Varanasi Project Report

Our Mission

GUTS's mission is to reduce poverty in developing country by expanding access to energy and other basic infrastructure services through the creation and strengthening of Poorest of the poor and poor.

GUTS provide the required service support and consulting to organizations that are working towards poverty reduction and socio-economic advancement in developing countries through renewable technology interventions. Its mission is to propagate, promote, demonstrate and deploy various heating and lighting solutions by adopting various RET devices to provide clean energy reliably and affordably. Providing innovative and customized solutions to solve the problems of energy for lighting, cooking and communications at cost effective price is the goal.

Solar power for Schools and Individual Sanitary Latrines (ISL) for poorest of the poor

Talakondapally and Kadthal Mandal
Ranga Reddy Dist

We had some success in our efforts in Talakondapally is a mandal in Ranga Reddy dist of Telangana State, India. Talakondapally mandal head quarters are talakondapally town. Its belong to Telangana region.
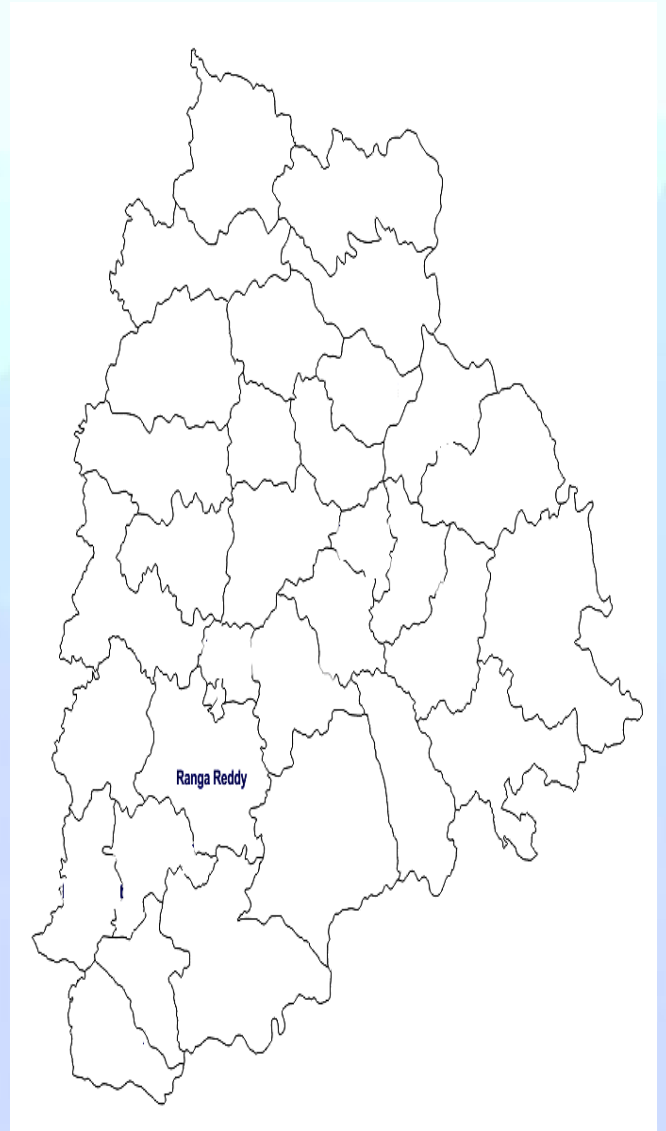
Talakondapally consist of 21 Panchayatis, 76 villages. Nagireddi guda is the smallest village and veljala is the biggest village.

Languages: Telugu, Hindi and Urdu

The Panchayatis in Talakondapally mandal include:

Note: Covered Panchayatis Show in red color

1. Antharam
2. Chandradana
3. Cheepunuthala
4. Chowder Pally
5. Chukkapur
6. Gattu Ippalapally
7. Jangareddy Palle
8. Julapally
9. Khanapur
10. Lingaraopally
11. Medakpally
12. RamaKrishnaPuram
13. Padkal (or)Devuni Padakal
14. Rampur
15. Nayamatapoor
16. Salarpur
17. Sangaya Pally/ Sangai Palle
18. **Talakondapally**
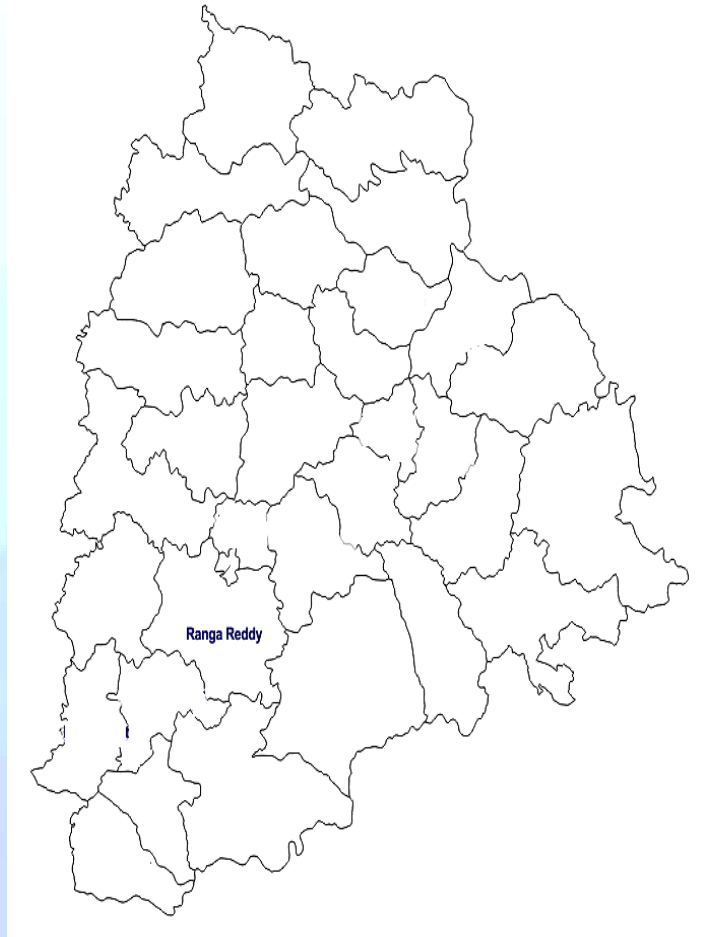19. Veljala
20. Venkatapur
21. Venkatraopeta

Ranga Reddy

Kadthal is a village and Mandal in Ranga Reddy district. It is located in Kadthal mandal of Kandukur revenue Division. Its belong to Telangana region.

Languages: Telugu, Hindi and Urdu

1. Takrajguda
2. Ravichedu
3. Makthamadharam
4. Vampuguda
5. Chellampalle
6. Salarpur
7. Nyamathapur
8. Nagireddiguda
9. Ekrajguda
10. Kadthal
11. Vasudevapur
12. Karkalpahad
13. Mudwin
14. Cherikonda Pattikalwakurthy
15. Cherikondapattipadkal

Ranga Reddy

తుంకొండపల్లి మండలం పరిషత్, రంగారెడ్డి జిల్లా, తెలంగాణ

పాఠశాలకు సోలార్ విద్యుద్దీకరణ గావించిన వారదాని

కుటుంబ సభ్యులకు, సోలార్ సిస్టమ్న అమర్చిన గ్రీన్ జిల్లా ల్యాంపతన మరియు సిస్టమ్న

వర్కర్స్ శ్రీ టి.యల్ శంకర్ IAS (Retd), శ్రీ అనిల్ కుమార్ బుట్ల IAS (Retd),

శ్రీ యం.ది హాలహన్, శ్రీ అమిత్ గారికి

సుస్వాగతం

తేది: 13-11-2018

Distribution of Improved Cook Stoves in Padkal (V) by Varanasi Family

Inauguration of Solarized Schools in Padkal (V)

Inauguration of Solarized Schools in Devuni Padkal (V)

Solar Power Systems for Schools:

We take to the primary education sector as a part of our project. Hence we have selected 25 schools & Anganwadi Centers for Solarization by installing 1 KW, 2KW and 300 Wt Solar Roof Top Systems. The list of Schools is enclosed for your kind perusal. We have discussed about the project mentioned supra with former collector MR. Raghunandan Rao. He also wrote a letter to PD DRDA Ranga Reddy District, to co-ordinate with us.

Installing solar enables school to run on clean energy while at the same time combating greenhouse gas emissions and global warming. In addition, especially within on-site solar installation, it reduces dependence on outsourced fossil fuels and promotes renewable energy use in the surrounding area.

S.L No	Name of the School	Solar Systems in (KW)	Fans (No's)	Tube Lights (No's)
1	Talakondapalle Mandala Parishad Pradhamika Patashala & Anganwadi School)	2 Kw	12	12
2	Talakondapalle Anganwadi School	300 Watts	1	1
3	Sadak Thanda (Primary School & Anganwadi School)	300 Watts	1	2
4	Chepunuthala Primary School	1 Kw	4	8
5	Chepunuthala Anganwadi School	300 Watts	1	1
6	Chukapoor Primary School & Anganwadi School	1 Kw	4	4
7	Chandradana Primary School	2 Kw	6	6
8	Velijala Girls High School	1 Kw	5	5
9	Velijaja Primary School	1 Kw	3	3
10	Antharam Primary School	1 Kw	3	3
11	Yadaiahpally Primary School	300 Watts	2	2
12	Chowdripally Primary School	2 Kw	6	4
13	Medakpally Primary School	1 Kw	3	3
14	Spoorthi Jyothi Blind School	2 kw	4	4
15	Padkal Primary School	1 Kw	4	3
16	Devuni Padkal Primary School	1 Kw	3	4
17	Medval Primary School	1 Kw	4	4
18	Medven High School	2 Kw	5	5
19	Settipalli Primary School	1 Kw	4	4
20	Akuthotapalli Primary School	1 Kw	4	4
21	Singampalli Primary School	1 Kw	3	3
22	Ekvwpally Primary School	1 Kw	4	4
23	Salarpur Primary School	1 Kw	3	3
24	Nyamathpur Primary School	1 Kw	4	4
25	Muktamadaram Primary Schools	1 Kw	4	4
26	Padkal Village	11 Solar Street		

Installed Solar Roof top Systems in Various Schools in Talakondapally & Kadthal Mandal

Street Lighting System:

Public Lighting has also suffered vey badly due to unreliable grid supply. In a number of places of communities, by the efforts of the local people or by donations from philanthropic minded citizens, stand alone solar street lights have been installed first in some villages, at religious places like Temples, Mosques.

These stand alone street lights have become a meeting place of villagers, women and children in that area during nights and reminds us of olden days when people used to gather under a kerosene lamp fixed on a pole. These street lights have become places of social gathering to discuss on various socio-economic issues of the village, a place for children to play during nights, women and men to assemble for discussions, to enact street plays sing traditional village songs and settle sensitive disputes by village elders and opinion leaders. 11 nos. street lights have been installed in Padakal Village, Talakondapalli Mandalam.

What about Warranty and guarantees?

The Technical partners of GUTS normally give a warranty for a period of 5 years for Battery, 3 years for Inverter, and panel for 15 years. GUTS irrespective of above warranties and guarantees, extends its service support for a period of 5 years including repairing and replacement of small parts to give comfort to the schools and infuse confidence in end users.

GUTS realized hat lack of toilets leading to open defecation is depriving sections of people especially women their basic right to privacy. Community health deteriorated and active labor and education of children are affected.

GUT has collaboration with RTP & NIRDPR Hyderabad to build toilet involving rural communities according their needs and interests.

The Sanitation and Hygiene has defined an improved toilet as one that hygienically separates human excreta from human contact.
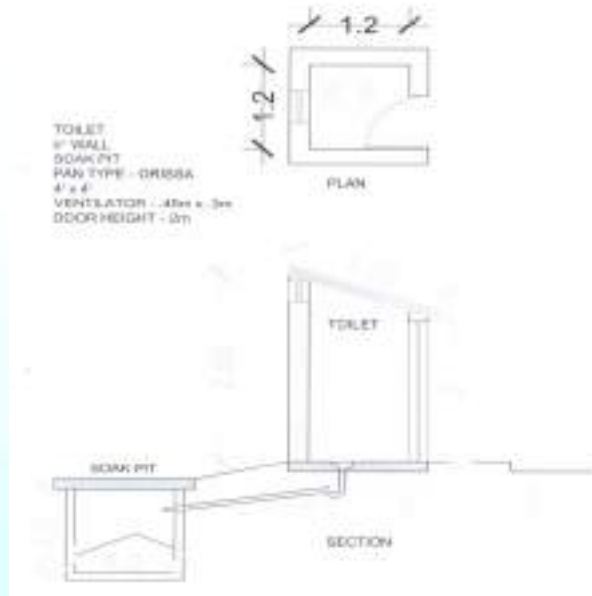

Sanitation plays a primary role in preventing diarrheal disease, yet one-fifth of the world's population lacks even a simple latrine. This hands-on course teaches partners to work with communities to construct culturally appropriate latrines. Participants learn about the biblical mandate for sanitation; how soil and groundwater influence proper latrine location; the construction, operation, and maintenance of various latrine designs and how to adapt designs to accommodate people with special needs.

They were very much elated with the initiative proposed and promised to help us in identifying the poorest of the poor people. Initially we have selected **43 no's** Individual Sanitary Latrines (ISL) beneficiaries in four villages (Padkal, Chikununtala, Talakondapalli and Naik Thanda.

The NIRD & PR is our Knowledge Partner and we have entrusted the work to RTP-NIRD&PR, Hyderabad

The standard size of a toilet structure is as follows:

TOILET
9" WALL
SOAK PIT
PAN TYPE - ORISSA
4' x 4'
VENTILATOR - 45cm x 3m
DOOR HEIGHT - 2m

PLAN

TOILET

SECTION

SOAK PIT

Sl	Description	Nos	Dimensions (in mtrs)				Unit
			L	W	H /D	Qnty.	
1	EW in foundation						
	Main wall	1	5.00	0.45	0.45	1.01	
						1.01	M3
2	CC (1:3:10) in foundation and flooring						
	Main wall	1	5.00	0.45	0.08	0.17	
	Flooring	1	1.20	1.20	0.08	0.12	
						0.28	M3
3	RR SM (1:6)						
	Main wall	1	5.00	0.45	0.30	0.68	
		1	6.00	0.30	0.30	0.45	
						1.13	M3
4	Brick work in CM (1:6)	1	5.00	0.12	2.70	1.62	
	Deduct						
	Door	1	0.90	0.12	2.70	-0.29	
						1.33	M3
5	RCC roof (1:2:4)						
	Over the walls	1	1.70	1.40	0.095	0.10	M3
6	Centring and shuttering for slab and beams						
	Inside the walls	1	1.70	1.40		2.38	
						2.38	M2
7	Providing of cement plastering and painting						
	Toilet	4	1.2	1.2		2.76	M2
	Deduct	1	0.9	1.2		-1.08	
						4.68	M2
8	CC flooring (1:2:4)						
	Base of the toilet	1	1.2	1.2		1.44	M2
						1.44	M2
9	Providing of water closets						
	Indian	1				1	
10	Providing of soak pit and pipe lines and fittings						

Advantage:
- Permanent structure
- Can use both cement for bricks
- Privacy can be maintained
- Maintenance is easy

The multi- dimensional nature of poverty calls for a paradigm shift in its approach to its reduction from needs based approach to rights based approach. Our Talakondapally, Padkal & Devudi Padkal experience indicates that to achieve sustainable reduction in the incidence of poverty, it is vital to embark upon programs that provide basic needs of cooking system to the poorest of the poor & poor to serve small entrepreneurial activities involving less risk factor and supply to the local market in rural areas and minimizing the logistic costs. Green way stoves essentially operate on a patented air induction mechanism that ensure cleaner combustion and drastically reduce emissions. A portable stove touted as a high efficiency cook stove ,it work on all solid biomass fuels like wood, dry dung, crop waste or bamboo…etc .

We are supplying **130** Green Way smart stoves and other MNRE approved Stoves to Poorest of the poor. Greenway smart stove is eco-friendly stoves which do not use any kind of non renewable fuels and works exactly like normal stove.

Greenway smart stove - Product Description:

Greenway smart stove is a single burner; High efficiency cook stove that work on all sold biomass fuels such as wood, dry dung, crop waste, bamboo…. Etc. The stove does not require any fuel processing/cutting.

Features:

Size: 9.8"X7.6"X11.6"

Materials Steel and Aluminum with Bakelite Handles

Load Capacity 25 Kg

Secondary Air Induction Mechanism

Fuel Saving 65%

Smoke Reduction 70%

Warranty 1 year

Ergonomic Front Loading design

Smt. Radhika Rastogi IAS
NIRD & PR Deputy DG
Inaugurated
Solar Power Systems at Talakondapally Mandal Schools

Project Team

Late Shri T L Sankar IAS (Retd)

Project Directors:

Shri. N Md Shajahan — - Managing Director
Shri. Amith Kumar Deshpande - Project Director

Project Coordinators:

Mr. A Balasubbaiah — - Project Coordinator
Mr. B Manohar Reddy — - Admin Officer
Mr .V Srinivas — - Accounts officer
Ms. G Chaitanya — - Accounts Assistant

Technical Team:

Mr.Shaik Arif
Mr.Maher Ali Ahamed
Mr.Shaik Khasim
Mr. A Rama Krishna
Mr .J Madana Gopal

Technical Partners

RTP, National Institute of Rural Development Rajendra Nagar-500030
A & T Power Systems, Hyderabad
Green Way Grameen Infra Pvt Ltd

District Officials and Mandal Officials for their cooperation

Green Urja Technologies & Systems GUTS

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Our Special Thanks to Malli Varanasi Family