#### APPENDIX 9.3.1

#### Household Survey

#### after

#### Installation of The PV System

- 1. Method of the survey and number of the households
  - (1) Targeted households

Households to install the PV systems ( 55 households)

(2) Date to be surveyed

The suevey was carried out in September, 1993. The PV systema are installed at end of January.

- (3) Methods of the survey
  - 1) SEC employs two interviewers, and SEC explains this questionnaire to the two interviewers.
  - 2) Two interviewers visit the targeted households in the six villages. And they ask the housewives or the masters about these questions. And fill out the questionnaire.
  - 3) The interviewers select an answer from the choices  $(a, b, c, \cdots)$  below the question, or write a suitable answer in the prepared ( ).
- (4) Targeted villages and number of the surveyed households

	Households surveyed	households installed PV system
Tratai	1	2
Notoue	13	15
Abaokoro	19	25
Marenauka	2	3
Tabonibara	5	6
Kainaba	4	4 + 1 (in Maneaba)

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## 2. PV lighting system questions and responses

Q3.	Regarding the fee of PV system ; What is your family's feeling about it compared with kerosene lamps ? a. Cheaper 43 b. About the same 0 c. Expensive 1
Q4.	How about the convenience of the PV lighting system? What is your family's feeling about it compared with kerosene lamp ? a. More convenient 44 b. About the same as kerosene 0
	c. Less convenient 0
Q5.	<pre>What complains does your family have about the PV lighting system ? a. Not enough lighting 2 (Sometimes: 2 HH) b. Time 0 c Technical trouble 0 c Technical trouble 1 (One light takes long to light: 1 HH) d. Insects 25 (Sometimes:24 HH) (Insects fill up the tube:1 HH) e. Others 16 ( No complaint:13 HH) ( Kitchen light need to be removed:1 HH) ( No light 2 days, panel shadow only 2 to 3 hours sunshine during the daytime: 1HH) ( It takes 3 minutes before the light is on 1 HH)</pre>
Q6.	<pre>from the PV system ? a. More light 44   (4 more light: 1 HH)</pre>
	<pre>(3 more light: 13 HH) (2 more light: 18 HH) (1 more light: 9 HH) (0thers : 3 HH) b. Power outlet (What purposes 44 ( Radio: 44 HH) ( Tape recorder:12 HH) ( Refrigerator : 2 HH)</pre>
	c. Others 0

	Q7.	What kind of services does your family need from the	
		SEC that your family does not get now ?	
		a. Quick Repair 5	
		( Repair of light:1 HH)	
		b. Move equipment 2	
		c. Add equipment 2	
•		( More light: 1 HH)	
		d. Others 36	
		( So far so good: 35 HH)	
		( Remove battery/switchboard from the bula to the	
	1	main house : 1 HH)	
	Q8.	How does your family use its kerosene lamps after	
		installing the PV lighting system ?	
		a. Not change from before 0	
		b. Changed 44	
		( Use the kerosene for fishing : 34 HH)	
		(Use the kerosene for cooking : 7HH)	
		( Use the kerosene for bathing : 1 HH)	
		( Use the kerosene in some places	
		where there is no PV lamp) : 1 HH)	
		(Do not use : 5 HH)	
	1.1		
	Q9.	Has use of your family's torch decreased after install-	
		ing the PV lighting system ?	
		a. Not change from before 0	
	:	b. Decreased 43 c. Others 1	
1.		( no torch 1 HH)	
, A		estion about the impact of the PV system to your	
З.		mily's life style	
	1 81		
	110	Has time of production activity increased at night or	
<b>1</b> 0	ATA '	in your house after installing the PV lighting	i.
		system ?	
		a. Not change 0	
		b. Activity time for fishing and agriculture	
		increased 35	
		( Cooking hours : 1 HH)	
· ·		c. Activity time for hand crafts increased 44	
		d. Others 4	
- -			
· · · · · · · · · · · · · · · · · · ·	011	What kind of change has it caused for a housewife's	
	4.1.1.1	works (such as kitchen work, washing and sweeping)	
· · ·		after installing PV lighting system ?	
		a. Not change from before 0	
	-		
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	b. Some of the works are done faster or easier	+
	c. Others ( Cooking : 2 HH)	3
012	Has the time which the housewife spent with her	
·	children and other family members changed.	
	a. Not change from before	0
	<pre>b. Increased c. Decreased</pre>	_
· · · ·	d. Do not know	0 0
Q13.	Has the time to study homework by your children	
	increased after installing the PV lighting system	?
	a. Not change	0
	<pre>b. Increased c. Others</pre>	
		4
	( No child : 2 HH) ( Children not yet in school: 1 HH)	
	( Children have their opportunity of using	
	solar light for study : 1 HH)	
Q14.	Has the time to go to bed changed in your house at	ter
	installing the PV lighting system ?	
	a. Not change from before	0
	b. Later	44
	( before early after late : 38 HH)	
	(Others : 6 HH) c. Others	0
		·
Q15.	Has social activity changed among neighbors in you	
	house after installing the the PV lighting system	
	a. Not change	2
	( Most of neighbors have PV systems : 2 HH)	07
	b. Increased	37
	(The neighbor meet together : 1 HH)	5
	c. Other ( The neighbor played cards : 2 HH)	5
	( Most of neighbors have PV system : 2 HH)	
	(No neighbor : 1 HH)	
Q16.	Has the time spent listening to radio or tape reco	
	changed in your house after installing the PV syst	
		11
	b. Increased	29
	c. Decreased	0
	d. Other	4
	( Radio batteries are Expensive : 1 HH)	
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1. The Second	· · · · · · · · · · · · · · · · · · ·	

Q17. What kind of electric appliances does your family want to be powered from the PV system ? ( Solar pump : 41 HH) ( Radio/Recorder/Video : 15 HH) ( Washing machine : 1 HH) ( Fan : 1 HH)	now
4. Question about your opinions regarding the social imp of the PV systems	act
Q18. Has the vigor of your village changed after instal the PV lighting system?	ling
a. Not change from before	0
b. Increased	44
c. Do not know	0
<ul> <li>a. No change from before</li></ul>	0 44 0
Q20. Do some of the households not having the PV system now want to install a PV lighting system ?	
a. Yes, they want to	44
b. No, they do not want to	0
c. Do not know	0
Q21. Has there been any change in your participating in meetings held in your village?	
a. Participate as much as before installing the PV	
lighting system	.7
b. Deceased in participation	
<pre>c. No change and always attend meetings ( No change : 23 HH) ( Always attend meetings : 10 HH)</pre>	35
(Others : 2 HH)	

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### Q2 Income and kerosene consumption

1 T. 2 N. 3 N. 5 N. 6 N. 9 N. 10 N. 11 12 N. 13 N. 14 N. 15 A. 17 A. 18 A. 19 A. 19 A. 19 A. 19 A. 10 A. 11 12 12 A. 11 12 A. 111	Taratai lotoue lotoue lotoue lotoue lotoue	R28 N22 N35 N30	Arito	No.of family		A\$/month	Litre/month	A\$/month
2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 10 N 11 N 12 N 13 N 14 N 15 A 16 A 17 A 18 A 19 A 19 A	lotoue lotoue lotoue lotoue lotoue	N22 N35 N30	Arito	family		A\$/month	Litre/month	A\$/montf
2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 10 N 11 N 12 N 13 N 14 N 15 A 16 A 17 A 18 A 19 A 19 A	lotoue lotoue lotoue lotoue lotoue	N22 N35 N30						
2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 10 N 11 N 12 N 13 N 14 N 15 A 16 A 17 A 18 A 19 A 19 A	lotoue lotoue lotoue lotoue lotoue	N22 N35 N30						
2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 10 N 11 N 12 N 13 N 14 N 15 A 16 A 17 A 18 A 19 A 19 A	lotoue lotoue lotoue lotoue lotoue	N22 N35 N30				1	! J	
2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 10 N 11 N 12 N 13 N 14 N 15 A 16 A 17 A 18 A 19 A 19 A	lotoue lotoue lotoue lotoue lotoue	N22 N35 N30			<u></u>	· · · · · · · · · · · · · · · · · · ·		2.7
3 NA 4 NA 5 NA 6 NA 7 NA 9 NN 10 NN 11 NA 12 NA 13 NA 14 NA 15 A 16 A 17 A 18 A 19 A 19 A 10 A 11 A 12 A 13 A 14 A 15 A 16 A 17 A 18 A 19 A 10 A 11 A 12 A 1	lotoue lotoue lotoue lotoue	N35 N30			N. A.	200	4.00	3. C 3. C
4 NA 5 NN 6 NN 7 NA 9 NN 10 NN 11 NN 12 NN 13 NN 14 NN 15 A 16 A 17 A 18 A 19 A 19 A 10 A 11 A 12 A 13 A 14 A 14 A 15 A 14 A 17 A 18 A 19 A 12 A 1	lotoue lotoue lotoue	N30	Tarube		Fishing	1	30.00	22. 5
5 NA 6 NN 7 NA 9 NN 10 NN 11 NN 13 NN 14 NN 15 A 16 A 17 A 18 A 19 A 20 A 21 A	lotoue lotoue	- · · ·	Utimawa Tominiko		Worker	1,560 1,090	4.00	3.0
6 NN 7 NA 9 NN 10 NN 11 NA 12 NN 12 NN 13 NA 14 NA 15 A 16 A 17 A 18 A 19 A 20 A 21 A	lotoue		Teriraki Kaaia		Agriculture	2,060	4.00	3. (
7 No 8 No 9 No 10 No 11 No 12 No 13 No 13 No 13 No 13 No 13 No 14 No 15 Al 15 Al 16 Al 17 Al 18 Al 19 Al 20 Al 21 Al			Tianiware		Fishing Agriculture		16:00	12.0
8 No 9 No 10 No 11 No 12 No 13 No 13 No 13 No 13 No 13 No 13 No 14 No 15 Al 16 Al 17 Al 18 Al 19 Al 20 Al 21 Al	latoue		Tebike lotebwa					3. (
9 No 10 No 11 No 12 No 13 No 13 No 13 No 13 No 13 No 13 No 13 No 14 No 15 Al 16 Al 17 Al 18 Al 19 Al 20 Al 21 Al			Keiti		Agriculture	1,000	30.00	22. 5
10 No 11 No 12 No 13 No 14 No 15 Al 15 Al 16 Al 17 Al 18 Al 19 Al 20 Al 21 Al			Roniiti Tetabo		Fishing Worker	3, 440	4,00	3. (
11 No 12 No 13 No 14 No 15 Al 15 Al 15 Al 16 Al 17 Al 18 Al 19 Al 20 Al 21 Al	1 N N N N N N N N N N N N N N N N N N N		Mikaere Timaia		Worker	3,440	4.00	3.0
12 N 13 N 14 N 15 A 16 A 17 A 18 A 19 A 20 A 21 A			Tikanro Postaro		Agriculture	1	4.00	3. (
13 M 14 M 15 A 16 A 17 A 18 A 19 A 20 A 21 A			Bentara		Agriculture	580	4.00	3. (
14 N 15 A 16 A 17 A 18 A 19 A 20 A 21 A		1.1	Buretaake		Worker	2,400	30.00	22.
15 A 16 A 17 A 18 A 19 A 20 A 21 A		NTL	Rabaere loteba	. 5			00.00	50. 1
16 A 17 A 18 A 19 A 20 A 21 A			Matiota Tikataake		Police	1, 440	4.00	3. (
17 A 18 A 19 A 20 A 21 A		8 1.1	Ierubaara Boobu		C. O. Police		20.00	15. (
18 A 19 A 20 A 21 A			Abakuka keeba	4	N. U. IUIICO	2.000	20.00	
19 A 20 A 21 A	1		Tioti Reis Toore		Government	3, 400		
20 A 21 A		F .	Beia Toara		Seaman	6,070	16.00	12.0
21 A			Obeta Tamoaieta Tewaire		Worker	5, 540	4.00	3. (
	1		Temarawa Kawitu		Government	2,740	4.00	3. (
00 141			Tanimakin Nooti	4	hover maone			
	baokoro		Tawita Teibira	1				
· .	Abaokoro		Ribabaiti Neneia		forker	1, 296	16.00	12.0
		•	Tem Bouua		Agriculture	100	4.00	3. (
1.			Towawea	,	Worker	1, 680	4.00	3. (
			Tebuaka		Government	400	4.00	3. (
			Naitiria Tamton		Worker	260	30.00	22. 5
	lbaokoro	niu.	Maurin Tekeraoi	7	. or kor			
		622	Tetake Tekai		Government	1, 120	4.00	3. (
			Ekeieta Ititaake		Agriculture	4,850	8.00	6. (
			Tekakiabo		Government	600	4.00	3. (
	baokoro		Kakiabo Tenanoa	5	1			
	larenauka	MOA			Agriculture	5, 820	30.00	22.
35 M	larenalika	MOT	Ten Tateraka		Agriculture	3, 640	12.00	9, (
36 m	ahonihars	118	Toanii Takaio		Agriculture	4, 560	30.00	22.
37 1	abonihara	106	Ranangaki Matinnar		Agriculture	4,820	30.00	22.
38 1	abon i hara	123	Maeiueo Tekeaugi	6	Government	2, 210	4.00	3. (
39 F	abon i hara	r15	Teaotai Ngaia	6	Agriculture	3, 970	2.00	1. 1
	labonibara		Veanteiti Tetika	3	1	1		
			Tebuatei Abiete	10	Agriculture	1,800	32.00	24. (
- E .			Ueanna Temanikaai		Agriculture	1.740	4.00	3. (
			Taake Tetaua		N. A.		16.00	12. (
ſ			Birikaua Tabokai_	1.1.1.1	Agriculture	400	30.00	22. 5
40 10			eholds installed PV			2, 192	12.61	9.4
AVCLO	axes 01 1/	. vu 30	cholds in the six v			2, 152	14.10	10. 5

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## Q3 The fee of the PV system

	lentificati			f	eeling abou	tito	compare	d with	keros	sene	lam	ps ?		's	
lo.	Villages	ID and name of household	No.of famil;	a	Cheaper About the Expensive				. •						
• .		<u></u>	0	:											
	<u>[[aratai</u>	R28 Arito N22 Tarube	8	a a			••••••	••••••	•••••	••••				••••••	
	Notoue	N35 Utimawa Tominiko	18	a											
	Notoue	N30 Teriraki Kaaia	8	a											
	Notoue Notoue	N31 Tianiware	14	a											
	Notoue	N37 Tebike lotebwa	7	a											
1	Notoue	N10 Keiti	4	a											
ן א פ	Notoue	N38 Roniiti Tetabo	7	a											
 	Notoue	N16 Mikaere Timaia	5	a											
10		N32 Tikanro	5	a											
11	Notoue	NO3 Bentara	5	a											
	Notoue	NO4 Buretaake	4	a	1										
	f en tra	N17 Rabaere loteba	3	a	}										
	Notoue	Matiota Tikataake	5	a							·				
		A16 Ierubaara Boobu	3	a					· .						
		AOI Abakuka keeba	6	a											
	Abaokoro	A33 Tioti	4	a											
	Abaokoro	A04 Beia Toara	6	a							1.				
		All Obeta	10	a											
		A15 Tamoaieta Tewaire	10	a			·								
	Abaokoro	A21 Temarawa Kawitu	4	а											
	Abaokoro	Tanimakin Nooti	4	a											
	1	Tawita Teibira	1 7	a	1.										
21	Abaokoro	A12 Ribabaiti Neneia	1	а	·										
	1	A20 Tem Bouua	5	a											
		A25 Towawea	7	a	1 . The										
21		A17 Tebuaka	1	a											
	Abaokoro	AlO Naitiria Tamton	5	a											
		Maurin Tekeraoi	7	a									,		
		A22 Tetake Tekai	7	a											
31	Abaokoro	1	8	a											
-22		A18 Tekakiabo	6	a											
33	4	Kakiabo Tenanoa	5	a											
		M04 Moauea	8	a	1										
34 35		M07 Ten Tateraka	2	a											
12.2		T18 Toanii Takaio	4	a	1										
36	Tabanibar	4706 Ranangaki Matinna		a	4.4										
37	Tabonibar	123 Maeiueo Tekeaugi	6	a											
		T15 Teaotai Ngaia	6	c											
	Taboribar	Ueanteiti Tetika	3	a											
44	liaconioara	Kil Tehnatai Ahiete	10	a		•••••					•••••				
		K11 Tebuatei Abiete	1	a							•				
	Kainaba	K14 Ueanna Temanikaai	8												
	Kainaba	K10 Taake Tetaua	. 0	a											
	<u>Kainaba</u>	KO4 Birikaua Tabokai	+	<u>a</u>	19		N=13,	A=19	M= 2.	Tb=	4	K= 4	[		
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## Q4 The convenience of the PV system

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	lentificat	l <b>on</b> Sins a language		yc yc	our fa	umily's	feel	ing	abou	ut it	compar	red wit	h kerd	osene	What i lamp?
0,	Villages	ID and name of	No. of	a	More	conven	ient								
••	11110000		family	Ъ	About	the s	ame a	is ke	erose	ene					
				c	Less	conven	ient								
				÷	[ · · · ·										
····.			8	a											
	Taratai	R28 Arito	5	a	·{·····	•••••	•••••	•••••							
2	Notoue	N22 Tarube													
3	Notoue	N35 Utimawa Tominiko	18	a											
4	Notoue	N30 Teriraki Kaaia	8	. 3											
5	Notoue	N31 Tianiware	14	а	-										
6	Notoue	N37 Tebike lotebwa	7	a											
7	Notoue	N10 Keiti	4	a											
8	Notoue	N38 Roniiti Tetabo	7	- a											
9	Notoue	N16 Mikaere Timaia	- 5	a											
10	1	N32 Tikanro	5	a											
11	Notoue	NO3 Bentara	5	a	-										
12	- E	N04 Buretaake	4	a										· ·	
	1 · · · ·	N17 Rabaere loteba	3	a											
13	f a state of the s	Matiota Tikataake	5	a											
14	£	A16 lerubaara Boobu	3	a			•••••								
	Abaokoro													:	
	Abaokoro	A01 Abakuka keeba	6	a						•					
	Abaokoro	A33 Tioti	4	a											
18	Abaokoro	A04 Beia Toara	6	a											
19	Abaokoro	All Obeta	10	a	1										
20	Abaokoro	A15 Tamoaieta Tewaire	10	a											
21	a 📔 👘 🕹 Alexandria	A21 Temarawa Kawitu	4	a	1										
22		Tanimakin Nooti	4	a											
23	E	Tawita Teibira	1	a											
24		A12 Ribabaiti Neneia	1	a											
		A20 Tem Bouua	5	a											
25	f	A25 Towawea	1 7	a											· .
26				a	· · ·		•								
27		A17 Tebuaka	5	_											
28	f i i i i i i i i i i i i i i i i i i i	AlO Naitiria Tamton		a											
29		Maurin Tekeraoi	1	a											
30	Abaokoro	A22 Tetake Tekai	1	-											
31	Abaokoro	A05 Ekeieta Ititaake	8 1	a											
32	Abaokoro	A18 Tekakiabo	6	a											
	Abaokoro		5	a										••••••	
3	Marenauk	MO4 Moauea	8	a											
21	Marenauk	MO7 Ten Tateraka	2	a											
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31	$r_{r_{r_{r_{r_{r_{r_{r_{r_{r_{r_{r_{r_{r$	raTO6 Ranangaki Matinna		1							•				
3	laconica	anue nanangani matima	6	•											
3	Labonida	rall23 Maeiueo Tekeaugi	6												
3	Taboniba	raT15 Teaotai Ngaia	3		ľ										
4	4 <u>Taboniba</u>	ra Ueanteiti Tetika					••••••		•••••	••••••••	• • • • • • • • • •	••••••	•••••	•••••	
4	) Kainaba	K11 Tebuatei Abiete	10												
	1 Kainaba	K14 Ueanna Temanikaai			ļ										
	2 Kainaba	K10 Taake Tetaua	8	a		1.									
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# Q5 Complaints

Ic	entificati	on	<u></u>	·	Q5 W1	nat complains does your family have about the PV lighting
		1.1	· · · · · · · · · · · · · · · · · · ·			ystem?
				No. of	a	Not enough lighting
		hous	ehold	family		Time
					c ·	Technical trouble
					d	Insects
			. ·		e	Dthers
1	Taratai	R28	Arito	8	e	No complaint
			larube	5	ė	No complaint
3	Notoue	N35	Utimawa Tominiko	18	e -	No complaint
å			Teriraki Kaaia	8	e	No complaint
5		N31 -	Tianiware	: 14	e	No complaint
â			Tebike lotebwa	1	·e⁺	No complaint
. 7	1.0.0000		Keiti	4	d	Sometimes
g.			Roniiti Tetabo	1	d	Sometimes
			Mikaere Timaia	5	d	Sometimes
			Tikanro	5	d	Sometimes
			Bentara	5	d	Sometimes
	100000	E 1	Buretaake	4	d	Sometimes
	101000		Rabaere loteba	3	d	Sometimes
13			Matiota Tikataake	5	d	
14	Notoue		lerubaara Boobu	3	e	Dkay
15				6	d	Sometimes
16			Abakuka keeba	4	d	Sometimes
	[*******		Tioti Rio Torre	6	d	Sometimes
			Beia Toara	10	d	Sometimes
			Obeta	10	e u	Kitchen light need to be removed
	110000101		Tamoaieta Tewaire			No complaint
	Abaokoro		Temarawa Kawitu	4	e	
22	Abaokoro	F	Tanimakin Nooti	4	d	Sometimes
23	Abaokoro		Tawita Teibira	1	1	Sometimes
24			Ribabaiti Neneia	1	d	Sometimes
25	Abaokoro		Tem Bouua	5	d	Sometimes
26	Abaokoro		Towawea	7	d	Sometimes
27	Abaokoro	A17	Tebuaka	1	a	Sometimes
28	Abaokoro	A10	Naitiria Tamton	5	a	Sometimes
	Abaokoro	1	Maurin Tekeraoi	. 7	d	Sometimes
20	abaokoro		Tetake Tekai	1	d	Sometimes
21	Abaokoro	hos	Ekeieta Ititaake	8	d	Sometimes
21	Abaokoro	418	Tekakiabo	6	d	Sometimes
36	Abashara	10	Kakiabo Tenanoa	5		
აპ ი ,	Marenauka	un I	Moailea	8		
54	Marenauka	MA7	Ten Tateraka	2	e	No complaint
35	marenauxa		Toppij Takaja	4	e	
36	labonibar	0110	Toanii Takaio			
37	labonibar	allub	Ranangaki Matinna Masiyan Takangi	1 o 6	l Å	Lots of rains. No light 2 days. panel-shadow only 2 to 3
38	labonibar	al 23	Maeiueo Tekeaugi	l °	6	nours sunshine during the day
						a set to set the state of the set
39	Tabonibar	aff 15	Teaotai Ngaia	6		
		ą	Veanteiti Tetika	3		***
	Kainaba	K11	Tebuatei Abiete	10		No complant
	Kainaba	X14	Ueanna Temanikaai	10	e	
	Kainaba		Taake Tetaua	8	c	One light takes long to light
	Kainaba	1	Birikaua Tabokai	7	e	So far so good
		<u> </u>	<u></u>		a	a = a = a = a = a = a = a = b = a = b = a = b = a = a
ota	<b>4</b> - 1			1	b	0
	a da se	- <sup>1</sup>			c	1  Tr= 0, N= 0, A= 0, M= 0, Tb= 0, K= 1,
		1			1 .	25 $\Gamma r = 0$ , N= 8, A=14, M= 0, Tb= 3, K= 0,
		1		L	d	16 $[Tr = 1, N = 5, A = 3, M = 2, Tb = 2, K = 3.$

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### Q6 Additional functions

					e PV system ?
).	Villages	ID and name of	No. of	a	More light(How many )
	11110000	household	family	b	Power outlet(What purposes )
				C	Others
	· · .	A State of the second sec			
	· .		l	a	
1	Taratai	R28 Arito	8		3 more light, Radio
	Notoue	N22 Tarube	5		2 more light, Radio tape
	Notoue	N35 Utimawa Tominiko	18	a, b	10 more light, Radio tape
	Notoue	N30 Teriraki Kaaia	8	a b	2 more light, Radio
	Notoue	N31 Tianiware	14	a, b	1 more light, Radio
	Notoue	N37 Tebike lotebwa	1 7	a b	2 more light, Radio
	Notoue	N10 Keiti	4	a b	2 more light need, Radio, Refrigerator
	Notoue	N38 Roniiti Tetabo	7		1 more light, Radio
9	Notoue	N16 Mikaere Timaia	5		3 more light, Radio
-	Notoue	N32 Tikanro	5		3 more light, Radio
		NO3 Bentara	5	a b	2 more light, Radio/Tape recorder
	Notoue	N04 Buretaake	4	ab	3 more light. Radio/Tape recorder
12	Notoue	N17 Rabaere loteba	3	a h	3 more light, Radio/Tape recorder
	Notoue	Matiota Tikataake			2 more light, Radio
	Notoue		3		2 more light, Radio
	Abaokoro	Al6 lerubaara Boobu	6		2 more light, Radio
	Abaokoro				2 more light, Radio
	Аbaokoro	A33 Tioti	4		
	Abaokoro	A04 Beia Toara	6		2 more light. Radio
	Abaokoro	All Obeta	10		2 more light, Radio
20	Abaokoro	A15 Tamoaieta Tewaire		a o	2 more light, Radio
21	Abaokoro	A21 Temarawa Kawitu	4	a, b	I more light, Radio/Tape recorder
22	Abaokoro	Tanimakin Nooti	4		3 more light, Radio/Tape recorder
23	Abaokoro	Tawita Teibira	1		3 more light, Radio
24	Abaokoro	A12 Ribabaiti Neneia	7		2 more light, Radio
25	Abaokoro	A20 Tem Bouua	- 5		2 more light. Radio
26		A25 Towawea	1		2 more light, Radio
27			1		2 more light, Radio
- 75.5	Abaokoro		5		1 more light, Radio
	Abaokoro	Maurin Tekeraoi	1	a, b	1 more light, Radio
30	abaokoro	A22 Tetake Tekai	7	a, b	None, Radio
21	Abackoro	A05 Ekeieta Ititaake	8	a, b	β more light. Radio
	Abaokaro	A18 Tekakiabo	6		3 more light, Radio
	Abaokoro			ah	4 more light, Radio Cassette
		M04 Moauea	8	a h	) 3 more light, Radio
34	marenauka	M07 Ten Tateraka	2	1 2 1	1 more light, Radio
35	marenauxa	TIO Tonnii Tabaia	4		None, Radio/Tape recorder
36	laconidat	alla Toanii Takaio		a, L	1 more light, Radio
37	laconibai	aTO6 Ranangaki Matinna	6	a, L	2 more light, Radio/Tape recorder
38	labonibal	al 23 Maeiueo Tekeaugi	1		1 more light, Radio
39	labonibal	aT15 Teaotai Ngaia	6		3 more light, Radio
44	Taboniba	a Ueanteiti Tetika	3	<u>a,</u>	o 3 more light, Radio, Tape recorder, Refrigerator
	Kainaba			a, t	D D more light, source, rape recorder, sourcestated
	Kainaba	K14 Ueanna Temanikaa		a, l	2 more light, Radio
42	Kainaba	K10 Taake Tetaua	8	a, l	3 more light, Radio
	Kainaba	KO4 Birikaua Tabokai	1	<u>  a. l</u>	nore light, Radio/Tape recorder
Tota				a	44 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4,
1010	••			b	44 Tr= 1, N=13, A=19. M= 2, Tb= 5, K= 4,
1				c	0

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#### Q7 Services

	entificati			44 A	Q7 Wh yo	ur family does not get now ?
<u></u> ~	Villages	ID 2	nd name of	lo. of	a	Quick Repair
<b>)</b> , ·	VIIIages			amily	b	Move equipment
		1003	citora		с	Add equipment
					d	Others
1	Taratai	828	Arito	8	а	No – Ok
	Notoue		Tarube	5	d	No need Ok
	Notoue		Utimawa Tominiko	18	· c	More light
	Notoue		Teriraki Kaaia	- 8	ь	No. Complaint
	Notoue		Tianiware	14	b, c	
	Notoue		Tebike lotebwa	7	d d	So far so good
	Notoue		Keiti	4	d	So far so good
1			Roniiti Tetabo	7	d	So far so good
ŏ.	Notoue		Mikaere Timaia	5	a	Sometimes
	Notoue Notoue		Tikanro	5	a	Sometimes
			Bentara	5	d	Okay
	Notoue		Buretaake	4		So far so good
	Notoue		Rabaere loteba	3	d	So far so good
	Notoue		Matiota Tikataake	5	d	No comments, Okay
	Notoue	410	Ierubaara Boobu	3	d	So far so good
	Abaokoro			6	d	Good far fine being
	Abaokoro		Abakuka keeba	4	ď	Dkay far now
	Abaokoro		Tioti	6	d	No comments, Okay
18	Abaokoro		Beia Toara	10	d	As far now it Okay
19	Abaokoro		Obeta	10	d	So far so good
	Abaokoro		Tamoaieta Tewaire		d	Dkay
	Abaokoro	A21	Temarawa Kawitu	4	d	So far so good
	Abaokoro		Tanimakin Nooti	4		No complain
	Abaokoro	· ·	Tawita Teibira	7	d	
24	Abaokoro		Ribabaiti Neneia	1.	d	So far so good
25	Abaokoro		Tem Bouua	5	d	So far so good
26	Abaokoro		Towawea	1	d	No Comment
27	Abaokoro		Tebuaka	1	d	None
28	Abaokoro	A10	Naitiria Tamton	5	d	None
29	Abaokoro	1	Maurin Tekeraoi	7	d	As far now no problem
30	Abaokoro	A22	Tetake Tekai	7.	d	Dkay
	Abaokoro		Ekeieta Ititaake	8	d	So far so good
27	Ahaokoro		Tekakiabo	6	d	Everything is Ok for the being
22	Abaokoro	[	Kakiabo Tenanoa	5	d	Everything is Ok for the time being
.99 .99	Marenauka			8	d	No complain
25	Maronauva	MOT	Ten Tateraka	2	d	Dkay may be in future time
00 90	Taboaibar	20118	Toanii Takaio	4	d	No comments
00 01	Tabanihan	30.00	Ranangaki Matinnar		d	No comments
57	Tabonioan	ar 00	Maeiueo Tekeaugi	6	d	Remove battery/Switchboard from the buia to the main hous
38	llabonibar	4143	Tonotai Maria	6	ď	No comments
39	labonibar	3112	Teaotai Ngaia	3		Everything is Okay for the time being
	Tabonibar	a	Ueanteiti Tetika	10		No comments
40		KIL	Tebuatei Abiete			Repairing of lights
	Kainaba		Ueanna Temanikaai	10		nepatring of itsnes
42	Kainaba	<u>K10</u>	Taake Tetaua	8	a	No comments, everything is Okay
43	Kainaba	<u>X04</u>	<u>Birikaua Tabokai</u>	1	d	5  (Ir = 1, N= 2, A= 0, M= 0, Tb= 0, K= 2,
ota					a	2  fr= 1,  N= 2,  A= 0,  m= 0,  Tb= 0,  K= 0, 2  fr= 0,  N= 2,  A= 0,  M= 0,  Tb= 0,  K= 0,
	1 · · · ·			10 m <sup>1</sup>	b	Z    I = U, N = Z, A = U, M = U, ID = U, K = U, A = U, M = U, M = D, K = D
	·			1	c	2 $Tr = 0$ , $N = 2$ , $A = 0$ , $M = 0$ , $Tb = 0$ , $K = 0$ ,
	1	1	· · · · ·	ł	d	36 $T_{T} = 0$ , N= 8, A=19, M= 2, Tb= 5, K= 2,

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a da series de la composición de la co Especia de la composición de la composici Especial de la composición de la composi

# Q8 Kerosene lamps after the PV system

la	entificati	on				low does your family use its kerosene lamps after installing the PV lighting system ?
		10 0	nd name of	No. of	a	
).	Villages		ICI IICANO OL	family		
		nouse	ehold	T CHUT TÌ	~	
			-			
		L		9	b	They only use the kerosene lamp for fishing
	Taratai		Arito	8	b	
2	Notoue	N22	Tarube	5	- 1	Lui for fishing and in como
3	Notoue	N35 I	Utimawa Tominiko	18	b	places where there is no PV lamp
		. •				
4	Notoue		Teriraki Kaaia	8	a	iney only use Aerosene for fishing
5	Notoue		Tianiware	14	b	They use a kerosene lamp for fishing
6	Notoue		Tebike lotebwa	- 7	b	
7	Notoue	N10	Keiti	. 4	b	
8	Notoue	N38	Roniiti Tetabo	1	b	
	Notoue		Mikaere Timaia	5	[ b	
	Notoue		Tikanro	5	b	
- 0	Notoue		Bentara	- 5	b	
	Notoue		Buretaake	4	b	Used for fishing at night
	Notoue		Rabaere loteba	3	b	Used for fishing at night
			Matiota Tikataake	5	b	Used for fishing at night
	Notoue	416	lerubaara Boobu	3	b	Used for fishing at night
	Abaokoro		Abakuka keeba	6	b	
	Abaokoro			4	Ъ	
	Abaokoro		Tioti	6	b	
18			Beia Toara	10	b	
19	Abaokoro	A11	Obeta		b	
20	Abaokoro	A15	Tamoaieta Tewaire	10	-	
21	Abaokoro	A21	Temarawa Kawitu	4	: b	
22	Abaokoro		Tanimakin Nooti	4	b	· · · ·
23	Abaokoro		Tawita Teibira	.7	b	
24	Abaokoro		Ribabaiti Neneia	1	D	
25	Abaokoro	A20	Tem Bouua	5	b	
26	Abaokoro	A25	Towawea	1	b	Used for fishing at night
27	Abaokoro	A17	Tebuaka	1	b	
23	Abaokoro		Naitiria Tamton	5	b	
- N			Maurin Tekeraoi	7	Ъ	
29			Tetake Tekai	1	b	Used for fishing at night
30	Abaokoro	105	Ekoiota Ititaake	8	b	
31	Араокого	405	Ekeieta Ititaake Takakisho	6		Used for fishing at night time
		110	Tekakiabo Kakiaba Tananot	5	Į	
33	Abaokoro		Kakiabo Tenanoa	8		hnused.
34	Marenauka	MU4	Moauea		-	lised kerosene lamps for the purpose of fishing at night
35	Marenauka	M07	Ten Tateraka	2		the state of the surrose of fishing at highl
36	Tabonibar	aff18	Toanii Takaio	4		
37	Tabonibar	aTOS	Ranangaki Matinna	r 8	1 .	the second state of the surpose of fishing at highly
38	Tabonibar	aT23	Maeiueo Tekeaugi	6	Ε.	the state in the second fighting at might
39	Tabonibar	all15	Teaotai Ngaia	6		
61	Tabonibar	a	<u>Ueanteiti Tetika</u>	3	<u> </u>	b Used for fishing at night
	Kainaba	X11	Tebuatei Abiete	10		b Used for fishing at night
	Kainaba	· ·	Ueanna Temanikaai	10	l t	b Used kerosene for fishing at night
			Taake Tetaua	. 8		b
	Kainaba		Birikaua Tabokai	1		b A kerosene lamp has not been used
· · · · · · · · · · · · · · · · · · ·	Kainaba	<u>NU4</u>	DILINAUA TADUNAL			
ota	.1			2		b 44 (Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4
:			· · ·			
. '		.*				
		1	. · · · · · · · · · · · · · · · · · · ·		1	

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#### Q9 Torch after the PV system

ld	entificati	on	Q9 Has use of your family's torch decreased after instal PV lighting system?										
).	Villages	ID and name of household	No.of family		Not change Decreased Others	froa	befor						
1.	Canatal	R28 Arito	8	b						<u> </u>			
	<u>faratai</u> Notoue	N22 Tarube	5	b									
	Notoue	N35 Utimawa Tominiko	18	b									
	Notoue	N30 Teriraki Kaaia	8	b					`				
-	Notoue	N31 Tianiware	14	b b									
	Notoue	N37 Tebike lotebwa	1	b		•							
	Notoue	N10 Keiti	4	b									
	Notoue	N38 Roniiti Tetabo	1	b									
	Notoue	N16 Mikaere Timaia	5	Ь									
	Notoue	N32 Tikanro	5	b					· ·				
	Notoue	NO3 Bentara	5	b									
	Notoue	NO4 Buretaake	4	b									
	Notoue	N17 Rabaere loteba	3	b									
	Notoue	Matiota Tikataak	5	b	<u> </u>				•••••				••••••
15	Abaokoro	A16 Ierubaara Boobu	3	b									
	Abaokoro	A01 Abakuka keeba	6	Ъ									
17	Abaokoro	A33 Tioti	4	b.									
	Abaokoro	A04 Beia Toara	6	b				-					
	Abaokoro	All Obeta	10	b									
	Abaokoro	A15 Tamoaieta Tewair	e 10	b	·								
	1	A21 Temarawa Kawitu	: 4	b	a de la companya de l								
	Abaokoro	Tanimakin Nooti	4	b									
	Abaokoro	Tawita Teibira	1	b									
	1	A12 Ribabaiti Neneia	1 7	b									
	Abaokoro	A20 Tem Bouua	5	b									
26	Abaokoro	A25 Towawea	7	b									
27	Abaokoro	A17 Tebuaka	1	b									
28	Abaokoro	A10 Naitiria Tamton	5										
29	1 1 1	Maurin Tekeraoi	1	Ъ									
30	Abaokoro	A22 Tetake Tekai	1		ļ	•							
31	Abaokoro	405 Ekeieta Ititaake	8	b									
32	Abaokoro	A18 Tekakiabo	6										
33	Abaokoro	Kakiabo Tenanoa	5					•••••					•••••
34	Marenauka	M04 Moauea	8		1								
35	Marenauka	MO7 Ten Tateraka		b								. <i></i>	•••••
36	Taboniba	alla Toanii Takaio	4										
37	labonibar	aTO6 Ranangaki Matinn	ar 8	Ь									
38	Tabonibar	all23 Maeiueo Tekeaugi	6		No torch								÷.,
-39	Taboniba	all5 Teaotai Ngaia	6										
44	Taboniba	a Ueanteiti Tetika	3						•••••		•••••••••••		
	Kainaba	K11 Tebuatei Abiete	10										
	Kainaba	K14 Ueanna Temanikaa	i 10	)   · b									
	Kainaba	K10 Taake Tetaua	8	b b									
	Kainaba		7	b		·		<u> </u>	· ···-,				
ota			·   ·····	a	0					<b>"</b>			
				b			1, N=13,						
: 1	·		}	c	. 1	∏r= (	), N= O,	A= 0.	M= 0,	îb=	1, K≈	0	
			1.00	ł	1								

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# Q10 Time of production activity

	dentificat		· · · ·	<u> </u>	our house	e afte	er i	<u>nstall</u>	<u>ing t</u>	<u>he P</u>	<u>V lig</u>	ntin	g syste	em ?	in
0.	Villages	ID and name of household	No.of family	a b	Not chan: Activity	ge time	for	fishi	ng an	d ag	ricul	ture			
					Activity Others	time	101	nandi	crait	5 11		<u></u>			
-1	Taratai	R28 Arito	8	c											
2		N22 Tarube	5	С											
3		N35 Utimawa Tominiko	b   18	c, d											
4		N30 Teriraki Kaaia	8	c, d											
5	. L	N31 Tianiware	14	c, d				1997 - S. 1997 -							
6	. L	N37 Tebike lotebwa	7	C.							· ·				
1		N10 Keiti	4	b, c											
8	1. :	N38 Roniiti Tetabo	7	b, c											
g	E	N16 Mikaere Timaia.	5	b, c											
10	1.	N32 Tikanro	5	b, c											
11	Notoue	NO3 Bentara	5	b, c								-			
12		NO4 Buretaake	4	b, c											
13	- E .	N17 Rabaere loteba	3	b, c											
-14		Matiota Tikataa	ke 5	b, c			• • • • • • • •		•••••••						
15		A16 Ierubaara Boobu	3												
16		A01 Abakuka keeba	- <b>6</b>	b. c											
17		A33 Tioti	4	b c											
	Abaokoro	A04 Beia Toara	6	b, c											
19		All Obeta	10	b, c				•							
20	· [ ·	A15 Tamoaieta Tewai		b, c											
21		A21 Temarawa Kawitu	4	b, c		·									
22		Tanimakin Nooti	4	b c											
23	1 · ·	Tawita Teibira	1	b, c		:									
24	i Galana	A12 Ribabaiti Nenei	a   7	b, c											
	5 Abaokoro	A20 Tem Bouua	5	b, c											
20		A25 Towawea	1	b; c											
2	[		1	b, c											
28	1 1 - L - L	AIO Naitiria Tamton	5	b, ç											
29		Maurin Tekeraoi													
	Abaokoro	A22 Tetake Tekai	1	b, c	Cooking.	such	as	bread	s etc						
3		A05 Ekeieta Ititaak	e 8	b, c											
		A18 Tekakiabo	6											÷	
: 3:			5	c, d											
1.1	J Maranauk	1 M04 Moauea	8	b, c	1										
3	s Maronauk	M07 Ten Tateraka	2		1										
3	6 faboniba	all8 Toanii Takaio	4												
3	7 Taboniba	allo Ranangaki Matin			F									-	
3		alloo Manangaki matin ralloo Maeiueo Tekeaug	i 6												
3	o Haboniba	rall5 Teaotai Ngaia	6		1										
- 3	BOTHOURI E	a Ueanteiti Tetik		1											
		K11 Tebuatei Abiete	10			••••							-,		
	0 Kainaba	K14 Ueanna Temanika						÷							
	1 Kainaba	K14 Ueanna Temanika K10 Taake Tetaua	8											-	
	2 Xainaba								:						
	<u>3 Kainaba</u>	KO4 Birikaua Taboka			+	0									
[ot:	al			a b	.		- 0	N= 8	A=17	.M=	2. Tł	)= 5.	K= 3,		
÷.						14 Tr=	: 1	N=13	A=19	M=	2. Tł	)= 5.	K= 4,		
÷				c d		1	- 0	N= 3	A= 1	М=	0 Tł	)= 0.	K≃ 0.		
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			u u		-2   11	· ·	15 V)	,		-,	1			

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e. Na second

# Q11 Housewife s work

ld	entificati	on		Q11 Y	hat kind fter ins	stall	ling I	y ligh	ting s	ystem?				
		ID and some of	No. of	a	Not char	nge f	from 1	before						
o	Villages	ID and name of	family		Some of	the	work	are do	ne fas	ter or	easie	r ·		
1		household	1 0101 1 2	c	Dthers									
				ľ										
l				1.										
		D00 1 11-	8	b										
	Taratai	R28 Arito	5	b b										
-	Notoue	N22 Tarube		b										
	Notoue	N35 Utimawa Tominiko	8	b	:									
	Notoue	N30 Teriraki Kaaia	14	b	1									
5	Notoue	N31 Tianiware	14	b, c										
	Notoue	N37 Tebike lotebwa		b										
7	Notoue	N10 Keiti	. 4	Ь										
8	Notoue	N38 Roniiti Tetabo	1	-										
9	Notoue	N16 Mikaere Timaia	5	b										
	Notoue	N32 Tikanro	1 1	b		:						÷		
11	Notoue	NO3 Bentara	5	b										· .
12	Notoue	NO4 Buretaake	4	b										
13	Notoue	N17 Rabaere loteba	3	b										
14	Notoue	Matiota Tikataak		b.	••••		••		••••••			••••••		
15	Abaokoro	Al6 Ierubaara Boobu	. 3	b.										
16	Abaokoro	A01 Abakuka keeba	6	b										
	Abaokoro	A33 Tioti	4	b	Í		÷ .							
	Abaokoro	A04 Beia Toara	6	b				÷						
	Abaokoro	All Obeta	10											
	Abaokoro	A15 Tamoaieta Tewair	e   10	b										
21	Abaokoro	A21 Temarawa Kawitu	4	b										
		Tanimakin Nooti	4	b										
23	Abaokoro	Tawita Teibira	7	b										
24	Abaokoro	A12 Ribabaiti Neneia	ı   7	b										
25	Abaokoro	A20 Tem Bouua	5	b b										
26	Abaokoro	A25 Towawea	1	b										
27	Abaokoro	A17 Tebuaka	1	b. (		g suc	h as	bread/	/buns (	etc				
28	Abaokoro	A10 Naitiria Tamton	5	b, c	Cooking:	g bun	is/bre	ad						
	- E	Maurin Tekeraoi	1 7											
29	1.	A22 Tetake Tekai	1 7											
	Abaokoro	405 Ekeieta Ititaak												
	Abaokoro	The second se		1										
	Abaokoro		5							••••••			•	
33	Abaokoro					••••••								
34	Marenauka	M04 Moauea	. 2											
35	Marenauka	M07 Ten Tateraka				•								
1	liabonibai	alla Toanii Takaio												
37	[abonibai	aTO6 Ranangaki Matin	i ar c						÷.,					
38	ffabonibai	aT23 Maeiueo Tekeaug		-		•								
39	Tabonibar	allis Teaotai Ngaia												
44	Taboniba	a Ueanteiti Tetik	a							•••••				
40	Kainaba	K11 Tebuatei Abiete	- 10											
	Kainaba	K14 Ueanna Temanika		- F		.1								
	Kainaba	K10 Taake Tetaua	8											
	Kainaba	KO4 Birikaua Taboka	i′	l b		<u> </u>							·	~
fota				a		0	ч. <sup>1</sup>			· )/_ 0	ጥኤ— የ	V		
lota			1	b		44	[r= 1,	N=13,	A=19,	M= Z,	ן בםן די ^	, <u>∧</u> = ( vv	k, )	
				с	-	3	[r= 0,	N= 1.	A= 2.	M= U,	1b= 0	, <u>k</u> = (	,	
	1	I .	F	1	1 .	I								

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## Q12 Time of the housewife

0.	Villages	ID and name of household	No.of family	a	and other family members changed Not change from before Increased Decreased Do not know
			Q	b	
	laratai	R28 Arito	8	b	
2	Notoue	N22 Tarube	18	Б	
3	Notoue	N35 Utimawa Tominiko	8	b	
4	Notoue	N30 Teriraki Kaaia	14	b	
5	Notoue	N31 Tianiware	7	b	
6	Notoue	N37 Tebike lotebwa	4	b	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo		Ъ	
9	Notoue	N16 Mikaere Timaia	5 5	b	
10	Notoue	N32 Tikanro		_	
11	Notoue	NO3 Bentara	5	b	
12	Notoue	NO4 Buretaake	- 4	b	
13	Notoue	N17 Rabaere loteba	3	b	
14	Notoue	Matiota Tikataake	5	<u>b</u>	• • • • • • • • • • • • • • • • • • • •
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Араокого	A33 Tioti	4	Ь	
18		A04 Beia Toara	6	b	
19	(1) (1) (2) (2) (3)	All Obeta	10	b	
20	4 . 5	A15 Tamoaieta Tewaire	10	b	
21	· ·	A21 Temarawa Kawitu	4	b	
22	1	Tanimakin Nooti	4	b	
-23	- { ·	Tawita Teibira	7	b	
24	f i sa se	A12 Ribabaiti Neneia	7	b	
25			5	b	
_		A25 Towawea	1	b	
26	- <b>1</b>	A17 Tebuaka	1	b	
27		Alo Naitiria Tamton	5	b	
28	<u>,                                     </u>	Maurin Tekeraoi	1		
29			7		
30		A22 Tetake Tekai	8	1	
31	Abaokoro	A05 Ekeieta Ititaake		1 · ·	
32		A18 Tekakiabo	- 6 - 5		
33	Abaokoro	Kakiabo Tenanoa	5		
34	Marenauka	M04 Moauea	. 8		
33	Marenauka	M07 Ten Tateraka	2		
36	Tabonibar	aT18 Toanii Takaio	4		
. 37	Tabonibar	aTOS Ranangaki Matinna	ir 8		
38	Tabonibar	aT23 Maeiueo Tekeaugi	6	1 1	
39	Taboniba	al[15 Teaotai Ngaia	6	1 L	
47	Tabonibar	a Ueanteiti Tetika	3	b	2
	Kainaba	K11 Tebuatei Abiete	10		
Â.	Kainaba	K14 Ueanna Temanikaai	10	b	b
	Kainaba	K10 Taake Tetaua	8	b	
	Kainaba	KO4 Birikaua Tabokai	1	b	b
		HUT DILINGUG IGONGI		a	
fota	11			b	1 - 10 = 10 = 10 = 10 = 10 = 10 = 10 = 1
		The second se		c	
				d	
	an an an			<sup>u</sup>	

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### Q13 The time for homework

	L			N		after installing the PV lighting system ?
0.	Villages			No.of	้ล	Not change
		nous	ehold	family		Increased Others
	1 a.		1		· C	Uthers
	r	0.00	Arito	8	b	
	Taratai		Tarube	5	b	
	Notoue Notoue		Utimawa Tominiko	18	b	
	Notoue	r	Teriraki Kaaia	8	Ь	· · · · · · · · · · · · · · · · · · ·
		<b>r</b>	Tianiware	14	b	
	Notoue		Tebike lotebwa	7	b-	1
-			Keiti	4	b	
-	Notoue		Roniiti Tetabo	1	b	
g	Notoue	4 1 A.M.	Mikaere Timaia	5	b	
10	Notoue	1 ° °	Tikanro	5	Ъ	
	Notoue	1	Bentara	5	b	
_	Notoue	1	Buretaake	4	b	
	Notoue		Rabaere loteba	3	b	
	Notoue		Matiota Tikataake	5	b	
	Abaokoro		Terubaara Boobu	3	b	
	Abaokoro		Abakuka keeba	6	b	
	Abaokoro	A33	Tioti	4	ь	
		A04	Beia Toara	6	b	
			Obeta	10	b	
	Abaokoro	(	Tamoaieta Tewaire	10	b	
21	Abaokoro	A21	Temarawa Kawitu	4	b	
	- Fi	<b>.</b>	Tanimakin Nooti	4	b	
	Abaokoro		Tawita Teibira	7	Ь	
24	A set of the set of	A12	Ribabaiti Neneia	1	b	
25	Abaokoro	A20	Tem Bouua	5	b	
26		A25	Towawea	1	· b	
27	Abaokoro	A17	Tebuaka	1	c	No child
28	Abaokoro	A10	Naitiria Tamton	5	b	
29	Abaokoro	1 · .	Maurin Tekeraoi	1	c	Children not yet in school
30	Abaokoro		Tetake Tekai	7	b	
	Abaokoro		Ekeieta Ititaake	8	b	
			Tekakiabo	6	b	
	Abaokoro		Kakiabo Tenanoa	5	b	
34	Marenauka	M04		8	b	
		M07	Ten Tateraka	2	c	Tateraka brother's sons , danghrer have their opportunity of
				<u> </u>		using the solar light for study
36	Tabonibar	a[Γ18	Toanii Takaio	4	1.	
37	labonibar	a[T06	Ranangaki Matinna	r 8	b	
-38	Tabonibar	aT23	Maeiueo Tekeaugi	6	b	
			Teaotai Ngaia	: 6	Ь	
- 44	Tabonibar		Ueanteiti Tetika	3	b	
	Kainaba		Tebuatei Abiete	10	c	No children, Only adult
	Kainaba	<b>K14</b>	Ueanna Temanikaai	10	b	
	Kainaba	ł	Taake Tetaua	8	b	
	Kainaba		Birikaua Tabokai	1	b	
lota		1			a	
					b	
÷					c	4 fr= 0, N= 0, A= 2, M= 1, Tb= 0, K= 1,
				1		
				1 .	1	

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# Q14 The time to go to bed

			and the second	1.1.1	installing the PV lighting system ?
	1110000	ID and name of	No. of	a	
		household	family	4 3	Later (before: after: )
		nousenoru		c	Others
				Ĩ	
	n an				
			8	b	
	Taratai	R28 Arito	5		before: Early, after: Late
		N22 Tarube		b	
3	Notoue	N35 Utimawa Tominil		1	beloie. Lailj, altor, hato
4	Notoue	N30 Teriraki Kaaia	8	D	hafara, Farly oftar: 12te
5	Notoue	N31 Tianiware	14	b	before: Early, after: Late
6	Notoue	N37 Tebike lotebwa		b	
1	Notoue	N10 Keiti	4	Ъ	before: Early, after: Late
8	Notoue	N38 Roniiti Tetabo		b	before: Early, after: Late
9	Notoue	N16 Mikaere Timaia	5	b	before: Early, after: Late
10	Notoue	N32 Tikanro	5	b	before: Early, after: Late
	Notoue	NO3 Bentara	5	b	before: Early, after: Late
	Notoue	NO4 Buretaake	4	b	
	Notoue	N17 Rabaere loteba	3	· b	
	Notoue	Matiota Tikata		Ь	before: Early, after: Late
	Abaokoro	Al6 lerubaara Boob		b	before: Early, after: Late
	Abaokoro	A01 Abakuka keeba	6	Ь	before: Early, after: Late
		A33 Tioti	4	Ь	before: Early, after: Late
	Abaokoro	A04 Beia Toara	6	Ъ	- D. L Change Labo
	Abaokoro	All Obeta	10	-	D No Change Labo
	Abaokoro	Als Tamoaieta Tewa	1		n D tu officer lato
	Abaokoro		•		
	Abaokoro	A21 Temarawa Kawit		1 -	
	Abaokoro	Tanimakin Noot		-	a plan stand late
	Abaokoro	Tawita Teibira			the contraction late
24	Abaokoro	A12 Ribabaiti Nene	ia 7		Deloie. Edily, alter. Late
25	Abaokoro	A20 Tem Bouua	5		
26	Abaokoro	A25 Towawea	7		
	1.2.1	A17 Tebuaka	. 1		
	Abaokoro	A10 Naitiria Tamto	n 5	b	
	Abaokoro	Maurin Tekerao	i 7	b	
	Abaokoro	A22 Tetake Tekai	7	b	
	Abaokoro	A05 Ekeieta Ititaa	ke 8	b	before: Early, after: Late
		A18 Tekakiabo	6	Ь	
	1	Kakiabo Tenano		- F -	
33	HOADKOLO	M04 Moauea	8		A so in the second s
34	marenauka	NOT Ton Tatoraka	2		D 1 Change Lato
35	магепацка	M07 Ten Tateraka	4		D due offere late
36	llabonibar	all8 Toanii Takaio			the Dist China Labo
31	fabonibar	aTO6 Ranangaki Mati		11	a D J
38	Tabonibar	aT23 Maeiueo Tekeau	igi 6	t .	B - In after late
39	Tabonibar	aT15 Teaotai Ngaia	. 6		Defute, Bally, alter, baco
44	labonibar	a Ueanteiti Teti	ka 3		
	Kainaba	K11 Tebuatei Abiet	e   10	- I	
	Kainaba	X14 Ueanna Temanik		b	
	Kainaba	X10 Taake Tetaua	8	b	before: Early, after: Late
	Kainaba _	KO4 Birikaua Tabok	ai 7	b	
				a	0
ota	L s t		1	b	1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +
				c	
	1	1 · · ·		- I - Y	

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### Q15 Social activity

	entificati	Sh .			as social activity changed between neighbors in your house fter installing the PV lighting system
		ID and name of	lo. of		Not change
).			family	•	Increased
		household	1 ani 1 1 J		Others
				C.	
			8	b	
		R28 Arito			
	{	N22 Tarube	5	b	
	10.0040	N35 Utimawa Tominiko	18	b	
4		N30 Teriraki Kaaia	8	b	
5		N31 Tianiware	14	b	
6		N37 Tebike lotebwa	7	b	
7		N10 Keiti	4	b	
8		N38 Roniiti Tetabo	7	-p	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
	Notoue	NO3 Bentara	÷ - 5	b	
		NO4 Buretaake	4	b	
	Notoue	N17 Rabaere loteba	3	b '	Neighbors played cards etc
	Notoue	Matiota Tikataake	5	b	
	Abaokoro	A16 lerubaara Boobu	3	b	
		A01 Abakuka keeba	6	Ъ	
17	Abaokoro	A33 Tioti	4	Ь	
		A04 Beia Toara	6	Ι b	
		All Obeta	10	Ь	
		All Tamoaieta Tewaire	10	Ь	
		A21 Temarawa Kawitu	4	b	
	Abaokoro	Tanimakin Nooti	4	b	
	Abaokoro		1	a	Most of the Neighborhood have PV systems.
	Abaokoro	Tawita Teibira	1		Neighborhood have PV systems.
24	ſ	A12 Ribabaiti Neneia		1	
	Abaokoro	A20 Tem Bouua	5	1	
26	Abaokoro	A25 Towawea	1	- E - F	Most of neighborhood have PV system been installed.
27	Abaokoro	A17 Tebuaka	1		Most of neighborhood have if system occur instarted.
28	Abaokoro	A10 Naitiria Tamton	5		Neighborhood have PV systems.
29	Abaokoro	Maurin Tekeraoi	7		
30	Abaokoro	A22 Tetake Tekai	7		
31	Abaokoro	A05 Ekeieta Ititaake	8	b.	
	Abaokoro	A18 Tekakiabo	6	1	
33			5	b	
34		M04 Moauea	-8	c	No neighborhood.
35	Marenauka	M07 Ten Tateraka	2	b	
	Tabonibar	aT18 Toanii Takaio	4		
27	Tabonibar	aTO6 Ranangaki Matinna	8 ח	b	
20 20	Tahonihar	aT23 Maeiueo Tekeaugi	6		
- 90	Tabonibar	aT15 Teaotai Ngaia	6		
33	Taboniban	a Ueanteiti Tetika	3	1 -	
44	Vainata	K11 Tebuatei Abiete	10	***	Yes, meet together and play cards etc.
		K14 Ueanna Temanikaai	10		To meet.
	Kainaba		8		
	Kainaba	K10 Taake Tetaua			Neighbors meet together.
43	Kainaba	KO4 Birikaua Tabokai			2  [Tr = 0, N= 0, A= 2, M= 0, Tb= 0, = 0,
lota	1			a	2  [I] = 0,  N = 0,  A = 2,  m = 0,  ID = 0,  =  0, 37 [I] = 1, N=13, A=15, M= 1, Tb= 5, = 2,
				b	$37 \mu r = 1$ , N=13, A=13, m=1, 10= 3, = 2, 5 $\mu r = 0$ , N= 0, A= 2, M= 1, Tb= 0, = 2,
	•				
				C	$5    1^{-1} 0,    1^{-1} 0,    1^{-1} 2,    1^{-1} 0,    2,    2,    1^{-1} 0,    2,    1^{-1} 0,    1^{-1}$

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# Ql6 The time of listening to radio or tape recorder

	entificati	~~~		c	Has the time spent listening to radio or tape recorder changed in your house after installing the PV system?
0.			No.of family	a b	Not change from before Increased
					Pecreased
				d	Others
	Taratai	R28 Arito	8	а	
		N22 Tarube	- 5	a	
		N35 Utimawa Tominiko	18	a	
		N30 Teriraki Kaaia	8	a	
		N31 Tianiware	14	a	
		N37 Tebike lotebwa	1	a	
1	r -	N10 Keiti	4	Ь	
r 8:		N38 Roniiti Tetabo	1	Ъ	
<u> </u>		N16 Mikaere Timaia	5	Ь	
10		N32 Tikanro	5	Ъ	
11	1.0.000	NO3 Bentara	5	b	
11		NO4 Buretaake	4	Ь	
		N17 Rabaere loteba	3	b	
13	Notoue Notoue	Matiota Tikataake	5	b	
-14		A16 Ierubaara Boobu	3	b	
		A01 Abakuka keeba	6	b	
16			4	Ь	
17	(	A33 Tioti	6	b	
18	Abaokoro	A04 Beia Toara	· ·	b	
19	Abaokoro	All Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	1	1 -	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	1	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	1 7	b.	1
24	Abaokoro	A12 Ribabaiti Neneia	1	b	· · · · · · · · · · · · · · · · · · ·
25	Abaokoro	A20 Tem Bouua	5	b	
26	Abaokoro	A25 Towawea	7	b.	
27	Abaokoro	A17 Tebuaka	1	b	
28	Abaokoro	A10 Naitiria Tamton	5	b.	
29	Abaokoro	Maurin Tekeraoi	1	b	
30	Abaokoro	A22 Tetake Tekai	1 7	b	
31	Abaokoro	AO5 Ekeieta Ititaake	8	b	
	Abaokoro	A18 Tekakiabo	6	b	
	Abaokoro	Kakiabo Tenanoa	5	a	
21	Haronauka	M04 Moauea	8		
	Marchauka	M07 Ten Tateraka	2		
20	Marenauka	aT18 Toanii Takaio	4		
30	I aboni bar	a[06 Ranangaki Matinna	1		
37	labonibar	aluo Kanangaki matima	6		
38	labonibar	aT23 Maeiueo Tekeaugi	6		
39	labonibar	aT15 Teaotai Ngaia	3		
		a <u>Ueanteiti Tetika</u>	*********		
	Kainaba	K11 Tebuatei Abiete	10		
41	Kainaba	K14 Ueanna Temanikaai			
42	Kainaba	K10 Taake Tetaua	8		
47	Kainaba	KO4 Birikaua Tabokai	1	<u>a</u>	
Tota				a	$\begin{array}{c} 11 \\ 11 \\ 11 \\ 11 \\ 11 \\ 11 \\ 11 \\ 11$
				· b.	
	1 · · ·	1 S S S S S S S S S S S S S S S S S S S	1	c	
1		a second s	-	d	$\lambda$

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# Q17 Electric appliances to be powered from the PV system

Id	entificati	on		UTA I	Yhat kind of electric appliances does your family now want be powered from the PV system?
	c	ID and none of	No. of	a	Solar pump
0.		ID and name of	family		Solar refrigerator
		household	1 30113		Radio/Tape recorder/Video
				C	
				d	
				e	Washing machine
1	Taratai	R28 Arito	8		Solar water pump, Washing machine, Solar fridge
	Notoue	N22 Tarube	5		Solar fridge, Solar water pump etc
	Notoue	N35 Utimawa Tominiko	18	· .	Solar water pump
		N30 Teriraki Kaaia	8		Solar fridge, Solar water pump etc
		N31 Tianiware	14		Solar fridge, Solar water pump etc
		N37 Tebike lotebwa	7	:	Solar water pump, Fridge etc
1 A A A A A A A A A A A A A A A A A A A	101010	N10 Keiti	4		Solar pump
	1.0.00=0	N38 Roniiti Tetabo			Solar pump
8	Notoue	N16 Mikaere Timaia	5	1.	Solar pump
9	Notoue		5	1.2	Solar pump
10	Notoue	N32 Tikanro	5	ľ	Solar pump
11	Notoue	NO3 Bentara	1		Solar pump, Refrigerator
	Notoue	NO4 Buretaake	4		Solar pump
13	Notoue	N17 Rabaere loteba	3		Solar pump, Video, Refrigerator
14	Notoue	Matiota Tikataake	5	. <b> </b>	
. 15	Abaokoro	A16 lerubaara Boobu	3		Solar pump
16	Abaokoro	A01 Abakuka keeba	δ.		Solar pump
	Abaokoro	A33 Tioti	4	ŀ	Solar pump, Refrigerator
	Abaokoro	A04 Beia Toara	6		CB radio, Solar pump
	Abaokoro	All Obeta	10	1	Solar pump
20	Abaokoro	A15 Tamoaieta Tewaire	10		Solar pump, Radio
	Abaokoro	A21 Temarawa Kawitu	4		Solar pump
		Tanimakin Nooti	4	1	Solar pump, Refrigerator
	Abaokoro	Tawita Teibira	1 7	1	Solar pump, video, Refrigerator
23	Abaokoro		1	1	Solar pump
- 24	Abaokoro	A12 Ribabaiti Neneia	5		Solar pump
25	1.1.1.1	A20 Tem Bouua			Solar pump, Video, Refrigerator
	Abaokoro	A25 Towawea	1 7		
- 27	Abaokoro	A17 Tebuaka	1	1.	Solar pump
28	Abaokoro	A10 Naitiria Tamton	5		Solar pump
29	Abaokoro	Maurin Tekeraoi	7	·	Solar pump, Refrigerator
	Abaokoro	A22 Tetake Tekai	1		Refrigerator, Solar pump, Fan
	Abaokoro		8		Video, Refrigerator, Solar pump
			6		Solar pump, Fridge
	Abaokoro	Kakiabo Tenanoa	5		Solar pump etc
- 33	AUAUKUTU	M04 Moauea	8		Solar pump, CB radio
34	marenauka	1104 moauca	2		Solar pump
35	Marenauka	M07 Ten Tateraka	4		Refrigerator, recorder, Solar pump
36	labonibar	alla Toanii Takaio	_	l	Radio, Solar pump
- 37	Tabonibar	aƘO6 Ranangaki Matinna	щ °	1	Solar pump
38	Tabonibar	aT23 Maeiueo Tekeaugi	6		
39	Tabonibar	aT15 Teaotai Ngala	6	· .	Radio, Solar pump
44	Tabonibar	a Ueanteiti Tetika	3		Solar pump
40	Kainaba	K11 Tebuatei Abiete	10	1	Radio, Refrigerator
	Kainaba		10		Radio. Solar pump
	Kainaba	K10 Taake Tetaua	8		CB Radio etc
		K04 Birikaua Tabokai	1 7		Radio, Tape recorder, Refrigerator
	<u>Kainaba</u>	NU4 DILINGUA IGUNAL		a	Solar pump 41 [Tr=1, N=13, A=19, M=2, Tb=5, K=]
Tota	4		1	b	Solar refrigerator 18 [Tr=1, N= 6, A= 8, M=0, Tb=1, K=2
				-	Radio/Tape recorder/Video 15 [Tr=0, N= 1, A= 5, M=1, Tb=3, K=3
	1			C	T = 0 $N = 0 $ $A = 1 $ $N = 0 $ $T = 0$
				1 0	Fan $1 \mu r=0, n=0, A=1, m=0, 10=0, n=0$

## Q18 The vigor of villages

					Y system?						
0.	Villages	ID and name of	No. of	a	Not change	from	before				
		household	family	b	increased						
	1			¢	Do not kno	Ϋ́.					
						:					
	1.1.1										
1	Taratai	R28 Arito	8	b					<sup>.</sup>		••••••••
2	Notoue	N22 Tarube	5	b							
3	Notoue	N35 Utimawa Tominiko	18	Ъ							
4	Notoue	N30 Teriraki Kaaia	8	b	<b>.</b>						
5	Notoue	N31 Tianiware	14	b	. I						
ŝ	Notoue	N37 Tebike lotebwa	1	b	1						
7	Notoue	N10 Keiti	4	b							
8	Notoue	N38 Roniiti Tetabo	1	b							
g	Notoue	N16 Mikaere Timaia	5	b							
10	Notoue	N32 Tikanro	5	b			•				
-11	Notoue	NO3 Bentara	5	b	1						
12		NO4 Buretaake	4	b							1 A
13	- F	N17 Rabaere loteba	3	b				÷			
14		Matiota Tikataake	1	b							·····
	Abaokoro	A16 lerubaara Boobu	3	b							
15		A01 Abakuka keeba	6	b.							
16	Abaokoro	A33 Tioti	4	b							
17	1 .	A04 Beia Toara	6	b					·		
18	Abaokoro	All Obeta	10	b		•					
19		A15 Tamoaieta Tewaire		b							
20	(	A21 Temarawa Kawitu	4	b							
21		Tanimakin Nooti	4	b							
22		Tawita Teibira	1	b							
23			1	b							
24	(*****	A12 Ribabaiti Neneia	5	b			•				
25		A20 Tem Bouua	7	b							
26	- F	A25 Towawea	1 .	b	1.						
27		A17 Tebuaka		1 -		:					
-28	Abaokoro	AlO Naitiria Tamton	5								
29	Abaokoro	Maurin Tekeraoi	1	b							
30	Abaokoro	A22 Tetake Tekai	1	b							
31	Abaokoro	A05 Ekeieta Ititaake	- 8	b							
32	Abaokoro	A18 Tekakiabo	6	.1							÷
	Abaokoro	Kakiabo Tenanoa	5				••••••		••••••		
34	Marenauka	M04 Moauea	8	1							
-35	Marenauka	M07 Ten Tateraka	2	b					••••••		
36	Tabonibar	aT18 Toanii Takaio	4	b							
31	fahonibar	allos Ranangaki Matinna	ir 8	Ъ			· •				
20	Tabonihar	aT23 Maeiueo Tekeaugi	6	b							
20	Tahonihar	allo Teaotai Ngaia	6	b							
ני גג	Tabonibar	a Ueanteiti Tetika	3	b							
	Kainaba		10								
		K14 Ueanna Temanikaai									
41	f f f f f f f f f f f f f f f f f f f	K10 Taake Tetaua	8								
	Kainaba										
	Kainaba	KO4 Birikaua Tabokai				Т					
Tota	ull in the second se		1 - F	a	1	$T_{T} = 1$	1, N=13, A	=19. M= 2	. Tb= 5.	K= 4.	
				b		11 <b>-</b>	r, n-rv, n	1. J.	,/	-1	
				¢	0						
1.1	- I +		1			1					

# Q19 Change between households having the PV system and households not having

I	ientificati	on	· · · ·	Q19 \	What kind	01 stem	and hous	s occur eholds	not havin	g the PY	system	?
0,	Willegen	ID and name of	No. of	a	No change							
υ,	Villages	household	family		Household	is n	ot having	the PV	system a	re jealou	is of	
		nousenera		-	household	ls h	aving the	PV lig	hting sys	tem.		•
				c	Others		-					
1	Taratai	R28 Arito	8	b								
2	Notoue	N22 Tarube	5	b								
3	Notoue	N35 Utimawa Tominiko	18	b								
4	Notoue	N30 Teriraki Kaaia	8	b								
5	Notoue	N31 Tianiware	14	b								
6	Notoue	N37 Tebike lotebwa	7	b								
. 1	Notoue	N10 Keiti	4	Ъ								
8	Notoue	N38 Roniiti Tetabo	7	Б								
9	Notoue	N16 Mikaere Timaia	5	b								
10	1.	N32 Tikanro	5	Ъ								
11		NO3 Bentara	5	Ь								
12		NO4 Buretaake	4	Ь								
13		N17 Rabaere loteba	3	Ъ								
13	1 .	Matiota Tikataake	5	b	* 							
14		A16 lerubaara Boobu	3	b								
-		A01 Abakuka keeba	6	b					1			
16		A33 Tioti	4	b								
17			6	Ь								
18		All Obeta	10	Ъ	1							
19		A15 Tamoaieta Tewaire					•					
20			4	b								
21		A21 Temarawa Kawitu		b								
	Abaokoro	Tanimakin Nooti	4	b								
	Abaokoro	Tawita Teibira	· ·									
	Abaokoro	A12 Ribabaiti Neneia	1 7	1								
	Abaokoro	A20 Tem Bouua	5	b	· · ·							
.26	Abaokoro	A25 Towawea	1 7	b								
27		A17 Tebuaka	1. 1	I .								
28		AlO Naitiria Tamton	5	1								
-29	Abaokoro	Maurin Tekeraoi	1 7									
30	Abaokoro	A22 Tetake Tekai	1	b								
31	Abaokoro	A05 Ekeieta Ititaake	8	b								
. 32	Abaokoro	A18 Tekakiabo	6									
33		Kakiabo Tenanoa										
34	1 Marenauka	MO4 Moauea	8									
3	5 Marenauka	M07 Ten Tateraka	2	b								
3(	5 Tabonibar	all8 Toanii Takaio	4	b								
31	1 Tahonihar	aTO6 Ranangaki Matinna	ar -8	b								
38	R Tabonibar	aT23 Maeiueo Tekeaugi	6	Ь								
3	9 Tahonihar	aT15 Teaotai Ngaia	- <b>6</b>	b								
4	. L		3	b								
4· 4(		K11 Tebuatei Abiete	10									
-	l Kainaba				1							
		K10 Taake Tetaua				1.						
4		KO4 Birikaua Tabokai		i b		1						
	<u>3 Kainaba</u>	NUA DITINAUA IAUUNAI				0						
[ot	all		1	b		~ 1	r= 1 N=1	3 A=19	M= 2. TH	o= 5, K=	4,	
:				1 -		'nľ	· · · ·			-		
· ·				c		×		I				

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### Q20 Want to install a PV system

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				`.'	vant to	inst	all	a ry	-11g	ព្រហរ	<u>s</u> sy	Stea	<u> </u>					
	Villages	1D and name of	No. of	a	Yes, t						<b></b>							
<b>.</b> '		household	family	· · · ·	No, th	•			t to	1								
:		nousenora	is called a	c l	Do not													
				ľ		11100												
			1 N.															
		000 daite	8	a		•		~ ~ ~ ~ ~										
		R28 Arito	5	a			•••••	******			•••••	•••••	•••••					
		N22 Tarube N35 Utimawa Tominiko	18	a														
		N30 Teriraki Kaaia		a														
	100000	N30 Terifaki kaala N31 Tianiware	14	a														
		N37 Tebike lotebwa	1 1	a														
	Notoue	f		a														
	Notoue	N10 Keiti		a														
	Notoue	N38 Roniiti Tetabo		a														
.9	Notoue	N16 Mikaere Timala	5	-														
1.11	Notoue	N32 Tikanro	5	a														
11	Notoue	NO3 Bentara		a														
	Notoue	NO4 Buretazke	4	a														
	Notoue	N17 Rabaere loteba	3	a														
	Notoue	Matiota Tikataake		<u>a</u> .		••••••	•••••							•••••				•••••
· ·	Abaokoro	A16 Ierubaara Boobu	3	a														
	Abaokoro	A01 Abakuka keeba	6	a														
	Abaokoro	A33 Tioti	4	a														
	Abaokoro	A04 Beia Toara	6	a														
	Abaokoro	All Obeta	10	a														
20	Abaokoro	A15 Tamoaieta Tewaire		a														
21	Abaokoro	A21 Temarawa Kawitu	4	a														
22	Abaokoro	Tanimakin Nooti	4	a														
23	Abaokoro	Tawita Teibira	1 7	l a														
24	Abaokoro	Al2 Ribabaiti Neneia	1	a														
25	Abaokoro	A20 Tem Bouua	5	a														
26	Abaokoro	A25 Towawea	7	a														
27	Abaokoro	A17 Tebuaka	1	a														
28	Abaokoro	AlO Naitiria Tamton	5	a					•									
29	Abaokoro	Maurin Tekeraoi	1 1	a														
30	Abaokoro	A22 Tetake Tekai	1	a												:		
31		A05 Ekeieta Ititaake	8	·a														
		A18 Tekakiabo	. 6	a														
		Kakiabo Tenanoa	5	a													•••••	
		MO4 Moauea	8															
		M07 Ten Tateraka	- 2	a				•.										
36	Tabonibar	all8 Toanii Takaio	4															
30 27	Tabonibar	allo Ranangaki Matinna	1	1														
- 20 - 20	Tabonibar	aT23 Maeiueo Tekeaugi	6															
		allo Teaotai Ngala	6															
31	Tabonibar	a Ueanteiti Tetika	3															•••••
. 44	Rabonioal	K11 Tebuatei Abiete	10		••••													
	Kainaba	K14 Ueanna Temanikaa																
	Kainaba		8		1					5								
	Kainaba	K10 Taake Tetaua	0												•			
	Kainaba	KO4 Birikaua Tabokai		a			hr=	1 N	=12	A=19	N K	= 2	Th≃	5	K= 6			
ota	1			a b		44 0	µ.1 <sup>−</sup> .	T' I)	-1J,	u-1	, m	4.,	10.	۰,		••		
				b		_	1											
				C		0	l				·							
	1 .		L .		1													

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## Q21 Participating in meeting

ld	lentificati		<u> </u>			las there been any change in your participating in meetings held in your village?
0.	Villages			Vo.of family	a	Participate as much as before installing the PV lighting system Deceased in participation No change and always attend meetings
1	Taratai		Arito	8	c	
2	Notoue		Tarube	5	C.	
3	Notoue	f	Utimawa Tominiko	18	a	
4	Notoue	F	Teriraki Kaaia	8	c	
5	Notoue	1 · · · ·	Tianiware	14	b	
6	Notoue		Tebike lotebwa	7	a	
1	Notoue		Keiti	4	C	No change
8	Notoue		Roniiti Tetabo	1	C	No change
9.	Notoue	N16	Mikaere Timaia	5	C	No change
10	Notoue	- <b>b</b> - b - b - b - b - b - b - b - b - b -	Tikanro	- 5	C.	No change
11	Notoue	1	Bentara	5	C	No change
12	Notoue		Buretaake	4	C .	No change
13	Notoue		Rabaere loteba	3	c	No change
14	Notoue		<u>Matiota Tikataake</u>	5	<u>  c</u>	No change
15	Abaokoro		lerubaara Boobu	. 3	C	No change
16	Abaokoro	A01	Abakuka keeba	6	C	No change
17	Abaokoro	A33	Tioti	4	c	No change
18	Abaokoro	A04	Beia Toara	6	c	No change
19	Abaokoro	A11	Obeta	10	c c	No change
20	Abaokoro		Tamoaieta Tewaire	10	, c	No change
21	Abaokoro		Temarawa Kawitu	4	c	No change
22	Abaokoro		Tanimakin Nooti	4	c	No change
23	f.		Tawita Teibira	1	c	Always attend
-	Abaokoro	A12	Ribabaiti Neneia	. 7	c	Always attend
25	Араокого		Tem Bouua	5	c	No change
26	Abaokoro	1	Точачеа	7	c	No change
27	1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C		Tebuaka	- 1	c	No change
28			Naitiria Tamton	5	l c	No change
			Maurin Tekeraoi	7	c	Always: attend
	Abaokoro	122	Tetake Tekai	1	l c	Always attend
	Abaokoro	- 1 · .	Ekeieta Ititaake	8	c	Always attend
21	Abaokoro		Tekakiabo	6	c	No change
			Kakiabo Tenanoa	5	4	
	Marenauka			8	c	No change, always attend meetings
			Ten Tateraka	2		No change
				4	c	
			Toanii Takaio Ranangaki Matingay		l c	No change meetings held in the village should be attended
			Ranangaki Matinnar Masiyos Takasugi		l c	
			Maeiueo Tekeaugi	6		Always attend the meeting held in the village
			Teaotai Ngaia	•		No change
		a	Ueanteiti Tetika	3		<u>110 VIIIII150</u>
40	Kainaba		Tebuatei Abiete	10		
			Ueanna Temanikaai	10		
42			Taake Tetaua	8	1	
43	Kainaba	<u> X04</u>	Birikaua Tabokai	1 7	<u>b</u>	$\pi = 0$ $N_{-} = 0$ $A_{-} = 1$ $N_{-} = 1$ $T_{-} = 0$ $V_{-} = 2$
Fota	1	2		1.	a	7 [ $\Gamma r = 0$ , N = 2, A = 1, M = 1, Tb = 0, K = 3,
- 1 - 1 <sup>-1</sup> - 1		1.1			b.	2 [Tr = 0, N = 1, A = 0, M = 0, Tb = 0, K = 1,
				1	c	35 $Tr = 1$ , N=10, A=18, M= 1, Tb= 5, K= 0,
: 4						
		1		l: .	1	

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#### Household survey following installation PV systems

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- 1. Identification data
  - Q1. Date

Name of interviewer

Q2. Village name

Name of household head (

Number of family

- 2. PV lighting system questions
  - Q3. Regarding the fee of PV system ; What is your family's feeling about it compared with kerosene lamps ?
    - a. Cheaper
    - b. About the same
    - c. Expensive
  - Q4. How about the convenience of the PV lighting system? What is your family's feeling about it compared with kerosene lamp ?
    - a. More convenient
    - b. About the same as kerosene
    - c. Less convenient
      - Reason (

Q5. What complains does your family have about the PV lighting system ?

- a. Not enough lighting
- b. Time
- c Technical trouble
- d. Insects
- e. Others

- Q6. What kind of additional functions does your family want
  from the PV system ?
  a. More light (How many )
  b. Power outlet (What purposes )
  c. Others ( )
- Q7. What kind of services does your family need from the SEC that your family does not get now ?
  - a. Quick Repair (
  - b. Move equipment
  - c. Add equipment
  - d. Others
- Q8. How does your family use its kerosene lamps after installing the PV lighting system ?
  - a. Not change from before

(

- b. Changed
- Q9. Has use of your family's torch decreased after installing the PV lighting system ?

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- a. Not change from before
- b. Decreased
- 3. Question about the impact of the PV system to to your family's life style
- Q10. Has time of production activity increased at night or in your house after installing the PV lighting system ?
  - a. Not change
  - b. Activity time for fishing and agriculture increased
    c. Activity time for hand crafts increased
    d. Others ( )
- Q11. What kind of change has it caused for a housewife's works (such as kitchen work, washing and sweeping) after installing PV lighting system ? a. Not change from before b. Some of the works are done faster or easier
  - c. Others (
- Q12. Has the time which the housewife spent with her children and other family members changed.
  - a. Not change from before
  - b. Increased
  - c. Decreased
  - d. Do not know

- Q13. Has the time to study homework by your children increased after installing the PV lighting system ? a. Not change
  - b. Increased

c. Others (

Q14. Has the time to go to bed changed in your house after installing the PV lighting system ? a. Not change from before b. Later (Before: after: ) )

c. Others (

- Q15. Has social activity changed between neighbors in your house after installing the the PV lighting system ? a. Not change
  - b. Increased
  - c. Other (
- Q16. Has the time spent listening to radio or tape recorder changed in your house after installing the PV system ?

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- a. Not change from before
- b. Increased
- c. Decreased
- d. Other (
- Q17. What kind of electric appliances does your family now want to be powered from the PV system ?
  - (
- 4. Question about your opinions regarding the social impact of the PV systems
  - Q18. Has the vigor of your village changed after installing the PV lighting system?
    - a. Not change from before

b. Increased

- c. Do not know
- Q19. What kind of change has occurred between households having the PV system and households not having the PV system ?
  - a. No change from before
  - b. Households not having the PV system are jealous of households having the PV lighting system

c. Others (

Q20. Do some of the households not having the PV system now want to install a PV lighting system ?

a. Yes, they want to

b. No, they do not want to

c. Do not know

Q21. Has there been any change in your participating in meetings held in your village?

a. Participate as much as before installing the PV lighting system

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b. Deceased in participation

c. Others (

