the SE200 device treat in a day?

Answer: The device can treat up to 50,000 liters of water in one day, provided you run it 24 hours a day.

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Beacon Ahead Institute

Grameena Punarnimara Kendram



# EVALUATION





## PURPOSE OF EVALUATION

For the Evaluation, BAI team did the following:

1. Development of methodology
2. Preparation of Questionnaire
3. Collecting Information
4. Analysis and report

The evaluation aimed to assess the overall use and performance of the device in a span of 4/5 months after installing it in the villages. During the evaluation, the below stated aspects were reviewed and the data was accordingly collected for analysis:


- a) Ease of usability
- b) Visual appeal
- c) Taste and consumption
- d) Safety
- e) Impact parameters
- f) Water availability
- g) Power availability
- h) Time: How much time is spent to treat the water required in the village/how many times do they have to run the device to treat the water required by the village
- i) Evaluate the change in interest/behavior
- j) Likes/dislikes and opinions
- k) Difference between age groups
- l) Problems
- m) Feedback regarding services and repairs
- n) Interest in continued usage

The questionnaire was prepared on the basis of the above mentioned aspects for reviewing the effective usage and collecting data from the people.

## PROCESS OF EVALUATION

For the purpose of the evaluation of the pilot test across the selected villages in the Kurupam mandal the process followed is listed below:

Initially discussion with the SERP officials was carried out. The logistic arrangements were made thereupon with DRDA, Zilla Samakhya and Grameena Punarnirmana Kendram for logistic support for the dates agreed upon for the evaluation.



Formats for information gathering were prepared to administer at the field level. Upon travel to Vizianagaram discussions were held with the concerned officials and a meeting was held at Kurupam with the key informants of the selected villages.

5 villages per day were covered along the officials from the DRDA, Zilla Samakhya and Grameena Punarnirmana Kendram. The schedules were administered at the field level and the completed formats were duly signed by the supervising officials. All the processes at the village level were recorded. Photo and video coverage giving all the details has helped to substantiate to the report.

In the Kurupam village (SC community) the device was launched and the processes were initiated.

Data entry and analysis was taken up later on which also included the qualitative analysis. The major findings and the overall impact of the pilot test of the SE200 device has been given separately.

Certification of the SE 200 device is submitted separately highlighting all the details of the Indian standard usage norms, EPA standards of the USA and the corresponding World Health Organization standards for usage treatment.

### MEETING PRIOR TO THE EVALUATION

A meeting between Zilla Samakhya and Beacon Ahead Institute was conducted on 13-2-2013:


#### Members present:

- Mr. Govindu
- Treasurer: of Zilla Samakhya: Ms. Y. Lakshmi
- Secretary: of Zilla Samakhya: Ms. Appala Narasamma
- Ms. Jane Verrall- Beacon Ahead Institute
- Ms. Priyam Varma-Beacon Ahead Institute
- Ms. Madhu Katkar-Beacon Ahead Institute
- Other office bearers of Zilla Samakhya

The meeting was held at the Zilla Samakhya office at Vizianagaram and the discussions revolved on the following aspects:

- Update on the field plan for the 10 villages
- Memorandum of Understanding
- Logistic arrangements for the review visit



- 
- Review of the posters prepared by the Beacon Ahead Institute and the involvement of the GPK at the field level. It was decided that the VOs would endorse the posters at the village level along with GPK.
  - The prepared questionnaire was shared with the Zilla Samakhya and DRDA personnel.

### MEETING WITH MASTER TRAINEES - KURUPAM

This meeting was held with the Master trainees of the villages in which the SE200 devices were given on 14-2-2013 during the evaluation. The venue of this meeting was at the school run by the NGO – Grameena Punarnirmana Kendram (GPK).

#### Members present:

Smt. H. Lakshmi-President-Zilla Samakhya  
Smt. G. Seetamma-Vice President-Zilla Samakhya  
Sri. P. Govindu-Zilla Samakhya  
Smt. S. Aruna Kumari- DRDA-APM  
Sri. Sanyasi Raju- GPK:NGO

Sri. Lakkaiah: Kedijwala grama  
Sri. Yerakaiah-Ichapuram  
Sri. Prasad and Smt. Tejawati- Biyalavalasa  
Sri. Babu Rao- Jagandravalasa  
Sri. Puttu-Yempatapura

Ms. Priyam Varma-Beacon Ahead Institute  
Ms. Madhu Katkar-Beacon Ahead Institute  
Ms. Jane Verrall- Beacon Ahead Institute

The discussions revolved around the usage of the SE200 device and the related information. When the 10 villages used the device for safe drinking water, it also catered to the neighboring villages (about 3 to 4 hamlets/villages).

The following were the observations by the village representatives and/or Master Trainees:

- With the usage of the device, the people were encouraged to use the same as it has not resulted in any health hazards such as cold or cough as experienced otherwise with the regular usage of the water in the areas.



- With continued usage they feel courageous to go forward and share the solution with other neighboring areas.
  - The procedure to operate the device is simple and it is easy to follow by the people.
  - The odor of the solution produced is not very pungent and it is not an issue. Initially due to slight odor they had discontinued usage for a short while.
- 
- The time spent to produce the solution to treat water is minimal and this makes it easy for the people.
  - The purified/treated water is also used for cooking purposes other than drinking.
  - People are demanding the solution for more than 2 bindes {containers} (about 20 litres of water or so)
  - The usage is motivating the people to use the device regularly and on a long term basis.
  - The usage of common salt instead of using chemicals and bleaching powder to treat water is agreeable to the people.
  - The solution to treat water is self prepared and supplied by the people for overall usage of the whole village.
  - People are aware of the diseases such as: cholera, diarrhea, dysentery, polio, jaundice and typhoid.
  - Nearby villages are also willing to use the solution but due to lack of electricity it is not possible to lend the solution to all concerned.
  - Each village is demanding one device for its own use. Some of the nearby hamlets are also willing to share one device.

- The solution to treat the water is distributed free of cost without charging the households for the same.
- The TSP: Technical Support Person per village can also be taught to repair the device in times of need if any.
- The RPD has visited the area and taken positive feedback from the concerned villages, especially from Biyalavalasa.
- In Tompalpaadu: it was mentioned that salt also costs for the community usage and this can be contributed by the villagers.
- In TK Jammu there is the formation of water committee; environment committee and education committee and most of which are members from the youth club.
- It was also mentioned that it is better to have a bigger device to prepare more chlorine for catering to larger communities.



### Issues:

The adaptor was required to be replaced once in the Biyalavalasa village.

### Queries:



of the batteries for regular usage.

1. Can the solution be stored in other bottles and containers?

Ans: It is advisable to store it in the brown storage bottle as it has a dark color coating which will preserve the Chlorine well.

2. What is the time limit for the storage of chlorine and its usage?

Ans: One month if it is stored in a cool place in the brown storage bottle.

3. The queries were also regarding the charging

Ans: You can use solar batteries which have 12 volts for running the SE200 as it can then be used more easily.

### **Suggestions:**

It is not possible to supply and distribute the solution to each and every household and so it was suggested to have a tank for general usage of the entire hamlet or village. [Usage of a tank will cater to more households instead of distributing the solution to each household].

The people need additional bottles to store the solution for larger and continued use. They also need more spoons to measure the solution.



The requirement is for two devices in bigger villages for total coverage of families. In smaller villages and hamlets one device can be shared between hamlets or villages.

## **EVALUATION – VILLAGE PROFILES**

During the evaluation all the 10 villages which were given the SE200 devices were visited and the data was collected as per the questionnaire. The monitoring of the evaluation was carried out by the President of Zilla Samakhya, Ms. H. Laxmi, Manager of Zilla Samakhya, Mr. P. Govindu, APM – Call Center (IKP) DRDA, Ms. S. Aruna Kumari and the Secretary of GPK, Mr. Sanyasi Raju. All the monitoring officials were part of the two day evaluation of the ten villages conducted by BAI. Based on the data collected at the villages, the profile of each of the 10 villages are presented to highlight all the aspects about the background of the village, the usage of the SE200, ease of use and dosing, taste factor, overall impact and opinions of the village regarding the SE200, interest in continued usage, service and repairs, suggestions and other related information. The original questionnaires and DVD with photos and videos are enclosed as annexures for review.

### **VILLAGE PROFILES**

#### **VILLAGE 1 - ARIKA KURUDI**

#### **Village profile:**

The village Arika Kurudi is inhabited by the Savara tribal community. The village has 13 families with a population of about 66. The age group ranges from one month (12 days) to 60 years. The structure of the family is both joint and nuclear. There is one SHG group in the village (Girijana Mahila Sangham).

The source of water is from bore well and this is constant. But the power supply fluctuates without a fixed time for the same.

#### **About SE200 device usage:**



The SE200 device is operated by B. Sunita and G. Urappu. The water thus treated by the device is consumed by all the 66 people of the village. The SHG members store the device in the house in a bag when not in use.

The village SHG members take keen interest to supply the solution for each household to ensure safety of drinking water.

The village has been using the device regularly and they feel it is quite safe to use it. There has not been any risk factor in using the device. Except for a slight odor there are no other aspects to report in its usage. Within a limited time of one hour the water is ready for consumption. The device is in use since two months.

Car or motor cycle batteries have not been used to run the device. The time spent to prepare the solution to treat the water takes about 20 minutes daily and this includes time for distribution to the households as well. The device is run four times in a day and this is mostly done in the morning. It is cleaned with water after usage and they carefully store it in a bag to safeguard it from rats.

#### **Ease of use and dosing:**

The people felt that it is very easy to use the device and it takes very little time. The device operators or the village members are familiar with the instructions though they do not have a copy of the instructions to be followed. Water is treated by way of distributing the solution to each household. The dosage of using half a spoon for 10 liter containers was explained to the people.

#### **Taste factor:**

Regarding the taste the people opined that it has a slight odor but this did not discourage them from its continued usage. They also do not have any other method of treating water.

#### **Overall Impact and opinions according to village:**

The people prioritize the health as the major concern as they also mention the ease of treatment. The opinions were positive about the device and it is stated as overall good and good for health. The instances of cough and cold among the people have come down which was otherwise a common factor.



### Interest of usage:

The people are motivated to use the solution for more than one village/habitation. There were no decline or any disinterest in using the device nor is there a preference for other ways of treating water. The device needs to be run more than two times to be able to cater to the nearby habitations.

### Service and repairs:

The people have not faced any major problems with the device. The discussions about the service plan and replacement if required were clarified to the people. In case of any repairs/replacement to the device the people were told to inform the local NGO: GPK.



### Suggestions:

The people are willing to use the device on a long term basis and they also felt that it is useful to learn how to wash the device each time after use.

**Other related information:** None

## VILLAGE 2 - BIYALAVALASA

### Village profile:



The village Biyalavalasa is inhabited by the Jatapu tribal community. The village has 50 families with a population of about 250. The age group ranges from two months to 80 years. The structure of the family is mostly joint families. There are 4 SHG groups.

The source of water is from a bore well and there is constant water supply. But the power supply fluctuates as they have power for about two and half hours daily {morning half hour and again in the evening from 6 to

8pm).

### About SE200 device usage:

The SE200 device is operated among 4 youth members and Satish is mainly present when the device is operated. The water thus treated by the device is consumed by all the 250 people of the village. The youth members store the device in the house. When operating the device they use a table to run the device.

The village youth members take keen interest to supply the solution for each household to ensure safety of drinking water.

The village has been using the device regularly and they do not see any risk factor involved in its usage. There have not been any side effects or ill health reported since its usage.

Car or motor cycle batteries have not been used to run the device. The time spent to prepare the solution to treat the water takes about 30 minutes daily. The device is run six times in a day and this is mostly done in the morning. It is cleaned with water after usage and they carefully store it.

#### **Ease of use and dosing:**

The device operators or the village members are familiar with the instructions though they do not have a copy of the instructions to be followed. The device is easy and simple to operate. Water is treated by way of distributing the solution to each household. The dosage of using half a spoon for 10 liter containers was explained to the people.

#### **Taste factor:**

Regarding the taste, the people opined that it has a slight odor but this did not discourage them from its continued usage. They also do not have any other method of treating water.

#### **Overall Impact and opinions according to village:**

The people prioritize the health as the major concern as they also mention the ease of treatment and the increased interest in safe water. The opinions were positive about the device as it was stated that it is for overall good and good for health. They mentioned that occurrences of cold and cough which are mainly water borne have reduced considerably.

#### **Interest of usage:**

The people are motivated to use the solution for more than one village/habitation. There was no decline or any disinterest in using the device for other ways of treating water. The device needs to be run more than six times to cater to the entire village.

#### **Service and repairs:**

The people have not faced any major problems with device. The power adaptor stopped working and this was duly replaced by the NGO: GPK. The discussions about the service plan and replacement if required were clarified to the people.

#### **Suggestions:**







The suggestion was to install a tank for community usage. The need was also mentioned to monitor the supply of water from the tank to all the families and this to be done by the people by taking turns and to ensure that all the people consume safe water.

**Other related information:** None

### VILLAGE 3 - DOMMIDI

#### Village profile:

The village Dommidi is inhabited by the Savara tribal community. The village has 25 to 27 families with a population of about 120-125. The age group ranges from three months to 60 years. The structure of the family is mostly nuclear. There are 2 SHG groups.

The source of water is from an open well and nearby streams and this is almost constant. But the power supply fluctuates and they have power between 6 in the evening to 5 in the morning (11 hours) daily.

#### About SE200 device usage:



The SE200 device is operated by B. Chandramma and B. Amosa. The master trainer is Lakkaih who is mostly present when operating the device. The water thus treated by the device is consumed by all the 125 people of the village. The youth members store the device in the house in a cupboard. .

The village youth members take keen interest to supply the solution for each household to ensure safety of drinking water.

The village has been using the device regularly and they feel it is quite safe to use it. The water also tastes better since they have been using the solution to treat the water.

Car or motor cycle batteries have not been used to run the device. The time spent to prepare the solution to treat the water takes about 10 minutes daily. The device is run two times in a day and this is mostly done in the morning. It is cleaned with water after usage and they carefully store it.

#### Ease of use and dosing:

The device operators or the villagers are familiar with the instructions though they do not have a copy of the instructions to be followed. Water is treated by way of distributing the solution to each household. The dosage of using half a spoon for 10 liter containers was explained to the people.

### **Taste factor:**

Regarding the taste the people opined that the water has a slight odor but this did not discourage them from its continued usage. They also do not have any other method of treating water except that they knew previously to use a cloth to filter the water to prevent any dust particles from contaminating water.

### **Overall Impact and opinions according to village:**

The people prioritize the health as the major concern as they also mention the ease of treatment. The opinions were positive about the device. The people felt that it is better to continue using the device as they definitely have an increased interest in safe water. Better health for all was also cited and they did not recall any instances of death occurring due to water borne diseases of late. The operation of the device was also easy to handle.



### **Interest of usage:**

The people are motivated to use the solution for more than one village/habitation. There was no decline or any disinterest in using the device. The device needs to be run more than two times to be able to cater to the nearby habitations. .

### **Service and repairs:**

The people have not faced any major problems with device. The discussions about the service plan and replacement if required were clarified to the people.

### **Suggestions:**

The suggestion was to install a tank for community usage. A central place had to be common for the entire village. More number of storage containers was required as it becomes difficult to reach each and every household especially in the rainy season.

**Other related information:** None

## **VILLAGE 4 - GOTIWADA**

### **Background about the village:**

The village Gotiwada is inhabited by Jatapu tribal communities. There are 10 joint families and 88 extended families in Gotiwada, and a total of 98 households. The age group ranges from one

month to 100 years, with most people in the 15 to 45 year old age bracket. There are eight Self Help Groups (SHGs) in the village.

The people get water from a bore-well source and some of them use stream water. The power supply fluctuates and is between 6 pm to 6 am.

#### **About SE200 usage:**



The village has been using the SE200 water treatment device and they have been providing chlorine to all the households in the village.

There are four Master trainees whose names are T. Sundavarao, T. Padma, T. Dalamma and Ammadamma. They run and store the SE200 at the SHG located in the colony Street.

Car or motor cycle batteries have not been used to run the device. The time spent to prepare the solution to treat the water takes about 2 hours daily. The device is run 3 - 5 times in a day. It is cleaned with water after usage and they carefully store it.

All 98 households are drinking water treated by the chlorine from their SE200. The village members stated that the safety of using the SE200 device is 100%. The people opined that as only salt is used for making chlorine in community presence, the treated water is very safe.

#### **Ease of use and dosing:**

The people in this village stated that the device is easy to use and the method is simple. They said that the instructions are easy to follow. Water is treated by way of distributing the solution to each household.

#### **Taste factor:**

The people stated that the water treated by the SE200 is has a little smell of chlorine, and the taste encourages them to drink water. The people are regularly consuming the water treated by the SE200. The village members are not using any other method to treat the water.

#### **Overall Impact and opinions according to village:**

The overall impact of using the SE200 device according to the village members was better health and safe drinking water. Their interest in using the SE200 has increased, and they opined that it is very good for drinking safe water in the village.

The people in this village have no negative opinions about the SE200 device, and they appreciate the innovation.

**Interest of usage:**



The people said that there has been no decline in their interest to use the SE200. They are interested and motivated to continue using the SE200 to treat the water.

**Service and repairs:**

The users have faced no problems with the device or its accessories. The discussions about the service plan and replacement if required were clarified to the people.

**Suggestions:**

The suggestion was to install a tank for community usage.

**Other related information:** None

## VILLAGE 5 - ICCHAPURAM

**Background about the village:**

The village Icchapuram is inhabited by Savara tribal communities. There are 25 joint and extended families in Icchapuram. The age group ranges from a few months to 70 years. There is one Self Help Group (SHG) in the village.

The people get water from a bore-well source on a daily basis. The power supply fluctuates and is between 6 pm to 6 am.

**About SE200 usage:**

The village received an SE200 water treatment device two weeks ago as on the evaluation date. The village members have been providing chlorine to their own village and four areas nearby.

There are two Master Trainees in the village whose names are Yerkaiah and his son, Chinna Rao, who run the SE200 outside, on a chair, and store it inside a cupboard when not in use. They do not use a car or motorcycle battery to run the SE200. The SE200 is run 20 minutes per day for 4 times in order to treat 800 liters of water per day. After every 3 to 4 uses, the SE200 is cleaned with water and dried.



A total of 200 people are drinking water treated by the chlorine from their SE200. These 200 people are comprised of 150 people from Icchapuram, and 50 from the nearby areas.

The people stated that the SE200 device is safe to use, and is good for health. They opined that there is no risk with drinking the treated water, and said that by using the device their health will improve.

#### **Ease of use and dosing:**



The people in this village stated that the device is easy and quick to use, and distributing the chlorine is time consuming. They did not get a copy of the instructions. Instead, they were given a demo to understand the procedure for using the SE200. Water is treated by way of distributing the solution to each household.

#### **Taste factor:**

Regarding the taste factor, people said that the water treated by the SE200 is has a little odor, but it is good and cool like tap water. There used to be a red deposit of Pimprinaata in the water, but now the water is clear like tap water. The people are consuming the water treated by the SE200 regularly, and they enquire about it if the chlorine is not supplied on a daily basis.

To treat their water, the village members now use only SE200 chlorine. Previously, they used to boil the water.

#### **Overall Impact and opinions according to village:**

The overall impact of using the SE200 device according to the village members was that they now have access to safe drinking water, improved health and it is beneficial to all. It is useful for cooking purposes also. They depend on one bore-well, so the SE200 ensures that they will be able to disinfect this water.

The people in this village have no negative opinions about the SE200 device, and they appreciate the innovation.

#### **Interest of usage:**

The people in Icchapuram stated that there has been no decline in their interest to use the SE200, and that there is demand for SE200 devices in other villages



and hamlets. They are interested in continuing using the SE200 to treat water.

**Service and repairs:**

The users have faced no problems with the device or its accessories. They are using the device with care. The service plan was explained to the people.

**Suggestions:**

The Master trainees suggested that there is a need for a water tank as it would provide access to treated water at anytime. They mentioned that buying salt is another issue, and that the other people are not willing to contribute for the same. It would be very helpful if some help is extended towards buying of salt.

**Other related information:** None

**VILLAGE 6 - JAGANDRAVALASA**

**Background about the village:**



The village Jagandravalasa is inhabited by Savara tribal communities. This village received an SE200 water treatment device in January 2013, and the villagers have been providing chlorine to their own village and two other villages, Sitalakendi and Ramadakenda. There are 32 families in the three villages: six families in Jagandravalasa, 20 in Sitalakendi, and six in Ramadakenda. These are nuclear and extended families, and the people range in age from five months to 65 years or more. There is one Self Help Group in each of the three villages.

The people get water from a bore-well source on a daily basis. The power supply fluctuates and is between 6 pm to 6 am, generally for one hour at 6 pm, and then between 8 pm to 6 am.

**About SE200 usage:**

There are two Master Trainees in Jagandravalasa whose names are B. Babu Rao and Leby who operate the SE200 outside on a cot and store the SE200 inside in a sack when not in use. They do not use a car or motorcycle battery to run the SE200. The SE200 is run three times a day for 15 minutes to make enough chlorine to treat the water in the 3 villages. After use, the SE200 is washed and rinsed with water every day.

The dosing of the water is done every day at 6 am. A total of 150 people are drinking water treated by the chlorine from the SE200.



They opined that the SE200 device is safe to use and there is no risk in drinking the treated water. They stated that earlier the water that they used to consume was risky and they used to get stomach pain. But after using the SE200, there are no problems and it is safe.

**Ease of use and dosing:**

The people in this village stated that the device is easy to use, as it only takes 5 minutes to make Chlorine with the SE200. The people said that the instructions are easy to follow and it tallies with what GPK said. They do not have copies of the same and they need the instruction copies.

The Master trainees do individual dosing per household in the villages and they provide one spoon of chlorine per 20 liters of water.

**Taste factor:**

The people stated that the water treated by the SE200 initially had a smell and they weren't used to it. As they kept drinking the water, they got used to it after 2 or 3 days. They said that they were highly motivated and they feel like drinking more and more of the water. All the people are regularly consuming the water treated by the SE200 as it is nice. The village members use no other method to treat the water except for using the SE200 chlorine.



**Overall Impact and opinions according to village:**

The overall impact of using the SE200 device according to the village members was that earlier they used to fall ill very often. The people opined that now the health of the people and their children is better and they are no longer using chlorine tablets.

**Interest of usage:**

The people in this village feel highly motivated to use the device constantly and there was no decline in interest levels in using the device. The users are interested in continued usage of the device on a long term basis.

**Service and repairs:**

The users have faced no problems with the device or its accessories. The service plan was explained to the people.

**Suggestions:**



The people suggested that they need help to buy salt, as it is getting costly. They also stated that there is a need to have more literature about SE200 and its instructions. This would help them a lot as the educated members in the village can read and teach the people about how the SE200 turns salt brine into chlorine very easily.

**Other related information:** None

## VILLAGE 7 - KEDIJWALA

### Background about the village:

The village Kedijwala is inhabited by Savara tribal communities. There are 22 nuclear families in Kedijwala, and the whole village is one family. The people range in age from 5 months to 65 years. There are two Self Help Groups (with a total of 25 SHG members) and one Youth Club of 20 members in the village.

The people get water from a bore-wells and well sources on a daily basis. The power supply fluctuates and is between 6 pm to 6 am, generally for one hour at 6 pm to 7 pm and then between 8 pm to 6 am.

### About SE200 usage:

This village received an SE200 water treatment device January 2013, and the villagers have been providing chlorine to their own village and to two other villages, Mandaldamguda and Ananthapuram.



There are two master trainees in this village whose names are M. Lakhaiah and Jeevan Kumar who operate the SE200 outside of Lakhaiah's house on a table and store the SE200 inside his house in a desk when not in use. They do not use a car or motorcycle battery to run the SE200, because they get power every day. The SE200 is run 15 to 30 minutes per day, to make enough chlorine to treat the water in the 3 villages. They treat 600 liters of water per day in the village. After every use, the SE200 is cleaned and

rinsed with water.

A total of 163 people are drinking water treated by the chlorine from the SE200. These 163 people comprise of 105 people from Kedijwala, 28 from Mandaldamguda and 30 from Ananthapuram.

They stated that using the SE200 device is very safe. They are of the opinion that there is no risk in drinking the treated water, and they mentioned that earlier the water that they used to drink

was a cause for the diseases and cough, and they used to boil the drinking water. But with the water treated by the SE200, they are not falling ill.

**Ease of use and dosing:**

The people in this village stated that the device is easy to use, and the only expense is salt. The people said that the instructions are easy to follow and they asked for more copies of the same.

Individual dosing of water with the chlorine is used to treat water in bindes in the three villages.

**Taste factor:**

The people stated that the water treated by the SE200 tastes good. They said that they used to feel scared to drink the water because of fear of bad water, and now they like the treated water and drink it a lot. They commented that the taste encourages them to drink the water, and before they got the SE200, the bore-well, stream and well water used to be different. All the people are consuming the water treated by the SE200 daily, as it is clear, tasty and they like it.

The village members use no other method to treat the water except for using the SE200 chlorine. They used to boil their water before but now that they are using the SE200, they are no longer boiling the water.

**Overall Impact and opinions according to village:**

The overall impact of using the SE200 device according to the village members was overall health is better. There are no cases of diarrhea or diseases reported. The people feel satisfied because they prepare the chlorine and make their own water safe.



They commented that earlier the government was giving bleaching powder or chlorine powder, and they did not trust it. But now they were only using and making chlorine, and they are promoting the use of this device by telling others that only salt is used to make the chlorine.

They also stated that they are telling the Mahila Mandali people that they want more devices as other people also want safe drinking water.

**Interest of usage:**

The people in this village feel motivated to use the SE200 device for a long time, and there was no decline in interest levels in using the device. They stated that they will use it for many years.

### Service and repairs:

The users have faced no problems with the device or its accessories. They are using the device with care. The service plan was explained to the people.

### Suggestions:

The Master trainees suggested that it would be less time consuming if they could treat the water in a 200/300 liter tank. A tank with more taps would also be easy for people to access and fill bindes and get safe water.

They mentioned that they want more help to buy salt, as it is becoming costly because all the people want to get the Chlorine and use it for free, since the government gave them the SE200 for free. They also need more brown chlorine storage bottles to make it easier to supply the chlorine to other villages.

**Other related information:** None

## VILLAGE 8 – S.C. PAIDI

### Inauguration of the SE200 device in the Kurupam village

On 15 February 2013, the S.C. Paidi Gandhi Colony was chosen for introducing the water purification device.

The village S.C. Paidi is inhabited by the Scheduled Caste community and which comprises of 120 families with a population of about 1000. The age group ranges from one month to 80 years. There are 8 SHG groups in the village.

The source of drinking water is from the tap from which water is supplied daily for half an hour. They also depend on water from the tank. The power supply fluctuates though it is the mandal headquarters.



The device SE200 was introduced to the people of the village. The Old age Sangha group decided to keep the device carefully. When the operation of the device was explained to them the people felt encouraged to use the same. The expenditure of the device also seemed affordable and they also felt it is accessible to the entire village.





The people stated that they were concerned primarily about the overall health of the people and were willing to work towards improving the health status.

The people were told to contact the local NGO: GPK in matters concerning any repairs/replacement to the water treatment device.

The people were willing to use the device and they also suggested that since they are mostly daily wage laborers, it is time consuming to distribute the solution to all the 120 families and there should be a central installation of a tank for the water so that everyone can access the same.

The posters prepared by Beacon Ahead Institute were provided to the village.

### VILLAGE 9 – T.K. JAMMU

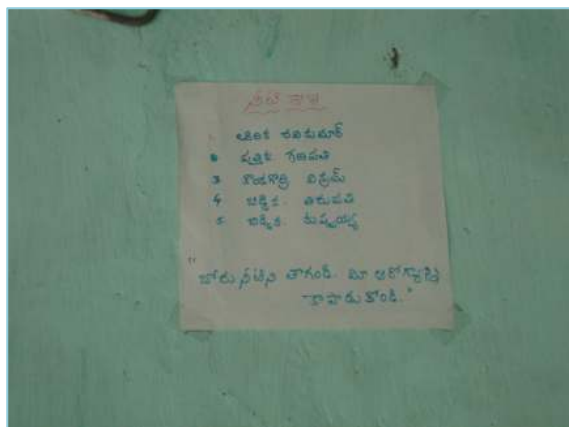
#### Village profile:

The village T.K. Jammu is inhabited by the Savara and Jatapu tribal communities. The village has 20 families with a population of about 330. The age group ranges from one month to 90 years. The structure of the family is both nuclear and joint families. There are 5 SHG groups.

The source of water is from a bore well and there is constant water supply. But the power supply fluctuates from 4 to 5 hours per day.

#### About SE200 device usage:

The SE200 device is operated among 5 youth members viz: Sunder, Srinu, Shankar, Koteshwar and Kailash. The water thus treated by the device is consumed by all the 330 people of the village. The youth members store the device in the community hall and operate in the same premises.



The village has formed a water committee which takes keen interest to supply the solution for each household to ensure safety of drinking water.

The village has been using the device from one week and they are quite comfortable to use the treated water except for the slight odor. The time spent to treat the water takes about 20 to 30 minutes and the usage of car or motor cycle batteries is not in practice among the village members. The device is run four times in a day

and this is mostly done in the morning. It is cleaned with water after usage.



### **Ease of use and dosing:**

The device operators or the village members are familiar with the instructions though they do not have a copy of the instructions to be followed. The device is easy to operate as it also kills worms present in bore well water. Water is treated by way of distributing the solution to each household. The dosage of using half a spoon for 10 liter containers was explained to the people.

### **Taste factor:**

Regarding the taste the people opined that it is better than bore well water and this is an encouraging factor for its continued use. They also do not have any other method of treating water.

### **Overall Impact and opinions according to village:**

The people prioritize the health as the major concern as they also mention the ease of treatment and the increased interest in safe water. The opinions about the device are stated as overall good.

### **Interest of usage:**

The people are motivated to use the solution for more than 10 to 20 liters of water per day per household and there was no decline or any disinterest in using the device for other ways of treating water. The device needs to be run more than four times to cater to the entire village.

### **Service and repairs:**

The people have not faced any problems with the device or its accessories. Discussions about the service plan and replacement if required were clarified to the people.

### **Suggestions:**



The suggestion was to install a tank for community usage. The need was also felt for supply of extra containers for storage of the solution for wider coverage and consumption of treated water for the village and the habitations nearby.

### **Other related information:**

Due to power shut down the device was run on car battery on the day of the evaluation (Innova vehicle: AP 31 TU 2565) and the time taken to operate the device was 8 minutes.



## VILLAGE 10 – TOMPALAPADU

### Background about the village:



The village Tompalapadu is inhabited by Jatapu tribal communities. There are 35 families in Tompalapadu, and there are no joint families. The people range in age from a one month old baby to 68 years. There are two Self Help Groups in the village.

The source of water is from a bore well. But the power supply fluctuates and they get intermittent power supply between 6 pm and 10 am.

### About SE200 usage:

This village received an SE200 water treatment device two weeks ago as on the evaluation date, and the villagers have been providing chlorine to the village and the High School.

There are three Master trainees who run the SE200 device whose names are N. Jagadish, K. Palavardhana, and K. Visvanadhan. They use and store the SE200 in the Youth Club. They do not use a car or motorcycle battery to run the SE200. They spend about 2 hours per day to treat water, and they run the SE200, 3 to 5 times a day. They clean the SE200 only with water.

A total of 250 people are drinking the water treated by the chlorine from the SE200. These 200 people comprise of people from Tompalapadu and from the High School.

They stated that using the SE200 device is better for safety, as the treatment procedure is done in the presence of the community.

### Ease of use and dosing:

The people in this village stated that the device is easy to use and they found the instructions easy to follow. Individual dosing of water with the chlorine is done to treat water.

### Taste factor:

The people opined that they are happy to drink the water treated by the SE200, and that they are encouraged to drink more water. They are regularly consuming and supplying water that has been treated with the chlorine from the SE200. To treat their water, the village members do not use any method other than the SE200 chlorine.



### Overall Impact and opinions according to village:

The overall impact of using the SE200 device is better health and it has increased their interest in safe water. They opined that the device is essential for their remote area for treatment of drinking water.

### Interest of usage:

The people in Tompalapadu said that there has been no decline in their interest to use the SE200, and that they are interested and a little motivated to continue using the device. They are interested in continuing to use the SE200 to treat water.

### Service and repairs:

The users have faced no problems with the device or its accessories. They are aware of the service plan.



### Suggestions:

The Master trainees suggested that it would be helpful if the village is supplied with a separate drinking water tank. They also suggested that other villages should be supplied with SE200 devices.

**Other related information:** None

## QUALITATIVE ANALYSIS

The qualitative analysis provides details regarding the types of data outputs (e.g., lists, ranges, tables, ratios, quotes, etc.) for analyzing the raw qualitative data acquired during the evaluation of the SE200 water treatment devices conducted in the 10 villages in Kurupam Mandal, Vizianagaram district, Andhra Pradesh in February 2013 as a component of the Pilot field test project (August 2012 to February 2013). The analysis has been conducted for the data collected as per the evaluation questionnaire.

### 1. BACKGROUND OF THE VILLAGE

#### 1.1 LIST OF THE NAMES OF VILLAGES:

The ten tribal villages in the Kurupam Mandal selected for the SE200 pilot field test are listed as follows:

1. Arika Kuridi
2. Biyalavalasa

3. Dommidi
4. Gotiwada
5. Icchapuram
6. Jagandravalasa
7. Kedijwala
8. SC Paidi
9. TK Jammu
10. Tompalapadu

### 1.2 KINDS OF TRIBES OR THE COMMUNITY (RATIO)

Among the 10 villages, 5 villages belong to Savara tribal community (Dommidi, Kedijwala, Jagandravalasa, Icchapuram and Arika Kurudi). 3 Villages belong to Jatapu tribal community (Biyalavalasa, Tompalapadu and Gotiwada. The village T.K Jammu is inhabited by people belonging to Savara and Jatapu communities and the village S.C. Paidi is inhabited by people belonging to Scheduled caste community. The ratio of the kinds of tribes or communities is stated below:

RATIO OF KINDS OF TRIBES OR COMMUNITY		
Category	No. of villages reported	Ratio
Villages with Savara tribe	5	1:2
Villages with Jatapu tribe	3	3:10
Villages with Savara and Jatapu communities	1	1:10
Villages Scheduled caste communities	1	1:10

### 1.3 RANGE OF NO. OF PERSONS OR FAMILIES IN THE VILLAGE:

The no. of families in each village varies among the 10 villages and the lowest number of families is recorded to be 13 in Arika Kuridi village and the highest is recorded to be 150 families in Icchapuram village. Hence the range of families is 13-150 respectively. The table below highlights the range of families from lowest to highest.

1.3. RANGE OF NO. OF FAMILIES/PERSONS IN THE VILLAGE		
S.NO	VILLAGE NAME	RANGE OF FAMILIES
1	Arika Kuridi	13
2	Kedijwala	22
3	Dommidi	25
4	Jagandravalasa	32
5	Tompalapadu	35

6	Biyalavalasa	50
7	Gotiwada	98
8	T.K Jammu	120
9	S.C. Paidi	120
10	Ichapuram	150

#### 1.4 RANGE OF NO. OF SHG GROUPS IN THE VILLAGES:

The no. of SHG groups per village varies among the 10 villages and the lowest number of SHG groups was recorded to be 1 in two villages (Arika Kuridi and Ichapuram) and the highest no. of SHG groups is recorded to be 8 in two villages (Gotiwada and S.C Paidi). Hence the range of SHG groups in the villages is 1-8 respectively. The table below highlights the range of SHG groups in the villages from lowest to highest.

1.4. RANGE OF NO. OF SHG GROUPS PER VILLAGES		
S.NO	VILLAGE NAME	RANGE OF SHG GROUPS
1	Arika Kuridi	1
2	Ichapuram	1
3	Dommidi	2
4	Kedijwala	2
5	Tompalapadu	2
6	Jagandravalasa	3
7	Biyalavalasa	4
8	T.K Jammu	5
9	Gotiwada	8
10	S.C. Paidi	8

#### 1.5 RANGE OF AGE GROUPS IN THE VILLAGE FROM LOWEST TO HIGHEST:

The age groups of the people in each of the villages varies and the lowest age group person is recorded to be 12 days old in Arika Kuridi village and the highest age group person was recorded to be 100 years old in the village Gotiwada. Hence the range of age groups in the villages is 12 days-100 years respectively. The table below highlights the range of age groups in the villages in both lowest and highest categories per village:

1.5. RANGE OF AGE GROUPS PER VILLAGES FROM LOWEST TO HIGHEST			
S.NO	VILLAGE NAME	LOWEST AGE GROUP	HIGHEST AGE GROUP
1	Arika Kuridi	12 days	60 years
2	S.C. Paidi	<1 month	80 years
3	Tompalapadu	1 month	68 years
4	T.K Jammu	1 month	90 years

5	Gotiwada	1 month	100 years
6	Biyalavalasa	2 months	80 years
7	Dommi	3 months	60 years
8	Icchapuram	4 months	70 years
9	Jagandravalasa	5 months	65 years
10	Kedijwala	5 months	65 years

**a. RATIO OF KINDS OF FAMILIES IN THE VILLAGES:**

Among the 10 villages, 1 village Biyalavalasa comprises of joint families. In the village (Dommi) nuclear families are to found. 2 villages (Jagandravalasa and Tompalapadu) have nuclear and extended families. 4 villages (Kedijwala, T.K.Jammu, Arika Kuridi and S.C. Paidi) have nuclear and joint families. Joint and extended families can be found in 2 villages namely Icchapuram and Gotiwada. The ratio of no. of the kinds of families among the 10 villages is stated below:

RATIO OF KINDS OF FAMILIES IN THE VILLAGES		
Category	No. of villages reported	Ratio
Joint families	1	1:10
Nuclear families	1	1:10
Nuclear and extended families	2	1:5
Nuclear and joint families	4	2:5
Joint and extended families	2	1:5

**b. LIST OF SOURCES OF WATER SUPPLY IN THE VILLAGES:**

The sources of water supply to the villages vary among the villages and the list of the same per village is stated below:

- Bore-well (Arika Kuridi, Biyalavalasa, Icchapuram, Jagandravalasa, T.K. Jammu and Tompalapadu)
- Bore-well and streams (Gotiwada)
- Bore-well and well water (Kedijwala)
- Tap water and tank water (S.C.Paidi)
- Well water and streams (Dommi)

**i. RATIO FOR AMOUNT OF WATER SUPPLY IN THE VILLAGES PER DAY:**

Among the 10 villages, the data regarding the amount of water supply in the villages per day is available only for 5 villages (Biyalavalasa, Dommi, Gotiwada, Icchapuram and Tompalapadu). Arika Kuridi and T.K. Jammu villages have availability for water always. In Jagandravalasa

there is every day supply of water. In the village Kedijwala, the water is available often. S.C. Paidi village has half an hour water supply per day. The ratio for amount of water supply in the villages per day is stated below:

<b>RATIO FOR AMOUNT OF WATER SUPPLY IN THE VILLAGES PER DAY</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Always available	2	1:5
Every day supply	1	1:10
Often available	1	1:10
Available for half an hour	1	1:10
Data not available or applicable	5	1:2

**c. TABLE FOR FREQUENCY OF POWER SUPPLY IN THE VILLAGES:**

In 7 villages (Arika Kuridi, Biyalavalasa, Icchapuram, Jagandravalasa, Kedijwala, S.C. Paidi and T.K. Jammu) there are fluctuations in the power supply. 3 villages (Dommidi, Gotiwada and Tompaladu) the frequency of power supply is from night to morning. The table below highlights the frequency of power supply in the 10 villages:

<b>1.8. FREQUENCY OF POWER SUPPLY IN THE VILLAGES</b>		
<b>S.No</b>	<b>VILLAGE NAME</b>	<b>FREQUENCY</b>
1	Arika Kuridi	Fluctuates
2	Biyalavalasa	Fluctuates
3	Dommidi	Night to morning
4	Gotiwada	Night to morning
5	Icchapuram	Fluctuates
6	Jagandravalasa	Fluctuates
7	Kedijwala	Fluctuates
8	S.C.Paidi	Fluctuates
9	T.K. Jammu	Fluctuates
10	Tompalapadu	Night to morning

**i. RANGE OF POWER SUPPLY PER VILLAGE (HIGHEST TO LOWEST)**

The range of power supply varies among the villages and highest duration is recorded to be 14 hours in the village Tompalapadu and the lowest is recorded to be 2.5 hours in Biyalavalasa village. Hence is range of power supply is 14-2.5 hours. The table below highlights the range of power supply per village from highest to lowest:

<b>1.8.1 RANGE OF POWER SUPPLY PER VILLAGE</b>		
<b>S.No</b>	<b>VILLAGE NAME</b>	<b>RANGE OF POWER SUPPLY</b>
1	Tompalapadu	14 hrs

2	T.K Jammu	4-14 hrs
3	Gotiwada	12 hrs
4	Ichapuram	<11-12 hrs
5	Jagandravalasa	<11-12 hrs
6	Kedijwala	<11-12 hrs
7	Dommidi	11 hrs
8	Biyalavalasa	2.5 hrs
9	Arika Kuridi	Cannot surely say
10	S.C Paidi	NA

## 2. ABOUT SE200

### 2.1 RANGE OF NO. OF MEMBERS OPERATING THE SE200 DEVICE:

The no. of members operating the SE200 in each village varies among the 10 villages and the lowest number of members was recorded to be 2 in 6 villages (Arika Kuridi, Kedijwala, Dommidi, Jagandravalasa, Biyalavalasa and Ichapuram) and the highest no. of members operating the device is recorded to be 10 in Tompalapadu village. Hence the range of members operating the device is 2-10 respectively. The table below highlights the range of members operating the device from lowest to highest.

2.1 RANGE OF NO. OF MEMBERS OPERATING SE200		
S.NO	VILLAGE NAME	RANGE OF MEMBERS
1	Arika Kuridi	2
2	Kedijwala	2
3	Dommidi	2
4	Jagandravalasa	2
5	Biyalavalasa	2
6	Ichapuram	2
7	Gotiwada	4
8	T.K Jammu	5
9	Tompalapadu	10
10	S.C. Paidi	NA

### 2.2 LIST OF NAMES OF THE MASTER TRAINEES PER VILLAGE:

The Master trainees in each village took up the responsibility of running the SE200 device and also distributing the Chlorine solution produced by the device to all the households in their respective villages. The no. of Master trainees varies from village to village and the list of their names and details of the village to which they belong are listed below:



- Sri and Smt Prasad Rao (Biyalavalasa)
- Sri M. Lakhaiah and Sri Jeevan Kumar (Kedijwala)
- Sri Babu Rao and Ms. Leby (Jagandravalasa)
- Smt B. Chandamma and Ms. B. Amosa (Dommidi)
- Sri Yerakaiah and Sri Chinna Rao (Icchapuram)
- Sri Urappu and Ms. B. Sunita (Arika Kuridi)
- Sri N. Jagadish, Sri K. Palavardhana and Sri K. Visvanadham (Tompalapadu)
- Sri T. Sundara Rao, Ms T. Padma, Ms. T. Dalamma and Ms. Ammadamma (Gotiwada)
- Sri Sunder, Sri Sreenu, Sri Shanker, Sri Koteswar Rao and Sri Kailash (T.K. Jammu)

It is to be noted that the SE200 device was given to the S.C. Paidi village on the day of the evaluation and hence the details of the Master trainees in the village is not available.

### 2.2.1 RANGE OF MASTER TRAINEES IN THE VILLAGES:

The no. of Master trainees varies from village to village and the lowest number of master trainees was recorded to be 2 members in six villages (Biyalavalasa, Kedijwala, Jagandravalasa, Dommidi, Icchapuram and Arika Kuridi) and the highest no. of Master trainees was recorded to be 5 members in the village T.K Jammu. Hence the range of Master trainees in the villages is 2-5 respectively. The table below highlights the range of Master Trainees in the villages from lowest to highest.

2.2.1. RANGE OF NO. OF MASTER TRAINEES PER VILLAGES		
S.NO	VILLAGE NAME	RANGE OF MASTER TRAINEES
1	Biyalavalasa	2
2	Kedijwala	2
3	Jagandravalasa	2
4	Dommidi	2
5	Icchapuram	2
6	Arika Kuridi	2
7	Tompalapadu	3
8	Gotiwada	4
9	T.K Jammu	5
10	S.C. Paidi	NA

### 2.3 AVERAGE NO. OF PEOPLE DRINKING THE WATER TREATED BY THE SE200 IN THE VILLAGES:

The total number of people drinking the water treated by the SE200 device in the 10 villages sums up to be 2934 people respectively. On an average the no. of people drinking the water treated by the SE200 is 293.4. The table below highlights the no. of people of people drinking water treated by the SE200 device per village:

### 2.3. AVERAGE NO. OF PEOPLE DRINKING WATER IN THE VILLAGES

S.No	VILLAGE NAME	NO.OF PEOPLE DRINKING WATER
1	Arika Kuridi	66
2	Dommidi	125
3	Jagandravalasa	150
4	Kedijwala	163
5	Icchapuram	200
6	Biyalavalasa	250
7	Tompalapadu	250
8	T.K Jammu	330
9	Gotiwada	400
10	S.C. Paidi	1000
	TOTAL AVERAGE	293.4

### 2.4 LIST OF LOCATIONS WHERE THE SE200 DEVICES ARE KEPT WHEN IN USE:

The locations where the SE200 devices are kept when in use, varies in each of the villages and the list of locations per village is stated below:

- In the house, on a chair (Arika Kuridi)
- On a table (Biyalavalasa)
- In a safe place (Dommidi)
- At the SHG center (Gotiwada)
- On a chair or any elevated place (Icchapuram)
- On a cot, outside the house (Jagandravalasa)
- On a table outside the house (Kedijwala)
- In the Old age group “Sangha” (S.C. Paidi)
- Outside the Community Hall where the village has a water committee (T.K. Jammu)
- At the Youth Club (Tompalapadu)

#### 2.4.1 LIST OF LOCATIONS WHERE THE SE200 DEVICES ARE STORED AT TIMES WHEN NOT IN USE:

The locations where the SE200 devices are kept when not in use, varies in each of the villages and the list of locations per village is stated below:

- Kept in a bag in a safe place (Arika Kuridi)
- Aside in the house (Biyalavalasa)
- In the cupboard “almirah” (Dommidi)
- At the SHG Center (Gotiwada)
- In the cupboard “almirah” (Icchapuram)
- In a sack inside the house (Jagandravalasa)
- Inside a desk (Kedijwala)
- In the Old age group “Sangha” (S.C. Paidi)
- Kept aside in the Youth Club (T.K.Jammu)
- At the Youth Club (Tompalapadu)

#### 2.5 TABLE FOR NO. OF DAYS OF USE PER VILLAGE (HIGHEST TO LOWEST):

The highest no. of use of the SE200 has been in the village Biyalavalasa for 184 days and the lowest was in S.C Paidi village which was given the device on the day of the evaluation. The following table highlights the no. of days of use of the SE200 per village from highest to lowest as on the evaluation date.

2.5 TABLE FOR NO. OF DAYS OF USE		
S.NO	VILLAGE NAME	NO. OF DAYS OF USE AS ON EVALUATION DATE
1	Biyalavalasa	184 DAYS
2	Arika Kuridi	60 DAYS
3	Jagandravalasa	30 days
4	Icchapuram	14 days
5	Kedijwala	14 days
6	T.K. Jammu	7 days
7	S.C.Paidi	1 day
8	Dommidi	NOT AVAILABLE
9	Gotiwada	NOT AVAILABLE
10	Tompalapadu	NOT AVAILABLE

## 2.6 RATIO OF PEOPLE'S OPINION IN THE VILLAGES REGARDING THE SAFETY OF USING THE DEVICE:

9 villages (Arika Kuridi, Biyalavalasa, Dommidi, Gotiwada, Ichapuram, Jagandravalasa, Kedijwala, Tompalapadu and T.K.Jammu) have stated that the SE200 device is safe to use. As the SE200 device was given to the S.C. Paidi village on the day of the evaluation, the details regarding their opinions about the safety of using the device is not applicable. The ratio of people's opinions regarding the safety of using the device is stated below:

<b>RATIO OF PEOPLE'S OPINIONS ABOUT SAFETY OF USING THE DEVICE</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Safe to use	9	9:10
Data not available or applicable	1	1:10

## 2.7 RATIO OF PEOPLE'S OPINIONS ABOUT THE SAFETY OF DRINKING THE WATER TREATED BY THE SE200:

Among the 10 villages, 9 villages (Arika Kuridi, Biyalavalasa, Dommidi, Gotiwada, Ichapuram, Jagandravalasa, Kedijwala, Tompalapadu and T.K.Jammu) have stated that the water treated by the SE200 device is safe to use. As the SE200 device was given to the S.C. Paidi village on the day of the evaluation, the details regarding their opinions about the safety of drinking the water treated by the device is not applicable. The ratio of people's opinions regarding the safety of drinking the water treated by the SE200 is stated below:

<b>RATIO OF PEOPLE'S OPINIONS ABOUT SAFETY OF DRINKING THE WATER TREATED BY THE SE200</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Safe to drink	9	9:10
Data not available or applicable	1	1:10

### 2.7.1. RATIONALE/JUSTIFICATION QUOTES FOR THE OPINIONS OF THE VILLAGES REGARDING THE SAFETY OF DRINKING THE WATER TREATED BY THE SE200:

9 out of 10 villages stated their opinions regarding the safety of drinking the water treated by the SE200 the rationale/justification quotes for the same are stated in the table below:

**RATIONALE/JUSTIFICATION QUOTES FOR THE OPINIONS OF THE VILLAGES REGARDING THE SAFETY OF DRINKING THE WATER TREATED BY THE SE200:**

S.NO	VILLAGE NAME	DESCRIPTOR REPORTED BY THE VILLAGE	RATIONALE
1	Arika Kuridi	Safe to drink	“There is no element of risk involved. Except the odor, no other issue is there to report and inspite of the odor, the people in the village are willing to consume the water treated by the SE200 as within one hour the treated water is ready for consumption”.
2	Biyalavalasa	Safe to drink	“No element of risk observed. There are no side effects or ill health effects after using the treated water”.
3	Dommidi	Safe to drink	“The water is safe to drink and it is tasty”
4	Gotiwada	Safe to drink	“There is 100% safety in using the SE200 and the water treated by it, as only salt is being used to make Chlorine and we are doing it in the presence of the community”
5	Icchapuram	Safe to drink	“The device is safe to use and the water treated by it is good for health. There is no risk involved and by this treated water our health will improve”
6	Jagandravalasa	Safe to drink	“There is no risk involved by drinking the water treated by the SE200. Earlier the water that we used to drink was risky and we used to get stomach pain. Now by drinking the treated water there are no problems and it is safe ”
7	Kedijwala	Safe to drink	“The treated water is very safe and there is no risk with the water. Earlier the water we used to drink was giving us diseases and we used to get coughs and so we all used to boil the water and then drink it. Now by drinking the water treated by the SE200, we are not falling ill”.
8	T.K. Jammu	Safe to drink	“There is no element of risk even though there is odor in the treated water”
9	Tompalapadu	Safe to drink	“It is better for our own safety to drink the water treated by the SE200 and we



		are making the Chlorine in the presence of the people in the village”
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**Note:** It is to be that as the SE200 device was given to the S.C. Paidi village on the day of the evaluation, the details regarding their opinions about the safety of drinking the water treated by the device is not available.

## 2.8 RATIO OF NO. OF VILLAGES USING CAR OR MOTORCYCLE BATTERIES TO RUN THE SE200 DEVICE:

None of the villages are using car or motorcycles batteries to run the SE200 devices and hence the ratio of the same is not applicable for calculation. It is to be noted the S.C. Paidi village was given the device on the day of evaluation and hence this question was not applicable for data collection.

## 2.9 RANGE OF TIME SPENT TO TREAT THE WATER REQUIRED IN THE VILLAGE (HIGHEST TO LOWEST):

The range of time spent by each village to treat the required amount of water varies among the villages and highest duration of time is recorded to be 2 hours in the village Gotiwada and the lowest is recorded to be 10 minutes in Dommidi village. Hence is range of time taken by the villages to treat the required amount of water is 2 hours-10 minutes respectively. The table below highlights the range of time taken by each village to treat the required amount of water per day from highest to lowest:

2.9. RANGE OF TIME SPENT TO TREAT WATER PER VILLAGE		
S.NO	VILLAGE NAME	RANGE OF TIME SPENT
1	Gotiwada	2 hrs
2	Tompalapadu	2 hrs
3	T.K Jammu	20 - 30 mins
4	Arika Kuridi	20 mins
5	Icchapuram	20 mins
6	Biyalavalasa	15-20 mins
7	Jagandravalasa	15 mins
8	Kedijwala	15 mins
9	Dommidi	10 mins
10	S.C Paidi	NA

**Note 1:** It is to be noted that the villages Gotiwada and Tompalapadu run 3 to 5 batches of the SE200 per day and they may have stated 2 hours which include dosing and distributing time in their villages. The analysis highlights the data that is available in the completed questionnaire and the same is calculated for the range.





**Note 2:** The village Biyalavalasa stated that they run the device for 30 minutes or 6 times during the availability of electricity once in two days and store it in the brown storage bottle. They also commented that they treat 500 liters per day. Hence the amount of time spent to treat the water required by their village is calculated to be 15 – 20 minutes considering the fact that it takes 5 to 6 minutes to run a batch in the SE200. So in a span of 15 – 20 minutes, they would have used the SE200 three times which results in enough Chlorine to treat 500 liters of water.

**Note 3:** It was stated by the Arika Kuridi village that they spend 20 minutes for running batches on the device which includes supplying of the Chlorine to the 13 families that comprise the entire population of the village. The analysis highlights the data that is available in the completed questionnaire and the same is calculated for the range

## **2.10 RANGE OF NUMBER OF TIMES/BATCHES THE VILLAGE HAS TO RUN THE DEVICE TO TREAT THE WATER REQUIRED PER DAY:**

The range of number of times/batches the village has to run the device to treat the water required per day varies among the villages and highest no. of batches is recorded to be 3 to 5 (which are used to treat 600-1000 liters of water per day) in the villages Gotiwada and Tompalapadu. The lowest is recorded to be 2 batches (which I used to treat less than 400 liters of water per day) in Arika Kuridi village. Hence is range of no. of batches the village has to run the device to treat the water required per day is 3 to 5 - 2 respectively. The table below highlights the range of the same from highest to lowest:

<b>2.10 RANGE OF NO OF BATCHES MADE TO TREAT WATER PER VILLAGE</b>		
<b>VILLAGE NAME</b>	<b>RANGE OF NO.OF BATCHES MADE</b>	<b>NO. OF LITERS PER DAY</b>
Gotiwada	3 TO 5	600-1000
Tompalapadu	3 to 5	600-1000
Icchapuram	4	800
T.K Jammu	4	800
Jagandravalasa	3	600
Kedijwala	3	600
Biyalavalasa	3	500-600
Dommidi	2	400
Arika Kuridi	2	<400
S.C.Paidi	NA	NA

**Note 1:** The village Biyalavalasa stated that they run the device for 30 minutes or 6 times during the availability of electricity once in two days and store it in the brown storage bottle. They also commented that they treat 500 liters per day. Hence the amount of time spent to treat the water required by their village is calculated to be 15 – 20 minutes considering the fact that it takes 5 to 6 minutes to run a batch in the SE200. So in a span of 15 – 20 minutes, they would have used the SE200 three times which results in enough Chlorine to treat 500 liters of water.

**Note 2:** It was stated by the Arika Kuridi village that they spend 20 minutes for running batches on the device which includes supplying of the Chlorine to the 13 families that comprise the entire population of the village. Hence the no. of batches the village has to run the device per day is calculated to be twice assuming that each family drinks 20 liters of water per day divided by 13 families will result in consumption of less than 400 liters of water.

### **2.10.1 RATIONALE/QUOTES BY THE VILLAGES REGARDING HOW MANY TIMES THEY HAVE TO RUN THE DEVICE TO TREAT THE WATER REQUIRED BY THE VILLAGE PER DAY:**

9 villages out of 10 have stated their opinions about the no. of times they have to run the device to treat the water required in the village per day and the rationale/quotes of each of the villages are stated in the table below:

<b>RATIONALE/JUSTIFICATION QUOTES BY THE VILLAGES REGARDING HOW MANY TIMES THEY HAVE TO RUN THE DEVICE TO TREAT THE WATER REQUIRED BY THE VILLAGE PER DAY:</b>		
<b>S.NO</b>	<b>VILLAGE NAME</b>	<b>RATIONALE</b>
1	Arika Kuridi	“It takes 20 minutes to run the batches and supply the Chlorine for the 13 families that comprise the total population of the village”
2	Biyalavalasa	“We run the device for 30 minutes or say 6 times during the availability of electricity to fill the bottle to store the liquid (Chlorine). We do this once in 2 days and treat up to 500 liters of water per day”
3	Dommidi	“We run the device twice for 10 minutes”
4	Gotiwada	“We run the device 3 to 5 times in a day for 2 hours”
5	Ichapuram	“We run the device for 20 minutes to treat be able to treat 800 liters of water per day”
6	Jagandavalasa	“It takes 15 minutes to run the device to treat 600 liters of water which is consumed by 3 villages”
7	Kedijwala	“We run the device for 15 minutes and the dosage distribution takes half an hour for the 3 villages which consume a total of 600 liters of

		water per day”
8	S.C Paidi	Data was not applicable for collection as the village was given the device on the day of evaluation.
9	T.K.Jammu	“We run the device 4 times for about 20 to 30 minutes but it is not enough as there is more demand for the Chlorine but we have only one storage bottle to distribute more Chlorine for all the village households. We need to have 2 more brown bottles to store the solution. There is a need for 2 more 10 liter binde (storage vessels)”. Their questions regarding dosage for small binde was answered and explained.
10	Tompalapadu	“We run the device 3 to 5 times for 2 hours”

## 2.11 RATIO OF NO.OF VILLAGES THAT RAN THE SE200 DEVICES DURING THE EVALAUTION:

3 out 10 villages (Dommidi, S.C.Paidi and T.K. Jammu) ran the device during the evaluation. The ratio of no. of villages that ran the SE200 device during the evaluation is stated below:

RATIO OF NO.OF VILLAGES THAT RAN THE SE200 DEVICES DURING THE EVALAUTION		
Category	No. of villages reported	Ratio
Villages that ran the device during the evaluation	3	3:10
Villages that did not run the device during the evaluation	7	7:10

### 2.11.1 DESCRIPTION OF THE EXPERIANCES OF VILLAGES THAT RAN THE SE200 DEVICE DURING THE EVALUATION:

Only three villages (Dommidi, S.C Paidi and T.K Jammu) ran the device during the evaluation and the description of the experiences of these villages are stated below:

<b>DESCRIPTION OF THE EXPERIENCES OF VILLAGES THAT RAN THE SE200 DEVICE DURING THE EVALUATION</b>		
<b>S.NO</b>	<b>VILLAGE NAME</b>	<b>DESCRIPTION OF EXPERIENCE</b>
1	Dommidi	The Master trainees in this village ran the device on power supply. They kept in device on a cot and ran it for 6 minutes. After the batch was completed, they treated one binde with water.
2	S.C Paidi	This village was given the SE200 device on the day of evaluation. A demonstration of how to operate the device, the dosing aspects and all other relevant information regarding the proper use of the SE200 were given to the village members. Several people in the village drank the water treated by the SE200 and stated that there was a little smell in the water but they said they are willing to use the device.
3	T.K. Jammu	The SE200 device usage was shown to the team of evaluators and Monitoring officials by running it on a car battery as there was no availability of power at that time in the village. It took 8 minutes to complete one batch of Chlorine in the SE200. The Youth members poured the solution from the device into the dosing spoon and into a binde for treating the water. They mixed the water and the Chlorine lightly with the dosing blue spoon.

### **2.11.2 LIST OF REASONS FOR VILLAGES THAT DID NOT RUN THE SE200 DEVICE DURING THE EVALUATION:**

Various reasons were stated for the remaining 7 villages that did not run the device and the list of the same is stated below:

<b>LIST OF REASONS FOR VILLAGES THAT DID NOT RUN THE SE200 DEVICE DURING THE EVALUATION</b>		
<b>S.NO</b>	<b>VILLAGE NAME</b>	<b>REASONS</b>
1	Arika Kuridi	This village was not accessible due to water stagnation on the way and the village members had to come to the car point for the data collection. Another reason was that the evaluation for this village was done at night time and hence the evaluators could not walk up to the village.
2	Biyalavalasa	Both the Master trainees were not available in the village during the evaluation
3	Gotiwada	Data not available
4	Ichapuram	The Master trainee from this village came to another village point for the evaluation. This was done mainly

		due to lack of time as all each village is situated far away and some of them are in a remote area
5	Jagandravalasa	The Master trainee from this village came to another village point for the evaluation. This was done mainly due to lack of time as all each village is situated far away and some of them are in a remote area
6	Kedijwala	The Master trainee from this village came to another village point for the evaluation. This was done mainly due to lack of time as all each village is situated far away and some of them are in a remote area
7	Tompalapadu	Data not available

## 2.12 RATIO OF HOW OFTEN THE DEVICE IS CLEANED:

9 out of 10 villages stated various kinds and times of cleaning procedures and the ratio of the different categories are as stated below:

<b>RATIO OF HOW OFTEN THE DEVICE IS CLEANED:</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Wash now and then	1	1:10
Wash with water	5	1:2
Wash with water after every use	2	1:5
Wash with water after every 3 or 4 uses	1	1:10
Data not available or applicable	1	1:10

**Note 1:** It is to be noted that the S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data.

### 2.12.1 LIST OF KINDS OF CLEANING BY THE VILLAGES:

9 out of 10 villages have described their kinds of cleaning of the SE200 and the list of the same is as follows:

- Now and then, just with water-(Dommidi)
- Wash with water-(Biyalavalasa, Gotiwada, T.K. Jammu and Tompalapadu)
- Wash with water and keep aside in another bag to safeguard from rats-(Arika Kuridi)
- Wash and rinse with water after every use- (Jagandravalasa and Kedijwala)
- Wash with water, dry it after every 3 or 4 uses-(Icchapuram)
- Not available or applicable-(S.C. Paidi)

**Note 1:** It is to be noted that the S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data.

### 3. EASE OF USE AND DOSING

#### 3.1 RATIO OF EASE OF USE OF THE DEVICE:

Among the 10 villages, 9 villages (Arika Kuridi, Bialavalasa, Dommidi, Gotiwada, Icchapuram, Jagandravalasa, Kedijwala, T.K.Jammu and Tompalapadu) stated that the device was easy to use. The village S.C. Paidi stated that the device seems O.K to use. The ratio regarding the ease of use of the device among the 10 villages is stated below:

RATIO OF EASE OF USE OF DEVICE		
Category	No. of villages reported	Ratio
Easy to use	9	9:10
O.K to use	1	1:10
Difficult to use	None	NA

#### 3.1.1. RATIONALE FOR HOW IS THE DEVICE TO USE – EASY OR DIFFICULT:

Each of the 10 Villages commented on the reasons for stating whether the device was easy or difficult to use according to them and the rationale/quotes for the same are stated in the table below:

RATIONALE FOR HOW IS THE DEVICE TO USE			
S.NO	VILLAGE NAME	DESCRIPTOR REPORTED BY THE VILLAGE	RATIONALE
1	Arika Kuridi	Easy to use	“The device is easy to use as it takes less time to make the Chlorine”.
2	Bialavalasa	Easy to use	“It is very easy to operate and simple to use”
3	Dommidi	Easy to use	“It is easy to understand and operate the device”
4	Gotiwada	Easy to use	“It is easy as it is a simple method of treatment”
5	Icchapuram	Easy to use	“It is easy and quick but only the distribution of the solution to households takes time”
6	Jagandravalasa	Easy to use	“The device is easy to use as it only takes 5 minutes to make the Chlorine solution”
7	Kedijwala	Easy to use	“Nothing is difficult about using the device. It is only expensive to buy salt.



			At present the Master Trainee is buying a sack of salt and they are using the quantity of about 2 packets or more of salt per month”
8	S.C.Paidi	O.K to use	“The device seems good or O.K to use”
9	T.K.Jammu	Easy to use	“It is easy to use. The water from the bore well in the village has small worms in it but the SE200 Chlorine solution is killing the worms and making the water safe to drink”.
10	Tompalapadu	Easy to use	“The device is easy to use”

### 3.2 RATIO OF FAMILIARIZATION WITH INSTRUCTIONS:

Among the 10 villages, 9 villages (Arika Kuridi, Biyalavalasa, Dommidi, Gotiwada, Icchapuram, Jagandravalasa, Kedijwala, T.K.Jammu and Tompalapadu) stated that they were familiar with the instructions. It is to be noted that the SE200 device was given to the S.C. Paidi village on the day of the evaluation and hence the details regarding familiarization with instructions are not applicable. The ratio regarding the familiarization with instructions among the 10 villages is stated below:

RATIO OF FAMILIARIZATION WITH INSTRUCTIONS		
Category	No. of villages reported	Ratio
Easy to follow	9	9:10
Not available	1	1:10
Difficult to use	None	NA

All the villages do not have copies of the instructions and the people have requested for copies of the same to be given to them.

### 3.3 RATIO OF NO OF VILLAGES THAT TREAT 200 LITERS OF WATER AT A TIME AND THOSE THAT DO INDIVIDUAL DOSING:

9 out of 10 villages (Arika Kuridi, Biyalavalasa, Dommidi, Gotiwada, Icchapuram, Jagandravalasa, Kedijwala, T.K. Jammu and Tompalapadu) have stated that they do individual dosing for their villages. The villages provide dosing per binde and use the blue spoon. The dosing with the blue spoon is done for either 10 liters binde (half a spoon) or for 20 liters binde (full spoon). S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data at that time. The ratio of no. of villages that treat 200 liters of water at a time and those that do individual dosing is as stated below:

**RATIO OF NO. OF VILLAGES THAT TREAT 200 LITERS OF WATER AT A TIME  
THOSE THAT DO INDIVIDUAL DOSING**

Category	No. of HHs reported	Ratio of no. of villages that treat 200 liters of water at a time vs those that do individual dosing
Villages that treat 200 liters at a time	None	NA
Villages that do individual household dosing	9	9:10
Data not applicable	1	1:10

**Note 1:** Most of these villages that do individual dosing prepare the Chlorine and supply it to all the households in the village on daily basis. The village Ichapuram supplies the Chlorine twice in a day to the households. The Master trainee of this village commented that “if the Chlorine is not supplied on a daily basis, the people in the village enquire about the same”.

#### 4. TASTE FACTOR

##### 4.1 RATIO OF THE VILLAGES’ OPINIONS ABOUT THE TASTE OF THE WATER TREATED BY THE SE200:

Among the 10 villages, 7 villages (Arika Kuridi, Ichapuram, Jagandravalasa, Kedijwala, S.C. Paidi, T.K.Jammu and Tompalapadu) opined that the taste if the water treated by the SE200 is good. 3 villages (Biyalavalasa, Dommidi, Gotiwada) opined that the taste of the water treated by the SE200 is O.K. The ratio regarding the opinions about the taste of the water treated by the SE200 among the 10 villages is stated below:

RATIO OF THE VILLAGES’ OPINIONS ABOUT THE TASTE OF THE WATER TREATED BY THE SE200		
Category	No. of villages reported	Ratio
Taste is good	7	7:10
Taste is O.K	3	3:10

##### 4.1.1. RATIONALE FOR THE OPINIONS OF THE VILLAGES ABOUT THE TASTE OF THE WATER TREATED BY THE SE200:

Each of the 10 Villages stated their opinions regarding the taste of the water treated by the SE200 and the rationale/quotes for the same are stated in the table below:

**RATIONALE FOR THE OPINIONS OF THE VILLAGES ABOUT THE TASTE OF THE WATER TREATED BY THE SE200**

S.NO	VILLAGE NAME	DESCRIPTOR REPORTED BY THE VILLAGE	RATIONALE
1	Arika Kuridi	Taste is good	“The water is good to taste and it has a little odor”.
2	Biyalavalasa	Taste is O.K	“There is slight odor in the water but can consume it”
3	Dommidi	Taste is O.K	“Initially there was a strange odor in the water, but it is not discouraging to drink the water”
4	Gotiwada	Taste is O.K	“The water has little smell of Chlorine but we feel encouraged to drink it”
5	Icchapuram	Taste is good	“Previously there used to be red deposits called Pimprinaata in the water, but after treating the water with the solution produced by the SE200, the water is like tap water and it is cool to drink”
6	Jagandravalasa	Taste is good	“Initially when the water was treated by the solution produced by the SE200, the water used to smell so the people were not used to it. But as they kept drinking the water treated by the SE200, the people got used to the smell after 2 or 3 days of continued usage”
7	Kedijwala	Taste is good	“The taste of the water is good. Before we used to get scared to drink water due to fear of falling ill but now we like drinking water a lot”.
8	S.C. Paidi	Taste is good	“We feel encouraged to drink treated water”
9	T.K. Jammu	Taste is good	“The water treated by the SE200 is better than bore-well water”
10	Tompalapadu	Taste is good	“We feel happy to drink the water treated by the SE200”

**4.2 RATIO OF THE VILLAGES’ OPINIONS WHETHER THE TASTE FACTOR ENCOURAGES OR DISCOURAGES USERS FROM DRINKING WATER TREATED BY THE SE200:**

All the 10 Villages have expressed that the taste factor encourages the users to drink water treated from the SE200 device and hence the ratio of the same is not applicable for calculation.

#### 4.2.1 RATIONALE FOR THE OPINIONS OF THE VILLAGES WHETHER THE TASTE FACTOR ENCOURAGES OR DISCOURAGES USERS FROM DRINKING WATER TREATED BY THE SE200:

Each of the 10 Villages stated their opinions regarding the taste factor encouraging users from drinking the water treated by the SE200 and the rationale/quotes for the same are stated in the table below:

<b>RATIONALE FOR THE OPINIONS OF THE VILLAGES WHETHER THE TASTE FACTOR ENCOURAGES OR DISCOURAGES USERS FROM DRINKING WATER TREATED BY THE SE200</b>			
<b>S.NO</b>	<b>VILLAGE NAME</b>	<b>DESCRIPTOR REPORTED BY THE VILLAGE</b>	<b>RATIONALE</b>
1	Arika Kuridi	Encouraged	“There is little odor in the water but it does not discourage us from drinking water treated by the SE200”
2	Biyalavalasa	Encouraged	“No the taste factor does not discourage us from drinking water treated by the SE200”
3	Dommidi	Encouraged	“No the taste factor does not discourage us from drinking water treated by the SE200”
4	Gotiwada	Encouraged	“We feel encouraged to drink water treated by the SE200”
5	Icchapuram	Encouraged	“There is little odor in the water but it is good and cool to drink”
6	Jagandravalasa	Encouraged	“We feel like drinking more and more and are encouraged by the taste factor”
7	Kedijwala	Encouraged	“The taste factor encourages us to drink water treated by the SE200. Before the taste of the water from the bore-well or the stream used to be different. Now the water treated by the SE200 is clear, tasty and we like it”
8	S.C. Paidi	Encouraged	“We feel encouraged to use and drink treated water”
9	T.K. Jammu	Encouraged	“The taste factor encourages us to drink the water treated by the SE200”
10	Tompalapadu	Encouraged	“We feel encouraged to drink more water”

#### 4.3 RATIO OF NO. OF PEOPLE REGULARLY CONSUMING THE WATER TREATED BY THE SE200:

Among the 10 villages, 9 villages (Arika Kuridi, Biyalavalasa, Dommidi, Gotiwada, Icchapuram, Jagandravalasa, Kedijwala, T.K.Jammu and Tompalapadu) stated that they are regularly consuming the water treated by the SE200. The SE200 device was given to the S.C. Paidi village on the day of the evaluation and hence the details regarding regular use and consumption of the water treated by the SE200 are not applicable. The ratio of no. of people regularly consuming the water treated by the SE200 among the 10 villages is stated below:

<b>RATIO OF NO. OF PEOPLE REGULARLY CONSUMING THE WATER TREATED BY THE SE200</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Regular consumption of the water treated by the SE200	9	9:10
Data not applicable or available	1	1:10

#### 4.4 RATIO OF NO. OF VILLAGES THAT USE OTHER METHODS OF TREATING WATER (BOILING ETC) EVEN THOUGH THEY ARE USING SE200:

8 out 10 villages (Arika Kuridi, Biyalavalasa, Gotiwada, Icchapuram, Jagandravalasa, Kedijwala, T.K. Jammu and Tompalapadu) stated that they do not use any other methods of treatment other than using the SE200. Dommidi village stated they use the SE200 but at times they use a cloth to strain the water before treating it with the Chlorine produced by the SE200. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The ratio of no. of villages that use other methods of treating water even though they are using SE200 is stated below:

<b>RATIO OF NO. OF VILLAGES THAT USE OTHER METHODS OF TREATING WATER (BOILING ETC) EVEN THOUGH THEY ARE USING SE200</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Villages that use other methods	1	1:10
Villages do not use other methods	8	4:5
Data not available or applicable	1	1:10

#### 4.4.1 RATIONALE/ JUSTIFICATION QUOTES OF THE VILLAGES REGARDING IF THEY USE OTHER METHODS OF TREATING WATER EVEN THOUGH THEY ARE USING THE SE200:

9 out of 10 villages have stated their opinions if they use other methods of treatment even though they are using the SE200. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The rationale/quotes of each of the villages are stated in the table below:

RATIONALE/ JUSTIFICATION QUOTES OF THE VILLAGES REGARDING IF THEY USE OTHER METHODS OF TREATING WATER EVEN THOUGH THEY ARE USING THE SE200		
S.NO	VILLAGE NAME	RATIONALE
1	Arika Kuridi	“We use no other method except for the SE200”
2	Biyalavalasa	“We use no other method except for the SE200”
3	Dommi	“We use the SE200 only but sometimes we use a cloth before using the device”
4	Gotiwada	“We use no other method except for the SE200”
5	Ichapuram	“Previously we used to boil water but now we are only using the SE200”
6	Jagandralasa	“We are only using the SE200 Chlorine”
7	Kedijwala	“No we are not using any other method. Before we used to boil the water for drinking but we are not doing it now”
8	T.K. Jammu	“We use no other method except for the SE200”
9	Tompalapadu	“We use no other method except for the SE200”

## 5. OVERALL IMPACT AND OPINIONS ACCORDING TO VILLAGE

### 5.1 RATIO OF THE PEOPLES’ OPINIONS ABOUT THE IMPACT PARAMETERES:

During the evaluation, 6 categories of Impact parameters were assessed which were as follows:

1. Better health (Dommi, Gotiwada, Ichapuram, Jagandralasa, Kedijwala, S.C.Paidi, T.K. Jammu and Tompalapadu)
2. Ease of treatment of water (Kedijwala and T.K. Jammu)
3. Decrease in ailments or deaths, improvements in sanitation (Arika Kuridi and Biyalavalasa)
4. Increased interest in safe water (Gotiwada, Ichapuram, Kedijwala, T.K. Jammu and Tompalapadu)
5. Better living (Ichapuram)
6. Others (Accessibility of treated water, decrease in expenditure for treated water, no longer using Chlorine tablets to treat water, useful for cooking purposes and better to use the device as it is free) – (Dommi, Ichapuram, Jagandralasa and S.C. Paidi)



It is to be noted that the “Others” category were stated by the people in the villages.

The ratio mentioned in the table below is stated as per each parameter and some of the villages have commented that they have experienced impacts in multiple parameters.

<b>RATIO OF THE PEOPLES’ OPINIONS ABOUT THE IMPACT PARAMETERES</b>			
<b>S.No</b>	<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
1	Better health	8	4:5
2	Ease of treatment of water	2	1:5
3	Decrease in ailments or deaths, improvements in sanitation	2	1:5
4	Increased interest in safe water	5	1:2
5	Better living	1	1:10
6	Others (Accessibility of treated water, decrease in expenditure for treated water, no longer using Chlorine tablets to treat water, useful for cooking purposes and better to use the device as it is free)	4	2:5

### **5.1.1 RATIONALE/JUSTIFICATION QUOTES FOR PEOPLES OPINIONS ABOUT THE IMPACT PARAMETERS:**

All the 10 villages have stated their opinions about the overall impact of using the SE200 device. Some of the villages have commented that they have experienced impacts in multiple parameters. The rationale/quotes of each of the villages are stated in the table below:

<b>RATIONALE/JUSTIFICATION QUOTES FOR PEOPLES OPINIONS ABOUT THE IMPACT PARAMETERS</b>			
<b>S.NO</b>	<b>VILLAGE NAME</b>	<b>DESCRIPTOR REPORTED BY THE VILLAGE</b>	<b>RATIONALE</b>
1	Arika Kuridi	<b>Impact Parameter 3</b> -Decrease in ailments or deaths, improvements in sanitation	“There has been decrease in cough and cold”.
2	Biyalavalasa	<b>Impact Parameter 3</b> -Decrease in ailments or deaths, improvements in sanitation	“Cold and cough instances have come down”.
3	Dommidi	<b>Impact Parameter 1</b> -Health, <b>Impact</b>	“Better to use this device as it is free and definitely there has been better



		<b>Parameter 6-</b> Others (Accessibility of treated water, decrease in expenditure for treated water, no longer using Chlorine tablets to treat water, useful for cooking purposes and better to use the device as it is free)	health since using this device. No instances of death have occurred”
4	Gotiwada	<b>Impact Parameter 1-Health, Impact Parameter 4-</b> Increased interest in safe water	“There has been better health and an increase in interest to use safe drinking water”
5	Icchapuram	<b>Impact Parameter 1-Health, Impact Parameter 4-</b> Increased interest in safe water, <b>Impact Parameter 5-</b> Better living, <b>Impact Parameter 6-</b> Others (Accessibility of treated water, decrease in expenditure for treated water, no longer using Chlorine tablets to treat water, useful for cooking purposes and better to use the device as it is free)	“We have been using this device from a fortnight ago and we think that by using this device has resulted in improved health and safe drinking water. There is access to safe drinking water and it is beneficial to all even though there is dependency on only one bore-well. It is also useful for cooking purposes”.
6	Jagandravalasa	<b>Impact Parameter 1-Health, Impact Parameter 6-</b> Others (Accessibility of treated water, decrease in expenditure for treated water, no longer using Chlorine tablets to	“Before we used to fall ill very often. Now health is better and now we are not using Chlorine tablets for treating water either”.



		treat water, useful for cooking purposes and better to use the device as it is free)	
7	Kedijwala	<b>Impact Parameter 1-Health, Impact Parameter 2-</b> Ease of treatment of water, <b>Impact Parameter 4-</b> Increased interest in safe water	“Health is better and now we are not suffering from diarrhea or diseases. We are having safe water and we are only preparing Chlorine and are making our water safe so we are satisfied”
8	S.C. Paidi	<b>Impact Parameter 1-Health, Impact Parameter 6-</b> Others (Accessibility of treated water, decrease in expenditure for treated water, no longer using Chlorine tablets to treat water, useful for cooking purposes and better to use the device as it is free)	“We are interested in improving our health by using the SE200. By using this device, it will result in decrease in expenditure and accessibility to treated water will increase”
9	T. K. Jammu	<b>Impact Parameter 1-Health, Impact Parameter 2-</b> Ease of treatment of water, <b>Impact Parameter 4-</b> Increased interest in safe water	“We have been using this device since one week and there has been health improvement, increased interest in safe water and ease of treatment”
10	Tompalapadu	<b>Impact Parameter 1-Health, Impact Parameter 4-</b> Increased interest in safe water	“Using the device is better for health and there is increased interest in safe water”

## 5.2 RATIONALE/ JUSTIFICATION QUOTES OF THE OPINIONS OF THE PEOPLE REGARDING THE DEVICE AND ITS USE:

9 out of 10 villages have stated their opinions about the device and its use. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The rationale/quotes of each of the villages are stated in the table below:

RATIONALE/ JUSTIFICATION QUOTES OF THE OPINIONS OF THE PEOPLE REGARDING THE DEVICE AND ITS USE		
S.NO	VILLAGE NAME	RATIONALE
1	Arika Kuridi	“The opinions of the people are positive regarding the device and its use”
2	Biyalavalasa	“The opinions of the people are positive regarding the device and its use and they are motivated”
3	Dommidi	“The opinions of the people are positive regarding the device and its use and they are motivated”
4	Gotiwada	“The device is very good as it is giving safe drinking water to the village”
5	Ichapuram	“We appreciate the innovation of the SE200 and we are motivated to use the device”
6	Jagandravalasa	“Earlier with the water, people used to fall ill but now people and children are more healthy by using this device”
7	Kedijwala	“Before the Government was giving bleaching powder or Chlorine powder and we did not trust that it would treat the water and make it safe to drink. But now we are only making Chlorine and we are promoting the use of this device by telling other people that only salt is used to make Chlorine. Once we make the Chlorine, we add it to the water and stir it into the water using a chambu (small vessel) twice or thrice. We are also telling the people from Mahila Mandali as there are other people too who want safe drinking water.
8	T.K. Jammu	“The device is good for overall benefits and it is good for health”
9	Tompalapadu	“This device is essential for remote areas to treat water to drink”

## 6. INTEREST OF USAGE

### 6.1 RATIO OF NO. OF USERS MOTIVATED TO CONSTANTLY USE THE SE200:

Among the 10 villages, 8 villages (Arika Kuridi, Biyalavalasa, Dommidi, Gotiwada, Ichapuram, Jangandravalasa, Kedijwala and T.K. Jammu) stated that they are highly motivated to constantly

use the SE200. Tompalapadu village commented that they feel slightly motivated to use the SE200 device. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The ratio of no. of users motivated to constantly use the device is stated below:

<b>RATIO OF NO. OF USERS MOTIVATED TO CONSTANTLY USE THE SE200</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Highly motivated	8	4:5
Slightly motivated	1	1:10
Data not applicable or available	1	1:10

### **6.1.1 RATIONALE/JUSTIFICATION QUOTES OF NO. OF USERS MOTIVATED TO CONSTANTLY USE THE SE200:**

9 out of 10 villages have stated their opinions about their motivation to constantly use the SE200. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The rationale/quotes of each of the villages are stated in the table below:

<b>RATIONALE/JUSTIFICATION QUOTES OF NO. OF USERS MOTIVATED TO CONSTANTLY USE THE SE200</b>			
<b>S.NO</b>	<b>VILLAGE NAME</b>	<b>DESCRIPTOR REPORTED BY THE VILLAGE</b>	<b>RATIONALE</b>
1	Arika Kuridi	Highly motivated	“There is little odor in the water but that does not discourage us. We are motivated to continue using the device”.
2	Biyalavalasa	Highly motivated	“There is no decline in the use of the SE200 and we are motivated to constantly continue using it. Other neighboring villages are also wanting to use the device”
3	Dommidi	Highly motivated	“More villages are willing to use the device. Except for the Chlorine odor, all else seems fine. We opt to use the device constantly”
4	Gotiwada	Highly motivated	“We feel motivated to use the device constantly”
5	Ichapuram	Highly motivated	“We have no negative opinions about the device and we appreciate the

			innovation of the SE200. There is demand in other villages and hamlets for the device”
6	Jagandravalasa	Highly motivated	“We feel highly motivated to use the device constantly”
7	Kedijwala	Highly motivated	“Yes we feel motivated to use the device for a very long time”
8	T.K Jammu	Highly motivated	“We feel motivated to use the device and there is a need for 2 more bindes (round vessels)”
9	Tompalapadu	Slightly motivated	“There is little motivation to use the device”

### 6.2 RATIO OF USERS’ OPINIONS REGARDING DECLINE OR DISINTEREST IN USING THE DEVICE:

The villages were questioned about their opinions regarding decline or disinterest in using the device because they feel traditional ways are more convenient or they are habituated to other methods of treating. 9 out of 10 villages (Arika Kuridi, Bialavalasa, Dommidi, Gotiwada, Icchapuram, Jangandravalasa, Kedijwala, T.K. Jammu and Tompalapadu) stated that there is no decline or disinterest in using the device for any reason. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The ratio of users opinions regarding decline or disinterest in using the device is stated below:

RATIO OF USERS’ OPINIONS REGARDING DECLINE OR DISINTEREST IN USING THE DEVICE		
Category	No. of villages reported	Ratio
No decline or disinterest in usage	9	9:10
Data not applicable or available	1	1:10

### 6.3 RATIO OF NO. OF USERS INTERESTED IN CONTINUED USAGE OF THE DEVICE:

All the 10 villages stated that they are interested in continued usage of the device on a long term basis. Hence the ratio of the same is not applicable for calculation.



## 7. SERVICE AND REPAIRS

### 7.1 RATIO OF NO. OF USERS THAT FACED ANY PROBLEMS WITH THE DEVICE OR ITS ACCESSORIES:

8 out of 10 villages (Arika Kuridi, Dommidi, Gotiwada, Icchapuram, Jagandravalasa, Kedijwala, T.K. Jammu and Tompalapadu) stated that they faced no problems with the device or its accessories. Bialavalasa village had problems with the power adaptor which was subsequently replaced by GPK. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The ratio of no. of users that faced problems with the device and its accessories is stated below:

<b>RATIO OF NO. OF USERS THAT FACED ANY PROBLEMS WITH THE DEVICE OR ITS ACCESSORIES</b>		
<b>Category</b>	<b>No. of villages reported</b>	<b>Ratio</b>
Villages that faced any problems with the device or its accessories	1	1:10
Villages did not face problems with the device or its accessories	8	4:5
Data not available or applicable	1	1:10

### 7.1.2 LIST OF WHAT THE USERS DID TO OVERCOME THE PROBLEM:

Among the 10 villages, only Bialavalasa village had problems with the power adaptor which was subsequently replaced by GPK.

- The power adaptor was taken to the Director of GPK, Mr. Sanyasi Raju and it was replaced with a new power adaptor given by GPK.

### 7.1.3 RATIO OF NO. OF VILLAGES THAT REPORTED THE SE200 NEEDS SERVICE OR REPAIRS:

None of the villages reported that their devices need service or repairs presently. S.C. Paidi village was given the device on the day of the evaluation and hence this question was not applicable for collecting data. The ratio of no. of villages that reported the SE200 needs service or repairs is not applicable for calculation.

## 7.2 LIST OF VILLAGES THAT HAD PROBLEMS WITH DEVICE OR ITS PARTS AND TRIED TO REPAIR IT OR INTIMATE THE CONCERNED OFFICIALS:

Among the 10 villages, only Biyalavalasa village had problems with the power adaptor which was subsequently replaced by GPK.

- The Master trainee informed the NGO head/Director Mr. Sanyasi Raju when the problem surfaced and the power adaptor was duly replaced with a new one.

## 7.3 RATIO OF NO. OF VILLAGES WHICH WERE AWARE ABOUT THE SERVICE PLAN:

None of the villages were aware about the service plan and hence the ratio of the same is not applicable for calculation. However, the service plan was explained to all the villages and the contact details of the organizations who will take up repairs and services (Grameena Punarnirmana Kendram and Beacon Ahead Institute) and types of services etc were informed to the people.

## 8. SUGGESTIONS

### 8.1 RATIONALE/ JUSTIFICATION QUOTES REGARDING SUGGESTIONS/COMMENTS STATED BY THE VILLAGES ABOUT THE SE00 AND ITS USE:

All the 10 villages have given their suggestions/comments regarding the SE200 and its use. The rationale/quotes of each of the villages are stated in the table below:

RATIONALE/ JUSTIFICATION QUOTES REGARDING SUGGESTIONS/COMMENTS STATED BY THE VILLAGES ABOUT THE SE00 AND ITS USE		
S.NO	VILLAGE NAME	RATIONALE
1	Arika Kuridi	“We are willing to use the device for a long time. We are washing it every time to use it correctly as the device is a need”
2	Biyalavalasa	“We need a tank for community use and we will monitor filling the tank by turns on our own just like the midday meals scheme”
3	Dommidi	“It would helpful if this device usage is escalated and it is set up in one central place for community use. But this may call for the need of more storage containers which will be heavy and movement of these containers will be difficult in rainy season”
4	Gotiwada	“We need one drinking water tank”

5	Icchapuram	“We need a tank to access water at anytime or once in a day. Buying salt is another issue as people are not willing to contribute”.
6	Jagandravalasa	“We need help to buy salt as it is getting costly. We also need more literature about the SE200 and its instructions as this will tell us how the salt brine is converted to Chlorine through the SE200. These are all the aspects that the educated people in the village will come to know easily if the literature is available”.
7	Kedijwala	“We need a tank with a capacity of 200/300 liters as it would then be less time consuming and easy for people to access and fill the bindes to get safe drinking water. It would be helpful if the tank had multiple taps. We also need more help to buy salt as people won’t give money for it as it would be costly for them. People want to use it and give the Chlorine for free as the government gave it to us for free. We also need more brown storage bottles to be able to supply the Chlorine to more people”.
8	S.C. Paidi	“The usage of this device is time consuming and there is a requirement for a tank as most of the people in the village are daily wage laborers”
9	T.K. Jammu	“We need to connect a tank to the device. We need a bigger device as the consumption is more in this village”
10	Tompalapadu	“We need a separate drinking water tank and more bottles to be able to supply the Chlorine to more villages”.

~\*~





## CONCLUSION





## OVERALL FEEDBACK

The overall feedback of the people highlighted the below mentioned aspects:

The people stated that this device is essential for all the remote tribal villages. The community members are satisfied with the usage of the SE200 as they are making the Chlorine and treating their water. The people opined that they trust this means of treatment as they are using only salt and no chemicals to treat the water and they are doing the treatment in the presence of the community. By using the SE200, the health of the people is better and they appreciate the innovation. The ease of use and the less time consumption is the appealing factor in the usage of the device.

The people like the taste of the water and though there is slight odor of Chlorine, the people feel encouraged to drink the water treated by the SE200 as it is good for their health and well being. They are willing to use the device on a long term basis.

The people suggested that in order to increase accessibility they would need tanks for each village and more brown storage bottles would result in more supply of the Chlorine to other hamlets and villages. If assistance is provided in buying salt, that would be much appreciated. It was also mentioned that it is better to have a bigger device to prepare more chlorine for catering to larger communities

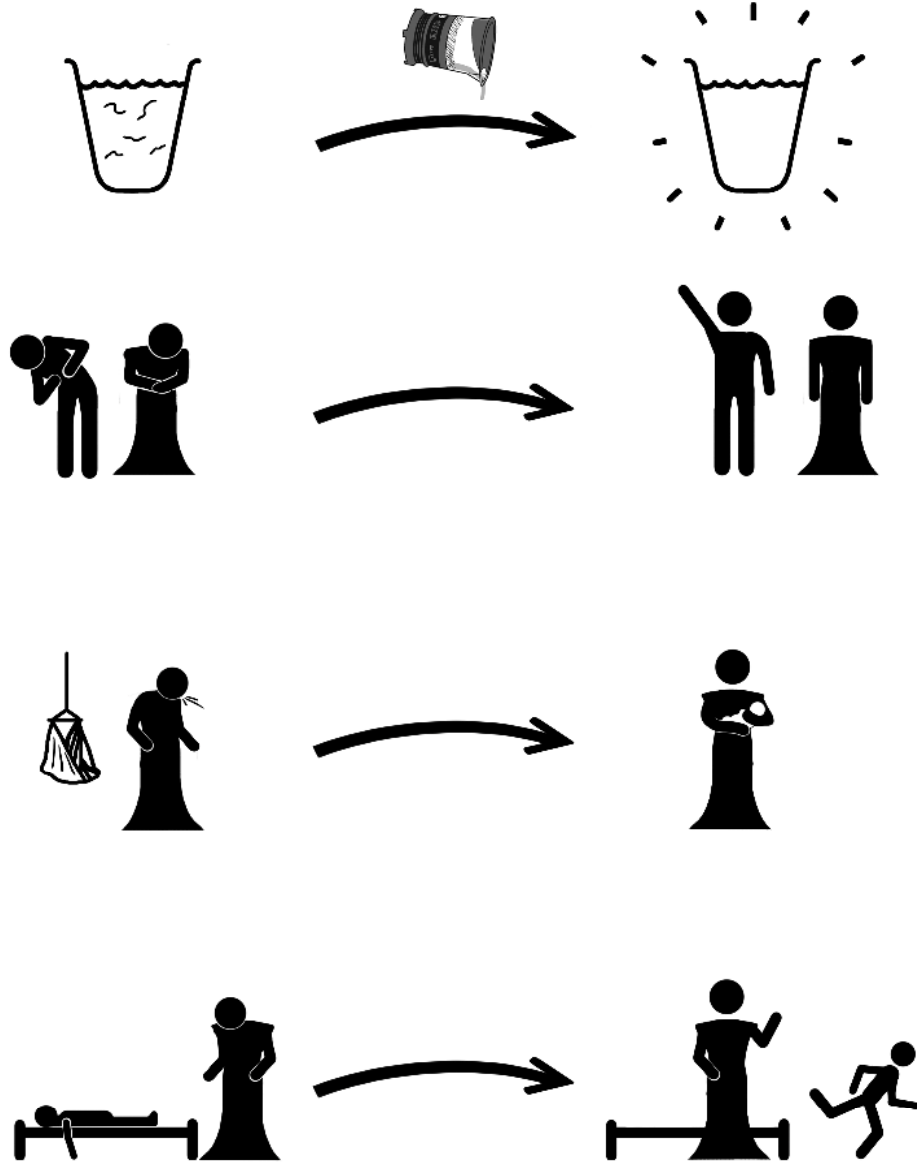
## OVERALL IMPACT

The overall impact has been a better status in health conditions which has resulted in reduction of deaths in the villages due to water borne diseases. There is a marked increased interest in utilizing the device to treat the water and the neighboring hamlets and villages have also gained awareness towards water safety. The usage of the SE200 has resulted in greater community cooperation and a demand has been generated among the people to have one device in each village. The willingness of the people to take forward this initiative in a larger scale is clearly visible.

The fulfillment of people's water related needs is fundamental to elimination of poverty. People wish to manage their own local water resources which give opportunities for the communities to work together equitably. Since the people take their own initiatives this becomes a people's centered approach and this can be a successful example of innovative and successful community management.

The following diagrams highlight the impact of using the SE200 and the community cooperation that has been strengthened due to the use of the SE200:

# Impact of using the SE200 to Treat Drinking Water





## Community Use of the SE200

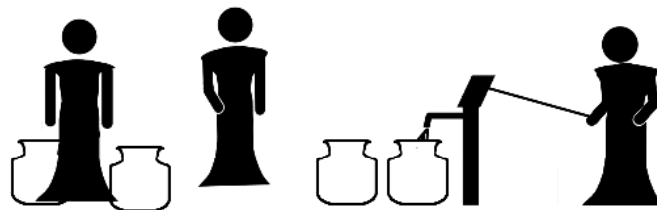
### 1. Making Chlorine with the SE200:



### 2. Adding chlorine to empty vessels:



### 3. Filling the vessels with water. The Chlorine and water mix thoroughly:





## END RESULT

### **Public Private Partnership:**

The pilot study for provision of safe drinking water through the introduction of the SE200 device has proved a successful model for public-private partnership. While it is the prime duty of the state to take up social development, the involvement of the private business and NGO sectors has also proved important. Each sector has its immense potentialities and the NGOs and the local administration officials at the grass root levels implement the priorities set by the government in a more efficient and an effective manner.

The DRDA, Zilla Samakhya, Grameena Punarnirmana Kendram and Beacon Ahead Institute have worked in coordination and have come about with a key lesson for fundamental change that can be achieved through interventions that focus on the overall goals. This has been possible with the impetus provided by SERP. Together addressing the water crisis the concerted efforts have been towards healthier and more productive lives for the poor people.

The project mainly focused on community based management for service delivery which also looks into low cost delivery system. While responding to the demand of the people there is substantial improvement in people's access to clean water. All the efforts dovetail for the overall economic and social well being of the people.



# ROAD TO THE FUTURE



## FUTURE PLANS

The governmental and non-governmental organizations can work in unison towards promoting a better life for the communities as water is the most important and human right of the people. The village members are convinced about the method of treatment provided by the SE200 and there is a huge demand to use the device thereby improving their lives and opportunities for a brighter and healthier future. The whole focus should be demand driven rather than mere supply.

### LIST OF VILLAGES THAT EXPRESSED NEED FOR SE200:

1. Dekadavai
2. Dippuguda
3. Y. Kedavai
4. Galimanaguda
5. Bandra singi
6. Jalibigguda
7. Tolamguda
8. Jalagadda
9. Agampuda
10. Chintamangala
11. M.M. guda
12. Santoshpuram
13. Mandaladhamapuram
14. Mangalagiri
15. Ichapuramguda
16. Kotttur
17. Chintalkurli
18. Ramidibanda
19. Arikakurudi
20. Naidugguda
21. Kosemaguda
22. Peddaguda
23. Kavalasirivi
24. Teelaliguda
25. Relliguda
26. Damdusura
27. Santoshpuram
28. Anantapuram
29. Saaparaguda
30. Gandhinagar
31. Shivlingapuram
32. Lakshminagar
33. Poddisa
34. Polemguda
35. Tulasi
36. (And other hamlets in the mandal).



## PRESS CLIPPINGS



## నీటిశుద్ధి పరికరంపై అవగాహన



పరికరంపై అవగాహన కల్పిస్తున్న స్వచ్ఛంద సంస్థ సభ్యులు

బియ్యాలవలస(కురుపాం), న్యూస్టుడె: ఆరోగ్యవంతులైన తాగునీరు అందించే దుకు ఉపయోగపడే తాగునీటి పథకంపై గిరిజనులకు అవగాహన కలిగించారు. బుధ వారం సాయంత్రం బియ్యాలవలస గ్రామంలో జి.పి.కె., ఐ.కె.పి. స్వచ్ఛందసంస్థల ఆధ్వర్యంలో హైదరాబాదుకు చెందిన బికాన్ ఎపాడ్ సంస్థ ప్రతినిధులు బియ్యాలవలసలో సదస్సును నిర్వహించారు. సంస్థ ప్రతినిధులు జైన్ వరెల్, ప్రియంవర్ణలు మాట్లాడుతూ మాట్లాడుతూ కేవలం ఉప్పు ఖర్చుతో మంచినీరును తాగే అవకాశం పరికరం ద్వారా సాధ్యపడుతుందని అన్నారు. రూ. 15వేలు విలువ గల పరికరంతో స్వచ్ఛమైన తాగునీరు గిరిజనులకు అందుతుందన్నారు. ఎ.పి.ఎం. అరుణకుమారి మాట్లాడుతూ గిరిజన ప్రాంతంలో కలుషితనీరు తాగడంవల్ల రోగాల బారినపడుతున్నారని అన్నారు. దీనిని నివారించడానికి ఎంతగానో పరికరం ఉపయోగపడుతుందన్నారు. గిరిజనుల స్పందన ఆధారంగా పరికరాలను సరఫరా చేసేందుకు ప్రయత్నిస్తున్నామని చెప్పారు. కార్యక్రమంలో సన్యాసిరాజు, మాజీ ఎమ్మీటీసీ పువ్వలచిన్నారావు, గ్రామస్థులు పాల్గొన్నారు.

## గ్రామ స్థాయిలో క్లోరిన్ తయారీ

కురుపాం రూరల్: నీటి ద్వారా వ్యాప్తి చెందే వ్యాధులను నివారించే దుకు స్టార్ ఎలక్ట్రో యూనిట్ తో (ఎస్ ఈ 200) క్లోరిన్ తయారుచేసే ప్రయోగాన్ని మొదటిసారిగా బియ్యాలవలస లో ప్రయోగాత్మకంగా ప్రారంభించారు. ఈ ప్రయోగం సత్ఫలితాలు ఇస్తోంది. ఎస్ ఈ 200ను జిల్లా సమాఖ్య స్పాన్సర్ చేస్తుండగా హైదరాబాద్ కు చెందిన వైకాన్ హెడ్ అనే సంస్థ సొంకే తిక సహాయాన్ని అందిస్తుంది. కేవలం స్థానికంగా దొరికే ఉప్పును ఉపయోగించి 0.8 శాతం క్లోరిన్ ద్రావణాన్ని బియ్యాలవలస యువత విజయవంతంగా తయారుచేస్తుందన్నారు. ప్రస్తుతం బియ్యాలవలస గ్రామస్థులంతా తాము తాగే మంచినీటిలో క్లోరిన్ ద్రావణాన్ని కలుపుతూ నీటిద్వారా వ్యాపించే వ్యాధుల బారినుంచి తమను



క్లోరిన్ తయారు చేస్తున్న గిరిజనులు

తాము కాపాడుకుంటున్నారు. బియ్యాలవలస గ్రామస్థులకు ఎస్ ఈ 200 యూనిట్ను కేంద్రమంత్రి కిశోర్ చంద్ర సూర్యనారాయణదేవ్ వ్యక్తిగత కార్యదర్శి బి.హెచ్. రమణకుమార్ చేతుల మీదుగా గ్రామస్థులకు అందజేశారు. గ్రామీణ పునర్నిర్మాణ కేంద్రం వ్యవస్థాపకుడు క్రొవ్విడి సన్యాసిరాజు ఉన్నారు. యూనిట్ విజయవంతం కావడంతో మరిన్ని యూనిట్లు పంపిణీ చేయనున్నట్లు సన్యాసిరాజు తెలిపారు.



ఆంధ్రజ్యోతి

# కురుపాం జోన్

మంగళవారం

19-2-2013

13

• కురుపాం • జయ్యమ్మవలస • గుమ్మలక్ష్మీపురం

## సత్పలితాలిస్తున్న 'స్టార్ట్ ఎలక్ట్రో క్లోరినేటర్'

కురుపాం : ఏజెన్సీలో ప్రజలకు స్వచ్ఛమైన తాగునీరు అందివ్వడానికి స్టార్ట్ ఎలక్ట్రో క్లోరినేటర్ సత్పలితాలిస్తున్న సొందని గ్రామీణ పునర్నిర్మాణ వ్యవస్థాపకుడు కె. సన్యాసిరాజు అన్నారు. సోమవారం ఆయన విలేజ్ కమిటీతో మాట్లాడుతూ గిరిజన గ్రామాల్లో కలుషిత తాగునీటి వల్ల ప్రజలు ఎన్నో రోగాలకు గురవుతున్నారన్నారు. అందువల్ల జిల్లా సమైక్య ఆర్థిక సాయంతో గిరిజన గ్రామాల్లో స్వచ్ఛమైన నీరు తాగేందుకు వీటిని ప్రయోగాత్మకంగా అందిస్తున్నామన్నారు. దీని వల్ల మంచి ఫలితాలు అందుతున్నాయన్నారు. అమెరికా బికెన్ ఏ హెడ్ ఇనిస్టిట్యూట్ తయారు చేసిన స్టార్ట్ ఎలక్ట్రో క్లోరినేటర్ ద్వారా తయారు చేసిన డ్రావణాన్ని నీటిలో కలపడం వల్ల నీరు శుద్ధి అవు



పరికరంపై అపగాహన పరుస్తున్న దృశ్యం

తుండన్నారు. 15 ఎంఎల్ డ్రావణం 200 లీటర్ల నీటిని శుద్ధి చేస్తుందన్నారు. ఈ డ్రావణాన్ని సంబంధిత గ్రామా

లలో తయారు చేయడానికి కేవలం డప్పు అవసరమన్నారు. దీనిని తయారు చేసిన అమెరికాకు చెందిన జైన్,

ప్రేమ్ వర్మలు ఈ ప్రాంత గిరిజన గ్రామాలలో స్టార్ట్ ఎలక్ట్రో క్లోరినేటర్లపై పూర్తిస్థాయిలో అవగాహన పంపారన్నారు. దీని విలువ కేవలం రూ. 15 వేలు మాత్రమేనన్నారు. జిల్లా సమైక్య ఆర్థిక సాయంతో కురుపాం మండలం బియ్యాలవలస, గోటివాడ, చింతలకురికి, ఆరిక కురిడి, ఇచ్చాపురం, సంపన్నగూడ, టాంపలపాడు, దురిబిలి, కురుపాం గాంధీనగర్, జయ్యమ్మవలస మండలం తోకే జమ్మ్య గ్రామాలకు స్టార్ట్ ఎలక్ట్రో క్లోరినేటర్లు అందజేశామన్నారు. దీంతో తయారు చేసిన డ్రావణం నీటిలో కలిపి గిరిజన గ్రామాల్లో నీటిని తాగుతున్నారన్నారు.

దీనివలన మంచి ఫలితాలు వస్తున్నాయన్నారు. కార్యక్రమంలో తదితరులు పాల్గొన్నారు.





## AT A GLANCE- PHOTO PRESENTATION





Discussions with members of 3 villages  
about SE200



Community members running the  
SE200







### Running the SE200 on car battery



### Training about the dosing and treating water through the SE200 chlorine



Meeting with the Mahila Mandali members  
at DRDA Vizianagaram



SE200 2<sup>nd</sup> training visit - briefing done  
for 7 villages





Interactions with members of 7 villages  
about the SE200



SE200 training to members of 7 villages by  
BAI and GPK team



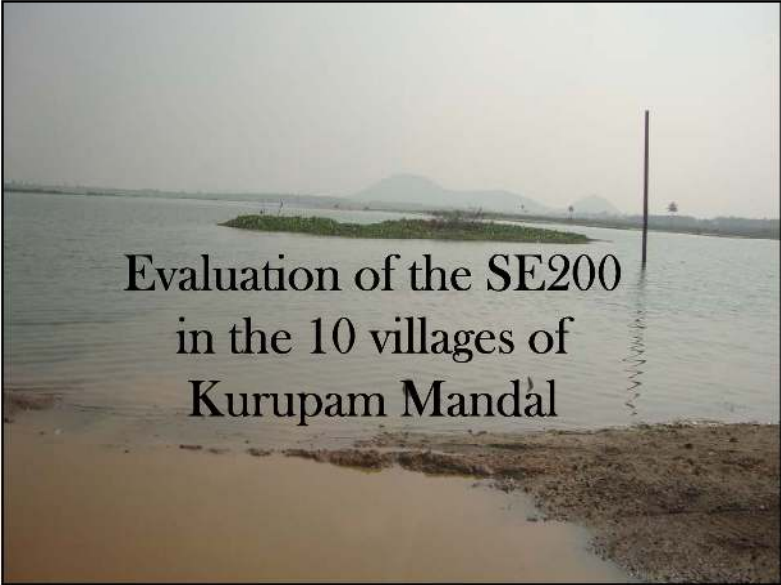




SE200 training to members of 7 villages



Members of the villages drinking the water treated by the SE200





Evaluation of the SE200  
in the 10 villages of  
Kurupam Mandál



Interactions with the Master trainees of  
the SE200





Members of Zilla Samkhya, DRDA Vizianagaram monitoring the evaluation conducted by the BAI and GPK team at Dommidi village



Usage of SE200 and the treatment procedure is demonstrated by the Community members during evaluation





Evaluation of the SE200 and data collection in Kedijwala village



Evaluation of the SE200 and data collection in Jagandravalasa village





Evaluation of the SE200 and data collection in  
Icchapuram village



Evaluation of the SE200 and data collection in  
Arika Kuridi village







Evaluation of the SE200 and data collection in  
Biyalavalasa village



Youth members demonstrating the SE200 while  
running it on a car battery during evaluation in  
T.K. Jammu village



APM of Call Center DRDA handing the SE200 device to the S.C. Paidi village



SE200 evaluation being conducted for Tompalapadu and Gotivada villages







# ANNEXURES





TRIPARTITE AGREEMENT BETWEEN ZILLA SAMAKHYA, BEACON AHEAD  
INSTITUTE AND GRAMEENA PUNARNIRVANA KENDRA

To:  
The Concerned Officials

15-08-12

Respected Sir/Madam,

**Sub: TRIPARTITE AGREEMENT BETWEEN ZILLA SAMAKHYA, BEACON AHEAD  
INSTITUTE AND GRAMEENA PUNARNIRVANA KENDRAM**

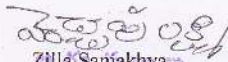
It is herewith come to a tripartite agreement as mentioned above for conducting the field test of 10 SE 200 devices in the villages of Vizianagaram district for providing safe drinking water.

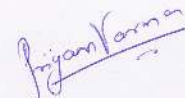
The Zilla Samakhya, Beacon Ahead Institute and Grameena Punarnirvana Kendram have come a common understanding to enter into this agreement for effective use, monitoring and obtaining feedback for evaluation of the device at the community level.

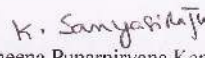
The roles and responsibilities of each of the mentioned organizations have been enclosed.

The time frame for this is effective from August 2012 to February 2013.

Based upon the findings of the study, the project can be scaled up as per the needs of the community.

  
Zilla Samakhya  
Vizianagaram District  
Andhra Pradesh  
విజయనగరం

  
Beacon Ahead Institute  
Hyderabad  
Andhra Pradesh

  
Grameena Punarnirvana Kendram  
Kurupam, Vizianagaram  
Andhra Pradesh

SECRETARY  
Grameena Punarnirvana Kendram  
KURUPAM.

BEACON AHEAD INSTITUTE

Isfaq Colony, Picket,  
AOC Centre, Secunderabad-500 015.  
Andhra Pradesh, India.

MOU AGREEMENT COPY

SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – ARIKA KURIDI

14-Feb 2013. Evaluators: Radhu, Jave & Priyam

Evaluation - SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Arika Kurudi
2	Name of the Tribe or community	Savarna
3	No. of persons or families in the village	13 flys - 66 people (population)
4	No. of members operating the SE200 device	Self + one more - daughter (A) Urappu B. Punita
5	No. of SHG groups in the village	1 Ginijana Mahila Sangham
6	Names of the Master trainee and the persons operating the SE200 for the community use	
7	How many people among this village have been drinking the water treated by this device?	Drinking & cooking
8	Where is the device usually kept when in use and stored at other times?	In the house - on a chair - store in a safe place - keep in a bag
9	How is the device to use (easy or difficult)? Reasons for the same.	Easy to use - Takes less time.
10	Are the instructions easy to follow and do they have copies of the same?	Instructions - do not have a set
11	What do the people think of the taste of the water after it is treated by the SE200?	Good to taste - little odour - But does not demotivate
12	Does the taste factor encourage or discourage users from drinking the water?	↓

1

Evaluation – SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	Using regularly
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	12 days to 60+
15	Are most nuclear or joint families or extended families?	Joint & nuclear families
16	What is their opinion regarding the safety of using this device?	No element of risk involved -
17	How safe do you think the water being treated by the SE200 is to drink? Justification	Except a down no other issue to bring about 1 hour-use is ready, holding to consume water.
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living )	1. Decrease in cough & cold -
19	What is the source of water supply to the users and how often do they get water?	Borewell water - always -
20	How often do they get power supply and what is the duration of the power supply?	fluctuating - 6 pm - 8 pm - Cant say.
21	Are the users using car or motorcycle batteries to run the device?	-No -

2





## Evaluation - SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	
22	How much time is spent to treat the water required in the village?	-No-
23	How many times do they have to run the device to treat the water required by the village each day or week?	20 minutes (13 families) including supply time
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	N-A
27	What are the opinions of the people regarding the device and its use?	Positive -
28	Have the users faced any problems with device or its accessories?	-No-



Evaluation - SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	—
30	Has the device or any of its parts needed service or repairs?	—
31	If yes, have they tried to repair it or intimate the concerned officials?	—
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	If repairs - inform Sanyas Rajin - it will be replaced within 2 years (was informed to people)
33	Are the users interested in continued usage of the device?	Using device from 2 months or so from December 2012.
34	Do the people use any other ways to treat their water (I.e., boiling etc)	
35	How often is the device cleaned and what is the procedure?	Wash with water & keep aside in another bag - to safeguard from rats
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	
37	Any other aspects of importance that the people would like to share or suggest?	Willing to use it for a long time. Wishing to use correctly every time as a need.

List of photos to be taken	
Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Completed in 30 minutes.

Signatures of: Zilla Samakhya President: H. Lakshmi  
 " " " Manager: [Signature]  
 Pema Asst. [Signature]



SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – BIYALAVALASA

15 Feb 2013. Evaluators: Jane, Madhu & Priyam.

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Beejala valasa. (6)
2	Name of the Tribe or community	Impnamant: Jatapu (ST)
3	No. of persons or families in the village	50 families 250 people.
4	No. of members operating the SE200 device	Prasada Rao. In his absence one youth member. (Gatish) (2)
5	No. of SHG groups in the village	4
6	Names of the Master trainee and the persons operating the SE200 for the community use	Prasada Rao -
7	How many people among this village have been drinking the water treated by this device?	All the families.
8	Where is the device usually kept when in use and stored at other times?	on a table - then kept aside.
9	How is the device to use (easy or difficult)? Reasons for the same.	Very easy to operate. Simple to use.
10	Are the instructions easy to follow and do they have copies of the same?	Can recognise instructions but do not have copies of the same.
11	What do the people think of the taste of the water after it is treated by the SE200?	Slight odour - but can consume water
12	Does the taste factor encourage or discourage users from drinking the water?	- No -

1



## Evaluation - SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	Regularly used - on a daily basis
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	2 months ↔ 80+
15	Are most nuclear or joint families or extended families?	Mostly joint families
16	What is their opinion regarding the safety of using this device?	No element of risk observed.
17	How safe do you think the water being treated by the SE200 is to drink? Justification	No side effects or ill health effects after using the water treated -
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living )	Cold & cough - instances have come down.
19	What is the source of water supply to the users and how often do they get water?	Borewell
20	How often do they get power supply and what is the duration of the power supply?	Fluctuates - evening 6 to 8 pm - Morning 1/2 hour - 2 1/2 hours daily.
21	Are the users using car or motorcycle batteries to run the device?	No

2

## Evaluation - SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	- N - A -
22	How much time is spent to treat the water required in the village?	morning 8 am - for drinking water (distribution) 6 times run device.
23	How many times do they have to run the device to treat the water required by the village each day or week?	Run the device for 30 minutes - or say 6 times - During availability of electricity (To fill the bottle to store the liquid) - 500 litres per day - once in 2 days.
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	Constant - no decline in its use - motivated to continue - other neighbouring villages are also wanting to use.
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	- No -
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	Both master trainers not available in the village.
27	What are the opinions of the people regarding the device and its use?	Positive.
28	Have the users faced any problems with device or its accessories?	The adaptor was taken to Bangalore Rapi & was replaced accordingly.

3



## Evaluation - SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	-
30	Has the device or any of its parts needed service or repairs?	-
31	If yes, have they tried to repair it or intimate the concerned officials?	Informed NGO head - Sanyasi Raju
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	Service plan explained to the people; as they were concerned about the same
33	Are the users interested in continued usage of the device?	yes -
34	Do the people use any other ways to treat their water (I.e., boiling etc)	No other method
35	How often is the device cleaned and what is the procedure?	Handling device carefully & washing with water & keeping it aside
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	Individual dosing
37	Any other aspects of importance that the people would like to share or suggest?	Tank for community use - and will monitor (fill tank by turns) on their own - like mid day meals

### List of photos to be taken

Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Time taken to complete format :-

4

Monitored by: Smt. Aruna : [Signature]

K. Sanyasi Raju  
(Sanyasi Raju)

SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – DOMMIDI

Date: 14 Feb 2013. Evaluator: Marthya Kattar & Jane Versall

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Dommidi (Dommidi ward)
2	Name of the Tribe or community	Savara.
3	No. of persons or families in the village	120 people (125). 25 families (27 approx).
4	No. of members operating the SE200 device	B. Chandramma 2 people - B. Amosa.
5	No. of SHG groups in the village	2 (+ youth groups) 30
6	Names of the Master trainee and the persons operating the SE200 for the community use	Lakkiah.
7	How many people among this village have been drinking the water treated by this device?	All of them - both the ladies.
8	Where is the device usually kept when in use and stored at other times?	In a safe place - Alminah.
9	How is the device to use (easy or difficult)? Reasons for the same.	Easy:- to understand & operate.
10	Are the instructions easy to follow and do they have copies of the same?	Procedures explained - - no copies - only demo.
11	What do the people think of the taste of the water after it is treated by the SE200?	Initially - strange odour -
12	Does the taste factor encourage or discourage users from drinking the water?	not discouraging -

1



### Evaluation – SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	yes -
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	3 months → 60
15	Are most nuclear or joint families or extended families?	Disintegration
16	What is their opinion regarding the safety of using this device?	Safe
17	How safe do you think the water being treated by the SE200 is to drink? Justification	Tasty -
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living)	Better to use this Free to use the device Death (no such instance) 4. Definitely Better health -
19	What is the source of water supply to the users and how often do they get water?	Well water + streams -
20	How often do they get power supply and what is the duration of the power supply?	6pm to 5 a.m.
21	Are the users using car or motorcycle batteries to run the device?	- No -

46 Habitations :-

Titi Ri Panchayat:

2



## Evaluation – SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	- N - A -
22	How much time is spent to treat the water required in the village?	10 minutes (Twice).
23	How many times do they have to run the device to treat the water required by the village each day or week?	
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	more villages are willing to use the device.
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	except chlorine odour - all else seems fine - Opt.
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	Subject to availability of power -
27	What are the opinions of the people regarding the device and its use?	
28	Have the users faced any problems with device or its accessories?	None -

3



## Evaluation - SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	- Not applicable -
30	Has the device or any of its parts needed service or repairs?	- No -
31	If yes, have they tried to repair it or intimate the concerned officials?	- N/A -
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	No idea about repairs & service plan. *
33	Are the users interested in continued usage of the device?	yes -
34	Do the people use any other ways to treat their water (I.e., boiling etc)	same - but use cloth sometimes before use in device
35	How often is the device cleaned and what is the procedure?	just wash with water now & then *
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	one spoon for one binde -
37	Any other aspects of importance that the people would like to share or suggest?	Escalate; one central place for community use - But heavy; more storage containers. Movement difficult in rainy season.

### List of photos to be taken

Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team ✓	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Questionnaire filled under the supervision of Zil. Manager & P. Gurusu  
 ZS President. H. Lakshmi  
 Completed pramat in - One hour -  
 25 APR 55 14/02/13

4





SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – GOTIWADA

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		Data collection
S. NO	Question	
1	Name of the Village	Gotiwada
2	Name of the Tribe or community	Jatapu.
3	No. of persons or families in the village	98 households.
4	No. of members operating the SE200 device	4 persons .
5	No. of SHG groups in the village	3 SHGs
6	Names of the Master trainee and the persons operating the SE200 for the community use	T. Sundara Rao . T. Padma T. Dalamma Arumadamma
7	How many people among this village have been drinking the water treated by this device?	98 households
8	Where is the device usually kept when in use and stored at other times?	at SHG, colony street
9	How is the device to use (easy or difficult)? Reasons for the same.	Easy. Simple method
10	Are the instructions easy to follow and do they have copies of the same?	Easy
11	What do the people think of the taste of the water after it is treated by the SE200?	little smell of chlorine
12	Does the taste factor encourage or discourage users from drinking the water?	encourage for drinking

1



### Evaluation – SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	yes . regularly using
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	15 TO 45 Age group ± month 70 100 years )
15	Are most nuclear or joint families or extended families?	10 Joint families remaining are extended families
16	What is their opinion regarding the safety of using this device?	100% safety
17	How safe do you think the water being treated by the SE200 is to drink? Justification	only salt is using for making chlorine in community machine
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living )	Health Better healthy. increased in interest to use safe drinking water ,
19	What is the source of water supply to the users and how often do they get water?	Bore Well Some to them use stream water
20	How often do they get power supply and what is the duration of the power supply?	6 PM TO 6 AM .
21	Are the users using car or motorcycle batteries to run the device?	—

2



Evaluation - SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	
22	How much time is spent to treat the water required in the village?	2 hour
23	How many times do they have to run the device to treat the water required by the village each day or week?	3 times in a day 3 to 5 times in a day.
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	Simple motivation.
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	- NO -
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	-
27	What are the opinions of the people regarding the device and its use?	very good for drinking safe drinking water in the village.
28	Have the users faced any problems with device or its accessories?	- NO -





Evaluation – SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	—
30	Has the device or any of its parts needed service or repairs?	—
31	If yes, have they tried to repair it or intimate the concerned officials?	—
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	yes they know the service plan.
33	Are the users interested in continued usage of the device?	Yes
34	Do the people use any other ways to treat their water (i.e., boiling etc)	Nil
35	How often is the device cleaned and what is the procedure?	only water can use to clean the device
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	individual dosing
37	Any other aspects of importance that the people would like to share or suggest?	— use one drinking water tank

List of photos to be taken

Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Yome taken to complete format: 3 hours - 4

T. Subramanian

K. Sanyasiraju  
 SECRETARY  
 Amma Purna Nirmana Kendra  
 KURUPAM.



## SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – ICCHAPURAM

Date: 14 Feb 2013. Evaluators Madhu Kulkarni  
Priyam & Jane Vemall

Evaluation - SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device - Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Ichapuram; Kotturu;
2	Name of the Tribe or community	Savara
3	No. of persons or families in the village	150 families - (Population) (25 families)
4	No. of members operating the SE200 device	Self & sons (Chinna Rao) (Yarakaiah)
5	No. of SHG groups in the village	1 only.
6	Names of the Master trainee and the persons operating the SE200 for the community use	4 areas - 200 families (people)
7	How many people among this village have been drinking the water treated by this device?	200 people.
8	Where is the device usually kept when in use and stored at other times?	In an elevated place - Chain - in almirah kept -
9	How is the device to use (easy or difficult)? Reasons for the same.	Easy - quick - Distributing's line consuming.
10	Are the instructions easy to follow and do they have copies of the same?	No copies of instructions - only demo given - understand procedure & instructions
11	What do the people think of the taste of the water after it is treated by the SE200?	Better - previously Red - deposit - Pimpasata - Now like tap water & cool -
12	Does the taste factor encourage or discourage users from drinking the water?	Little odour - but is good & cool to drink.

1

Evaluation - SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	Regularly - People enquire if it is not supplied only a daily basis. (Moms & kids complaining supply)
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	(4) few months to 70
15	Are most nuclear or joint families or extended families?	Joint & extended families.
16	What is their opinion regarding the safety of using this device?	Safety to use - Good for health
17	How safe do you think the water being treated by the SE200 is to drink? Justification	No risk involved It is good - health will improve -
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living)	Using from a fortnight ago - <ul style="list-style-type: none"> <li>• access to safe drinking water</li> <li>• beneficial to all</li> <li>• Useful for cooking purposes also.</li> <li>• Dependency on only one bore well</li> <li>• Improved health &amp; safe drinking water</li> </ul>
19	What is the source of water supply to the users and how often do they get water?	Bore well only } 6 pm - 6 am - also ever-3-4 may be fluctuates
20	How often do they get power supply and what is the duration of the power supply?	
21	Are the users using car or motorcycle batteries to run the device?	-no-

2





## Evaluation - SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	-
22	How much time is spent to treat the water required in the village?	20 minutes (800 litres)
23	How many times do they have to run the device to treat the water required by the village each day or week?	↑
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	<ul style="list-style-type: none"> <li>• No negative opinions</li> <li>• Appreciate the innovation</li> <li>• Demand in other villages &amp; hamlets.</li> </ul>
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	- no decline -
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	- Device not available -
27	What are the opinions of the people regarding the device and its use?	(+ 24)g.
28	Have the users faced any problems with device or its accessories?	- No -

3



29	If yes, then what did they do to overcome the problem?	- N/A -
30	Has the device or any of its parts needed service or repairs?	4
31	If yes, have they tried to repair it or intimate the concerned officials?	4
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	- Explained service plan -
33	Are the users interested in continued usage of the device?	yes
34	Do the people use any other ways to treat their water (i.e., boiling etc)	Previously boiling water - now only 200 SE
35	How often is the device cleaned and what is the procedure?	Cleaning with water & drying after 3-4 uses
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	Individual dosing.
37	Any other aspects of importance that the people would like to share or suggest?	Tank - to access water at (once a day) anytime Buying salt - is another issue - People not willing to contribute.

List of photos to be taken

Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Some taken to complete format; 30 minutes

Name of supervisor :-

(President Zilla Samakhya)

P. Govindan  
H. Lakshmi  
14/03





**SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES –  
JAGANDRAVALASA**

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Jagan dra valasa.
2	Name of the Tribe or community	Savaran
3	No. of persons or families in the village	3 villages – 6 families – Jagandrahelara – Sitalakudi 20 – Ramadabanda (8)
4	No. of members operating the SE200 device	2 members.
5	No. of SHG groups in the village	1, 1, 1 – 3 Villagers.
6	Names of the Master trainee and the persons operating the SE200 for the community use	B. Balu Rao – Leby.
7	How many people among this village have been drinking the water treated by this device?	150 ppl. 6 am supply
8	Where is the device usually kept when in use and stored at other times?	outside d house on a cot. we use it. In a sack inside house.
9	How is the device to use (easy or difficult)? Reasons for the same.	Easy to use – As it tly takes 5 mins.
10	Are the instructions easy to follow and do they have copies of the same?	Yes easy to follow. and it talkin with what ppl says. Need copies.
11	What do the people think of the taste of the water after it is treated by the SE200?	It smells & so ppl wer nt wed h it, then ppl got wed to it. after 2/3 days.
12	Does the taste factor encourage or discourage users from drinking the water?	We feel like drinking mor & mor. Encourages.

1

P. Govinda  
14/02/13  
Hyderabad  
APR 55  
6:30 PM  
14/02



Evaluation - SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	Regular consumption.
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	Lowest - 5 months - 3yrs. Highest - 65 yrs. or more. Yes all of them drink. as they feel it is nice.
15	Are most nuclear or joint families or extended families?	Nuclear & extended families.
16	What is their opinion regarding the safety of using this device?	No risk.
17	How safe do you think the water being treated by the SE200 is to drink? Justification	No risk - b4 water was risky - we used get stomach pain. Now no pbm. & it is safe.
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living )	B4 we used to fall ill very often. Now health is better & now not using chlorine tablets either.
19	What is the source of water supply to the users and how often do they get water?	Borewell - everyday.
20	How often do they get power supply and what is the duration of the power supply?	6 pm to 6 am (intermittent). 1 hr & 8 pm to 6 am.
21	Are the users using car or motorcycle batteries to run the device?	(Ily correct)

2



Evaluation - SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	-NA)-
22	How much time is spent to treat the water required in the village?	15 mins.
23	How many times do they have to run the device to treat the water required by the village each day or week?	600 l. / 3 villages.
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	Feel highly motivated to use constantly.
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	No decline. in \$ interest
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	- No - device.
27	What are the opinions of the people regarding the device and its use?	By water ppl used to fall ill bt nw ppl & children r more healthy by using this device.
28	Have the users faced any problems with device or its accessories?	No.

I mark are in this village. 3

Red color was it finishes it beaps.  
 then red color - white dunks 5 mins





Evaluation - SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	N/A
30	Has the device or any of its parts needed service or repairs?	- N/A -
31	If yes, have they tried to repair it or intimate the concerned officials?	- N/A -
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	Yes explained plan.
33	Are the users interested in continued usage of the device?	I wanted in continued use.
34	Do the people use any other ways to treat their water (I.e., boiling etc)	- NO - Ily using SE200 d.
35	How often is the device cleaned and what is the procedure?	Wash & rinse with water after every use.
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	Individual dosing. 20L - 1 spoon
37	Any other aspects of importance that the people would like to share or suggest?	Need help to buy salt. as it is getting costly. * Need lit- art SE200 & its instructions

List of photos to be taken

Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

what happen by SE200  
salt brine  
no  
ch  
as educated  
ppt will come  
to know easily.

Misc it well with chamber & wait  
& it to purify (10 mins)



SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – KEDIJWALA

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Kedijwala.
2	Name of the Tribe or community	Savara.
3	No. of persons or families in the village	22.
4	No. of members operating the SE200 device	2.
5	No. of SHG groups in the village	2-13 members, 12 members. - 76 - 20 members.
6	Names of the Master trainee and the persons operating the SE200 for the community use	Lakhaiah, M, Teeran Kumar.
7	How many people among this village have been drinking the water treated by this device?	105 members, Mandaldanguda, Kedijwala 28. Anamapuram - 30
8	Where is the device usually kept when in use and stored at other times?	Lakhaiah's house - <sup>on table</sup> outside house - inside desk.
9	How is the device to use (easy or difficult)? Reasons for the same.	Nothing diff - sly crepase is salt. *
10	Are the instructions easy to follow and do they have copies of the same?	Easy to follow. Give copies to same
11	What do the people think of the taste of the water after it is treated by the SE200?	Taste is good - B4 we used to get scared to drink water b'coz of fear, now we like & drink it a lot
12	Does the taste factor encourage or discourage users from drinking the water?	It encourages us to drink - taste used to be diff - borewell, stream, well, now water is clear, tasty & we like it

Not many days used - 1/2 months.

\*. Buying sack of salt.

as now may have to use 2 packets

P. Govinda, 14/02/13, 6:20 PM





Julari - village - 10 families

Evaluation - SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	Consuming water daily treated by SE200.
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	Lowest - 1/2 yrs., 5 months Highest - 65 yrs There r also drinking water.
15	Are most nuclear or joint families or extended families?	Nuclear bt of whole village is 1 family
16	What is their opinion regarding the safety of using this device?	✓ safe - No risk.
17	How safe do you think the water being treated by the SE200 is to drink? Justification	No risk with water. = b'coz water was giving us diseases - cough - b'coz we used to boil water & drink no SE200 water we r nt falling ill.
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living)	<u>Impact</u> → Health is better - no diarrhoea / diseases. → Safe water - we rly prepare chlorine lumps on water safe so we feel satisfied.
19	What is the source of water supply to the users and how often do they get water?	Borewell & well. They get it often.
20	How often do they get power supply and what is the duration of the power supply?	6 pm to 6 am. - <del>is</del> intermittent. 2hr (6-7 pm) + 1hr (8 pm to 6 am)
21	Are the users using car or motorcycle batteries to run the device?	No - b'coz we get power everyday.

2



Evaluation - SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	- wt -
22	How much time is spent to treat the water required in the village?	15 mins - 4 dosing - 1/2 hr. for 3 villages.
23	How many times do they have to run the device to treat the water required by the village each day or week?	600 l / day.
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	Yes - feel motivated to use for a very long time.
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	No decline
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	Did st bring device.
27	What are the opinions of the people regarding the device and its use?	device - cbq govt was giving bleach. powder / chlorine powder & we did not trust, bt now we are using & making ch & we r promising of use of no device by telling them that they will get it.
28	Have the users faced any problems with device or its accessories?	No pblms. Using it with care.

Sts with change twice / thrice. 3  
 \* Telling Mahila mandali ppl as well also wot safe drinking water.



29	If yes, then what did they do to overcome the problem?	- NA -
30	Has the device or any of its parts needed service or repairs?	- NA -
31	If yes, have they tried to repair it or intimate the concerned officials?	- NA -
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	- Yes - no plan.
33	Are the users interested in continued usage of the device?	Yes will use it may yrs.
34	Do the people use any other ways to treat their water (I.e., boiling etc)	- No - <sup>used to</sup> boiling or not no.
35	How often is the device cleaned and what is the procedure?	Clean with water - rinse & use again - Do this after every use.
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	Individual dosing. <del>4</del> three villages
37	Any other aspects of importance that the people would like to share or suggest?	Tank 200/300 l as it would be less time consuming & easy to ppl to access & fill bottles & get safe water.

List of photos to be taken	
Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

get safe water. With our help.

\* Want more help to buy salt - as ppl won't give money as it would be costly & ppl want to use & give it for free as govt gave for free.  
\* Want more brown bottles to supply.





SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – S.C.PAIDI

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Kurupam S.C. Paidi - Gandhi Colony
2	Name of the Tribe or community	S.C. Paidi
3	No. of persons or families in the village	120 families - pop'n = about 1000 approx.
4	No. of members operating the SE200 device	Will decide
5	No. of SHG groups in the village	8
6	Names of the Master trainee and the persons operating the SE200 for the community use	
7	How many people among this village have been drinking the water treated by this device?	
8	Where is the device usually kept when in use and stored at other times?	Keep it in old age Sangha - (group)
9	How is the device to use (easy or difficult)? Reasons for the same.	Seems good (O.K)
10	Are the instructions easy to follow and do they have copies of the same?	
11	What do the people think of the taste of the water after it is treated by the SE200?	
12	Does the taste factor encourage or discourage users from drinking the water?	encouraged to use - drink - treated water

1

## Evaluation - SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	1 month ↔ 80+
15	Are most nuclear or joint families or extended families?	Both
16	What is their opinion regarding the safety of using this device?	
17	How safe do you think the water being treated by the SE200 is to drink? Justification	
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living)	Interested in improving health Decrease in expenditure accessibility.
19	What is the source of water supply to the users and how often do they get water?	Tap water - Tank water. 1/2 hour supply
20	How often do they get power supply and what is the duration of the power supply?	fluctuates: as per mandal head quarters-
21	Are the users using car or motorcycle batteries to run the device?	

2





## Evaluation – SE200 pilot project-Kurupam-2013

	<b>If yes what was their experience and comments?</b>	
22	<b>How much time is spent to treat the water required in the village?</b>	
23	<b>How many times do they have to run the device to treat the water required by the village each day or week?</b>	
24	<b>Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?</b>	
25	<b>Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?</b>	
26	<b>Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?</b>	
27	<b>What are the opinions of the people regarding the device and its use?</b>	
28	<b>Have the users faced any problems with device or its accessories?</b>	

3



Evaluation – SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	
30	Has the device or any of its parts needed service or repairs?	
31	If yes, have they tried to repair it or intimate the concerned officials?	
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	In case of repairs - Sanyas Raji to be contacted for repairs/replacement
33	Are the users interested in continued usage of the device?	Willing to use device.
34	Do the people use any other ways to treat their water (I.e., boiling etc)	
35	How often is the device cleaned and what is the procedure?	
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	
37	Any other aspects of importance that the people would like to share or suggest?	Tank - daily wage labourers. Time consuming

Posters distributed.

List of photos to be taken

Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Format completed! in 20 minutes

4

Supervised by:

*[Signature]*  
S. Aruna  
BRDA  
17/02/13

K. Sanyasi Raju  
Sanyasi Raju  
NBO.



SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – T.K. JAMMU

15 Feb 2013.

Evaluators: Jany, Madhu & Priyam -

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	T.K. Jammu
2	Name of the Tribe or community	Tatapu & Sarana.
3	No. of persons or families in the village	120 families - 330 population
4	No. of members operating the SE200 device	5
5	No. of SHG groups in the village	5
6	Names of the Master trainee and the persons operating the SE200 for the community use	Sunder Erenu Shankar Roteswar / Lakshman Rao. Kailash (Inferment)
7	How many people among this village have been drinking the water treated by this device?	All 330 people.
8	Where is the device usually kept when in use and stored at other times?	Outside Community hall (youth club). Water committee - 2 members - go around Kept aside in youth club. & distribute
9	How is the device to use (easy or difficult)? Reasons for the same.	Easy - Small norms in borewell water also
10	Are the instructions easy to follow and do they have copies of the same?	Familiar with - instructions but do not have a copy of the same
11	What do the people think of the taste of the water after it is treated by the SE200?	Better than borewell water
12	Does the taste factor encourage or discourage users from drinking the water?	encourages -

1





Evaluation – SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	Daily- evening prepare chlorine morning distribute
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	1 month ↔ 90
15	Are most nuclear or joint families or extended families?	Both joint & nuclear families
16	What is their opinion regarding the safety of using this device?	No element of risk
17	How safe do you think the water being treated by the SE200 is to drink? Justification	An element of - odour -
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living )	Using since one week - ① Health improvement 4. Increased interest in safe water - ease of treatment
19	What is the source of water supply to the users and how often do they get water?	boreswell- always
20	How often do they get power supply and what is the duration of the power supply?	One week - evenings - 2-pm to 6am - day 6-11
21	Are the users using car or motorcycle batteries to run the device?	- No -

2



## Evaluation – SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	—
22	How much time is spent to treat the water required in the village?	20 to 30 minutes
23	How many times do they have to run the device to treat the water required by the village each day or week?	4 times: not enough - need to have 2 bottles to store the solution - need for 2 bottles - (no litres) - $\frac{1}{2}$ spoon for small bottle (was explained)
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	feel motivated - need for 2 bottles.
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	- no -
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	Run on car (no power) battery Innova - AP 31 TU 2565 Time taken: - 17:22 to 17:30 = 8 mins. straight from device to bottle.
27	What are the opinions of the people regarding the device and its use?	Overall good - Good for health mixed lightly with same blue spoon
28	Have the users faced any problems with device or its accessories?	- no -

3





Evaluation - SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	-
30	Has the device or any of its parts needed service or repairs?	-
31	If yes, have they tried to repair it or intimate the concerned officials?	Service plan was explained to the community &
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	Replacement was clarified.
33	Are the users interested in continued usage of the device?	yes.
34	Do the people use any other ways to treat their water (I.e., boiling etc)	- no -
35	How often is the device cleaned and what is the procedure?	Wash with water.
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	Individual dosing.
37	Any other aspects of importance that the people would like to share or suggest?	Tank - need to be connected - Need bigger device - as the consumption is more in this village

List of photos to be taken	
Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Time taken to complete format: 30 minutes. 4

Supervised & monitored by: Aruna 11/04/13 K. Sanyal (P)  
Sanyal Raju  
N. G.



SCANNED COPIES OF THE EVALUATION QUESTIONNAIRES – TOMPALAPADU

Evaluation – SE200 pilot project-Kurupam-2013

Questionnaire for Evaluation of the SE200 water treatment device – Pilot project, Kurupam		
S. NO	Question	Data collection
1	Name of the Village	Tompalapadu
2	Name of the Tribe or community	Jatapu
3	No. of persons or families in the village	35 households, 14
4	No. of members operating the SE200 device	10 members
5	No. of SHG groups in the village	2 SHGs
6	Names of the Master trainee and the persons operating the SE200 for the community use	N. Jagadsh K. Palaverdhan K. Visuvasaham,
7	How many people among this village have been drinking the water treated by this device?	Total village and P.W. High School - 250 people
8	Where is the device usually kept when in use and stored at other times?	Youth club handover
9	How is the device to use (easy or difficult)? Reasons for the same.	Easy.
10	Are the instructions easy to follow and do they have copies of the same?	Easy to follow
11	What do the people think of the taste of the water after it is treated by the SE200?	happy to drink,
12	Does the taste factor encourage or discourage users from drinking the water?	encourage to drink water more

1



Evaluation – SE200 pilot project-Kurupam-2013

13	Are the people regularly consuming the water treated by the SE200?	Regularly consuming to supply
14	What are the age groups of the individuals in the village (Record lowest and highest as well as general)	one month Baby to 68 years.
15	Are most nuclear or joint families or extended families?	No joint families
16	What is their opinion regarding the safety of using this device?	it is better to use for safe
17	How safe do you think the water being treated by the SE200 is to drink? Justification	making the treatment procedure in villages. Pasamla
18	What according to the users is the overall impact of using the SE200 device? (Impact parameters: 1. Health, 2. Ease of treatment of water, 3. Decrease in ailments or deaths, improvements in sanitation, 4. Increased interest in safe water, 5. Better living )	Better for health, increased interest in safe water
19	What is the source of water supply to the users and how often do they get water?	Bore Well
20	How often do they get power supply and what is the duration of the power supply?	6 PM to 10 AM
21	Are the users using car or motorcycle batteries to run the device?	—

2





Evaluation – SE200 pilot project-Kurupam-2013

	If yes what was their experience and comments?	←
22	How much time is spent to treat the water required in the village?	2 hours
23	How many times do they have to run the device to treat the water required by the village each day or week?	Two hours, 3 TO 5 Times in a day
24	Evaluate the change in interest/behavior towards using the SE200? Do the users feel highly motivated to constantly use the device?	little motivation
25	Is there a decline or disinterest in using the device because they feel traditional ways were more convenient or they are habituated to them?	—
26	Observation and take Video: Ask participants to run the SE200 device and observe how they handle the same?	—
27	What are the opinions of the people regarding the device and its use?	essential for my remote area for treatment of water to drink
28	Have the users faced any problems with device or its accessories?	—

3



Evaluation – SE200 pilot project-Kurupam-2013

29	If yes, then what did they do to overcome the problem?	—
30	Has the device or any of its parts needed service or repairs?	—
31	If yes, have they tried to repair it or intimate the concerned officials?	—
32	Do the people know about the service plan? If not the service plan has to be explained to the people.	having <del>concerns</del> about the service plan
33	Are the users interested in continued usage of the device?	Interested
34	Do the people use any other ways to treat their water (I.e., boiling etc)	- nil -
35	How often is the device cleaned and what is the procedure?	only with water can use to clean the device
36	How do they treat the water (is it 200 liters at once or is there individual dosing)?	Individual dosing
37	Any other aspects of importance that the people would like to share or suggest?	<ul style="list-style-type: none"> <li>- to supply more Doses to villages</li> <li>- separate drinking water tanks.</li> </ul>

List of photos to be taken	
Village	Damages
Sources of drinking water	Master trainees and people operating SE200
Of people running the device	Families drinking water treated by SE200
State of the device upon arrival of the team	Cleaning if possible
Location of the device placement	Interaction during evaluation
Dosing	Overall meeting video to be taken if possible

Time taken to complete the format - 3 hours. *செய்து கொடுக்கப்பட்டன*

K. Sanyasi Reddy  
 SECRETARY  
 #ramoona Panar Nirmana Kendra  
 KURUPAM.

K. Jagadesh  
 President  
 Youth Club  
 Kompalapadu.

*செய்து கொடுக்கப்பட்டன*  
 Manager





The Smart Electro-chlorinator 200  
(SE200)





