ＰＶシステム導入後の世帯調査

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,····) 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)

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. 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 ---------- 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)

Q6. What kind of additional functions does your family want from the PV system ?

a. More light ---------- 44
(4 more light: 1 HH)
(3 more light: 13 HH)
(2 more light: 18 HH)
(1 more light: 9 HH)
(Others : 3 HH)
b. Power outlet (What purposes ---------- 44
(Radio: 44 HH)
(Tape recorder:12 HH)
(Refrigerator : 2 HH)
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 buia to the 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)

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

a. Not change from before ---------- 0
b. Decreased ---------- 43
c. Others ---------- 1
(no torch 1 HH)

3. Question about the impact of the PV system 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 ---------- 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

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 ---------- 0

b. Some of the works are done faster or easier -- 44
c. Others ---------- 3
(Cooking : 2 HH)

Q12. Has the time which the housewife spent with her children and other family members changed.
a. Not change from before ---------- 0
b. Increased ---------- 44
c. Decreased ---------- 0
d. Do not know ---------- 0

Q13. Has the time to study homework by your children increased after installing the PV lighting system ?
a. Not change ---------- 0
b. Increased ---------- 39
c. Others ---------- 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 after 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 your house after installing the the PV lighting system ?
a. Not change ---------- 2
(Most of neighbors have PV systems : 2 HH)
b. Increased ---------- 37
(The neighbor meet together : 1 HH)
c. Other ---------- 5
(The neighbor played cards : 2 HH)
(Most of neighbors have PV system : 2 HH)
(No neighbor : 1 HH)

Q16. Has the time spent listening to radio or tape recorder changed in your house after installing the PV system ?
a. Not change from before ---------- 11
b. Increased ---------- 29
c. Decreased ---------- 0
d. Other ---------- 4
(Radio batteries are Expensive : 1 HH)

Q17. What kind of electric appliances does your family now want to be powered from the PV system ?
(Solar pump : 41 HH)
(Radio/Recorder/Video : 15 HH)
(Washing machine : 1 HH)
(Fan : 1 HH)

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 ---------- 0
b. Increased ---------- 44
c. Do not know ---------- 0

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 ---------- 0
b. Households not having the PV system are jealous of households having the PV lighting system --- 44
c. Others ---------- 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 ---------- 2
c. No change and always attend meetings ---------- 35
(No change : 23 HH)
(Always attend meetings : 10 HH)
(Others : 2 HH)

Q2 Income and kerosene consumption

Identification				Occupation	Income (A$)	Kerosene consumption	
No.	Villages	ID & name of household	No. of family		A$/month	Litre/month	A$/month
1	Taratai	R28 Arito	8	N. A.		4.00	3.00
2	Notoue	N22 Tarube	5	Fishing	200	4.00	3.00
3	Notoue	N35 Utimawa Tominiko	18	Worker	1,560	30.00	22.50
4	Notoue	N30 Teriraki Kaaia	8	Agriculture	1,090	4.00	3.00
5	Notoue	N31 Tianiware	14	Fishing	2,060	4.00	3.00
6	Notoue	N37 Tebike Iotebwa	7	Agriculture	1,200	16.00	12.00
7	Notoue	N10 Keiti	4	Agriculture	1,000	4.00	3.00
8	Notoue	N38 Roniiti Tetabo	7	Fishing	1,080	30.00	22.50
9	Notoue	N16 Mikaere Timaia	5	Worker	3,440	4.00	3.00
10	Notoue	N32 Tikanro	5	Worker	300	4.00	3.00
11	Notoue	N03 Bentara	5	Agriculture	840	4.00	3.00
12	Notoue	N04 Buretaake	4	Agriculture	580	4.00	3.00
13	Notoue	N17 Rabaere Ioteba	3	Worker	2,400	30.00	22.50
14	Notoue	Matiota Tikataake	5				
15	Abaokoro	A16 Ierubaara Boobu	3	Police	1,440	4.00	3.00
16	Abaokoro	A01 Abakuka keeba	6	C. O. Police	2,500	20.00	15.00
17	Abaokoro	A33 Tioti	4				
18	Abaokoro	A04 Beia Toara	6	Government	3,400		
19	Abaokoro	A11 Obeta	10	Seaman	6,070	16.00	12.00
20	Abaokoro	A15 Tamoaieta Tewaire	10	Worker	5,540	4.00	3.00
21	Abaokoro	A21 Temarawa Kawitu	4	Government	2,740	4.00	3.00
22	Abaokoro	Tanimakin Nooti	4				
23	Abaokoro	Tawita Teibira	7				
24	Abaokoro	A12 Ribabaiti Neneia	7	Worker	1,296	16.00	12.00
25	Abaokoro	A20 Tem Bouua	5	Agriculture	100	4.00	3.00
26	Abaokoro	A25 Towawea	7	Worker	1,680	4.00	3.00
27	Abaokoro	A17 Tebuaka	1	Government	400	4.00	3.00
28	Abaokoro	A10 Naitiria Tamton	5	Worker	260	30.00	22.50
29	Abaokoro	Maurin Tekeraoi	7				
30	Abaokoro	A22 Tetake Tekai	7	Government	1,120	4.00	3.00
31	Abaokoro	A05 Ekeieta Ititaake	8	Agriculture	4,850	8.00	6.00
32	Abaokoro	A18 Tekakiabo	6	Government	600	4.00	3.00
33	Abaokoro	Kakiabo Tenanoa	5				
34	Marenauka	M04 Moauea	8	Agriculture	5,820	30.00	22.50
35	Marenauka	M07 Ten Tateraka	2	Agriculture	3,640	12.00	9.00
36	Tabonibara	T18 Toanii Takaio	4	Agriculture	4,560	30.00	22.50
37	Tabonibara	T06 Ranangaki Matinnar	8	Agriculture	4,820	30.00	22.50
38	Tabonibara	T23 Maeiueo Tekeaugi	6	Government	2,210	4.00	3.00
39	Tabonibara	T15 Teaotai Ngaia	6	Agriculture	3,970	2.00	1.50
44	Tabonibara	Ueanteiti Tetika	3				
40	Kainaba	K11 Tebuatei Abiete	10	Agriculture	1,800	32.00	24.00
41	Kainaba	K14 Ueanna Temanikaai	10	Agriculture	1,740	4.00	3.00
42	Kainaba	K10 Taake Tetaua	8	N. A.		16.00	12.00
43	Kainaba	K04 Birikaua Tabokai	7	Agriculture	400	30.00	22.50
Averages of households installed PV systems					2,192	12.61	9.46
Averages of households in the six villages					2,152	14.10	10.58

Q3 The fee of the PV system

Identification				Q3 Regarding the fee of PV system : What is your family's feeling about it compared with kerosene lamps ?		
No.	Villages	ID and name of household	No. of family	a b c	Cheaper About the same Expensive	
1	Taratai	R28 Arito	8	a		
2	Notoue	N22 Tarube	5	a		
3	Notoue	N35 Utimawa Tominiko	18	a		
4	Notoue	N30 Teriraki Kaaia	8	a		
5	Notoue	N31 Tianiware	14	a		
6	Notoue	N37 Tebike Iotebwa	7	a		
7	Notoue	N10 Keiti	4	a		
8	Notoue	N38 Roniiti Tetabo	7	a		
9	Notoue	N16 Mikaere Timaia	5	a		
10	Notoue	N32 Tikanro	5	a		
11	Notoue	N03 Bentara	5	a		
12	Notoue	N04 Buretaake	4	a		
13	Notoue	N17 Rabaere Ioteba	3	a		
14	Notoue	Matiota Tikataake	5	a		
15	Abaokoro	A16 Ierubaara Boobu	3	a		
16	Abaokoro	A01 Abakuka keeba	6	a		
17	Abaokoro	A33 Tioti	4	a		
18	Abaokoro	A04 Beia Toara	6	a		
19	Abaokoro	A11 Obeta	10	a		
20	Abaokoro	A15 Tamoaieta Tewaire	10	a		
21	Abaokoro	A21 Temarawa Kawitu	4	a		
22	Abaokoro	Tanimakin Nooti	4	a		
23	Abaokoro	Tawita Teibira	7	a		
24	Abaokoro	A12 Ribabaiti Neneia	7	a		
25	Abaokoro	A20 Tem Bouua	5	a		
26	Abaokoro	A25 Towawea	7	a		
27	Abaokoro	A17 Tebuaka	1	a		
28	Abaokoro	A10 Naitiria Tamton	5	a		
29	Abaokoro	Maurin Tekeraoi	7	a		
30	Abaokoro	A22 Tetake Tekai	7	a		
31	Abaokoro	A05 Ekeieta Ititaake	8	a		
32	Abaokoro	A18 Tekakiabo	6	a		
33	Abaokoro	Kakiabo Tenanoa	5	a		
34	Marenauka	M04 Moauea	8	a		
35	Marenauka	M07 Ten Tateraka	2	a		
36	Tabonibara	T18 Toanii Takaio	4	a		
37	Tabonibara	T06 Ranangaki Matinnar	8	a		
38	Tabonibara	T23 Maeiueo Tekeaugi	6	a		
39	Tabonibara	T15 Teaotai Ngaia	6	c		
44	Tabonibara	Ueanteiti Tetika	3	a		
40	Kainaba	K11 Tebuatei Abiete	10	a		
41	Kainaba	K14 Ueanna Temanikaai	10	a		
42	Kainaba	K10 Taake Tetaua	8	a		
43	Kainaba	K04 Birikaua Tabokai	7	a		
Total				a	43	Tr= 1, N=13, A=19, M= 2, Tb= 4, K= 4
				b	0	
				c	1	Tr= 0, N= 0, A= 0, M= 0, Tb= 1, K= 0,

Q4 The convenience of the PV system

Identification				Q4 How about the convenience of the PV lighting system ? What is your family's feeling about it compared with kerosene lamp?		
No.	Villages	ID and name of household	No. of family	a b c	More convenient About the same as kerosene Less convenient	
1	Taratai	R28 Arito	8	a		
2	Notoue	N22 Tarube	5	a		
3	Notoue	N35 Utimawa Tominiko	18	a		
4	Notoue	N30 Teriraki Kaaia	8	a		
5	Notoue	N31 Tianiware	14	a		
6	Notoue	N37 Tebike Iotebwa	7	a		
7	Notoue	N10 Keiti	4	a		
8	Notoue	N38 Roniiti Tetabo	7	a		
9	Notoue	N16 Mikaere Timaia	5	a		
10	Notoue	N32 Tikanro	5	a		
11	Notoue	N03 Bentara	5	a		
12	Notoue	N04 Buretaake	4	a		
13	Notoue	N17 Rabaere Ioteba	3	a		
14	Notoue	Matiota Tikataake	5	a		
15	Abaokoro	A16 Ierubaara Boobu	3	a		
16	Abaokoro	A01 Abakuka keeba	6	a		
17	Abaokoro	A33 Tioti	4	a		
18	Abaokoro	A04 Beia Toara	6	a		
19	Abaokoro	A11 Obeta	10	a		
20	Abaokoro	A15 Tamoaieta Tewaire	10	a		
21	Abaokoro	A21 Temarawa Kawitu	4	a		
22	Abaokoro	Tanimakin Nooti	4	a		
23	Abaokoro	Tawita Teibira	7	a		
24	Abaokoro	A12 Ribabaiti Neneia	7	a		
25	Abaokoro	A20 Tem Bouua	5	a		
26	Abaokoro	A25 Towawea	7	a		
27	Abaokoro	A17 Tebuaka	1	a		
28	Abaokoro	A10 Naitiria Tamton	5	a		
29	Abaokoro	Maurin Tekeraoi	7	a		
30	Abaokoro	A22 Tetake Tekai	7	a		
31	Abaokoro	A05 Ekeieta Ititaake	8	a		
32	Abaokoro	A18 Tekakiabo	6	a		
33	Abaokoro	Kakiabo Tenanoa	5	a		
34	Marenauka	M04 Moauea	8	a		
35	Marenauka	M07 Ten Tateraka	2	a		
36	Tabonibara	T18 Toanii Takaio	4	a		
37	Tabonibara	T06 Ranangaki Matinnar	8	a		
38	Tabonibara	T23 Maeiueo Tekeaugi	6	a		
39	Tabonibara	T15 Teaotai Ngaia	6	a		
44	Tabonibara	Ueanteiti Tetika	3	a		
40	Kainaba	K11 Tebuatei Abiete	10	a		
41	Kainaba	K14 Ueanna Temanikaai	10	a		
42	Kainaba	K10 Taake Tetaua	8	a		
43	Kainaba	K04 Birikaua Tabokai	7	a		
Total				a b c	44 0 0	Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4,

Q5 Complaints

Identification				Q5 What complains does your family have about the PV lighting system?	
No.	Villages	ID and name of household	No. of family	a b c d e	Not enough lighting Time Technical trouble Insects Others
1	Taratai	R28 Arito	8	e	No complaint
2	Notoue	N22 Tarube	5	e	No complaint
3	Notoue	N35 Utimawa Tominiko	18	e	No complaint
4	Notoue	N30 Teriraki Kaaia	8	e	No complaint
5	Notoue	N31 Tianiware	14	e	No complaint
6	Notoue	N37 Tebike Iotebwa	7	e	No complaint
7	Notoue	N10 Keiti	4	d	Sometimes
8	Notoue	N38 Roniiti Tetabo	7	d	Sometimes
9	Notoue	N16 Mikaere Timaia	5	d	Sometimes
10	Notoue	N32 Tikanro	5	d	Sometimes
11	Notoue	N03 Bentara	5	d	Sometimes
12	Notoue	N04 Buretaake	4	d	Sometimes
13	Notoue	N17 Rabaere Ioteba	3	d	Sometimes
14	Notoue	Matiota Tikataake	5	d	Sometimes
15	Abaokoro	A16 Ierubaara Boobu	3	e	Okay
16	Abaokoro	A01 Abakuka keeba	6	d	Sometimes
17	Abaokoro	A33 Tioti	4	d	Sometimes
18	Abaokoro	A04 Beia Toara	6	d	Sometimes
19	Abaokoro	A11 Obeta	10	d	Sometimes
20	Abaokoro	A15 Tamoaieta Tewaire	10	e	Kitchen light need to be removed
21	Abaokoro	A21 Temarawa Kawitu	4	e	No complaint
22	Abaokoro	Tanimakin Nooti	4	d	Sometimes
23	Abaokoro	Tawita Teibira	7	d	Sometimes
24	Abaokoro	A12 Ribabaiti Neneia	7	d	Sometimes
25	Abaokoro	A20 Tem Bouua	5	d	Sometimes
26	Abaokoro	A25 Towawea	7	d	Sometimes
27	Abaokoro	A17 Tebuaka	1	a	Sometimes
28	Abaokoro	A10 Naitiria Tamton	5	a	Sometimes
29	Abaokoro	Maurin Tekeraoi	7	d	Sometimes
30	Abaokoro	A22 Tetake Tekai	7	d	Sometimes
31	Abaokoro	A05 Ekeieta Ititaake	8	d	Sometimes
32	Abaokoro	A18 Tekakiabo	6	d	Sometimes
33	Abaokoro	Kakiabo Tenanoa	5	d	Sometimes
34	Marenauka	M04 Moauea	8	e	So far so good
35	Marenauka	M07 Ten Tateraka	2	e	No complaint
36	Tabonibara	T18 Toanii Takaio	4	e	So far so good
37	Tabonibara	T06 Ranangaki Matinnar	8	d	Sometimes
38	Tabonibara	T23 Maeiueo Tekeaugi	6	e	Lots of rains, No light 2 days. panel-shadow only 2 to 3 hours sunshine during the day
39	Tabonibara	T15 Teaotai Ngaia	6	d	Somethimes insect fill up the tube
44	Tabonibara	Ueanteiti Tetika	3	d	Sometimes
40	Kainaba	K11 Tebuatei Abiete	10	e	No complant
41	Kainaba	K14 Ueanna Temanikaai	10	e	Sometimes it takes about 3 minutes before the light is on
42	Kainaba	K10 Taake Tetaua	8	c	One light takes long to light
43	Kainaba	K04 Birikaua Tabokai	7	e	So far so good
Total				a	2 Tr= 0, N= 0, A= 2, M= 0, Tb= 0, K= 0
				b	0
				c	1 Tr= 0, N= 0, A= 0, M= 0, Tb= 0, K= 1,
				d	25 Tr= 0, N= 8, A=14, M= 0, Tb= 3, K= 0,
				e	16 Tr= 1, N= 5, A= 3, M= 2, Tb= 2, K= 3,

Q6 Additional functions

Identification				Q6 What kind of additional functions does your family want from the PV system ?	
No.	Villages	ID and name of household	No. of family	a b c	More light(How many) Power outlet(What purposes) Others
1	Taratai	R28 Arito	8	a, b	3 more light, Radio
2	Notoue	N22 Tarube	5	a, b	2 more light, Radio tape
3	Notoue	N35 Utimawa Tominiko	18	a, b	10 more light, Radio tape
4	Notoue	N30 Teriraki Kaaia	8	a, b	2 more light, Radio
5	Notoue	N31 Tianiware	14	a, b	1 more light, Radio
6	Notoue	N37 Tebike Iotebwa	7	a, b	2 more light, Radio
7	Notoue	N10 Keiti	4	a, b	2 more light need, Radio, Refrigerator
8	Notoue	N38 Roniiti Tetabo	7	a, b	1 more light, Radio
9	Notoue	N16 Mikaere Timaia	5	a, b	3 more light, Radio
10	Notoue	N32 Tikanro	5	a, b	3 more light, Radio
11	Notoue	N03 Bentara	5	a, b	2 more light, Radio/Tape recorder
12	Notoue	N04 Buretaake	4	a, b	3 more light, Radio/Tape recorder
13	Notoue	N17 Rabaere Ioteba	3	a, b	3 more light, Radio/Tape recorder
14	Notoue	Matiota Tikataake	5	a, b	2 more light, Radio
15	Abaokoro	A16 Ierubaara Boobu	3	a, b	2 more light, Radio
16	Abaokoro	A01 Abakuka keeba	6	a, b	2 more light, Radio
17	Abaokoro	A33 Tioti	4	a, b	2 more light, Radio
18	Abaokoro	A04 Beia Toara	6	a, b	2 more light, Radio
19	Abaokoro	A11 Obeta	10	a, b	2 more light, Radio
20	Abaokoro	A15 Tamoaieta Tewaire	10	a, b	2 more light, Radio
21	Abaokoro	A21 Temarawa Kawitu	4	a, b	1 more light, Radio/Tape recorder
22	Abaokoro	Tanimakin Nooti	4	a, b	3 more light, Radio/Tape recorder
23	Abaokoro	Tawita Teibira	7	a, b	3 more light, Radio
24	Abaokoro	A12 Ribabaiti Neneia	7	a, b	2 more light, Radio
25	Abaokoro	A20 Tem Bouua	5	a, b	2 more light, Radio
26	Abaokoro	A25 Towawea	7	a, b	2 more light, Radio
27	Abaokoro	A17 Tebuaka	1	a, b	2 more light, Radio
28	Abaokoro	A10 Naitiria Tamton	5	a, b	1 more light, Radio
29	Abaokoro	Maurin Tekeraoi	7	a, b	1 more light, Radio
30	Abaokoro	A22 Tetake Tekai	7	a, b	None, Radio
31	Abaokoro	A05 Ekeieta Ititaake	8	a, b	3 more light, Radio
32	Abaokoro	A18 Tekakiabo	6	a, b	3 more light, Radio
33	Abaokoro	Kakiabo Tenanoa	5	a, b	4 more light, Radio Cassette
34	Marenauka	M04 Moauea	8	a, b	3 more light, Radio
35	Marenauka	M07 Ten Tateraka	2	a, b	1 more light, Radio
36	Tabonibara	T18 Toanii Takaio	4	a, b	None, Radio/Tape recorder
37	Tabonibara	T06 Ranangaki Matinnar	8	a, b	1 more light, Radio
38	Tabonibara	T23 Maeiueo Tekeaugi	6	a, b	2 more light, Radio/Tape recorder
39	Tabonibara	T15 Teaotai Ngaia	6	a, b	1 more light, Radio
44	Tabonibara	Ueanteiti Tetika	3	a, b	3 more light, Radio
40	Kainaba	K11 Tebuatei Abiete	10	a, b	3 more light, Radio, Tape recorder, Refrigerator
41	Kainaba	K14 Ueanna Temanikaai	10	a, b	2 more light, Radio
42	Kainaba	K10 Taake Tetaua	8	a, b	3 more light, Radio
43	Kainaba	K04 Birikaua Tabokai	7	a, b	1 more light, Radio/Tape recorder
Total				a b c	44 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4, 44 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4, 0

Q7 Services

Identification				Q7 What kind of services does your family need from the SEC that your family does not get now ?	
No.	Villages	ID and name of household	No. of family	a b c d	Quick Repair Move equipment Add equipment Others
1	Taratai	R28 Arito	8	a	No - Ok
2	Notoue	N22 Tarube	5	d	No need Ok
3	Notoue	N35 Utimawa Tominiko	18	c	More light
4	Notoue	N30 Teriraki Kaaia	8	b	No. Complaint
5	Notoue	N31 Tianiware	14	b, c	
6	Notoue	N37 Tebike Iotebwa	7	d	So far so good
7	Notoue	N10 Keiti	4	d	So far so good
8	Notoue	N38 Roniiti Tetabo	7	d	So far so good
9	Notoue	N16 Mikaere Timaia	5	a	Sometimes
10	Notoue	N32 Tikanro	5	a	Sometimes
11	Notoue	N03 Bentara	5	d	Okay
12	Notoue	N04 Buretaake	4	d	So far so good
13	Notoue	N17 Rabaere Ioteba	3	d	So far so good
14	Notoue	Matiota Tikataake	5	d	No comments, Okay
15	Abaokoro	A16 Ierubaara Boobu	3	d	So far so good
16	Abaokoro	A01 Abakuka keeba	6	d	Good far fine being
17	Abaokoro	A33 Tioti	4	d	Okay far now
18	Abaokoro	A04 Beia Toara	6	d	No comments, Okay
19	Abaokoro	A11 Obeta	10	d	As far now it Okay
20	Abaokoro	A15 Tamoaieta Tewaire	10	d	So far so good
21	Abaokoro	A21 Temarawa Kawitu	4	d	Okay
22	Abaokoro	Tanimakin Nooti	4	d	So far so good
23	Abaokoro	Tawita Teibira	7	d	No complain
24	Abaokoro	A12 Ribabaiti Neneia	7	d	So far so good
25	Abaokoro	A20 Tem Bouua	5	d	So far so good
26	Abaokoro	A25 Towawea	7	d	No Comment
27	Abaokoro	A17 Tebuaka	1	d	None
28	Abaokoro	A10 Naitiria Tamton	5	d	None
29	Abaokoro	Maurin Tekeraoi	7	d	As far now no problem
30	Abaokoro	A22 Tetake Tekai	7	d	Okay
31	Abaokoro	A05 Ekeieta Ititaake	8	d	So far so good
32	Abaokoro	A18 Tekakiabo	6	d	Everything is Ok for the being
33	Abaokoro	Kakiabo Tenanoa	5	d	Everything is Ok for the time being
34	Marenauka	M04 Moauea	8	d	No complain
35	Marenauka	M07 Ten Tateraka	2	d	Okay may be in future time
36	Tabonibara	T18 Toanii Takaio	4	d	No comments
37	Tabonibara	T06 Ranangaki Matinnar	8	d	No comments
38	Tabonibara	T23 Maeiueo Tekeaugi	6	d	Remove battery/Switchboard from the buia to the main house
39	Tabonibara	T15 Teaotai Ngaia	6	d	No comments
44	Tabonibara	Ueanteiti Tetika	3	d	Everything is Okay for the time being
40	Kainaba	K11 Tebuatei Abiete	10	d	No comments
41	Kainaba	K14 Ueanna Temanikaai	10	a	Repairing of lights
42	Kainaba	K10 Taake Tetaua	8	a	
43	Kainaba	K04 Birikaua Tabokai	7	d	No comments, everything is Okay
Total				a	5 Tr= 1, N= 2, A= 0, M= 0, Tb= 0, K= 2,
				b	2 Tr= 0, N= 2, A= 0, M= 0, Tb= 0, K= 0,
				c	2 Tr= 0, N= 2, A= 0, M= 0, Tb= 0, K= 0,
				d	36 Tr= 0, N= 8, A=19, M= 2, Tb= 5, K= 2,

Q8 Kerosene lamps after the PV system

Identification				Q8 How does your family use its kerosene lamps after installing the PV lighting system ?	
No.	Villages	ID and name of household	No. of family	a b	Not change from befor Changed
1	Taratai	R28 Arito	8	b	They only use the kerosene lamp for fishing
2	Notoue	N22 Tarube	5	b	They only use a kerosene for cooking
3	Notoue	N35 Utimawa Tominiko	18	b	They use their Kerosene lamp for fishing and in some places where there is no PV lamp
4	Notoue	N30 Teriraki Kaaia	8	a	They only use Kerosene for cooking
5	Notoue	N31 Tianiware	14	b	They use a kerosene lamp for fishing
6	Notoue	N37 Tebike Iotebwa	7	b	They only use kerosene lampe for fishing
7	Notoue	N10 Keiti	4	b	Fishing at night
8	Notoue	N38 Roniiti Tetabo	7	b	Used fishing at night
9	Notoue	N16 Mikaere Timaia	5	b	Fishing at night
10	Notoue	N32 Tikanro	5	b	Fishing at night
11	Notoue	N03 Bentara	5	b	Used for fishing at night
12	Notoue	N04 Buretaake	4	b	Used for fishing at night
13	Notoue	N17 Rabaere Ioteba	3	b	Used for fishing at night
14	Notoue	Matiota Tikataake	5	b	Used for fishing at night
15	Abaokoro	A16 Ierubaara Boobu	3	b	Used for fishing at night
16	Abaokoro	A01 Abakuka keeba	6	b	Used for fishing at night
17	Abaokoro	A33 Tioti	4	b	Used for fishing at night
18	Abaokoro	A04 Beia Toara	6	b	For bathing, cooking, fishing at night
19	Abaokoro	A11 Obeta	10	b	Cooking
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	Fishing at night
21	Abaokoro	A21 Temarawa Kawitu	4	b	Fishing at night
22	Abaokoro	Tanimakin Nooti	4	b	Fishing at night
23	Abaokoro	Tawita Teibira	7	b	Cooking, Fihing at night
24	Abaokoro	A12 Ribabaiti Neneia	7	b	Cooking, fishing at night
25	Abaokoro	A20 Tem Bouua	5	b	Used for fishing at night
26	Abaokoro	A25 Towawea	7	b	Used for fishing at night
27	Abaokoro	A17 Tebuaka	1	b	Used for fishing at night
28	Abaokoro	A10 Naitiria Tamton	5	b	Do not use
29	Abaokoro	Maurin Tekeraoi	7	b	Cooking, fishing at night
30	Abaokoro	A22 Tetake Tekai	7	b	Used for fishing at night
31	Abaokoro	A05 Ekeieta Ititaake	8	b	Unused
32	Abaokoro	A18 Tekakiabo	6	b	Used for fishing at night time
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	Unused
35	Marenauka	M07 Ten Tateraka	2	b	Used kerosene lamps for the purpose of fishing at night
36	Tabonibara	T18 Toanii Takaio	4	b	Used kerosene lamps for the purpose of fishing at night
37	Tabonibara	T06 Ranangaki Matinnar	8	b	Kerosene lamps have not been used lately
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	Used kerosene lamps for the purpose of fishing at night
39	Tabonibara	T15 Teaotai Ngaia	6	b	Used kerosene lamps for the purpose of fishing at night
44	Tabonibara	Ueanteiti Tetika	3	b	Used for fishing at night
40	Kainaba	K11 Tebuatei Abiete	10	b	Used for fishing at night
41	Kainaba	K14 Ueanna Temanikaai	10	b	Used kerosene for fishing at night
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	A kerosene lamp has not been used
Total				a b	0 44 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4

Q9 Torch after the PV system

Identification				Q9 Has use of your family's torch decreased after installing the PV lighting system?	
No.	Villages	ID and name of household	No. of family	a b c	Not change from befor Decreased 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 Iotebwa	7	b	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	7	b	
24	Abaokoro	A12 Ribabaiti Neneia	7	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	7	b	
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	
35	Marenauka	M07 Ten Tateraka	2	b	
36	Tabonibara	T18 Toanii Takaio	4	b	
37	Tabonibara	T06 Ranangaki Matinnar	8	b	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	c	No torch
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	b	
41	Kainaba	K14 Ueanna Temanikaai	10	b	
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	
Total				a b c	0 43 Tr= 1, N=13, A=19, M= 2, Tb= 4, K= 4 1 Tr= 0, N= 0, A= 0, M= 0, Tb= 1, K= 0

Q10 Time of production activity

Identification				Q10 Has time of production activity increased at night or in your house after installing the PV lighting system ?	
No.	Villages	ID and name of household	No. of family	a b c d	Not change Activity time for fishing and agriculture increased Activity time for handicrafts increased Others
1	Taratai	R28 Arito	8	c	
2	Notoue	N22 Tarube	5	c	
3	Notoue	N35 Utimawa Tominiko	18	c, d	
4	Notoue	N30 Teriraki Kaaia	8	c, d	
5	Notoue	N31 Tianiware	14	c, d	
6	Notoue	N37 Tebike Iotebwa	7	c	
7	Notoue	N10 Keiti	4	b, c	
8	Notoue	N38 Roniiti Tetabo	7	b, c	
9	Notoue	N16 Mikaere Timaia.	5	b, c	
10	Notoue	N32 Tikanro	5	b, c	
11	Notoue	N03 Bentara	5	b, c	
12	Notoue	N04 Buretaake	4	b, c	
13	Notoue	N17 Rabaere Ioteba	3	b, c	
14	Notoue	Matiota Tikataake	5	b, c	
15	Abaokoro	A16 Ierubaara Boobu	3	b, c	
16	Abaokoro	A01 Abakuka keeba	6	b, c	
17	Abaokoro	A33 Tioti	4	b, c	
18	Abaokoro	A04 Beia Toara	6	b, c	
19	Abaokoro	A11 Obeta	10	b, c	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b, c	
21	Abaokoro	A21 Temarawa Kawitu	4	b, c	
22	Abaokoro	Tanimakin Nooti	4	b, c	
23	Abaokoro	Tawita Teibira	7	b, c	
24	Abaokoro	A12 Ribabaiti Neneia	7	b, c	
25	Abaokoro	A20 Tem Bouua	5	b, c	
26	Abaokoro	A25 Towawea	7	b, c	
27	Abaokoro	A17 Tebuaka	1	b, c	
28	Abaokoro	A10 Naitiria Tamton	5	b, c	
29	Abaokoro	Maurin Tekeraoi	7	b, c	
30	Abaokoro	A22 Tetake Tekai	7	b, c	Cooking, such as breads etc
31	Abaokoro	A05 Ekeieta Ititaake	8	b, c	
32	Abaokoro	A18 Tekakiabo	6	c	
33	Abaokoro	Kakiabo Tenanoa	5	c, d	
34	Marenauka	M04 Moauea	8	b, c	
35	Marenauka	M07 Ten Tateraka	2	b, c	
36	Tabonibara	T18 Toanii Takaio	4	b, c	
37	Tabonibara	T06 Ranangaki Matinnar	8	b, c	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b, c	
39	Tabonibara	T15 Teaotai Ngaia	6	b, c	
44	Tabonibara	Ueanteiti Tetika	3	b, c	
40	Kainaba	K11 Tebuatei Abiete	10	b, c	
41	Kainaba	K14 Ueanna Temanikaai	10	b, c	
42	Kainaba	K10 Taake Tetaua	8	c	
43	Kainaba	K04 Birikaua Tabokai	7	b, c	
Total				a b c d	0 35 Tr= 0, N= 8, A=17, M= 2, Tb= 5, K= 3, 44 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4, 4 Tr= 0, N= 3, A= 1, M= 0, Tb= 0, K= 0,

Q11 Housewife's work

Identification				Q11 What kind of change has it caused for a housewife's works after installing PV lighting system?	
No.	Villages	ID and name of household	No. of family	a b c	Not change from before Some of the work are done faster or easier 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 Iotebwa	7	b, c	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Ncoti	4	b	
23	Abaokoro	Tawita Teibira	7	b	
24	Abaokoro	A12 Ribabaiti Neneia	7	b	
25	Abaokoro	A20 Tem Bouua	5	b	
26	Abaokoro	A25 Towawea	7	b	
27	Abaokoro	A17 Tebuaka	1	b, c	Cooking such as bread//buns etc
28	Abaokoro	A10 Naitiria Tamton	5	b, c	Cooking buns/bread
29	Abaokoro	Maurin Tekeraoi	7	b	
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	
35	Marenauka	M07 Ten Tateraka	2	b	
36	Tabonibara	T18 Toanii Takaio	4	b	
37	Tabonibara	T06 Ranangaki Matinnar	8	b	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	b	
41	Kainaba	K14 Ueanna Temanikaai	10	b	
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	
Total				a b c	0 44 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4, 3 Tr= 0, N= 1, A= 2, M= 0, Tb= 0, K= 0,

Q12 Time of the housewife

Identification				Q12 Has the time which the housewife spent with her children and other family members changed	
No.	Villages	ID and name of household	No. of family	a b c d	Not change from before Increased Decreased Do not know
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 Iotebwa	7	b	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	7	b	
24	Abaokoro	A12 Ribabaiti Neneia	7	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	7	b	
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	
35	Marenauka	M07 Ten Tateraka	2	b	
36	Tabonibara	T18 Toanii Takaio	4	b	
37	Tabonibara	T06 Ranangaki Matinnar	8	b	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	b	
41	Kainaba	K14 Ueanna Temanikaai	10	b	
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	
Total				a b c d	0 44 0 0 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4

Q13 The time for homework

Identification				Q13 Has the time to for homework by your children increased after installing the PV lighting system ?	
No.	Villages	ID and name of household	No. of family	a b c	Not change Increased 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 Iotebwa	7	b	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	7	b	
24	Abaokoro	A12 Ribabaiti Neneia	7	b	
25	Abaokoro	A20 Tem Bouua	5	b	
26	Abaokoro	A25 Towawea	7	b	
27	Abaokoro	A17 Tebuaka	1	c	No child
28	Abaokoro	A10 Naitiria Tamton	5	b	
29	Abaokoro	Maurin Tekeraoi	7	c	Children not yet in school
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	
35	Marenauka	M07 Ten Tateraka	2	c	Tateraka brother's sons ,danghrer have their opportunity of using the solar light for study
36	Tabonibara	T18 Toanii Takaio	4		
37	Tabonibara	T06 Ranangaki Matinnar	8	b	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	c	No children, Only adult
41	Kainaba	K14 Ueanna Temanikaai	10	b	
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	
Total				a b c	0 39 Tr= 1, N=13, A=17, M= 1, Tb= 4, K= 3 4 Tr= 0, N= 0, A= 2, M= 1, Tb= 0, K= 1,

Q14 The time to go to bed

Identification				Q14 Has the time to go to bed changed in your house after installing the PV lighting system ?	
No.	Villages	ID and name of household	No. of family	a b c	Not change from before Later (before: after:) Others
1	Taratai	R28 Arito	8	b	
2	Notoue	N22 Tarube	5	b	before: Early, after: Late
3	Notoue	N35 Utimawa Tominiko	18	b	before: Early, after: Late
4	Notoue	N30 Teriraki Kaaia	8	b	
5	Notoue	N31 Tianiware	14	b	before: Early, after: Late
6	Notoue	N37 Tebike Iotebwa	7	b	
7	Notoue	N10 Keiti	4	b	before: Early, after: Late
8	Notoue	N38 Roniiti Tetabo	7	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
11	Notoue	N03 Bentara	5	b	before: Early, after: Late
12	Notoue	N04 Buretaake	4	b	before: Early, after: Late
13	Notoue	N17 Rabaere Ioteba	3	b	before: Early, after: Late
14	Notoue	Matiota Tikataake	5	b	before: Early, after: Late
15	Abaokoro	A16 Ierubaara Boobu	3	b	before: Early, after: Late
16	Abaokoro	A01 Abakuka keeba	6	b	before: Early, after: Late
17	Abaokoro	A33 Tioti	4	b	before: Early, after: Late
18	Abaokoro	A04 Beia Toara	6	b	before: Early, after: Late
19	Abaokoro	A11 Obeta	10	b	before: Early, after: Late
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	before: Early, after: Late
21	Abaokoro	A21 Temarawa Kawitu	4	b	before: Early, after: Late
22	Abaokoro	Tanimakin Nooti	4	b	before: Early, after: Late
23	Abaokoro	Tawita Teibira	7	b	before: Early, after: Late
24	Abaokoro	A12 Ribabaiti Neneia	7	b	before: Early, after: Late
25	Abaokoro	A20 Tem Bouua	5	b	before: Early, after: Late
26	Abaokoro	A25 Towawea	7	b	before: Early, after: Late
27	Abaokoro	A17 Tebuaka	1	b	before: Early, after: Late
28	Abaokoro	A10 Naitiria Tamton	5	b	before: Early, after: Late
29	Abaokoro	Maurin Tekeraoi	7	b	before: Early, after: Late
30	Abaokoro	A22 Tetake Tekai	7	b	before: Early, after: Late
31	Abaokoro	A05 Ekeieta Ititaake	8	b	before: Early, after: Late
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	before: Early, after: Late
35	Marenauka	M07 Ten Tateraka	2	b	before: Early, after: Late
36	Tabonibara	T18 Toanii Takaio	4	b	before: Early, after: Late
37	Tabonibara	T06 Ranangaki Matinnar	8	b	before: Early, after: Late
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	before: Early, after: Late
39	Tabonibara	T15 Teaotai Ngaia	6	b	before: Early, after: Late
44	Tabonibara	Ueanteiti Tetika	3	b	before: Early, after: Late
40	Xainaba	X11 Tebuatei Abiete	10	b	before: Early, after: Late
41	Xainaba	X14 Ueanna Temanikaai	10	b	before: Early, after: Late
42	Xainaba	X10 Taake Tetaua	8	b	before: Early, after: Late
43	Xainaba	X04 Birikaua Tabokai	7	b	
Total				a b c	0 44 0 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4,

Q15 Social activity

Identification				Q15 Has social activity changed between neighbors in your house after installing the PV lighting system	
No.	Villages	ID and name of household	No. of family	a b c	Not change Increased 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 Iotebwa	7	b	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	Neighbors played cards etc
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	7	a	Most of the Neighborhood have PV systems.
24	Abaokoro	A12 Ribabaiti Neneia	7	a	Neighborhood have PV systems.
25	Abaokoro	A20 Tem Bouua	5	b	
26	Abaokoro	A25 Towawea	7	b	
27	Abaokoro	A17 Tebuaka	1	c	Most of neighborhood have PV system been installed.
28	Abaokoro	A10 Naitiria Tamton	5	c	Neighborhood have PV systems.
29	Abaokoro	Maurin Tekeraoi	7	b	
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	c	No neighborhood.
35	Marenauka	M07 Ten Tateraka	2	b	
36	Tabonibara	T18 Toanii Takaio	4	b	
37	Tabonibara	T06 Ranangaki Matinnar	8	b	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	c	Yes, meet together and play cards etc.
41	Kainaba	K14 Ueanna Temanikaai	10	c	To meet.
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	Neighbors meet together.
Total				a	2 Tr= 0, N= 0, A= 2, M= 0, Tb= 0, = 0,
				b	37 Tr= 1, N=13, A=15, M= 1, Tb= 5, = 2,
				c	5 Tr= 0, N= 0, A= 2, M= 1, Tb= 0, = 2,

Q16 The time of listening to radio or tape recorder

Identification				Q16 Has the time spent listening to radio or tape recorder changed in your house after installing the PV system?	
No.	Villages	ID and name of household	No. of family	a b c d	Not change from before Increased Decreased Others
1	Taratai	R28 Arito	8	a	
2	Notoue	N22 Tarube	5	a	
3	Notoue	N35 Utimawa Tominiko	18	a	
4	Notoue	N30 Teriraki Kaaia	8	a	
5	Notoue	N31 Tianiware	14	a	
6	Notoue	N37 Tebike Iotebwa	7	a	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	7	b	
24	Abaokoro	A12 Ribabaiti Neneia	7	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	7	b	
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	a	
34	Marenauka	M04 Moauea	8	d	Only a radio
35	Marenauka	M07 Ten Tateraka	2	b	
36	Tabonibara	T18 Toanii Takaio	4	a	No radio
37	Tabonibara	T06 Ranangaki Matinnar	8	d	Radio batteries are expensive
38	Tabonibara	T23 Maeiueo Tekeaugi	6	d	No radio / Tape recorder
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	d	No radio
41	Kainaba	K14 Ueanna Temanikaai	10	a	
42	Kainaba	K10 Taake Tetaua	8	a	
43	Kainaba	K04 Birikaua Tabokai	7	a	
Total				a b c d	11 Tr= 1, N= 5, A= 1, M= 0, Tb= 1, K= 3, 29 Tr= 0, N= 8, A=18, M= 1, Tb= 2, K= 0, 0 4 Tr= 0, N= 0, A= 0, M= 1, Tb= 2, K= 1,

Q17 Electric appliances to be powered from the PV system

Identification				Q17 What kind of electric appliances does your family now want to be powered from the PV system?			
No.	Villages	ID and name of household	No. of family				
				a	Solar pump		
				b	Solar refrigerator		
				c	Radio/Tape recorder/Video		
				d	Fan		
				e	Washing machine		
1	Taratai	R28 Arito	8		Solar water pump, Washing machine, Solar fridge		
2	Notoue	N22 Tarube	5		Solar fridge, Solar water pump etc		
3	Notoue	N35 Utimawa Tominiko	18		Solar water pump		
4	Notoue	N30 Teriraki Kaaia	8		Solar fridge, Solar water pump etc		
5	Notoue	N31 Tianiware	14		Solar fridge, Solar water pump etc		
6	Notoue	N37 Tebike Iotebwa	7		Solar water pump, Fridge etc		
7	Notoue	N10 Keiti	4		Solar pump		
8	Notoue	N38 Roniiti Tetabo	7		Solar pump		
9	Notoue	N16 Mikaere Timaia	5		Solar pump		
10	Notoue	N32 Tikanro	5		Solar pump		
11	Notoue	N03 Bentara	5		Solar pump		
12	Notoue	N04 Buretaake	4		Solar pump, Refrigerator		
13	Notoue	N17 Rabaere Ioteba	3		Solar pump		
14	Notoue	Matiota Tikataake	5		Solar pump, Video, Refrigerator		
15	Abaokoro	A16 Ierubaara Boobu	3		Solar pump		
16	Abaokoro	A01 Abakuka keeba	6		Solar pump		
17	Abaokoro	A33 Tioti	4		Solar pump, Refrigerator		
18	Abaokoro	A04 Beia Toara	6		CB radio, Solar pump		
19	Abaokoro	A11 Obeta	10		Solar pump		
20	Abaokoro	A15 Tamoaieta Tewaire	10		Solar pump, Radio		
21	Abaokoro	A21 Temarawa Kawitu	4		Solar pump		
22	Abaokoro	Tanimakin Nooti	4		Solar pump, Refrigerator		
23	Abaokoro	Tawita Teibira	7		Solar pump, video, Refrigerator		
24	Abaokoro	A12 Ribabaiti Neneia	7		Solar pump		
25	Abaokoro	A20 Tem Bouua	5		Solar pump		
26	Abaokoro	A25 Towawea	7		Solar pump, Video, Refrigerator		
27	Abaokoro	A17 Tebuaka	1		Solar pump		
28	Abaokoro	A10 Naitiria Tamton	5		Solar pump		
29	Abaokoro	Maurin Tekeraoi	7		Solar pump, Refrigerator		
30	Abaokoro	A22 Tetake Tekai	7		Refrigerator, Solar pump, Fan		
31	Abaokoro	A05 Ekeieta Ititaake	8		Video, Refrigerator, Solar pump		
32	Abaokoro	A18 Tekakiabo	6		Solar pump, Fridge		
33	Abaokoro	Kakiabo Tenanoa	5		Solar pump etc		
34	Marenauka	M04 Moauea	8		Solar pump, CB radio		
35	Marenauka	M07 Ten Tateraka	2		Solar pump		
36	Tabonibara	T18 Toanii Takaio	4		Refrigerator, recorder, Solar pump		
37	Tabonibara	T06 Ranangaki Matinnar	8		Radio, Solar pump		
38	Tabonibara	T23 Maeiueo Tekeaugi	6		Solar pump		
39	Tabonibara	T15 Teaotai Ngaia	6		Radio, Solar pump		
44	Tabonibara	Ueanteiti Tetika	3		Solar pump		
40	Kainaba	K11 Tebuatei Abiete	10		Radio, Refrigerator		
41	Kainaba	K14 Ueanna Temanikaai	10		Radio, Solar pump		
42	Kainaba	K10 Taake Tetaua	8		CB Radio etc		
43	Kainaba	K04 Birikaua Tabokai	7		Radio, Tape recorder, Refrigerator		
Total				a	Solar pump	41	Tr=1, N=13, A=19, M=2, Tb=5, K=1
				b	Solar refrigerator	18	Tr=1, N= 6, A= 8, M=0, Tb=1, K=2
				c	Radio/Tape recorder/Video	15	Tr=0, N= 1, A= 5, M=1, Tb=3, K=5
				d	Fan	1	Tr=0, N= 0, A= 1, M=0, Tb=0, K=0
				e	Washing machine	1	Tr=1, N= 0, A= 0, M=0, Tb=0, K=0

Q18 The vigor of villages

Identification				Q18 Has the vigor of your village changed after installing the PV system?	
No.	Villages	ID and name of household	No. of family	a b c	Not change from before Increased Do not know
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 Iotebwa	7	b	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	7	b	
24	Abaokoro	A12 Ribabaiti Neneia	7	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	7	b	
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	
35	Marenauka	M07 Ten Tateraka	2	b	
36	Tabonibara	T18 Toanii Takaio	4	b	
37	Tabonibara	T06 Ranangaki Matinnar	8	b	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	b	
41	Kainaba	K14 Ueanna Temanikaai	10	b	
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	
Total				a b c	0 44 0 Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4,

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

Identification				Q19 What kind of change has occurred between households having the PV system and households not having the PV system?	
No.	Villages	ID and name of household	No. of family	a b c	No change from before Households not having the PV system are jealous of households having the PV lighting system. 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 Iotebwa	7	b	
7	Notoue	N10 Keiti	4	b	
8	Notoue	N38 Roniiti Tetabo	7	b	
9	Notoue	N16 Mikaere Timaia	5	b	
10	Notoue	N32 Tikanro	5	b	
11	Notoue	N03 Bentara	5	b	
12	Notoue	N04 Buretaake	4	b	
13	Notoue	N17 Rabaere Ioteba	3	b	
14	Notoue	Matiota Tikataake	5	b	
15	Abaokoro	A16 Ierubaara Boobu	3	b	
16	Abaokoro	A01 Abakuka keeba	6	b	
17	Abaokoro	A33 Tioti	4	b	
18	Abaokoro	A04 Beia Toara	6	b	
19	Abaokoro	A11 Obeta	10	b	
20	Abaokoro	A15 Tamoaieta Tewaire	10	b	
21	Abaokoro	A21 Temarawa Kawitu	4	b	
22	Abaokoro	Tanimakin Nooti	4	b	
23	Abaokoro	Tawita Teibira	7	b	
24	Abaokoro	A12 Ribabaiti Neneia	7	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	7	b	
30	Abaokoro	A22 Tetake Tekai	7	b	
31	Abaokoro	A05 Ekeieta Ititaake	8	b	
32	Abaokoro	A18 Tekakiabo	6	b	
33	Abaokoro	Kakiabo Tenanoa	5	b	
34	Marenauka	M04 Moauea	8	b	
35	Marenauka	M07 Ten Tateraka	2	b	
36	Tabonibara	T18 Toanii Takaio	4	b	
37	Tabonibara	T06 Ranangaki Matinnar	8	b	
38	Tabonibara	T23 Maeiueo Tekeaugi	6	b	
39	Tabonibara	T15 Teaotai Ngaia	6	b	
44	Tabonibara	Ueanteiti Tetika	3	b	
40	Kainaba	K11 Tebuatei Abiete	10	b	
41	Kainaba	K14 Ueanna Temanikaai	10	b	
42	Kainaba	K10 Taake Tetaua	8	b	
43	Kainaba	K04 Birikaua Tabokai	7	b	
Total				a b c	0 44 0

Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4,

Q20 Want to install a PV system

Identification				Q20 Do some of the households not having the PV system now want to install a PV lighting system?		
No.	Villages	ID and name of household	No. of family	a b c	Yes, they want to No, they do not want to Do not know	
1	Taratai	R28 Arito	8	a		
2	Notoue	N22 Tarube	5	a		
3	Notoue	N35 Utimawa Tominiko	18	a		
4	Notoue	N30 Teriraki Kaaia	8	a		
5	Notoue	N31 Tianiware	14	a		
6	Notoue	N37 Tebike Iotebwa	7	a		
7	Notoue	N10 Keiti	4	a		
8	Notoue	N38 Roniiti Tetabo	7	a		
9	Notoue	N16 Mikaere Timaia	5	a		
10	Notoue	N32 Tikanro	5	a		
11	Notoue	N03 Bentara	5	a		
12	Notoue	N04 Buretaake	4	a		
13	Notoue	N17 Rabaere Ioteba	3	a		
14	Notoue	Matiota Tikataake	5	a		
15	Abaokoro	A16 Ierubaara Boobu	3	a		
16	Abaokoro	A01 Abakuka keeba	6	a		
17	Abaokoro	A33 Tioti	4	a		
18	Abaokoro	A04 Beia Toara	6	a		
19	Abaokoro	A11 Obeta	10	a		
20	Abaokoro	A15 Tamoaieta Tewaire	10	a		
21	Abaokoro	A21 Temarawa Kawitu	4	a		
22	Abaokoro	Tanimakin Nooti	4	a		
23	Abaokoro	Tawita Teibira	7	a		
24	Abaokoro	A12 Ribabaiti Neneia	7	a		
25	Abaokoro	A20 Tem Bouua	5	a		
26	Abaokoro	A25 Towawea	7	a		
27	Abaokoro	A17 Tebuaka	1	a		
28	Abaokoro	A10 Naitiria Tamton	5	a		
29	Abaokoro	Maurin Tekeraoi	7	a		
30	Abaokoro	A22 Tetake Tekai	7	a		
31	Abaokoro	A05 Ekeieta Ititaake	8	a		
32	Abaokoro	A18 Tekakiabo	6	a		
33	Abaokoro	Kakiabo Tenanoa	5	a		
34	Marenauka	M04 Moauea	8	a		
35	Marenauka	M07 Ten Tateraka	2	a		
36	Tabonibara	T18 Toanii Takaio	4	a		
37	Tabonibara	T06 Ranangaki Matinnar	8	a		
38	Tabonibara	T23 Maeiueo Tekeaugi	6	a		
39	Tabonibara	T15 Teaotai Ngaia	6	a		
44	Tabonibara	Ueanteiti Tetika	3	a		
40	Kainaba	K11 Tebuatei Abiete	10	a		
41	Kainaba	K14 Ueanna Temanikaai	10	a		
42	Kainaba	K10 Taake Tetaua	8	a		
43	Kainaba	K04 Birikaua Tabokai	7	a		
Total				a b c	44 0 0	Tr= 1, N=13, A=19, M= 2, Tb= 5, K= 4,

Q21 Participating in meeting

Identification				Q21 Has there been any change in your participating in meetings held in your village?	
No.	Villages	ID and name of household	No. of family	a b c	Participate as much as before installing the PV lighting system Deceased in participation No change and always attend meetings
1	Taratai	R28 Arito	8	c	
2	Notoue	N22 Tarube	5	c	
3	Notoue	N35 Utimawa Tominiko	18	a	
4	Notoue	N30 Teriraki Kaaia	8	c	
5	Notoue	N31 Tianiware	14	b	
6	Notoue	N37 Tebike Iotebwa	7	a	
7	Notoue	N10 Keiti	4	c	No change
8	Notoue	N38 Roniiti Tetabo	7	c	No change
9	Notoue	N16 Mikaere Timaia	5	c	No change
10	Notoue	N32 Tikanro	5	c	No change
11	Notoue	N03 Bentara	5	c	No change
12	Notoue	N04 Buretaake	4	c	No change
13	Notoue	N17 Rabaere Ioteba	3	c	No change
14	Notoue	Matiota Tikataake	5	c	No change
15	Abaokoro	A16 Ierubaara 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	No change
20	Abaokoro	A15 Tamoaieta Tewaire	10	c	No change
21	Abaokoro	A21 Temarawa Kawitu	4	c	No change
22	Abaokoro	Tanimakin Nooti	4	c	No change
23	Abaokoro	Tawita Teibira	7	c	Always attend
24	Abaokoro	A12 Ribabaiti Neneia	7	c	Always attend
25	Abaokoro	A20 Tem Bouua	5	c	No change
26	Abaokoro	A25 Towawea	7	c	No change
27	Abaokoro	A17 Tebuaka	1	c	No change
28	Abaokoro	A10 Naitiria Tamton	5	c	No change
29	Abaokoro	Maurin Tekeraoi	7	c	Always attend
30	Abaokoro	A22 Tetake Tekai	7	c	Always attend
31	Abaokoro	A05 Ekeieta Ititaake	8	c	Always attend
32	Abaokoro	A18 Tekakiabo	6	c	No change
33	Abaokoro	Kakiabo Tenanoa	5	a	
34	Marenauka	M04 Moauea	8	c	No change, always attend meetings
35	Marenauka	M07 Ten Tateraka	2	a	No change
36	Tabonibara	T18 Toanii Takaio	4	c	Always attend the meeting hold in the village
37	Tabonibara	T06 Ranangaki Matinnar	8	c	No change meetings held in the village should be attended
38	Tabonibara	T23 Maeiueo Tekeaugi	6	c	Always attending meetings
39	Tabonibara	T15 Teaotai Ngaia	6	c	Always attend the meeting held in the village
44	Tabonibara	Ueanteiti Tetika	3	c	No change
40	Kainaba	K11 Tebuatei Abiete	10	a	
41	Kainaba	K14 Ueanna Temanikaai	10	a	
42	Kainaba	K10 Taake Tetaua	8	a	
43	Kainaba	K04 Birikaua Tabokai	7	b	
Total				a	7 Tr= 0, N= 2, A= 1, M= 1, Tb= 0, K= 3,
				b	2 Tr= 0, N= 1, A= 0, M= 0, Tb= 0, K= 1,
				c	35 Tr= 1, N=10, A=18, M= 1, Tb= 5, K= 0,

「ＰＶシステム導入後の世帯調査」
調査用紙

1. Targeted households

   Households to install the PV systems (55 households)

2. Date to be surveyed

   In August, 1993

3. Time limit

   Send these questionnaires to Japan by the middle of September 1993

4. Methods of the survey

   1) SEC employs two interviewers. And Mr. Akura explains this questionnaire to the two interviewers.

   2) Two interviewers visit the targeted households in the six villages. And two interviewers 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,・・・・) below the question, or write a suitable answer in the prepared (　　).

August, 1993

Household survey following installation PV systems

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 ?
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 ?
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
b. Deceased in participation
c. Others ( )

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