

Millennium Development Goals and Innovation: Understanding a Socially Entrepreneurial Venture in Rural Rajasthan

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Abstract

The Millennium Development Goals (MDGs), meant to address verity of issues ranging from extreme poverty to environmental sustainability have been offering handful of help to the most deprived sections to combat there exclusion. Use of innovative technologies is given utmost priority in most of the world in order to acquire resources to tackle the aimed issues under MDGs approach. Some of the pioneering individuals across the globe have been using their entrepreneurial capabilities in order to strengthen the given objectives. The use of innovative social entrepreneurial ventures at the greatest possible levels has become the most vibrant option in order to show the difference in achieving the MDGs as their role in the rebuilding modern societies is quite apposite. A socially entrepreneurial venture by name Barefoot College located in rural Rajasthan is studied in order to understand and learn the possibilities to replicate the model in other backward areas in order to achieve the MDGs.

Key Words: Social Entrepreneurship, Innovation, MDGs, Barefoot approach

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Today, starting from European Countries where the notion of social exclusion/inclusion was born, United States where outer/inner class plays very predominant role in disclosing the excluded, in African countries where people lack minimum means to sustain, and in India where caste and economic factors play significant roles in identifying individual importance, exclusions of the communities to climb new heights as the development is witnessing stratification of the society in greater way. Whatever the way of describing the excluded, it is true that the *tragedy of exclusion* is everywhere in the world. Various Welfare States/Governments failure to address the needs of the entire people on the one hand in various parts of the globe is the biggest cause for this predicament, which should not be overlooked. On the other hand increased population across the globe especially in the developing countries should also accredited to the elevation of the problem. In the starting of 20th century there were only 1800 million people whereas by end of 20th century it has reached to 6400 million which is six times more than the earlier century and UN estimates that the population would be projected to 9000 Million by end of 2100 which would be again 100 percent more than the earlier decade (United Nations; 2004). The whole scenario resulted in “half the population on the planet struggles to survive on less than \$3 day and half of them live under harsh conditions of extreme material deprivation and food insecurity”. “The sad fact that, over half a billion or more, most likely 3 billion people on the planet, work full time and are still poor (Davis; 2002; 9)”. Ironically most of them lives in developing countries.

The increased population and the decreased welfare facilities from the state have made the lives of the people vulnerable at the global framework. This situation has attributed to the existing disparities among rich and poor. As more people come and join the pool of poor, then the state doesn't have any role to offer except ignore the poor or to depend on charities in order to entertain them. Due to this sometimes people may get re-excluded (Krishna R K R, 2008) as they are not in a position to articulate their problems to the outer society, as and when the state behaves against the interests of the excluded. Since several decades various civil society organizations have been working to sort out different social problems, but in vain the areas of exclusion has been widening along with the technological development which today's world experiences.

Again it is believed to be the modern technologies which have made life very easy in the 21st Century have attributed for the economic and environmental collapse, terrible diseases such as Swine Flu, HIV, over-population wars, war, terrorism etc., So, parallel to the development that the globe has been experienced, there is a series of social drawbacks that have been warning the human life as threat in this millennium. In this regard there is a lot to do to promote the basic human survival. Even Markets which are considered to be base for increased gap between rich and poor are also projecting same in the present technological era. In general they have failed to address the social inequalities and further elevated the inequalities among the masses. They have exclusively transcended to ignore the interests of the communities.

Millennium Development Goals

Having the above background, the United Nations have prepared Eight Millennium Development Goals (MDGs) ranging from end of extreme poverty, universal education, gender equality, child health, maternal health, combat HIV/AIDS, environmental sustainability and global partnerships. MDGs are the targets that are set by the United Nations in order to attain social and economic development with the notions of international cooperation. These objectives are considered to be the blue print and agreed up on by the world countries and the leading institutions in the world in order to sustain the humanity as a whole with equality in sharing the resources. All objectives are interdependent and each one has greater implications for the other. The Open Method of Cooperation 2000 of the European Society's towards eradication of social exclusion also reflects under the broad realm of MDGs. Very significantly as many as 189 nations have signed the MDGs to be achieved before the prescribed date. Speaking about the importance of the MDGs Ban Ki-Moon, the General Secretary of the United Nations pointed out that "Eradicating extreme poverty continues to be one of the main challenges of our time, and is a major concern of the international community. Ending this scourge will require the combined efforts of all, governments, civil society organizations and the private sector, in the context of a stronger and more effective global partnership for development. The Millennium Development Goals set time bound targets, by which

progress in reducing income poverty, hunger, disease, lack of adequate shelter and exclusion - while promoting gender equality, health, education and environmental sustainability - can be measured. They also embody basic human rights - the rights of each person on the planet to health, education, shelter and security. The Goals are ambitious but feasible and, together with the comprehensive United Nations development agenda, set the course for the world's efforts to alleviate extreme poverty by 2015" (www.un.org/millenniumgoals).

The MDGs approach so far has achieved mixed results, where the 2010 update on the status of the Goals specifies that the reduction of poverty by half has been not possible fully even in a single region. The 2010 update bestows that the first MDG implies that Sub Saharan Africa, Southern Asia, Commonwealth of Independent States in Asia are having high poverty and might not be possible to eradicate if prevailing trends persists. Very interestingly the Western Asia progress has been deteriorated. Both Eastern and South-Eastern regions through still affects from high poverty, there are greeter possibilities for the eradication. Whereas Northern Africa and Europe are highly motivated in terms of eradication of poverty and low poverty rates are registered. Both the decent employment and hungry also holds the same ration in terms of their progress that has been achieved since the inception of the MDGs. As poverty considered as one of the main reasons for all other human deprivation, other MDGs have not been practiced as they were expected. Having the poor growth rate in the MDGs status it is quite impossible to achieve them by end of the expected time duration i.e. 2015 unless there is a strong commitment processed from not only the national governments but also from all other civic organizations.

With this background of the status of the MDGs being downtrodden, it is significantly recognized that in order to achieve these MDGs mere governments support would not simply enough. Both the governments on the one hand and of the Non Governmental sectors on the other hand could not so far reach the neediest. The emergence of a new breed of social investor i.e. social entrepreneur has made the whole debate on the 'reaching the poor' has made easier. These *naya leaders* who have borrowed the breed

from entrepreneurship and NGOs have been so active in terms of realizing the MDGs in the fastest possible. Let us have a small discussion about the magnitude of the notion of social entrepreneurship.

Dees (2001) in his article says that social entrepreneurship is a concept which describes the creative propensity of individual or groups to address social issues in imaginative and innovative ways, often uses the tools of business within the context of philanthropy and nonprofit organizations. Bill Drayton (CEO, Ashoka) while explaining about the capabilities of an entrepreneur emphasises that “social entrepreneurs are not content just to give fish or to teach how to fish. They will not rest until they have revolutionized the fishing industry” (<http://www.cesolutions.org/approach.html>). In general social entrepreneurs are the practical dreamers, having the skills and vision to solve today’s practical problems of the society and projects better tomorrow.

One of the virtues of social entrepreneurship is that it permits different experiments to be conducted in the search for better ways of serving social needs (Gregory, 2005). During the era of failures of welfare state the welfare of the excluded could only possible through social innovations by social entrepreneurs. According to international social entrepreneurship of nonprofit organization, Ashoka, “The job of a social entrepreneur is to recognize when a part of society is stuck and to provide new ways to get it unstuck. He or she finds what is not working and solves the problem by changing the system, spreading the solution and persuading entire society to take new leaps (Ashoka, 2007). Dees believes that “social entrepreneurs are driven by the desire to create value, a blend of economic, social and/environmental values.”, “...any person, in any sector, who uses earner income strategies to pursue a social objective, and differs from a traditional entrepreneur in two important ways: their earned income strategies and tied directly to their mission and they abide by a triple bottom line, which encompasses the social, financial and environmental returns” (Dees, 1998).

As a whole social entrepreneurs across the globe highlighting their activities day by day using their significant skills. Their organizations or activities are linked with the earned

incomes. Earlier the NGOs in order to deliver the services approaches various charities for accumulation of money in the form of donations or on the Business sector as part of their small contribution through their corporate social responsibility. As a whole the NGOs have failed to achieve what they are meant for in general due to the funding agencies fixed terms and conditions. Innovations are not at all encouraged in this discourse as the innovations sometimes fail to capture what they are meant for. In general NGOs dependency on funding agencies would not allows them to go for experiments with innovations in social domain. And the truth part is that without innovation it is impossible to achieve MDGs fruitfully. Promotion of NGOs can be either possible by Govt. programmes or with the social entrepreneurial organizations, who have the capacity to earn money on their own with the help of their ventures. Simultaneously NGOs are having difficult times ahead due to the increase in their no (India alone has 33 million NGOs, each for less than 400 people, which had several folds of increase in the number). So, the funding issue here becomes very crucial.

The salient features of social entrepreneurship is of using innovation and act up on with entrepreneurial features. Earning through using their social ventures is the core for the social entrepreneurial venture, and it makes the social entrepreneur distinct from any other nongovernmental sector. Employment generation, providing goods to these groups at cheaper rates are some of the activities that they undertake in order to pursue their goals. In fact across the globe the social entrepreneurial ventures have been gained importance as their rate of success is high due to the social entrepreneur in charge who is believed to have unique characteristics, which are used to scale up their ventures.

Barefoot college in rural Rajasthan is of the same, which has been working to uplift the poor, illiterate families from the magnitude of the poverty since almost four decades. The Barefoot College was formally registered in 1971 in Tilonia in Silora Block of Ajmer District, Rajasthan, India. The Barefoot College empowers the poor and marginalized in terms of building their capabilities to demonstrate their own inclusion. Though it is a college, of course a typical one, there are no class rooms or lectures by experts or teachers; everyone present in the college is an expert, their philosophy is learning by

doing. They are the teachers and they are the students. Significantly everyone fits in the category haven't have any engineering or graduation degrees, they are hardly have fifth class pass in their carrier.

The Barefoot College activities are so pro MDGs, and the college's active participation in achieving the same have been on the peak stage since the inception of MDGs. Almost all the issues that the MDGs talk about are being the areas of concern for the Barefoot College even since before their inception. In order to achieve the same the Barefoot approach has opted a difficult way which has feasible options to prepare the poor to face the poverty. It opt training and educating the rural poor as a way of inclusion which would ultimately brings employment which has its own say in generating incomes, lack of which one of the thurst reasons for social exclusion and deprivation. Barefoot College is emerged due to the failure of traditional ways to empowering people; not only that the traditional approaches and traditional organizations have failed to build their capabilities to empower themselves which apparently Barefoot has done since decades. Of course it should be accepted that the traditional organizations so far excluded the poor and marginalized from the magnitude of inclusion somehow, but in vain they have failed to prepare the poor to stand on their own.

In order to achieve the drafted objectives in MDGs it is must to adopt various innovative ways and to train up the target group to face them with their enhanced capabilities. Unfortunately rather opting empowerment as a mere choice to build their families, communities and further societies, most of the traditional organizations including various governments have chosen disempowering them as the way under the veil of empowerment. This is due to their option of providing the goods at free of cost and made them to depend upon these organizations rather stand on their own. Hence, they have been excluded from right to chose "what they want?" and "decide how they want to live?" Identifying the lacunas the Barefoot College has started as a tool to empower the rural poor to address their needs; it offers the poor *the right to choose* however they want to develop themselves. "Mobilize resources from within the community, no service should be given free of charge. There should be no charity in the name of development.

This realization came from the endless discussions Barefoot College members had with communities who insisted they did not want to be treated as beggars. This self-respect and dignity is all too often not visible to urban based development agents” (Roy, 1994). It might look orbiter but it worked well and replicated in several states in India and abroad. “Top down, insensitive and expensive, disempowering the marginalized, the exploited and the very poor” says John Elkington (2008). That’s the reason the Barefoot College has entirely believed in bottom-up approach in order to provide space to the very poor in the decision making in regard to their choices on whose name the college is working.

The target group of Barefoot Approach is: very poor, the impoverished, the economically and socially marginalized and the physically challenged living on less than \$ 1 per day; Barefoot approach offers them to empower in order to acquire skills through which they can demonstrate their capabilities to stand on their own and to earn two square meals a day. While they earn their two square meals a day they simultaneously fulfill the other objectives of MDGs. The situations in the organization made accessible to the very poor for whom the college is built. All activates made poor friendly. Everyone sit, eat and works on the floor. They have clearly differentiated between market wage and working wage and prefers only working wage. It shows each and every one works there are contributing for the reserve fund of the organization. The reserve fund has been so useful to the Barefoot in order to promote itself towards a socially entrepreneurial venture. Taking risks, opportunity to fail, and then succeed are the unique experiences that the people stay on Barefoot campus to be trained. This training and knowledge acquired over a period of time uplifts the new avenues for the disadvantaged people.

Migration issue is one of the prioritized issues that have occupied predominant role in Barefoot approach. Reverse migration is made even possible with the Barefoot initiations. Reverse migration in this regard reflects people coming from urban areas to come back to their villages; for that the poor youth, women and men are given training in order to attain employment. If the employment is available in the rural areas the migration can be easily tackled is the principle of the Barefoot. Altogether the Barefoot strives to render sustainable solutions to the unsolvable problems of the rural areas such

as migration, lack of education, technological ignorance, and water problems. It is altogether a movement that has been aimed at maximizing the rural capabilities.

Let's observe the kind of self-confidence that the Barefoot brought to the illiterates who have nowhere known about the technologies that today's world accelerating, Roy & Hartigan (2008) quotes and I replicate "Nobody in our family knows how to read and write. We are three brothers, all farmers. We have 15 acres of agricultural land. Now all our children go to school. This is the first time such a step has been taken and I am glad. I joined Barefoot College twenty years ago in 1977. I used to take water to the houses with Kanaram and his donkey. Because I was a farmer I was asked to work on the field to grow food for the centre. At that time I was working on the poultry farm, looking after chicks for one year with Vasu. It was also my job to take people from the Centre on a tractor to the night schools. In 1986 I was asked to build the New Centre. I was – and still am- illiterate. But that did not worry me. I had already done so many jobs at the Centre. This was just one more. It took one year to dig the foundation. I was asked to supervise the work of about 50 rural masons and over 100 daily laborers. It took two years to build everything. As architect tried to draft blueprints but they were changed so often that they were useless in the end. The project was a joint effort; everyone who was going to live there was consulted. Everyone's views had to be respected. So the location of doors, windows, and roads changed every day. Rafiq, the Muslim blacksmith, made the doors and windows in his rural workshop in Tilonia". Bhanwar Jat the chief architect mentions.

As a whole the Barefoot approach offers strategic and innovative ways to achieve the objectives in MDGs. The barefoot approach clearly fits in the boarder realm and objectives of Millennium Development Goals. Almost all MDGs have been drastically fulfilled with the initiations of the Barefoot approaches in several activities. And in fact the Barefoot approach must be seen as an obligation which has been working beyond the expectations of MDGs because MDGs simply asks the services to be provided in order to empower them. But the Barefoot is striving to uplift their capabilities in order to empower themselves without depending upon the external factors. Barefoot throughout

its history strived to solve most of the unsolvable issues that are pointed out in MDGs. How Barefoot addressed the issues mentioned in the MDGs is mentioned hereafter.

MDG 1: Eradication of extreme poverty is made possible through providing training on various issues to the illiterate and semi literate rural people through which employment is generated. Since inception Barefoot has developed a strategy in order to address the poverty and its allied deprivations. Their experiment to educate/train the rural mass with various skills has overall impact on their lifestyle. The generated employment is used to promote various services at cheaper rates to the rural areas. Most of the governments and Non-Government organizations have been working on the issues related to the poverty eradication, but in vain most of the NGOs as discussed depend on various charity organizations, which would not allow them to experiment innovations. But here, the Barefoot approach having dependent on their own financial ventures since its inception has been tried to build an experiment which today has changed lakhs of people's life. As a whole it has been working as a circle through empowering themselves in the first instance followed by the rural masses through reconstruct the rural areas with the technologies that they themselves own.

MDG 2: While 'Hope dims for universal education by 2015, even as many poor countries make tremendous strides' and 'Inequality thwarts progress towards universal education' are being attained through the night schools to those who need to address the family needs in the morning time. The Barefoot approach itself starts in the initial stage with the experiment of educating the community on the issuers related to the lifestyle of the community concern. Barefoot strives that without providing mere education it is impossible to empower the capabilities of the rural mass in order to stand against the deprivations that they have been facing since their childhood. Here Barefoot differentiates between education and literacy and follows Mark Twine 'never let school interfere with your education' and succeeded in terms of providing space for the rural illiterate poor to do wonders using their extraordinary capabilities which are so far miscalculated.

The College runs pre-primary and night schools to educate the children. The youth selected as a teacher must undergo a residential training camp for 30 days which is situated in the main campus of Tilonia. The curriculum unlike the formal schools are decided by the teachers based on practical learning mostly fits for the local environment. The curriculum for example includes information related to common civil needs such as how do a post office function, a bank, a police station or any of those sought work. The Barefoot teachers are selected by the rural communities wherever the night schools are operated. The target population is in most of the cases unemployed rural youth. The main intention to initiate the education patterns under Barefoot approach were to shuffle the education system according to the needs of the learners. The schools are reoriented in terms of mutual learning, where teacher learns from the children and vis-à-vis.

The night schools are one of the dynamic approaches to eradicate illiteracy. They are the solutions for the unsolved problem of child labour. So far the governments and NGOs working on child labour issues have failed to address the lacuna between family needs and child labour. Hence, the whole approach that has been promoted by the Governments and NGOs in order to eradicate child labour has been criticized by the poor. But here with the Barefoot approach, the night schools are located entirely to provide education for the rural children who cannot afford the day time education due to the family's financial situation. Thus, the Barefoot approach well addresses the need and creed of the child labour and children education at a time. They operate the night schools, which are most successful venture of Barefoot for those who cannot afford the day time schooling. The Barefoot night schools have been scattered in six states i.e. Assam, Bihar, Madhya Pradesh, Orissa, Uttaranchal and of course Rajasthan. Whole these schools have been maintained and educated by 714 Barefoot teachers in which around 200 are women. The children who attends the night schools are the real kids who need more attention, they should be shown as ideal when we are speaking about hard work they process the realness qualities of an Indian, unlike the rich students who simply doesn't familiar with the real India, who doesn't have any idea of 'physical hard work' in the fields. Even the parents based on cities would not agree to that a child can do physical labour for the family while pursuing his academic goals. The children in this regard rendering must be

acknowledge with greater respect towards their tasks by succeeding both as a child of incapable parents who cannot run the family without their support and through educating themselves as an aspirant future citizen of India. So far the education system has been experienced two kinds of children in general i) children who attend school daily without fail ii) children who never attend the school and often become a child labour. Differing with the views, the Barefoot approach is unique which provides a chance to the rural poor children to share the need and creed of the families right from the childhood. They reflect the real India; the middle way, which we need as a developing nation in order to attain 100 per cent literacy, which has been our aim since decades.

More than 3000 children at a single batch in various schools attend the night schools in which 2000 are women. As a whole Barefoot approach towards education (including pre-primary as well as night schools) reaches 8000 children including 6000 girl students. Community based organizations in the areas where the night schools are located coordinate the activities of the night schools with the Barefoot College, Tilonia. So far 714 night schools in 673 villages for 2, 35,000 (dropouts among 1, 70,000 are girls) attending schools for the first time in eight states. Apart from empowering the children it is providing employment to 3140 Barefoot teachers.

Children parliament (Bal Sadan) is the milestone achievement of the Barefoot night schools. The Children parliament is meant to aware the children about the political aspects of the democracy. Once for every two years elections are being held to elect the parliament which has a cabinet of its own, which has been elected through the mentioned general elections to supervise, monitor and administer night schools. Those whose age ranges from 8-14 are given Right to vote in order to utilize their voting right. The practical experiences in governance and politics have been promoted to the children with the help of the Children parliament. In order to make sure that they are learning the political aspects, the parliamentary elections are given utmost priority where voter ID cards, electoral committees, nominations, withdrawal, campaign, no-campaign day, polling, counting, declaration of winners, forming the parliament, and then the cabinet. It holds every aspect of a democracy. The ballot boxes are carried to the Barefoot campus

after the elections, in order to count and declare the winners. These parliamentarians and the cabinet make sure that the teachers are taking active role in the classroom activities, and the basic amenities in the school are fulfilled. About couple of years back a girl who was elected as prime minister has to take care of her goats in the morning and in the nights she acted as a prime minister. When listen about Children Parliament then immediately people might laugh at it, but beyond the imagination it is working well better than our governments to tackle the emerging problems and decide on actions. The Barefoot College feels that some time down the line they might produce Barefoot politicians with the help of the children parliament approach.

Balwadi (Rural Crèches) is meant for children between age group six months to 5 years in order to assist the working mothers. The mothers whose children fall in the said age group can leave their children during their work hours in the Balawadis. Balawadis are run by the women rural crèche teachers whose responsibility is to ensure the hygienic, health, education and development of the children. And apart from them there is a bridge school to provide residential facility and a day primary school to educate those who want to study in the day time. The curriculum in all the Barefoot schools are same as discussed earlier, informal, practical and interactive teaching methods.

When the night schools were initiated then there was no electricity supply in those rural villages. People have to depend upon Kerosene lamps in order to run the night schools. Lamps have created a lot of tensions, where even there were possibilities of burning the faces of child and of course it had happened several occasions across the world. In order to avoid this situation the Barefoot approach solar electrified all its night schools.

MDG 3: In response to the 'For girls in some regions, education remains elusive' about 60 per cent children are girl children those who were attaining education through night schools. 'Women are largely relegated to more vulnerable forms of employment', 'Women are over-represented in informal employment, with its lack of benefits and security'. 'Top-level jobs still go to men — to an overwhelming degree', 'Women are slowly rising to political power, but mainly when boosted by quotas and other special

measures' are well addressed through preferring women in most of their trainings and projecting them towards empowerment. Women have been made aware about their rights and privileges in order to fight against the social evils in the society. Several social movements were carried out by women in order to address the goal of social equity.

The three non-negotiable objectives of Barefoot i.e. i) Provide vocational training to semi-literate and illiterate men and women through the process of learning-by-doing; ii) Reduce drudgery of rural women and girls by providing them access to education, vocational training, health care etc.; iii) Empower rural women socially, economically and politically bestows the attitude of the approach towards the equalizing the gap between the genders.

Most of the activities of the Barefoot College have been owned and controlled by poor women. Women have been empowered to work as solar engineers to bestow their capabilities as equal as their men illiterate counterparts. Ingress in the area of solar technology itself is an unexpected development in any women life. Here, the rural illiterate poor women handling them are just unbelievable. The women have gained the memorandum of the communities which never encouraged women. Women have shown enormous capacity and confidence in order to render their services to their communities/regions, and of course it also helped these women to gain a stressful position in the communities. Barefoot so far has made nigh solar engineers, water engineers, school teachers, computer trainers, hand-pump mechanics, masons, architects and last but not least fabricators of solar cookers. Illiterate rural woman have been trained to handle the computer to train unemployed youth related to how to insert data in the computer. Apart from that several rural women groups have been formed in several of the villages in which the college is working in order to discuss the gender related issues including rape and atrocities related issues in the villagers concern.

Women empowerment has been seen as one of the inevitable source for the nations development, since after independence several policies have been taken up in order to strengthen the role of women in Indian economic development but in fact their hard work

which is domestic in nature has been underestimated and never measured by the male dominated Indian societies.

The Barefoot has been working with various Government initiations including recent biggest success venture i.e. self-help groups. So far the Barefoot has reached 62,500 people helping them in their 3095 rural women Self-Help groups in order to fight against their exclusions not limited to poverty, dowry, domestic violence, minimum wages, bride burning and land ownership. Women have been given predominant position in order to make their lives brighter and sharpen. So far the Barefoot approach has been employing 76 Barefoot solar engineers, 39 Barefoot hand pump mechanics, 665 barefoot doctors/midwives, 20 Barefoot vets, 2300 Barefoot Artisans.

Even the advocacy the at the Barefoot College worked on made the communities to ripe the fruits of their own efforts, who were not even dare enough to fight for the causes of social concern. Women were trained and made aware in order to fight against the social evils such as child marriages, dowry, minimum wages etc. it's not mere empowerment that anyone sought, it uplifts both absolute and relative empowerment which asks the women to stand on their own even once the Barefoot structure is no more. The capabilities that they have earned over a period of time with the help of Barefoot they have been training or awaking other women who never came out of their houses. The traditional knowledge's have been employed where the unemployment plays predominant roles in across the globe on the name of inflation.

In response to empowerment that the villagers have witnessed Noori Bai, 54 years illiterate computer expert on campus speaks that "in 1981, there was no question of girls going beyond the village to study. He got us education, hand pumps, pipelines" (Feature, 2009). The whole task seems to be so simple, but in vain it is so difficult to replicate. If, any task is simple which can bring a substantial change in the lifestyle, people will be more interested to replicate the whole procedure in order to attain the same as the original venture had. But it is so difficult in case of Barefoot College "it is because we don't trust

communities enough. We do not think the youth have the ability and analytical skills to identify and solve their own problems” (United Nations, 1999).

Earning incomes have raised the living standards of the women; it has also resulted in raising respect levels in not only their families but also in societies where they live. Earlier who have been seen women incapable of doing the things now realized that women are as equal as men provided that the opportunities are given to them equally to furnish their capabilities.

MDG 4, 5 & 6: ‘Child deaths are falling, but not quickly enough to reach the target’ is addressed with the community health centres and Barefoot midwives, so far the child mortality has fallen sharply. All the workers of the college are given free medical facility through the campus health centre. This is also certainly helped to attain ‘Most maternal deaths could be avoided. And the sixth MDG speaks about awaring the communities to know about the impact of the HIV that causes for a great harm within the communities across the globe has been attained through ‘Empowering women through AIDS education is indeed possible, as a number of countries have shown’.

MDG 7: Use of solar energy has decreased the use of wood which has asked not to cut the trees across the globe wherever the Barefoot is operating in order to gain knowledge over ‘The rate of deforestation shows signs of decreasing, but is still alarmingly high’ and at the same time in terms of decreasing the CO₂ related Carbon Emission was also achieved in order to fulfill ‘A decisive response to climate change is urgently needed’.

Usage of traditional knowledge and skills that are being ignored in the technological era are again brought to the scene in order to create the rural masses to use the technologies with the help of their traditional knowledge. So far just the technological inventories have been installed in the villages/rural areas by the urban experts, and if any problem arises in the technological inventors the villagers just have to depend on the rural experts to come and repair. So, on the one hand the technology has made the life of the rural people very easy and on the other hand it also asks the rural people to depend on the urban experts.

Hence, identifying the lacuna the Barefoot philosophy provides the education that helps the rural poor to understand the technology in order to adopt them in their communities. The whole discourse discussed here certainly asks the communities to manage, own and control the technological inventories.

Just providing the technological inventories to the rural people would not help them to overcome their problems. The needy among the rural i.e. poor, women, deprived communities must be given an opportunity to excel entrepreneurially. Besides it, training to the excluded the Barefoot philosophy also strives to provide education, vocational training, health care etc. to rural women and girls. Learning-by-doing is the typical component of Barefoot. Unlike any organizations that are working for the poor, the Barefoot gives options and choices to the poor to commit mistakes under the learning-by-doing phenomenon.

Barefoot Solar Engineering is the most remarkable area that the Barefoot is touched with. In 1984, this initiation was owned by the Barefoot College with a small experiment to solar electrify a community health centre. What they do is to promote the use of solar photovoltaics on massive scale. Barefoot scraps the notion that, rural illiterate poor cannot become engineers. Lack of literacy at any cost must not be a problem to become an engineer. If we believe on the capabilities of the individuals everything is possible. What we need to do is, just believing them. As of now Barefoot Solar Engineers (BSE) have fixed solar system that generates equal power to a largest centralized solar power plant in India and the statistics of the organizations shows that it has benefited over 90,000 poorest households in India alone. Himalayan areas which are well known to the rest of the world for its coolest temperature around -40° Fahrenheit which areas doesn't at all accusable to the modern electric system has been chosen by Barefoot to be solar electrified. Around 461 people, including 211 women were trained to emerge as BSEs. They have electrified around 140 villages as of now. Monthly contributions from each family for repair and maintenance are collected in order to sustain the venture. But the fees are nominal in nature. So far some \$40,000 have been collected in the above said form and deposited in the bank. The BSEs have altogether generated a lot of employment

including women from rural poor households. Apart from that the solar electrifying also rendered to the decrease of health problems and as a whole elevated the living standards. And Barefoot is only interested in women to empower or to create as BSEs because of their lack of confidence in men, in not related to their capabilities to become as a BSE, but with the lack of confidence to work in villages. Once they are trained they will be immediately moving to the cities in order to place themselves in some companies to work, it would destroy as a whole the whole notion of Barefoot. Hence, Barefoot has been trying to get more participation from women especially those who are old, who would not leave the rural areas. “Once a man gets trained or educated, he migrates to a town or city. This defects our purpose” Laxman Singh mentions, who worked with Roy for more than two decades (Feature, 2009).

In India so far, the BSEs have fixed 9,833 solar unites in sixteen Indian states. Apart from them, they also fixed 5220 solar lanterns, solar electrified 549 schools, 12, 919 households, reaching 1,29,202 people in 628 villages. The total installation acquires 5,69,647 watts power. To do it so, 306 BSEs including 92 women have worked for it. In abroad so far, the BSEs have fixed 4,967 solar unites in seventeen countries scattered across Asia, Africa and South America. Apart from them, they also fixed 3,365 solar lanterns, solar electrified 33 schools, 6,109 households, reaching 60486 people in 123 villages. The total installation acquires 2,50,240 watts power. To do it so, 155 BSEs including 119 women have worked for it and 77 and 43 Rural Electronic Workshops have been established by themselves to facilitate their tasks in abroad and India respectively.

It has also resulted in reducing the emission of CO₂ and related greenhouse gases which causes greenhouse effect. Solar energy has substituted cutting the trees and shrubs for cooking, heating and lighting. Diesel and kerosene consumption also minimized. The massive installation of solar systems have certainly influenced the global warming by reducing the consumption several thousand liters diesel and kerosene; as a result it is estimated that 1.2 million tons of carbon emission has been stopped entering into the atmosphere. The respiratory diseases due to toxic smokes, emitted while burning kerosene, coal and wood for cooking and lighting indoors. In Africa alone an average 1.6

million women and children die or suffer. The *solar way* has been a prominent model to eradicate the said problems in the poorer African countries.

As of now 2 lakh people also provided with solar electrification. It includes solar lightening to 9347 houses, 274 night schools and distributed 4736 lanthars. And 599 villages solar electrified generating a total of 550 kwp electricity per day reaching 11,900 families in 14 Indian states. It as a whole prevented 1.86 million carbon emission not to enter into the nature, it altogether helped not to attribute to the pollution.

MDG 8: Global partnerships are made possible through cross cultural and cross national as well regional representation in the Barefoot College in order to learn from each other and to understand the problems of the poor belongs to the other regions. It allows them to share and improve their practical, traditional knowledge and skills. There are people from across 10 least developed nations, who doesn't know any language except their regional language, but they sustains in the campus with signed language for the training period. Local people also get to know about the cultures in the west, as a whole it is a cross cultural experiences for those who work in Barefoot.

Through the global networks that the college framed they train and empower women from various other nations as discussed. Women from other countries also either brought by Barefoot College or sent by their own country to Barefoot College main campus in order to become solar engineers. Since last 13 years Barefoot trains women from other countries from Asia and Africa to assemble, install, repair and maintain the solar photovoltaic systems in their own villages. The Barefoot college offers not mere training but also promote the confidential levels of the illiterate women as a leader who can work on the other areas of concern. Many women educated in Tilonia have made history through solar electrifying their own villages in their respective regions.

The Barefoot approach offers a lot to the society in order to understand the capabilities of the most deprived, illiterate rural masses, whose capabilities so far underestimated. Using their own capabilities to empower themselves is a unique experience, altogether it uplifts

courage in the rural masses and poses various questions to the urban based intellectuals as governments.

As a whole Barefoot approach to achieve MDGs has a great successful story to offer to the outer society. Due to the magnitude of the approach, so far it has been replicated in 15 diverse Indian states as well 10 other poor countries in Latin America, Africa and Asia. Very interestingly, the Barefoot approach is an approach which is suitable to any environment, region in the world. Replication of Barefoot approach to the rest of the areas with the help of various governments would definitely make the difference in achieving the MDGs sooner.