

2011

Blue Planet Prize

Dr. Jane Lubchenco (USA)

Under Secretary of Commerce for Oceans and Atmosphere

Administrator of the National Oceanic and Atmospheric Administration (NOAA)

Barefoot College (Founded in India)



Wish:

*The Blue Planet we live in called Earth
Is full of life
Filled with prayers of hope
Woven by life longing for happiness of
being itself*

*And we ourselves also
Given life on this Earth
Intone the melodies of prayer
Passing them over
With full of wishes of all the lives
Bred on this Blue Planet
Breathed on this Blue Planet
We ourselves also are fulfilled
By the prayers of hope
Of lives longing for happiness of being
themselves*

*To know that the film this time
Came to be of help
For you to listen to the melodies of
prayer
Woven, filled with hopes by all the lives
Bred and breathed on this planet of life
called Earth
We are more than delighted*



Selected from the Slide Show Presented at the Opening of the Awards Ceremony



His Imperial Highness Prince Akishino congratulates the laureates



Their Imperial Highnesses Prince and Princess Akishino congratulate the laureates at the Congratulatory Party

The prizewinners receive their trophies from Chairman Tanaka



Dr. Jane Lubchenco



Mr. Bunker Roy,
Founder of the Barefoot College



Dr. Hiroyuki Yoshikawa,
Chairman of the Presentation
Committee makes a toast at
the Congratulatory Party



Mr. John Victor Roos, Ambassador of the United States of America to Japan (left) and Dr. Chadaram Sivaji, Counsellor, Embassy of India, congratulate the laureates



Dr. Yoshihiro Hayashi, Chairman of the Selection Committee explains the rationale for the determination of the year's winners



The prizewinners meet with the press prior to the awards ceremony

Profile

Barefoot College

Established in 1972, the Barefoot College has a long history providing basic services and solutions to problems in rural communities. The ultimate objective of the college is to help these communities achieve self-sufficiency and sustainability. These 'Barefoot Solutions' can be broad, encompassing solar energy, water, education, health care, rural handicrafts, people's action, communication, women's empowerment, and wasteland development. All Barefoot initiatives are planned and implemented by a network of rural men and women. Because the College believes that it must be based in the village as well as managed and owned by those whom it serves. Those who teach and help rural communities are known as 'Barefoot Professionals', and they defy social stereotypes as to the ability of rural communities and people. It is noteworthy that these Barefoot Professionals have been exemplifying an environmentally sustainable and energy-efficient life realized not only in India but in other developing countries. The most precious and irreplaceable achievement of the Barefoot College is that it enables people to help themselves and live with dignity and self respect.

History and Values of the College

In the late 1960s, a very small group of individuals in India sought an alternative ways of living, thinking about, and looking for rural solutions. After a long and difficult period of trial and error, the group began a process of re-learning life in remote villages with the villagers themselves.

By the early 1970s, urban educated persons and professionals started their own search for working models. However, they were not all successful. While some individuals chose to live in villages, others thought it better to base themselves in the big towns and cities of India. At that time, the idea of living and work in villages was considered 'crazy and daring'. Even with considerable opposition from their parents, they chose an alternative way of life.

Founder Bunker Roy was one person who came to rural community and chose to live there. In 1972, he and other educated people were given permission to collectively register as the Social Work and Research Centre (SWRC), today known as "Barefoot College". The name emphasises the organisation's commitment to poor, neglected, and marginalized sections of society.

In 1972, forty-five acres of Government land and an abandoned Tuberculosis Sanatorium (consisting of 21 buildings) was leased from the Government at Re.1 a month, to serve as a campus. The Barefoot College started working in the village of Tilonia in Rajasthan, with a population of about 2,000 people.

When it was founded, most people working at the College were geologists, economists, doctors, medical and social workers, chartered accountants, graduates and post graduates from universities, who were determined to serve in the villages. Local participation was limited to men, as the College was misunderstood as a missionary organization seeking

conversions.

Members of the College focused on trying to identify the needs and priorities of village communities to improve their standard of living and quality of life. The idea was to upgrade their existing traditional skills and knowledge through training, and to help them take control over basic services at the grassroots level. The College struggled and campaigned for justice and the fair application of law, as well as to bring transparency and public accountability to rural communities in whose name the funds were received.

Rise of the Barefoot College

The early 1980s saw a substantial change in the nature of the College work force, with locals forming 80% of the organization. Local people were gradually were taking charge of the activities and initiatives right from planning to completion, reducing on the need external aid and learning to self sufficient.

The Barefoot College aimed to adopt a new approach to and understanding of social work and community development, by using the local skills to achieve sustainable people-centric and participatory development. The importance of respect the wisdom of traditional knowledge was fully understood and moulds it with the involvement of rural communities to meet their needs. It identified and worked with only poor and marginalised farmers, landless peasants, rural artisans, women, children, and scheduled castes and tribes as its target groups.

Barefoot Campus

In 1977, the College acquired eight acres of land for its new campus in Tilonia. The campus was constructed between 1980 and 1986, and was designed by a team of rural Barefoot architects, masons, blacksmiths, farmers, and members of women groups, who all worked together through the difficult basic design of the campus.

One example of the eco-friendly construction of the campus is that all rooftops were designed to connect one underground water tank with the capacity to collect 400,000 litres of rain water. This tank was constructed under an amphitheatre to utilise the space more efficiently. Overflow from the tank was designed to be directed to open wells.

Basic Values

The Barefoot College has been providing simple solutions to rural problems based on five non-negotiable values: equality, collective decision-making, self-reliance, decentralization, and austerity. For example, the salary structure of the organization is set according to basic values, irrespective of caste and class barriers. People eat in the same mess and wash their own plates. The Barefoot College has also been very flexible in learning from its own mistakes and adapting to changing times.

Although most of the people involved with the Barefoot College are living on less than \$1 a day, the College trains them to be self-sufficient, which enables them to live with dignity and self respect. This appears to be the secret and source of the success of the College, with its impressive history. The most powerful technique that the College has been using is the 'learn and relearn' method that enables people to adopt new ideas flexibly without being afraid of making mistakes. Thus the organization has laid a solid foundation for itself.

Essay

Grass Root Sustainable Solutions Where the Rural Poor Come First

**Mr. Bunker Roy
Barefoot College**

Empowering the rural poor means developing their technical, human and financial capacity to be independent. It means developing their skills so they become competent decision-makers with the confidence to act on their choices. The approach that big donors and Western-conditioned experts have taken to reach the poor—forget about allowing the poor to develop themselves—has been patronizing, top-down, insensitive, and expensive. It excludes the marginalized, the exploited, and the very poor and keeps them from making decisions on their own. This has left them dependent and hopelessly ill prepared to improve their lives. Sadly, these “patrons,” however well intentioned, have refused to learn from their mistakes. In the name of tackling the serious problems of sustainable development they are stuck in a rut that wastes money on a process that simply has not worked.

Enough research has been done. There is strong evidence to show the poor are becoming poorer around the world. This is because alien urban solutions are being imposed on solving basically rural problems. Fundamental change only comes out of conflict of ideas, approaches and methods. There are indeed many other ways of empowering the rural poor.

It starts with giving the poor the right to decide for themselves how they want to improve their quality of life. They must have the right to choose whether they want the urban experts to come into their villages with “modern” ideas. They must have access to information and knowledge and the right to decide whether they would like to be independent of advice and skills from outside when they already have such incredible technical, human, and even financial resources within their own communities. They can even decide whether some knowledge would be useful if they could adapt it to serve their needs. What they need is the opportunity and space to develop themselves.

When provided with that mental and physical space, the poor can achieve wonders without any outside professional interference or advice. The trouble is that, even though established approaches have failed to achieve sustainable improvements, people are reluctant to turn the top-down process on its head and start from the bottom up. Few operational models provide a contrast that demonstrates the alternatives. But outside the usual box are other more cost effective approaches that draw more on the practical experience of the grassroots. There are ways to build on local knowledge and skills. And these approaches can be replicated on a large scale.

Observe the remote inaccessible villages around the world. There is no one left but the very old, the women, and the very young. The youth have left. The youth have left to look for

jobs—any job that would take them away from the village—because the predominant value system denigrates rural life, skills, and traditions and offers little hope of improving the quality of life. They have certificates in their hands from uninspiring mediocre technical institutes and colleges located in small towns producing “graduates” by the thousands with high expectations. These youths thought with a paper degree in their hands they were going to get well-paid, secure jobs in the cities. Instead, they swelled the ranks of the educated unemployables living on the pavements and in the slums in the metropolitan cities of India.

When the youth fled, they took with them the dying hopes of their parents—weavers, blacksmiths, potters, builders, carpenters, farmers—to pass on the traditional skills to the next generation. They left behind not only their families but also the knowledge their elders had collected over the generations to adapt to local conditions, apply low cost sustainable solutions and provide a “living” example of how to live simply. Remember what Gandhi said, “Live simply so that others may simply live.” This is knowledge that no formal educational system values, but it is critical for developing a community with dignity and self-respect. The formal educational system as we know it makes them look down on their own roots.

What we have “unlearned” is our gross underestimation of people’s infinite capacity to identify and solve their own problems with their own creativity and skills, and to depend on each other in implementing solutions. The empowerment of the marginalized rural poor is about developing that capacity to solve problems, to make choices, and to have the collective confidence to act on them.

These people need to assert their identity and demonstrate that their knowledge and skills are not outdated, second-rate, or irrelevant. They need a college dedicated to their specific and special circumstances, and one that is located in a remote rural area. They need a place where they could feel a sense of ownership, where their self-respect and self-esteem could be developed gradually over the years.

So is it not time to start thinking of a College only for the poor? Where the teacher is the learner and the learner is the teacher. A place which is managed, controlled and owned by the poor who earn less than \$ 1/day: where paper degrees and diplomas are a disqualification and people are judged not according to their degree of literacy or academic distinction, but by their attributes: honesty, integrity, compassion, practical skills, creativity, adaptability, willingness to listen and learn, and ability to work with all sorts of people without discrimination. The goal is not to change their lifestyle but to gain the basic skills they need to provide to their own communities a vital service, one that urban professionals are currently trying to provide, often unsuccessfully.

If we are to show how to live simply in a sustainable manner what we need is a radical departure from the traditional concept of a “college” because it encourages a hands-on learning-by-doing process of gaining practical knowledge and skills rather than written tests and paper-based qualifications. It promotes and strengthens the kind of informal education one absorbs from family, community, and personal experience. It deliberately confers no degrees, with a view to reversing migration. If one can improve the quality of life in one’s community by providing a vital service, why would anyone in their right mind want to live an unspeakably miserable existence in the urban slums?

First, we need to demystify education, taking Mark Twain to heart: “Never let School interfere with your Education.” Mahatma Gandhi believed that giving more importance, value, and relevance to practical skills and applying traditional knowledge to solving day-to-day problems was essential for living a sustainable life style.

Second, give priority to the ideas, thoughts, and wishes of the rural poor. It values keeping the oral tradition alive from father to son. The focus should be to make the young men, women, and children living in the village aware of this precious resource so that eventually they will stay in their villages and not migrate to the cities to end up living in a slum.

There is a desperate need for a place where no importance is placed on urban experts with paper degrees and qualifications who want to participate in it. Sadly, thirty years of exposure and experience in rural India has shown that most people with high-level paper qualifications are unfit (and misfits) when it comes to living and working in remote rural areas. They do not have the patience, humility, listening skills, open minds, tolerance, or capacity to show respect for traditional knowledge and skills.

Third, enhance the self-confidence and competence of the poorest of the poor by providing them access to learning that develops their ability to serve their own community, thus making them more confidently self-reliant. The criteria for selection is simple. Select only those village people—both men and women—who are illiterate, semiliterate, or barely literate and who have no hope of getting the lowest government job. Train them as educators, doctors, teachers, engineers, architects, designers, communicators, hand pump mechanics, and accountants. Let them demonstrate that “experts” from the urban areas with paper qualifications are not really required to make villages self-sufficient and sustainable because they can do the work themselves.

Empowering Rural Women

The secret is to recognize the potential of illiterate and semi-literate women to succeed in those areas reserved traditionally reserved only for men. They have shown an awesome capacity and confidence to provide a service to their communities and to destroy stereotyped images and roles in the process.

Today many women in non-traditional roles are serving their own communities. Women are working as night school teachers, hand-pump mechanics, solar engineers, water engineers, architects, masons, and fabricators of solar cookers. Illiteracy has never been considered a barrier to women developing themselves as professionals. Illiterate women have shown they are capable of handling computers and training unemployed youth in feeding technical, health, and literacy data.

What is remarkable is that for the first time sophisticated solar technology has been demystified, and simple village women have demonstrated how effectively they can manage and control it to improve their quality of life. They now have the opportunity to develop their competence and confidence to handle technology, providing services to their own community that gives them a new level of acceptance and the respect they deserve.

Challenges and Lessons Learned

What is needed is a pioneering and innovative approach to applying the knowledge, skills, and practical wisdom of the rural poor—which may be the only way to make communities self-reliant and sustainable.

With roots in the village community and a deep-rooted respect for the proper and wise use of water, air, earth, and the sun, the rural poor have set an example of how NOT to waste or overexploit nature resources. They are a living testimony to Mahatma Gandhi's famous saying, "The world has enough for every man's need but not for one man's greed."

The approach could have a considerable impact in changing the mindset of urban "experts" and influencing their attitudes toward the idea of having the poor identify and solve their own problems. Development with dignity means development with less dependence on urban skills and more self-respect.

Major Challenges

1. Promoting a Different Vision of Sustainable Development

The first challenge has been to convince people that a different vision of sustainable development is possible. The most formidable of hurdles has been to convince urban people that semi-literate rural women from any village in India—indeed, any remote village in the world—can competently provide basic professional services to their own communities. This task continues to be a daunting one since it involves changing long-held stereotypes, mindsets, and attitudes towards the poor.

2. Dealing with Success

The second challenge has been dealing with success. Once it has been demonstrated that any semi-literate rural woman can solar-electrify remote villages and look after solar units more competently than paper-qualified solar engineers this is likely to turn established perceptions upside down, and debunk the basic assumption that formal education is required for sustainable development work.

The very idea of semi-literate women being able to manage and control initiatives at the village level is almost inconceivable.

3. Learning from Failure

The third major challenge is to learn from successful failures. Taking risks, trying new ideas, failing and trying again is a process that should be respected. We recognize that we should learn as much from failure as from success. But the formal education system has no room for failure. In that system, failure is considered a matter for shame and regret. We should give everyone involved the opportunity to make mistakes and learn from them.

What is long overdue is to put into practice an idea first espoused by Mahatma Gandhi: that the resources required to develop poor communities lie within the bounds of those communities. Human, technical, and financial resources need not come from outside in order for a community to bring about fundamental change and improve its quality of life. Too often, community resources are neglected, looked down upon, and considered inferior just because

they have not conformed to the formal requirements of the education system.

What needs to be shown on the ground is that villagers themselves with little or no educational qualifications, can learn to provide basic services to their own community. To be able to change the mindset of poor rural people who have been made to feel that they cannot do it themselves is an enormous contribution. Less developed countries would benefit immensely from realizing this inner strength all poor communities have. It can eventually transform the outlook not only of development officials, but, most importantly, of the rural poor themselves

First they ignore you, then they laugh at you, then they fight you, and then you win—*Mahatma Gandhi*

Lecture

Demystifying Professionalism: The Barefoot Approach

Mr. Bunker Roy
Founder, Barefoot College

Empowering the rural poor means developing their capacity. It means developing their skills so they become competent decision-makers with the confidence to act on their choices. Thus far, conventional approaches to such empowerment have failed. The approach that big donors and Western-conditioned experts have taken to reach the poor—forget about allowing the poor to develop themselves—has been patronizing, top-down, insensitive, and expensive. It excludes the marginalized, the exploited, and the very poor and keeps them from making decisions on their own. Thus it disempowers them, leaving them dependent and hopelessly ill prepared to improve their lives. Moreover, these “patrons,” however well intentioned, have refused to learn from their mistakes. They are stuck in a rut that wastes money on a process that simply has not worked.

Enough research has been done. There is strong evidence to show the poor are becoming poorer around the world because we have been tackling rural problems by thrusting urban solutions on the poor. That is not what they need. On the basis of overpowering documentation what is the need of the hour is implementation. Fundamental change only comes out of conflict of ideas, approaches and methods. There are indeed many ways of empowering the poor. The “barefoot approach” is one such way.

It starts with giving the poor the right to decide for themselves how they want to improve their quality of life. They must have the right to choose whether they want the urban experts to come into their villages with “modern” ideas. They must have access to information and knowledge and the right to decide whether they would like to be independent of advice and skills from outside when they already have such incredible technical, human, and even financial resources within their own communities. They can even decide whether some knowledge would be useful if they could adapt it to serve their needs. What they need is the opportunity and space to develop themselves.

When provided with that mental and physical space, the poor can achieve wonders without any outside professional interference or advice. The trouble is that, even though established approaches have failed to achieve sustainable improvements, people are reluctant to turn the top-down process on its head and start from the bottom up. Few operational models provide a contrast that demonstrates the alternatives. But outside the usual box are other more cost effective approaches that draw more on the grassroots. There are ways to build on local knowledge and skills. And these approaches can be replicated on a large scale.

There are supplement slides *at the back of* the section.

Origins of the Barefoot Idea

In 1971, I went to live and work in the rural village of Tilonia in Rajasthan, India, after receiving the most elitist, expensive, snobbish private education that any Indian could possibly receive. When I arrived, I remember being shaken by the questions the elders asked me: Are you running from the police? Did you fail in your examinations? You did not manage to get a government job? Is there something wrong with you? Why are you here? Why have you come from the city to this village? There is no one here but the very old, the women, and the very young. The youth have left.

The youth had left to look for jobs—any job that would take them away from the village—because the predominant value system denigrated rural life, skills, and traditions and offered little hope of improved incomes or quality of life. They had certificates in their hands from uninspiring mediocre technical institutes and colleges located in small towns producing “graduates” by the thousands with high expectations. These youths thought they were going to get well-paid, secure jobs in the cities. Instead, they swelled the ranks of the educated unemployables living on the pavements and in the slums in the metropolitan cities of India.

Why unemployable? Because their paper degrees had no value. The certified doctors, teachers, and engineers produced by the thousands every year are paper experts without any practical experience. They are caught up in a system that is not accountable to the people it is supposed to serve and produces insufficient jobs to absorb the number of job seekers. Civil engineers build roads that do not last; water engineers build tanks that collapse or crack and cannot be used; doctors focus on curative approaches and know little or nothing about preventive health. So in the absence of jobs but still hoping for any job, they live an inhuman existence in appalling urban slums. The humiliation and scorn they would face on returning to the village prevent them from going back. Anyone going back to the village is considered a failure and the shame is shared by the whole family.

When the youth fled, they took with them the dying hopes of their parents—weavers, blacksmiths, potters, builders, carpenters, farmers—to pass on the traditional skills to the next generation. They left behind not only their families but also the knowledge their elders had collected over the generations to adapt to local conditions. This was knowledge that no formal educational system valued, but it was critical for developing a community with dignity and self-respect. The formal educational system had made them look down on their own roots.

For me, living and working in the villages for five years as an unskilled laborer digging and blasting wells and meeting with very ordinary poor people was an extraordinary experience. Between 1967 and 1971, I went through an “unlearning” process that provided the seeds for the humble beginning of the Barefoot College.

Over the last 40 years, what we have “unlearned” is our gross underestimation of people’s infinite capacity to identify and solve their own problems with their own creativity and skills, and to depend on each other in tackling problems.

What I learned is that empowerment of the marginalized rural poor is about developing that capacity to solve problems, to make choices, and to have the confidence to act on them.

On a different front, the college understood the specific real needs of the rural poor. These people needed to assert their identity and demonstrate that their knowledge and skills

were not outdated, second-rate, or irrelevant. They needed a college dedicated to their specific and special circumstances, and one located in a remote rural area. They needed a place where they could feel a sense of ownership, where their self-respect and self-esteem could be developed gradually over the years.

The Barefoot College acts as a counterpoint both to the incredible ignorance and arrogance the formal system displays and to its belief that it makes an indispensable contribution to tackling poverty; in reality that approach is counterproductive, even dangerous.

What is Barefoot College?

As an organization, Barefoot College is the only college in India that follows the lifestyle and work style of Gandhi. It is the only college built by the poor, for the poor, and for the last 40 years, managed, controlled, and owned by the poor. Underlying the Barefoot approach is a firm belief in the knowledge, creativity, practical wisdom, and survival skills of the marginalized poor—possibly the only answer to making communities self-reliant and sustainable. For an unemployed and employable semi-literate rural youth to be providing vital services in a village, replacing an urban, paper-qualified doctor, teacher, or water engineer is a totally revolutionary idea. And yet, this is what happens at the Barefoot College every day.

It is the only college where paper degrees, diplomas, and doctorates are a disqualification because people are judged not according to their degree of literacy or academic distinction, but by their attributes: honesty, integrity, compassion, practical skills, creativity, adaptability, willingness to listen and learn, and ability to work with all sorts of people without discriminating.

The term “barefoot” is both symbolic and literal. Those who work, teach, learn, and “unlearn” and provide a technical skill without a paper degree issued by the Barefoot College go barefoot and remain so after they return to their own villages. Their goal is not to change their lifestyle but to gain the basic skills they need to provide to their own communities a vital service, one that urban professionals are currently trying to provide, most often unsuccessfully. Meanwhile they are maintaining a healthy and sustainable lifestyle for themselves and their community.

The Barefoot College is a radical departure from the traditional concept of a “college” because it encourages a hands-on learning-by-doing process of gaining practical knowledge and skills rather than written tests and paper-based qualifications. It promotes and strengthens the kind of education one absorbs from family, community, and personal experience. It deliberately confers no degrees, with a view to reversing migration. If one can improve the quality of life in one’s community by providing a vital service, why would anyone in their right mind want to live an unspeakably miserable existence in the urban slums? In any case, because barefoot professionals do not have paper certificates, no one in the urban areas, sadly, will seriously value their skills.

The ideology of the Barefoot College has four key components: Alternative Education, Valuing Traditional Knowledge and Skills, Learning for Self-Reliance, and Dissemination.

1. Alternative Education

First, the Barefoot College demystifies education, taking Mark Twain to heart: “Never let

School interfere with your Education.” Mahatma Gandhi believed that giving more importance, value, and relevance to practical skills and applying traditional knowledge to solving day-to-day problems was essential for the development of rural India. Gandhi’s thoughts live on in the Barefoot College. Living conditions for everyone are simple and down to earth (literally!). Everyone sits, eats, and works on the floor. No one can receive a salary of over US \$150 a month.

2. Valuing Traditional Knowledge and Skills

Second, the Barefoot College gives priority to the ideas, thoughts, and wishes of the rural poor. The college respects and emphasizes the importance of traditional knowledge, skills, and practical wisdom. It values keeping the oral tradition alive from father to son. This type of education is deeply rooted in long experience facing the challenges of living in particular circumstances and can never be replaced. The focus of the college is to make the young men, women, and children living in the village aware of this precious resource so that eventually they will stay in their villages and not migrate to the cities to end up living in a slum.

This is a major reason why the college places no importance on urban experts with paper degrees and qualifications who want to participate in it. In fact, people may be disqualified if they have too many paper qualifications. Sadly, 40 years of exposure and experience in rural India has taught us that most people with high-level paper qualifications are unfit (and misfits) when it comes to living and working in remote rural areas. They do not have the patience, humility, listening skills, open minds, tolerance, or capacity to show respect for traditional knowledge and skills.

3. Learning for Self-Reliance

Third, Barefoot College enhances the self-confidence and competence of the poorest of the poor by providing them access to learning that enhances their ability to serve their own community, thus making them more confidently self-reliant. Over the last 40 years, thousands of unemployed and unemployable rural poor have been selected and trained as barefoot educators and technologists.

The criteria for selection are simple. We select only those village youth—both men and women—who are illiterate, semiliterate, or barely literate and who have no hope of getting the lowest government job. They have been trained as “barefoot” educators, doctors, teachers, engineers, architects, designers, communicators, hand pump mechanics, and accountants. They have demonstrated that “experts” from the urban areas with paper qualifications are not really required to make villages self-sufficient and sustainable because these trained “barefoot” experts can do the work themselves.

In keeping with the Barefoot philosophy, each operates independently, defining its own curriculum but keeping a few non-negotiable tenets at the core of their operations:

Equality. All people in the college are equal regardless of gender, caste, ethnicity, age, and schooling. In practical terms, this means the college has no hierarchy. The founder and director of a college have the same say and status as the new barefoot accountant who has just joined it and the physically challenged barefoot operator who answers the phone.

Austerity. Everyone in the college receives a living wage, not a market wage. The maximum wage anyone can earn is US \$150/month; the minimum is about half that at 73 Indian rupees per day. Living conditions focus on basic needs and are designed to minimize waste.

Collective Decision-Making. Decisions are made collectively, not by individuals in isolation. For example, the salary each person receives is decided on by everyone in the organization; the process is based on a points system in which each person evaluates himself and everyone else according to several criteria.

Barefoot College is also the only fully solar-electrified college based in a village in India. Starting in 1989, barefoot solar engineers installed a total of 40 kilowatts of solar panels and 5 battery banks, each containing 136 deep-cycle batteries. The solar components (inverters, charge controllers, battery boxes, stands) were all fabricated in the college itself.

Empowering Rural Women

Only in the late 1980s did Barefoot College begin to recognize the potential of illiterate and semi-literate women to succeed in these non-traditional areas. As we have implemented this approach over the last 25 years, the women we have worked with have shown an awesome capacity and confidence to provide a service to their communities and to destroy stereotyped images and roles in the process.

Today many women in non-traditional roles are serving their own communities. “Barefoot” women are working as night school teachers, hand-pump mechanics, solar engineers, water engineers, architects, masons, and fabricators of solar cookers. Illiteracy has never been considered a barrier to women developing themselves as barefoot professionals.

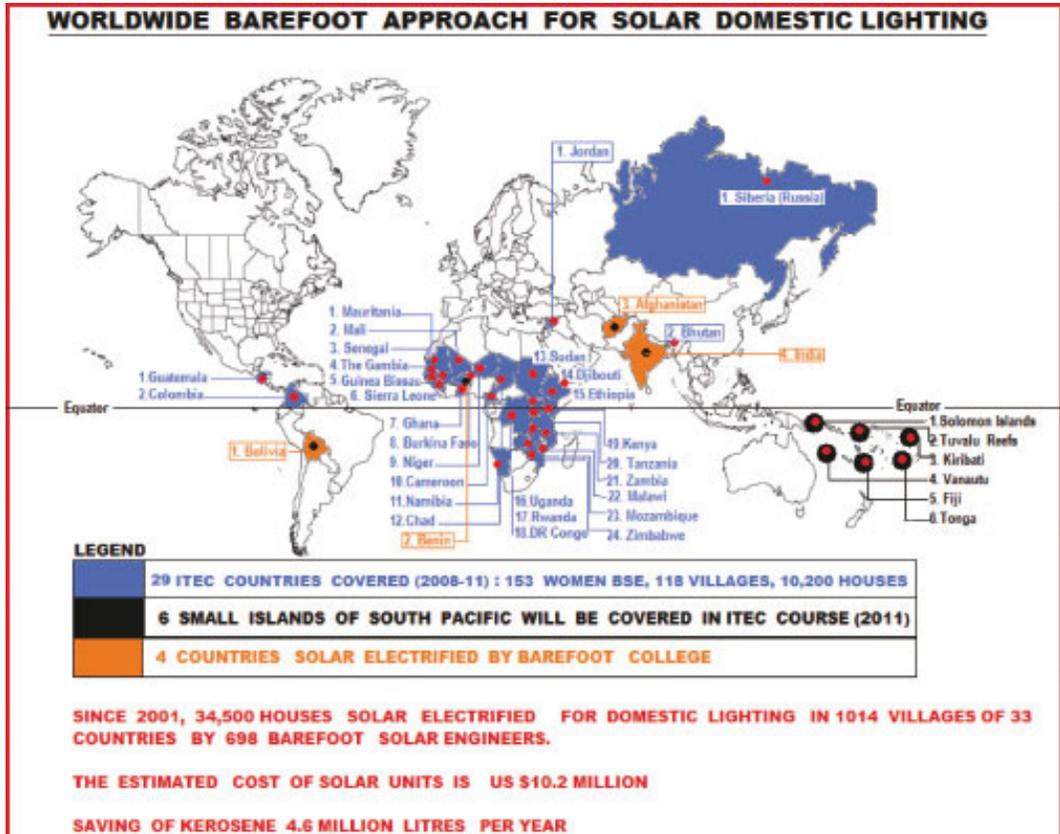
Illiterate women are handling computers and training unemployed youth in feeding technical, health, and literacy data to our organization.

Some programs cover areas such as water and education, where women have traditionally been very active, but their role in spreading solar technology is totally new for them, although it does build on their traditional responsibility to maintain the supplies of kerosene for lighting and fuel for cooking.

What is remarkable is that for the first time sophisticated solar technology has been demystified, and simple village women have demonstrated how effectively they can manage and control it to improve their quality of life. They now have the opportunity to develop their competence and confidence to handle technology, providing services to their own community that give them a new level of acceptance and the respect they deserve.

What is innovative is involving the whole community in selecting semi-literate women as engineers to provide a vital and non-traditional technical service in an area not generally associated with rural women. It also requires them to develop systematic leadership skills, persuading the community to pay a monthly contribution for the repair and maintenance of the solar systems they have installed in each house in their own village. Where this system was first adopted, the household contributions have been coming in regularly for the last four years.

Empowered Barefoot Women around the World



The demystified and decentralized barefoot approach of solar electrifying villages primarily in the South would not have been possible without PARTNERSHIPS.

Under a unique scheme of the Government of India providing financial support called India Technical Economic Cooperation (ITEC) over 200 illiterate grandmothers from nearly 30 LDCs have been trained at the Barefoot College. Nearly US \$ 700,000 have been spent on air fares and training costs between 2009-2011.

The hardware (solar equipment) has been provided under a Global Agreement with the GEF Small Grants Programme of the UNDP covering Uganda, Niger, Chad, Ethiopia, Ghana, Mozambique, Rwanda, Burkina Faso, Cameroon and Kenya.

Profiles:

Fatuma Abubker Ibrahim, one of the Barefoot Solar Engineers of Ethiopia, lives in the remote village of Beyahile, in Afar state. Fatuma is 20 years old, single, attended primary school, and lives with her parents. She and her family tend to their three cows, 30 goats, and three camels on two hectares of land. Since July 2006, Fatuma has also been looking after 90 fixed solar units, 90 solar lanterns, and one rural electronic workshop in Beyahile and nearby villages.

Awatif Abduraheman lives in the remote village of Benishangul in Ethiopia. Semiliterate, she is 25, married, and has three sons. She and her family make their living farming their four hectares. Awatif also does domestic work, and since July 2006 has been installing, maintaining, and repairing 80 solar units in her village and others nearby.

Aminata Woulet is 40 and lives in Tinjambane village in Timbuktu in Mali. A widow since 1994, she has never been to school, but can read and write. She has other skills: dyeing cloth with indigo, making leather crafts, and looking after goats.

Haja Woulet is 32, a widow with one 10-year-old daughter. She is illiterate and lives with her parents, also in Tinjambane.

Together Aminata and Haja solar electrified their own village of 92 houses in 10 days; it was the first village in Mali where rural women installed solar electricity.

Aji Kamera lives in the village of Kafenkeng in The Gambia. She is over 30, married with four children, and a Muslim. She attended school up to class 7 but then dropped out. She owns a small plot, on which she keeps three goats, a cow and four chickens. She installed solar electric units in 40 houses in one week; they have been functioning for nearly a year now.

Nancy Kanu, a Muslim, lives in KontaLine in Sierra Leone. She is 40 years old, has six children, and is semi-literate. She owns one sheep and one goat. Single-handedly, she solar electrified her village of 35 houses and was the first women solar engineer in Sierra Leone.

That same kind of empowerment has now spread to women beyond India into other parts of Asia and Africa. For the past 11 years, the Barefoot College has been training semi-literate and illiterate rural women to assemble, install, repair, and maintain solar photovoltaic systems. Once selected by their village to undergo solar training for six months at the Barefoot College, the women come to Tilonia and acquire the competence and confidence to fabricate, install, repair, and maintain sophisticated solar units. They then return to their communities to install solar systems in each house in the village, thus establishing their credibility in the eyes of each family that pays a monthly contribution for them to repair and maintain the units.

Never in the history of Afghanistan has an illiterate woman left her house, her village, and her country for six months to train as a solar engineer in India, but that is exactly what 26-year-old Gul Zaman, from the village of Katasang in Daikundi province, did in 2005. She and her 30-year-old husband Mohammed Jan came to Tilonia for six months. They have a small plot of land to feed 10 people, and work as day laborers for over 200 days each year. Together the couple gently created history by solar electrifying their own village of some 50 houses, and the units have continued functioning since September 2005.

Electrifying houses provides additional income and a new level of confidence and leadership to the women who train in Tilonia as solar engineers and then serve as role models for young women in their villages. It also opens up other income generating opportunities for all women, who can then use their evening hours to manufacture handicrafts and other goods for sale.

Challenges and Lessons Learned

What is pioneering and innovative about the Barefoot approach is the emphasis and respect it gives to applying the knowledge, skills, and practical wisdom of the rural poor—which may

be the only way to make communities self-reliant and sustainable.

With roots in the village community and a deep-rooted respect for the proper and wise use of water, air, earth, and the sun, Barefoot Educators have set an example of how NOT to waste or overexploit nature resources. They are a living testimony to Mahatma Gandhi's famous saying, "The world has enough for every man's need but not for one man's greed."

The approach has had a considerable impact in changing the mindset of urban "experts" and influencing their attitudes toward the idea of having the poor identify and solve their own problems.

Development with dignity means development with less dependence on urban skills and more self-respect. The Barefoot approach has worked. The results are there for everyone to see and feel.

Major Challenges

1. Promoting a Different Vision of Development

The first challenge has been to convince people that a different vision of development is possible. Throughout its brief lifetime, the college has worked hard to convince urban people that semi-literate men and women from any village in India—indeed, any remote village in the world—can competently provide professional services to their own communities. While the results of the college's work speak for themselves, this task continues to be a daunting one since it involves changing long-held stereotypes, mindsets, and attitudes towards the poor. Still, a great many people, including many who hold important positions, have learned about its activities and have traveled to Tilonia to witness its work first-hand. We make progress with each new person who comes to the campus, as they absorb the spirit of the approach and are inspired to help disseminate and expand it within their own spheres of influence.

2. Dealing with Success

The second challenge has been dealing with success. The college has demonstrated that semi-literate rural women can solar-electrify remote villages and look after solar units more competently than paper-qualified solar engineers. In so doing, it has turned established perceptions upside down, and debunked the basic assumption that formal education is required for development work. Unfortunately, in challenging established thinking on development, the college has generated hostility and jealousy, and has made many enemies.

Those most hostile to the Barefoot approach are people who have invested a great deal in acquiring an education through the official system and then applying that misguided "expertise." The very idea of semi-literate women being able to manage and control initiatives at the village level undermines those hard-earned credentials and credibility and even threatens the existence of their jobs. Indeed, one result of the Barefoot approach in India, where it is most widely replicated, has been the replacement of cost-intensive initiatives and jobs by low-cost and intensive initiatives, providing gainful employment within the villages.

3. Learning from Failure

The third major challenge has been to learn from successful failures. Taking risks, trying new ideas, failing and trying again is a process that is respected in the Barefoot College because we recognize that we should learn as much from failure as from success. But the formal education system has no room for failure. In that system, failure is considered a matter for shame and regret. Barefoot College gives everyone involved the opportunity to make mistakes and learn from them. Any organization worth its salt has to go through crises. The crises can either break the organization into little splinters or eventually make it stronger. In the early 1980s, as decision-making power within the college gradually shifted from the urban professionals to the rural youth, many of the former left to join other organizations or opted back into the system. That was a crisis that led to uncertainty and insecurity. But the college learned two important lessons that have since guided and influenced future decisions.

1) Do not depend on urban professionals because they will not stay there all their lives. In a world dominated by materialism, they may be tempted to use the college as a stepping-stone to secure better-paying jobs. The answer has been to develop the capacity, confidence, and competence of the rural poor to provide their own services. After all, they have the knowledge and the skills that have stood the test of generations before the urban-trained doctor, teacher, and engineer turned up on the scene. Why not, as a policy, move in that direction? That is what we have done and it has been a key to our success.

2) You do your best work when you are insecure. When your back is against a wall and you have nowhere to run and no one to turn to, you have no choice but to face the consequences. When a crisis arises and could possibly lead to violence, urban professionals normally do not have the staying power. Because they have somewhere to run to, they are not prepared to see the crisis through.

In many ways, the Barefoot College is a microcosm of a more just and creative world. Special emphasis is placed on giving the physically and mentally impaired the same opportunities to work and belong to society as the physically and mentally able. People who need medication but cannot afford to pay the market price are charged 10 percent of that price by the health center; if they are really struggling they are given the medication free of charge. Waste paper from offices is recycled to make bags, pencil holders, origami, and teaching tools—which are in turn supplied to local night schools. Office equipment, fans, and lights are powered by solar panels on the roofs of office buildings; living quarters are similarly supplied with solar energy. Drinking water and sanitation needs are met by a combination of rooftop rainwater harvesting and local hand pumps; and the local environment is strengthened by a network of troughs that harvest rainwater and feed it into a large open well used to recharge the water table. Discarded intravenous drip bottles and tubes are disinfected and used to irrigate plants on the campus in this semi-desert area.

The Barefoot College has been putting into practice an idea first espoused by Mahatma Gandhi: that the resources required to develop poor communities lie within the bounds of those communities. Human, technical, and financial resources need not come from outside in order for a community to bring about fundamental change and improve its quality of life. Too often, community resources are neglected, looked down upon, and considered inferior just

because they have not conformed to the formal requirements of the education system.

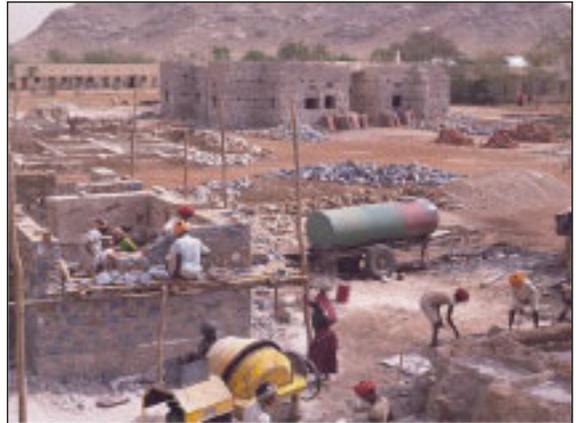
However, just as important, the college has demonstrated to the villagers themselves that any one of them, man or woman, with little or no educational qualifications, can learn to provide basic services to their own community. To be able to change the mindset of poor rural people who have been made to feel that they cannot do it themselves is an enormous contribution. Less developed countries would benefit immensely from adopting this Barefoot approach. It can eventually transform the outlook not only of development officials, but, most importantly, of the rural poor themselves, instilling in them a “can do” attitude to improving their own lives, and replacing the apathy and hopelessness they may feel after so many years of coming up against an irresponsible system that does not respect their abilities.

First they ignore you, then they laugh at you, then they fight you, and then you win—
Mahatma Gandhi

Slide 1
The Barefoot Architects



Slide 2
Built at \$1.50/sq.ft by 12 Barefoot Architects in 3 Years



Slide 3
Paving a Village Road



Slide 4
Underground Water Strage



Slide 5

**The First Barefoot Solar Engineer of India:
Fully Solar Electrified the Campus between 1986 and 2000**



Slide 6

The campus has 40 KWs of solar panels.



Slide 7

Solar Cookers



Slide 8

Semi-literate Women Barefoot Dentists



Slide 9
Handloom-weaving



Slide 10
Soldering Work



Slide 11
Teaching Computer Skills



Slide 12
Reverse Osmosis Membrane Water Filtration



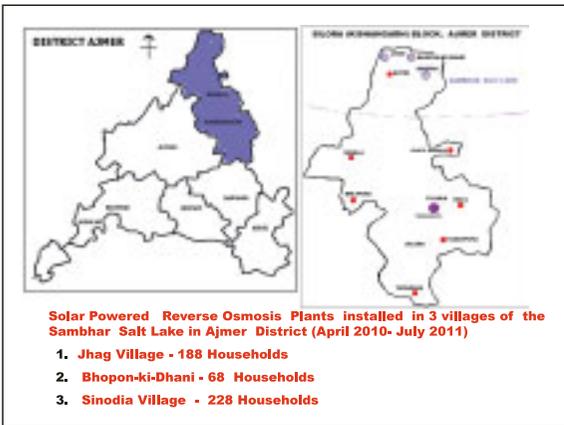
Slide 13
Night School



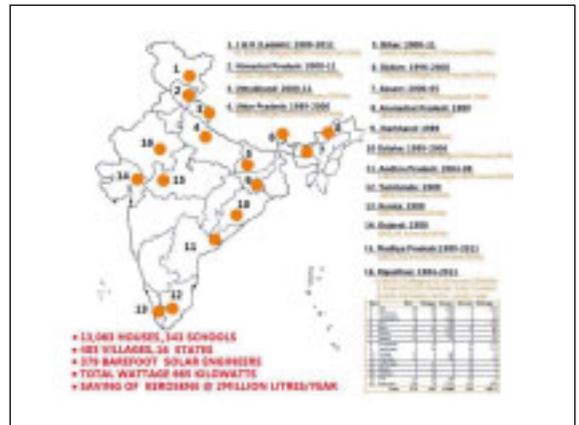
Slide 14
Reservoir with Dammed Water



Slide 15
Solar Powered Reverse Osmosis Plants Locations



Slide 16
INDIA: Solar Lighting and Maintenance (1984-2011)



Slide 17
Assembling Solar Lanterns



Slide 18
Africa: Solar Lighting (2004-2011)

