



Monitoring report form for CDM project activity
(Version 06.0)

Complete this form in accordance with the instructions attached at the end of this form.

MONITORING REPORT

Title of the project activity	LAYA PADERU ENERGY EFFICIENT WOODSTOVES PROJECT		
GS reference number of the project activity	GS-997; This project is community focused micro-scale GS VER project.		
Version number of the PDD applicable to this monitoring report	03		
Version number of this monitoring report	04		
Completion date of this monitoring report	20/08/2019		
Monitoring period number	3		
Duration of this monitoring period	(01/01/2017) to (31/12/2018)		
Monitoring report number for this monitoring report	01		
Project participants	LAYA Resource Centre		
Host Party	India		
Sectoral scopes	Sectoral scope 3: Energy demand		
Applied methodologies and standardized baselines	GS Methodology for Improved Cook-stoves and Kitchen Regimes V.02 – 08/02/2010; Indicative Programme, Baseline, and Monitoring Methodology for Improved Cook-Stoves and Kitchen Regimes.		
Amount of GHG emission reductions or net anthropogenic GHG removals achieved by the project activity in this monitoring period	Amount achieved before 1 January 2013	Amount achieved from 1 January 2013	
	0	Item	VERs (tCO₂e)
		2017	5,869
		2018	5,879
		Total	11,748

Amount of GHG emission reductions or net anthropogenic GHG removals estimated ex ante for this monitoring period in the PDD	9,990 tCO₂e¹
--	---

¹ In PDD, the estimated emission reductions are calculated based on 3750 stoves (initial implementation of stoves). Subsequently, as detailed in PDD, more number of stoves were installed and so the estimated emission reduction is more.

SECTION A. Description of project activity

A.1. General description of project activity

>>

a) Purpose of the project activity and the measures taken for GHG emission reductions or net anthropogenic GHG removals by sinks

The main purpose and objective of this project activity is to introduce energy efficient improved cook stoves in rural tribal households to reduce the consumption of non-renewable fuelwood and as well as the reduce the drudgery to women and children of Adivasi communities from collecting fuelwood there by reducing health risks associated with polluted air in cooking rooms. This project is a micro-scale Gold Standard (GS) VER project which is limited to 10,000 VERs/year². This project has been implemented in 3 mandals of Paderu Division of Visakhapatnam District, Andhra Pradesh, India. The 3 mandals are namely Paderu, Peddabaylu and Hukumpeta.

LAYA Resource Centre, an NGO located in Vishakhapatnam district, has implemented this project. LAYA NGO is working towards sustainable development of Adivasi (Tribal) communities in the region for the past 25 years. After witnessing the depletion of forests in and around of Paderu division, LAYA introduced ICS technology to communities and through this project activity helping Adivasi communities to address forest degradation and as well as climate change issues in the region. LAYA as a part of project activity has provided SARALA Improved cook stoves to about 4,693 households in above said 3 mandals through carbon forward funding of VERs. LAYA has obtained forward funding from '*Evangelisches Werk für Diakonie und Entwicklung e.V.*', Germany, to implement the project activity.

b) Brief description of the installed technology and equipment

SARALA ICS model developed by ASTRA now Centre for Sustainable Technologies, Indian Institute of Science, Bengaluru. This ICS model has multiple benefits. These are thermal efficient, has robust design and reduces air pollution with clean burning of fuelwood which reduces the smoke emission.

SARALA ICS consumes less amount of firewood, which in turn reduces the amount of fuelwood collection. In the project area, women and children are involved in collection of firewood to meet their daily energy needs. Due to reduction in the amount of firewood required, women and children are spared from the drudgery of collecting fuelwood sourced from long walks into the forests which consumes a significant amount of time (This can be upto an entire day in some cases). Now communities have utilising the saved time to do other productive activities. LAYA has trained the community especially women in construction, maintenance and overall supervise the project activity. The project provides the necessary construction materials, such as mould for construction, mud bricks, clay, a cast iron grate and a chimney for construction. The improved stove was developed by the Centre for Sustainable Development, Indian Institute of Science and initially promoted by TIDE. The actual training conducted for stove builders was facilitated by LAYA Resource Centre, with the assistance of Desi Technology Solutions. The first instance of intensive training was organized with 40 participants in August 2012. Another review of the performance of 30 stove builders was organized a month later to ensure quality of construction. Based on the knowledge acquired from the training and their long time experiences,

c) Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.)

This project is a GS micro-scale project activity where annual VER generation is limited to 10,000 VERs per year. This project was registered on 24/07/2011 and the crediting period started from 31/07/2012. The first stove of this project was commissioned on 16th August 2012.

² Change with respect to annual VER cap as per new GS4GG microscale guidelines and principles has been sought along with this verification period. i.e from 5000 VER per year to 10000 VER per year.

Details of the previous monitoring periods are as follows.

Table 1 : Summary VER Issued in previous Monitoring Period

Summary of the previous monitoring period of the Project Activity and VERs Generated			
First monitoring period	31 st July 2012 to 31 st July 2014	5,765 tCO₂e	
Second Monitoring period	1 st August 2015 to 31 st December 2017	10,987 tCO₂e	

As on 31st December 2018, 4,693 ICS are commissioned or installed. Details of the stoves installed have been given in emission reduction calculation sheet. (See Laya Paderu_3rd MR_VER_V2.xls)

During this 3rd monitoring period also few households used traditional stoves along with ICS and few ICS stoves were demolished and in that place new stoves have been built as a maintenance activity. The number of days where both stoves were operational is counted and it has been deducted in the final total working days. Dates of such instances were recorded, updated in database and the database is the source for VER calculations.

a) Total GHG emission reductions achieved or net anthropogenic GHG removals by sinks achieved in this monitoring period

This is the third monitoring report for the project activity for the period from 1st January 2017 to 31st December 2018 and details of total GHG emission reductions achieved are as follows.

Table 2: Summary of the Project Activity and VER Generated in this Monitoring Period

Summary of the Project Activity and ERs Generated for the Monitoring Period	
GS Registration Number	GS- 997
Monitoring Period number	III
Start date of 3 rd monitoring period	1 st January 2017
Carbon credits claimed up to	31 st December 2018
Total ICS Commissioned till 31 st December 2016	4,693
VERs generated for the monitoring period (tCO ₂ e)	11,748

Table 3: Vintage wise GHG emission reductions achieved

ERs generated for the period 1 st January 2017 till 31 st December 2017 (tCO ₂ e)	5,869
ERs generated for the period 1 st January 2018 till 31 st December 2018 (tCO ₂ e)	5,879
Total VER generated during this monitoring period (tCO₂e)	11,748

A.2. Location of project activity

>>

This project has been implemented in three mandals of Paderu division of Vishakhapatnam district of Andhra Pradesh, India. The three mandals are Paderu, Peddabaylu and Hukumpeta.

Physical/geographical location

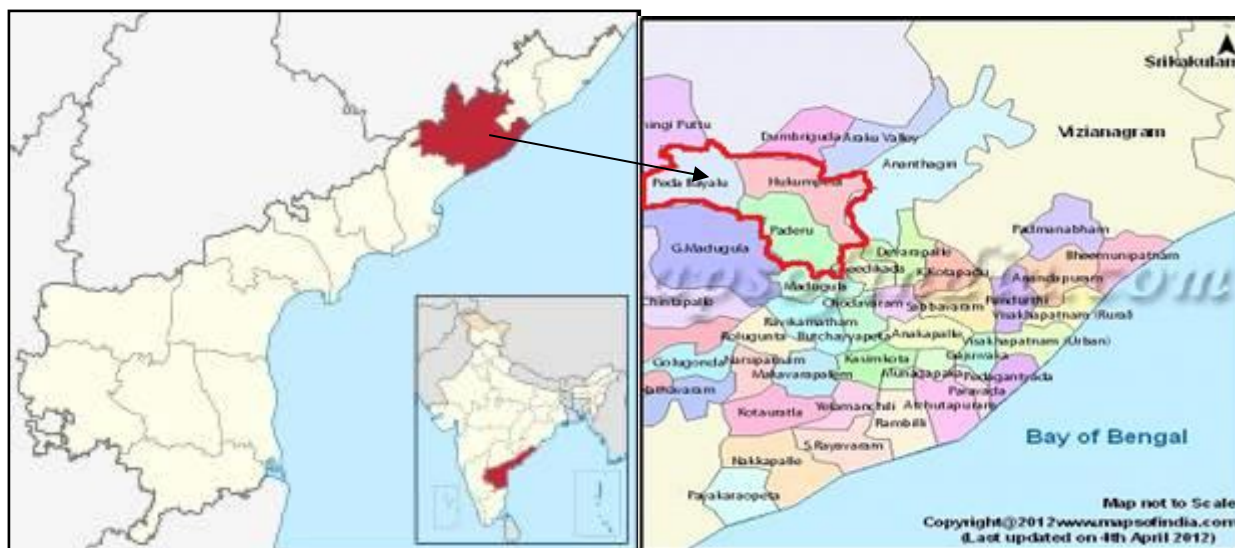


Figure 1: Map showing Vishakhapatnam district and mandals in the district in newly formed Andhra Pradesh³

Table 4: Geo- co-ordinates of the Mandals

Mandal Name	Latitude	Longitude
Paderu	18 ⁰ - 04 ' - 39"	82 ⁰ - 39' - 38"
Pedabayalu	18 ⁰ - 17' - 08"	82 ⁰ - 35' - 38"
Hukumpeata	18 ⁰ - 08' - 59"	82 ⁰ - 41' - 51"

A.3. Parties and project participants

Parties involved	Project participants	Indicate if the Party involved wishes to be considered as project participant (Yes/No)
INDIA (host)	Private entity A: LAYA Resource Centre	No

A.4. Reference to applied methodologies and standardized baselines

>>

Applied Methodology: Methodology for Improved Cook-stoves and Kitchen Regimes V.02 – 08/02/2010; Indicative Programme, Baseline, and Monitoring Methodology for Improved Cook-Stoves and Kitchen Regimes.

A.5. Crediting period type and duration

>>

- Type: Fixed
- Start date: 31/07/2012
- Length of the crediting period: 10 years
- Monitoring Period Number: III
- This Monitoring Report period: 1st January 2017 to 31st December 2018

³ Andhra Pradesh Reorganisation Act, 2014 for bifurcation of Andhra Pradesh received the President's assent on 01 March 2014. The "appointed day" for the new States' formation is 02 June 2014. <http://reorganisation.ap.gov.in/index.jsp>

SECTION B. Implementation of project activity

B.1. Description of implemented project activity

>>

As described in section A of this document, LAYA has implemented this project to in three mandals of Paderu division of Vishakhapatnam district of Andhra Pradesh state, India. As on 31st December 2018, 4,693 number of ICS stoves have been constructed, commissioned and monitored. Monitoring and Maintenance of the constructed stoves happens regularly to check the functionality of the stoves and record any non-usage details of the stoves. The detailed implementation schedule of the stoves is as follows.

Table 5: Mandal wise details of SARALA stoves implementation

Mandal	No of stoves constructed
Paderu	648
Pedabayalu	2,819
Hukumpeta	1,226
Total	4,693

Mandal wise installation information is provided in the following table. In total 4,693 stoves were built in 127 villages of 3 mandals.

Table 6: Details of Mandals, Villages and number of stoves built in each village.

Mandal	Village	No of Installations
Hukumpeta	Amuru	50
	B.Boddaput	31
	Bandhamamidi	39
	Bhemavaram	28
	Borra Mamidi	33
	Chinthagunna	50
	Chittempadu	33
	Dhabagaruvu	1
	Dhabbabandha	36
	Dhabbagaruvu	63
	Esukagaruvu	18
	Gangarajuput	82
	Gummadigadvua	46
	Jankaramput	56
	Kunthurla	77
	Maba	50
	Maddiput	40
	MathekBandha	11
	Mottujoru	61
	Mulakkai puttu	47
	Munthamamidi	15
	Nakalaput	36
	Nimmalapadu	1
	Nittaput	24
	Olda	69
	Padirai	23

Mandal	Village	No of Installations
	Panthulachintha	21
	Pattugodalu	31
	Peddapadu	10
	Pottupanasa	13
	Ramachandrapuram	36
	Rangapalli	66
	Thigalavalasa	8
	Verulla	13
	Yerragoppa	8
	Hukumpeta Total	1,226
Paderu	Adarimetta	18
	Chidikudda	12
	D.Modhaput	46
	G.Munchingput	59
	Goralagondhi	16
	Gurragaruvu	67
	Jallipalli	31
	Jamiguda	28
	Kandhamamidi	62
	Kavurai	25
	Kothapalli	93
	Modhapalli	50
	Munthamamidi	12
	Naraduvalasa	30
	Patharaput	44
	R.Kothuru	17
	Ramulaput	31
	Sangodi	7
	Paderu Total	648
Pedabayalu	A.Badama	10
	Adugulaput	61
	Allamput	27
	Allangiput	32
	Andravara	55
	Aradakota	131
	Arimara	32
	B.Badama	11
	Bangaruput	51
	Baringibandha	22
	Boddaput	21
	Bondaput	17
	Bongadari	25
	Buradhamamidi	25
	Chaduput	94
	Chakarai	47
	Charvuvedhi	13

Mandal	Village	No of Installations
	Chemalamamidi	22
	Chidiput	41
	Chuttumetta	47
	D.Pedapalli	55
	Dhammuguda	1
	Dombaguda	32
	Durupalli	24
	Edulaput	34
	Gaddivalasa	35
	Galaganda	110
	Gasabu	53
	Gochari	19
	Gondhi Kodaput	32
	Gullurayi	8
	Jaithikota	16
	Jamiguda	12
	Jangamput	32
	Kagula	46
	Kaguvalasa	41
	Kavilba	5
	Kavurupalli	28
	Kimudupalli	153
	Kodaput	64
	Kothapoipalli	50
	Kothaput	19
	Kulluba	41
	Kusumagaruvu	15
	Kuthangiput	31
	Lakeputtu	30
	Malkariput	24
	Mangabandha	13
	Marakachintha	38
	Maredapalli	45
	Mettaveedhi	30
	Mondikota	39
	Nimmagunta	26
	Olugupalli	39
	Palavalasa	17
	Pandhigunta	13
	Pardhanput	39
	Pedakodapalli	107
	Peddagondhi	19
	Peddapoipalli	1
	Puruguduputtu	58
	Sampangiput	23
	Sariyapalli	29

Mandal	Village	No of Installations
	Seekariputtu	14
	Sirasapalli	96
	Sundruput	26
	Tadeput	39
	Thamarada	37
	Thangula	17
	Thotalagondi	20
	Thurakalavalasa	9
	Tulabarangi	39
	Urredda	34
	Vaddaput	24
	Vadekodaputtu	20
	Vakapalli	11
	Y.Pedapalli	103
Pedabayalu Total		2,819
Grand Total		4,693

All the other details like house id number, village name, Panchayat name, Mandal name along with commissioned data are provided in Laya Paderu_3rd MR_VER_V2.xls. there were few occasions where very few families used traditional stoves along with ICS to heat water and in few households either stopped the use of stoves or abandoned and left the village. The non-operational days of the installations are recorded and the information updated regularly to database and it has been used for VER calculations.

Details of both stove usage i.e. Traditional + SARALA

Table 7: Details of both stove usage i.e. Traditional + SARALA

House ID	Family Head	Reason Traditional Stove	Number of days traditional stove used
4405	KondibKondanna	Hot water	10
2648	Gorothbhimlath	Hot water	1
1786	Barba.RamRao	Hot water	1
613	GunjiyRamchandrudu	Hot water	1
73	KudJanaki	Extra family members	7
193	Gemmili Parvathamma	Hot water	2
1795	Madali.Lakshmayya	Hot water	1
699	KorrKesavarao	Hot water	9
343	Killo Ramanna	Hot water	9
3410	Majji.Balaji	Hot water	5
2092	Pangi Ramarao	Hot water	2
2792	Pujari Sanyasayya	Hot water	6
1666	Desari Nageswarrao	Extra family members	2
747	Masadi Kondanna	Extra family members	3
2938	Pujari Ramana	Hot water	6
4228	Gabbadi.Ramanna	Extra family members	2

House ID	Family Head	Reason Traditional Stove	Number of days traditional stove used
5020	KorrGopal	Hot water	6
4192	Valugu Kamaraju	Extra family members	4
2277	Chinthadi Appanna	Extra family members	3
1713	Gallali Suri Babu	Extra family members	3
1716	ThamarbChitti Babu	Hot water	4
248	VanthalVanno	Hot water	6
2917	Kunturu Lakshmayya	Hot water	3
4966	Killo Chalpathi	Hot water	3
2914	MuduvKondababu	Hot water	4
4762	Pangi Sanyasirao	Hot water	3
4116	Sekari.Prasadh Rao	Hot water	6
3315	KorrRamarao	Hot water	6
3319	Padi Appanna	Hot water	11
604	Gollori Jagath	Hot water	2
3461	Palasi.Kondamma	Hot water	3
414	Chittukuli kameswararao	Hot water	5
437	Pangi Padmavathi	Hot water	4
3465	Palasi.kondababu	Hot water	5
3472	Palasi.Pandanna	Hot water	4
4553	M.Mittu	Hot water	1
4889	KorrEswarRao	Hot water	5
4830	Pangi Dasanna	Hot water	1
4891	KorrMangulamma	Hot water	3
4899	KorrLakku	Extra family members	3
410	TamarbhMaheswari	Hot water	4
4895	KorrChinyayya	Hot water	4
3471	Pottangi.Ramanna	Hot water	3
1512	Palasi Chinamma	Hot water	1
3273	Marri Narasaya	Extra family members	3
2832	ChedalAppalakondababu	Hot water	4
2867	ThamarlBheemanna	Hot water	7
4553	M.Mittu	Hot water	7
1449	ArmSuryakantham	Hot water	4
1446	Regam Satyarao	Hot water	4
4635	J.Muthyalamma	Hot water	1
4010	Janni.Balanna	Hot water	4
4031	korra. Neelakantam	Hot water	5
4562	V.Lakshmi	Hot water	7
1785	Nandaboini.DharmRao	Hot water	4
1781	Nandaboini.MatyLingam	Hot water	7
4647	J.Chellamma	Hot water	1
4548	M.Jurko	Hot water	14

House ID	Family Head	Reason Traditional Stove	Number of days traditional stove used
4907	KorrKambu	Hot water	5
1447	Palliboyini Pancholamma	Hot water	11
4890	KorrDombai	Hot water	2
2843	Kuthangi Mathyaraju	Extra family members	1
3970	Gemmeli Ramanna	Hot water	3
5022	KorrAppalakonda	Hot water	4
4154	Badnaini Narsamma	Hot water	2
664	Pangi Govardhan	Hot water	4
637	VanthalChittibabu	Hot water	3
3631	Pujari Venugopalrao	Hot water	5
4919	KorrRam Babu	Hot water	3
648	Pangi Basudev	Hot water	3
629	Palasiramdas	Extra family members	5
657	Pangi Balaram	Hot water	3
620	Kincheyi Appanna	Hot water	7
599	VanthalJayaram	Hot water	3
4004	Nine Bheemanna	Extra family members	4
3375	Sudi.Ramanna	Hot water	4
3613	Deesari Bonjanna	Hot water	4
3430	Pitta.Gasanna	Extra family members	4
4541	M.Sombari	Hot water	3
4551	K.Nova	Hot water	5
4933	VanthalBhemanna	Hot water	6
428	Tamarbkondayya	Hot water	3
4872	KorrSathibabu	Hot water	2
2760	Sedari Yandanna	Hot water	7
431	TamrbSrinivaslu	Hot water	7
461	Jarsinghi Chinnayya	Hot water	2
577	VanthalBagavan	Hot water	7
480	Pangi Somudu	Hot water	6
4876	KorrBalRaju	Hot water	7
4711	R.Lakshmi	Hot water	1
4882	KorrKrishanRao	Hot water	7
459	Jarsinghi Manmadharao	Hot water	2
4879	KorrRamayya	Hot water	3
454	KorrParusuram	Hot water	7
440	Chittipuli Simhadripadal	Hot water	3
545	VanthalSudhranna	Hot water	6
408	Guleli ramulamma	Hot water	2
420	Chittipuri Kannapadal	Hot water	6
4714	S.Kasulamma	Hot water	1
409	Pardhani gunamma	Extra family members	4

House ID	Family Head	Reason Traditional Stove	Number of days traditional stove used
427	KodSideswrrao	Hot water	4
486	Pangi Tikko	Hot water	3
488	Pangi Suresh	Hot water	3
493	Pangi Kamamma	Hot water	6
4898	KorrAlea	Extra family members	7
456	KorrDobanna	Extra family members	7
483	KorrJaggarao	Hot water	5
4878	KorrPalusu	Hot water	7
3029	Killo Sombru	Hot water	6
3685	Kondodi Venkataswami	Hot water	5
2853	Kirsani Kondamma	Hot water	3
4026	nandoli appanna	Extra family members	5
511	KurtSonnu	Hot water	3
2695	DuppChinnammi	Hot water	6
4018	Boyan iKarranna	Extra family members	2
4529	K.Bandho	Hot water	2
635	VanthiSanyasaya	Hot water	3
4565	M.Kamalakumari	Hot water	5
671	Vanukumbalakrishana	Hot water	4
525	KodAddanna	Extra family members	6
4113	Gangapujari.PandakondBabu	Hot water	4
2708	Pangi Balanna	Hot water	5
4599	V.Ravanamma	Hot water	2
480	Pangi Somudu	Hot water	4
3033	KorrRasmo	Hot water	3
4517	Pangi singru	Hot water	3
687	KorrChelliyya	Hot water	3
683	Killo Mindu	Hot water	6
3080	Pangi Chinnayya	Extra family members	5
3468	Palasi.Yerranna	Hot water	6
536	Korravenkatrao	Extra family members	3
495	Pangi Rajubabu	Extra family members	4
706	Pangi Sombru	Extra family members	6
2802	KorrChilukamma	Hot water	6
2953	Pujari Somulamma	Hot water	2
3029	Killo Sombru	Hot water	6
2969	MudavBasavanna	Hot water	2
2936	Pangi Balaji	Hot water	2
2867	ThamarlBheemanna	Extra family members	3
2858	KakarRangarao	Hot water	6
4188	Pangi Chittibabu	Hot water	3
2586	Sekari Devamma	Hot water	5

House ID	Family Head	Reason Traditional Stove	Number of days traditional stove used
3991	Nine kathamma	Hot water	7
4439	Janni Pandanna	Extra family members	7
2128	Pangi Bingu	Hot water	6
2635	Majji Pandanna	Hot water	9
4023	janni mathyaraju	Hot water	6
1631	Marri Matchayya	Hot water	4
609	Kincheyi Manikya	Hot water	5
613	Gunjiya Ramchandrudu	Hot water	10
258	Chikkuddu Ramayya	Hot water	4
1754	Poojari Nookaraju	Hot water	1
315	Kimukari Ramulu	Hot water	10
1646	Marri Matchayya	Hot water	3
199	Gemmili Komalayya	Hot water	4

During this monitoring period, 496 old ICS stoves have been demolished and in the same place, new stoves have been built as a maintenance activity. The details of the same is given in the below table.

Table 8: Details of the stoves demolished and new stoves built in the same place

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
2	Pedabayalu	Aradakota	13-01-2017	30-11-2013	Kimmudu Chinnami
3	Pedabayalu	Aradakota	05-02-2017	12-01-2013	Chitta Pulli Jayadevi
4	Pedabayalu	Aradakota	27-01-2017	10-12-2012	Gutta Sundro
8	Pedabayalu	Aradakota	12-01-2017	17-02-2013	Chitta Pulli Lakshmi
10	Pedabayalu	Aradakota	18-01-2017	16-02-2013	Sekari Mahaswari
11	Pedabayalu	Aradakota	02-02-2017	05-12-2012	Sekari Parvathi
12	Pedabayalu	Aradakota	28-01-2017	05-02-2013	Sekari Subhadra
16	Pedabayalu	Aradakota	19-01-2017	11-02-2013	Thamarba Subadhra
17	Pedabayalu	Aradakota	12-01-2017	05-02-2013	Ramsari Chandramma
18	Pedabayalu	Aradakota	15-01-2017	25-08-2013	Chitta Puli Mutyalamma
20	Pedabayalu	Aradakota	06-01-2017	16-01-2013	Chitta Gangulamma
21	Pedabayalu	Aradakota	28-01-2017	05-12-2012	Chitta Puli Parvathi
22	Pedabayalu	Aradakota	30-01-2017	26-01-2013	Chitta Puli Eswaramma
24	Pedabayalu	Aradakota	28-01-2017	11-11-2012	Bonda Nelavani

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
25	Pedabayalu	Aradakota	02-02-2017	05-12-2012	Kuthada Gunnam
27	Pedabayalu	Aradakota	01-02-2017	05-12-2012	Chitta Puli Kanaka Mahalakshmi
28	Pedabayalu	Aradakota	20-01-2017	05-12-2012	Chatu Bhulakshmi
32	Pedabayalu	Aradakota	13-01-2017	16-01-2013	Kurathada Machalamma
34	Pedabayalu	Aradakota	03-02-2017	14-01-2013	Pujari Lakshmi
39	Pedabayalu	Aradakota	04-02-2017	12-01-2013	Chitta Puli Rajjama
41	Pedabayalu	Aradakota	15-01-2017	12-01-2013	Mandi Mallamma
43	Pedabayalu	Aradakota	23-01-2017	10-12-2012	Mandi Bhavani
49	Pedabayalu	Aradakota	18-01-2017	16-01-2013	Kanasoda Chinnamma
55	Pedabayalu	Aradakota	24-01-2017	17-09-2012	Bonda Dinesh
57	Pedabayalu	Aradakota	16-01-2017	07-12-2012	Mandi Sasagiri
58	Pedabayalu	Aradakota	08-01-2017	07-12-2012	Bonda Laxmanrao
65	Pedabayalu	Aradakota	05-01-2017	02-04-2013	Korra Rama Kumari
74	Pedabayalu	Aradakota	05-02-2017	14-03-2013	Killo Mahalakshmi
77	Pedabayalu	Aradakota	10-01-2017	19-11-2012	Kurathada Kanthamma
78	Pedabayalu	Aradakota	18-01-2017	06-09-2012	Koda Kalyani
79	Pedabayalu	Aradakota	30-01-2017	26-09-2012	Roda Satyavathi
80	Pedabayalu	Aradakota	23-01-2017	19-11-2012	Kurthada Chinnaballana
81	Pedabayalu	Aradakota	22-01-2017	26-08-2012	Bonda Kanthamma
82	Pedabayalu	Aradakota	16-01-2017	19-11-2012	Bonda Dhanalakshmi
84	Pedabayalu	Aradakota	19-01-2017	19-09-2012	Bonda Lakshmi
85	Pedabayalu	Aradakota	11-01-2017	19-11-2012	Bonda Kondamma
86	Pedabayalu	Aradakota	30-01-2017	15-11-2012	Kurathada Parvathi
93	Pedabayalu	Aradakota	30-01-2017	05-09-2012	Manga Rathnalamma
101	Pedabayalu	Aradakota	26-01-2017	08-03-2013	Korra Kamamma
102	Pedabayalu	Aradakota	12-01-2017	15-01-2013	Korra Appalamma
110	Pedabayalu	Aradakota	23-01-2017	16-08-2012	Chanda Punnama
112	Pedabayalu	Aradakota	03-02-2017	07-12-2012	Manga Kanthamma
116	Pedabayalu	Aradakota	04-01-2017	12-01-2013	Chitta Pulli Lakshmi

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
117	Pedabayalu	Aradakota	28-01-2017	12-01-2013	Chitta Pulli Lakshmi
118	Pedabayalu	Aradakota	18-01-2017	16-01-2013	Lake Kondamma
119	Pedabayalu	Aradakota	05-01-2017	14-01-2013	Lake Chandamma
127	Pedabayalu	Aradakota	05-02-2017	25-12-2012	Bonda Ganapathi
128	Pedabayalu	Aradakota	29-01-2017	25-12-2012	Gutta Nellaya
229	Pedabayalu	Charvuedhi	03-02-2017	06-12-2012	Mandi Gangamma
233	Pedabayalu	Charvuedhi	23-01-2017	01-12-2012	Korra Sobha
234	Pedabayalu	Charvuedhi	21-01-2017	01-12-2012	Korra Dhosudha
235	Pedabayalu	Gullurayi	24-01-2017	20-11-2012	Rooda Varalamma
236	Pedabayalu	Gullurayi	09-01-2017	15-11-2012	Dherapu Gopalarao
238	Pedabayalu	Gullurayi	07-01-2017	20-11-2012	Girliya Arjun
240	Pedabayalu	Gullurayi	03-02-2017	20-11-2012	Girliya Dhevanna
242	Pedabayalu	Gullurayi	24-01-2017	20-11-2012	Rooda Sanyasamma
269	Pedabayalu	Puruguduputtu	28-01-2017	20-10-2012	Kodda Laxmi
270	Pedabayalu	Puruguduputtu	30-01-2017	22-10-2012	Gollori Dasu
271	Pedabayalu	Puruguduputtu	07-01-2017	22-10-2012	Kooda Purushottam
272	Pedabayalu	Puruguduputtu	31-01-2017	22-10-2012	Kimankari Krishnarao
273	Pedabayalu	Puruguduputtu	10-01-2017	22-10-2012	Batima Bimala
274	Pedabayalu	Puruguduputtu	31-01-2017	22-10-2012	Kontya Raghunad
275	Pedabayalu	Puruguduputtu	22-01-2017	15-09-2012	Koda Mainamma
277	Pedabayalu	Puruguduputtu	09-01-2017	20-08-2012	Palasi Gangadharam
280	Pedabayalu	Puruguduputtu	19-01-2017	25-08-2012	Paadi,Rammurthy
281	Pedabayalu	Puruguduputtu	09-01-2017	17-08-2012	Paadi,Rambabu
282	Pedabayalu	Puruguduputtu	08-01-2017	17-08-2012	Kooda Sanyasi Rao
283	Pedabayalu	Puruguduputtu	27-01-2017	18-08-2012	Gollori Podhalam
284	Pedabayalu	Puruguduputtu	24-01-2017	18-08-2012	Kooda Monima
343	Pedabayalu	Pandhigunta	28-01-2017	11-04-2013	Killo Ramanna
369	Pedabayalu	Kaguvalasa	12-01-2017	21-09-2012	Korra Neelanna
389	Pedabayalu	Kaguvalasa	12-01-2017	20-09-2012	Gemmili Ramachandar

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
402	Pedabayalu	Kaguvalasa	05-02-2017	24-09-2012	Gemmili Ramanna
529	Pedabayalu	Vadekodaputtu	30-01-2017	05-12-2012	Gemelimatyaraju
531	Pedabayalu	Vadekodaputtu	03-02-2017	05-12-2012	Korrasubbarao
532	Pedabayalu	Vadekodaputtu	06-01-2017	05-12-2012	Bonda Venketrao
533	Pedabayalu	Vadekodaputtu	24-01-2017	05-12-2012	Bondanagaswarao
545	Pedabayalu	Vaddaput	04-02-2017	11-11-2012	Vanthala Sudhranna
546	Pedabayalu	Vaddaput	18-01-2017	11-11-2012	Vanthala Sunnu
547	Pedabayalu	Vaddaput	29-01-2017	25-10-2012	Matam Kamalamm
548	Pedabayalu	Vaddaput	27-01-2017	15-11-2012	Masadi Ray
549	Pedabayalu	Vaddaput	23-01-2017	30-10-2012	Matam Sonadhra
550	Pedabayalu	Vaddaput	13-01-2017	30-10-2012	Matam Maina
553	Pedabayalu	Vaddaput	16-01-2017	05-11-2012	Vanthala Masaranna
554	Pedabayalu	Vaddaput	22-01-2017	31-10-2012	Kello Levanna
555	Pedabayalu	Vaddaput	24-01-2017	31-10-2012	Vanthala Raju
556	Pedabayalu	Vaddaput	30-01-2017	24-11-2012	Korra Malanna
557	Pedabayalu	Vaddaput	03-02-2017	31-10-2012	Vanthala Kesavarao
561	Pedabayalu	Vaddaput	16-01-2017	31-10-2012	Chedda combanna
567	Pedabayalu	Vaddaput	05-02-2017	31-10-2012	Kello Somanna
588	Pedabayalu	Thamarada	13-01-2017	20-01-2013	Kimudu Trinadh
590	Pedabayalu	Thamarada	01-02-2017	20-01-2013	Kimudu Subbarao
592	Pedabayalu	Thamarada	19-01-2017	20-01-2013	Gunjiya Bheemanna
593	Pedabayalu	Thamarada	27-01-2017	20-01-2013	Gunjiya Sonnu
594	Pedabayalu	Thamarada	03-01-2017	26-01-2013	Gunjiya Dhannu
598	Pedabayalu	Thamarada	28-01-2017	21-01-2013	Vanthala Bondhu
599	Pedabayalu	Thamarada	27-01-2017	26-01-2013	Vanthala Jayaram
602	Pedabayalu	Thamarada	25-01-2017	08-01-2013	Pangi Ori
603	Pedabayalu	Thamarada	02-02-2017	19-01-2013	Korra Poornamma
604	Pedabayalu	Thamarada	28-01-2017	26-09-2012	Gollori Jagath
605	Pedabayalu	Thamarada	30-01-2017	16-09-2012	Korra Sonnu

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
611	Pedabayalu	Thamarada	06-01-2017	07-01-2013	Kimudu Sundararao
612	Pedabayalu	Thamarada	19-01-2017	07-01-2013	Vanthala Gennu
613	Pedabayalu	Thamarada	13-01-2017	25-01-2013	Gunjiya Ramchandrudu
614	Pedabayalu	Thamarada	19-01-2017	08-01-2013	Gunjiya Ganapathi
620	Pedabayalu	Thamarada	01-02-2017	24-09-2012	Kincheyi Appanna
622	Pedabayalu	Thamarada	20-01-2017	16-09-2012	Kimudu Ramarao
624	Pedabayalu	Thamarada	14-01-2017	21-01-2013	Vanthala Balaram
637	Pedabayalu	Thangula	06-01-2017	26-08-2013	Vanthala Chittibabu
735	Pedabayalu	Allangiput	17-01-2017	10-02-2013	Someli Chilakamma
742	Pedabayalu	Allangiput	18-01-2017	10-02-2013	Tangula Ramalingam
751	Pedabayalu	Allangiput	02-02-2017	15-02-2013	Tangula Sorrunna
752	Pedabayalu	Allangiput	26-01-2017	15-02-2013	Doomberi Nageswar Rao
755	Pedabayalu	Allangiput	25-01-2017	15-02-2013	Tangula Krishna Rao
871	Pedabayalu	Thurakalavalasa	22-01-2017	08-12-2012	Pujari Kondamma
873	Pedabayalu	Thurakalavalasa	20-01-2017	03-12-2012	Doliya Rambha
874	Pedabayalu	Thurakalavalasa	25-01-2017	08-12-2012	Pujari Budranna
875	Pedabayalu	Thurakalavalasa	21-01-2017	27-09-2012	Pujari Laxmi
893	Pedabayalu	Kulluba	31-01-2017	27-01-2013	Desari. Kondhuanna
895	Pedabayalu	Kulluba	20-01-2017	02-01-2013	Vanthala. Ramarao
896	Pedabayalu	Kulluba	07-01-2017	25-02-2013	Vanthala. Chittamma
898	Pedabayalu	Kulluba	29-01-2017	28-01-2013	Vanthala. Ramarao
900	Pedabayalu	Kulluba	11-01-2017	10-01-2013	Desari. Balanna
906	Pedabayalu	Kulluba	01-02-2017	25-02-2013	Vanthala. Rajababu
910	Pedabayalu	Kulluba	02-02-2017	20-01-2013	Deasri.Apparao
912	Pedabayalu	Kulluba	17-01-2017	20-01-2013	Desari. Kameswarao
914	Pedabayalu	Kulluba	17-01-2017	28-01-2013	Vanthala. Kondamma
918	Pedabayalu	Kulluba	29-01-2017	03-01-2013	Vanthala Venkatrao
920	Pedabayalu	Kulluba	08-01-2017	28-02-2013	Korra Boddanna
921	Pedabayalu	Kulluba	04-02-2017	20-01-2013	Desari Laxmi

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
924	Pedabayalu	Kulluba	04-01-2017	24-02-2013	Vanthala Ganeshkumar
925	Pedabayalu	Kulluba	18-01-2017	27-01-2013	Vanthala Somanna
926	Pedabayalu	Kulluba	18-01-2017	28-02-2013	Ulli kondanna
927	Pedabayalu	Kulluba	26-01-2017	27-01-2013	Vanthala.Bangarayya
929	Pedabayalu	Kulluba	22-01-2017	28-02-2013	Vanthala.Setharamudu
1007	Pedabayalu	Galaganda	18-01-2017	30-01-2013	Valangi Nagamma
1009	Pedabayalu	Galaganda	18-01-2017	10-01-2013	Gaddangi Sanyasirao
1012	Pedabayalu	Galaganda	16-01-2017	05-11-2012	Kurthadi Achchibabu
1016	Pedabayalu	Galaganda	30-01-2017	24-11-2012	Thallabu Gunnamma
1024	Pedabayalu	Galaganda	14-01-2017	10-12-2012	Thallabu Kurmanna
1025	Pedabayalu	Galaganda	17-01-2017	28-01-2013	Bonda Achchibabu
1026	Pedabayalu	Galaganda	29-01-2017	26-09-2012	Pujari Apparao
1031	Pedabayalu	Galaganda	10-01-2017	09-11-2012	Arlabu Sathyrao
1033	Pedabayalu	Galaganda	08-01-2017	11-11-2012	Kurthadi Lakshmayya
1034	Pedabayalu	Galaganda	16-01-2017	16-11-2012	Kurthadi Kanthamma
1035	Pedabayalu	Galaganda	28-01-2017	02-11-2012	Bonda Balaram
1036	Pedabayalu	Galaganda	08-01-2017	13-12-2012	Vechangi Rangamma
1040	Pedabayalu	Galaganda	03-02-2017	14-11-2012	Pooya Sanyasamma
1041	Pedabayalu	Galaganda	26-01-2017	19-11-2012	Jarsingi Trinadh
1042	Pedabayalu	Galaganda	22-01-2017	08-11-2012	Jarsingi Ramba
1048	Pedabayalu	Galaganda	30-01-2017	05-01-2013	Pooya Rambabu
1054	Pedabayalu	Galaganda	20-01-2017	25-01-2013	Pooya Bonjubabu
1055	Pedabayalu	Galaganda	03-01-2017	27-09-2012	Bonda Jayaram
1057	Pedabayalu	Galaganda	15-01-2017	21-11-2012	Bonda Chandramma
1064	Pedabayalu	Galaganda	05-02-2017	20-01-2013	Jarsingi Mathyalingam
1066	Pedabayalu	Galaganda	01-02-2017	25-01-2013	Jarsingi Pentayya
1067	Pedabayalu	Galaganda	14-01-2017	25-01-2013	Jarsingi Janakirao
1068	Pedabayalu	Galaganda	02-02-2017	08-02-2013	Arlabu Sanyasirao
1069	Pedabayalu	Galaganda	04-02-2017	14-11-2012	Pooya Suribabu

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
1070	Pedabayalu	Galaganda	29-01-2017	25-01-2013	Pujari Sanyasirao
1071	Pedabayalu	Galaganda	26-01-2017	10-02-2013	Pujari Sathyanarayana
1072	Pedabayalu	Galaganda	28-01-2017	09-01-2013	Janni Gasanna
1073	Pedabayalu	Galaganda	06-01-2017	25-01-2013	Pooya Chinnayya
1076	Pedabayalu	Galaganda	30-01-2017	30-01-2013	Pujari Lakshmayya
1078	Pedabayalu	Galaganda	05-01-2017	06-11-2012	Thalladu Bonjubabu
1080	Pedabayalu	Galaganda	29-01-2017	14-01-2013	Gaddangi Sathyrao
1081	Pedabayalu	Galaganda	31-01-2017	08-01-2013	Kurthadi Venkanna
1228	Pedabayalu	Sirasapalli	04-02-2017	08-02-2013	Gulleli Sanyasamma
1238	Pedabayalu	Sirasapalli	22-01-2017	09-02-2013	Thallabu Gurranna
1258	Pedabayalu	Sirasapalli	04-02-2017	24-02-2013	Ambiri Matsyaraju
1263	Pedabayalu	Sirasapalli	12-01-2017	10-02-2013	Thallabu Malanna
1268	Pedabayalu	Sirasapalli	27-01-2017	11-02-2013	Matam Bonjubabu
1269	Pedabayalu	Sirasapalli	20-01-2017	12-02-2013	Vanthala Santhosh
1270	Pedabayalu	Sirasapalli	04-02-2017	11-02-2013	Allabu Bonjubabu
1271	Pedabayalu	Sirasapalli	22-01-2017	11-02-2013	Matam Ramanna
1273	Pedabayalu	Sirasapalli	24-01-2017	12-02-2013	Kimudu Satyarao
1282	Pedabayalu	Sirasapalli	04-02-2017	24-02-2013	Kurthadi Jagadeesh
1283	Pedabayalu	Sirasapalli	18-01-2017	23-02-2013	Korra Gopalarao
1284	Pedabayalu	Sirasapalli	12-01-2017	25-02-2013	Kurthadi Srinivasarao
1285	Pedabayalu	Sirasapalli	16-01-2017	26-02-2013	Korra Gundanna
1286	Pedabayalu	Sirasapalli	04-02-2017	24-02-2013	Korra Suryanarayana
1301	Pedabayalu	Sirasapalli	04-02-2017	14-02-2013	Thallabu Ganapathi
1315	Pedabayalu	Sirasapalli	04-02-2017	25-02-2013	Ambiri Balanna
1371	Pedabayalu	Bangaruput	05-02-2017	05-02-2013	Sagga .Sanyasi
1372	Pedabayalu	Bangaruput	05-01-2017	10-02-2013	Ulli. Gasanna
1376	Pedabayalu	Bangaruput	22-01-2017	05-02-2013	Ulli Nageswara rao
1389	Pedabayalu	Bangaruput	16-01-2017	05-02-2013	Korra chinna balanna
1391	Pedabayalu	Bangaruput	02-02-2017	10-02-2013	Ulli Naryana

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
1392	Pedabayalu	Bangaruput	23-01-2017	15-02-2013	Sagga bala krishna
1446	Pedabayalu	Bondaput	26-01-2017	07-01-2013	Regam Satyarao
1447	Pedabayalu	Bondaput	01-02-2017	15-02-2013	Palliboyini Pancholamma
1448	Pedabayalu	Bondaput	04-02-2017	07-01-2013	Palliboyini Kondamma
1450	Pedabayalu	Bondaput	20-01-2017	08-01-2013	Palliboyini Gangamma
1457	Pedabayalu	Bondaput	07-01-2017	07-01-2013	Arma Padhmavathi
1462	Pedabayalu	Bondaput	18-01-2017	08-01-2013	Regam Satyarao
1486	Pedabayalu	Chakarai	13-01-2017	15-02-2013	Armma Karramma
1487	Pedabayalu	Chakarai	04-01-2017	09-02-2013	Armma Kondamma
1506	Pedabayalu	Chakarai	27-01-2017	25-05-2013	Armma Nellama
1528	Pedabayalu	Chakarai	15-01-2017	15-02-2013	Armma Dalimma
1697	Pedabayalu	Kodaput	19-01-2017	21-08-2013	Gallali Baburao
1722	Pedabayalu	Kusumagaruvu	28-01-2017	18-01-2013	Thuraa Rajababu
1724	Pedabayalu	Kusumagaruvu	18-01-2017	17-01-2013	Thuraa Karribabu
1725	Pedabayalu	Kusumagaruvu	19-01-2017	14-01-2013	Thuraa Bonjubabu
1728	Pedabayalu	Kusumagaruvu	08-01-2017	06-01-2013	Thuraa Konababu
1729	Pedabayalu	Kusumagaruvu	23-01-2017	06-01-2013	Thuraa Matsyalingam
1731	Pedabayalu	Kusumagaruvu	03-02-2017	06-01-2013	Korra Kamalamma
1735	Pedabayalu	Kusumagaruvu	02-02-2017	19-01-2013	Thuraa Pollanna
1738	Pedabayalu	Marakachintha	20-01-2017	02-12-2012	Kurthadi Balanna
1741	Pedabayalu	Marakachintha	18-01-2017	28-10-2012	Pangi Chittibabu
1743	Pedabayalu	Marakachintha	30-01-2017	29-09-2012	Someli Chittibabu
1746	Pedabayalu	Marakachintha	08-01-2017	24-11-2012	Someli Laxmayya
1748	Pedabayalu	Marakachintha	11-01-2017	19-10-2012	Gulleli Linganna
1751	Pedabayalu	Marakachintha	18-01-2017	16-12-2012	Poojari Suribabu
1755	Pedabayalu	Marakachintha	19-01-2017	22-11-2012	Ulli Simhachalam
1758	Pedabayalu	Marakachintha	16-01-2017	09-11-2012	Pangi Nookanna
1759	Pedabayalu	Marakachintha	29-01-2017	20-10-2012	Pangi Janakamma
1761	Pedabayalu	Marakachintha	13-01-2017	18-12-2012	Vadde Kamaraju

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
1763	Pedabayalu	Marakachintha	12-01-2017	05-01-2013	Killo Rajamma
1765	Pedabayalu	Marakachintha	25-01-2017	14-11-2012	Dooru Rajarao
1766	Pedabayalu	Marakachintha	01-02-2017	01-11-2012	Mathe Rambabu
1767	Pedabayalu	Marakachintha	23-01-2017	18-11-2012	Dooru Chittibabu
1768	Pedabayalu	Marakachintha	26-01-2017	01-12-2012	Ulli Ratnalamma
1769	Pedabayalu	Marakachintha	04-01-2017	25-11-2012	Ulli Ramulamm
1770	Pedabayalu	Marakachintha	22-01-2017	16-02-2013	Dooru Demudu
1771	Pedabayalu	Marakachintha	26-01-2017	12-11-2012	Dooru Parvathamma
1773	Pedabayalu	Marakachintha	26-01-2017	07-09-2012	Mathe Venkatarao
1786	Pedabayalu	Mondikota	24-01-2017	15-04-2013	Barba.Rama Rao
1804	Pedabayalu	Malkariput	15-01-2017	15-02-2013	Sabada.Rajarao
1805	Pedabayalu	Malkariput	20-01-2017	15-02-2013	Svada.Satya Rao
1808	Pedabayalu	Malkariput	08-01-2017	15-02-2013	Vaddi.Nookalamma
1809	Pedabayalu	Malkariput	10-01-2017	15-02-2013	Pangi.Rambabu
1810	Pedabayalu	Malkariput	24-01-2017	15-02-2013	Pangi.Koti Babu
1811	Pedabayalu	Malkariput	04-01-2017	15-02-2013	Savadi.Chilakamma
1815	Pedabayalu	Malkariput	28-01-2017	15-02-2013	Sabada.Nooka Raju
1816	Pedabayalu	Malkariput	05-01-2017	15-02-2013	Majji.Bonjubabu
1817	Pedabayalu	Malkariput	17-01-2017	16-02-2013	Sabada.Appa Rao
1818	Pedabayalu	Malkariput	21-01-2017	16-02-2013	Majji.Sanyasi Rao
1821	Pedabayalu	Malkariput	16-01-2017	16-02-2013	Sabada.Sanyasi Rao
1869	Pedabayalu	Mettaveedhi	27-01-2017	15-05-2013	Kimudu Kondababu
1877	Pedabayalu	Mettaveedhi	21-01-2017	06-01-2013	Batti Venkatramana
1886	Pedabayalu	Mettaveedhi	06-01-2017	10-01-2013	Pangi Rama Rao
1888	Pedabayalu	Mettaveedhi	04-01-2017	18-01-2013	Koda Kondababu
1889	Pedabayalu	Mettaveedhi	16-01-2017	18-01-2013	Jeje Kondababu
1904	Pedabayalu	Pedakodapalli	11-01-2017	07-09-2012	Kimudu Venkataramana Naidu
1905	Pedabayalu	Pedakodapalli	04-01-2017	27-11-2012	Kimudu Dhamodaram Naidu
1906	Pedabayalu	Pedakodapalli	03-01-2017	05-10-2012	Kimudu Bangarunaidu

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
1907	Pedabayalu	Pedakodapalli	27-01-2017	23-11-2012	Kimudu Gopal Naidu
1912	Pedabayalu	Pedakodapalli	22-01-2017	25-11-2012	Anginayini Kamaraju Naidu
1913	Pedabayalu	Pedakodapalli	07-01-2017	10-02-2013	Anginayini Laxmi Naidu
1916	Pedabayalu	Pedakodapalli	18-01-2017	23-11-2012	Koda Guddayya Dora
1917	Pedabayalu	Pedakodapalli	26-01-2017	22-11-2012	Koda Subbarao
1918	Pedabayalu	Pedakodapalli	03-01-2017	27-11-2012	Dhesidhi Pentadora
1920	Pedabayalu	Pedakodapalli	29-01-2017	02-10-2012	Kimudu Nagaratnam
1921	Pedabayalu	Pedakodapalli	13-01-2017	14-09-2012	Kimudu Rajam Naidu
1922	Pedabayalu	Pedakodapalli	17-01-2017	18-11-2012	Manthiri Sanyasi Naidu
1923	Pedabayalu	Pedakodapalli	08-01-2017	12-02-2013	Vancharangi Chiranjeevi
1924	Pedabayalu	Pedakodapalli	01-02-2017	12-02-2013	Pangi Sidheswarao
1927	Pedabayalu	Pedakodapalli	19-01-2017	15-03-2013	Gampadora Dhamurora
1929	Pedabayalu	Pedakodapalli	01-02-2017	16-03-2013	Gampadora Jaggadora
1943	Pedabayalu	Pedakodapalli	07-01-2017	18-08-2012	Batti Appanna
1946	Pedabayalu	Pedakodapalli	30-01-2017	22-03-2013	Gampadora Kishore
1959	Pedabayalu	Pedakodapalli	11-01-2017	15-02-2013	Modha Kasulamma
1960	Pedabayalu	Pedakodapalli	12-01-2017	23-11-2012	Sidheri Subbarao
1961	Pedabayalu	Pedakodapalli	27-01-2017	23-11-2012	Sidheri Laxmayya
1962	Pedabayalu	Pedakodapalli	14-01-2017	12-11-2012	Chenda Papayamma
1989	Pedabayalu	Pardhanput	04-02-2017	20-11-2012	Valugu.Kama Raju
1991	Pedabayalu	Pardhanput	18-01-2017	20-11-2012	Pujari.Konda Babu
1992	Pedabayalu	Pardhanput	15-01-2017	20-11-2012	Vancharangi.Beema
1994	Pedabayalu	Pardhanput	08-01-2017	05-12-2012	Valugu.Simha Chalam
1996	Pedabayalu	Pardhanput	31-01-2017	27-10-2012	Chanda.MatyaRaju
2003	Pedabayalu	Pardhanput	13-01-2017	16-09-2012	Pujari.Sathi Babu
2008	Pedabayalu	Pardhanput	29-01-2017	24-11-2012	Korra.Appa Rao
2012	Pedabayalu	Pardhanput	11-01-2017	28-11-2012	Pampa.Varanna
2015	Pedabayalu	Pardhanput	30-01-2017	01-12-2012	Somali.Malayya
2016	Pedabayalu	Pardhanput	06-01-2017	03-12-2012	Killo.SimhaChalam

House ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
2022	Pedabayalu	Pardhanput	04-02-2017	16-09-2012	Batti.Raja Rao
2025	Pedabayalu	Pardhanput	08-01-2017	20-05-2013	Puchapundi.Kasulamma
2092	Pedabayalu	Tulabarangi	25-01-2017	09-04-2013	Pangi Ramarao
2183	Pedabayalu	Sariyapalli	23-01-2017	06-02-2013	Vanthala Madhavarao
2184	Pedabayalu	Sariyapalli	21-01-2017	09-02-2013	Pangi Jalandhar
2185	Pedabayalu	Sariyapalli	04-02-2017	06-02-2013	Vanthala Anandharao
2186	Pedabayalu	Sariyapalli	16-01-2017	07-02-2013	Vanthala Veeramma
2188	Pedabayalu	Sariyapalli	06-01-2017	07-02-2013	Gollori Satyanarayana
2189	Pedabayalu	Sariyapalli	13-01-2017	07-02-2013	Pangi Chittanna
2190	Pedabayalu	Sariyapalli	03-02-2017	01-03-2013	Suribabu
2191	Pedabayalu	Sariyapalli	03-02-2017	08-02-2013	Killo Bheemalamma
2193	Pedabayalu	Sariyapalli	11-01-2017	08-02-2013	Vanthala Bojjanna
2199	Pedabayalu	Sariyapalli	05-01-2017	28-02-2013	Gollori Gasanna
2200	Pedabayalu	Sariyapalli	30-01-2017	01-03-2013	Pangi Kanthamma
2201	Pedabayalu	Sariyapalli	01-02-2017	01-03-2013	Vanthala Gopinadh
2209	Pedabayalu	Kavurupalli	30-01-2017	03-01-2013	Vanthala Narayana
2210	Pedabayalu	Kavurupalli	20-01-2017	24-01-2013	Korra Ammi
2211	Pedabayalu	Kavurupalli	12-01-2017	03-01-2013	Korra Siddeswararao
2213	Pedabayalu	Kavurupalli	04-02-2017	17-01-2013	Korra Kondababu
2214	Pedabayalu	Kavurupalli	14-01-2017	30-12-2012	Korra Kondababu
2215	Pedabayalu	Kavurupalli	17-01-2017	30-12-2012	Korra Rambabu
2216	Pedabayalu	Kavurupalli	30-01-2017	03-01-2013	Korra Rambabu
2217	Pedabayalu	Kavurupalli	23-01-2017	06-01-2013	Korra Chiranjeevi
2220	Pedabayalu	Kavurupalli	08-01-2017	01-11-2012	Korragopalarao
2224	Pedabayalu	Kavurupalli	05-01-2017	31-12-2012	Korra Pothuranu
2228	Pedabayalu	Kavurupalli	09-01-2017	31-12-2012	Korra Laxmayya
2233	Pedabayalu	Kavurupalli	01-02-2017	31-12-2012	Korra Balanna
2236	Pedabayalu	Kavurupalli	17-01-2017	31-12-2012	Kinchayi Matsyaraju
2296	Pedabayalu	Kimudupalli	24-01-2017	22-04-2013	Duru Satyarao

Hous e ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
2309	Pedabayal u	Kimudupalli	09-01-2017	25-02-2013	Adapa Sanyasinaidu
2311	Pedabayal u	Kimudupalli	12-01-2017	25-02-2013	Dhukkeri Matsyalingam
2362	Pedabayal u	Kimudupalli	19-01-2017	13-07-2013	Katari Rambabu
2368	Pedabayal u	Kimudupalli	28-01-2017	28-09-2012	Sageni Chiranjeevi
2404	Pedabayal u	Kimudupalli	15-01-2017	18-04-2013	Kimudu Chandrakanthamnaidu
2546	Paderu	G.Munchingput	01-02-2017	05-11-2012	Pangi Chinnaya
2547	Paderu	G.Munchingput	12-01-2017	26-10-2012	Vanthala Apparao
2548	Paderu	G.Munchingput	01-02-2017	20-11-2012	Podangi Sanyasamma
2549	Paderu	G.Munchingput	12-01-2017	26-10-2012	Potangi Apparao
2552	Paderu	G.Munchingput	19-01-2017	23-11-2012	Jamaparangi Umamaheswarrao
2553	Paderu	G.Munchingput	16-01-2017	24-10-2012	Pottangi Chinna
2559	Paderu	G.Munchingput	30-01-2017	25-11-2012	Jamaparangi Sasagirirao
2560	Paderu	G.Munchingput	05-01-2017	20-11-2012	Batti Kotaswarrao
2561	Paderu	G.Munchingput	01-02-2017	23-11-2012	Batti Darmarao
2562	Paderu	G.Munchingput	22-01-2017	23-11-2012	Korra Swaminadham
2566	Paderu	G.Munchingput	30-01-2017	28-10-2012	Gaduthuru Kalavathi
2567	Paderu	G.Munchingput	15-01-2017	23-11-2012	Surra Padhamma
2569	Paderu	G.Munchingput	08-01-2017	24-10-2012	Surra Matsyaraju
2570	Paderu	G.Munchingput	14-01-2017	18-11-2012	Batti Kotaswarrao
2572	Paderu	G.Munchingput	29-01-2017	28-10-2012	Batti Achibabu
2574	Paderu	G.Munchingput	31-01-2017	13-11-2012	Sekari Nelakantam
2576	Paderu	G.Munchingput	27-01-2017	14-09-2012	Pangi Mani
2577	Paderu	G.Munchingput	27-01-2017	14-09-2012	Sekari Matsyakondababu
2578	Paderu	G.Munchingput	11-01-2017	12-09-2012	Sekari Venugopalrao
2579	Paderu	G.Munchingput	16-01-2017	14-09-2012	Pangi Baburao
2580	Paderu	G.Munchingput	03-02-2017	26-10-2012	Sekara Simhachalam
2581	Paderu	G.Munchingput	16-01-2017	13-11-2012	Kimmudu Apparaonaidu
2582	Paderu	G.Munchingput	30-01-2017	07-12-2012	Sekari Bonjubabu
2584	Paderu	G.Munchingput	26-01-2017	14-09-2012	Sekari Bhimbabu
2585	Paderu	G.Munchingput	24-01-2017	28-10-2012	Sekari Ravanamma
2586	Paderu	G.Munchingput	21-01-2017	15-02-2013	Sekari Devamma
2587	Paderu	G.Munchingput	19-01-2017	13-02-2013	Gangapujaru Simhachalam
2588	Paderu	G.Munchingput	27-01-2017	13-11-2012	Gangapujari Chinnababu
2589	Paderu	G.Munchingput	10-01-2017	27-11-2012	Kimmudu Jammulamma
2591	Paderu	G.Munchingput	03-01-2017	05-12-2012	Sekari Gaddama
2593	Paderu	G.Munchingput	30-01-2017	22-10-2012	Rantha Bojjama
2594	Paderu	G.Munchingput	08-01-2017	24-10-2012	Borgam Kondamma
2596	Paderu	G.Munchingput	17-01-2017	14-09-2012	Pottangi Lingamma
2600	Paderu	G.Munchingput	03-01-2017	05-11-2012	Yalama Nelamma
2648	Paderu	Naraduvalasa	31-01-2017	29-03-2013	Gorothbhimlath
2674	Paderu	Kothapalli	27-01-2017	28-02-2013	Kilda Kondababu
2676	Paderu	Kothapalli	17-01-2017	16-01-2013	Bakuru Bonjubabu
2683	Paderu	Kothapalli	10-01-2017	11-01-2013	Vampuru Punyavathi
2690	Paderu	Kothapalli	31-01-2017	28-02-2013	Mallangi Rajulamma
2693	Paderu	Kothapalli	15-01-2017	24-12-2012	Lake Bonjubabu
2694	Paderu	Kothapalli	03-01-2017	16-02-2013	Killo Appalamma
2705	Paderu	Kothapalli	04-01-2017	10-01-2013	Kilda Manikyam
2706	Paderu	Kothapalli	27-01-2017	01-01-2013	Palasi Ramarao

Hous e ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
2708	Paderu	Kothapalli	20-01-2017	28-02-2013	Pangi Balanna
2710	Paderu	Kothapalli	09-01-2017	28-02-2013	Lake Laxmayya
2713	Paderu	Kothapalli	04-02-2017	02-01-2013	Palasi Bonjubabu
2714	Paderu	Kothapalli	04-01-2017	25-12-2012	Vanthala Barrayya
2719	Paderu	Kothapalli	15-01-2017	28-02-2013	Pangi Karribabu
2722	Paderu	Kothapalli	21-01-2017	23-12-2012	Vampur Kameswarao
2723	Paderu	Kothapalli	16-01-2017	16-01-2013	Kilda Bonjubabu
2726	Paderu	Kothapalli	03-02-2017	28-12-2012	Kilda Chithakanna
2727	Paderu	Kothapalli	12-01-2017	11-01-2013	Palasi Sanyasi Naidu
2728	Paderu	Kothapalli	15-01-2017	28-02-2013	Lake Chnnammi
2730	Paderu	Kothapalli	17-01-2017	01-01-2013	Lake Kondababu
2733	Paderu	Kothapalli	04-01-2017	28-02-2013	Duru Chittibabu
2734	Paderu	Kothapalli	05-01-2017	28-02-2013	Kilda Bangarayya
2735	Paderu	Kothapalli	05-02-2017	27-12-2012	Vallangi Janakamma
2737	Paderu	Kothapalli	15-01-2017	02-02-2013	Setti Narayana
2738	Paderu	Kothapalli	18-01-2017	28-02-2013	Kilda Thadamma
2741	Paderu	Kothapalli	17-01-2017	11-02-2013	Duppa Appalakondababu
2745	Paderu	Kothapalli	04-01-2017	11-01-2013	Setti Kanthamma
2747	Paderu	Kothapalli	03-02-2017	23-12-2012	Dupu Satyavathi
2748	Paderu	Kothapalli	15-01-2017	01-01-2013	Malangi Darmarao
2749	Paderu	Kothapalli	14-01-2017	10-01-2013	Kimudu Suryanarayana
2751	Paderu	Kothapalli	10-01-2017	28-02-2013	Kobba Bagavanthudu
2752	Paderu	Kothapalli	09-01-2017	11-01-2013	Vampur Venkata Ramana
2778	Paderu	Patharaput	15-01-2017	20-02-2013	Marle Matsyaraju
2779	Paderu	Patharaput	21-01-2017	08-02-2013	Mathe Apparao
2782	Paderu	Patharaput	11-01-2017	17-02-2013	Korra Rangarao
2783	Paderu	Patharaput	26-01-2017	20-02-2013	Mathe Matchanna
2785	Paderu	Patharaput	28-01-2017	09-02-2013	Appanna
2788	Paderu	Patharaput	14-01-2017	20-02-2013	Bonju Kamaraju
2790	Paderu	Patharaput	23-01-2017	17-02-2013	Marle Matsyalingam
2791	Paderu	Patharaput	11-01-2017	14-02-2013	Marle Simhachalam
2793	Paderu	Patharaput	16-01-2017	20-02-2013	Dhanasani Matsyalingam
2796	Paderu	Patharaput	01-02-2017	14-02-2013	Pujari Ramanna
2797	Paderu	Patharaput	03-01-2017	14-02-2013	Mathe Subbarao
2799	Paderu	Patharaput	09-01-2017	10-02-2013	Pujari Matsyaraju
2801	Paderu	Patharaput	03-01-2017	17-02-2013	Dhanasani Ramanna
2807	Paderu	Patharaput	20-01-2017	20-02-2013	Jumbu Nagamma
2809	Paderu	Patharaput	23-01-2017	21-02-2013	Mathe Matsyaraju
2815	Paderu	Patharaput	06-01-2017	21-02-2013	Jumbu Chittibabu
2817	Paderu	Patharaput	16-01-2017	20-02-2013	Jumbu Kondababu
2875	Paderu	Ramulaput	15-01-2017	10-01-2013	Gabbada Koteswararao
2876	Paderu	Ramulaput	13-01-2017	10-01-2013	Kunturu Chittibabu
2891	Paderu	Ramulaput	03-02-2017	10-01-2013	Bisayi Nagaraju
2896	Paderu	Ramulaput	05-02-2017	22-01-2013	Gabbada Venkunaidu
2897	Paderu	Ramulaput	18-01-2017	22-01-2013	Gabbada Chinnababulu
2906	Paderu	Ramulaput	01-02-2017	05-10-2012	Kunturu Chittibabu
2907	Paderu	Ramulaput	01-02-2017	12-10-2012	Gabbada Rajubabu
2910	Paderu	Ramulaput	11-01-2017	10-01-2013	Gabbada Prasad
2930	Paderu	Ramulaput	13-01-2017	15-02-2013	Gabbada Simhachalam
3028	Paderu	Gurragaruvu	05-01-2017	28-01-2013	Marri Pottanna
3035	Paderu	Gurragaruvu	23-01-2017	06-02-2013	Paliki Prakash
3050	Paderu	Gurragaruvu	13-01-2017	15-02-2013	Marri Aambri
3052	Paderu	Gurragaruvu	15-01-2017	16-02-2013	Marri Sannibabu
3053	Paderu	Gurragaruvu	16-01-2017	16-02-2013	Paliki Ramayya

Hous e ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
3071	Paderu	Gurragaruvu	25-01-2017	07-02-2013	Pangi Balanna
3080	Paderu	Gurragaruvu	15-01-2017	12-02-2013	Pangi Chinnayya
3082	Paderu	Gurragaruvu	01-02-2017	16-01-2013	Killo Ganeswararao
3083	Paderu	Gurragaruvu	30-01-2017	17-01-2013	Paliki Sombari
3087	Paderu	Gurragaruvu	19-01-2017	26-01-2013	Korra Lingeswararao
3148	Paderu	Sangodi	16-01-2017	16-09-2012	Masada Kalyanam
3157	Paderu	Sangodi	26-01-2017	05-10-2012	Madali Kondababu
3205	Paderu	Kandhamamidi	04-01-2017	31-08-2012	Pangi Ravi
3213	Paderu	Kandhamamidi	05-01-2017	10-09-2012	Vanugu Kondababu
3214	Paderu	Kandhamamidi	07-01-2017	10-09-2012	Minumula Chinna Eswara Rao
3217	Paderu	Kandhamamidi	02-02-2017	10-09-2012	Vanugu Demullu
3221	Paderu	Kandhamamidi	13-01-2017	27-08-2012	Janapa Reddy Appa Rao
3410	Hukumpeta	Olda	03-02-2017	30-04-2013	Majji.Balaji
3433	Hukumpeta	Jankaramput	03-02-2017	11-11-2012	Pedeli.Kasulamma
3435	Hukumpeta	Jankaramput	09-01-2017	11-11-2012	Peteli.Bhimalingam
3436	Hukumpeta	Jankaramput	07-01-2017	11-11-2012	Kandeli.Bhimanna
3437	Hukumpeta	Jankaramput	23-01-2017	11-11-2012	Chikati.Sanyasirao
3438	Hukumpeta	Jankaramput	23-01-2017	11-11-2012	Chikati.Appalaswamy
3439	Hukumpeta	Jankaramput	09-01-2017	11-11-2012	Chikati.Pollamma
3444	Hukumpeta	Jankaramput	01-02-2017	12-11-2012	Peteli.Ramaswamy
3446	Hukumpeta	Jankaramput	23-01-2017	12-11-2012	Peteli.Bojjanna
3449	Hukumpeta	Jankaramput	21-01-2017	13-11-2012	Kuredi.Ramanna
3450	Hukumpeta	Jankaramput	31-01-2017	02-01-2013	chikati.Apparao
3451	Hukumpeta	Jankaramput	22-01-2017	13-11-2012	Chikati.Pollanna
3453	Hukumpeta	Jankaramput	19-01-2017	13-11-2012	Palliboini.Kanthamma
3456	Hukumpeta	Jankaramput	21-01-2017	13-11-2012	Janni.Sanyasirao
3457	Hukumpeta	Jankaramput	05-01-2017	13-11-2012	Kadeli.Apparao
3459	Hukumpeta	Esukagaruvu	17-01-2017	12-03-2013	Kodeli.Ramanna
3460	Hukumpeta	Esukagaruvu	19-01-2017	12-03-2013	Palasi.Kondababu
3462	Hukumpeta	Esukagaruvu	19-01-2017	12-03-2013	Someli.Lachanna
3463	Hukumpeta	Esukagaruvu	29-01-2017	12-03-2013	Palasi.Karribabu
3464	Hukumpeta	Esukagaruvu	29-01-2017	12-03-2013	Palasi.Mathyaraju
3468	Hukumpeta	Esukagaruvu	29-01-2017	12-03-2013	Palasi.Yerranna
3469	Hukumpeta	Esukagaruvu	27-01-2017	12-03-2013	Palasi.Nookanna
3470	Hukumpeta	Esukagaruvu	27-01-2017	12-03-2013	Kudeli.Laxmayya
3471	Hukumpeta	Esukagaruvu	29-01-2017	12-03-2013	Pottangi.Ramanna
3501	Hukumpeta	Thigalavalasa	13-01-2017	20-02-2013	madhe Pandnna
3502	Hukumpeta	Thigalavalasa	10-01-2017	20-02-2013	Pottangi.Ramanna
3503	Hukumpeta	Thigalavalasa	05-02-2017	20-02-2013	madhe poothuraju
3506	Hukumpeta	Thigalavalasa	29-01-2017	20-02-2013	madhe Apparao
3507	Hukumpeta	Thigalavalasa	04-02-2017	20-02-2013	Gudla Ramanna
3510	Hukumpeta	Peddapadu	09-01-2017	18-02-2013	Dageri. Ramaswami
3511	Hukumpeta	Peddapadu	13-01-2017	18-02-2013	Dageri.pollanna
3513	Hukumpeta	Peddapadu	27-01-2017	18-02-2013	Pangi.somnna
3515	Hukumpeta	Peddapadu	01-02-2017	18-02-2013	jumbu .kondababu
3516	Hukumpeta	Peddapadu	05-02-2017	18-02-2013	Dobbati.lachanna
3609	Hukumpeta	Mottujoru	19-01-2017	15-09-2012	Turre Simhachalam
3610	Hukumpeta	Mottujoru	29-01-2017	15-09-2012	Surra Appanna
3611	Hukumpeta	Mottujoru	13-01-2017	10-11-2012	Regam Lingamma
3615	Hukumpeta	Mottujoru	10-01-2017	12-11-2012	Pujari Bonjanna
3618	Hukumpeta	Mottujoru	19-01-2017	15-11-2012	Gemmeli Pndanna
3620	Hukumpeta	Mottujoru	29-01-2017	08-11-2012	Pangi Gangadhar
3624	Hukumpeta	Mottujoru	31-01-2017	15-09-2012	Surra Chinnabalanna
3627	Hukumpeta	Mottujoru	25-01-2017	16-11-2012	Pangi Yerranna
3628	Hukumpeta	Mottujoru	19-01-2017	16-11-2012	Dooru Ramarao

Hous e ID	Mandal	Village	New Installation Date	Old Commissioning Date	Name of the Family Head
3630	Hukumpeta	Mottujoru	15-01-2017	16-09-2012	Pujari Apparao
3632	Hukumpeta	Mottujoru	24-01-2017	15-09-2012	Gemmeli Lachhanna
3633	Hukumpeta	Mottujoru	05-02-2017	10-11-2012	Surra Chinnarao
3635	Hukumpeta	Mottujoru	30-01-2017	10-11-2012	Pangi Lalibabu
3644	Hukumpeta	Mottujoru	30-01-2017	10-11-2012	Sisabhimanna
3658	Hukumpeta	Rangapalli	17-01-2017	01-02-2013	Padi Laxmanna
3659	Hukumpeta	Rangapalli	24-01-2017	31-12-2012	Thube Suribabu
3660	Hukumpeta	Rangapalli	08-01-2017	14-01-2013	Padi Apparao
3663	Hukumpeta	Rangapalli	27-01-2017	14-01-2013	Tubbe Chinnayya
3670	Hukumpeta	Rangapalli	03-01-2017	25-01-2013	Thube Chnnayya
3672	Hukumpeta	Rangapalli	12-01-2017	25-01-2013	Padi Sathi Babu
3674	Hukumpeta	Rangapalli	21-01-2017	02-02-2013	Padi Appanna
3676	Hukumpeta	Rangapalli	16-01-2017	31-01-2013	Arma Chnnayya
3681	Hukumpeta	Rangapalli	04-02-2017	13-01-2013	Thure Sarath Kumar
3686	Hukumpeta	Rangapalli	04-02-2017	26-01-2013	Thube Kotibabu
3690	Hukumpeta	Rangapalli	03-02-2017	14-01-2013	Padi Kondababu
3691	Hukumpeta	Rangapalli	04-02-2017	15-01-2013	Thure Simhadri
3693	Hukumpeta	Rangapalli	28-01-2017	11-02-2013	Kirasha Bodanna
3698	Hukumpeta	Rangapalli	13-01-2017	22-02-2013	Thurre Chachedi
3701	Hukumpeta	Rangapalli	01-02-2017	22-02-2013	Thurre Ramarao
3711	Hukumpeta	Rangapalli	03-02-2017	20-04-2013	Padi Gundanna
3715	Hukumpeta	Rangapalli	04-02-2017	20-01-2013	Pujari Baskar Rao
3717	Hukumpeta	Rangapalli	07-01-2017	09-02-2013	Thube Narayana
3721	Hukumpeta	Rangapalli	16-01-2017	10-02-2013	Janni Sukranna
3785	Hukumpeta	Kunthurla	19-01-2017	21-08-2013	Marri Satya Rao
3786	Hukumpeta	Kunthurla	23-01-2017	30-08-2013	Sedari Chithru
4007	Hukumpeta	Maba	09-01-2017	08-09-2012	Kuda.Ramanna
4012	Hukumpeta	Maba	22-01-2017	08-09-2012	Nadoli.Chinayya
4031	Hukumpeta	Maba	03-01-2017	25-01-2013	korra. Neelakantam
4039	Hukumpeta	Maba	31-01-2017	08-09-2012	Boini.Mutyamma
4040	Hukumpeta	Maba	19-01-2017	24-10-2012	Boini. Ramarao
4125	Pedabayal u	Thurakalavalas a	05-01-2017	19-09-2012	Vanje.Eswaramma
4126	Pedabayal u	Thurakalavalas a	29-01-2017	22-11-2013	Majji Ramana
4127	Pedabayal u	Thurakalavalas a	04-01-2017	29-09-2012	M.Krishnamma
4175	Hukumpeta	Jankaramput	02-02-2017	25-02-2013	Peteli Demudamma

Technology and Measure

Through this project activity, LAYA has implemented improved cook stoves, SARALA model⁴ developed by ASTRA now Centre for Sustainable Technologies, Indian Institute of Science, Bengaluru and later promoted by TIDE⁵. SARALA ICS stove has the following features;

- Can burn a variety of biomass fuels
- Smoke-free working environment
- Use of moulds for onsite stove construction with consistent dimensions that provide consistent performance
- Durable with minimal maintenance
- Compact, with low space requirement (Therefore, suitable even for small kitchens)
- Easy to install and operate, no deviation in cooking practice

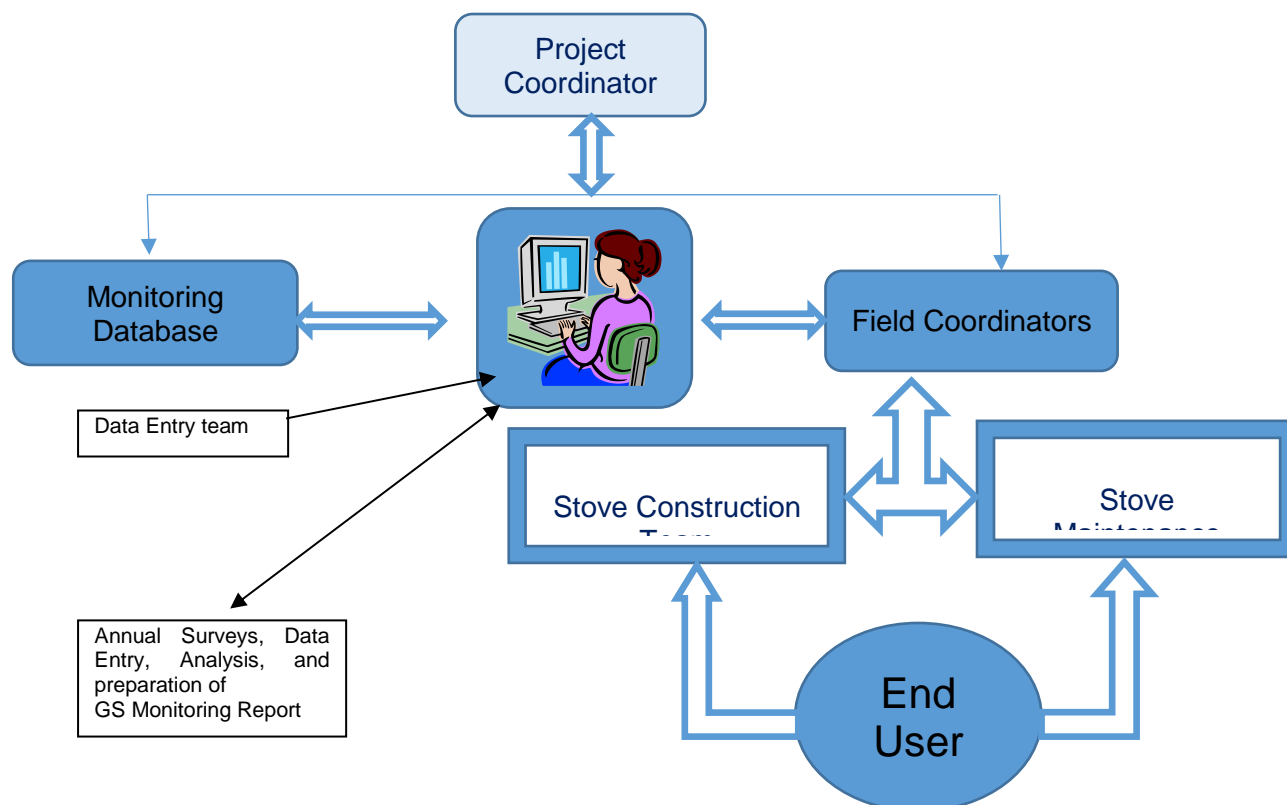
⁴ https://www.tide-india.org/sarala_cooking_stove.html

⁵ <https://www.tide-india.org/>

- Conserves at least 25%-30% of biofuels as compared to open cooking

This project is a GS micro-scale project activity where annual VER generation capped at 10,000 VERs per year. This project is Adivasi community focused micro-scale activity in which 4,963 stoves are installed. The first stove was commissioned on 16th August 2012.

The project Boundary of the project is depicted in the below image.





B.2. Post-registration changes

B.2.1. Temporary deviations from the registered monitoring plan, applied methodologies or standardized baselines

>>

There are no temporary deviations from registered monitoring plan or applied methodology.

B.2.2. Corrections

>>

There are no corrections to project information or parameters fixed at validation.

B.2.3. Changes to the start date of the crediting period

>>

There is a change in the start date of crediting period. Start date of crediting period is changed from 01/08/2011 to 31/07/2012. This change is as per GS requirements 2.26, the start date of The Gold Standard Crediting Period may be postponed for one year without justification or for up to two years if convincing justification is provided.

B.2.4. Inclusion of monitoring plan

>>

Not applicable

B.2.5. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools

>>

The monitoring frequency of the following parameters 'Usage in the year y', 'Age' & 'New stove' are mentioned changed from bi-annual to biennial in the PDD. Revised PDD in track change mode was submitted through registry for approval.

⁶ http://www.goldstandard.org/sites/default/files/gsv2.2_requirements.pdf (pg. 32)

B.2.6. Changes to project design

>>

The request for change of VER cap in the project was sought through PRC. The change is the microscale cap of VERs from 5,000 to 10,000 as per new GS4GG principle requirements. Revised PDD in track change mode was submitted through registry for approval.

SECTION C. Description of monitoring system

>>

The monitoring system followed for this project is as set out in GS methodology section II 4-6.

A total sales record, detailed Customer database and Project database are maintained and updated continuously with periodic Kitchen Surveys. The data for all the 4,963 households are collected. The emission reduction calculations are carried out based on the kitchen surveys and as well as kitchen test results which are applicable to each stove according to its completed age.

Organization Structure and their roles and responsibilities

This project activity is implemented by LAYA, a NGO working for the tribal communities in the region for the past 34 years. LAYA has been working towards the integrated development of tribal people in the region relating to human rights, social empowerment, sustainable resource management, health and resilience to the effects and impacts of climate change through alternative technology interventions.

As on 31st December 2018, 4,693 ICS were installed in 3 Mandals of Vishakhapatnam district, Andhra Pradesh State. A Standard Operation Procedure Manual has been prepared for implementation and monitoring of the project activity, which is followed by the Project Team. The Project Coordinator manages the project on a full time basis. All the monitoring details for the project activity is maintained using web-based database at <http://ver.laya.org.in/>. The database also helps LAYA to facilitate the team to monitor the EEWs, in terms of making sure that the stoves are inspected 4 times a year. The software was designed by LAYA and executed with the help of Mridax Software Solution and its proprietor J.V Shekar.

Laya manages the operations at the Paderu office. For installed ICS maintenance, team visits all the house regularly i.e. four times a year to each household to check its operation and necessary maintenance work when required. Each visit is recorded with a questionnaire. The data pertaining to field visits are archived in the database at the Paderu office by project coordinator. Team meetings are held every month at the Paderu office by the Project Coordinator to discuss status of the ICS and to chalk out necessary action plan till the next review meeting.

The monitoring procedure is followed as per the guidelines set out in in section III of the GS methodology.

The monitoring tasks that will be undertaken continuously are:

A. Maintenance of records.

The Project Coordinator is responsible to maintain and make available project related records. The Project Coordinator has collated all the records and kept paper records too. All records comprise the following data:

- ✓ Date of construction
- ✓ Start date of use
- ✓ Location of stove construction
- ✓ Mode of use: Domestic
- ✓ Model/type of stoves constructed

- ✓ Number of stoves constructed
- ✓ Name and telephone number:
 - Unique Identification Number: Ration Card/ID Card
 - Details of the domestic end users
- ✓ Address:

B. Maintenance of a Detailed Customer Database, and Monitoring KS's

The Project Coordinator has collated the Kitchen Surveys into a Detailed End User Database (DCD). Kitchen Survey (KS) has been conducted for all the identified households, if there were any changes it was updated during construction and also authenticated during the construction. The data that is being updated are mobile/telephone number and/or address with land-line telephone number if acquired, type of stoves and place of use and location. The data values as determined in registered PDD have been set as constants throughout the project period.

C. Continuous updating of the Project Database

The Project Coordinator continuously updates the Project Database for the following parameters, which is required for estimation of emission reductions.

- Total construction record
- Clustering of the households to the most recent definition of clusters. Only one cluster has been identified for all the households. This has been further authenticated during construction. Based on the details collected, all the households fall into one category as they are homogeneous. Thus based on the Kitchen Survey, only one cluster is recognized with only one calculation for emission reductions.
- In every three-four months, all the houses have been visited to check if the installed SARALA stoves are being used and they do not revert back to traditional stoves. Also if any maintenance or repairs are required, was taken up. The data during these inspections were collected and entered into the online monitoring database. The questionnaire used for collection of information during inspection is included in Annex 2.
- The information collected includes the condition of the stove, proof of its usage, usage of traditional stove along with the SARALA stove and the duration of usage, reason for use of traditional stoves and non-usage along with the reason.

D. Strategy for Monitoring

- A team of 30 stove builders were identified and trained from a group of master trainers from the community.
- The team was assigned the task of building given number of stoves. The material cost and cost of construction was through forward carbon funding. LAYA collected a small fee of Rs. 50 from the household as incentive to ensure ownership of the new energy efficient stove. This is also the amount paid for stove construction regularly.
- This building team is under the direct supervision of a Field Coordinator based at LAYA, Paderu who reports to the Project Coordinator based at LAYA Resource Centre. Visakhapatnam.
- The building of 4,963 stoves was completed in two years. An end user agreement was signed with the stove beneficiary after satisfactory use of the stove for a period of 7 days.

After the stoves are built, a team was selected from the trained stove builders to form the stove maintenance team. They collect data of the functioning of the built stoves and repair the built stoves wherever required.

E. Monitoring System

Data Collection Procedures

Data generation

The stove builders and the field coordinator collect the complete data of construction process, beneficiary details. This is recorded into the online monitoring database. The end users of the project activity sign an end-user agreement, which contains details of the end-user, the stove ID number, stove-commissioning date and other terms and conditions.

The non-usage SARALA stove days are also recorded and entered into the monitoring database. The data from monitoring database is exported to excel sheets for analysis and emission reduction calculations.

Non-Usage Days and Use of traditional stoves

The information of non-usage of SARALA stoves and usage of traditional stoves are recorded through frequent inspections by the stove maintenance team. This data is updated to the individual End User in the database regularly.

Calculation and reporting

The data generated through monitoring is stored in the online monitoring database. From this database, data is exported to Microsoft excel sheets, which is used for emission reduction calculations and reporting by the LAYA Team.

The emission reduction calculations excel sheet (Laya Paderu_3rd MR_VER_V2.xls) has been enclosed along with the monitoring report.

QA/QC procedures and emergency procedures for the monitoring system

Though the methodology requires a sample survey, almost all the units are visited periodically to ensure that they are working and emission reduction calculations have high precision and low uncertainty levels.

SECTION D. Data and parameters

D.1. Data and parameters fixed ex ante

(Copy this table for each data or parameter.)

Data / Parameter:	$X_{nrb,bl,y}$
Unit:	Fraction
Description:	The non-renewable fraction of the woody biomass harvested in the project collection area in year y in the baseline scenario.
Source of data:	Calculated in the PDD
Value(s) applied):	0.91
Choice of data or measurement methods and procedures:	The factor of non-renewable biomass was calculated based on secondary sources of data using EB 23 Annex 18 definition of "renewable biomass".
Purpose of data	To calculate Emission Reductions
Additional comment:	Though a value of 0.92 was derived at the district level, for conservativeness, the state level fraction of 0.91 is considered for the PDD. According to the methodology, this will be reassessed two years once. Since there are no further data available to reassess the value, the same value is retained to calculate emission reductions.

Data / Parameter:	EF _{bl,bio,co2} , EF _{pj,bio,co2}
Unit:	tonnes CO ₂ per tonne fuel
Description:	the CO ₂ emission factor for use of the biomass fuel in the baseline scenario and project scenario respectively
Source of data:	2006 IPCC guidelines for National Greenhouse Gas Inventories
Value(s) applied):	1.7472 tCO ₂ e/t of wood
Choice of data or measurement methods and procedures:	Default IPCC values for wood/wood waste are applied to calculate the emission factor.
Purpose of data	To calculate Emission Reductions
Additional comment:	Fixed for the crediting period

Data / Parameter:	EF _{bl,bio,non-co2,i} , EF _{pj,bio,non-co2,i}
Unit:	tonnes CO ₂ e gas per tonne wood-fuel
Description:	Emission factor for GHG gas i in the baseline scenario and project scenario respectively
Source of data:	2006 IPCC guidelines for National Greenhouse Gas Inventories
Value(s) applied):	0.1356 tCO ₂ e/t of wood
Choice of data or measurement methods and procedures:	Default IPCC values for CH ₄ and N ₂ O emissions for wood/wood waste are applied to calculate the emission factor. The Global Warming Potential (GWP) value of 25 and 298 are applied for CH ₄ and N ₂ O respectively to attain CO ₂ equivalent or CO ₂ e. The GWP of CH ₄ and N ₂ O is estimated as per EB 69 Annex 3 and Decision 4/CMP.7.
Purpose of data	To calculate Emission Reductions
Additional comment:	Fixed for the crediting period

Data / Parameter:	B _{gross,bl}
Unit:	tonnes/family/yr
Description:	the annual mass of woody biomass consumed during cooking in the baseline (in tonnes wood per year) in conditions where no other fuel is used for cooking (i.e this mass provides the gross amount of energy utilized for cooking)
Source of data:	Kitchen Test in 116 households
Value(s) applied):	Based on the Kitchen Tests for 116 families. See Table 10 of registered PDD for the values used for each of the family.
Choice of data or measurement methods and procedures:	Based on Kitchen test.
Purpose of data	To calculate Emission Reductions for the project activity.
Additional comment:	Fixed for the crediting period. Will be adjusted based on aging stove Kitchen Test.

Data / Parameter:	$X_{re,pj,i,y}$
Unit:	%
Description:	Percentage of woody biomass combustion avoided due to a renewable energy form i identified as part of the project scenario, allowing that the sum of X_{re} and X_{af} cannot exceed 100%. This percentage should be provided for each year of the project in order to reflect trends. In cases where the trend throughout the project period is less than 20%, a single average value can be given calculated as $X = (X_{end} - X_{start})/2$.
Source of data:	N/A
Value(s) applied):	Not considered as alternative fuel in not used in the project scenario. Wood is the only fuel used in the project area
Choice of data or measurement methods and procedures:	N/A
Purpose of data	To calculate Emission Reductions
Additional comment:	

Data / Parameter:	$X_{af,pj,i,y}$
Unit:	%
Description:	Percentage of woody biomass combustion avoided due to alternative fuels i (such as fossil fuels and dung) identified as part of the project scenario, allowing that the sum of X_{re} and X_{af} cannot exceed 100%. This percentage should be provided for each year of the project in order to reflect trends. In cases where the trend throughout the project period is less than 20%, a single average value can be given calculated as $X = (X_{end} - X_{start}) / 2$. This percentage can be set to zero in cases where the KT is appropriately designed to subsume alternative fuels and it is shown that the effect is a conservative estimate of emission reductions.
Source of data:	N/A
Value(s) applied):	Not considered as alternative fuel in not used in the project area. Wood is the only fuel used in the project area.
Choice of data or measurement methods and procedures:	N/A
Purpose of data	To calculate Emission Reductions
Additional comment:	

Data / Parameter:	$\epsilon_{af,pj,i}$
Unit:	%
Description:	Efficiency of the stove burning alternative fuel i in the project scenario (measured by baseline study or default 50% for fossil fuels)
Source of data:	N/A
Value(s) applied):	Not considered as alternative fuel in not used in the project area. Wood is the only fuel used in the project area

Choice of data or measurement methods and procedures:	N/A
Purpose of data	To calculate Emission Reductions
Additional comment:	

Data / Parameter:	$EF_{af,co2,,i(ebasis)}$
Unit:	tonnes of CO ₂ per GJ fuel
Description:	The CO ₂ emission factor for use of the alternative fuel i in the project in tonnes of CO ₂ per GJ fuel
Source of data:	N/A
Value(s) applied):	Not considered as alternative fuel in not used in the project area. Wood is the only fuel used in the project area
Choice of data or measurement methods and procedures:	N/A
Purpose of data	To calculate Emission Reductions
Additional comment:	

Data / Parameter:	$EF_{af,i,non-co2\ gas\ i}$
Unit:	tonnes of CO ₂ per GJ fuel
Description:	Non-CO ₂ Emission factor during cooking for alternative fuel i for GHG gas i in tonnes gas per tonnes fuel
Source of data:	N/A
Value(s) applied):	Not considered as alternative fuel in not used in the project area. Wood is the only fuel used in the project area
Choice of data or measurement methods and procedures:	N/A
Purpose of data	To calculate Emission Reductions
Additional comment:	

D.2. Data and parameters monitored

(Copy this table for each data or parameter.)

Data/parameter:	$X_{nrp,pj,y}$
Unit	%
Description	Non-renewability of woody biomass fuel in year y in project scenario
Measured/calculated/default	Calculated

Source of data	Study and other public sources as shown in PDD section B.4
Value(s) of monitored parameter	0.91 (same value as in PDD)
Monitoring equipment	There are no monitoring equipments for this parameter
Measuring/reading/recording frequency:	Once in two years
Calculation method (if applicable):	Third party review of calculations
QA/QC procedures:	<p>The value as determined during PDD preparation has been considered for this monitoring period. A national study was conducted by the Forest Survey of India, Ministry of Environment and Forests, Government of India to assess the woody biomass demand and availability at the state and national level. Based on the State of the Forest Report, 2011, the consumption of fuel wood for each of the state was determined based on surveys conducted at household level for each of the state. The annual production of wood from forests was determined from records of each of the forest division in the state. Using this data, the state and national level data was generated. Further, the production of wood and fuel wood from the trees outside forests was determined from short rotation, medium rotation and long rotation species. Also the trees harvested for industrial wood provide substantial quantity of fuel wood as by-product. This has also been accounted for the production fuel wood from trees outside forests. According to the study, the total fuel wood consumption for Andhra Pradesh state is 24.293 Mt. Fuel wood productions from forests and from trees outside Forests account for 0.002 Mt and 1.024 Mt respectively. Therefore, the DRB component of total fuel wood production is 1.026 Mt. Accordingly; the NRB component of fuel wood consumption is 23.267 Mt. This accounts for an fNRB of 0.95.</p> <p>Hence the value that used in PDD has been used in this monitoring period.</p>
Purpose of data:	Calculation of GHG emissions
Additional comments:	

Data/parameter:	Leakage
Unit	tCO ₂ e per year
Description	Potential GHG emissions outside project boundary caused by project activity.
Measured/calculated/default	Monitoring Kitchen Surveys
Source of data	Monitoring database and the leakage calculation for each of the stove is included in the VER calculations Microsoft Excel sheet <i>Laya Paderu_3rd MR_VER_V2.xls</i>
Value(s) of monitored parameter	112

Monitoring equipment	There are monitoring equipments.
Measuring/reading/recording frequency:	Once in two years
Calculation method (if applicable):	
QA/QC procedures:	Leakage is considered for those days when traditional stoves were used, either for complete cooking as the SARALA stoves is under repair or not used during summer as they cook outdoors or it is being used along with SARALA stoves for certain cooking activities
Purpose of data:	Estimation of Project Emissions for the project activity.
Additional comments:	Usage surveys are conducted every quarter of the year. The maintenance team also monitors the number of days when the stoves are not in operational due to repairs, non-cooking, non-sage due to change of house, demolition of stoves etc. This data is updated to the individual End User in the database regularly. These are accounted under leakage emission and deducted from emission reduction.

Data/parameter:	Usage in year y
Unit	Fraction
Description	Percentage of stoves of age x remaining in use in year y
Measured/calculated/default	Measured
Source of data	All the details of this parameter are collected through kitchen surveys carried out quarterly and database maintained by PP.
Value(s) of monitored parameter	100% of stoves are considered for VER calculation. The excel sheet Laya Paderu_3rd MR_VER_V2.xls gives the number of days operational for each of the stove minus days non-operational and/or both stove usage
Monitoring equipment	There are no monitoring equipments. The ICS are monitored for non-usage. All the units are being recorded and entered in to the database.
Measuring/reading/recording frequency:	Biennial
Calculation method (if applicable):	Each stove is inspected four times (cycles) in a year. If a stove reported that not using due to repair or using traditional stoves along with ICS, the period non usage in the cycle is considered as not used or using both stoves. The number of operational days during the monitoring period for each of the system was determined to estimate the emission reductions. [Number of days since commissioned (inclusive of 31 st December 2016) minus [number of non-usage days and/or both stoves usage] for each of the ICS.
QA/QC procedures:	
Purpose of data:	Estimation of Emission Reductions for the project activity.
Additional comments:	All the stoves have been inspected to understand the usage pattern of the stoves. The usages of the stoves are considered for each stove individually to calculate the emission reductions.

Data/parameter:	Age																		
Unit	%																		
Description	Adjustment to values of B _{pj,y} for stoves of age x																		
Measured/calculated/default	Aging –Stove Kitchen Test																		
Source of data	As per GS methodology, a kitchen test was carried out on samples based on different ages to calculate the B _{pj,y} for stoves of age x.																		
Value(s) of monitored parameter	<p>This will be determined as per methodology a linear extrapolation is applied to all stoves of intermediate age and extended age, when calculating overall project GHG reductions. An “Aging-Stove KT” should be undertaken not less frequently than bi-annually for sales made in the first year, to measure fuel reduction performance and other relevant factors in successive years of stoves of Age x years, Age y years, and so on.</p> <table border="1"> <thead> <tr> <th colspan="3">Fuelwood Consumption</th></tr> <tr> <th>Year of Installation</th><th>Age of Stove</th><th>Mean Fuelwood Consumption (t/year/HH)</th></tr> </thead> <tbody> <tr> <td>2015</td><td>3</td><td>2.45</td></tr> <tr> <td>2014</td><td>4</td><td>2.48</td></tr> <tr> <td>2013</td><td>5</td><td>2.50</td></tr> <tr> <td>2012</td><td>6</td><td>2.53</td></tr> </tbody> </table>	Fuelwood Consumption			Year of Installation	Age of Stove	Mean Fuelwood Consumption (t/year/HH)	2015	3	2.45	2014	4	2.48	2013	5	2.50	2012	6	2.53
Fuelwood Consumption																			
Year of Installation	Age of Stove	Mean Fuelwood Consumption (t/year/HH)																	
2015	3	2.45																	
2014	4	2.48																	
2013	5	2.50																	
2012	6	2.53																	
Monitoring equipment	There are no monitoring equipments.																		
Measuring/reading/recording frequency:	Biennial																		
Calculation method (if applicable):	There are no monitoring equipments. Aging –Stove Kitchen Test done during monitoring period as per registered PDD. As per GS methodology, a kitchen test was carried out to calculate the B _{pj,y} for stoves of age x, age y and so on. Sample size determined based on mean and Standard deviation with few field runs. Kitchen test was conducted for aging (project) stove for statistically determined stoves of each age.																		
QA/QC procedures:	Kitchen Test for stoves built in the first year to measure fuel reduction performance in successive years of stoves of Age x, Age y years, and so on																		
Purpose of data:	Estimation of Emission Reductions for the project activity.																		
Additional comments:	Conducted by LAYA.																		

Data/parameter:	New Stove
Unit	Fraction
Description	Adjustment to values of B _{pj,y} for new stove models
Measured/calculated/default	Measured
Source of data	NA since No new stove models have been constructed under this project activity

Value(s) of monitored parameter	NA
Monitoring equipment	NA
Measuring/reading/recording frequency:	Biennial
Calculation method (if applicable):	In case when new stove models are introduced
QA/QC procedures:	NA
Purpose of data:	
Additional comments:	No new stove models have been constructed to apply an adjustment value.

Sustainable Development Indicators

No	1
Indicator	Air quality
Unit	%
Description	1. Percentage of stove users stating an improvement of indoor air quality 2. Percentage of stove users stating better health condition due to improved indoor air quality
Source of Data	Monitoring Kitchen Survey
Measuring/reading/recording frequency:	Biennially
QA/QC procedures:	A well-trained team was advocated to conduct a survey with expert guidance.
Additional comments:	
Monitored Values	100% of the families responded that after installation of ICS there is reduction in smoke especially in kitchen there by reducing smoke related health issues among the family members. 1. As per survey 100% of stove user stated that the indoor air quality has been improved 2. As per survey 100% of stove user stated due to reduction of smoke, health issues related to smoke has been reduced.

No	2
Indicator	Livelihood of the poor / poverty alleviation
Unit	Hours/month
Description	Reduced time for fuel procurement compared to baseline
Source of Data	Monitoring Kitchen Survey
Measuring/reading/recording frequency:	Biennially
QA/QC procedures:	A well-trained team was advocated to conduct a survey with expert guidance.

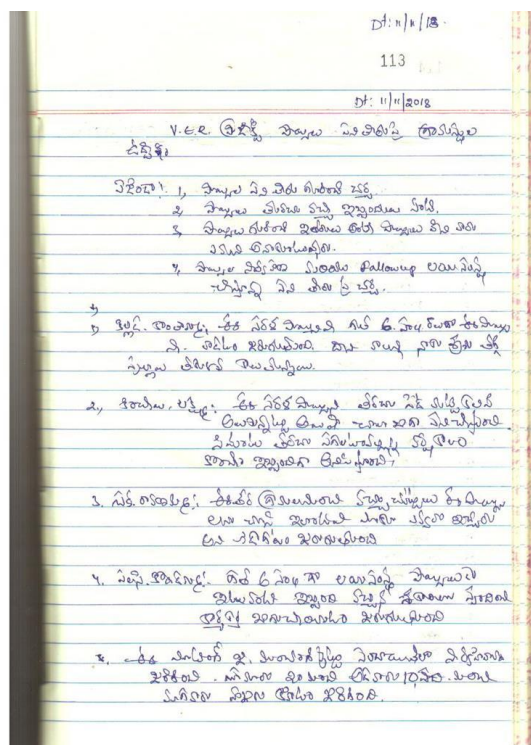
Additional comments:	Families are interviewed to compare the consumption of one headload of fuelwood under project scenario and baseline scenario.
Monitored Values	There is reduction of consumption of fuelwood. People say one headload of fuelwood lasts more days compared to baseline scenario. An average 3 days are increased. Under baseline scenario, each headload of wood used to last for 4.26 days where as in project scenario it has increased to 7.63 days. The saved in collection of fuelwood used to do more income generating activities like collecting NTFP leaves (addaleaves) and taking up agriculture activities. From the collection of NTFP leaves has provided an average income of Rs 2,795 to the family.

No	3
Indicator	Access to affordable and clean energy services
Unit	1. Number of households or persons 2. ton of fuels saved/year
Description	1. Number of households and number of persons benefiting from cleaner combustion with improved stoves. 2. Overall amount of fuels (t) saved per year due to the project activity
Source of Data	- Sales Record - Monitoring Kitchen Surveys - Aging-Stove Kitchen Tests
Measuring/reading/recording frequency:	Every Year
QA/QC procedures:	A well-trained team was advocated to conduct a survey with expert guidance.
Additional comments:	Aging stove Kitchen test is carried on statistically determined sample
Monitored Values	- 4,963 ICS are built as on 31-12-2018 - 100% of stoves are monitored regularly through kitchen surveys - Aging stove Kitchen test is carried on statistically determined sample please refer section D.3 for the details - Overall amount of fuelwood saved per household per year is 0.73 tons

No	4
Indicator	Human and institutional capacity
Unit	Number of persons trained
Description	1. Number of women stove promoters trained 2. Number of women stove owners trained in stove usage

Source of Data	Training records from LAYA & Sales Record
Measuring/reading/recording frequency:	Sales record is continuously updated Training records are reported annually
QA/QC procedures:	A well-trained team was adovated to conduct a survey with expert guidance.
Additional comments:	
Monitored Values	During this monitoring period around 300 people were involved in awareness building programs. Also, there were 2 capacity building programs where around 60 people attended.

Awareness Creation Program on 08-12-2018



8/12/2018.

VER Project Awareness Meeting

$\mu_{\text{max}} = \mu_{\text{max}}^{\text{app}}$ 8/12/18

স্বত্বাধিকারঃ লিখিত অধিকার

యొక్క సంఖ్య = 30.

ఎడోడో :- స్వర వియ్యల (కారణం) కారణం (ప్రభుత్వం)
 లోకానికి అందం.

alcjafzo"

ಶಾಲೆಯಲ್ಲಿ (ಗ್ರಾಮೀಣ ಮಕ್ಕಳಿಗೆ ನೈರ್ಮಲ್ಯವೂ ಸರಿಗೂ
ವಾಸ ಸ್ಥಳ ಲಭ್ಯವೂ, ನೈರ್ಮಲ್ಯವೂ ಮೂಲ
ತಾತ್ಕಾಲಿಕವಾಗಿ ಅಂದಾಜು 6-8 ವರ್ಷಗಳ
ಒಂದು ವಿದ್ಯಾ ನೈರ್ಮಲ್ಯವೂ, ಮಕ್ಕಳಿಗೆ ಮೂಲ
ಮೂಲ ಶಿಕ್ಷಣ ಕೊಡಲು, ಕೆಲವು ವರ್ಷಗಳ ಮೇಲೆ ಮೂಲ
ಮೂಲವೂ, ಇದೇ ಮೂಲ ಮೂಲ ಮೂಲವೂ ಸರಿಗೂ
ಮೂಲವೂ, ಇದೇ ಮೂಲ ಮೂಲ ಮೂಲವೂ ಸರಿಗೂ
ಮೂಲವೂ, ಇದೇ ಮೂಲ ಮೂಲ ಮೂಲವೂ ಸರಿಗೂ
ಮೂಲವೂ, ಇದೇ ಮೂಲ ಮೂಲ ಮೂಲವೂ ಸರಿಗೂ

नबे शरणे दश/ दशमे:-

① ઉષ્ણ સ્થિતિમાં

— ۲۵۱ —

(2) ગોદાવરીના કાંઠા પર

ಹೊಡೆದು ಎಸೆದಾಗಲೇ ಅದರ ಬಾಳು ಬಿಡುತ್ತದೆ ಎಂಬ
ಕೂಡಿಕೆ ಇದೆ.

(3) 86

(3) రెండు కాలాల్లో కొత్తగా వచ్చిన
అందరి అందరూ గ్రేడ్లు.

ಇದರಲ್ಲಿ ಹಲವು ಅಂಶಗಳು ಮುಖ್ಯವಾಗಿವೆ.

ಇದರಲ್ಲಿ ಹೆಚ್ಚಿನ ಅಂಶವು ಅನುಸರಿಸಲ್ಪಟ್ಟಿದೆ
(ಅನುಸರಿಸಲ್ಪಟ್ಟಿದೆ) ಎಂದು ತಿಳಿಸಲಾಗಿದೆ
ಹೆಚ್ಚಿನ ಅಂಶವು ಅನುಸರಿಸಲ್ಪಟ್ಟಿದೆ

Տիտղոսը 15 տարեկան էր, երբ հայտնաբերվեց:

Sl. No.	English Name	Tamil Name
1	Amelanchier	அமெலாங்க
2	Apple	ஆப்பிள்
3	Banana	பனானா
4	Coconut	கோகன்
5	Guava	குவா
6	Jackfruit	ஜாக்஫்ரூட்
7	Lemon	லேமன்
8	Mango	மங்கோ
9	Pineapple	பைன்பிள
10	Rambutan	ரம்புடான்
11	Watermelon	வாட்டர்மெலன்
12	Orange	ஓரேஞ்
13	Peach	பீச்சு
14	Plum	ப்லம்
15	Strawberry	ஸ்ட்ராப்பெரி
16	Cherry	செரி
17	Papaya	பப்பாயா
18	Guava	குவா
19	Jackfruit	ஜாக்஫்ரூட்
20	Banana	பனானா

Capacity Bulding program on 01/08/2018



Awareness and Capacity Building Meetings Information					
Meeting Type	Date	Village	Male	Female	Total
Awareness Meeting	05-01-2017	Urreda	8	10	18
	23-04-2017	Adugulaputtu	12	25	37
	11-06-2017	Bandamamidi	10	20	30
	19-07-2017	Bayaluvedhi	15	29	44
	25-01-2018	Thurakalavalasa	3	10	13
	19-02-2018	Galaganda	18	30	48
	07-07-2018	Kandamamidi	11	29	40
	25-10-2018	Rangapalli	10	9	19
	08-12-2018	Gaddimarri	5	15	20
	26-12-2018	Kothapalli	6	25	31

Capacity Building	12-02-2017	Palvaalasa	5	8	13
	06-06-2018	Jankaramputtu	8	20	28
	01-08-2018	Panasapalli	4	15	19
			115	245	360

No	5
Indicator	Quantitative employment and income generation
Unit	Number of person employed
Description	Number of jobs created for the implementation and monitoring of the project activity.
Source of Data	Records of LAYA resource center
Measuring/reading/recording frequency:	Annually
QA/QC procedures:	A well-trained team was adovated to conduct a survey with expert guidance.
Additional comments:	
Monitored Values	<p>Stove construction team of 30 members during construction phase and monitoring team of 11 from the stove construction team for monitoring the built stoves are employed for this project activity.</p> <p>Communities are using saved time to generate extra income for their families. People collect NTFP (Adda leaves) from which average income of Rs 2,795 is generated. Also people take up other labour work under NREGS government scheme to generate income to the families.</p>

No	6
Indicator	Technology transfer and technological self-reliance
Unit	Number
Description	This capacity building enables spill-over effects to the area by replicating similar or different projects
Source of Data	Number of workshops, seminars organized, and training-related opportunities held; Number of participants who attend those capacity building activities; R&D Expenditures
Measuring/reading/recording frequency:	Annually
QA/QC procedures:	Conducted by LAYA
Additional comments:	

Monitored Values	<p>After witnessing the success and acceptance of technology among tribal families, LAYA has registered one more GS project “Laya Surakshana VER Project” for Tribal Communities in Paderu Mandal of Vishakhapatnam district and Addateegala Mandal of East Godavari District.</p> <p>During this monitoring period there was no visits from outside people either from universities or any other organization. However PP being an NGO has taken awareness and capacity building programs to enhance the skills of the ICS users. Details are provided in SD monitoring parameter “Human and institutional capacity”</p>
------------------	--

D.3. Implementation of sampling plan

>>

All the parameters such as non-usage of SARALA stoves, use of traditional stoves along with SARALA stoves were collected for all the constructed stoves continuously during the monitoring period and same has been recorded in database and used for emission reduction calculations.

During this monitoring period, sample survey was conducted to estimate $B_{pj,y}$ for stoves of age x . Kitchen test was conducted for aging (project) stove for statistically determined stoves of each age. This is to measure fuel reduction performance of project stoves in successive years of stoves of Age x , Age y years, and so on.

Objectives and reliability requirements

The objective of the sampling effort is to assess $B_{pj,y}$ i.e. fuel reduction performance of project stoves and evaluate sustainable development indicator parameters set out for project activity.

The sample size for above parameters was determined with 90% confidence and 10% precision, following the latest EB guidance available on CDM website.

Target Population

This project is implemented in 3 Mandals of Paderu Division, namely Paderu, Peddabaylu and Hukumpeta of Visakhapatnam District, Andhra Pradesh, India. The target population is the 4,963 units built under this activity in 3 Mandals.

Sampling Method

The sampling method chosen for the project area is stratified random sampling based on the number of ICS built in each year. A sample field test of different aging stoves was conducted on project stoves to estimate fuel reduction performance. The mean and standard deviation of this field test has been used to estimate final sample size using calculator with 90% confidence and 10% precision. Again, samples proportionally allocated based on the ICS built in each year.

Sampling Frame

The sampling frame is used for the project is complete list of all the households for which ICS has been commissioned under the project activity. Each of the household has a unique identify number (House ID) with all the required details of the family.

Determination of Sample Size

To determine the mean value of fuel reduction performance of aging project stoves, a pilot field kitchen test was conducted of different ages of project families. The sample size was determined to achieve 90/10 confidence/precision level. Based on a pilot field kitchen test the mean fuel wood consumption and standard deviation of different aging stoves are as follows.

Stoves installed in the Year	Mean	SD
2012	1.98	0.40
2013	2.38	0.51
2014	2.09	0.24
2015	1.94	0.62

Yearwise installations of stoves are as follows.

Year	Number of Installations
2012	358
2013	3,547
2014	90
2015	368
2017	330
Total	4,693

Stoves installed in 2017 were not considered for field test and also for final survey to estimate fuelwood savings. The stoves installed in 2017 were less than 2 years of age as on 31/12/2018, no adjustment value is required as per methodology.

Using above values, sample the sample size required to achieve a required level of reliability was calculated based on the following formula:

$$n \geq \frac{1.645^2 \times N \times V}{(N-1) \times 0.1^2 + 1.645^2 \times V}$$

Where:

$$V = \frac{SD^2}{mean^2}$$

n Sample size

N Total number of households (4693 units till 31/12/2018)

1.645 Represents the 90% confidence required

0.1 Represents the 10% relative precision

SD Standard Deviation of the interested parameter (fuelwood consumption)

Mean Mean of the interested parameter (fuelwood consumption)

Based on the pilot survey conducted overall mean and overall standard deviation is calculated by the following formula.

$$\text{Overall Mean} = \frac{[(1.98 \times 358) + (2.38 \times 3547) + (2.09 \times 90) + (1.94 \times 368)]}{4963} = 2.10$$

Considering the total units installed as of 31st December 2018

Overall Standard Deviation =

$$\sqrt{(358 * 0.40^2) + (3547 * 0.51^2) + (90 * 0.24^2) + (368 * 0.62^2) / 4963}$$

=0.49

Sample size calculation is as follows;

$$n = \frac{4963 * 1.645^2 * 0.72^2 / 2.15^2}{(4963 - 1) * 0.1^2 + 1.645^2 * 0.72^2 / 2.15^2}$$

=14.91 ≈ 15

By considering the response rate from the sampled households to be only 80%, the sample size is 15/80% = 18.63 ≈ 19

Apportioning this samples to all ages of stoves, the number of stoves (rounded up to nearest integer) of to be sampled as follows.

Table 9: Sample size

Year of Installation	Apportioning of households for sampling	Total Number of Households
2012	(358/4963) *19	3
2013	(3547/4963) *19	19
2014	(90/4963) *19	2
2015	(368/4963) *19	3
Grand Total		27

Thus, the sample size required to estimate the woody biomass usage within a target 90/10 confidence/precision level is 27.

To be conservative and more precise, 100 households of the target population have been chosen. This also compensates for any sampling error due to sampling approach. The random sampling was performed in a sample of 100 families of 3 Mandals of Vishakhapatnam district to assess the quantity of woody biomass that is substituted or displaced in tonnes/family. The survey was conducted during the months of November and December of the year 2018. Please refer Laya Paderu Stoves-KT results.xls sheet for the complete details. The details of sampling households were as follows:

Table 10: Sample size of the KPT conducted

Year of Installation	No of Samples
2015	10
2014	20
2013	50
2012	20
Total	100

From the above tables it is quite evident that number samples covered for the sample surveys is more than adequate to represent the parameters in the project area. Oversampling was done as a good practice to compensate for any attrition, outliers or non-response associated with the sample.

The data collected was entered into excel sheet for data storage and analysis. The same number of samples used to evaluate sustainable indicator parameters of the project activity.

Data:

- A. **Field Measurements:** A household level questionnaire was designed to collect information for the parameters of interest.
- B. **Quality Assurance/Quality Control:** The QA/QC procedure was to achieve good quality data through field measurements. The household level questionnaire was designed and field tested before administering the actual questionnaire survey. The survey was done by the LAYA Technical Team and IORA team. Oversampling was done to replace non-respondents, if any. The data collected was entered by and further cross-checked by the IORA technical team.
- C. **Analysis:** The data entry was done in Microsoft excel sheet. The data was cross checked with the filled in questionnaire by IORA as QA/QC procedure. The data was analysed for responses to the parameters.

Analysis of Collected data:

The data collected and digitised using excel sheet for data analysis and to calculate the emission reductions of the project activity (please see Laya Paderu_3rd MR_VER_V2.xls A detailed breakdown time for each of the ICS is shown in excel sheet . There have been no events or situations that occurred during this monitoring period which has impacted the applicability of the methodology.

Demonstration on whether the required confidence/precision has been met:

The parameters which is required for calculations of project emission were monitored for all the installed units. Thus these results of the data has very high confidence and precision level, with very low uncertainly levels.

As per the survey, overall mean and standard deviation is calculated and used to calculate over precision achieved in during survey.

Year of Installation	No of Samples	Mean Fuelwood Consumption (t/year/HH)	Standard Deviation
2015	10	2.45	0.62
2014	20	2.48	0.44
2013	50	2.50	0.62
2012	20	2.53	0.53

The below table explains how presion is calculated.

Parameter	Year	2012	2013	2014	2015	Total
1.645	Represents the 90% confidence required	1.645				4963
	Standard deviation	0.53	0.62	0.44	0.62	
	Mean	2.53	2.50	2.48	2.45	
SD	Overall SD	0.57				
Mean	Overall mean	2.50				
	V	0.052				
0.1	Precision (less than 10%)	3.7%				
		20	50	20	10	100

sample Survey conducted					
-------------------------	--	--	--	--	--

The relative precision achieved by this survey results is calculated using following equation.

$$n \geq \frac{1.645^2 \times NV}{(N-1) \times 0.1^2 + 1.645^2 V}$$

Where:

$$V = \left(\frac{SD}{\text{mean}} \right)^2$$

SD = Is the overall standard deviation, and

Mean = Is the overall mean

$$p = \sqrt{(1.645 * 4963 * 0.57) - (1.645^2 * 0.057) / (4963 - 1)}$$

So the relative precision is 3.7% which is therefore within the required specification (10%). Thus the required confidence/precision has been met.

SECTION E. Calculation of emission reductions or net anthropogenic removals

E.1. Calculation of baseline emissions or baseline net removals

>>

As per methodology, the following equation is used to estimate baseline net GHG removals by sinks.

$$BE_y = X_{nrb,bl,y} \cdot B_{gross,bl} \cdot (1 - \sum X_{re,bl,i,y} - \sum X_{af,bl,i,y}) \cdot EF_{bl,bio,co2} + \sum (X_{af,bl,i,y} \cdot (CEU/\epsilon_{af,bl,i}) \cdot EF_{af,co2,i(ebasis)}) + \sum (\text{Non-CO}_2 \text{ emissions during cooking}) + \sum (\text{GHG emissions during production of the fuels})$$

Non-CO₂ emissions during cooking

$$= (B_{gross,bl} \cdot (1 - \sum X_{re,bl,i,y} - \sum X_{af,bl,i,y}) \cdot EF_{bl,bio,non-co2} + (X_{af,bl,i,y} \cdot (CEU/\epsilon_{af,bl,i}) \cdot EF_{af,non-co2,i(ebasis)})$$

GHG emissions during production of the fuels

$$= X_{nrb} \cdot B_{gross,bl} \cdot (1 - \sum X_{re,bl,i,y} - \sum X_{af,bl,i,y}) \cdot EF_{bl,bio,prod,co2} + (X_{af,bl,i,y} \cdot (CEU/\epsilon_{af,bl,i}) \cdot EF_{af,prod,co2,i}) + (B_{gross,bl} \cdot (1 - X_{re,bl,i,y} - X_{af,bl,i,y}) \cdot EF_{bio,prod,non-co2,i}) + (X_{af,bl,i,y} \cdot (CEU/\epsilon_{af,bl,i}) \cdot EF_{af,prod,i})$$

Where:

BE_y	baseline emissions in year y (in tonnes CO ₂ e per year) specific to cluster and Unit Chosen
$X_{nrb,bl,y}$	the non-renewable fraction of the woody biomass harvested in the project collection area in year y in the baseline scenario
$B_{gross,bl}$	the annual mass of woody biomass consumed during cooking in the baseline (in tonnes wood per year) in conditions where no other fuel is used for cooking (i.e this mass provides the gross amount of energy utilized for cooking)

$X_{re,bl,i,y}$	Percentage of woody biomass combustion avoided due to a renewable energy form i identified as part of the baseline scenario, allowing that the sum of X_{re} and X_{af} cannot exceed 100%. This percentage should be provided for each year of the project in order to reflect trends. In cases where the trend throughout the project period is less than 20%, a single average value can be given calculated as $X = (X_{end} - X_{start}) / 2$.
$EF_{bl,bio,co2}$	the CO ₂ emission factor for use of the biomass fuel in the baseline scenario in tonnes CO ₂ per tonne fuel
$X_{af,bl,i,y}$	Percentage of woody biomass avoided due to alternative fuels i (such as fossil fuels and dung) identified as part of the baseline scenario, allowing that the sum of X_{re} and X_{af} cannot exceed 100%. This percentage can be set to zero in cases where the KT is appropriately designed to subsume alternative fuels (approach 3). Otherwise this percentage should be provided for each year of the project in order to reflect trends. In cases where the trend throughout the project period is less than 20%, a single average value can be given calculated as $X = (X_{end} - X_{start}) / 2$.
CEU	$B_{gross,bl} \cdot NCV_{bio} \cdot \epsilon_{tradbiomass}$ - The cooking energy utilized, in GJ

Where,

NCV_{bio}	Net calorific value of woody biomass in MJ/kg or GJ/tonne
$\epsilon_{tradbiomass}$	efficiency of a traditional biomass stove in the baseline scenario (measured by baseline study or default 20%) / alternative fuel stove efficiency (in absence of specific baseline data the default values of 20% for traditional biomass cook-stoves and 50% for fossil fuel stoves may be taken)
$EF_{af,co2,i(basis)}$	The CO ₂ emission factor for use of the alternative fuel i in the project in tonnes of CO ₂ per GJ fuel
$\epsilon_{af,bl,i}$	efficiency of the stove burning alternative fuel i in the baseline scenario (measured by baseline study or default 50% for fossil fuels)
$EF_{bl,bio,non-co2,i}$	Emission factor for GHG gas i in the baseline scenario in units of tonnes gas per tonne wood-fuel
$EF_{af,i,non-co2,gas,i}$	Non-CO ₂ emission factor during cooking for alternative fuel i for GHG gas i in tonnes gas per tonnes fuel
$E_{f,bio,prod,co2}$	CO ₂ Emission factor for wood-fuel during production in tonnes gas per tonnes fuel
$E_{f,af,prod,co2,i}$	CO ₂ Emission factor for fuel i during production in tonnes gas per tonnes fuel
$EF_{bio,prod,non-co2,gas,i}$	Non-CO ₂ Emission factor for wood-fuel during production in tonnes gas per tonne fuel
$E_{f,af,i,prod,non-co2,gas,i}$	Non-CO ₂ Emission factor alternative fuel i for GHG gas i during production in tonnes gas per tonnes fuel

The baseline emission calculation for each of the stove is included in the VER calculations Microsoft Excel sheet Laya Paderu_3rd MR_VER_V2.xls.

Total vintage wise baseline emissions of the project activity are as follows.

Year	Period	Baseline Emissions (BE) (tCO ₂ e)
2017	01-Jan-17 to 31-Dec-17	26,171
2018	01-Jan-18 to 31-Dec-18	26,187
Total (tCO₂e)		52,358

E.2. Calculation of project emissions or actual net removals

>>

The project emissions have been calculated as follows:

$$PE_y = X_{nrb} \cdot B_{gross,pj} \cdot (1 - \sum X_{re,pj,i,y} - \sum X_{af,pj,i,y}) \cdot EF_{pj,bio,co2} + \sum (X_{af,pj,i,y} \cdot (CEU / \epsilon_{af,pj,i}) \cdot EF_{af,co2,i(ebasis)}) \\ + \sum (\text{Non-CO}_2 \text{ emissions during cooking}) + \sum (\text{GHG emissions during production of the fuels})$$

Non-CO2 emissions during cooking

$$= \sum (B_{gross,pj} \cdot (1 - \sum X_{re,pj,i,y} - \sum X_{af,pj,i,y}) \cdot EF_{pj,bio,non-co2,i}) + \sum (X_{af,pj,i,y} \cdot (CEU / \epsilon_{af,pj,i}) \cdot EF_{af,i,non-co2 \text{ gas } i})$$

GHG emissions during production of the fuels

$$= X_{nrb} \cdot B_{gross,pj} \cdot (1 - \sum X_{re,pj,i,y} - \sum X_{af,pj,i,y}) \cdot EF_{bio,prod,co2} + \sum (X_{af,pj,i,y} \cdot (CEU / \epsilon_{af,pj,i}) \cdot EF_{af,prod,co2,i}) \\ + \sum (B_{gross,pj} \cdot (1 - \sum X_{re,pj,i,y} - \sum X_{af,pj,i,y}) \cdot EF_{bio,prod,non-co2,i}) + \sum (X_{af,pj,i,y} \cdot (CEU / \epsilon_{af,pj,i}) \cdot EF_{af,prod,non-co2,i})$$

Where (noting that parameters common to baseline equations are not repeated):

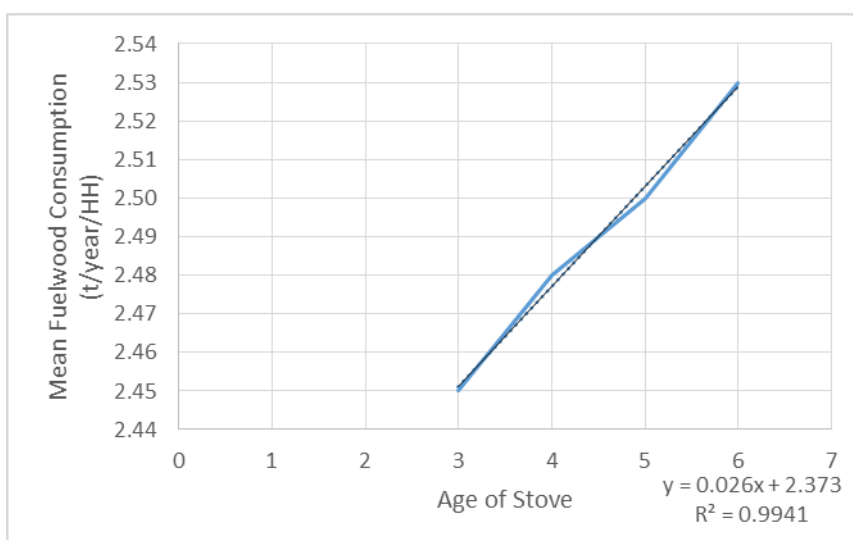
The project emission calculation for each of the stove is included in the VER calculations Microsoft Excel sheet Laya Paderu_3rd MR_VER_V2.xls.

To calculate the fuelwood consumption ($B_{pj,y}$) of each project stove, a sample survey (kitchen test) for 3 days as GS methodology was conducted. See sampling section for sample calculations. As per methodology, *“Aging-Stove KT” should be undertaken not less frequently than bi-annually for sales made in the first year, to measure fuel reduction performance and other relevant factors in successive years of stoves of Age x years, Age y years, and so on. A linear extrapolation is applied to all stoves of intermediate age and extended age, when calculating overall project GHG reductions. The mean performance of the aging stoves can be applied to the lower bound of the fuel savings as determined in the baseline study; it is therefore not necessary to apply a lower bound adjustment to the aging stove test data.*

The results of the Kitchen performance test is as follows.

Fuelwood Consumption		
Year of Installation	Age of Stove	Mean Fuelwood Consumption (t/year/HH)
2015	3	2.45
2014	4	2.48
2013	5	2.50
2012	6	2.53

Based on above data a graph was plotted to get the liner equation for extrapolation.



The equation $B_{pj,y} = 0.026x + 2.373$ is used to estimate the fuelwood consumption of each stove based on its age (x) as on 31-12-2018. Details of this are given in the excel sheet Laya Paderu_3rd MR_VER_V2.xls. Project emissions are calculated based on the values obtained using above equation.

Total vintage wise project emissions of the project activity is as follows.

Year	Period	Project Emissions (PE) (tCO ₂ e)
2017	01-Jan-17 to 31-Dec-17	20,242
2018	01-Jan-18 to 31-Dec-18	20,251
Total (tCO₂e)		40,493

E.3. Calculation of leakage emissions

>>

Calculation of Leakage

- One of the pre-condition for installation of SARALA cook-stove was that the traditional cook-stove will be destroyed before installation of SARALA cook-stove. The users will not use the traditional cook-stoves any more after the installation of SARALA cook-stove. Wherever it was used, the House ID and the number of days used was recorded and accounted for leakage.
- The project activity has not stimulated increased use of a high emission fuel either for cooking or for other purposes outside the project boundary. The traditional cook-stoves that are being replaced are being used only for domestic purposes and will continue to do so in the project scenario. There will not be an increase in the NRB consumption.
- The project activity does not stimulate substitution of a cooking fuel or stove type with relatively higher emissions by households commonly using cooking fuel or stove type with relatively lower emissions.

- d) The project population has not introduced any new device or any form of heating or use of inefficient for space heating. The previous practices continue as it is with only change in the stove type.
- e) The traditional cook-stove was replaced with SARALA stoves and is not reused outside the boundary. Households using traditional stoves too along with SARALA stoves or due to repair of SARALA stoves are recorded and accounted under leakage for those days of use.
- f) The SARALA cook-stove is built from clay and mud available locally. It does not involve transportation. The chimneys and grate were transported from near-by town to the project area. These emissions are very small and negligible.
- g) The non-renewable biomass saved is not used by non-project households/users. Similar pattern of fuel wood use is followed in the tribal region, as fuel wood is the only source of biomass for cooking and heating water.
- h) The non-renewable biomass saved under the project activity is not used to justify the baseline of other project activities.

Thus, leakage is considered for those days when traditional stoves were used, either for complete cooking as the SARALA stoves is under repair or not used during summer as they cook outdoors or it is being used along with SARALA stoves for certain cooking activities. In addition, the number of days where SARALA stoves were not at all used also recorded and same deducted from the overall monitoring operational days.

The details of VERs deducted for using traditional stoves and non-operational are as follow.

Year	Period	SARALA Stoves Not Used (tCO ₂ e)	Traditional stove use along with SARALA (tCO ₂ e)
2017	01-Jan-17 to 31-Dec-17	58	1
2018	01-Jan-18 to 31-Dec-18	55	1
Total (tCO₂e)		113	2

E.4. Calculation of emission reductions or net anthropogenic removals

Emissions Reductions					VER Deducted		Total VER
Year	Period	Baseline Emission (tCO ₂ e)	Project Emission (tCO ₂ e)	Total Emission Reductions (tCO ₂ e)	SARALA Stoves Not Used (tCO ₂ e)	Traditional stove use along with SARALA (tCO ₂ e)	Emission Reduction (tCO ₂ e)
2017	01-Jan-17 to 31-Dec-17	26,171	20,242	5,928	58	1	5,869
2018	01-Jan-18 to 31-Dec-18	26,187	20,251	5,935	55	1	5,879
Total (tCO₂e)		52,358	40,493	11,863	113	2	11,748

E.5. Comparison of emission reductions or net anthropogenic removals achieved with estimates in the registered PDD

Amount achieved during this monitoring period (t CO ₂ e)	Amount estimated ex ante (t CO ₂ e)
11,748	99901

E.6. Remarks on increase in achieved emission reductions

>>

There is an increase in the VERs between estimated and actual values due to following reasons.

1. Estimated value is based on only 3,750 stoves not the actual implementation of stoves. i.e 4,693 stoves as per 31/12/2018.
2. There is regular maintenance and repair of stoves to maintain the functionallity of the stove. This maintenance will not decrease the efficiency of the stove drastically instead, it will maintain the actual efficiency of the stove.
3. Number of stoves installed is more and around 496 old ICS stoves has been demolished in ealry 2017 and new stoves has been installed within few days. This has led to change in the age of the stove of the particular household resulting in more VER.

However, it shall be noticed that the actual emission reduction per househousehold (2.50 tCO₂e/year) is lesser than the estimated emission reduction as per household (2.66 tCO₂e/year) mentioned in the PDD.

Appendix 1. Contact information of project participants and responsible persons/entities

Project participant and/or responsible person/ entity	<input checked="" type="checkbox"/> Project participant <input type="checkbox"/> Person/entity responsible for completing the CDM-MR-FORM
Organization name	LAYA Resource Centre
Street/P.O. Box	501, Kurupam Castle,
Building	East Point Colony, Peda Walter
City	Visakhapatnam
State/region	Andhra Pradesh
Postcode	530017
Country	India
Telephone	+91 891 2548071, +91 891 2735332
Fax	+91 891 2784341
E-mail	layarc@gmail.com
Website	http://www.laya.org.in
Contact person	Dr. Nafisa Goga D'Souza
Title	Mrs
Salutation	Dr
Last name	D'Souza
Middle name	Goga
First name	Nafisa
Department	
Mobile	+919848195992
Direct fax	
Direct tel.	
Personal e-mail	layarc@gmail.com

Annex 1

Questionnaire used to collect information GS sample survey.

LAYA PADERU ENERGY EFFICIENT WOODSTOVES PROJECT MONITORING SUSTAINABLE DEVELOPMENT INDICATORS						
Name of Interviewer:				Date of Survey		
Beneficiary Details						
Name			District			
Age			Gender	<input type="checkbox"/> Male	<input type="checkbox"/> Female	
Profession			Household Size			
Village Name			Mandal			
Date of ICS Installation			Unit ID			
Hours of use of ICS unit/day						
Scenario	Morning (Hrs)	Afternoon (Hrs)	Evening (Hrs)	Total Hours(Hrs)		
Baseline						
Project						
Air Quality	Reduction of smoke?		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Health	Is there Reduction in Eye irritation?		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
	Is there Reduction in Respiratory Problems?		<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Fuel Wood Consumption						
Baseline Scenario (days)			Project Scenario(days)			
1 head load			1 head load			
Time spent for fuel wood collection			Baseline		After project implementation	
	No. of Hours					
	No. of Members		M→	W→	M→	W→
	Frequency					
	Mode of Collection					
	Purchase (Qty)					
Amount (Rs/Mode)						
How is the saved time spent now? And income generated from that activity.						
		Type of activity		Income (Rs)		
Agriculture related						
Dairy						
NTFP related						
Others / No Change						
1 LAYA PADERU ENERGY EFFICIENT WOODSTOVES PROJECT						

Are you using the cook stoves distributed as part of the project activity?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are you satisfied with the cook stoves quality?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Signature of the Interviewed person:

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
06.0	7 June 2017	Revision to: <ul style="list-style-type: none"> • Ensure consistency with version 01.0 of the “CDM project standard for project activities” (CDM-EB93-A04-STAN); • Make editorial improvements.
05.1	4 May 2015	Editorial revision to correct version numbering.
05.0	1 April 2015	Revisions to: <ul style="list-style-type: none"> • Include provisions related to delayed submission of a monitoring plan; • Provisions related to the Host Party; • Remove reference to programme of activities; • Overall editorial improvement.
04.0	25 June 2014	Revisions to: <ul style="list-style-type: none"> • Include the Attachment: Instructions for filling out the monitoring report form (these instructions supersede the "Guideline: Completing the monitoring report form" (Version 04.0)); • Include provisions related to standardized baselines; • Add contact information on a responsible person(s)/ entity(ies) for completing the CDM-MR-FORM in A.6 and Appendix 1; • Change the reference number from <i>F-CDM-MR</i> to <i>CDM-MR-FORM</i>; • Editorial improvement.
03.2	5 November 2013	Editorial revision to correct table in page 1.
03.1	2 January 2013	Editorial revision to correct table in section E.5.
03.0	3 December 2012	Revision required to introduce a provision on reporting actual emission reductions or net GHG removals by sinks for the period up to 31 December 2012 and the period from 1 January 2013 onwards (EB 70, Annex 11).
02.0	13 March 2012	Revision required to ensure consistency with the "Guidelines for completing the monitoring report form" (EB 66, Annex 20).
01.0	28 May 2010	EB 54, Annex 34. Initial adoption.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: monitoring report		