

Assessing Tools for Sustainability: Bangladesh Context

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Abstract

The paper focuses on three key tools for sustainability and sustainable life-style: self-reliance, sustainable technology and appropriate consumption. It shows how simple life-style can underpin ecologically healthy consumption habits, high moral values, and spirituality for eco-living. It outlines a sustainable technology policy that can help regain economic self-reliance, retain cultural tradition and restore the degrading environment of Bangladesh and other countries with similar sustainability issues. The notion of 'self-reliance' is redefined in terms of sustainability, the spirit of which is underpinned by the Gandhian concept of material possessions and his technology policy. This "self-reliance" is depicted as the basis for local and global sustainability. The paper asserts that these three sustainability tools are embedded in the tradition of the Bauls (singing philosophers) of Bangladesh, who promote sustainability through their songs, values and spiritual education. The Bangladeshi people's positive spiritual dispositions towards floods, droughts and river erosion allow them to interpret such events as nature's tools for sustainability management. Thus, the paper aims to establish that possibilities for achieving global sustainability are already embedded in the way Bangladeshi rural communities enjoy self-reliant living without destroying the country's natural resource base.

It suggests that Baul views of lifestyle, consumption, technology and self-reliance can form the centre for sustainability. The synergy between these tools reflects Gandhi's view that the earth has enough resources to meet all sustainability needs. The paper concludes by highlighting the challenges for sustainability in Bangladesh amid the country's present state of mal-governance, donor-driven development and technology policy.

INTRODUCTION

Achieving sustainability is the biggest goal of the twenty-first century. This concept and the way it evolved in the last few decades, is multidimensional and open to many interpretations. Irrespectively on whether we agree what exactly sustainability is, it is clearly perceived as a vision and process of change. What we argue in this paper is that it is also deeply

based in values which have long existed in cultures such as that of Bangladesh. We also see the potential for these values to be translated into a sustainable lifestyle through self-reliance, appropriate consumption and sustainable technology.

The emerging global desire for a successful transition to sustainability is likely to remain ever unfulfilled, the foremost reason being humans' ignorance of sustainable lifestyle, including self-reliance, consumption and technology use. According to Harun¹ Baul², sustainability is philosophically a contestable term. '*Nitya*' (sustainability) is part of the ultimate '*anitya*' (unsustainability). Everything is sustainable within the respective timeframes of the eternal environmental processes of change and evolution. The term 'sustainability' is understood by some Baul philosophers as 'continual sustainable development'. In Bangladesh culture, sustainability is the fundamental concern of the humans towards their actions – mundane or spiritual. However, as humans are not always cautious or thoughtful about the sustainability outcomes of their actions (including consumption and use of technologies), sustaining sustainable objects may often become unsustainable. Impacts of wasteful lifestyle and the Green Revolution approach to agriculture are two examples.

Environmental forces also can overturn a desired state of sustainability. Cyclones and floods in Bangladesh often destroy sustainable land, lives and properties. This happens quickly – while people helplessly watch. Thus, with the age-long experience of unsustainability in mundane objectives, the traditional wisdom of Bangladesh suggests to be wise: 'think before you act, not after' or 'look before you leap'. Sustainability of livelihood can be achieved through good thinking to win over possible social and environmental adversities. Thinking is considered as the mightiest of all might. Buddha also said: 'the thought manifests as the word; the word manifests as the deed; the deed develops into character. So watch your thought and its way with care; and let it spring from love born out of concern for all beings' (Natrass & Altomare, 1999:203). According to guru Aziz Shah Fakir (85) of Choraikole village of Kushtia district in Bangladesh, thinking for self-knowing, among others, is a

¹ Harun (65) is a mendicant Baul. He is from the village Choraikole of Kushtia district, Bangladesh.

² Mostly unlettered, yet full of poetical, musical, and philosophical talent, the Bauls are often seen as being at the root of Bangali culture. They come from both Muslim and Hindu backgrounds. Bauls are mostly male. Female Bauls are fewer, but more popular. Bauls are unique in socio-religious syncretisation. This has been acknowledged by pundits such as Rabi Thakur, Mansuruddin, Kabi Jasim uddin, Anwarul Karim, Abu Talib, Abul Hasnat Chowdhury, Solaiman Ali Sarkar, Upen Bhattacharya, Fakir Rashid, Khaja Jahangir, Bhagawan Rajneesh, Khsitimohan Sen, Edward Dimock, Sashivushan Dasgupta, Sanat Kumar Mitra, Mcdaniel, to name a few. These pundits suggest that the Bauls have made contributions towards maintaining the social harmony in Bengal by subduing the prevalent caste and creed hatred in Bangali society. How do the unlettered Fakirs do that? What are the secrets?

The above writers express their inability to answer these questions, for they lack initiation, training and membership of the esoteric Baul tradition. Scholars both from home and abroad are attracted to the Bauls' intuitive wisdom and spontaneity of expression. However, the Bauls speak about their esoteric wisdom and practices only to deserving initiates.

starting point for achieving self(reliant)-sustainability.³ One's health, spiritual state, hopes and desires – all manifest the state of one's self-knowing.

Baul gurus and philosophers of Bangladesh see sustainability as a symbol for the shape of the future that enhances nature's ability to maintain, renew and protect all living species. They view sustainability as a living entity. Baul guru Aziz Shah Fakir asserts that unless general people's extant view regarding 'sustainability' as a 'concept' can be transformed to conceive it as a 'reality' and to perceive it as an 'entity', the present barriers to progress the social, economic and environmental transition towards sustainability cannot be identified in order to be overcome. The reason is obvious: we cannot identify problems with an unseen object. The guru stresses that it is just an ignorance to view sustainability as a mere concept even after seeing its forms and states in terms of our economic, social and environmental reality.

We frequently judge our development work, urbanisation, industrialisation, consumption habits and lifestyle in terms of 'sustainable' or 'unsustainable'. How do we do that if we do not or cannot envision 'sustainability' in a form? We argue that sustainability manifests itself in a modern lifestyle as a synergy between appropriate consumption, state of self-reliance and sustainable use of technology. Our current knowledge for searching sustainability is based on the three major aspects: social sustainability, economic sustainability and environmental sustainability – popularly known as Triple Bottom Line (TBL) sustainability. Self-reliance, appropriate consumption and sustainable technology integrally correspond to these three facets of sustainability.

Self-reliance, consumption and technology – all are concerned with humans and their environment, co-existing in a synergistic relationship. The relationship is traditionally believed in Bangladesh in terms of 'servant' (human) and 'master' (environment/nature). People generally express this as: "man is the servant of the environment/nature". Connotations of the term 'environment' often overlap with the term 'nature' and *vice versa*, depending on the issue in context. However, with this belief of master-servant relationship, Bangladesh people have developed a culture, irrespectively of individual religious faith, that

³ Folk philosopher Harun Baul has a widely sung song "Good thinking begets the seed of success.' In this song Harun appears to have made a précis of the popular saying: 'As you think, so you sow; and as you sow, so you reap'. This saying is taken religiously in Bangladesh, for both Hinduism and Islam say: 'Reward lies in the intention (thinking)'. Hence, good thinking is a prerequisite for sustainability and bad thinking cuts sustainability off.

⁴ As the decay of traditional values is occurring globally, the Bangladesh village is touched by the same breakdown in values. For example, traditional values in respect to the power of soil, heat, water and air need to be taught, if renewables are to be accepted as an integral part of community life support systems (Khan, 1996:119). Female Baul guru Laily Shah, of Choraikole in Kushtia district, believes that renewables can beget sustainability and sustainability can beget human contentment, provided sincere veneration to renewables and the ecosystem is sustained in community values and practices.

provides 'values' services by humans to their master – the environment – in order to upkeep sustainability. Values are acquired through formal and non-formal education, as well as through guidance from people with strongly expressed views. Values are manifested through the mode of lifestyle, including consumption, technological usage and self-reliance living – the key tools for assessing sustainability policy of a nation.

SUSTAINABLE LIFESTYLE

' The mode of life of a man in a given region is not an accident, but the product of the environment' (geographical proverb). Lifestyle depicts how people in a given region or culture behave in the life-supporting natural and social environment in order to satisfy their basic needs such as food, clothing, shelter and longevity. People view sustainability through the longevity of life. This is at the core of human hope and desire. One's longevity of life is believed to rest in one's state of physical and spiritual health requiring knowledge among others of food intake, health care, conjugal indulgence, physical labouring and environmentalism. All these are largely personal. Thus a transition to sustainability includes pro-sustainability personal behaviour through lifestyle.

Renewable natural resources such as air, soil, water, biodiversity, and human society are the key elements for sustainability. People can utilise them in a sustainable way or otherwise. Values of sustainability are not inconsistent with a simple lifestyle, which can facilitate the transition towards use of natural resources (renewables) with their respective regenerative and carrying capacity. A simple lifestyle inspires humans to walk gently on the earth by taking up ecologically healthy consumption habits, high moral values as to minimal material possessions, and spirituality for eco-living. People of values ask themselves: Am I walking gently on the earth? Do I live simply, mindful how my life affects the earth and its resources that have limited regenerative and carrying capacity? An Earthcare checklist on ' Walking Gently On The Earth'⁵ notes that the above questions lead to examine the impact of our lifestyles; to search for the cause of environmental ills; to consider the effect of our investments (technological use) upon the environment; to educate ourselves about ecological issues and volunteer to educate others; to lobby to legislate and implement effective laws protecting the environment... and finally to engage willingly in non-violent civil disobedience in opposition to destruction of the planet' s resources (FCUN, 1989) The questions also help enlighten us to look deeper and deeper into our relationship with nature, and into how new behaviours and values might help move towards a new integration of

⁵ The first edition of *Walking Gently on the Earth* was written by Jack Phillips. Revisions for the second edition were coordinated by Robert Pollard. Jack Phillips is editor of BeFriending Creation, the monthly newsletter of Friends Committee on Unity with Nature (FCUN), Friends of the Earth, (<http://habitat.igc.org/values/wgote.htm>, accessed 8 August 2003).

personal and planetary wellness.

Thus, simple lifestyle is nurtured by acting, especially the actions that can be sustainably integrated into our day-to-day living. The panacea embedded in simple lifestyle helps to acknowledge those actions in ourselves and others, to support each other by example and encouragement, and to see each other succeeding with stopping air, ocean and soil pollution, ozone layer depletion, the greenhouse effect, and the destruction of tropical forests and their inhabitants.

Sustainable lifestyle encourages clothing made from natural fibres, growing food as "organically" as possible, eating a predominantly vegetarian diet⁶, planting shrubs and trees that give food and shelter to birds and animals, growing indigenous crops and plants that require minimal fertiliser or watering, learning natural insect controls to avoid pesticides, using trees for cooling, shrubs for insulating the house, and ignoring avoidable material possessions. Once acquired, such a lifestyle is easy to sustain. It is simple, healthy, peaceful, social, creative, and environmentally friendly.

Emphasising simple lifestyle, Gandhi asserts that nature produces enough for our wants from day to day, and if only everybody took enough for him/herself and nothing more, there would be no pauperism, there would be no man dying of starvation in this world (Kripalani, 1965:130) The Baul philosophers of Bangladesh, such as Aziz Shah Fakir (see Appendix A), maintain such lifestyle and people of rural Bangladesh learn from them.

SUSTAINABLE TECHNOLOGY

Sustainability requires sustainable technology policy and practices that can help sustain economic self-reliance, do not harm the environment, retain cultural tradition and maintain pace for the regeneration of utilised natural resources. Such technology has been named intermediate, appropriate and more recently environmental or ecological technology (Marinova & McAleer, 2003). It has several interpretations but we see it as technology which is aligned with the values of sustainability or sustainable technology. It satisfies Schumacher's and Gandhi's view on 'intermediate technology'. For India Gandhi accepts, in some cases, primitive technologies and techniques to be the sustainable technology. He wrote: ' I have no partiality for return to the primitive methods of grinding and husking for the sake of them. I suggest the return, because there is no other way of giving employment to the millions of villagers living in idleness' (Sinnarayan, 1970:254).

⁶ Meat production requires ten times as much land per calorie as grain or beans. Overgrazing erodes soil. Tropical forests are being destroyed to meet demand for beef, much of it through fast-food restaurants.

In Bengali vernacular, such technology is termed as *lagsoi prajukti* (appropriate technology) and *jugasoi prajukti* (technology of the age). *Lagsoi* means appropriate or 'need satisfying' and *jugasoi* means appropriate, as being of the current time. The term *jugasoi* is generally used by village people and is not common to many elites, especially to the foreign aid organisations which are not familiar with colloquial village speech. The term *lagsoi prajukti* can be applied to modern small-scale technology such as electric saw, while *jugasoi prajukti* is understood by village people as essential technology for the present time. For example, the use of watches and calculators are *jugasoi* for the (village) students of today. Some 30 or 40 years back, watches were not a *jugasoi prajukti*. Radio and television are now *jugasoi prajukti* in Bangladesh. Village elders and folk-philosophers consider renewable energy technology systems (RETS) as both *lagsoi* and *jugasoi* technology, for electricity, biogas and bio-manure are *lagsoi* as well as *jugasoi*.

Harun Baul conceives technology of nature as appropriate to solve technical problems, such as mechanical extraction of ground water. In April 1999, Harun Baul and I were passing through a village after midnight. During a journey of about 8 kilometres on foot, I became thirsty. We tried three roadside tube wells in vain. All were dry because the groundwater table had dropped below the capacity of the hand pumps. We found a tall (about 30 metres) coconut tree. Harun climbed up and picked a few green coconuts. When he cut them open with his knife, he shouted: this is the appropriate technology; the technology of nature; we must learn from nature how it pumps the ground water from below to 30 meters above the surface.⁷ Modern science has still not completely explained how a tree does this. However, there is a wide range of technologies for which we know that they are much similar to the way nature does things, and technologies which have artificially created structures that never existed and/or cannot be easily supported by nature. Any large mass scale production is an example of the latter unsustainable technologies and technological organisation. The rest of this section gives examples of technologies which are inherently closer to the way nature does things and hence closer to being sustainable.

For a country like Bangladesh, there is vast potential for regaining the reputation for textile production through small-scale technologies that the world had some two hundred years ago. This single industry (spinning, weaving and garment manufacturing) in ten years time could absorb tens of millions of labourers (Muhith, 1999:119). Besides employment, Joshi (1992:13) gives an example of other advantages of small-scale textile industries in villages:

⁷ On another occasion in the humid month of August, Harun Baul said that most of the living species including trees and humans have mechanisms to absorb the necessary water from the air. He believes that a technology can be developed to irrigate crops from the water that is always floating in the air. He hopes that someone will develop this technology in the future.

When a few families in a village started spinning on the charkhas⁸ and producing *khadi* (cloth), Jayesh, a medical man living there and employed part time in a nearby dispensary, liked the *khadi* shirt and wanted to save his expenses on clothing. But, instead of undertaking the spinning himself he inquired: 'Could Kesarbehn (the woman spinning on the *charkha*) come to me for treatment? She can give me cloth instead of fee.' Rasak, a laundryman, wanted to bleach and press *khadi* and have some khadi in return. So also Lakhbehn wanted to tailor and stitch *khadi* clothes. Mahabhai, a milkman, asked: 'Could the spinners give me the cotton seeds? I shall press them with the help of my bullock to produce cooking oil and give it to the spinners in exchange for the *khadi*.' Thus anybody can enter the production stream and eventually exchange her or his product not only with *khadi* but with other products as well.

Similar examples of barter exchange of more sustainable products can also be found in Australia. In her thesis, Lamont finds that 21% of members of the Permaculture Association of Western Australia (PAWA) follow the above model through LETS – the Local Exchange Trading System (1999:243-4).

The issue is to be viewed from an overall sociological and sustainable developmental angle. No amount of government incentive or support can help achieve sustainable technology entirely. The synergy of culture and technology can create sustainability amidst the present state of global technological race. The more the culture of a nation is challenged by global socio-economic movements, the higher is the chance of that challenge being answered by advancement in innovations for sustainability. The development and use of sustainable technology to meet needs at a given point of time requires smartness, which may be present in different cultures in varying degrees. The more conducive a nation's culture is to innovate sustainable technology, the better its chance⁹ to achieve sustainability. To make an innovation sustainable, it must be integrated with people's daily life as part of their culture.

Sustainability can be achieved through the synergy of development of technology and culture into 'technology cultures' or more specifically 'a sustainable technology culture'. This

⁸ The *charkha* is an extremely simple and inexpensive hand-spinning instrument, constructed from wood or bamboo within hours by any carpenter, and easily available to all, including the socially weakest. This enables anybody to produce at very low cost, using easily grown cotton or wool, the most marketable, locally exchangeable and saleable commodity and basic human need – cloth, and therefore procure food also in exchange of cloth, without having to depend on – apart from a weaver – others including financial, technological, educational, organisational and governmental structure, without exploiting anybody or being exploited oneself (Joshi, 1992:7).

⁹ In recent history, there is no indication that a nation or community has vanished due to the lack of sustainability. Does this mean that we can continue unsustainable practices until this happens? In Bangladesh the river banks are constantly eroding, especially in the char lands, which have and continue to support life in the midst of utter and visible unsustainability.

would apply to the adoption¹⁰ of RETS within the culture of rural Bangladesh. Because the movement of appropriate technology in LDCs (the least developed countries) has not been characterised by such technology culture synergy, it has failed to alleviate poverty, improper distribution of wealth and environmental problems – all this despite the immense deployment of technology throughout the world (Willoughby, 1990:273). Technologies and technical change are not autonomous forces, they are produced within a social, economic and cultural context; thus their meaning to society depends upon the world-view which that society holds at the time, and on the appropriateness of the technologies. Both the type and pervasiveness of technical change are limited by the wider social and economic conditions. Equally, however, change in the basic (grass roots) techniques of a society is likely to create pervasive change throughout the society's economic and social structure, culture and world views (ibid.: 275).

Another alternative is home-scale production, that is small-scale cottage industry operated by an individual household or by a group of cooperative households in a village. In contrast to negative reactions to centralised large-scale industrial production of goods and utilities from the locally available inputs, appropriate technology for home-scale productivity has been positively reported and recommended by an increasing number of writers such as Dorf & Hunter (1978) and Vandana Shiva (1994). Schumacher's *Small is Beautiful* (1973), pioneering and developing the idea of appropriate technology, also deserves mention in this regard. Sim Van der Ryn notes that the potential of appropriate technology is to indicate ways through new possibilities that are practical, sustainable, low cost, create employability, and do not degrade the environment (in Dorf & Hunter, 1978:82). Bhuiyan's (1999) *Employment Potential through Village Technology* shows how biogas can be used for incubation of eggs in a household poultry business, welding, and producing electricity.

Within the concept of sustainable technology for home-scale productivity and services, RETS is appropriate for village Bangladesh. Home-scale technology has been and still is, the means of livelihood for many rural households in Bangladesh. To achieve this, the rural households need "a different technology, a technology with a human face, which... helps them to become far more productive than they have ever been before" (Schumacher, 1973:128). To initiate the process of home-scale productivity, providing RETS for village households is a pre-condition, as most modern appropriate technologies for home-scale production are designed to be run with electricity.

¹⁰ Prior to the adoption of new technologies, good thinking is essential in the contexts of both profitability and long term sustainability in geo-environmental and cultural terms. There is not much difference between the globally recognised thinkers and the local ones. 'All wise people think alike'. One differing characteristic is that the local thinkers are more pragmatic with regard to local matters. The local matters are mostly action oriented, including action for sustainability.

Aid based development practices have long been a barrier to sustainable technology. Schumacher believes that foreign aid is able to play only a limited role in bringing about sustained economic development (Willoughby, 1990:88). A country that makes development plans which utterly depend on the receipt of substantial foreign aid is doing much damage to the spirit of self-respect and self-reliance of its people so that, even in the narrowest economic terms, its loss is greater than its gains. This has been true of Bangladesh in respect to RETS. This class of technologies, as an agent of development, is not popular with aid agencies. Aid agencies as well as NGOs (non-government organisations) are driven by the spirit of bridging the economic or 'development' gap and generally do not encourage innovative practices. They lend money to the poor people to facilitate things that are familiar to the borrowers and/or to opportunities for doing something which already exists in the culture. For example, village housewives are experienced in raising and rearing livestock (poultry, goats and cattle). They know how to make '*muri*' (rice bubble). Both livestock and rice bubble can be sold in the market profitably. The NGOs prefer to lend money to women for these purposes because the perceived risk is small. Similarly, they lend money to men for small businesses which require little capital. Rickshaw pulling and hawking are most common. This means that NGOs are not (yet) prepared to be stakeholders in innovation and/or the adoption of new technologies such as RETS, in either energy-driven home-scale or village-scale appropriate technologies. Aid agencies have also been reluctant to explore new avenues with sustainable technologies.

The search for solutions to the widespread massive unemployment in Bangladesh has made it increasingly clear that neither the government nor the private sector can provide jobs or wage-based work to the entire population. In this context Nandini Joshi (1992) suggested that if the population is to be employed, the only way is via industrial production by the masses; not mass production by industry. Gandhi asserts that Asia has such an amount of human power lying idle that there is no room for large-scale industrial productivity (Gandhi, 1959:143). According to Joshi (1992), large-scale industries producing at a mammoth rate create product, which cannot be domestically consumed, and must be exported. It encourages large consumption and unsustainable lifestyle.

Sustainable technology can contribute to capacity building in Bangladesh in relation to bio-revitalisation of the resource base for agriculture, home-scale productivity and socio-economic security. In the opinion of village elders, when these three elements for capacity building are in hand, the vision for self-reliance in the context of village Bangladesh becomes positive.

SELF-RELIANCE

Self-reliance is a contestable concept. It cannot be defined in the way that scientists define the standard litre, kilogram or metre. It is a state of acquiring of basic needs for enjoyment of a simple lifestyle on one's own accord – neither to capture other countries' resources nor to give way to interlopers. The term 'self-reliance' can be redefined in terms of sustainability, and the spirit of which is underpinned by the Gandhian concept of material possessions and his technology policy as indicated above. This 'self-reliance' is the basis for global economic and environmental sustainability. Self-reliant sustainability existed in Bangladesh in the past but is now dying. It is attempted here to redeem a blueprint of ecologically sustainable development which could help enhance environmental sustainability of the country on one hand, and re-achieve self-reliance in terms of socio-economic sustainability, on the other.

<i>"Nadi vora jol</i>	(water in river),
<i>math vora sashay</i>	(field full of crops),
<i>pukur vora maas</i>	(pond full of fish),
<i>gohal vora garu</i>	(cow in the cowshed),
<i>bari vora gaas</i>	(homestead with trees),
<i>pakhir kolotan</i>	(melodious tune of the birds),
<i>shisur koahol</i>	(uproar of children),
<i>bauler o majheer gaan</i>	(songs of Bauls and boatmen),
<i>Rathe banya jantu O vuther voy</i>	(fear of wild animals and ghosts at night)."

This blueprint is constituted from Bangladesh materials which are widely referred to by media, school texts books, Baul songs, folk stories and proverbs.

History bears witness to the fact that in the past Bangladesh cowsheds were full of cows, fish filled the watersheds, crops flourished in the fields, fruits covered the trees – there was vigour in the body and happiness in the mind of its people. Money mattered little.¹¹ Productivity-oriented self-reliance begat health, health begot happiness, and happiness accepted lack of possessions – poverty. It was 'golden poverty'. Bauls stress that health and security can set us free to get on with life – for a long time. Nowadays, when we deal with sustainability we cannot afford to have an open-ended attitude towards the reality of our self-reliance and sustainability in geo-environmental and cultural contexts of Bangladesh.

¹¹ The rural economy of Bangladesh is basically not money-based. Most rural people live predominantly on their own produce (vegetables, cereals, oil seeds, milk, eggs and fish) and only enter the money economy via excesses of this production.

The global philosophical traditions understand the accomplishment of self-reliance as the ultimate goal of human aspirations and activities. Work opportunities in the vicinity of residence, especially in villages, is a way forward towards achieving self-reliance in terms of pleasant living (*sukhabash*). The state of self-reliance varies from one person to another, from one community to another and from one nation to another depending on their geographical, environmental, technological and cultural conditions. The culture of self-reliant living (also called natural and simple living) is based, above all, on the most elemental and most elegant principle of the natural world, that of self-sufficiency. Just as nature does not depend on trade, does not create elaborate networks for continental dependency, so the people of a bioregion would find all needed resources – energy, food, shelter, clothing, craft, manufacture, comfort – within their own environment. Far from being deprived, far from being thus impoverished, they would gain in every measure of spiritual and economic health. Life would be more stable, free from boom-and-bust cycles and distant political crises: it would be able to plan, to allocate resources, to develop what they want at the safest pace, in the most ecological manner. A society like this would not be at the mercy of distant and uncontrollable national bureaucracies and transnational governments, and thus it would be more self-regarding, more cohesive, developing a sense of place, community, comradeship, and the pride that comes from stability, control, competence and independence (Sale, 1986:230). The management of such conditions contributes to the state of sustainability.

Village elders and Baul philosophers of Bangladesh conceive 'self-reliance' (*Svanirvarata*) in diverse ways. One view is that in the law of nature, only the nature itself is *Svanirvar* (self-reliant). Individually, all creatures are dependent. Another view supports that as human life should be dictated by the human's obligations to fellow creatures, a self-reliant livelihood means a state of affording one's obligations to oneself and fellow beings, without claiming (undue) rights over or favour from others. This self-reliance is *sukhabash* (pleasant living): neither in debt nor in credit. Sukhabash in village elders' terms requires "households with sufficient working people". Outsiders could think this notion as nonsense and the western friends of Bangladesh are battling hard to slow or stop the country's population growth. Currently, Bangladesh has over 130 million people. Aziz Shah Fakir, however, counts the population as less than 13 millions, compared to Australia or the USA whose populations consume and waste per capita more than 10 times the natural resources used by Bangladesh people. In this regard Prof. Wayne Davies¹² considers that an American has 25 times higher impact on the environment than an Indian. If worked out in terms of "Indian equivalents", the nearing 300 million population of the United States is equivalent to that of 6 billion (6,000 million) Indians or the total Earth's population. Thus the problem of population size and growth is more acute in developed than in developing countries (Goldsmith et al.,

¹² Wayne Davis, "Four billion Americans", *The Ecologist*, July, 1970.

1972:152).

Folk philosopher Harun Baul understands 'self-reliance' as a state of living beyond (the perception of) 'poverty and richness'. In practice, it is an ethically righteous socio-economic culture where people follow nature to live in harmony. The Baul believes that self-reliant living is a state where people have no worry for tomorrow, as animals are free from such worry. He defines a 'self-reliant household' as a (separate) social unit within an inter-dependent state of the social whole. He also believes that self-reliance without inter-community dependence is not possible, for humans need a number of things which one cannot alone produce or provide for oneself.

Bangladesh has a niche opportunity for a self-reliant living model of sustainable development. The diverse development endeavours since the birth of the country in 1971 have shown no sign of sustainable development as yet; rather the existing poverty has increased by 30 million 'ultra-poor' people during the last 30 years of development, according to a report of the World Food Program (WFP) in 2000. Environmental degradation has also reached new levels in terms of deforestation, biodiversity depletion, and a massive arsenic contamination of underground water used for drinking as well as irrigation.

Bangladesh has been a land of surplus production in agricultural produce, including fish. In the 16th century the country was known as the Paradise of Nations, the land of wealth. It was renowned for its agricultural surplus and manufacturing wealth. The Dutch, Portuguese, British and French came to trade with the country. Bangladesh as 'Golden Bengal' was also extant during the Mughal period (1575-1757). Village elders believe that the 'golden age' of the country survived, though with gradual depletion, until the early part of the 20th century.

Currently, Bangladesh enjoys a surplus of manpower and vegetables, and is self-sufficient in rice. Industrial wealth and other agricultural products have declined from surplus to shortage. However, recently there have been claims that Bangladesh is about to achieve self-sufficiency in food production. The main reasons for this progress are the availability of power-driven irrigation facilities (some electricity, mostly diesel). However, what is still evident is that Bangladesh will remain as an aid-reliant country with little hope of attaining self-reliance for the vast majority of its people unless a shift to sustainable productivity for village Bangladesh can be initiated.

Self-reliant living requires goods and services to be available in the vicinity of village households. Everyone is obliged to purchase cloth at some time, and cooking oil may be wanted for non-farming households. Traditionally, village Bangladesh was self-reliant. People used to go to the village *haat* (open-air market place) which normally take place

twice a week, to sell their surpluses and buy goods they lacked. Collectively a village could be self-reliant, and individual households could be self-reliant, in vegetables and fruit. Cultivators could be self-reliant in terms of staple foods, including vegetables, fruit, milk, eggs and fish. Local knowledge reveals that attaining self-reliance in the midst of deficiency, occupational diversity, appropriate skill development and the adoption of sustainable technologies must be planned and implemented. These suggestions require good governance in order to enact sustainability policy.

Self-reliant living in the context of ecodevelopment denotes livelihood activities in exploiting natural resources to meet basic human needs – food, energy, shelter and clothing. This notion of self-reliance applies to a household, a community and a nation. Working for sustainability means recognising that nature has provided everything on the earth for self-reliant survival not only for humans, but also for its innumerable other creatures within the framework of the earth's ecosystem. Birds, insects, pests, animals and marine biology are all self-reliant. History shows that humans also enjoyed self-reliant living in the past. Self-reliance still occurs in remote rural settlements all over the globe.

Energy crises are the main barrier to achieving sustainability in Bangladesh. A more extensive and action oriented national energy policy is required in order to recognise not only its social use, but also, its important economic value; it is both a consumptive and productive good. Urban households use energy primarily for consumption purposes within the home. In rural areas the consumptive and productive uses of energy are more intertwined, with most households also requiring energy for water supply for homestead irrigation, cultivation and food processing and preparation (Eberhard & Horen, 1995:82). Thus, for self-reliance, most village households require energy-driven home-scale production to compensate for croplands and fisheries lost through Green Revolution practices and natural hazards. The changes in land and water use have created dependency. The capacity to work at night in good light, and to set up small-scale production powered by electricity would augment villagers' incomes, especially between harvests, and in the eventuality of damaging floods or drought.

The concept of living in a state of self-reliant sustainability in rural Bangladesh involves transcending poverty, affluence, overconsumption, overexploitation of depletable natural resources, transforming politics, and amending the concept of an institutionalised globalisation ideal. The concept of self-reliance emphasises reducing exploitation of natural resources, enjoying simple living, allowing nature to replenish exploited resources at its own regenerative pace. Self-reliant living with simple lifestyle is, therefore, a viable means to caring for nature, and hence, sustainability.

APPROPRIATE CONSUMPTION

Sustainable lifestyle will never be achieved if the current rate of increase of consumption continues. The existing western values and standards are inappropriate not only for these countries' economies but also as a model for LDCs, such as Bangladesh. The ecological footprint of the West exceeds the surface of the planet Earth multiples of times (between 7 and 12). Bangladesh and its population can set an example for a sustainable lifestyle and human happiness without exorbitant consumption levels of non-renewable resources or luxury products.

Appropriate consumption is linked to the health of humans as well as their natural environment. In addition to pollution, global warming and acid rains for which industrial development is largely blamed, developed countries such as the USA and Australia are witnessing and fighting the consequences of the unsustainable lifestyle at the level of the individual, demonstrated in never seen before levels of obesity, physical inactivity, substance abuse, psychological disorders, unhappiness and disconnection with nature.

There is a lot of wisdom in the stories of the Bauls and the examples of consumption they have taught and practiced for centuries.

CONCLUSION

Bangladesh has openings for achieving sustainability through a sustainable lifestyle, including appropriate consumption, sustainable technology and self-reliance. Such development has been named ecocodevelopment as it cares for the ecological as well as the social wellbeing of people. According to Robert Riddell (1981), ecocodevelopment is a tool for achieving sustainability where the concern is for self-reliance. It is also acknowledged that no nation, however large, can stand alone. Thus ecocodevelopment indicates a 'best fit' attempt to optimise the balance between population numbers, locally available resources and a culturally desired lifestyle. Ecocodevelopment can alleviate locally felt problems of inadequate nutrition, clothing and shelter.

Village people aspire for sustainable progress (development) only to match the needs of the time. They are inherently respectful of nature, caring and observant of biodiversity, and understanding of the sense in which some natural resources are renewable, and others, not. The culture of village Bangladesh is not consumerist: sufficient is enough for most villagers. They would therefore adopt the concept of widespread RETS in the villages in the understanding that it could help them to care for nature better and would sustain their family and social structure. Most of the village people believe in the eternal pleasure of life

hereafter. Their positive spiritual dispositions towards floods, droughts, and river erosion allow them to interpret such events as nature's tools for sustainability management.³ They feel reasonably content with their fate provided it matches the norm for their social groups.

Appropriately designed training and educational programs could help initiate rural development for self-reliance. The on-going training and educational programs for rural human resource development which are currently being conducted extensively both by the Government of Bangladesh and international donor agencies and development stakeholders throughout Bangladesh drastically lack the prime objective of sustainable development – sustainable lifestyle, including self-reliant sustainability, sustainable technology and appropriate consumption.

Harun Baul values the current development in terms of self-reliant sustainability as follows:

A pundit (scholar) was once crossing a big river on a boat. On the way, the pundit asked the boatman: 'Do you know how to read or write?'

'No.'

'Then 25% of your life is spoiled.'

After a while the pundit asked: 'Do you know why tides take place?'

'No.'

'Then 50% of your life is spoiled.'

Again he asked: 'Do you know why eclipses occur?'

'No.'

'Then 75% of your life is spoiled.'

In the meantime a storm developed. The boatman asked the pundit: 'Do you know how to swim?'

'No.'

The boatman exclaimed: 'Then 100% of your life is spoiled.'

Last, but not least, the NGO sector can play vital roles in order to act on achieving sustainability. The NGOs should be appropriately trained to implement eco(village)development projects within their operational areas. Specific NGOs should be

¹³Local environmental sages suggest that climate or environmental change is natural and its sustainability is vested in its 'renewal process'. People understand this as 'change'. Local knowledge also reveals that renewal depends on 'exhaustion'. The greater the exhaustion, the more frequent is the renewal. Thus, climatic phenomena – temperature changes, floods, draughts and cyclones – are the process of environmental renewal. Aziz Shah Fakir stresses that unless the 'majority' understands this, their concern to reverse climate change may remain forever unachievable and futile. The Fakir interprets 'majority' as 'wise people'. He argues that a single wise person is a majority over 100 ignorant people. A proverb says: to live in hell with a wise man is better than to live in heaven with 100 fools. Aziz Shah Fakir concludes that the sustenance of local capital in its original natural form is the only hope toward 'desirable climate change'.

assigned to accomplish self-reliant sustainability for specific regions. They must also transform as organisations doing micro-credit business only are not currently acceptable by the villagers. The villagers rather prefer to be left alone to scratch their own wounds for relief. They believe that micro-credit can only worsen the situation and they need tools which will provide sustainability. On the other hand, village elders believe that they have the capacity and ability to create a remarkably different economy, one that can restore ecosystems and protect the environment provided they are facilitated with energy and home-scale technology, not cash credit.

The three tools in achieving sustainability and a sustainable lifestyle as understood in the Bangladesh tradition are self-reliance, sustainable technology and appropriate consumption. We believe that this model transcends the boundaries of the sub-continent and can bring wisdom to many other parts of the world.

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Appendix A

The 85 years old Darvish Aziz Shah Fakir, is a renowned Baul. He lives in a house attached to a shrine of a local saint in the village Choraikole, near the Choraikole railway station, in the district of Kushtia. Aziz Shah Fakir has a wife and a daughter. His wife Laily (55) is also a Shadhaka (female devotee/philosopher). Both Aziz Shah Fakir and Laily are unlettered. Their only daughter Madhu (35) is educated up to year twelve and now married. The Darvish and his wife have disciples and devotees totaling about 1,000 families, mostly from the unlettered farmer class. About 150 families amongst his followers are educated, about 500 families are economically well off.

The Fakir and his wife get up in the early morning, at the call of Morning Prayer. Before sunrise, they have a cold water wash, drink water, answer to nature' s call, and clean their teeth using a fresh branch of the *Neem* tree or local herbal plants. Then they burn incense sticks and *Dhup* (resin) on the tomb of the shrine and meditate together (*Jugal Sadhana*) at the shrine until sunrise. The guest devotees and followers from the nearby area participate in meditation with their Guru(s). After meditation is over, they drink water again with only a dozen or so grains of uncooked rice. They call this *Chal* (uncooked rice) *Yoga*.

The Darvish then sits with his devotees for singing for an hour or so. During this time, Laily takes care of their cow and her calf. She then starts making a vegetarian breakfast for everybody participating in the sunrise session of Baul singing. She always cooks extra food for ' unexpected' guests whom they expect every day.

After breakfast, the Darvish teaches environmentalism to the devotees for some time, and takes cows to the nearby fields, leaving them with other cowboys who graze the Darvish' s cows with their own. The Darvish then socialises with the visitors, teaching through humour. He treats patients free of charge with mystical spells and by giving healing energy blowing on them. Laily participates with her husband or does household duties like washing clothes, maintaining and cleaning the shrine campus and tending her kitchen garden.

Laily cooks boiled rice, *dal* or/and vegetable curry for lunch. They have lunch with the visitors at midday. In the afternoon, Laily distributes food, money or any other *Manat* (offerings) collected at the tomb amongst the needy who come to her. *Manat* (a Bengalicised Arabic word) is a promise made to Allah at a *Mazar* (Shrine) of a Wali (saint) to sacrifice (donate) something within the vower' s means for a gain or benefit which may not be achievable through the vower's own ability and resources. *Manat* includes vowing (by childless couple) for a son or daughter, for cure of a prolonged ailment, fruit for fruitless trees, good harvest, safe human or animal birth, safety from epidemics, good results in study or research, happy or early marriage (especially of a girl), longevity, economic prosperity, winning court cases, safe journey, safe receipt of important letters to or from lovers and relatives, having lasting unlawful love affairs, safety from the destruction of cyclones, good

fishing or hunting, winning a desired male or female for marriage, bad luck for an enemy, repentance for a sinful deed, and so on. Vows are made publicly or in secret, depending on the case and the temperament of vowers. In some cases, *Manat* is made for unknown events of the future such as the possible outcome of any business investment. In this case the offering is money for money, crops for crops, fruit for fruit, animal for animal - a portion or a substitute of which are offered to *Mazar*. For childbirth or a cure from sickness, the offering is generally birds such as poultry or animals such as goat, cow or buffalo (Hossain, 1995:183).

This Darvish family leads a modest day-to-day life maintaining the principles of other creatures of Mother Nature. They do not hoard any money or food items in excess of three days need. All excess is distributed amongst the needy.

At sunset, the Darvish and Laily again burn incense sticks and resin, then they meditate before the Shrine for an hour with other participants. The Guru then starts musical *Ashor* (gathering) with visiting Baul disciples. Laily cooks fish curry and rice for everybody. The devotees sometimes bring fish, and the Hindu fishermen passing on the road in front of the *Mazar* leave some fish as "offerings". In the absence of fish, mixed vegetable curry or *dal* is cooked. For the evening meal, milk and banana are common additions to the main course. Aziz Shah Fakir has started drinking milk only recently; his wife Laily still does not. Both of them believe milk for every person is neither necessary, nor sustainable in Bangladesh. Only children and elderly people need milk for their growth and longevity respectively. Milk drinking by healthy people between childhood and old age is like pouring water into a glass already full of water. The Fakir says that Bangladesh does not have enough lands to grow food for its people as well as to raise cows for everyone to drink milk. Every household should have only one milking cow and bullock to be used for tilling the land.