



International Journal of Development and Sustainability

Online ISSN: 2168-8662 – www.isdsnet.com/ijds

Volume 2 Number 3 (2013): Pages 1703-1722

ISDS Article ID: IJDS13011701



Shifting developmentalism vis a vis community sustainability: Can Integration of ecosystem goods and services with microcredit create a local sustainability dispositif?

AKM Shahidullah ^{1*}, Henry David Venema ², C. Emdad Haque ¹

¹ *Natural Resources Institute, University of Manitoba, Winnipeg, MB, R3T2M6, Canada*

² *International Institute for Sustainable Development, Winnipeg, MB, R3B0Y4, Canada*

Abstract

This paper briefly reviews developmentalisms as evolved over the time especially those that have direct or indirect implications for community level sustainability. It then brings forth the perspective of sustainable development and its characteristics in fostering development at the local community level. It also analyses the multifaceted and changing nature of development and the urgencies thereof from the viewpoints of ecological economics, millennium ecosystem assessment and community level sustainability. Drawing on the Foucault's notion of 'dispositif' it proposes to integrate ecosystem goods and services management objectives within the microcredit mechanism as a new approach to promote sustainability at community level. The paper therefore, argues that a shift in microcredit mechanism (which is regarded as effective for social and economic contributions at grass root level) with the inclusion of ecosystem goods and services management objectives will result a new framework for local sustainability.

Keywords: Development, Sustainability, Ecosystem goods and services, Microcredit, Dispositif

Copyright © 2013 by the Author(s) – Published by ISDS LLC, Japan

International Society for Development and Sustainability (ISDS)

Cite this paper as: Shahidullah, A.K.M., Venema, H.D. and Haque, C.E. (2013), "T Shifting developmentalism vis a vis community sustainability: Can Integration of ecosystem goods and services with microcredit create a local sustainability dispositif?", *International Journal of Development and Sustainability*, Vol. 2 No. 3, pp. 1703-1722.

* Corresponding author. E-mail address: shahid.akm@gmail.com

1. Introduction

Developmentalism is a cross-disciplinary school of thought that gave way to an ideology that economic development is the key strategy towards prosperity (Smith, 1985). Therefore, central to the developmentalism thought is 'economic development' for national prosperity. Such economic development efforts, argued by so called trickle-down economic theories over the times, are overshadowed by the top-down approach - a belief that rising tide lifts all boats - as propounded by Kennedy in 1963 (Hines Jr. et al., 2001). Escobar (1995, p. 17-18) viewed developmentalism as an un-underdeveloping tasks undertaken by Third World countries by subjecting their societies to increasingly systematic, detailed, and comprehensive interventions especially during the post WW-II periods.

Meanwhile, unlike top-down approach to developmentalism, since 1980s microcredit emerged as a grass-root development intervention strategy and helped create millions of micro-enterprises, especially in the developing world. This enterprise development course takes into account economic benefit as the prime objective with little or no attention to the environmental consequences (Vargas, 2000). Adoption of sustainable development, on the other hand, primarily follows a macro-scale top-down approach and is argued mainly at national and international scales with little or no focus to the sustainability issues at the community level. Though Agenda 21 of Rio declaration 1992 underscored sustainability at local and municipal levels hardly any country embraced the policy apart from some anecdotal examples including in UK (Theobald, 2003) and Brazil¹. Against such backdrops, the paper conceptualizes and proposes a new strategy to bring about local sustainability.

1.1. Developmentalism: shifting focuses

Developmentalism is marked with shifting focuses over the periods. The history of development practice shows how the debates among Eighteenth and Nineteenth Century philosophers became a practical pursuit during the Twentieth Century. The Marshall Plan, the Monroe Doctrine, and the Stalin styled export of Soviet industrialism and communism all represented significant policies which put into effect through interventions with 'nations perceived as being underdeveloped'. These policies and their funding spawned a plethora of development programs ranging from small-scale community development work to large-scale economic and political interventions (Larrison, 2000). While the issues of economic, social and political well beings were in focus, ecological issue was largely missing in those policies or intervention strategies.

The modern development debate, as opposed to more general debate about the causes of poverty and economic growth, is described as dating back to the early post-World War II period, and is closely associated with the process of decolonization, nation-building, national planning, development aid, and the political debate over the new international economic order (McNeill, 2000). A retrospective view on these development approaches reveals that the policies and strategies for development started to flourish from that period encompassed many evolving development theories, hypothesis, models, techniques, and empirical applications. In order to bring forth our perspective, we took decade-wise excerpts of development

¹ Fikret Berkes (2011) reports (personal communication) that there are instances of adopting LA21 in a few development projects in Brazil.

approaches those which had direct or indirect implications for poverty alleviation and community level development.

During 1950s economic growth became the main policy objective in the newly independent (decolonized) less developed countries adopting 'industrialization-first strategy'. The strategy was advocated by a belief that income and social inequalities would be eliminated through economic growth and modernization *per se*. Theories that contributed to subsume such belief by the development economists were: 'big push' (Rosenstein-Rodan, 1943), 'balanced growth' (Nurkse, 1953), 'take-off into sustained growth' (Rostow, 1956) and 'critical minimum effort thesis' (Leibenstein, 1957).

Building on such theoretical and conceptual developments of 1950s, the dual economy model came into being and become more sophisticated in the 1960s by strongly recognizing the interdependence between the functions of the modern industrial and backward agricultural sectors - which must perform during the growth process (Fei and Ranis, 1964). However, one of the major underlying flaws of this approach was that "Growth and development ceased to be used as synonyms (even if the former was still widely considered a condition on of the latter)" (Corbridge 1995, p.4). The dual economy model, therefore, fuelled intense debate as anti-poverty programmes and redistribution of wealth did not go hand in hand.

Therefore, during 1970s, one of the new developments with development policies was the shift in the preference (welfare) function away from aggregate growth *per se* toward poverty reduction and increasing investment transfers in projects benefiting the poor (Chenery et al., 1974). The rising number of people in a state of poverty i.e. below some normative minimum income level or standard of living became burning questions - leading incorporation of 'poverty alleviation' as one of the key development objectives other than GNP growth, employment, income distribution, and external equilibrium. To address the overall development problems in that decade theoretical approaches such as: package approach in traditional rural areas, role of informal sector, rural-urban migration, appropriate technology, relationship and trade off between output, employment, income distribution and poverty, socio-economic investment criteria, underdevelopment theory, and dependency theory underpinned the policies and strategies viz. integrated rural development, comprehensive employment strategies, redistribution with growth, basic needs, reformist (asset redistribution), and radical-collectivist.

The development strategies in 1980s used to be busy with macroeconomic adjustments what was termed structural adjustment policies. Corbridge (1995, p.7) states "drawing variously from libertarian creeds the market was to dominate the 1980s and 1990s with adoption of policies aimed at *rolling back the state, privatisation not nationalisation and free trade (rather than aid)*". Thus, the neo-liberal (free market) theory of economic development came to the dominance of political economic sphere.

The decade of 1990s emphasized on good governance and resurgence of poverty alleviation among other key development objectives where role of institutions in development-path dependency and endogeneity of policies and social capital were the theoretical lenses that adopted poverty alleviation and improved socio-economic welfare as one of the core strategies.

After 2000, key objectives of the development doctrines comprise human development, poverty and inequality reduction, millennium development goals, and reduction of vulnerability. Two dominant policies

and strategies i.e. globalization as development strategy and search for pro-poor growth development strategy have been adopted by most of the countries. With adoption of these strategies, the political economy of development and the role of institutions reclaimed significant dominance in the theoretical sphere of development where one of its major tenets is 'more equal initial income and wealth distribution is consistent with and conducive to growth' (Thorbecke, 2006).

1.2. Three new elements in the realm of recent developmentalism

Contemporary phenomena² in 'developmentalism and lessons from Millennium Ecosystem Assessment (MA) make three *new* elements quite tangible in the relevant literature. These elements are: *i) a new priority*: management of ecosystem goods and services (EGS) for human well-being should be in the forefront of development discourse (MA, 2005) *ii.) a new message*: action at the local level – with local organizations as the key actors – underpins the success and sustainability of most environment and development initiatives (WRI, 2010) (World Resources Institute propounded this message out of experiences in the last three decades of development practice). *iii) a relatively new strategy*: microcredit assisted micro-enterprise development has emerged as the most widely practiced grass-root development intervention mechanism in recent decades (Vargas, 2000).

The first element, Millennium Ecosystem Assessment, seems propelling us to think about development in a different way, if not afresh. Degradation of EGS has significantly caught the imagination of contemporary development thinkers - especially those who are concerned about sustainability of the natural system. This degradation is resulting, among other impacts, rapid declines in forest resources, declining fisheries resources, depletion of soil resources, and shortages of food not met by international trade and aid flows (UNEP, 2000). There are many direct and indirect drivers of changes that are causing this degradation. MA (2005) denotes the direct drivers as: changes in local land use and cover, species introduction or removal, technology adaptation and use, external inputs (e.g. fertilizer use, pest control, and irrigation), harvest and resource consumption, climate change, and other natural, physical and biological drivers. The indirect drivers are: demographic, economic (globalization, trade, market, and policy framework), socio-political (e.g. governance, institution, and legal framework), science and technology, and cultural and religious (e.g. beliefs, consumption choices).

To understand and face these changes and challenges specific to ecosystem management and human well-being, Millennium Ecosystem Assessment provides us with key information and roadmap. As ecosystems have been altered, many of their goods and services—the food and freshwater, the regulating services, and cultural benefits they provide—are in jeopardy, two thirds of the ecosystem services we depend on are degraded (MA, 2005). This degradation will likely grow significantly worse in the first half of the 21st century. World Resource Institute (2008, p. iv) reveals that it threatens human well-being and the goals of development; however, evidence is accumulating that taking an Ecosystems Services approach can make development more sustainable by sustaining nature's capacity to provide needed goods and services.

² With contemporary we mean post Millennium Development Goal (2000) and Post Millennium Ecosystem Assessment (2005) global development perspective

The second element was first recognized in Local Agenda 21 (LA21) at 1992 UN Rio Earth Summit. The importance of fostering local sustainability by strengthening local institutions is the key issue in LA 21 where call for transformation to mobilise action at the level of local communities put the onus mainly on the local government. However, Evans and Theobald (2003) state that the task is simply too vast and complex to be left to national or local governments alone. Although LA21 has its roots in environmental sustainability, and the clear need to combat pollution, resource and energy waste, environmental degradation and destruction of the global commons, from the very start - it is more than this (Evans and Theobald, 2003). Chapter 28 of the Rio Agenda 21 agreement underscored the roles of citizens, local organisations and private enterprises for engaging in the sustainability discourse and for formulating best strategies (United Nations, 1992).

While national-level policies and institutions tend to view poverty and environment as separate issues, many local organizations see the inherent connections and treat them together. In this sense, they provide a critical entry point for building a vital 'green economy' at the village level that can deliver substantial development benefits. Recognizing and building on the roles and strengths of local organizations is the kind of change in emphasis that is needed to reinvigorate efforts to achieve the MDGs (UNDP, 2010). However, any strategy to tap the potential of local action must reckon with the considerable challenges involved. Creating an enabling environment for local action—an environment that provides the rights, financing, and capacity development necessary to support the formation and scaling up of successful ecosystem-based solutions—is no easy task (WRI, 2010).

The third element, microfinance-led micro-enterprise development, has become a widely practiced (though debated) approach to reduce poverty, particularly at the rural community level in recent decades. Such efforts have focused mainly on economic measures, ignoring the environmental conditions (Vargas, 2000). Though emphasized in Rio Agenda 21, in development literature, elements of sustainability are noticeably scarce in local community level intervention strategies e.g. micro-enterprise development apart from some anecdotal examples. Enabling poor people with access to finance and run enterprises do not ensure sustainability in the poor communities. The microfinance solution to the poverty is perceived workable in easing some woes of economic and social inequalities at the bottom by creating entrepreneurial subjects, generating alternative income source, forming social capital and empowering women. Nevertheless, bringing about sustainability at the community level is a greater task.

Therefore, the inherent nature of shifting and recent phenomena of developmentalism together prompts us to ask - do we need to put these three elements together in the course or discourse of developmentalism? Apart from climate change, ecosystem degradation is altering the rules of development, bringing new urgency to the MDG agenda (WRI, 2010). Two goals out of eight (goal 1 and 7), as literally enshrined in the MDGs, are to reduce poverty and to ensure environmental sustainability.

2. Sustainable development and community level sustainability

Several important events and political actions paved the way for the emergence of the concept of sustainable development (SD) such as: i. Stockholm Conference on the Human and Environment and the establishment of

UNEP in 1972; ii. 'Limits to Growth Report' (Meadows et al., 1972); iii. the 'US Global 2000 report to the president' (Barney, 1980); iv. 'The resourceful earth' (Simon and Kahn, 1984); v. 'The World Conservation Strategy' (WCN/IUCN, 1980); vi. The IIASA Report 'Sustainable Development of the Biosphere' (Clark and Munn, 1986); and of course aforementioned United Nations Brundtland Commission Report 'Our Common Future' (WECD, 1987). These policy or strategy guides, generally, looked at the idea of SD as a macro level approach where state, regional or international authorities are the main actors to put it into practice. Therefore, in classical SD - society, environmental and economic objectives are mutually reinforcing and the process is argued mostly at national and international scales. For example, the practice is more visible in the realms of multi-lateral negotiations (climate, trade, biodiversity and other similar negotiations) and in policies of global organizations (World Bank, UN and other development agencies).

The idea of SD was significantly conceived first by International Union for Conservation of Nature (IUCN) as a conservation strategy. IUCN (1980, p. 4) stated "for development to be sustainable it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long term as well as short term advantages and disadvantages of alternative actions". Therefore, the inception of IUCN conceived SD idea took the whole biosphere into consideration, and grounded with generalized norms which Butz (1991) regarded as a global conservation principle rather than a development strategy.

Escobar (1996, p.329) states that "the emergence of the concept of sustainable development is part of a broader process of the problematization of global survival.... The slogan 'think globally, act locally' assumes not only that problems can be defined at a global level, but also that they are equally compelling for all communities". Similarly, other scholars started to question popular discourses on globalization and sustainable development, stating that 'since global discourses are often based on shared myths or blue prints of the world, the political prescriptions flowing from them are often inappropriate for local realities' (Adger et al., 2001, p. 683). Yanarella and Levine (1992) argue that SD strategies which are developed at global or national scales tend to prevent meaningful and concentrated political action. At such macro levels, the scale of change required is so great that problems of coordination and cooperation across political units are bound to be enormous.

Bridger and Luloff (1999) view that the political and cultural difficulties associated with attempts to achieve sustainability on a global level provide justification for sustainability at community level. By shifting the focus on sustainability to the local level, changes are seen and felt in a much more immediate manner. 'Sustainable society' or 'a sustainable world' are meaningless to most people since they require levels of abstraction that are not relevant in daily life. Contrary to these, 'locality' bears a significant meaning and sense to people as it is the very level of social organization where the consequences of environmental degradation or results of interventions are most keenly felt and noticeable by the stakeholders. And, of equal importance, there tends to be greater confidence in government action at the local level. The combination of these factors creates a climate much more conducive to the kind of long-term political mobilization implicit in the term 'sustainable development'. Moreover, Yanarella and Levine (1992, p.769) observe that 'sustainable community development may ultimately be the most effective means of demonstrating the possibility that sustainability can be achieved on a broader scale'.

In looking at the issues pertaining to open access resources, Berkes (1989) first brought the idea of community based sustainable development on the table specifically by citing the value of “bottom-up” approach to local development and traditional, indigenous resource management systems. Other scholars e.g. Luloff and Swanson (1995); Bridger (1994); and Wilkinson (1991) underscored that sustainable development rooted in place based communities has the advantage of flexibility as the communities differ in terms of environmental problems, natural and human resource endowments, levels of economic and social development, and physical (i.e. geological and topographical), and climatic conditions. Given such heterogeneity, therefore, the arguments for focusing primarily on global or national sustainable development are more problematic. Adopting a “one size fits all’ approach is simply not tenable.

Therefore, a community-level approach allows for the design of policies and practices that are sensitive to the opportunities and constraints inherent to particular places (Bridger and Luloff, 1999). In general, sustainable development, as Brohman (1996) thinks, should favour bottom-up over top-down approaches; redistribution over trickle-down; self reliance over dependency; a local rather than a regional, national, or international focus; and small scale projects rather than a grand scale or mega projects. As well, they should be designed with extensive public participation; seek to improve society and the environment as well as the economy; and most importantly result in increased equity, equality and empowerment.

2.1. Sustainability at community level versus poverty and ecosystem degradation

Costanza and Patten (1995, p. 194) define sustainability as “a system which survives or persists. Biologically, this means avoiding extinction, and living to survive and reproduce. Economically, it means avoiding major disruptions and collapses, hedging against instabilities and discontinuities”. From systemic point of view, Berkes et al. (2003) think that “sustainability implies maintaining the capacity of ecological systems to support social and economic systems”. They consider sustainability as “a process, rather than an end product, a dynamic process that requires adaptive capacity for societies to deal with change”.

An intermediate position on the interpretation of sustainability is that natural and man- made capital can be either substitutes or complements depending upon the characteristics of the economic system and the specific natural and man- made capital involved (e.g. Georgescu-Roegen, 1979; Cleveland and Ruth, 1997). In this view, the rate of substitutability depends, among others, upon the type of ecosystem service involved. For instance, the regulation of climate and biochemical cycles, as well as several cultural services, can only to a very limited extent be replaced by man- made capital (Costanza and Daly, 1992; Victor, 1994). Solow (1993) also follows a more intermediate position. He argues that it is not possible to preserve the full stock of natural capital and suggests a weaker definition of sustainability where partial substitution of man- made and natural capital is allowed.

Sustainability at community level may demand context specific approach as the complex nature of interrelationships between nature and societies (Youngberg and Harwood, 1989) in diverse geographic locations and topographic realities will not allow us to apply ‘one size fit all’ solution. However, most definitions of sustainable community stress the importance of striking a balance between environmental concerns and development objectives while simultaneously enhancing local social relationships. Bridger and

Luloff (1999) see community level sustainability as an approach that calls for meeting the economic needs of the local people, enhances and protects the local environment and promotes more humane local societies. However, the following two definitions comprehend ideas on as to what should community sustainability entail:

“...a neighbourhood of humans in a place, plus the place itself: its soil, its water, its air, and all the families and tribes of nonhuman creatures that belong to it.....we are speaking of a complex connection not only among human beings and their homeland but also between the human economy and nature, between forest and field or orchard, and between troublesome creatures and pleasant ones – all neighbours are included” (Berry 1993, p.14).

“The ability of a community to utilize its natural, human, and technological resources to ensure that all members of present and future generations can attain a high degree of health and well-being, economic security, and a say in shaping their future while maintaining the integrity of the ecological systems on which all life and production depends” (Klin 1995, p. 4).

These definitions imply that developmentalism with an aim to bring about sustainability at community level must take into account ecological elements other than economic ones. These ecological elements have an inextricable linkage with the human well-being as assessed by Millennium Ecosystem Assessment as it (MA, 2005) posits that people are integral parts of ecosystems and that a dynamic interaction exists between them and other parts of ecosystems. Therefore, with the changes in ecosystems are causing changes in human well-being. In delving out such ecosystem changes, MA (2005) found that 15 of the 24 ecosystem services that directly contribute to human well-being are being systematically changed i.e. degraded through human use. The assessment concluded that (MA, 2005, p. 2) “any progress achieved in addressing the goals of poverty and hunger eradication, improved health, and environmental protection is unlikely to be sustained if most of the ecosystem services on which humanity relies continue to be degraded”.

Biggs et al. (2004) report that poverty and ecosystem degradation are closely associated and exacerbate one another. There is a lack of understanding on the feedbacks that produce the spiral of poverty and ecosystem degradation (Carpenetr et al., 2006). The alleviation of poverty often depends upon access to a reliable supply of ecosystem services (Martinez-Alier, 2002). MA (2005) depicted four possible scenarios on poverty-EGS nexus which indicate that severe and irreversible declines in ecosystem services and human well-being may occur if people do not husband and enhance natural capital at the same time as human, social, and manufactured capital are built. Poverty reduction strategies that erode the supply of ecosystem services can make poverty alleviation more difficult (Carpenetr et al., 2006).

Rural communities especially the poor people are heavily dependent on the ecosystems and the services they provide as these form the most important assets for them which include: provision of goods such as fresh water, fish, wild foods and other non-timber forest products, as well as services such as plant pollination, pest control, climate regulation, and flood control. For more than two billion rural farmers, fishers, pastoralist, and forest dwellers living on less than \$2 per day, EGS typically account for a sustainable portion of family income – as much as half or more in many instances (WRI et al., 2005). FAO (2004) records

that more than 1.3 billion people depend on fisheries, forests and agriculture for employment – close to half of all jobs worldwide. Recent research conducted in India by TEEB (2009) shows, EGS contribute up to 57 percent of the GDP of the poor in the study area. Therefore, degradation of EGS would certainly threaten the very basis of the household economy of these rural poor. UNDP (2003) and MA (2005) underscored the need for linking development goals with EGS (see WRI, 2008:4).

3. Microcredit: shifting development dispositif and the missing bottom line

Brigg (2001) noticed a shift in the developmental intervention mechanisms and efforts since 1980s as NGOs started to play greater role than before. For example, in case of Bangladesh, reduction in public services and state spending was accompanied by increased support for NGOs by Bangladesh's external development partners (Sarker, 1996). Thus the NGOs emerged as prominent players in developmental efforts with the downsizing of state based functions of social welfare and development. The proliferation of a range of other approaches like: eco- participatory, autonomous, and sustainable development, that are, in some respects, less directly informed by the drive for economic growth also revolved around NGOs (Kumarian, 1998). These diverse shifts signalled dispersion of developmentalism itself.

Brigg (2001) also identifies that the introduction of Foucault's notion of 'dispositif'³ by Escobar (1992) and Ferguson (1990) helped capturing these dispersal approaches in part and questioning the traditional developmentalism in plac. Foucault (1980, p.194) used the term dispositif to refer to a "thoroughly heterogeneous ensemble of discursive and material elements. A dispositif may consist of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions and so on. The dispositif is not simply the collection of elements per se but also the "system of relations ... established between these elements". The relationships between the various elements can be conceptualized 'in terms of relations of knowledge (discourse), power, and subjectivity' (Deleuze 1992, p.159).

The postwar development projects that operate as a complex ensemble of institutions, discourses, resource flows, programs, and practices can be seen within the lens of dispositif. Esteva and Prakesh (1998) view that inherent to the post-war developmental intervention mechanisms there are heterogeneous collection of elements that acts on and emerges through the actions of a multitude of subjects which cannot operate entirely in concert and therefore developmentalism and its effects should not be viewed as monolithic or uniform.

With Foucault's statement that the dispositif is an ensemble of material and discursive elements, the developmental dispositif may organize the way development scholars and practitioners conceptualize development as a process and interventional apparatus. Brigg (2001), however, differs that dispositif is something quite different from a conceptual apparatus; arguing that the idea of putting overdetermining role

³ 'Dispositif' is a French word. It is translated into English as apparatus or device or deployment by many; however, suggestions (Villadsen 2008) on the appropriate meaning of it include 'social apparatus' and 'regime of practice' - both of which indicate an ordering of social practices that are infused with a particular strategic 'disposition'.

or priority to any single dimension of knowledge, power, or subjectivity (or any other set of relations, such as the economic) does not go with the notion. Escobar (1992, p. 10) states that “the ensemble of forms found along these axes [of knowledge, power, and subjectivity] constitute development as a discursive formation, giving rise to an efficient apparatus that systematically relates forms of knowledge and techniques of power”.

The notion of *dispositif*, therefore, rather focuses on current state of play by allowing maintaining the various elements of the reshuffled development project and the accompanying relations of knowledge, power, and subjectivity in their appropriate dispersion - meaning that an initiative need not be reduced to any particular set of relations. It also allows the drawing out of the interconnectedness among various sets of relations that emerge in ‘new’ initiatives in development, such as: the microcredit movement, sustainable development, local sustainability initiative in order to consider how development reinvents itself (Brigg, 2001).

The microcredit movement is the glaring example of such shifting – and that shift from more traditional development approaches has no doubt contributed to the popularity of microcredit. It is considered as poverty reduction strategy innovation; and viewed as positive mainly because it made credit accessible to the poor people who did not have the scope to borrow from traditional lending institutions except from loan-sharks (local moneylenders) who eventually ruined them financially in most instances. As microcredit makes small-scale loans available to poor borrowers for income generating self-employment projects (Woller and Woodworth 2001); it emerged as a ‘microfinance promise’ out of poverty that enables them to expand their micro-enterprises, increase their labor productivity and move up the income ladder gradually (Haque, 2010).

The microcredit has been pioneered and popularized by Professor Yunus who started the present movement in 1970s out of his disenchantment with the classical economic theories to address the poverty situation, what he states “run away from the text books”. Brigg (2001), has been able to correlate the Yunus initiated Grameen Bank microcredit paradigm with the *dispositif* framework as he finds that microcredit demonstrates both continuities and discontinuities with the previous development *dispositif*. As a matter of fact the global microcredit regime saw its prospect with the neoliberal replacement of Keynesianism with the formulation of ‘Washington Consensus (WC)’⁴ which then graduated into ‘Post Washington Consensus (PWC)’⁵ that dominate global economic order for the past three decades.

Through PWC, a forced but legitimate convergence took place between financial sector liberalisation and poverty reduction (Weiber, 2002). With this process of policy convergence and the simultaneous (can be said co-incidental as well) emergence of microcredit movement as a popular grass-root poverty reduction strategy, microfinance received open endorsement of whole international development hierarchy: the World Bank, IMF, regional development banks, donor countries, UN and other development partners (Haque, 2010).

⁴ A set of economic practices and reforms deemed by international financial institutions (located in Washington, D.C.) to be helpful for financial stability and economic development; often imposed as conditions for economic assistance by these institutions. Phrase coined by John Williamson (1990).

⁵ Post-Washington Consensus underscored increased link between international debt relief and poverty reduction, and suggested to move beyond the debt initiative by making ‘poverty reduction’ the foremost conditionality of international financial institutions and bilateral and multilateral development agencies (Weiber 2002).

Poverty reduction strategy papers (PRSPs) of the World Bank and IMF then incorporated microcredit as a grassroots intervention strategy. Consequently, MFIs came into being as a kind of financial intermediary thereby broadening financial market by introducing new financial instruments and products through microcredit distribution - catering financial service demands of new users (World Bank, 1992). Thus microcredit linked local political economies with global political imperatives. For example, in case of Bangladesh, World Bank granted a poverty reduction microfinance loan in 1996 and that was also part of its overall financial sector liberalization support for the country (Weber, 2002).

Over the period since 1980s, microcredit as an instrument for developmentalism has its mark in poverty reduction which is supported by a huge body of literature including (Pitt and Khandaker 1998; Mayoux 2002; Gozalez 2008). Many authors including Dowla (2005) and Rankin (2002) note that microcredit has also made its mark in social capital formation. More importantly it is seen as a 'bottom-up' (Narayanaswami, 2010) and gendered (Mayoux, 2002) approach to the development.

However, there is a group of scholars e.g., Chen and Dunn (1996); Khandker (2005); and Tripathi (2006) who contest the so called positive impact of micro-credit. This group argues that micro-credit bypasses the poor and, in the rare case when it reaches the poor, micro-credit kills their initiative. There is yet a third group of scholars who remain neutral in the debate. This 'neutral camp' acknowledges the developmental importance of microcredit services, but points out the numerous aggravating challenges the sector faces (e.g. Fischer and Sriram, 2002; and Foose, 2008).

There is, therefore, no well known study that can concretely establish the comprehensive efficacy of microcredit or can deny it downright. However, in his latest book, 'Quality of Life: India Vs. China' published in April 2011, Amartya Sen compared the progress of China with India, and then compared the overall development indicators of Bangladesh with India, where he found Bangladesh is ahead of India and in many cases of all other SAARC countries in terms of healthcare, education, women literacy, life expectancy, population control, and children and infant mortality. He then mentioned that these developmental achievements are the outcomes of NGO operation and the Bangladesh Government's public policy; he particularly recognized contributions of two major microcredit lending organizations - by stating that:

"..... It is to the huge credit of Bangladesh that despite the adversity of low income it has been able to do so much so quickly; the imaginative activism of Bangladeshi NGOs (such as the Grameen Bank, the pioneering microcredit institution, and BRAC, a large-scale initiative aimed at removing poverty) as well as the committed public policies of the government have both contributed to the results" (Sen 2011: 2). [Online] URL: [<http://www.nybooks.com/articles/archives/2011/may/12/quality-life-india-vs-china/>], Section 2, Para 5.

In refocusing the notion of community sustainability at local level, we assess a further shifted development dispositif and identify a missing link or bottom line with the course of microcredit in relation to sustainability. The obvious missing bottom line is the environment - though the present widely used microcredit mechanism addresses economic and social well-being, it does not have much emphasis on ecological well-being. Millennium Ecosystem Assessment (MA) calls for the management and protection of

ecosystem goods and services (EGS) for human well-being. As the degradation of EGS and aggravation of poverty situation goes hand in - EGS deserves to be a crucial discursive element in the development dispositif.

4. Towards a community level sustainability dispositif: integrating microcredit with ecosystem goods and services

The microcredit industry lags behind the curve in terms of environmental awareness and action. There are a few organizations in the sector promoting the both,⁶ but these tend to operate along the fringes, and therefore, there remains much work to bring the environment to the microcredit agenda (Hall et al., 2008). Microcredit, as we confine to the definition here, is a collateral free small loan given to the poor, particularly poor women for income generating activities mainly through micro enterprise development, and the process is typically facilitated and sponsored by NGO as an MFI. Though the nature and purposes of microcredit and in many cases an interchangeably used term 'microfinance' varies, we focus on the microcredit assisted micro-entrepreneurial ventures.

The term 'ecosystem goods and services' is in part a re-naming of an old concept, as Brauman et al. (2007) have discussed. This concept, that there are free 'goods and services' provided by nature that are over-exploited by population growth exacerbating poverty, is often articulated in terms of environmental degradation. In the context of poverty alleviation however, focus on loss of goods and services places emphasis on the resources available to the poor and the provision and delivery of them across a range of spatial scales. We, therefore, retain the MA taxonomy (as illustrated in Figure 3.1) of Provisioning, Regulating, Cultural, and Supporting services (MA, 2005), recognising that supporting services constitute intermediate, and not end, products.

The implications of EGS for the microcredit assisted poor micro-entrepreneurs are multifaceted. EGS degradation can affect a micro-enterprise by increasing its risk. Micro-entrepreneurs are dependent on EGS for sustainable business input supply as well as for their livelihoods and well-being (Hall et al., 2006). The operations of micro-enterprises have negative environmental impacts. Though the scope and size of micro-enterprises limits their negative impacts, Wenner et al. (2004, p. 97-98) lists a number of reasons culminating effects of which heighten their negative effects; the reasons are: their sheer numbers, ubiquitous presence, extended hours of operation, lack of supervision by regulatory and environmental agencies, low technological level, and lack of supporting infrastructure and services (trash collection, enclosed marketplaces).

On the other hand, Hall et al. (2006, p. 3) asserts that "microenterprise that use green inputs for production, such as certified (sustainably grown) lumber, organic seeds, compost or green fertilizer, and organic dyes can contribute to a healthier environment. Sustainable production techniques such as reforestation, controlled water usage, natural pesticide applications, and environmentally friendly technologies, including micro drip irrigation systems, solar water pumps, all conserve environmental

⁶ See, for example, Green Microfinance, FMO Finance for Development, EcoVentures International

resources. Microenterprises that recycle trash or used goods, and those that utilize recycled materials as inputs, are helping the environment”.

Therefore, an environment friendly microcredit operation modality can have dual benefits in terms of offsetting the negative impacts and enhancing the positive contributions to the environment. For example, in Bangladesh as of June 2009 there are 24.8 million microcredit borrowers, most of which are engaged in microenterprise operation (MRA, 2009). Collectively, the ecological footprints of these millions of microenterprises do cast a macro impact to the environment - which should not go unnoticed. Conversely, adoption of green operational process by these millions of enterprises offers a huge environmental dividend.

In moving towards a community level sustainability dispositif based on the microcredit paradigm, it requires a move beyond problem surrounding critical approaches based in economic relations and reconfiguration of development through the rise of NGOs. Dispositif allows to have less programmatic approach by conceptualizing development as a shifting coagulation of elements that exhibit certain continuities and discontinuities with previous formation (Brigg, 2001). Therefore, a shift in the existing microcredit paradigm is permeable with the inclusion of EGS management and protection. This shift allows NGOs to be in the dispositif locus ensembling or redeploying entrepreneurial subjectivity and institutions within the conventional microcredit schema - thereby redirecting developmentalism towards sustainability or local sustainability.

Howevr, greening microcredit through environmental lending or more particularly EGS supportive lending to the community group and individual is not a job beyond challenges. These challenges could be: defining and determining green ventures, supply and adoption of green techniques and technologies, knowledge, affordability, and viability. The emphasis of the greening efforts should be convincing micro-entrepreneurs on the followings:

- i. that the economic activities take place within the constraint of natural environment;
- ii. if the ecosystem goods and services upon which economic activity is dependent are damaged due to causes like severe erosion, over-fishing, unsustainable harvesting of raw materials, and pollution, it undermines the existing enterprise and potential for economic development in future;
- iii. high market demand for green and organic products and incremental price benefit; and
- iv. on the easier availability of technical and financial assistance from intermediary organizations.

In order to avoid the initial market distortions and inefficiency and to increase environmental awareness, intermediary assistance should consist of loans and grants to increase environmental awareness, develop and diffuse environmentally friendly technology, and strengthen management capacity to adopt and manage the approach. Although, this will require multiple stakeholders to work jointly toward the goal, the initial and most instrumental role is to be played by the NGO-MFI as the key development partner. This conceptual scheme has been shown in Figure1.

5. Conclusions

Developmentalism has always been experimental by nature - though it embodies innumerable theories, hypothesis, strategies, doctrines, models, and other empirical applications. Development strategies over the time especially the post-colonial decades are marked with frequent policy and strategy changes. The state of the play in development efforts or what we have put here as 'development dispositif' has shifted or expanded its focus, such as from: industrialization first to balanced growth (with agricultural), economic development to economic and social development, GNP growth strategy to poverty alleviation, and lately development to sustainable development.

Most development approaches are largely economistic rather than integrated (with social, political, ecological well-beings of the communities) and do not adequately focus sustainability issues at community level. The genesis and operationalization of the process of sustainable development also encompass broader, top-down, and macro-scale approaches to the developmentalism, which is therefore characteristically inept to hit the causes of underdevelopment at the community level effectively. Microcredit guru Prof. Yunus (2007) mentions that these development theories are half done as still half the people globally survive with less than \$2- a- day.

Contemporary developmentism is faced with the challenges of the degradation of ecosystem goods and services, poverty alleviation and linking problems and actions locally. Millennium Ecosystem Assessment (MA) has explicitly brought forth the gravity and significance of managing ecosystems for achieving qualitative development or human well-being. Meanwhile, poverty eradication tops the list of Millennium Development Goals. As ecosystem goods and services (EGS) are directly linked with the human well-being and poverty reduction management of EGS is crucial to sustain the poverty reduction efforts as most of the ecosystem services (15 of 24) are being degraded.

Although a realization cropped up for long that the development effort needs to be bottom-up in order to ensure benefit at community level, no other significant development intervention strategy gained so widespread popularity as microcredit which is meant to pull out community members from the abject poverty cycle. Microcredit is viewed as an approach which is entrepreneurial, bottom-up, gendered, and social capital builder. In terms of sustainable development principles, though the economic and social contributions of microcredit are widely recognized - the ecological bottom line is still missing. Inclusion of ecological dimension in order to ensure its contribution to the sustainability process - microcredit mechanism requires a strategic shift.

Since dispositif enables a less programmatic approach by conceptualizing development as a coagulation of elements that exhibits certain continuities and discontinuities with previous formation - inclusion of EGS management principle within microcredit strategy is permeable within dispositif framework. With microcredit approach being an instrument for localism which encompasses household, group, community organization as subjects for developmentalism unlike the traditional top-down approaches that did not reach thus far - the localization of sustainability finds its way. With the inclusion of EGS management principles as an environmental bottom line with microcredit's existing economic and social bottom lines - a new framework for local level sustainability is established.

References

- Adger, W.N., Benjaminsen, T.A., Brown, K. and Svarstad, H. (2001), Advancing a political ecology of global environmental discourses. *Development and Change*, Vol. 32, pp. 681–715.
- Barney, G.O. (1980), *US Global 2000 report to the president: Entering the 21st Century*. Pergamon Press, New York.
- Berkes F. (1989), *Common-property resources: Ecology and community-based sustainable development*. Belhaven Press, London.
- Berkes, F., Colding, J. and Folke, C. (eds.) (2003), *Navigating social-ecological systems: building resilience for complexity and change*. Cambridge University Press, Cambridge, UK.
- Berry, W. (1993), *Sex, Economy, Freedom & Community*. Pantheon Books, New York.
- Biggs R., Bohensky, E., Desanker, E.V., Fabricius, C., Lynam, T., Misselhorn, A.A., Musvoto, C., Mutale, M., Ryers, B., Scholes, R.J., Shikongo, S. and van Jaarsveld, A.S. (2004), Nature supporting people: the Southern Africa Millennium Assessment. CSIR, Pretoria, South Africa. Online at, <http://www.MAweb.org>, accessed 12 Dec 2010.
- Brauman, K., Daily, G., Duarte, T. and Harold, A. (2007), The nature and value of ecosystem services: an overview highlighting hydrological services. *Annual Review of Environment and Resources*, Vol. 32, pp. 6.1-6.32.
- Bridger, J.C. (1994), Power, discourse and community: the case of land use. Unpublished Ph.D. thesis, Penn State University, University Park, PA.
- Bridger, J.C. and Luloff, A.E. (1999), Toward an interactional approach to sustainable community development. *Journal of Rural Studies*, Vol. 15, pp. 377-387
- Brigg, M (2001), Empowering NGOs: the microcredit movement through Foucault's notion of dispositif. *Alternatives*, Vol. 26 No. 3, pp. 233-258.
- Brohman, J. (1996), *Popular Development: Rethinking the Theory and Practice of Development*. Blackwell, Oxford.
- Carpenter, S.R., DeFries, R., Dietz, T., Mooney, H.A., Polasky, S., Reid, W.V. and Scholes, R.J. (2006), Millennium Ecosystem Assessment: Research Needs. *Science*, Vol. 314, No. 5797, pp. 257-258.
- Clark, W.C. and Munn, R.E. (eds.) (1986), *Sustainable Development of the Biosphere*. Cambridge University Press, Cambridge.
- Chenery, H.B., Ahluwalia, M.S., Bell, C.L.G., Duloy, J.H. and Jolly, R. (eds.) (1974), *Redistribution with Growth*. Oxford University Press, New York.
- Chen, A.M. and Dunn, E. (1996), *Households Economic Portfolio. Management Systems International*. Harvard University, USA: Harvard Institute of International Development

- Cleveland, C.J. and Ruth, M. (1997), When, where and by how much do biophysical limits constrain the economic process; a survey of Nicolas Georgescu-Roegen's contribution to ecological economics. *Ecological Economics*, Vol. 22, pp. 203-223.
- Costanza, R. and Daly, H.E. (1992), Natural capital and sustainable development. *Conservation Biology*, Vol. 6, pp. 37-46.
- Constanza, R. and Patten B.C. (1995), Defining and predicting sustainability. *Ecological Economics*, Vol. 15, pp. 193-196.
- Deleuze, G. (1992), What is a Dispositif? In T.J. Armstrong (Ed.), *Michel Foucault Philosopher* (pp 159 - 168i). Harvester Wheatsheaf, New York.
- Dowla, A. (2005), In Credit We Trust: Building Social Capital in Bangladesh. *Journal of Socioeconomics*, 2005, pp. 12-21.
- Escobar, A. (1992), Imagining a post-development era? Critical thought, development and social movements. *Social Text*, Vol. 31 No. 32, pp. 20-56.
- Escobar, A. (1995), *Encountering Development: the making and unmaking of the Third World*. Princeton University Press, Princeton, NJ.
- Escobar, A. (1996), Construction Nature: Elements for a poststructuralist political ecology. *Futures*, Vol. 28 No. 4, pp. 325-343.
- Esteve, G. and Prakesh, M. (1998), *Grassroots Post-Modernism*. Zed Publishers, London.
- Evans, B. and Theobald, K. (2003), Local Agenda 21 and the shift to 'soft governance'. In Susan Buckingham and Kate Theobald (eds.), *Local Environmental Sustainability* (pp74-91), Woodhead Publishing, London.
- FAO (2004), Status and Trends in Mangrove Area Extend Worldwide. Food and Agricultural Organization of the United Nations (FAO), Rome.
- Fei, J.C.H. and Ranis, G. (1964), *Development of the Labor Surplus Economy*. Irwin, Homewood, IL.
- Ferguson, J. (1990), *The Anti-Politics Machine: "Development" Depoliticization, and Bureaucratic Power in Lesotho*. Cambridge University Press, Cambridge
- Fisher, T. and Sriram, M.S. (2002) *Beyond Micro-Credit: Putting Development Back into Micro-Finance*. Vistaar Publication, New Delhi.
- Foose, L. (2008) .The Double Bottom Line: Evaluating Social Performance in Microfinance. *MicroBanking Bulletin* 17 (Autumn), 12-16.
- Foucault, M. (1980), *Power/Knowledge: Selected Interviews and Other Writings 1972 -1977*, editor. C. Gordon. Pantheon, New York.
- Georgescu-Roegen, N. (1979), Energy Analysis and Economic Valuation" *Southern Economic Journal* 4,1053-1058.
- Gonzalez, A. (2008), *Microfinance, Incentives to Repay, and Overindebtedness: Evidence from a Household Survey in Bolivia*. Doctoral thesis. Ohio State University. Ohio.

- Hall, J., Collins, L., Israel, E. and Wenner, M. (2008), The Missing Bottom Line: Microfinance and the Environment. Green Microfinance LLC, document prepared for The SEEP Network Social Performance Working Group Social Performance MAP. Online at, <http://www.microfinancegateway.org/p/site/m/template.rc/1.9.34581/>, accessed 12 May 2011.
- Hall, J. and Lal, A. (2006), How MFIs and their clients can have a positive impact on the Environment. Paper presented at Microcredit Summit, Halifax Nova Scotia Nov 12. Online at, http://www.microcreditsummit.org/papers/Workshops/24_HallLal.pdf, accessed 21 July 2011
- Haque K.N.H. (2010), The impact of microcredit on social capital: a critical investigation of Bangladesh. Unpublished thesis. Central European University, Budapest.
- Hines Jr., Hoynes H, and A Krueger. 2001. Another look at whether a rising tide lifts all boats. The National Bureau of Economic Research (NBER), Working Paper No. 8412. Washington.
- IUCN (1980), World Conservation Strategy: Living Resource Conservation for Sustainable Development. International Union for Conservation of Nature (IUCN), Geneva.
- Kline, E. (1995), Sustainable community indicators. Unpublished manuscript.
- Larrison, C.R. (2000), Comparison of Top-down and Bottom-up Community Development Interventions in Rural Mexico: Practical and Theoretical Implications for Community Development Programs. Ohio State University. College of Social Work. Online at, <https://kb.osu.edu/dspace/handle/1811/36912>, accessed 3 Jan 2011.
- Leibenstein, H. (1957), *Economic Backwardness and Economic Growth*. Wiley, New York.
- Luloff, A.E. and Swanson, L.E. (1995), Community agency and disaffection: enhancing collective resources. In Beaulieu, L.J. and Mulkey, D. (eds.), *Investing in People: The Human Capital Needs of Rural America* (pp 351-372). Westview Press, Boulder.
- MA (2005), *Ecosystems and Human Well-Being: Synthesis*. Millennium Ecosystem Assessment(MA), Island Press, Washington D.C. Online at, <http://www.maweb.org/documents/document.356.aspx.pdf>, accessed 21 July 2011.
- Martinez-Alier, J. (2002), *Environmentalism of the poor: a study of ecological conflicts & valuation*. Edward Elgar, Northampton, Massachusetts.
- Mayoux, L. (2002), Women's Empowerment Versus Sustainability? In Beverly Lemire, Ruth Pearson & Gail Campbell (eds.), *Women and Credit. Researching the Past, Refiguring the Future* (pp 245-269). Berg, New York.
- McNeill, J.R. (2000), *Something new under the sun: An environmental history of the twentieth -century world*. W.W. Norton & Company, New York
- Meadows, D.H., Meadows, D.K., Randers, J. and Behrens, W.W. (1972), *The Limits to Growth*. Universe Books, New York.
- MRA (2009), Microcredit in Bangladesh. Purana Paltan, Dhaka. Microcredit Regulatory Authority (MRA). Online at, http://www.mra.gov.bd/index.php?option=com_content&view=category&layout=blog&id=29&Itemid=80, accessed 30 June 2011.

- Narayanaswamy, L. (2010), *Gender, Power and the Knowledge-for-Development Agenda*. Doctoral thesis, Durham University.
- Pitt, M.M. and Khandker, S.R. (1998), The Impact of Group-Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter? *Journal of Political Economy*, Vol. 106 No. 5, pp. 958-996.
- Rankin, K. (2002), Social Capital, Microfinance, and Politics of Development. *Feminist Economics*, Vol. 8 No. 1, pp. 1-24.
- Rosenstein-Rodan, P.M. (1943), Problems of Industrialization of Eastern and South- Eastern Europe. *Economic Journal*, Vol. 53 No. 210, pp. 202-11.
- Rostow, W.W. (1956), The Take-Off into Self-Sustained Growth. *Economic Journal*, Vol. 66, pp. 25-48.
- Sarker, A.E. (1996), The Role of Non-governmental Organisations in Rural Development: The Bangladesh Case. Centre of South Asian Studies, Monash Asia Institute, Monash University. Victoria.
- Sen, A.K. (2011), *Quality of Life: India Vs. China*. The New York Review of Books. Online at, <http://www.nybooks.com/articles/archives/2011/may/12/quality-life-india-vs-china/>, accessed 12 June 2011.
- Simon, J.L. and Kahn, H. (eds.) (1984), *The Resourceful Earth: A Response to Global 2000*. Basil Blackwell, New York, NY
- Smith, T. (1985), Requiem or New Agenda for Third World Studies? *World Politics*, Vol. 37 No. 4, pp. 533-534.
- Solow, R.M. (1993), An almost practical step toward sustainability. *Resources Policy*, Vol. 19, pp. 162–172.
- TEEB (2009), *The Economics of Ecosystems and Biodiversity for Local and Regional Policy Makers*. The Economics of Ecosystems and Biodiversity for Business (TEEB). Bonn:UNEP. Online at, <http://www.teebweb.org/InformationMaterial/TEEBReports/tabid/1278/Default.aspx> , accessed 27 Dec 2010.
- Thorbecke, E. (2006), The Evolution of the Development Doctrine, 1950-2005. UNU World Institute for Development Economics Research (UNU-WIDER). Helsinki, Finland.
- Tripathi, S. (2006) .Micro-credit Won't Make Poverty History. *The Guardian*, 17 October 2006. Online at, <http://www.guardian.co.uk/business/2006/oct/17/businesscomment.internationalaidanddevelopment>, accessed 11 April 2011.
- UNDP (2010), *The Local Capacity Strategy: Enabling Action for the Environment and Sustainable Development*. United Nations Development Programme (UNDP). New York.
- UNEP (2000), *Global Environment Outlook 2000*. Earthscan, London, for the United Nations Environment Programme (UNEP).
- United Nations (1992), Report of the United Nations Conference on Environment and Development, Rio de Janeiro. New York, United Nations.

- van der Leeuw, S. (2000), Land degradation as a socionatural process. In McIntosh, R.J., Tainter, J.A., & McIntosh, S.K. (eds.), *The Way the Wind Blows: Climate, History, and Human Action* (pp 357-383). Columbia University Press, New York.
- Vargas, C. (2000), Community Development and Micro-enterprises: Fostering Sustainable Development. *Sustainable Development*, Vol. 8, pp. 11–26.
- Victor, P.A. (1994), Natural capital, substitution, and indicators of sustainable development. *Journal of Public Economics*, Vol. 86, pp. 341–60.
- Villadsen, K. (2008), Doing Without State and Civil Society as Universals: 'Dispositifs' of Care Beyond the Classic Sector Divide. *Journal of Civil Society* 4 (3), 171-191.
- WCED (1987), *Our Common Future*. World Commission on Environment and Development (WECD). Oxford University Press, New York
- Wenner, M., Wright, N. and Lal, A. (2004), Environmental Protection and Microenterprise Development in the Developing World. *Journal of Microfinance*, Vol. 6 No. 1, pp. 95-122.
- Weiber, H. (2002), The imposition of a global development architecture: the example of microcredit. *Review of International Studies*, Vol. 28, pp. 537-555.
- Wilkinson, K.P. (1991), *The Community in Rural America*. Greenwood Press, Westport, CT.
- Woller, G. and Woodworth, W. (2001), Microcredit as a grass-roots policy for international development. *Policy Studies Journal*, Vol. 29, pp. 267-282.
- World Bank (1992), *Financial sector operations (Operation policy manual)*. World Bank, Washington D.C. Online at, www.worldbank.org, accessed 24 January 2011.
- WRI (2008), *Ecosystem Services: A Guide for Decision Makers*. World Resource Institute (WRI). Online at, <http://www.wri.org/publication/ecosystem-services-a-guide-for-decision-makers> , accessed 12 Sep, 2010.
- WRI, United Nations Development Programme, United Nations Environment Programme, & World Bank (2005), *World Resources 2005: The Wealth of the Poor—Managing Ecosystems to Fight Poverty*. World Resources Institute (WRI). Washington, DC. Online at, <http://www.wri.org/publication/world-resources-2005-wealth-poor-managing-ecosystems-fight-poverty>, accessed 18 Feb 2011.
- WRI (2010), *Ecosystems Climate Change and the Millennium Development Goals (MDGs)*. A working paper prepared for the UN MDG Summit September 2010. World Resource Institute (WRI). Washington. Online at, <http://www.wri.org/publication/ecosystems-climate-change-millennium-development-goals> , accessed 12 Sep 2010.
- Youngberg, G. and Harwood, R. (1989), Sustainable farming systems: needs and opportunities. *American Journal of Alternative Agriculture*, Vo. 4 No. 3-4, pp. 89-90.
- Yanarella, E.J. and Levine, R.S. (1992), Does sustainable development lead to sustainability? *Futures* (October), pp. 759-774.
- Yunus, M. (2007), *Creating a world without poverty: social business and the future of capitalism*. Public Affairs, New York.

Figures

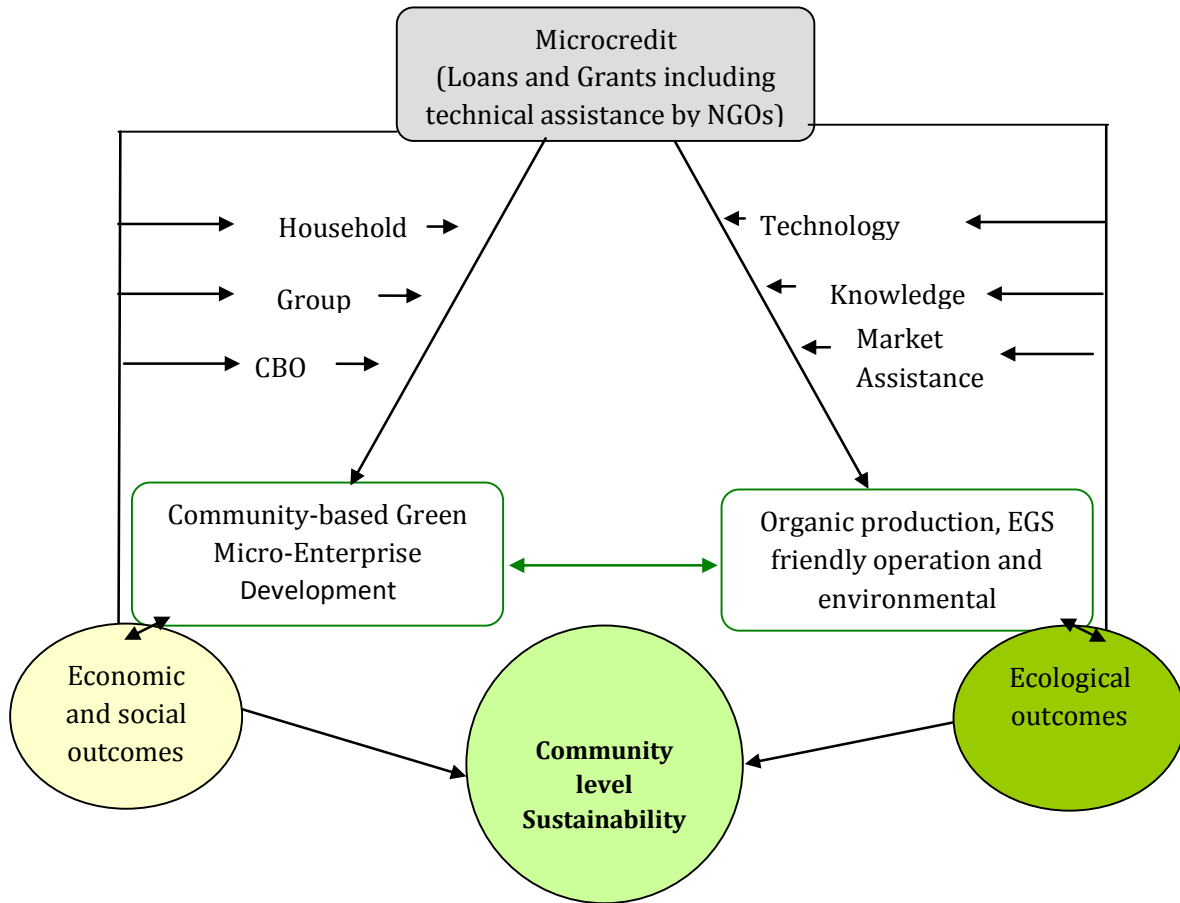


Figure 1. A Conceptual Schema of Microcredit-EGS integrated Community level sustainability dispositif