

BAREFOOT COLLEGE TILONIA



ANNUAL REPORT

2009 – 2010

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(VIA) MADANGANJ, AJMER DISTRICT,
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EXECUTIVE SUMMARY

Initiatives taken collectively by Barefoot College and illiterate rural women, mothers and grandmothers in Africa since 2005 had been recognised globally by the BBC World Challenge Prize in 2009. The Solar Sisters of Africa was one of the short listed 10 Finalists from more than 1000 entries from 125 countries and the only entry from India. They were voted globally during the year 2009.

After a gap of a decade, Lok Utsav 2010 was held during February 2010 and reaffirmed the collective resolve of Barefoot College and Folk Musicians and Artists of Rajasthan. The 3 day festival of Folk Music was also able to initiate a dialogue with Department of Culture, State Government of Rajasthan on improving the socio-economic status of Folk- artists from all over Rajasthan.

Barefoot College has taken initiatives since 1993 to organise Bridge courses for children to enter the formal educational mainstream in class VI after completing 3-4 years of attending night schools. This was further carried out during 2009-2010 and more than 180 children including girls have since entered class VI in the government schools after completing their term in night schools.

The 7th Childrens' (CP) Parliament was duly constituted during January 2010. More than 3500 children including 2250 girls attending 124 night schools in 5 districts of Rajasthan elected the CP consisting of 52 MPs. A full-fledged Cabinet and its Prime Minister was also elected by the MPs. The Childrens' Parliament began its term of office by holding its first monthly session in Tilonia where all elected CP MPs drafted a Child Protection Policy. The Policy was finalised in subsequent monthly session of CP in February and March 2010.

Women's Day on 8th March 2010 was celebrated in Tilonia and Dr. Farooq Abdulah, Minister for Renewable Energy, Government of India was present as the Chief Guest. More than 500 rural women including Women Barefoot Solar Engineers from 10 African countries participated.

Barefoot College was formally provided a FM Frequency for Community Radio by the Ministry of Information and Broadcasting, Government of India. The Tilonia Community Radio Station was formally commissioned on 9th November, 2009 with the FM Frequency 90.4 and is accessible to more than 30 villages in a radius of 15 kilometres reaching out to a total population of 50,000 persons.

1-

“Instead of the salty water we have been drinking all these decades, we now are able to access sweet potable water. This is nothing short of a miracle.”

**A woman user of the R/O Plant
in Kotri**

DRINKING WATER

The decade 2009-2010 has been one of droughts with just hardly one or two normal years. when there has been moderate rainfall in Ajmer District and Silora Block in particular. This has created acute scarcity of drinking water, year in and year out. Where villages and hamlets have groundwater rendered saline, the problem has been both of access to potable sweet drinking water and as importantly health problems arising out of drinking saline / brackish water.

Solar Powered Reverse Osmosis (R/O) water desalination plants have provided an effective, low-cost only alternative as compared to piped water systems which have never been able to provide sweet drinking water. Also the cost of one pipeline is manifold than the R/O Plant.

During the year 2009-2010, the field team of Roof Top Rain Water Harvesting (RWH) has organised 130 one day meetings in 59 villages participated by more than 1800 persons and 27 meetings in Tilonia which was participated by 200 persons from 37 villages in 9 field and sub-centres.

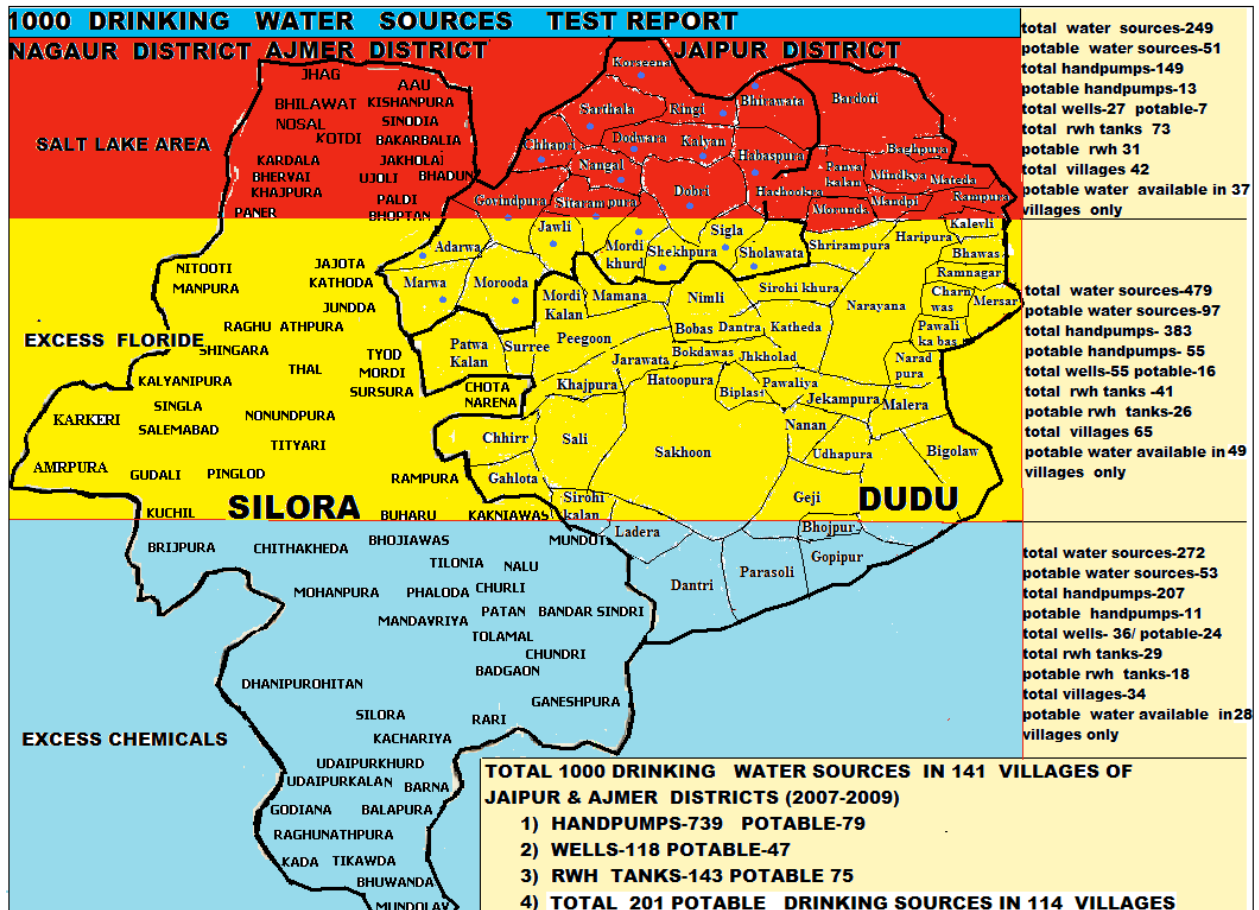
The team had organised 8 workshops participated by 500 persons from 68 villages. The village and Tilonia level meetings as well as workshops were on ‘Roof Top Rain Water Harvesting. There were 5 Training Camps of Water Engineers organised during 2009-2010 and participated by 225 persons from 13 villages.

As a result of the initiatives taken up at the village level, Barefoot College has been able to collectively plan and construct Rain Water Harvesting (RWH) Structures in 4 villages that can collect 84,000 litres of rainfall annually and has been able to generate gainful wage employment to 58 persons from 3 villages and drinking water from the RWH tanks being accessed by more than 950 persons.

Another major initiative taken up during the year has been the construction of Korsina Dam that has a capacity of collecting 20 million litres of rain water. The dam is so called because it is situated in village Korsina, Dudu Block, Jaipur District, Rajasthan. The total catchment area of the Dam is 3 square kilometres and more than 20 villages will be able to access drinking water from the dam. The dam has been able to generate gainful wage employment as well as access to drinking water to 100,000 people and can recharge the ground-water table levels in more than 109 hand-humps, 36 open dug well as well as 31 ponds and wells. More than 200,000 cattle will also be able to meet their drinking water needs from the dam.

1.

Map of 1000 Drinking Water Sources in 141 villages of Nagaur, Jaipur and Ajmer districts



Water Testing in Silora and Dudu Block

S. no.	Sub Centres / Field Centres	No of villages	No of hand pumps	No of dug wells	No of RWH tanks	Number of Water Sources
1	Manthan, Kotri	23	111	12	31	154
2	Shodh, Nalu	23	205	21	32	258
3	FC Kadampura	8	43	5	11	59
4	FC Tikawda	13	87	8	18	113
5	FC Brijpura	32	136	9	35	180
6	FC Chota Narena	9	54	5	14	73
7	Prayatna, Solawta	20	84	28	13	125
Total		128	720	88	154	962

“Is it safe to get your dental check - up done with the women barefoot dentists.”

A BC visitor’s remark

COMMUNITY HEALTH

During 2009-2010 the Barefoot Dental Unit has been able to further continue its initiatives in Rural Dental Hygiene. A team of 2 trained women barefoot dentists conducted regular dental check-ups of children attending Barefoot Colleges’ nights schools as well as treat patients with dental problems at the Unit in Tilonia. More than 440 members of rural communities have been able to access the Dental Unit.

**COMMUNITY HEALTH INITIATIVES
2009 – 2010**

S. no.	Programme	Details	Total
1	Out Patient Dispensary	Total no of persons for treatment	3565
		Old persons treated	2303
		New persons admitted	1362
		Persons referred	88
2	Mother and Child Welfare	New expectant mothers	1262
		Old expectant mothers	477
		Total deliveries	1234
		Deliveries performed in Hospital	786
		Deliveries performed at Home	448
		Deliveries performed by trained midwives	383
		Deliveries performed by un-trained midwives	35
		No of midwives	50
3	Family Welfare	No of Women undergoing sterilisation	187
		Persons undergoing Vasectomy	-
		Users of contraceptives (Nirodh)	495
		Persons using oral dntropic pills	546
		Persons using Copper T	18
4	Tuberculosis Patient Treatment	No of T.B. Patients	21
		Total no of villages	5
		Total of number men undergoing treatment	15
		Total of number women undergoing treatment	6

5	Pathological Laboratory	Cough Tests	234
		Total no of villages	30
		Total no of men undergoing Cough Tests	146
		Total no of women undergoing Cough Tests	89
		Haemoglobin Tests	1405
		Total no of villages	50
		Blood Tests	28
		Urine Tests (sugar, Proton, Bite)	779
		Total no of villages	50
		Malaria Tests	1285
		The Tests	149
		DLC Tests	149
		Blood Group Tests	50
		Blood Sugar Tests	10
		ESR Tests	191
6	Training	No of Midwives trained	50
		No of Monthly Meetings of Midwives	12
		Training of Women Dentists	1
		Duration of Training	6 month
		No of Training Camps of Village Health Workers	2
		No of Camps	5
		No of Villages	35
		No of men	38
		No of women	60
Total	98		
7	Health Check - ups	No of Health Check-ups in Night schools Education Centres	127
		No of Villages	90
		No of boys	624
		No of girls	1972
		Total	2596
		No of Health Check-ups Pre-schools Education Centres	127
		No of Villages	68
		Total number of Children	1905
8	Mother & Child Welfare	T.T. I – No doses	514
		T.T. II – No doses	670
		Urine Tests of Expectant Menthes	1097
		Haemoglobin Tests of Women	908
		Weighing of Expectant Menthes	1254
		Blood Dharma of Expectant Menthes	993
9.	Immunisaion	BCG – No of Children	907
		No of children D.P.T. I	907
		No of children D.P.T. II	825
		No of children D.P.T. III	705
		No of child Polio doses	2437
		No of child Measles	463
10.	Mother and Infant Mortality	No of deaths amongst Pregnant woman	3
		Infant mortality during 1 st week	58
		Infant mortality during 1 st Month	8
11.	Dental Care	No of children Dental Check-up	438
		No of persons camps commutes	458
		Total	896

“ More than 7000 children attend Class 1st in the day primary school after attending Barefoot Colleges’ Pre – School Education Centres during 1990 - 2010 .”

**Data from Pre-School
Education Programme,
Tilonia**

PRE – SCHOOL EDUCATION CENTRES

Over the past three decades or more Barefoot College has been able to mobilise rural communities who are parents to send their very young children of age group 1-5 years to Pre-School Education centres in more than 71 villages. They continue their education by entering class 1 in the formal educational mainstream.

There are 71 pre – school education centres (PSEs) co-ordinated by Barefoot College in equal number of villages which are attended by more than 1945 children and a network of trained women barefoot teachers also known as balsevikas initiate an educational process. During 2009-2010 there were 61 women barefoot teachers who had undergone re-orientation training in 2 training camps.

Children attending PSEs are provided with supplementary nutrition in order that malnourished children improve their health status. During the year 91 boys and 136 girls attending the pre-school education centres who were severely malnourished have been able to improve their health status.

A team of barefoot doctors had during 2009-2010 conducted health check-ups of 1945 children attending pre-school education centres. This team also visits villages where the PECs are situated and interacts with mothers of the children attending them and distribute medicine as part of treatment to minor illnesses. More than 700 children have been provided with medicine during the year.

“ After attending night schools, for the children, especially girls, what next ? .”

An oft quizzed remark.

NIGHT SCHOOLS

Barefoot College has since 1990 been organising regularly 1 month long residential bridge courses for children especially girls completing their primary term at night schools in their villages. After attending the bridge course, the children take a written test and join class 6 in the formal educational mainstream. Over the past 30 years more their 4000 children including 1250 girls have continued attending school in the formal mainstream education. Within this context the table below reflects details of bridge courses organised by Barefoot College during 2007-2010.

S. no.	Activity	Duration	Total Villages	Children	
				Boys	Girls
1	First Bridge Course	02 November, 2007 to 30 April, 2008	12	37	10
2	Second Bridge Course	01 February, 2009 to 30 June, 2009	11	22	12
3	Third Bridge Course	01 November, 2009 to 30 June, 2010	13	21	20
	Total		36	80	42

The Education Unit in village Singla which co-ordinates the Night Schools programme organises Bridge Courses as well as other educational initiatives. One significant initiative during 2009-2010 has been Computer Education accessed by to children studying in government day - schools upto class 12. The table below gives details of the Computer Education courses imparted during the year :

Activity	Duration	Time	Total Children	Boys	Girls	Educational Status			
						1-5	6-8	9-10	11-12
Computer Education First Group	15 May, 2008 to 31 December, 2008	02.30PM to 05.00PM	17	12	5	0	6	5	6

Activity	Duration	Time	Total Children	Boys	Girls	Educational Status			
						1-5	6-8	9-10	11-12
Computer Education Second Group	7 January, 2009 to 30 June, 2008	02.30PM to 05.00PM	11	11	0	0	11	0	0

Barefoot College has during the year been co-ordinating 157 night school in 4 Indian states. The table below provides disaggregated details of children attending the night schools in 4 states of the country:

S. no.	Field Centre	Name of Night School Project									Total		
		Sofronie Foundation			Pakhar Foundation			Own income					
		B	G	T	B	G	T	B	G	T	B	G	T
1	Brijpura	0	0	0	0	0	0	49	147	196	49	147	196
2	Kadampura	0	0	0	0	0	0	39	112	151	39	112	151
3	Tikawra	5	124	161	0	0	0	0	0	0	37	124	161
4	Chotanarena	4	83	94	0	0	0	13	40	53	24	123	147
5	Shodh-Nalu	4	82	102	0	0	0	9	66	75	29	148	177
6	Manthan-Kotari	5	71	102	42	86	128	34	138	172	107	295	402
7	Kankalwada	7	18	20	18	94	112	15	121	136	33	233	268
8	Praytna-Solawta	3	169	195	13	47	60	21	102	123	60	318	378
9	Dhanau-Badmer	1	39	89	0	0	0	0	0	0	50	39	89
10	Jawaja	8	114	135	59	125	184	0	0	0	80	239	319
11	Allaripu, Rampali	5	85	102	0	0	0	0	0	0	17	85	102
12	Krati-Nimbaheda	6	66	145	0	0	0	56	49	105	135	115	250
13	Sankalp, Mamoni	5	0	0	0	0	0	82	89	171	82	89	171
14	SWRC, Chalthi - Champawat	10	75	149	0	0	0	0	0	0	74	75	149
15	Alok-Bihar	10	184	262	0	0	0	122	207	329	200	391	591
16	Samparc- Jhabua,	156	166	322	0	0	0	0	0	0	156	166	322
17	Singla	0	0	0	7	37	44	0	0	0	7	37	44
	Total	602	1276	1878	139	389	528	440	1071	1511	1181	2736	3917

Childrens' Parliament (CP)

Barefoot Colleges' night, schools are monitored by a Children's Parliament which is duly elected every 2 years by children attending night schools. Elections to the 7th Childrens' Parliament were organised simultaneously at the night school level during 23-24 December 2009 wherein more than 2490 children voted to elect 104 MPs to the CP. On 25th December, 2009, the Prime Minister and her full-fledged Cabinet Cabinet were elected by the MPs and sworn into office for a term of 2 years.

As part of their primary responsibility MPs of the CP visit night schools in their constituency as well as neighbouring ones. The table below gives details of visits to their constituencies:

Month of the visit	April 2009	May	June	July	August	September	October	November	December	January 2010	Feb. 2010	March 2010
MPs present	13	11	14	12	8	12	7	9	0	36	0	35
Other Children present	22	24	23	21	39	42	65	50	0	31	0	24
Field Staff	27	19	17	23	27	17	28	29	0	24	0	21

SHIKSHA NIKETAN – UPPER PRIMARY SCHOOL

Started in 1988 as an experimental day-primary school and with an autonomous executive body, Shiksha Niketan was registered as an Upper Primary school in 2008. During 2009-2010 there were 444 children attending Shiksha Niketan including 238 boys and 206 girls.

The first batch children who had completed their class 8 during 2010 had secured an overall 82% success in their examinations.

“Why only illiterate, why only mothers and grand mothers’ as women barefoot solar engineers, why not educated daughters ?

**Current Common reaction
of visitors at to
Barefoot College**

APPLICATION AND DEMYSTIFICATION OF TECHNOLOGIES – SOLAR ENERGY

The barefoot approach implies that illiterate mothers and grand mothers once trained as Women Barefoot Solar Engineers (WBSEs) will get back to their remote villages and solar electrify their villages within the country as well as outside. They will never leave their villages and will be accountable for repairs and maintenance of solar home lighting units. They will not ask for any certificates from Barefoot College.

During 2009-2010 Barefoot College had trained 46 WBSEs from 33 remote villages situated in Ladakh, Jammu and Kashmir, Himachal Pradesh, Utrakhand, Bihar, Sikkim, Madhya Pradesh and Rajasthan. Duration of their training was 6 months between September 2009 and February 2010.

PROFILES OF 10 WBSEs

Jammu & Kashmir (Leh Ladakh)

1. Lobzang Zangmo, 46 Years. Education: Illiterate
Village: Pinchmik Nubra Valley. No. of Houses in the village: 95
Occupation: Domestic and Agricultural work
Language spoken: Ladakhi

2. Stanzin Norzon, 31 Years. Education: Illiterate
Village: Lingste Khalsti Nubra Valley. No. of houses in the village: 55
Occupation: Domestic and Agricultural work
Language spoken: Ladakhi

Himachal Pradesh

3. Lakit Kalzang, 26 Years. Education: Literate
Village: Langcha. No. of houses in the village: 33
Occupation: Casual labour, Farming, Domestic and Agricultural work
Language spoken: Spiti and Hindi

4. Thinley Yangon, 24 Years. Education: Literate
Village: Langcha. No. of Houses in the village: 33
Occupation: Casual labour, Farming, Domestic and Agricultural work
Language spoken: Spiti and Hindi

Uttarakhand

4. Tula , 46 Years. Education: Illiterate
Village: Birdawari. No. of Houses in the village: 30
Married has 4 children. Occupation: Domestic and agricultural work
Language spoken: Hindi

Bihar

5. Sandhya Rai , 31 Years. Education: Secondary School Pass
Village: 22 No.Tola of Belwa Pakriga. No. of Houses in the village: 70
Married has 3 children. Occupation: Farmer, Domestic and agricultural work
Language spoken: Hindi

5. Sikkim

6. Jamuna 28 Years, Education: 7th Class Pass
Village: Sadam Sukarbarey, No. of Houses in the village: 40
Married has 2 children. Occupation: Shopkeeper
Language spoken: Nepali

Madhya Pradesh

7. Shanti, 38 Years. Education: Illiterate.
Village: Piplipada. No. of Houses in the village: 36
Married has 4 children. Occupation: Labour, Domestic and Agricultural work
Language spoken: Tribal

Rajasthan

Baran District.

8. Gabbu Jatav, 41 Years. Education: Illiterate.
Village: Mamoni. No. of Houses in the village: 250
Married has 3 children. Occupation: Labour, Domestic and Agricultural work
Language spoken: Sahria Tribal and Hindi

Barmer District

9. Bhagwati, 27 Years. Education: Primary School Pass.
Village: Geda Tehsil Chohtan No. of Houses in the village: 110.
Already 98 houses solar electrified in 2005.
Married. Occupation: Labour, Domestic and Agricultural work
Language spoken: Marwari and Hindi

Ajmer District

10. Dhapu, 43 Years. Education: Illiterate.
Village: Tilonia, No. of Houses in the village: 350.
Married. She has 7 children
Occupation: Labour, Domestic and Agricultural work
Language spoken: Marwari

The Solar Workshop, Tilonia had during the year trained 55 WBSEs from 14 African countries.

PROFILES OF WOMEN BAREFOOT SOLAR ENGINEERS FROM AFRICA

NIGER

Country: Niger

Region: Tillabery

District: Say

Villages: 1. Moli Haoussa (100) 2. Baniguetti (50)

Total Houses: 150

Contact Person: Naandi Mamane Tahir

Organisation: Contribution A La Gestion Des Zones Humides (COGEZOH)

Place: Niamey (Niger)

Phone: 00227 21 765249/ 96876708

Email: ong_cogezoh@yahoo.fr

Port: Cotonou(Benin) West Africa

- (1) **NAMATA RAMATOU (35 years old divorced)** of Tanda Village is primary school pass. Total Population of village is 60 households. She has 3 children and her main livelihood source is agriculture and goat rearing.

Dialect spoken: Jagmasani

- (2) **TONDI FATI (46 Years)** of Baniguetti village is illiterate. Total population of Baniguetti village is 50 households. Fati has 9 children. Main income source of her family is agriculture. She has a flock 40 goats.

Dialect Spoken : Phulanki

- (3) **KONDJA AISSA (41 Years)** of Baniguetti Moli Haoussa village is middle school pass. Total population of Baniguetti village is 100 households. Aissa has 7 children. Main occupation is domestic work, agriculture and goat rearing. She has 9 goats.

- (4) **DAMBIRI ABOU (46 Years)** of Tonoga village is primary school pass. Total population of Tonoga village is 60 households. Abou has 5 children. Main occupation is agriculture and animals. She has 2 cows.

Dialect Spoken: Hausa

GHANA

Country: Ghana

Region: Upper West

District: Nadowli & Wa West

Villages:

1. Zukpiri (24) : BSE- Bonueje Nuzagla

2. Sirru (26): BSE- Effia Dakora

3. Mantar (25): BSE- Nierema

4. Gilang (22): BSE-Memunatur

5. Dupare(23): BSE- Salamatu

Total Houses: 70

Contact Person: Mohammed Nurdeen Ali

Organisation: Green Solar Energy Association

Place: Accra

Phone: 00233 24 3076729

Email: zintangb@yahoo.co.uk

Port: Cotonou(Benin) West Africa

- (5) **BONUBIA DIRA (39 Years)** of Zukpiri Village is illiterate. Total Population of Rupeer village is 24 households. She has 6 children. Main occupation is agriculture and animals. She has 2 goats.

Dialect Spoken: GLAN

- (6) **MEMUNATA SADARI (45 Years widow)** of Gilang Village is illiterate. Total Population of Rupeer village is 22 households. She has 7 children. Main occupation is agriculture and animals. She has 2 goats.

Dialect Spoken: GLAN

- (7) **VEINAKUBA KAABEU (46 years widow)** of Mantar Village is illiterate. Total Population of Meguwo village is 25 households. She has 5 children. Main occupation is agriculture and animals. She has 10 goats.

Dialect Spoken: DAGARE

- (8) **SALAMATU OSMAN (39 Years)** of Dupare Village is illiterate. Total Population of Dupare village is 23 households. She has 9 children. Main occupation is agriculture and animals. She has 3 goats.

Dialect Spoken: DUPAR

- (9) **AFIA KANZA (50 Years)** of Sirru Village is illiterate. Total Population of Wa village is 26 households. She has 9 children. Main occupation is agriculture and animals. She has 5 goats.

Dialect Spoken: KABE

GUINEA BISSAU

(10) **AISSATO JAU (42 Years)** of Kambaju village is primary pass. Total Population of Kambaju village is 90 households. She has 4 children. Main occupation is agriculture and animals. She has 50 goats.

Dialect Spoken: Krione and Portuguese

(11) **ASSANATU BALDE (50 Years)** of Kambaju village is illiterate. Total Population of Kambaju village is 90 households. She has 9 children. Main occupation is agriculture.

Dialect Spoken: Krione and Portuguese

(12) **FATIMA SEIDI (41Years)** of Mambomkom Village is illiterate. Total Population of Mambomkom village is 65 households. She has 10 children. Main occupation is agriculture and animals. She has 2 goats.

Dialect Spoken: Krione

(13) **CADIJATO BALDE (39 Years)** of Sinchamboche Village is illiterate. Total Population of Sinchamboche village is 80 households. She has 7 children. Main occupation is agriculture and animals. She has 70 goats.

Dialect Spoken: PHULA

(14) **AUA MANE (58 Years)** of Sinchamboche Village is illiterate. Total Population of Sinchamboche village is 80 households. She has 12 children. Main occupation is agriculture.

Dialect Spoken: MOUNIKA

MAURITANIA

(15) **MINT SIDI MOHAMED (30 Years)** is illiterate coming from Kussen Village of Mauritania. Total population of Kussen Village is 120 Households. She has 4 children. Main occupation of the family is agriculture.

Dialect spoken : Arabic

(16) **HAINA MINT BABANA (34 Years)** is lterate coming from the Kussen Village of Mint Sidi. Total population of Kussen Village is 120 Households. She has 4 children. Main occupation of the family is agriculture.

Dialect spoken : Arabic

KENYA

Country: Kenya

Region: East Africa

District: Suba

Villages: Gwassi

1. Olando (296) : BSE- Phoebe Akinyi Belle And Joyce Adoyo Matunga

2. God Liech (162): BSE- Phoebe Awur Jondiko

Total Houses: 450

Contact Person: Manases Owade Nyanjom
Organisation: Green Forest Social Investment Trust (GFSIT)
Place: Magunga, Gwasssi Division Suba District
Phone: 00254 733870343/ 715042319
Email: manases.owade@subagreenforest.org
Port: Kenya Ports Authority- Mombasa Port

(17) **PHOEBE AKINTI BELE (46Years)** secondary school education comes from Olando village of Kenya. She has 7 children. Family owns agricultural land. Main Occupation is agricultural and domestic work. Total population of village is 150 households.

Language spoken: Kiswahili and English

(18) **JOYCE ADOYO MATUNGA (51 Years)** secondary school education comes from the same Olando village of Phoebe Akinti. She has 9 children. Family owns agricultural land. Main Occupation is agricultural, cows and domestic work. Total population of village is 150 households.

Language spoken: Kiswahili and English

(19) **PHOEBE AWOUR JONDIKO (42Years)** secondary school education comes from Godtech village of Kenya. She has 8 children. Family owns agricultural land. Main Occupation is agricultural and domestic work. Total population of village is 150 households.

Language spoken: Kiswahili and English

CAMEROON:

(20) **FRANSICA MOKI (44 Years)** is primary school pass coming from Munitegae village of Cameroon. Total population of Munitage village is 150 households. Fransica has 5 children. She has a small agricultural farm. Main occupation is domestic work and agriculture.

Dialect spoken in her area is Engtian.

(21) **HELEN ETENG (39 Years)** is primary school pass woman coming from Munitegae village of Cameroon. Total population of Munitage village is 150 households. Helen has 4 children. She has a small agricultural farm. Main occupation is agriculture.

Dialect spoken in her area is Engtian.

“What is the total output of the Mechanical Fabrication Workshop”

A enquiry from a visitor

TECHNOLOGY DISSEMINATION – MECHANICAL FABRICATION WORKSHOP

The Workshop has generated a total annual income of INR 531,230 during 2009-2010. Using scrap iron, the workshop had fabricated solar panel stands, doors, windows, chairs, cots, counters and boards as well as ovens. It also undertook welding jobs from villages.

There are 5 trained barefoot engineer and 6 women being trained as women barefoot engineers.

“We want that the Women Barefoot Solar Cooker Engineers Association (WBSCEA) becomes self – reliant in the next 5 years.

A senior member of WBSCEA

The Women Barefoot Solar Cooker Engineers Association

1. Main Objectives of Barefoot Solar Cooker Engineers Association

The basic objective of the Women Barefoot Solar Cooker Engineers is to :

- (i) Fabrication Production and Use of Parabolised solar cookers by illiterate, semi-literate rural women.
- (ii) To expose and provide rural women with information related to technology and to be able to sustain the barefoot women solar cooker engineers.
- (iii) To mobilise and create awareness amongst rural communities and women on the need for Environmental Regeneration,
- (iv) To use locally available low cost technologies.

2. Approach

- (i) By installation and demonstration, rural communities especially the poorest of the poor become aware of the importance of solar cooker and saving precious fossil fuels.
- (ii) Dissemination and demystification of technology amongst rural women.
- (iii) Rural Women get trained as barefoot solar cooker engineers.
- (iv) To emphasise environmental regeneration.

3. The Training Process

- (i) The women barefoot solar cooker engineers to be trained visit night schools and attend meetings of rural women’s groups to disseminate information about the solar cookers and emphasise on reducing dependence on fuel wood as well as environmental regeneration.
- (ii) Learn welding (3months)
- (iii) Learn to weld, cut and fabricate solar clocks (3 months)
- (iv) To make parabolised reflectors (3 months)

4. The implementation

- (i) Remove dependence on fossil fuels and wood for cooking
- (ii) Generate Employment amongst illiterate rural women
- (iii) Technology Dissemination amongst rural women

5. Activities and Production

1. A team of trained women solar cooker engineers (WBSCEs) were involved at the Mechanical Fabrication Workshop producing parabolised solar cookers. This team had trained 21 women barefoot solar engineers (WBSEs) from 6 African countries of Kenya, Mauritania, Cameroon, Guinea Bisau, Ghana and Niger. The WBSEs apart from learning to fabricate the solar cookers, learnt how to prepare tea and make chapattis during their 6 months residential training camp in Tilonia.

The WBSCEs visited Barefoot Colleges' field centres to repair and maintain solar cookers established by them. During the year they had attended a week long exhibition on 'Green Jaobs' in Delhi where the WBSCEs demonstrated the process of making solar cookers.

14 rural women from the local communities have been trained by the WBSCEs in 2009-2010. More than 12 are using their training by having a solar cooker in their houses. They prepare tea, bake chappatis and cook a meal.

The WBSCEs make a field trip once every month to each of the installations in the villages irrespective of whether there has been any complaints or not. When there are complaints they make extra field visits to the installations in the villages. Every time the WBSCE visits an installation she provides a copy of her visit report at the installation and keeps one with her

Within the Barefoot College campus there are four members of the staff who use solar cookers. The fabrication workshop where the solar cookers are made have disseminated the need to use solar cookers to more than 150 persons from educational institutions, voluntary organisations and film units' visiting the workshop.

During the year the WBSCEs had established a solar cooker in village Chapri in Dudu block, Jaipur District, Rajasthan. The WBSCE's put up a stall in the mela of National Rural Employment Guarantee Act in Bhogadit village.

The WBSCEs have specifically mobilised rural communities on the significance of solar cookers, the savings of precious fossil fuels and fuel wood itself. All the WBSCEs cook at home in solar cookers in order to set an example. They have identified women to be trained during the year 2010-2011 as WBSCEs in order to widen the scope of disseminating the importance of Solar Cookers.

QUANTITATIVE DATA

S. no.	Activity	Number of Units	People participating
1	Rural Women's Groups' Meetings	3	105
2	Attending of Doosra Dashak Meeting	1	25
3	Solar Cookers Exhibition, Sikar	1	200
4	Green Jobs Exhibition Delhi	1	500
5	Exhibition at Rozgar Guarantee Mela in village Bhogadit.	1	3000
6	Fabricated and Produced Solar Cooker (New Model)	1	6 Persons
7	Repairs and Maintenance of Solar Cookers at the field level	6	6 Persons
8	Installed solar cookers in quarters belonging to Barefoot College staff in its campus.	6	30 Peoples
9	Installed and Demonstrated use of Solar Cookers to the Women Barefoot Solar Engineers being trained at the Solar Workshops in BCs old campus.	4	21 Peoples 6 Countries
10	Visits to Workshops organised by Barefoot College		1185 Peoples

6. Work Planned For 2010-2011

The WBSCEs plan to train 3 rural women as WBSCEs. The women will be selected through endorsement of their rural communities. During the year 2010-2011 the women will also be involved in Research and Development work in making of the solar cookers to make it more efficient. At the mechanical fabrication workshop the WBSCEs are involved in making the solar cookers more efficient and cost effective. They travel to places in Rajasthan for disseminating the benefits of a solar cooker.

Marketing through Community Radio of Tilonia is one potential strategy that the WBSCEA has planned.

7. Case Studies

INSTALLATION OF A SOLAR COOKER AT SCIENCE COLLEGE, RAJASTHAN UNIVERSITY, JAIPUR

During the visit of students led by a team of teachers of Vigyan College, Jaipur they inquired from the WBSCEs at the Workshop about the entire process of fabricating a solar cooker. They were very impressed about its advantages in decreasing the pollution levels and the solar cookers as a clean green alternative for cooking. They went back and had consultations amongst themselves with the Faculty.

The College placed an order for installing a solar cooker at their campus to select a site. The women soon discovered that there was lack of space on the ground. They were to install it on the third floor where the College office was situated. The women solar cooker engineers encountered problems in lifting the entire frame of the solar cooker to the third floor.

The women put their heads together and decided to dismantle the solar cooker and split them into three parts. They took it up the third floor through the parapet wall. They then reassembled the three parts. The solar cooker was eventually installed. What were the advantages of installing the solar cooker as a demonstration unit ?

The solar cooker by itself has a vast potential in teaching to the students aspects of Science and Technology. The solar cooker has become a part of their teaching syllabus on Solar Energy.

The solar cooker generates energy to run a $\frac{1}{2}$ watt motor as a demonstration to generate solar power. The solar cooker boils water and potatoes as well as aavla.

Installation of the solar cooker has enabled school children to visit the site and learn from the demonstration of solar energy. This has enabled WBSCEA to disseminate technology and Solar Power.

2. The Solar Cooker in village Tikawada which is a field centre of Barefoot College, Tilonia.

The solar cooker installed in village Tikawda on top of the field-centre building has been functioning well and has been able to for the past 3 years ensure cooking needs of more than 30 persons.

Monthly Meetings of teachers of night schools, pre-school education centres, rural midwives and field workers held regularly at the field centre have been able to provide participants breakfast, tea and 2 meals.

The solar cooker installed in the Mess also boils vegetables, rice and lentils as well as tea.

“How have you been surviving in the Crafts scenario for so long with no appreciable increase in your production.”

**Buyers and clients visiting
The Craft shop**

PROMOTION OF RURAL CRAFTS AND ARTISANS

Rural Crafts and the artisans have been surviving all these years and decades because Barefoot College (SWRC) looks at Crafts, Craftspersons and their output as an inherent part of a development activity instead of just an economic initiative. The artisan needs lighting, access to drinking water, health, education for his children as well as sustained wages. Barefoot College during the year has been working with 157 craftspersons including 131 women artisans.

During 2009-2010 Crafts Exhibitions have been organised by Barefoot College in the metropolitan cities of Bangalore, Mumbai, Delhi, Hyderabad as well as in Lucknow, Dehra Dun, Ajmer and the town of Bhim. The exhibitions were able to generate total annual sales of INR 647, 775.

The total sales turnover of Hatheli a separately registered crafts' organisation during 2009-2010 has been INR 66,93,304 which included export of Crafts, sales at the Crafts Shop, client orders, exhibitions and reduction sale.

The total export of crafts during the year has been INR 16,82,332 and the craft items have been exported mainly to Australia, UK and US.

Sewing classes as part of Vocational Training (VT) to girls attending night schools have been organised by the Crafts Section. During the year there were 146 girls undergoing VT in 13 villages for a duration of 6 months. Master tailors have provided the training inputs to the girls.

“What is distinct to the Barefoot College ethos is the increased and equal full-time involvement of illiterate rural mothers and grandmothers as well as the physically challenged. ”

**A long time Barefoot College
Watcher**

RURAL WOMENS’ DEVELOPMENT

S. No.	Activity	No.	No. of Participants	Village level	Field Centre level	Tilonia Level	Issues taken up for Discussion and Action
1	Meetings (one day) “ (Two days)	49 13	2480 1409	49 Villages	-	- 70 Villages	Public Distribution System, National Rural Employment Guarantee Act Right to Information, Social Audit, Payment of full Minimum Wages.
2	Workshops	1	68	-	-	-	Voter Education and Awareness.
3	Womens’ Day (Organised in village Kotadi)		500	-	-	-	National Rural Employment Guarantee Act Right to Information, Social Audit, Health, Education, Energy.
4	Rallies, Dharna, Demonstration	4	400	-	-	-	Right to Information, Employment National Rural Employment Guarantee Act, Drought Managent.
5	May Day Celebration		130	-	-	-	Womens’ Rights, Employment Guarantee Act, Right to Information

The rural womens’ groups have since the early 1980s when the first such group was formed been able to mobilise rural women across villages in Ajmer district to highlight critical issues and concerns that affect them as well as their households especially on Issues of Minimum Wages, National Rural Employment Guarantee Act, Payment of full Minimum Wages, Right to Information, Public Distribution System, Violence and Atrocities towards Women, Health and Education. There are more than 65 rural womens’ groups with a total membership of 4,000 in 65 villages. The women meet regularly every month at the village and Tilonia level. They also extend solidarity to issues at the district, state, regional and national level. The rural womens’ groups are honorary members and mostly consist of wage labourers as well as part – time workers of Barefoot College.

RURAL EMPLOYMENT

Barefoot College has a small nucleus which is involved in monitoring the implementation of National Rural Employment Guarantee Employment Act (NREGA) in Silora Block, Ajmer District in particular. It coordinates with voluntary organisations in other districts of Rajasthan on NREGA and Social Audit.

This team has made visits to NREGA sites which had 3,690 wage labourers from 36 villages.

Training of Mate Trainers was organised in Jaipur where the nucleus took part. This was participated by 32 men and 62 women in 6 training camps of Mates. The nucleus was very actively involved in the training camps which were organised in Arain, Silora, Harmara, Ajmer district, Pipli Tonk in Tonk District, Mandal, Bhilwara District and Kamli Ghat Choraha, Vijaypura in Rajasamand district. Similarly the team had participated in training camps organised on Social Audit in Bhilwada, Jhalawad, Devdungri, Jawaja and Mataton ki Ber. The total number of participants in these camps were 2,754.

Honorary workers who are members of rural women's groups, Village Education Committees as well as village level part-time workers of Barefoot College participated in Rozgar Guarantee Mela organised in village Bhogadit during 2009-2010.

Monthly dialogue of all panchayat representatives and voluntary organisations actively involved with National Rural Employment Guarantee Act Work sites in Rajasthan are organised in Jaipur. This 2 day meeting is called NREGA Sanwad. The nucleus in Tilonia has during 2009-2010 attended the monthly Sanwad along with 685 other participants. This year there were 8 such meetings held in Jaipur.

“Life size puppets lit by solar lantern in darkness has a mesmerising effect on audiences’ ”

A visitor at Lokutsav 2010

USE OF TRADITIONAL MEDIA – PUPPETRY, STREET PLAYS AND SONGS

When the Lokutsav 2010 organised by Barefoot College in Tilonia during 7-9th February, 2010 came to its grand finale late in the evening, a giant life size puppet lit by solar lantern was doing the round when it got dark. The solar lit puppet had a magical impact on the whole audience.

During 2009 – 2010 a team of barefoot communicators had performed in small and big villages where Barefoot Colleges’ night schools and pre-school education centres are situated. The team had also assisted in public meetings and important cultural events. More than 75,500 persons watched the team perform on 234 occasions. The Communicators had visited 51 villages where night schools are situated and presented puppet shows watched by more than 7290 boys and girls as well as 4910 men and women.

AUDIO-VISUAL UNIT

All major initiatives taken up by Barefoot College within its campuses as well as at the village level are documented audio - visually. During 2009-2010, the A/V unit at Barefoot College campus had screened films for visitors and training camps which were for a duration of 4500 hours.

Video recordings have been carried out of major events during 2009-2010 like the Global Friends Vote, Childrens’ Parliament (CP) elections, the CP swearing in ceremony, Bal Mela, Training of Women Barefoot Solar Engineers from Africa and Latin America, construction of the Korsina Dam rain water harvesting tanks, Lokutsav 2010 and all major events.

The Editing Studio of A/V unit had during 2009-2010 produced DVD films on Women Barefoot Solar Engineers of Africa in French, Russian and German. Duration of each of the 3 films were of 10 minutes.

SCREEN PRINTING UNIT

A low – cost silk screen printing unit produces all publicity and dissemination material conveying Barefoot Colleges’ initiatives through posters, bags and banners. During 2009-2010 the Unit had printed 100 posters on NREGA, 60 banners for 7th Childrens’ Parliament (CP) elections, 15 invitation letters, binding of 200 books printing on 2805 cloth bags, 375 T shirts and 2000 badges for CP election, Bal Mela and Lokutsav 2010.

“The wooden toys for science teaching should find its way in all primary schools.”

**A school teacher from
Jaipur visiting the
Wood Craft Unit**

WOODEN TOYS FOR SCIENCE TOYS

The Wood Craft Unit at Barefoot College established in 1988 has since been able to produce a set of 15-20 wooden toys which could be used for science teaching at the primary level. They are crafted by barefoot toy makers who include the physically challenged youth and widowed rural women.

The unit has since 1998 trained more than 50 barefoot toy makers who were drop-outs from night schools.

During 2009-2010, a team of 5 barefoot toymakers crafted 2000 toys of which more than 1000 have been distributed to night schools while the rest have been sold generating a total income of INR 1,81,150.

“There is so much of waste all around us which could be recycled into toys for teaching children.”

A Journalist

TOYS OUT OF RECYCLED WASTE BY PHYSICALLY CHALLENGED

It was in 1988 that a 5 day workshop of teachers was organised in Tilonia participated by more than 60 night school teachers. At this workshop mainly organised for evolving innovate low-cost no – cost teaching material, external resource persons including Aravind Gupta had participated to introduce the concept of recycling toys out of any waste material that is collected in and around our environs.

A full-fledged unit making toys was started in 1990 and has since trained more than 3000 persons including night school teachers, women barefoot solar engineers, members of voluntary organisation as well as visitors to Barefoot College from within and outside the country.

During 2009-2010, a 11 member team including physically challenged have produced toys as well as chalk, exercise note books, diaries and candles.

More than 10,000 persons have undergone training in making recycled toys out of waste and origami which included children attending night schools, bal melas, teachers as well individuals and groups visiting Tilonia.

The unit has during the year been able to generate a total income of INR 80,630 through diaries, exercise note-books, and candles.

“Illiterate rural mothers and grand mothers handling computers is a shining example for others elsewhere in the country to follow.”

A computer engineer visiting
Barefoot College

HANDLING COMPUTERS AND DATA FEEDING

For any one visiting the old campus of Barefoot College, illiterate rural mothers and grand mothers handling computer is a sight to watch. Data feeding is carried out by rural women on Health, Education, Energy and Accounts. All through the year rural youth as well as women participate in training camps for a duration 1-2 months.

The trainer is a physically challenged woman who has been involved in training over the past 5 years.

COMPUTER TRAINEES

S. No.	Name	Education	Age	Country/Village
1.	Mariym	Literate	40	Ethiopia
2.	Yarb	Literate	42	“
3.	Fransisika	Literate	38	Cameroon
4.	Sunita	10	18	Kishangarh
5.	Geeta	10	18	Padasoli
6.	Rakesh	9	16	Tilonia
7.	Ramraj	6	12	Jatali
8.	Hareeram	BA.	25	Tilonia
9.	Nathuram	BA.	28	Tilonia
10.	Ramdevi	8	18	Tilonia
11.	Magi	Literate	50	Tilonia
12.	Joyti	MA.	30	Kekadi
13.	Priti	MA.	28	Kekadi
14.	Kavita	10	18	Harmada
15.	Monika	10	17	Tilonia
16.	Sonika	6	13	Tilonia
17.	Chandni	10	18	Tilonia
18.	Neelu	12	20	Tilonia
19.	Keran	6	14	Tilonia
20.	Ajeet	8	15	Tilonia
21.	Khushbu	8	18	Tilonia
22.	Ramjeevan	6	15	Tilonia
23.	Jakir Husen	10	16	Harmara
24.	Tulsi	9	16	Tulsi
25.	Om Prakash Shrama	10	17	Rampura

“Visiting the library has been one of the major contribution to my preparations in competitive examinations and success in getting a job in the Police.”

A youth from Tilonia

LIBRARY CUM READING ROOM

The library in Barefoot College campus is visited regularly by rural youth from villages in and around Tilonia appearing for their competitive examinations. Over the past two decades more than 100 youth have been able to clear their examinations, interviews and get jobs in the police, army, courts as well as public and private sector.

The library has added its collection of books through donations and presently there are 20,000 books and 150 newsletters, journals and magazines in Hindi as well as English.

“The Community Radio enables us to listen to folk songs and at the same time be introduced to interesting guests visiting Barefoot College.”

**A class 12 Student
and avid listener**

COMMUNITY RADIO

The Community Radio Station (CRS) in Barefoot College new campus was established in August 2009 and the FM frequency allotted is 90.4. The CRS was formally commissioned by the Additional Secretary, Ministry of Information and Broadcasting, Government of India on 9th November 2009 during the course of a three day national workshop on the New Policy of the Government of India, Community Radio. (CR) This workshop was attended by voluntary organisations working in CR as well as government officials.

The CRS has an outreach of 15 kilometres covering a population of 50,000 people in 30 villages. Timings of the CRS are 2 hours in the morning, (7-9 PM) one hour in the afternoon (1-2 PM) and 3 hours in the evening (6-9 PM)

The Programme content focuses on information about governmental schemes and programmes, NREGA, Right to Information, Panchayati Raj, Drinking Water, Health, Education and Solar Energy.