Green economics and biodiversity through green micro financing

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Review

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Accepted 16th April, 2012

Global enterprises are weakening and even destroying local economies. Modern capitalistic industries are producing wastes, produces carbon emissions, deforestation, loss of biodiversity and rangeland, soil degradation, air and water pollution. Hegemonic globalization destroys diversified green local initiatives and the local economy. To counter this hegemonic economic power, it is vital to create alternative green economic biodiversity forces, where green micro financing to green social small businesses can play an active role in green biodiversity socio-economic development, address the issue of poverty and environmental development. Green micro-finance institutions could finance to green small entrepreneurs to involve in biodiversity businesses, agricultural food productions, and other pro-environmental social enterprises. In Bangladesh, solar panels, solar water pumps and solar cookers, energy savings stoves, bio-gas plants are promoting through Grammen Shakti, a green micro-financing organization that also supplies green energy products and environmental education in the villages. However, green microfinance program can include organizing training workshops on biodiversity education (nursery, homestead gardening, renewable energy, biogas plant among MFIs officials, and clients.

Key words: Biodiversity; Climate change; environmental development globalization; green businesses, green economy; green micro financing; and local living economics.

Acronyms: Grameen Bank (GB) Grameen Shakti (GS), Integrated Pest Management (IPM), Micro finance institutions (MFIs), and Non-government Organizations (NGOs).

INTRODUCTION

This paper discusses the importance of waste reduction to preserving a healthy environment, and the use of micro financing to promote small green enterprises that focus on reuse, recycling and re-building. These small enterprises can foster a sense of community and build local economies.

In the industrialized capitalist world, market consumption is rapidly expanding, increasing waste that pollutes the environment. Hegemonic globalization destroys local initiatives and the local economy. The world has become an increasingly unequal place- the gap between the haves and have-nots has widened. For example, over fifty countries are now poorer than they were ten years ago. Access to basic services such as clean drinking water is getting worse in some countries. Corporations are over- extracting natural resources, depleting the earth's richness and creating huge waste in their production processes. Global enterprises are weakening and even destroying local economies.

Marx calls it the tyranny of nature. It creates poverty among disadvantaged people and brings excessive wealth to the rich. However, our natural resources are limited. Global warming is increasing, and it negatively affects nature, people, and communities. This is while corporations are making large profits without an appropriate level of social and environmental responsibility. Professor Brian Milani (2000) says, “Modern capitalism maintained material scarcity through waste production.” (p-23). Hence, there is no turning point from this process, unless there is an alternative development strategy- a green economic movement. This movement needs people-centered communities managing their energy and water needs locally and focusing on the reduction of waste and environmental renewal. Through increased corporate responsibility and a service-based economy, communities can grow.
stronger.

In this paper, describes concepts that define and measure green economics: sustainable development, waste management and community economic development. For the author, the green business course has explained: (1) manufacturing and waste management (2) Local versus global energy and economics. In professor Milani’s words, it is more than clean up and environmental protection. He says, “Green economics is capital, material and energy savings, and people intensive.” (p. 75). In my paper, I will first explain environmental degradation through waste and its management. Secondly, I will discuss the role of micro financing in green economics, and finally, I will provide a conclusion with some recommendations for North American society.

Carbon emissions, waste and corporate businesses have negative environmental impacts include deforestation, loss of biodiversity and rangeland, soil degradation, air and water pollution. Environmental issues are becoming more pressing due to accelerated economic development, natural resource depletion, and rapid population growth. In North America, energy consumption is a big issue. Our love affair with the automobile is costing us more than fill-ups at the gas pump. Huge areas of our communities are eaten up by parking lots, the emissions are polluting our air, and we get less exercise. Every day huge amounts of waste/garbage are created by individual dwellings, restaurants, hospitals and factories. Companies are producing 94% waste materials that degrade the environment. (Milani 2000). In North America, most people prefer not to pay attention to the negative effects of emissions on the Earth. Packaging waste is also a huge problem. Energy consumption from USA is 21%. Myers and Kent (1998).

One of the main messages of the course is that we cannot continue to disregard the environment as we have for the past several hundred years. From the course, I have learned how the industrialized economies based on capital growth and over-use of natural resources have created waste that is harming the environment badly.

Companies make products that end up as garbage, and tax payers are responsible for the waste removal and management. Therefore, zero waste/closed loops and shifting the responsibility for waste management to the manufacturing companies is vital to environmental protection.

In Germany, they banned disposable plastic cutlery in favour of washable cutlery. In addition to reducing plastic waste, this move actually created new businesses that washed and sterilized metal cutlery. Neil Seldman (2003), in his article The New Recycling Movement-Part-1, documented the great success of the recycling movement. For example, recycled materials increased from 5% in 1968 to 30% in 2003. By 2000, there were 56,000 recycling companies employing 1.1 million, with annual sales of $236 billion.

However, there are still today huge amounts of broken and outdated products creating waste in the environment when they could be repaired and/or recycled. Waste from hospitals could be reduced by sterilizing reusable instruments rather than using disposable instruments.

Transition to a service economy with manufacturers being responsible for final disposal of their products (extended producer responsibility (EPR)) would motivate manufacturers to build better products with a longer life. They would also build products to be upgradeable and to be disassembled easily. Not only would this help to reduce waste but would help manufacturers build long and loyal relationships with customers. In North America, environmentalists are trying to move to zero waste/closed loop production and promote a service economy. Today municipalities manage the disposal of garbage using taxpayers’ money.

In North America, the transition from a waste economy to a service economy will not be an easy one to make. It will be a challenging transition because companies today focus so much of their effort on minimizing labor costs as labor is the most expensive component of manufacturing in an economy that undervalues natural resources. Companies save money by reducing staff. For example, GM is reducing staff to minimize production costs. Many corporations exploit cheap labor by relocating their manufacturing plants to third world countries. Today’s corporate obsession with growth and selling more ‘things’ is a difficult sickness to cure. And, until this sickness is under control, waste will continue to be one of our toughest challenges. Manufacturers have honed technology to a point where it is cheaper to throw away most products and buy new rather than repair. The only way to break this cycle is to make either the consumer or the manufacturer pay for the cost of disposal.

The best way to motivate manufacturers to design products for long life is to extend their responsibility to the end of the product life cycle and make them pay for disposal. Most consumers hate the thought of throwing away an item such as a phone, microwave, computer, refrigerator, television, or camera, but getting repairs and/or upgrades is more difficult, and in many cases more expensive, than buying new. If companies can make it easier and affordable to repair or upgrade products, that would be the choice of many consumers. We need to take advantage of consumers’ desire to waste less.

Largely in response to pressure from the public, Sony has begun taking back their products in certain areas, while Kodak and Fuji are taking back disposable cameras. Professor Milani identifies Xerox as a good example of a ‘document service’ company that leases the majority of its equipment and takes it back. They are looking at ways to upgrade and recycle as much as possible.

As we learned in our readings, consumers have been
quite successful in lobbying and applying pressure to companies to improve their environmental record. Their efforts, however, must be organized and long term.

Micro financing is another tool that can help in this transition to a service economy. Banks and government agencies could develop a loan product called ‘green loans’ for individuals and small companies looking for financing to start businesses that are focused on repairing and recycling existing products. Brawngatt (1994), suggests building waste ‘supermarkets’ and recycling centers. Large manufacturers could ‘outsorce’ their disassembly and recycling responsibilities to small companies or franchises located in cities and smaller towns where consumers can return broken or outdated products. This would help in the creation of good jobs, reduce waste, and preserve our resources.

A group of individuals could start a small businesses coming to people’s homes to fix small appliances. Now that the world has gone wireless and digital, could someone find a way to recycle the materials used in cassette tapes, and soon CDs that will no longer be used?

In the textile area, some interesting new developments are taking place, such as Honeywell developing a recyclable nylon fibre. As we have read, carpeting is a very good area for transition to a ‘service’ business, where consumers ‘lease’ carpets or at least return used carpeting for recycling. (Braungut 1994).

NGOs can help by advocating for policy change regarding responsibility for waste management. They could lobby for a shift in responsibility to private companies, ideally through some kind of incentive program, but failing that, through penalties. Governments need to do their part by creating tough but realistic policy and legislation that other third parties such as insurance companies, banks, and consumers can hold companies accountable to.

Harnessing third parties as surrogate regulators
Achieving Environmental Outcomes by Alternative Means suggest that government would do better to support self-regulatory efforts of private enterprise, and work with them to define performance benchmarks. If the benchmarks are not met, that’s when penalties or the influence of third parties can be more effective. Policing and monitoring is very expensive, so other tactics are preferable (Gunningham et al., 1999).

Dare O'Rourke in his article market movements
NGO Strategies to Influence Global Production and Consumption (2005) suggests NGOs should also get involved in setting standards and monitoring compliance with regulations.

How can we educate North American society about the damage that has been done to the environment through waste, and how we need to adopt new behaviour in order to restore our planet to better health?

The issue is particularly directed at North Americans, as it is evident that our European and Far Eastern neighbours are not the environment offenders that we are. A European study found in 1997 that the per capita material throughput was 80 tons per American, 51 tons per citizen of the European Union, and 45 tons per Japanese. These numbers indicate that terrible waste is taking place in the manufacturing processes, particularly in North America.

Jacquelyn Ottman, in her article Green Marketing-Opportunity for Innovation (1998), says that 8% of consumers’ claims to know a lot about environment issues, leaving 92% who do not understand the state of our environmental problems and the threat to human and wild life. An environmental sensitization program built into our education system and communicated via the media is clearly needed.

Micro finance can contribute as one of the tools not only to finance small businesses and provide employment, but also to contribute to environmental development, including educational programs. How can a micro financing program help deliver a green economy? Micro financing institutions (MFIs) can enable loans for recycling and service economy projects. Loans can be used to reduce and recycle waste, generate local energy, and work with large institutions to implement better recycling and reuse projects. Government can provide incentives to companies for waste reduction and recycle projects. Government can make available soft loans to these business people. NGOs can provide training in this transition to a service economy. Targets for ‘zero waste’ and progress on meeting those targets is urgent. This is the essence of the green economy and the course.

Professor Brain Milani’s book designing the green economy
The Postindustrial Alternative to Corporate Globalization speaks on behalf of green businesses and opposes transnational corporations and chain stores. However, green business is not popular in North America. Rather it is struggling to survive and compete with big, consumer-hungry businesses. The growth and penetration of chain stores is substantial, and local governments typically welcome these new stores to their towns, not sufficiently aware of the negative impact potential on local retailers.

Local economies, for the most part, are getting weaker, and every town is starting to look the same as Wal-Mart and Dunkin’ Donuts dominate the landscape. Diversity is disappearing.

Wal-Mart doesn’t care about local communities and local businesses. They treat all people the same, and they put local retailers out of business.

Local economies usually lose out as well when it comes to government subsidies. Corporate world overriding small businesses even they are mushroomed by perverse subsidies. Norman Myers (1998) in his article
“Perverse Subsidies: Tax $ Undercutting our Economics and Environments Alike” estimates, “there are over $1.5 trillion in perverse subsidies paid out by the governments worldwide.” These are subsidies that the author believes have a negative effect on the economy and the environment in the long run. Coal subsidies are costing Germany $6.7 billion.

In class discussions, concerns were raised about the huge subsidies offered each year to big businesses at the federal, state and local levels. Subsidies are not a right, and need to be re-evaluated carefully. This amount of money, properly channeled into environmental programs, could have a tremendously positive effect.

Bangladesh has reduced fertilizer subsidies dramatically. The Environmental Summit in South America discussed how governments could redirect perverse subsidies into positive initiatives in support of sustainable development. Gary Gardner and Erick Assadourian in their article Rethinking the Goodlife strongly advocates eliminating perverse subsidies and adopting pollution taxes to create a cleaner environment. However, today’s tax approach does not encourage pro-social behavior. (Roberts 2005).

Stacy Mitchell in her article Rebuilding Community-Rooted Enterprise says corporate chains are damaging the environment, undermining the social and civic fabric of communities, and weakening local economies. Expansion of chain stores needs to stop because chain stores are: consuming land at a staggering pace, creating major problems through storm water runoff, and increasing air pollution through all the automobile and truck traffic they generate. Mitchell suggests having a size limit on chain stores, steering business downtown, and doing thorough impact reviews when chain stores try to come to town. She also suggests, “Stop subsidizing and offering incentives to non-local businesses”.

Grameen Bank (GB) micro financing not only addresses the issue of poverty, but also works for environmental development. Grameen Bank and its sister organizations in Bangladesh provide loans to farmers for organic production, agro forestry, ecologically sound crop intensification, fisheries, livestock, aquaculture, integrated pest management, rickshaws, bicycles, solar panel installation businesses, biogas plants, recycling businesses, and many other ecologically sound small businesses. GB does not provide loans for alcohol, tobacco or narcotics businesses, puppy cultivation or other rural industries that create health hazards to rural areas. Detailed discussion can be found on page 6.

Micro Financing Institutions (MFIs) should adopt environmental principle

Reduce, re-use and recycle waste, but how can the policy be implemented and internalized within the institution? To start, they can create lists of business types that negatively impact the environment and ensure that loans are not provided to those kinds of businesses.

These lists can give micro-entrepreneurs a clear idea of the types of businesses that will not receive loans. The Business Alliance for Local Living Economics (BALLE) can advocate for such a policies, and facilitate partnerships between solar energy suppliers and MFIs. Micro credit plus programs could include environmental training programs, tree planting, seed supply and nursery programs.

Positive impact of small enterprises

From my experience in Bangladesh, I can say micro enterprises definitely have a positive impact on the environment. Small entrepreneurs are involved in organic seed businesses, backyard poultry raising, homestead gardening, preparing compost organic fertilizer, hand weaving fabrics, and rickshaws and bicycles for peddling transport. All of these businesses contribute to a healthier environment. Sustainable production techniques such as reforestation, controlled water usage, natural pesticide applications (integrated pest management, IPM), woodworking, environmentally-friendly micro drip irrigation, solar panel businesses, and bio-digester plants all conserve environmental resources. Recycling micro enterprises are also helping the environment. MFI staff needs to understand the negative impact of certain industries on the environment in order to ensure that these businesses do not receive financial support, unless they provide proof that they will not be adding to our planet’s waste problem.

Negative impact of micro enterprises on the environment

Usually micro enterprises income generating activities include agricultural activities such as farming, fishing, raising livestock, agricultural processing, and food processing. Some micro enterprises could have a negative impact on the environment. Cultivating tobacco or narcotics, or using pesticides in farming can create problems for the greater community. Respiratory sickness, diarrhea, cancer and other health hazards are some of the problems that could result. Diesel and kerosene selling businesses create more carbon in the environment. Sale of endangered species is unethical. These enterprises create air and water pollution, damage the earth, ruin the soil, and reduce forests and wildlife. Some small enterprises like soap making, charcoal production, timber harvesting, tanneries, textile dying, open animal slaughter, and small mining operations have negative consequences on environment. A clause could be inserted in all loan applications, “I certify that I will do my best to do business that will not harm the environment”. This can raise consciousness about environment among both clients and staff.

We have to remember that poor people are more exposed to the environment, and they are more dependent on natural resources. Artisans, farmers, food vendors, textile producers, charcoal sellers and many
others use natural resources for their livelihood. The depletion of these resources reduces the sustainability of their businesses, and could jeopardize the supply or the quality of the resources if there is no program to re-plant and restore. Grameen Bank and its sister organizations are examples of organizations that given careful consideration to environmental impacts. Socially and environmentally responsible micro financing is very important. So MFIs should develop environmental criteria for lending.

GB renewable energy program is a popular and successful venture in Bangladesh. Renewable energy services make villages more prosperous and strengthen the local economy. This program increasingly creates new opportunities for micro finance to support the environment because in Bangladesh only 30% people have access to the national electricity grid. In this situation, Grameen Bank, through its sister organization Grameen Shakti (GS), is promoting, developing and extending renewable energy technology like solar panel power, biogas plants, organic fertilizer, improved stoves and wind energy in remote rural Bangladesh. GB has extended credit support to install 77,000 solar power systems in Bangladesh. This program is employs 1,135 engineers and 2,075 trained technicians in 25,000 villages across Bangladesh. Total beneficiaries are 500,000. (Grameen Shakti, November 2006). With this solar power system, GB clients are able to light their homes, shops, rural offices, mosques and fishing boats. They also operate TVs and cell phones. People do not pay monthly electricity bills. It is pollution free.

Through the above-stated Grameen energy program, local communities get easier access to environment-friendly renewable energy at lower costs to meet their socio-economic needs, increase technology transfer at the grassroots level, and create new businesses and employment opportunities in the community. It protects people from kerosene carbons. It creates new income opportunities including manufacture of accessories for the solar home system and local repair shops in the rural Bangladesh.

Although GB solar panels, solar chargers for cell phones, solar water pumps and solar cookers, etc are enhancing renewable businesses in Bangladesh, these alternative energy technologies/materials are not manufactured in Bangladesh. Therefore, GB is dependent on importing solar panels from other countries. Biogas, an alternative energy to firewood, saves cutting and using wood for fire. So it prevents deforestation. This biogas technology makes slurry which is a high quality organic fertilizer used for crop and fish production. It protects air pollution too. This organic fertilizer removes acidity of the soil and reduces toxicity. Grameen Bank provides credit for biogas plant construction. Recently, GB installed wind pumps in the cyclone centers of coastal areas of Bangladesh to produce electricity which is used in the centers.

In Canada, there are many community economic development organizations and credit unions which are investing money and providing capital to local entrepreneurs. There are 57 community investment funds (NGOs) and 54 Aboriginal financial institutions in Canada, but only a few community micro loan funds exist in Canada. (Calmeadow 1999). In Toronto, Riverdale Business Development Corporation and Alterna Savings are centers of excellence within community-based development initiatives that help create local jobs, develop local enterprises, and provide essential services to low income people. These organizations could extend their loan services to recycling and waste management businesses. However, these cooperative organizations are struggling to cover their operating costs. Without subsidies, these CED organizations cannot be sustained.

In Canada, most levels of government have developed purchasing policies and criteria to give preference to ‘green’ and environmentally friendly products and services. This mandate encourages all companies that want to do business with the government to be attentive to providing environmentally friendly products and solutions.

Below I am focusing on how the concept of micro lending can be employed in North America to assist people to make their communities healthier and more self sufficient. Why is local business important in North American communities? David Korten (2002) suggests that local businesses encourage living economies which are economies for life. Global corporations and financial speculators engaged in the single-minded pursuit of money are destroying communities, cultures, and natural systems everywhere on the planet. Major corporations today are legally structured to allow virtually unlimited concentration of power to the exclusive financial benefit of absentee shareholders who have no knowledge of or liability for the social and environmental consequences of the actions taken on their behalf. According to Korten, this process can be referred to as a type of suicide economy that is dominated by human choice and motivated by a love of money, rather than a love for life; this in turn, creates monumental negative consequences.

Korten emphasizes the need for government regulation to ensure that the true cost of energy and natural resources is incorporated in the cost of manufactured products including environmental impact costs and waste management. Living economies benefit locally rooted enterprises, and locally-owned enterprises recycle money in the community. They strive to save energy and provide increased educational opportunities and services to drop crime rates. This economy shifts from creating demand to responding to demands and reducing pollution. We need to get rid of the suicide economy by displacing transnational corporations.

Michael Shuman, an economist from Washington DC, studied 500 local businesses which were involved with
what is known as' Sustainable Connections' shopping for Thanksgiving and Christmas. The study highlights how local businesses ‘give back’ to the community through things such as community culture, ecology, architecture, music and art. Every local purchase has a multiplier effect on a particular society and its environment. For instance a dollar spent on rent might be spent again by the landlord at the local grocery store, who in turn pays an employee, who then buys a movie ticket. The more times a dollar circulates within a defined geographic area, the more benefit to the community.

How can these suggestions be done?
All of our reading materials are full of theories, but how do we put them to practice when our culture seems to be addicted to shopping at Wal-Mart? We need to break down these high consumption habits. Korten says, “It is a monumental mess”.

An interesting experiment would be to include micro lending with Milani’s concept of ‘community currency’. If a community did create its own currency, then small business loans could be offered in community currency with an extremely low interest rate.

It’s obvious that life in Bangladesh and life in North America have very little in common. So can micro credit have the same success in North America as it has enjoyed in poorer countries like Bangladesh.

The Bangladesh unemployment rate is 57%. 67% of the rural people live below the poverty line and would not qualify for credit at a regular bank. A huge number of people are unable to fulfill their basic needs, but in North America, there is a larger safety net that poor people can tap into. Our culture is totally different from that of Bangladesh. In North America, 80% of people work in giant corporations. Entrepreneurs are getting scarce, but during Abraham Lincoln’s time entrepreneurship was strong. After 200 years entrepreneurship is relatively depleted in North America. People are scared to take on the risk and challenge of operating a small business. They believe in unions, and worship money significantly more than they worship community. Milani says, people do not understand the suffering associated with absolute scarcity. Therefore, micro credit is not popular in North America. The majority of people are able to get credit at a local bank.

Why micro finance has succeeded in Bangladesh - Is it possible in North America?
In Bangladesh, the Grameen Bank (GB) micro lending concept has become so successful, as it is tailored to Bangladeshi culture. Grameen Bank has researched Bangladeshi local cultures and has come up with a system that helps poor people start their own small business (usually agriculturally-based) and eventually escape poverty. Its lending policy is different from the commercial bank. GB is carrying the community; however, in Canada, banks are not carrying the communities. Rather, they are profit driven. GB adopts the local culture and has developed a simple lending operation.

How do we re-kindle the entrepreneurial spirit within North American culture?
It’s difficult when global corporations want to sell everything to people. Their ‘one stop shop’ principles are displacing small businesses by undercutting their prices until small businesses die.

Micro credit could be a very useful tactic for creating a vibrant community where people are focused on helping one another. Hopefully more wealthy people will follow the lead of billionaires Bill Gates and Warren Buffet who have both realized their social responsibility later in life. The self-employment culture is not popular here largely due to the domination of big business. Municipalities can initiate pilot projects focused on energy self-sufficiency, recycling and waste management. From these projects, small businesses should emerge. We need to educate our young about the green economy and start with Milani’s recycling renewable business, return to local artisans, which may help keep out Wal-Mart and promote community values of caring.

In Bangladesh, micro financing not only reduces poverty but also create biodiversity, improves drinking water, sanitation, and the health of the environment. For example they educate rural poor people not to litter in open places, to grow vegetables year round, crop-diversification and to have smaller families. They also provide loans for low cost housing that promotes use of local materials. GB has come to see a poor woman, in contrast to a poor man, as a “natural and better fighter of poverty” and this is why they have targeted primarily women. In North America, women and men enjoy equality on most things. For example, here men and women are equal in their property rights.

Small businesses initiated by local people respond to local needs. Moreover, small entrepreneurs attempt to create biodiversity and democratize the economic lifestyle of the neighboring communities (Shragge 1997). Grameen Bank helps community people find dignified livelihood through increasing income, education, creating material assets and developing social and human capital. This empowers them economically and socially by increasing their income and creating leadership and networking among them.

From the previous discussion, it shows that green small businesses can offer biodiversity in the community and can an alternative to corporate globalization, but green small enterprises need appropriate support from the government and other agencies. Lending to appropriate environmental technologies like solar electric systems and solar ovens needs to be a priority. National strategies are needed to encourage the recycling of manufacturing waste. All these green social small businesses contribute to the local economy without harming the local
environment. It is advisable for national MFI regulation to deny loans to those sectors that are harmful to environment.

Green social microfinance practitioners can work to improve the environment by providing loans for green micro enterprises and businesses that are not harmful to environment. Green microfinance activities can include organizing training workshops among MFIs officials, and clients. Sustainable agriculture needs to be a priority, so loans for nursery, homestead gardening, renewable energy, biogas plant and biodiversity should be easy to get. Making crafts and renting out cell phones makes poor people self-reliant and confident.

Today, economic power and wealth is increasingly becoming concentrated within a small number of multinational corporations and squeezing the biodiversity in the world. To counter this hegemonic economic power, it is vital to create alternative green economic biodiversity forces, where green micro financing to green social small businesses can play an active role in green biodiversity socio-economic development, address the issue of poverty and environmental development. The idea of corporate responsibility can be shifted by a green economics movement and biodiversity movement that is to become the heart of its very value system, which is crucial in developed countries and developing countries.

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