

4th DevNet Conference Auckland Centre for Development Studies 2004

Refereed papers Rural and Environment

Towards Sustainable Development: An Analysis of Emerging Energy Consumption Patterns in Rural Bangladesh

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Introduction

This paper analyses energy consumption trends and the need to introduce Sustainable Energy Technology (SET) that would be suitable, given the prevailing techno-economic conditions of rural people; as well as contribute to achieving developmental goals sustainably in Bangladesh. The rural community of Bangladesh suffers from a shortage of energy. Grid connected electricity consumption is strictly limited due to limited purchasing power and unavailable grid facilities. People largely depend on nature- sun, wind and biomass from traditional agricultural practices. Activities that suffer due to energy shortages are mainly children's education, business development, entertainment and health provision. As a result, developmental programs have little impact on poverty eradication and sustainability of the environment. People are willing to use sustainable energy sources. However, study findings indicate that any policy on sustainable energy supply should be based on locally available resources that fit with the ability, desire, and lifestyle of the rural population of Bangladesh. As a part of the author's Ph.D. study, a sample survey was conducted in rural areas of Bangladesh, between 2000 and 2001. This paper highlights the survey findings.

Sustainable Development, Poverty and Sustainable Energy Technology

The fact is that the energy is a common factor, both at production and consumption levels, for many of the observed global environmental problems. The energy sector has been responsible for 46% of the increase in the GHG effect up until the last decade. Currently, CO₂ emissions contribute to 55% of the increase in the GHG effect in two ways: deforestation and energy use (Hijikata 1994 cited in Ali 2002). The current pattern of energy consumption is mainly responsible for making development unsustainable and hence contributes little to poverty alleviation. Poverty refers to a situation where people are unable to meet their daily-required calorie intake, 1800 calories per day per person. This situation is severe in developing countries like Bangladesh, where 44.3% of the population is under the absolute poverty line (Rahman and Islam 2003).

The Brundtland report defines sustainable development as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (UNWCED 1987, p.8 cited in Ali 2002). However, although the Brundtland report recognised the concerns of sustainable development and environment, it did not facilitate understanding of poverty and the environment. Lele (1991) states that, as a result of inadequacy and lack of understanding of the relations among sustainable development, poverty, and environmental degradation, the policy and programs undertaken so far cannot improve the welfare of the poorer classes of the society. However, Lele's findings do not specify whether it is the poorer classes of society who degrade the environmental quality because of their poverty, or it is the already degraded environment that makes them poor. Broad (1994) carried out research on the relationship of the poor and the environment in the villages of the Philippines. His study established that the rural population is poor because they do not have enough resources for economic development, with the environment having already been degraded (pp.811-815). The above considerations imply that despite the inter-relationship of sustainable development, poverty, and the environment, poorer groups of society should not be blamed for today's environmental degradation. Poorer groups exploit resources in this way because they do not have alternative means within their hands.

In Bangladesh, resources are very limited. The rate of resource exploitation is higher than what the ecology can bear. The current situation is the result of the development programs which were undertaken in an unsustainable way, thus causing environmental degradation. As a result, the gap between the demand for and availability of resources is gradually increasing, mostly affecting the rural population. Therefore, in Bangladesh, SET should be able to provide energy on a long-term basis according to villagers' needs, and at affordable costs, without disturbing the ecological balance. SET should be environment-friendly and cost-effective.

Bangladesh and its Energy Sector

Bangladesh is an agro-based country with an area of 148,393 sq.km. Its present population is 127 million of which about 80% live in the rural areas (Ali 2002). The rural population mostly live on agriculture, forestry and fishery by profession.

People in Bangladesh get energy from both commercial and traditional sources. The types of commercial energy are electricity, natural gas, coal, and petroleum products; while types of traditional energy are biomass, animal power, wind and sunlight. The government owns and operates the production and distribution of commercial energy. However although the government owns the majority of the forest resources, forestry products are distributed by the private sector. The traditional energy market is owned and operated by the private sector. The situation is that the poor class of society is far away from the ownership, production and distribution of both commercial and traditional energy resources.

In Bangladesh, per capita energy consumption is very low not only compared to developed countries but also regional countries. For instance, in 1997/98, per capita energy consumption in Bangladesh was 0.18 toe (tons of oil equivalent), in India 0.48 toe, in Nepal 0.32 toe, in Pakistan 0.44 toe and in Sri Lanka 0.39 toe. The average in South Asia was 0.37 toe and the world average was 1.7 toe (Kumar 2000). Moreover the dependency on fossil fuel has been increasing sharply in Bangladesh. In 1980/81, 17% of per capita energy was consumed from commercial sources, and that rose at 33% in 1997/98 (ADB 2000, p.34). This increased dependency on fossil fuel has been causing serious negative impacts on the national economy and the environment.

The present pattern of energy supply in Bangladesh is a mix of electricity, natural gas, liquid fuels, and biomass. Among these, biomass is the main source of energy for cooking and kerosene for lighting (ADB 2000). The first gas field in Bangladesh was discovered in the mid-sixties, and to date over 23 trillion cft of gas reserves have been identified (Ali 2002), but it has built pipelines for gas supply to only 2.2% of households over the last forty years (ADB 2000 p.35). However, if further gas is not discovered, present reserves will be finished by the year 2030. Coal is mined at Jamalpur but the reserve's depth limits the recoverable quantity to less than 50 million tones, making exploitation expensive and problematic (Ali 2002). Coal has also been found in Dinajpur at a much shallower depth but the extent of the field has yet to be established.

A Rural Electrification program was launched into operation in 1979, and during the last 25 years it has connected only 12.5 % households under its grid supply (GOB, Power Cell 1997). River characteristics of Bangladesh do not support hydropower generation system, although there are 230 rivers. The total forest area covers about 14% of the officially designated land area but practically its tree-covered area is only 6-7% (Ali 2002). The overuse of biomass is blamed for the high rate of deforestation. But unless an alternative source of energy supply is available, it is hard to control deforestation.

The real situation is that, due to the lack of technical and economical capability, the country will not be able to establish a fossil fuel supply infrastructure in the near future. Moreover, because of inadequate supply, even the upper-income households still have either none at all or limited access to non-renewable energy sources. Urban based lower-income groups and rural people are a long way away from reaching the fossil fuel market.

The Survey

In order to understand the nature of demand for and supply of energy, and to determine the level of acceptance of environment-friendly energy technologies in rural Bangladesh, a sample survey was conducted in rural areas of the country, between 2000 and 2001. Although there are six administrative divisions in Bangladesh, two newly created divisions were excluded from the survey because of an incomplete jurisdiction network and administrative setup. One village from each of four old divisions was selected. The methodology of selecting villages was simple. First four upazilas (local government administrative units) were selected randomly from four divisions. These upazilas were Daulatpur, Nandigram, Savar and Kutubdia. In the second step, one village was selected randomly from each upazila. The villages were Loxmikola, Nandigram sadar, Savar sadar and Kutubdia. As part of the random selection process, first we prepared a list of all households in each sampled village from the upzila register, and then 100 households were selected randomly from each village. In a few cases we have used a purposive random selection method with an intention to get more accurate and reliable data. Primary data were collected using three methods: pre-designed questionnaire administration, participant observation, and participatory rural appraisal (PRA). During the administration of the questionnaire, in addition to questionnaire filling up, the survey team recorded their observations about respondents' activities/ approaches related to this study. PRA was conducted in two villages: Loxmikola and Kutubdia.

The main parameters of investigation were energy consumption patterns, potential demand, availability of energy resources, respondents' ownership on resources, their income, education, environmental awareness, attitudes towards SET and the ability to contribute to SET. The questionnaire was divided in two parts: baseline information and perception of SET. In the baseline information, questions varied from basic household information to availability of energy in rural areas. Questions also included information about the losses that the rural population currently incurs due to energy shortfalls in their locality. In the opinion section, data were collected in terms of their acceptance of renewable energy technologies. One of the significant elements of assessing the competitiveness of energy technologies is the accounting of per unit production cost but that part was beyond the scope of this study. However, the result of this survey would provide the basic information on feasibility of potential substitution of rural energy by SET.

Characteristics of the Sample

Originally 400 questionnaires were administered but, after editing, 303 questionnaires were finally accepted for analysis. Out of 303 usable responses to questionnaires, 60% respondents were male and 40% female. In addition to the 303 households, we interviewed 31 local leaders from four villages who would have a strong influence on the SET transfer process. Notable that, in this study, one respondent was selected from one household and that represents the people of the community. So the terminology respondents, households and people express the same meaning in the analysis.

The educational background of the respondents varied from illiterate to university degrees. A disproportionately higher number of respondents came from literate groups of people (about 88%, national literacy rate is 45%; Ali 2002). Since educated people are the leaders in adopting new technologies in any society, we have deliberately created a bias in our sampling. It would give us a true picture of the feasibility of new energy technologies. In most cases, rural illiterate respondents follow the success of the educated people. More than 18% of respondents indicated their occupation as 'housewife'. Women are major energy users in rural communities, usually for cooking, washing and lighting. The benefit of having respondents from the 'housewife group' was considered important to gather women's perceptions of the environmental impact of the currently available energy sources and the benefit of introducing SET.

A standard rural family consists of 5.6 members (Ali 2002). It appears from the survey that a predominant majority of these households have an annual income of less than Taka 20,000 (equivalent to US \$323). That means a per capita annual income of less than US \$58 in rural areas which is extremely low compared to the national per capita income of US \$430 (http://www.worldbank.org/data/countrydata/aag/bgd_aag.pdf, as estimated in 2004, US\$1 = Taka 62). This reflects a highly skewed distribution of income in the country. It is assumed that higher income families have greater access to the power supply system compared to the poor. Usually large landholders are rich families, they hire labour for cultivation, and try to enjoy a better life including health and entertainment. That means large farmers have higher demand for energy compared to that of a poor family. In rural Bangladesh, a rich family is defined mainly by the level of land ownership, income and education.

The survey also reveals that a large percentage of respondents do not have any excess land. This is the general characteristic of Bangladesh, one of the most densely populated countries of the world. Most of the sampled households have both homestead land and arable land, and so they can buy energy as well as adopt new technologies. In terms of national land statistics, the percentage of the population with less than 0.02 ha of arable land in the rural areas is 35.75% (Ali 2002), known as landless people. Our sample confirms to this vital national statistics. However, the ownership of homestead land shows that about 39% households have very limited household land. This reflects the relative scarcity of land for housing in Bangladesh.

Energy Situation in Rural Bangladesh

The energy situation in rural Bangladesh includes the discussion on existing energy supplies sources, energy usage by households and commercial enterprises, methods of energy acquisition, status of SET, potential for sustainable energy use, and feasibility of producing sustainable energy.

Existing Energy Supply Sources

Rural and semi-urban households use energy for multiple purposes from different sources. The study found that rural households collect energy from animals, forestland or open land surrounding their villages, local retailers, local agents, wholesalers, and electrification boards (Table 1). Some of them also buy energy from the open market. These multiple sources of energy are used for multiple purposes: cooking, housekeeping, lighting and heating.

Historically, in rural Bangladesh, most of the households own animals. The common animals are cows, buffaloes, goats and poultry. The survey shows that 76% of households owned cows and 29% owned goats. Only 2% owned buffaloes. The survey also indicates that a reasonable portion of rural households did not own any animals, although having animals in rural households is a common practice, especially an agro-based country like Bangladesh. The reason might be that more than one-third of rural households in Bangladesh are landless so either they have very limited homestead land or no land at all. So they are unable to provide food and accommodation for animals. However, it is evident from the survey data that most of the rural households have cows as compared to other animals. Cow dung is a major source of energy in rural Bangladesh.

Table 1: Sources of energy Supply in Rural Bangladesh

Source of Energy	Percentage of respondents
Own animals	27.4
Own forest/land	23.8
Local retailers	32.3
Local agents	4.6
Wholesalers	0.3
REB	2.0
Open market	9.6

Source: Field Survey

Table 2: Use of Energy by Rural Households

Purposes of energy use	Percentage of respondents
Cooking	98.3
Entertainment	9.9
Fan	1.0
Ironing	45.2
Lighting	82.5
Security	10.6
Washing	66.0

Source: Field Survey

Twenty four percent of rural households collect their supplies of energy from forests. They collect jute stalks, straws, leaves, and tree-branches from their forests and land. Local agents supply liquefied diesel, cow dung (in the form of cakes or sticks), kerosene, petrol and firewood to the households. Wholesalers supply kerosene in the market, while retailers supply cow dung, kerosene, leaves, and firewood. This reveals the spread of the market for energy in rural Bangladesh. Energy is used predominantly for cooking (98.3%) and lighting (82.5%) purposes in rural Bangladesh (Table 2). Nearly 66% use energy for washing, 1% use energy to operate fans, and 10% use energy for entertainment. Different types of energy are used for different purposes.

Usage of Energy by Commercial Enterprises in Rural Bangladesh

Rural people use energy, mainly, for shops, cottage industry and irrigation as commercial purpose. Forty five percent of the surveyed enterprises use energy for irrigation purposes, 17% use it for fanning, 16% for lighting, while 12% use it for entertainment (operating radio or cassette players for customers. This consumption pattern is consistent with the agrarian society because the country is trying to shift its agricultural practices from traditional to semi-modern, which requires more energy. The increase of energy used for irrigation purposes implies a demand for energy to operate irrigation machinery. It also implies that additional energy in the agricultural sector might positively impact the rural economy and hence create further demand for energy.

Reasons for Using Existing Sources of Energy

The study attempted to ascertain the reasons for which the users have chosen a specific type of energy for specific purposes. Fifty four percent of households do not have access to any alternative or cheaper source (Table 3). So, they do not have much of a choice. However, when an alternative does exist, 24% prefer the current source of energy because of its easy collection. Eleven percent said that without the supply of electricity, they would have no option but to use this source and 19% said that it is the only source they can use for this purpose. Overall, the picture is that the current pattern of energy use is mainly guided by two reasons: lack of alternative sources, and easy access to the existing sources.

The term 'easy access' refers to the fact that rural people can collect or buy a specific type of energy within their affordable time and money. The national unemployment rate is 40% and this rate is much higher in rural areas because of the nature of work, agricultural and seasonal (http://www.indexmundi.com/bangladesh/unemployment_rate.html). Moreover, a significant proportion of school-age children do not go to school (33%) because of their parents' low economic status (http://www.unicef.org/bangladesh/children_355.htm). Hence, an unemployed member of a household can spend time to go to the market for fuel. Similarly, children who do not have much to do can collect biomass from nearby forests/land.

Potential for SET in the Rural Bangladesh

To examine the potential for SET in rural Bangladesh, we asked questions on simple awareness and functional awareness. Seventy two percent respondents demonstrated awareness of the fact that their current pattern of energy use is not environment-friendly.

In explaining in some more detail the possible environmental consequences from their current pattern of energy use, a large proportion of them (42.6%) quoted flooding as the main result of their current pattern of energy use (Table 4). About 63% considered that both flood and drought are consequences of their current energy use. Only 2.3% could perceive that climate change is caused by the present pattern of energy use. This revelation is important both for finding an alternative to energy sources and analysing the pattern of adaptation to alternative energies.

Table 5 demonstrates current knowledge of SET. It is observed that 96.4% of rural households could name at least one SET of energy production. In rural areas photovoltaic (solar) and wind energy is mostly unheard of (3% and 9% of awareness), while nearly 75% of the people who could name SET know about solar, biogas, and biomass energy. This suggests that biogas and biomass-based SET will be more readily acceptable in rural Bangladesh in the short term.

Table 3: Reasons for Using Existing Energy Sources

Possible reasons	Percentage of respondents
Easy collection	23.8
No other alternative	28.1
No electricity	10.6
Available source	9.9
Only source	19.1
Affordable	7.2
Others	1.3

Source: Field Survey

Table 4: Knowledge of Environmental Consequences from Energy Use

Possible consequences	Percentage of respondents
Climate change	2.3
Deforestation	14.2
Drought	20.1
Flood	42.6
Ecological disturbance	2.0
Natural disasters - floods, cyclones	9.6
Natural calamities and deforestation	5.9
Smoke	1.3
Other	2.0

Source: Field Survey

Table 5: Knowledge of SET

Type of SET	Percentage of respondents
Biogas	25.7
Solar energy	25.7
Solar and biogas	23.8
Windmill, solar, & biogas	9.3
Photovoltaic	3.0
Wind power	8.9
No idea	3.6

Source: Field Survey

Perception of Producing Energy with SET

The survey revealed that only 2.4% of respondents knew about the existence of wind plants in their area (4.4% for biogas plants, 1.4% for solar photovoltaic, and 2.8% for windmills). Clearly, SET is not a popular item but it is not totally foreign either.

Survey shows that a substantial proportion (68.6%) of the rural people are interested in participating in the SET production, and the rest have either no interest or are not sure about it. Twenty nine percent of the respondents who were interested in SET told that they needed more information about SET. Fifty seven percent need money or some financial assistance, 1% need land, and 10% need capital and labour to participate in producing energy, using SET. It is evident from this table that introduction of SET in rural Bangladesh would require some planning and establishing a mechanism.

Rural Energy Demand

Table 6 shows the range of activities that are suffering as a result of energy shortages. Sixty one percent of the respondents mentioned short supplies of energy in their area, and the resultant vulnerability of economic and non-economic activities. Thirty percent of the respondents mentioned that education is badly affected by the shortage of power necessary for lighting and possibly fans. Three percent named 'personal entertainment', implying power for TV, radio and cassette players. Nearly 5% mentioned jobs were cut due to power shortages in their areas. Other activities affected by energy shortages are small businesses and irrigation activities.

Table 6: Activities Suffering due to Energy Shortages

Activities	Percentage of respondents
Education	29.7
Personal entertainment	2.7
Business	1.3
Irrigation	2.3
Job	4.6
Education and irrigation	4.3
Irrigation and communication	2.3
Other	4.6
Don't know	48.2

Source: Field Survey

The study further investigated the priorities for energy use in case of additional availability of energy for rural population of Bangladesh, and our results are quite illuminating. Table 7 shows that 58.4% of the 'new energy' will be used in education and entertainment, and 85% have some plan to use any extra energy that might be available to them. About 5% would use energy to improve their living style. Living style refers to room heating in winter, air conditioning in summer, refrigeration facilities for food and medicine and use of entertainment equipment. In fact improvement in the standard of living means better options for health and wellbeing. In rural society, energy is seen by many to serve three main purposes: education, entertainment, and lifestyle. Therefore, there exists a tremendous social benefit from supplying extra energy to these people.

Table7: What Will You Do if You Have More Energy?

Activities	Percentage
Education	28.7
Entertainment	26.7
Industry	5.3
Business	4.6
Improved living	5.3
Irrigation	1.3
Education and entertainment	3.0
Irrigation and business	3.3
More work	2.6
Protect environment	3.6
Other	1.0
Don't know	14.6

Source: Field Survey

To elicit opinions on direct benefits from increased energy supply in rural areas, we designed a set of questions. On average, each respondent could name four benefits from more energy supply. It is evident that the largest benefit is considered to be education (Table 8). This is followed by entertainment, more industry, better environment, reduced migration, better health and more jobs.

Table 8: Potential Benefits from More Energy in Rural Bangladesh

Future Benefits	Percentage of respondents
Education	19.4
Entertainment	13.6
Food habits	5.5
More industry	9.0
More business	6.6
Reduction of population growth	6.9
More jobs	7.9
Reduction of rural-urban migration	8.5
Better communication	5.0
Better health	8.0
Better environment	9.6

Source: Field Survey

Leaders' Opinions on SET

To identify the feasibility of introducing alternative energy technologies in Bangladesh, we conducted a separate survey among the social elite in the surveyed four villages. This survey was essential because a large part of the less educated rural population relies on someone who is better off or better educated. In this context, 'educated' does not mean having formal educational qualifications. The rural people tend to rely on a person who is relatively knowledgeable in their locality, considering him their well-wishing leader. In general, these leaders are priests, schoolteachers, political representatives, local elite and large farmers. From sociological and cultural viewpoints, these leaders strongly influence the decision-making process of the rural society in a developing country, being able to motivate the focus group of the society. During the PRA survey, we observed that the involvement of local leaders forms an essential part of SET transfer in rural Bangladesh.

Originally 40 questionnaires (10 from each village) were administered but finally 31 questionnaires were accepted for analysis.

In most cases, the results were not expected to be much different from that of the household survey, but in terms of overall feasibility, the leader's opinions would be of great weight. Of the 31 respondents, 73% had no idea about SET. Of those who knew about SET, only 3 could identify it with some details and names. This clearly suggests that SET is largely an unknown phenomenon in rural Bangladesh

amongst rural leaders. At the same time, it was found that 83% said that they would co-operate or assist in any endeavours to introduce SET in rural areas. Moreover, 25% think that introducing such technology in rural areas would require some sort of financing. Forty one percent of respondents in the leadership group also mentioned that they would provide land for installing SET facilities in their areas, and 90% said that they would use it, too.

Conclusions

Bangladesh suffers from acute energy shortages. The gap between demand and supply is gradually increasing. Although there are some reserves of natural gas and coal, the country's economic and technical inability makes it hard to provide an energy supply network to the rural poor population. The dependence on importing fuel is gradually increasing where the rural population is largely disadvantaged due to their low purchasing power. Rural people have to depend on biomass, wind and sun which leads to damage in the overall environmental quality.

Both household and leadership opinion surveys indicated that SET can be introduced in rural Bangladesh to increase supply of energy. It is also clear from the household survey that energy for light, fan, and entertainment are in high demand and short supply. The survey further suggests that biomass energy is also short in supply, but can be usually collected from open access resources. At the same time, there exists a market for purchasing all types of energy supplies—from leaves to firewood.

The survey further points out people are aware of the 'cost' of energy shortfalls in their lives, and so are expected to be buying energy. It is also clear that one of the major reasons for using existing sources of supply is monetary cost, which will remain extremely important if we are to introduce new technologies. In other words, SET must be cost-effective. Both household and leadership opinion surveys revealed the existence of a strong positive attitude in rural Bangladesh to using and producing SET-based energy. The market potential for SET in rural Bangladesh in terms of demand, and in terms of SET-based energy production is very promising. People are aware of the possible benefits of SET, and they are overwhelmingly willing to help with such an initiative.

Although there is a need for further research to assess the accurate cost benefit in monetary terms, it has been established that the supply of more energy from a cost effective and sustainable source (SET) will make a positive contribution to employment, education, health, and standard of living and to reduce migration from rural to urban. The impact of energy supply will be multiple in other areas of rural developments and ultimately will contribute to alleviate poverty and sustainable development.

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Gender Equity in Participatory Rural Development: Lessons from Nepal

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Introduction

Nepal is one of the poorest countries in South Asia. Nepal's population was 24.6 million in 2002 (UNDP, 2004). Nepal ranked 140th in terms of overall human development index (HDI) globally in a study of 177 countries and had one of the highest poverty rates (42 percent by national standard and human poverty index ranking of 69 in a list of 69 developing countries) in 2002 (ibid). Less than half of the population was literate (43 percent) and female literacy stood at only 26.4 percent. The gender disparity represented by gender-related development index (GDI) showed that Nepal ranked 116th in a list of 144 countries (ibid)¹. Nepalese women tend to live more insecure lives compared to men because of illiteracy, ill health, poverty, patriarchal society, and a discriminatory legal system. These factors have contributed to low participation in the development activities compared to their male counterparts (NPC, 2002). IFAD (2001) notes that, although rural life is hard for men and women, rural women work longer hours in a day and have a higher workload than men. By social norms, they are required to fulfill triple roles: reproductive and childcare, regular household chores and labour intensive economic activities such as farming. Women's contribution to productive sector (e.g. farming) is not monetized and thus their contributions are undervalued. In addition, they have low access to extension services, institutional credit or production inputs (IFAD, 2001).

Gender policies, programmes and activities in Nepal have evolved over time as a result of the development process and the changing international environment. Like other developing countries, Nepal has gone through different policy orientations, including women in agriculture (WIA), women in development (WID), women and development (WAD) and gender and development (GAD). Likewise, participatory approaches have also played their roles in agricultural and rural development since 1980s. This study attempted to document the contribution of participatory approaches to gender equity and to identify challenges in achieving gender equity through participatory approaches using three case examples. It also sought to highlight the gaps in present understanding and the implementation of 'gender' and 'participation' in Nepal and to provide recommendations for participatory gender equitable development.

Gender and Development (GAD): What do we understand in Nepal?

Nepal adopted the WIA approach on a small scale within the Ministry of Agriculture by establishing a WIA Unit in the late 1970s and it gradually merged into a WID approach (ADB, 1999). Small WID components were tagged on to various development projects with an aim to address rural women's needs. The approach involved treating women as a target beneficiary group. Later in the 1980s, WID became a WAD approach which further emphasized on the integration of women's needs in development activities. Furthermore, GAD in Nepal emerged in the early 1990s (ADB, 1999) aimed at addressing both strategic and practical needs of women and men simultaneously. To date, development efforts directed at women in Nepal like many countries, can be grouped into welfare, equity, anti-poverty, efficiency or empowerment (Table 1). The welfare and anti-poverty programmes are often necessary preconditions for equity from the GAD perspective (ISNAR, 1997).

Table 1: Examples of applications of policy approaches directed at women

Policy approach	Aims	Applications
Welfare	To bring women into the development process as better mothers	Food aid, nutrition, family planning projects
Equity	To promote women as active participants in development	Development projects with small WID components
Anti-poverty	To alleviate women's poverty by increasing their productivity	Small scale women's income generating projects such as handicraft projects
Efficiency	To increase women's participation in research and development	Projects to meet basic needs of women Sectoral-based projects e.g. women and forestry
Empowerment	To empower women through greater rights to self determination	Projects focuses on basic and strategic needs simultaneously

Source: ADP, 1999; ISNAR, 1997

The present Tenth Five Year Plan (2002-2007) of the government of Nepal emphasizes the promotion of activities for gender equity, women empowerment and gender mainstreaming (NPC, 2002). A number of governmental, non-governmental and donor organizations support gender development activities.

Participation and participatory approaches: What do these mean in Nepal?

A participatory approach was initiated in Nepal in the field of rural development from the late 1980s because of the failure of top-down interventions (Pandey, 1999). Participatory rural appraisal (PRA) tools and methods which evolved in 1980s (Chambers and Guijt, 1995), have spread very rapidly in Nepal, especially since the establishment of multi-party democratic political system since early 1990s (Pratt, 2000). Participatory tools in varying forms are now used and supported by non-government organizations (NGOs), government officials, bilateral and multilateral donor agencies in several sectors for purposes ranging from qualitative research, to project appraisal, to project monitoring and evaluation, to action research and consciousness raising.

¹ Gender related development index combines three dimensions of development- longevity (life expectancy at birth), knowledge (adult literacy and mean years of schooling) and income. It also takes into account the sociological inequities between men and women such as differences in income and education (UNDP, 2004).

While participation is understood differently based on local interpretation, most development organizations in Nepal generally claim that they have strategies to achieve participation when they involve participants through group membership. Some also refer to attendance by participants in project meetings as an additional indicator of participation. Very few have tried efforts to treat participants as agents of change or development by building their confidence to have their voice and rights incorporated into decision making. Yet this transformative participation is an ideal form of participation (Agarwal, 2001) which is critical in all aspects of rural development.

Participatory approaches for gender equity development need to emphasize the equal participation of local men and women in development activities. Both men and women should be considered active agents in the development process. Men and women in Nepal tend to have different perceptions, sets of interests and needs due to prevailing social norms in society. However, they often strive towards a common goal: a better future for themselves and their families, which requires their active participation in the process of development.

The next sections present a gender analysis of the gaps between the “ideal participation involving men or women” and “existing participation in reality” in three case studies². These represent examples of initiatives of participatory and gender equity approaches with regard to agriculture, micro-credit and education. The experiences of those initiatives in terms of their successes and challenges in achieving gender equity through participatory approaches are described. The analysis identifies cultural, social and institutional factors that play major roles in ensuring the positive impact of participation on gender equity and suggests desired improvements for enhancing effective participatory gender equity development.

Case studies

Case example 1: Gender-sensitive participatory agricultural planning by Women Farmers Development Division (WFDD)³

The WFDD/ Ministry of Agriculture with the financial and technical support from the Food and Agriculture Organization (FAO) during January 1996 to August 1997 undertook an initiative aimed to test and refine a participatory methodology to incorporate gender concerns into agricultural planning from the grass-roots to the district level by strengthening the capacity of the Ministry of Agriculture. Under this initiative, 53 staff of district agricultural offices and the WFDD were trained on the gender analysis and PRA (GA-PRA). Gender-sensitive participatory planning exercises were carried out using PRA techniques in three districts (Nawalparasi, Sindhuli and Rasuwa). Several PRA tools⁴ were used in the exercises conducted with separate groups of men and women farmers to provide gender-specific information for district planning. More than 500 women and men farmers participated in the GA-PRA needs identification and planning exercises. Community action plans were prepared based on these.

Although efforts were made to increase the participation of women and men in the exercise, women did not participate in the ways men did primarily due to three factors:

- Men in the community had the final say on decisions and thus many of the women’s needs were not adequately reflected in the community action plans (due to socio-cultural tradition and male dominated society).
- The facilitators lacked skills in balancing male dominance so that women could have their say in final decisions.
- Government staff took for granted that they knew best reflecting wider institutional culture. They were reluctant to change their attitudes and behaviour which discouraged women’s full participation.

The initiative limited the PRA to an extractive exercise rather than using PRA within the context of a bottom-up planning cycle as had been originally envisaged. The information from community action plans was used to develop the WFDD guidelines rather than integrating them into district level plans where implementation happens. The major reason for this was that the personnel in the decision making level in the ministry and in the district offices could not be convinced to implement district workshops to develop district level plans, as they were excluded in the field PRA exercises. Most trainees were grass-roots level staff. Although they were enthusiastic about using the approaches, it was unlikely that junior staff were able to apply what they had learned to facilitate gender sensitive planning without firm backing from their supervisors. Moreover, the ownership of the process did not get instilled in the local participants because of the imposition of hierarchical power relations by project staff.

Under this initiative, the remaining problem is how to change mechanisms and procedures within the ministry’s operations to ensure that gender issues are fully addressed and integrated in agricultural planning processes and participatory approaches. New district steering committees, initiated without building on the existing coordination structure and planning mechanism at the district level, turned out to be counterproductive because they made district staff perceive the WFDD project as something outside their regular programme of work. The ownership of the process did not get instilled in the locals.

Case example 2: Women Empowerment Programme, PACT Nepal⁵

PACT Nepal, a subsidiary of USA based NGO, implemented a women empowerment programme in rural parts of 21 districts of Nepal during 1997 to 2001. The programme emphasised the fostering of self-reliance and empowerment of women through literacy, income generation and community activism. The local NGO partners provided training to women’s saving and credit groups, focusing on capacity building. Each group consisted of 25-35 women who elected a president, treasurer, secretary and a controller from amongst themselves. Moreover, one of the group members acted as a literacy volunteer to run the literacy classes. A participatory tool

² This study is based on the review of relevant literature reflecting three cases mentioned. One of the authors (Bijaya Bajracharya) was involved in two projects (WFDD and SSMP), and thus could access the information on those cases. This study is also based on the knowledge and experience obtained by the author during her long-term work in the field of rural development.

³ Source: Sontheimer et al., 1997; WFDD/FAO, 1997

⁴ The PRA tools included social and resource mapping, seasonal calendar, economic well-being, daily activity schedule, resources analysis, mobility mapping, decision making matrix, Venn diagram, pair-wise ranking and community action plan.

⁵ Adapted from Ashe and Parrott, 2001; Littlefield et al., 2003; McClain, 2002; Odell, 2001; Silwal, 2002

“appreciative inquiry” was used to discuss with women about opportunities for improvement in their living status with women. Knowledge about women’s legal rights and the initiation of small business activities was provided to women through training and literacy classes.

In June 2001, 6500 savings and credit groups comprising 130,000 women had been formed and about 63,700 women had gained some level of literacy; half of them had never gone to school. In all, 215 local NGOs in the programme area played important roles in mobilizing women into groups and facilitating them to manage and utilize their funds. About 840 empowerment workers (hired through local NGO partners) provided training and follow up support to the groups. The project assessment concluded that there had been a positive impact on women’s empowerment. Two-thirds of women members in village banks were making decisions on buying and selling property, sending their daughters to school, negotiating their children’s marriages, and planning their families. This was a significant departure from traditional social norms under which such household decisions were traditionally made by husbands or senior male members in the households.

However, the programme has shortcomings too. Most groups relied upon their young educated relatives or husbands for book-keeping. The continuity in literacy has been a problem; only 13 percent of the groups continued to meet as a group to study the last book in the series ‘Village Bank Entrepreneurs’. The programme over-emphasized women’s empowerment which may have adverse implications on the acceptance by men if not implemented carefully. There is evidence of adverse implications from other projects⁶, however, these have rarely been reflected in the impact reports or evaluation documents for them. There have been several cases in women’s saving and credit groups, in which women members’ husbands have withdrawn their support from the household and women have hid their savings or even businesses from their husbands (Cheston and Kuhn, 2002; *pers. comm.* with women’s saving and credit cooperatives, Kavre district, Nepal, 2002). As the women’s empowerment approach goes beyond using women’s time and resources for rural development to build on women’s participation for fundamental change in gender relations, this will also require the participation of men in the process of change. In addition, it will also seek a change in organizational culture of NGOs and PACT Nepal, and in the priorities of USAID (donor). In effect, a women’s empowerment approach really requires a gender empowerment approach with strategies of targeting both men and women so that both become capable in making effective decisions for family well-being.

Women’s contribution to increased income did not ensure that women directly benefited. Small increases in their access to income may be at the cost of increased stress and their poor health (Mayoux, 2001). Savings provide women with a means of building up an asset base. But pressure to save may mean women forgoing their own necessary consumption. Moreover, loans taken for the non-income generation activities like paying for school fees, marriages and other social events put additional burden on them to repay. All these indicate that the integration of men into these development initiatives in order to get their support within the households or in the community is essential. The exclusion of men in participation for development may create conflicts between men and women in the household and in the society

With regard to participation, the programme has put effort to achieve transformative participation by empowering women through capacity building. The empowerment of women has been insufficient for them to continue the activities after the discontinuation of the project however. They are still dependent on the empowerment workers, NGOs and PACT Nepal for various activities. The time period of the programme (about four years) was not enough to strengthen the capacity of the groups and to learn and implement effective monitoring and evaluation mechanisms that would support not only the achievement of transformative participation but also the continuation of it.

Case example 3: A new approach to integrate gender aspects in sustainable agricultural development⁷

During 2000 to 2003, the Sustainable Soil Management Programme (SSMP) of Helvetas Nepal undertook a new initiative on participatory and gender approaches. This initiative is an example of bottom-up project planning and regular monitoring and evaluation of the activities by rural women and men themselves. It aimed to develop participatory tools and methods to promote planning, implementation, monitoring and evaluation of improved sustainable agricultural activities by women and men farmers themselves. In addition, it also aimed to stimulate men and women in the rural community to agree on the change for more equal sharing of workloads and benefits between them in the household.

Initially, a small working group of three organizations along with the leadership from project personnel developed the concept for gender equity and participatory tools and methods and tested them in the field. The concept of gender equity centres around recognizing the different influence of men and women farmers in the family on the decision to adopt new improved sustainable agricultural technologies. Since the decision for change depends considerably on effects that a new technology is likely to have on the farm and farm family members, it is important to recognize and value the effects of family members. The final decision is a product of discussion, negotiation and compromise in the family taking into account social norms/rules/regulations in the wider community (Locke and Okali, 1999). The family with a conscious and balanced decision for adoption of new improved technologies, based on an equal sharing of the workload and the benefits among family members, achieves progress in equity. The participatory tools and methods were discussed with the mixed groups of men and women and also only women groups separately. The overall method consisted in a reflection-planning-commitment for change-evaluation process supported by different participatory tools such as time line, pie chart, effect tree, prioritization table, problem and solution table, and trend analysis (Bajracharya et al., 2001).

The initiative led to a number of follow-up activities:

⁶ The women managed saving and credit cooperatives (facilitated by Women Awareness Centre Nepal) in Kavre district could not be run effectively, as husbands of women members did not support in income generation activities to pay back the loan the women took from the cooperatives. Because of this, the cooperatives have started encouraging men to be supporting members in the cooperatives since 2001. Men were also encouraged to be participants in the trainings and workshops. Men became very supportive and as a result conflicts in the running of agri-based enterprises within the household reduced (personal communications with cooperative members of Kavre district, 2002).

⁷ Source: Bajracharya, 2001; Bajracharya et al., 2001; Bajracharya et al., 2002

- Shared experience with 17 local NGOs in three districts (Parbat, Doti and Baitadi), which applied the tools and methods in 3-5 farmers' groups per NGO;
- A stronger resource organization (MANUSHI) through field exercises in collaboration with seven organizations working in four districts (Palpa, Sindhupalchowk, Kavre, Lamjung);
- Linkages and shared experiences with other governmental and non-governmental organisations;
- A field manual prepared jointly by the resource organization (MANUSHI) and the working group based on about two years of field experiences; which was eventually adopted by 35 organizations.

The initiative provided a number of valuable lessons: First, different suggestions came from men and women on improvements, modifications or changes to technologies. Men in Kavre district suggested that the project identify marketing outlets for organic vegetables whereas women suggested identifying appropriate technologies to reduce problems of white grubs. Second, the experience with Kavre farmers indicated that the real situation of low availability of benefits to women in most households was revealed only in the discussion within a women's group and could not be achieved in a mixed group. When discussed and confirmed with a mixed group, men realized and committed to redistribute benefits and make them equal in future. Third, men in Palpa district realized that if women could also make decisions, production and income from coffee could also be increased. They expected this change in the future and also discussed the major challenge of society and some ways to reduce the challenge. The supportive and restrictive factors for social change in the surrounding community were discussed. Men in Parbat district have also agreed to share in the workload of women in some activities like shed cleaning, and grass cutting and carrying which were women's jobs. Fourth, women were able to put up the issue of work burden to the facilitating organizations due to new improved sustainable agricultural technologies. They demanded the organizations bring and provide them labor reducing technologies. As a result, corn shellers, and water harvest tanks with drip irrigation sets were introduced to women groups for experimentation.

Despite these efforts, there have been challenges in terms of the translation of commitments for change in the society by men and women, and the long-term commitment and patience of all stakeholders in supporting the changes.

Socio-cultural and institutional determinants of participatory gender equity development

Several factors govern participatory gender equity development and its ongoing sustainability. These can be broadly grouped into three categories: (i) socio-cultural context, (ii) perceptions of development professionals; and (iii) local institutional capacity.

Socio-cultural context

The present socio-cultural context in terms of position and roles of members in the household and wider society has a critical role in ensuring the positive impact of participation on gender equity. The low status and disadvantaged position of women in the household and in the society resulting in lower education, nutrition and health; little access to property, resources and training; and non-participation in decision making negatively impact on participatory gender equity development. Furthermore, lack of gender awareness at all levels in most cultures; non-recognition of women's contribution and work load (as mothers, housewives and farmers) and male dominance due to patriarchal social structures constrain the positive impact of participation on gender equity.

Perceptions of development professionals

Two issues have emerged: (i) male dominations in the professional sphere from implementation to the policy making and (ii) limited number of women professionals with required knowledge and skill to achieve participatory gender equity development. Most professionals generally judge gender equity in development in quantitative (e.g. number of women participated) rather than qualitative terms (e.g. extent of empowerment). The professionals, who advocate for gender equity in the development field outside, fail to apply it in their own families and socio-cultural environment which constrain participatory gender equity development.

Local institutional capacity

The capacity of local institutions in terms of their knowledge and skills with regard to participatory and gender equity approaches has a strong influence in achieving a positive impact of participation on gender equity. The local institutions can play supportive roles towards societal change to achieve gender equity. They can enhance capacity to negotiate with restrictive actors (i.e. those restricting change) within the family and the society. For example, a women's cooperative in the Kavre district has welcomed men (husbands of women members) to join the technical committee of the cooperative in order to get their support in terms of work sharing for the promotion of organic commercial vegetable production. The cooperative has facilitated discussions about whether the commitment for change in the households has been transformed into habits (Bajracharya et al., 2002). A big challenge lies in seeking different ways to transform the actors' behaviours from restrictive to supportive. Moreover, promoting change against locally restrictive actors may cause tensions in communities and may backfire, hence, the pace of local capacity to accept change needs to be adequately internalized by development professionals.

Participatory gender equity development – what can be done?

In light of the assessment of the previous three case studies and some of the issues identified above, we believe that participatory gender equity development is a meaningful way to address root causes of poverty in developing countries in South Asia, Nepal included. A number of steps are required for this to happen, however, including improvement in the conceptualization of GAD, institutionalization of participatory gender equity approaches, capacity building in local institutions, improvement in attitudes and behaviour of development professionals through training and education, and the establishment of mechanisms for continuous motivation towards gender equity in the wider society.

Improve conceptualization of GAD

The concept of gender and development should be simple, understandable and convincing. The conceptualization should focus on the family well-being with equity of all members rather than just women. This concept has indicated its positive contribution for gender equity in the development work undertaken by SSMP/ Helvetas in Nepal. The local institutions and restrictive actors in the society and in the households were motivated to change to achieve gender equity by discussing this concept with the use of various participatory

tools and methods. Mechanisms are required to improve the professionals' understanding of GAD and to change their traditional focus from "how many women and men participated" to "to what extent were women and men empowered" for the overall and long term well-being of the families involved.

Institutionalise participatory and gender equity approaches

Institutionalization describes the strategy and process followed by the organizations whereby participation and consideration of gender equity become regular and continuous enough to be described as institutions. Most projects initiated by government and non-government organizations (NGOs) aiming on participatory gender equity development, tend to be of limited duration. There is a Nepali saying that "as projects come and go, their activities also vanish along with their departure". The NGOs and International NGOs generally lack enough time, resources and patience to continue efforts towards the institutionalization of gender and equity approaches in their organizations. Similarly, government organizations' bureaucratic cultures often inhibit the adoption of participatory approaches.

To implement participatory and gender equity approaches successfully, organizations must determine whether their policies and procedures are capable of responding to the needs and priorities of local women and men. Training, learning and application with regard to participatory and gender equity approaches by professionals at all levels from implementation to policy and decision making levels are critical. If the higher level professionals involved in decision making can be motivated and convinced, they are better able to facilitate and encourage other professionals engaged at the implementation level. The organisations should learn through monitoring and should have flexibility to test, modify and refine innovations in promoting participatory gender equity development. It has to be considered as an ongoing process rather than as a one time event or a blue-print approach. The promotion of participatory planning, monitoring and evaluation of the activities from gender equity perspective at different organizational levels is also essential.

Build capacity of local institutions

Local institutions play a very important role in enhancing the contribution of participation for gender equity development. However, the knowledge and skills of the institutions need to be built and strengthened so that they are able to understand and implement participatory and gender equity approaches effectively. If the local institutions are capable and supportive, they can also facilitate the transformation of restrictive actors into supportive ones who support changes in the society to achieve participatory gender equity development. They equally need to be trained on the concepts, tools and methods of participatory planning, monitoring and evaluation, and self-monitoring and self-evaluation so that they can effectively facilitate in the implementation at the group level. They need to be encouraged to take a leadership role in testing innovations in promoting participatory gender equity development. They should be motivated to adjust their institutional strategies and mechanisms which would enable them to practice gender equity and participatory principles regularly and continuously. The better performing institutions need to be praised and further motivated through appropriate rewards. Local people should be enabled to develop ownership over their own tools, so that they are able to continue using them at their own initiative, not the initiative of development projects and staff.

Improve professional's attitude and behaviour

The translation of programmes into action depends a lot on human attitudes. As gender bias is deeply ingrained in social attitudes, it is necessary to sensitize people to various visible and invisible indicators of it. It has to be considered as an ongoing process rather than as a one time event because of the high turnover of the personnel at district level and new recruits to the political leadership. And also because attitudes take a long time to change. The mechanisms in the organizations need to be able to motivate professionals at all levels to strengthen their knowledge and skills through training, experimenting and "learning while monitoring". They need to be encouraged to change their own attitudes and behaviour using relevant principles of participation and gender equity.

Establish mechanisms for continuous motivation for societal change

Overall the major issue is how to develop the patience of all stakeholders i.e. local people and local institutions in continuing actions for gradual change in the traditional society. Promoting change against locally restrictive actors may cause tensions in the society and may backfire, hence, the pace of local capacity to accept change needs to be respected. The commitment and its application for the change by local men and women occur first within the family and then within the wider society. Support and negotiation for the fulfillment of commitments within the family is crucial. The capacity of local men and women needs to be built so that they are able to tap the supportive actors and to balance the restrictive actors in the local environment to enable change in gender relations.

Conclusions

There are gaps in the present context of conceptualization and implementation of participatory and gender equity approaches in the fields of development in Nepal. The present socio-cultural and institutional factors such as the position of women in society, the inappropriate perceptions and practice of development professionals and the ineffectiveness of local institutions have contributed to the gap. Better understanding and institutionalization of participatory and gender equity approaches at all levels (from district to the national), capacity building of local institutions, improving professionals' attitudes and behavior, and establishing mechanisms for continuous motivation for towards societal change are required for participatory gender equity development to be realized and sustained.

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Appropriate Credit Systems for Poor Farmers: Cultural Influences on Rural Credit Systems in West Sumatra, Indonesia

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Introduction

This paper examines how poor farmers in West Sumatra Province, Indonesia, gain access to credit. It includes a discussion of how the *Minangkabau* community of West Sumatra, which has had savings and credit schemes as part of their culture for centuries, manages their credit needs and run rural credit programmes in the absence of government interventions. From field research in West Sumatra field research, a positive relationship between culture and credit was found. The research also revealed that the formal credit programmes were not successful, while the informal credit systems that consist of Rotating and Savings Credit Associations (ROSCAs) or *Julo-julo*, *Simpan Pinjam*, and moneylenders, were more appropriate to the needs, resources and culture of the rural poor.

Background

Provision of credit for the rural poor in developing countries has recently received a lot of attention from development agencies and international organizations. The Grameen Bank in Bangladesh, which has successfully served more than 2.3 million customers, pioneered this concern for the rural poor and the model has been replicated in other countries (Khandker, Khalily, & Khan, 1995). However, implementation is still limited in many places. Research in many regions such as Africa, Bangladesh, and Bolivia show that many rural credit programs have failed to meet the needs of the rural poor due to reasons such as unmet client demands for credit, lack of client's knowledge of credit, and inflexible implementation of rural credit programs. In Bangladesh, for example, about 56% of loans were in default in 1995-1997, 15-20% of customers dropped-out between 1996-2000, and 60-65% of rural households refused to participate in the microfinance programs (Meyer 2002). In Africa, despite the incredible growth of microenterprise credit programs over the last decade, there is little evidence of significant and sustained positive impacts for the beneficiaries (Buckley 1997). A study in Bolivia in 1994-97 reported that many microfinance programs neglected the poorest in favour of richer clients, and preferred business rather than social development (Eversole 2003).

Despite the popularity of the Grameen Bank model of microfinance, many credit programs remain essentially formal and top-down. This 'product-centred' microfinance has been ineffective in helping the poor (Dunn 2002, von Pischke 2002). Product-centred microfinance has failed to meet the demands of their target population since the large institutions do not have sufficient information about their poor clients (Dunn 2002), or are unwilling to learn about them, especially poor farmers who often live in remote areas. Poor farmers have many limitations regarding credit. Other than their low income levels, their earnings are highly dependant on climatic conditions, pest outbreaks and other natural disasters. Their unstable and irregular income often means they cannot meet regular repayment schedules and as a result they default on loan repayments. They also often do not have physical collateral. These characteristics result in the hesitancy of formal microfinance institutions to extend credit to them.

The lack of success of some formal microfinance programs in serving the poor, and the difficulties in maintaining networks and managing their operations, turns our attention to the existence of informal credit programs (Adams and Fitchett 1992, Tsai 2004). In fact, informal finance, which represents a wide variety of credit schemes, such as moneylenders, Rotating and Savings Credit Associations (ROSCAs), pawnbrokers, shop-owners and landlords, may be better suited to the conditions of people at the micro levels (Tsai 2004). Also, despite some negative connotations, the practice of informal finance – mainly through moneylenders- has been available in many areas for a very long time ago. The participants of informal credit systems are usually poor people, women, small business operators, poor farmers and the landless, and the procedures are typically very simple, and are highly influenced by and adapted to the local economic, social, and cultural environments (Adams and Fitchett 1992).

Rural credit in Indonesia

Rural credit systems in Indonesia have been available for more than a century, since a *Poerwokertosche Hulp, Spaar En Landbouw Credietbank* or *Priayi Bank* was established in 1898. This bank became the model for establishing similar banks in the country. Despite the long history of formal rural credit systems in Indonesia, during and after colonial times, the implementation of these formal systems remained limited. Many of the government's planned rural credit programs failed to provide services for the rural poor. The BIMAS rural credit program was terminated in 1983 due to a high loan default rate. This program was especially designed to accelerate the agricultural intensification program under the Suharto regime. This very highly subsidized rural credit program in effect spoil the poor farmers who presumed that their debts would be rescheduled or written-off. This made them reluctant to repay the credit in later years (Moll 1989, Meyer and Nagarajan 1999). Similarly, the KUT (Farmer's Credit Program), the largest credit program designed especially for poor farmers, also suffered from high arrears (reaching 85% in 1999) due to poor management. It was finally terminated in 2000, but many KUT borrowers in Indonesia still have outstanding debt that need to be repaid. Another example of an unsuccessful formal rural credit program is KUPEDDES, which has been internationally known as a successful rural credit program under the BRI Unit Desa system. However, this rural credit system suffered from the problem of limited outreach. It was only serving the more well off customers (Sukarno 1999), and was adapted only for those who had fixed incomes (SMERU 2000).

The informal rural credit systems have continued to operate. These represent the major form of credit for the rural poor. However, these informal rural credit systems are often difficult to detect since they often give service based on trust and with no administrative or bureaucratic procedures. They serve a large proportion of the population both in urban and rural areas (Prabowo 1989, Robinson 2001). Their significant role to help the poor includes the capacity to help in emergency situations, to fulfil the poor's basic needs, and the opportunity to help the poor to purchase their secondary needs.

The informal financial sector is divided into two groups: professional operators and financial relations based on reciprocity (Moll 1989). The former refers to private persons who provide financial services in commercial terms, either as their main occupation, or as part of their business enterprise, or as a part-time occupation. Moneylenders, traders, indigenous bankers, landlords, pawnbrokers, and larger farmers are examples of this group. The latter group is established based on reciprocity that may exist between two individuals, or within a group, and transactions take place without intermediation by a professional. The rotating savings and credit association (ROSCA) is an example of this group, which are very common in Asia, Africa, and Latin America. In rural communities, this type of financing is usually linked with traditional cultural relationships.

Despite the difficulty to determine the exact number of informal finance providers, it is estimated that there are about 250,000 Rotating and Saving Credit Associations (ROSCAs) in Indonesia, and the other 51,000 self-help groups (Sukarno 1999). The self-help groups consist of savings and credit groups (*Kelompok Simpan Pinjam*), micro entrepreneur groups (*Kelompok Pengusaha Mikro*), small farmers and fishermen groups (KPK-P4K), individual moneylenders, traders and shopkeepers (Sukarno 1999).

West Sumatra fieldwork: cultural influences on rural credit systems

West Sumatra is famous for its *Minangkabau* matrilineal culture. This province is located in the western part of Sumatra Island, with a population of around four million people. Compared to other provinces in Sumatra, the average income per capita of West Sumatra people is not the lowest. However, in rural areas the majority of the population are still living below the poverty line (field data 2004).

Rural credit in West Sumatra consists of formal and informal credit systems. Formal credit systems in rural West Sumatra are dominated by credit from the central government, which is channelled through the state banks and state cooperatives, such as BIMAS, and KUT. There is also credit from local government in the form of revolving funds and in-kind credit such as farm supplies, but it involves only a small portion of the population.

Informal rural credit systems in West Sumatra are highly influenced by the *Minangkabau* culture. *Minangkabau* people have been practising savings and credit activities for centuries. People used to save their harvests and put them in a small shed (called *rangkiang*) in front of their houses. They usually used these 'savings' when celebrating religious holidays such as in *Idul Fitri* or *Idul Adha*, when conducting a cultural celebration such as weddings or births, or when there was scarcity due to failed harvests. These savings were also lent to the needy, usually poor people, without interest. Sometimes they did not expect to receive repayment when the borrowers were not able to afford it. This phenomenon, which is related to the *Minangkabau* customs and Islamic religion, remains very common in West Sumatra.

My fieldwork in West Sumatra Province was conducted from January to April 2004. The study area covered three villages in the Solok District, West Sumatra, Indonesia, namely Dilam, Saniangbaka, and Tikalak. Solok is one of the poorer districts in West Sumatra, where the majority of farmers who live in remote areas are landless and living below the poverty line. Solok district is well-known for its strong *Minangkabau* culture and Islamic religion. In this study a combination of qualitative and quantitative methods of data collection was used. The qualitative method consisted of in-depth interviews, focus group discussions, direct observations, and PRA/RRA. Random sampling was used for the quantitative research, and purposive sampling was used for qualitative part. I spent, on average, one month staying in each village interacting with local people and doing direct observations.

My fieldwork in the three villages in West Sumatra resulted in many interesting findings. Despite the long experience of Indonesia in implementing formal rural credit programmes, the implementation is still unsuccessful. Throughout the three study villages in West Sumatra I found that the majority of rural people have no access to the formal credit programmes. Most of them confirmed that they do not want to be involved in any formal credit programme any longer, and prefer to manage their credit needs by themselves or participate in informal credit systems (focus group discussions 2004). On the other hand, the informal rural credit systems, which are highly influenced by local values and culture, were more successful and sustainable. These informal credit systems, *Julo-julo*, *Simpan Pinjam Suku* and moneylenders, were examined in detail.

The *Julo-julo* is similar to a rotating credit scheme. In West Sumatra, women usually do *Julo-julo*, even though there are also many men involved in this credit scheme. The procedure of this scheme is very simple. Participants periodically contribute fixed amounts of money and use lotteries to allocate the funds. This process is repeated during subsequent meetings until every participant has had an opportunity to draw from the fund once. After finishing one cycle of *Julo-julo*, participants usually set up a new cycle with new and improved regulations such as how much money is to be contributed, how to provide sanctions, etc. The savings and credit functions of this system were implicit within the *julo-julo* cycle. The savings function applies when a participant contributes cash or in-kind and waits until his/her turn, while the credit function takes place when he/she lets other participants take their turns.

Despite its implicit savings and credit functions, and the small size of money or in-kind to be contributed, the *Julo-julo* scheme was attractive and meaningful for rural people, especially in Dilam village. Every group, whether women or men farmers, or neighbourhood groups, has their own *Julo-julo* scheme. It can help participants, not only for primary or daily consumption but also for secondary needs, such as supporting children's education, house building, or for conducting a ceremony or party. In emergency situations, *julo-julo* can also be of great benefit. When a participant suffer some particular misfortune, such as the death of a family member or lacks money, the participant who has the current turn would voluntarily give his or her turn to the unfortunate member.

Minangkabau women were very creative in developing *julo-julo* credit systems appropriate and well adapted to their needs. For example, if they need fertilizer for their farming, they create a fertilizer *julo-julo*. Then, if they need kitchen appliances, which they could not afford if they tried to purchase them in cash, they create a *julo-julo* to purchase these goods. Women are more active than men in *julo-julo* because women are expected to actively manage their households since they live in their own *suku*¹. In *Minangkabau* culture, husbands are viewed as outsiders in their wife's clan, hence men often hesitate to be involved in activities beyond their capacity as husbands. Men usually focus only on their main job such as a farmer or craftsman, and ignore other household responsibilities such as cooking, washing, and taking care of children.

Another type of informal credit scheme was *Simpan Pinjam Suku*. The procedure of this informal credit scheme is similar to a simple cooperative in which each member has compulsory savings (*Simpanan Wajib*). The amount of savings vary among the *sukas*, and the amount of loans that are given varies from Rp 300,000 to Rp 2 million, with an interest rate of 10% per four months or per harvesting time. The accumulated funds from the interest were used for the benefit of the *suku*, such as building paths to their kampong (village), mosques, and public bathrooms. People were more interested in being involved in *Simpan Pinjam* because they can borrow large

¹ Suku in West Sumatra is similar to clan, which is a group of persons claiming descent from a common ancestor, and associated together (Oxford English Dictionary).

amounts of money at one time. This money is usually used for starting small business, children's education or for conducting parties or ceremonies.

The *Simpan Pinjam Suku* credit system is also influenced by the matrilineal system of *Minangkabau* culture. The credit is only given to female members, while the male members are only contributors. The logic of this procedure is that, if the men receive loans, it will be given to their families, who belong to other *sukus*. Thus the money collected is used only within the *suku*.

The features of *Julo-julo* and *Simpan Pinjam Suku* include its economic, social, and cultural advantages. Economically, these rural credit programmes could supply the members with their daily needs, and during emergency situations as well, despite the small amount of money they received. Socially, it has the capacity to reinforce the *suku* membership, which allows them to help each other especially in times of misfortune. Culturally, it promotes and strengthens the local *Minangkabau* culture, which coincides with the government policy of decentralization.

The *suku* monthly meeting, which is mainly used to conduct *Julo-julo* and *Simpan Pinjam Suku*, is named *Arisan Suku*. During this *Arisan Suku* meeting, the *suku* members have the opportunity to discuss current problems or issues happening in their *suku*, and to find the solutions to these problems. The *suku* leaders talk to the members, and the members have the opportunity to ask questions and give comments. The meeting are also used for *suku* members to meet their relatives, to chat, and to exchange information. Whilst this occasion is useful and attractive for most of the *suku* members, I could also see the joyful spirit of the members in developing their *suku* in order to be better than others, which allowed for a form of positive competition among the *suku*.

A moneylender is another kind of informal rural credit intermediary, one that is particularly available in Saniangbaka Village. This village is more progressive compared to the other two villages. About half of the population go *Merantau* (travelling)². Some people in this village work as traders or government officers, and are relatively better off than some of the residents in the other two villages where I conducted field research. Nonetheless, the majority of the population in this village still live in poor conditions, and most of them worked as farm labourers. The moneylenders usually give loans without interest to these poor people and sometimes they do not expect the repayment if the borrowers cannot repay. They viewed this phenomenon as part of their responsibility to help the poor by giving *zakat* or *sedekah*, based on their religious values.

These kind of 'friendly' moneylenders are usually the well-off people, the shop-owners, the farm-supplies retailers, and *Perantau* (a person who go to out of the village, usually to another city, to earn a living). The latter frequently gives a loan to groups of people, on which the usage is predetermined, such as for purchasing farm supplies or for continuing children's study. This is to ensure that the loan is used for important purposes. The *Perantau* asks his/her friends or relatives in the village to distribute the loans to the poor based on their real needs, and use receipts as proof of lending. The other moneylenders such as rich people, the shop-owners or farm-supplies retailers often give the loans to the individuals, who usually are their poor relatives, and need cash or in-kind support urgently. No administrative procedure, such as a receipt is required for these transactions.

Conclusion

Fieldwork in West Sumatra revealed that formal credit systems are failing to meet the everyday needs of the rural poor. This is because formal credit systems, which consist of credit from the state banks and cooperatives, did not meet the demands of the rural poor, and were not matched with the conditions and local culture of the clients.

The informal rural credit programs, on the other hand, have proven to be more appropriate to the demands and culture of the local community. *Julo-julo*, *Simpan Pinjam Suku*, and 'friendly' moneylenders are three examples of these informal credit programs. These informal credit systems are providing more appropriate credit systems for the rural poor, which may help solve problems of lack of capital. It also shows that rural people can manage credit problems themselves without government intervention. This phenomenon also allows for the increased participation of local people in rural financial development.

The success story of informal rural credit systems in West Sumatra, which are basically influenced by local cultural and religious values, could be replicated in other provinces in Indonesia or elsewhere where people hold onto and practice their culture and religion strongly. Indonesia is a diverse country consisting of many ethnic groups and religions. As local culture and traditional values were frequently ignored by development agencies in implementing rural credit programmes in the past, the enabling role of the Indonesian government to encourage the development of culturally influenced informal rural credit systems is preferred.

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² In *Minangkabau* culture, to leave their land is the predominant character, but the system is quite different from that of the general transmigration or immigration. Either with the intention of continuing their studies, doing a lot of trade or seeking jobs, they usually go back to their homeland as they have succeeded in materializing their dreams. The *Minangkabau* people are by nature entrepreneurs and travelling or *merantau* is considered a mark of success (ITB 2004).

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Conflict Resolution and Resource Management in a Development Setting - A Preliminary Genealogy

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Introduction

Conflict resolution is now recognised as a distinct topic of academic study and social policy. The number of institutions and associations concerned with positive peacemaking and problem solving, particularly in violent conflicts continues to grow (Tidwell 1998). Names such as *Centre for Conflict Resolution*, *Center for International Development and Conflict Management* or the *Conflict Resolution Network*, Australia are just some examples of a burgeoning field concerned with conflict.

The popular concern for conflict arises out of its association with confrontation and violence, the authors introducing conflict studies explain. This should make the prevention, management and elimination of issues described as conflict very worthwhile efforts that should be valued by all directly and indirectly concerned. But the understanding of what is meant by “conflict” and the terminology associated with that vary, as do the processes and approaches considered appropriate for addressing such undesirable issues. To better understand the context of the terminology and perspectives it is necessary to begin with a look at the origins of the various discourses and practices of 'conflict resolution'.

Conflict is a term used by different authors to mean a variety of things, in a variety of contexts. It refers to the behaviour of individuals and groups that can be observed, but also implies subjective attitudes. Looking at situations in the framework of conflicts therefore has both psychological and sociological dimensions.

Within the social settings, the scarcity and potential degradation of resources that are not individually owned create inter-personal and inter-group dynamics arising from incompatible goals. Environmental conflicts can therefore be defined as actual or potential disputes involving the environment, natural resources, public lands, or all three (USIECR 2004). They usually involve multiple parties who are engaged in a decision making process and disagree about issues traceable to an action or policy that has potential environmental effects (O'Leary and Bingham 2003). Working through such conflicts involves using a range of methods, including alternative dispute resolution.

A theme developed by some authors is that central to such disputes are recognised and perceived rights of individuals, social and ethnic groups and institutions. While a classic approach assumes that legal and ethical frameworks of reference for resolving conflicts are definitive, alternative perspectives consider that values are situational, contextual and socially constructed. (Avruch 1998; Tidwell 1998)

With this comes the recognition that certain sets of rights and values are applied within contemporary political and philosophical frameworks. This is particularly important in contexts where different cultures overlap with the framework which generated these concepts originally. The values that inform conflict resolution are largely Western and may act to inhibit its useful application across cultural and political barriers (Tidwell 1998).

The types of environmental conflicts and their characteristics are diverse and will be explored elsewhere. Analysis of such conflicts and the related management issues can be located in a variety of overlapping contexts and at different levels of scale, ranging through policy, public administration and implementation. An initial orientation is presented here.

Bodies of knowledge

Assembling an exhaustive list of every model or theory of conflict resolution would be an ambitious task. But some main lines of developing thinking can be recognised.

Conflict resolution as a field of study has its origins in the 1950s and 1960s, at the height of the Cold War. A group of workers from different disciplines considered it relevant to study conflict as a general phenomenon, with similar properties whether it occurs in international relations, domestic politics, industrial relations, communities, families or between individuals. They saw the potential of applying approaches that were evolving in management, industrial relations, social work, social psychology, international relations, communications and systems theory to conflicts in general. (CCfR-Bradford 2000)

In this way, conflict and the various conflict management processes became key terms in the suite of social sciences. But such an applied perspective of conflict took on a functional role in the formulation and application of public policy and, in consequence, determining perceptions and framing of important social issues by academics, policy makers and the wider public (Tidwell 1998).

Perspectives of conflict

Different schools of thought exist in conflict discourse. One considers conflict as 'pathological and dysfunctional' (Rubenstein 1993). That is a mechanistic view in its interpretation of conflict and seeks to suppress it, or as a last resort to “cure it” (Martinelli and Almeida 1998). In contrast other researchers consider the positive effects of conflict as useful. Conflict can be considered as a functional means for achieving social change, as an integral part of social processes that establish group boundaries, strengthen group consensus, develop a sense of self-identity, and contribute towards social integration, community building and progressive economic and social change (Dougherty 1990).

Warner and Jones (1998) argue that ‘conflicts are a form of adaptation by a society to a new political, economic and physical environment. New innovations, policies and procedures, laws and regulations, local power relationships and privatisation and globalisation processes determine the causes and intensity of the conflict.’ In other words they are endemic and integral to change processes within communities and societies. This has direct implications for development managers.

The practice of Environmental Conflict Resolution

Environmental conflict resolution (ECR) is a term that came into use particularly in the United States where it has become institutionalised in many public processes and where this field has by now filled with professional specialists. However, by far the most frequent use of ECR has remained with site-specific conflicts over resource allocation (O'Leary and Bingham 2003).

To development practitioners, conflict mitigation has become more and more an integral part of project cycle management. Sustainable resource management and civil society development are closely linked. This, according to authors like Leonhardt, has arisen out of a growing body of discourse concerned with conflict management among practitioners, academics and funding bodies.

Donor agencies have begun to impose consideration of conflict impacts as part of the project planning and reporting requirements. For instance, the European Union, the world's second largest donor agency, has since the mid-1990s been engaged in a process of developing policy frameworks and institutional capacity for conflict prevention (Leonhardt 2000). Non-governmental agencies requesting project funding must demonstrate that their activities will avoid risks of creating conflict and contribute to the capacity of civil society to mitigate and resolve conflict situations.

The politics of resource management

In development settings, resource management is often a politically charged issue. Not only in New Zealand, indigenous inhabitants typically regard natural resources with different value sets than centralised governments whose claims to sovereignty and the extent of that continue to be questioned. Howitt (2001) stresses that the process of defining the nature and content of indigenous identity is itself a highly politicised act. 'What is encompassed within a particular definition, and its implications for practical processes such as resource management, will depend on who is doing the defining and why it is being done.'

These negative risks contrast with the direct and indirect positive effects sought after by development promoters. This is an issue that Mary Anderson and her colleagues highlighted with the "Do No Harm" project (Anderson 1999). Conflict risk assessments undertaken before implementation of change projects aim to mitigate negative effects in settings where risk factors are present.

Approaches and methods of analysis

Approaches adopted in the field of conflict study operate at different scales. The psychological approach is used by psychologists, biologists and decision-making theorists and takes the behaviour of individuals as a point of departure to analyse conflict. Sociologists, anthropologists, geographers, conflict experts, international relations analysts and development workers on the other hand examine conflict at the level of groups, social institutions, political movements, religious and ethnic entities, cultural systems, etc. This sociological approach focuses on knowledge of collective behaviour from social structures and institutions. (Dougherty J. E. and R. L. Pfaltzgraff 1990:189) Recent approaches have adopted more empirical strategy that seek to integrate psychological and social aspects on the basis of assessments and first consultations with parties involved in mediation.

There are different methods that are used to analyse and interpret conflict. Bell et al. (1989) define three methods that can be applied to the analysis of conflicts: 1. Interpretative analysis, which is mainly used by social scientists observing conflict without influencing the behaviour of people. It helps to examine conflict by analysing structures, processes, functions and their relationships as well as the pattern of interaction among people. 2. An abstractive analysis comes out of behavioural analysis of individuals involved in conflict and is often used by psychologists. 3. Lastly, a prescriptive analysis is more advisory in nature and focuses on real-world application, rather than abstract modelling of idealised actors.

Contemporary conflict management practices, as for instance described in the United States by O'Leary and her colleagues, include both right-based (legal) and interest-based (alternate) approaches. Right-based approaches involve legal and administrative procedures through the courts and other recognised authorities. In contrast, interest-based approaches employ collaborative approaches and processes to resolve conflict. Approaches to resolving conflicts can utilise many alternative dispute resolution (ADR) methods beyond classic rights-based (legal) instruments. These include but are not limited to: Negotiation, Facilitation, Mediation, and Arbitration.

Need for Conflict Impact Assessment

Conflict Impact Assessment is basically a planning and management tool that helps development practitioners to mitigate conflict and promote peace in a systematic manner. It provides an integrated approach to the main stages and levels of a development programme. These tools, Leonhardt (2000) points out, are being developed in response to a number of frequently expressed needs:

- Strategic Planning: developing a strategic framework for conflict prevention and peace-building work in a country at risk, based on a thorough understanding of the conflict, that enhances coherence and co-ordination between different actors and instruments;
- Social Development: identifying and addressing the root causes of conflict and promoting local capacities and opportunities for peace through development co-operation;
- Conflict Prevention: assessing, monitoring and mitigating the potential negative consequences of a development intervention in a latent or manifest conflict;
- Risk Management: assessing and mitigating the conflict risk to the development investments themselves.

Conflict over natural resources also affects the commercial world. According to the International Institute for Sustainable Development, evidence is emerging that many conflicts around the world are driven by natural resource scarcity or inequitable resource access and benefit-sharing structures. Traditionally, firms have managed risk in conflict-prone areas through end-of-pipe measures such as danger pay, insurance and private security forces—none of which address the underlying causes of conflict and insecurity. Moreover, companies can create or augment environment-related conflict either directly through the exploitation and degradation of natural resources, or indirectly through the support of governments that sustain inequitable resource allocations (IISD 2004).

Conflict Analysis in Development

For development settings, relevant methods for conflict analysis and impact assessment have been developed (Nyheim, Leonhardt et al. 2001). These are processes of examining and understanding the reality of conflict, its impact on development programmes and projects and vice versa and to devise strategies and action plans towards conflict transformation.

Various conflict analysis frameworks are used to identify conflict risks and their mitigation measures.

This is the first step recommended for development project managers who want to proactively engage in addressing root causes of conflict and manage these as part of development interventions. There are several methods and tools of conflict analysis available such as conflict time lines, Attitude-Behaviour-Context (ABC) Triangle, Triple A (Arena-Actors-Aspects), conflict tree, conflict mapping, forced analysis, the pyramid, etc (Upreti 2004).

The Forum for Early Warning and Early Response (FEWER) proposes a seven step plan for development practitioners. (Nyheim, Leonhardt et al. 2001) 'Peace and Conflict Impact Assessment (PCIA) is a planning and management tool that can assist development and humanitarian organisations in analysing situations of (potential) conflict and identifying strategic opportunities for conflict prevention and peace-building. It can also be adapted for monitoring the impact of these activities. It thus provides an integrated approach to the main stages and levels of a development programme.'

Criticisms of Dispute Resolution

Returning to ECR, it was observed by commentators that at the same time that environmental and public policy mediation programs were becoming institutionalized, legal, social, and political theorists criticized specific cases, specific dispute resolution programs, and the collaborative problem-solving and consensus-seeking process. There is a long list of critiques about the effectiveness and fairness of collaborative problem-solving processes. It was argued that powerful actors control access to the legislative, administrative, and judicial processes, as well as technical expertise, alternatives to the negotiated process, and the way mediators and parties think of their options (O'Leary and Bingham 2003). A longstanding criticism argues that alternative policymaking and decision-making processes weaken attempts to fundamentally reform governance and judicial processes.

Conclusion

In a comprehensive review of critical thinking of theories concerning development, environment and modernity, Watts and McCarthy conclude with advocating for a more social relational understanding of natural sciences. They urge to include a better grasp of the complex imageries and social constructions of particular environmental ideas, such as conservation and risk, and to do so in their particular local contexts (Watts 1997).

Indigenous perspectives of conflict and conflict management need to be taken into account for a multi-cultural approach to conflicts. But this can also be a two-way process. Field work among American Indians by Colin McKenzie, founder of Conflict Management New Zealand, encountered an important reminder to think beyond a mechanistic view of curing conflict. In the course of studying community processes occurring around conflicts, McKenzie was made aware that in Mohawk culture, conflicts are considered an integral part of something much bigger, and that are interpersonal relationships (pers. comm.).

This is echoed by O'Leary and Bingham (2003) when discussing challenges for ECR research. They close with the observation that the majority of ECR research addresses disputes individually as discrete, almost static phenomena, rather than as part of a more dynamic conflict process.

The various origins of discourses and practices of 'conflict resolution' as they are applied to resource management in development settings, reflect the cultural perspectives of donors, academics, policy makers and indigenous communities. These determine not only the approach adopted in controlling and sharing natural resources, but also how eventual conflicts are framed and can be transformed.

Box: Risks and opportunities arising from development activities involving natural resources

Risks

Aid encourages unsustainable use of natural resources management

- regional concentration of aid encourages migration and local overpopulation
- ecologically unsustainable agricultural, mining or industrial schemes

Aid supports contentious claims to natural resources

- formalisation of previously flexible and negotiated land tenure systems
- control of important resources (eg water points) in hands of only one group (eg sedentary villagers)

Opportunities

Aid encourages sustainable resource use

- regional spread of aid
- analysis of and support for customary sustainable resource management
- use of environmental impact assessment for project appraisal

Aid strengthens equal access to resources

- facilitation of negotiations on land and water rights, eg between pastoralists and sedentary farmers
- legal frameworks for usufruct and other flexible resource use arrangements

(adapted from Leonhardt 2000, Anderson 1999, Goodhand/Hulme 1997, Suhrke et al. 1997, DFID/Warner 1999)

To appreciate this better will require empirical investigation of the processes involved in the shaping of policy and of implementation practices in resource management.

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Prudence and Control: Thoughts on Supervising and Regulating Micro-Credit Institutions in Bangladesh

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Introduction

This paper is based on a conceptual framework derived from a consideration of recent shifts in paradigms, strategies, and development practices in the field of microfinance published in the recent past. The conventional wisdom recognises the importance of effective (but not restrictive) regulation and supervision structures for Microfinance institutions (MFIs). Regulation appears to be one of the things that MFIs have difficulty living with or without. This dilemma arises from attempting to achieve conflicting goals and targets and adopting diverse methods of operations which make standard regulation difficult. However regulation is to be accomplished, whichever system or combination of systems is used, it is found here that pragmatism should dominate principle and practice dominate theory, otherwise one of the double bottom line targets is likely to be sacrificed for the sake of the other. Good governance regimes and regulatory structures are needed, although they need a degree of flexibility to match changing circumstances.

This paper attempts to examine some of the issues related to regulation in Bangladesh specifically and the outcomes of microfinance for the poorest of the poor. In itself a contentious question in the eyes of many who see MFIs as not working with the poorest groups (Hulme 2000: 27) and many of the contributors to Wood and Sharif (1997). The first section of the paper begins with an overview on the need for an appropriate regulation and supervision of MFIs so as to ensure the safety of deposits as well as the financial sustainability of the MFIs. The second section outlines some options for regulation and supervision. The paper then moves on to the shortcomings of the conventional approaches to regulation and supervision and recommends regulation and supervision of MFIs in Bangladesh under the Palli Karma Sahayak Foundation (PKSF), an autonomous apex financial institution (AFI) in Bangladesh. Finally, the paper details some principal conclusions, policy suggestions, and the need for further research to ensure that the poor are not once again excluded from access to financial services and the MFIs themselves do not remain dependent on donor funding for an infinite period of time, as at present is the case if very high interest rates are to be avoided.

Bangladesh probably has the densest network of MFIs in the world. It is estimated that there are at least 10,000 MFIs operating there, all offering financial services to the poor. Despite many examples of savings being lost (usually through both benign incompetence but occasionally through criminal intent), there is no regulatory mechanism in Bangladesh to safeguard such savings mobilized through MFI activity. As MFIs move further into extending the range of savings services, there is an increasing need for an appropriate regulatory framework, ensuring both the transparency and safety of deposits. The very poor particularly, can ill afford any such loss and in any case the MFIs generally are not providing the type of savings mechanisms the poor really need (Hulme 2000: 26).

The Need for Regulation and Supervision

Why regulate any financial activity and why regulate micro-finance in particular? Is it not set up for the best of motives, not looking to maximize returns for its operators or passive investors, but to maximize the reduction of poverty and increasing the empowerment and involvement of women in good development projects, in short assisting the poorest of the poor?

The short answer is that whilst the intentions of many involved in micro credit schemes are both honourable and worthy, their effectiveness may be questionable. They are often reliant on outside sources of funding, to keep monetised interest charges low and in consequence likely to exhibit a high degree of volatility. In the long term there are often problems with sustainability. Asian Development Bank reviews of MFI activity suggest that those charging a real interest rate below 30 per cent are unlikely to survive (ADB 2004: 79) reflecting the high transaction costs that exist for such operations, particularly in rural areas with widespread populations. Borrowers may incur some of the monitoring costs in group schemes, but the costs are there, monetised or not. Borrower and Lender sustainability become intertwined as revealed in the contributed papers to Wood and Sharif (1997). There is potential for volatility and contagion if the regulatory need is disregarded. The negative effects of extreme volatility in any part of the finance sector are evident in the experience of the financial crisis which struck Asia in the late 1990s.

Imperfections in developing economies financial structures can lead to volatility in real output (see Carranza & Galdon-Sanchez 2004) and have serious consequences for those least able to cope with hard times. Making markets work better and effectively extending secure credit and savings facilities to all sectors of society is worth pursuing. Thus putting in place effective regulation of MFIs is worth doing. Without good prudential supervision MFIs, like other financial intermediaries, are likely to engage in risky activity which puts their financial future in peril. Non commercial wholesale lending may cover such risks for a while, but lead to the possibility of even greater collapse in the long run. The importance of good regulation in developing countries financial sectors has been recently stressed by Ilan Noy (2004). MFIs may well have good intentions, but unregulated activity can still lead to disastrous collapse. NGOs in general, including MFIs, may suffer from perceptions of their being less than transparent and poorly accountable (Moore and Stewart 1998: 337-8).

The ready availability of donor funds at below market rates, has meant MFIs in Bangladesh have not often tapped the commercial markets for funds, but with the scaling down of donor funding and increasing confidence on the part of the MFI management, the search for alternative funding is becoming a significant factor in the quest to continue and expand their operations, if not to gain independence from the donors.

Successive governments in Bangladesh have realized the need for massive investment in human resource development if poverty is to be overcome. However, progress has been slow. Governments, finding themselves unable to mobilize enough resources at home, have been increasingly dependent on international donors. Political instability and an unresponsive bureaucracy have hampered a possible second policy approach of accelerating the growth of industrialization through macroeconomic reform, deregulation and supervision. Arguably, Bangladesh has had more success with its third approach to poverty alleviation: income and employment generation programmes targeted at the poor by both the government and MFIs.

The fact that no policy has been purposely enacted for regulating MFIs in Bangladesh is seen by many as a boon rather than a bane to the microfinance sector. The lack of regulatory control, however, has also resulted in depositors having no legal recourse against the management of those MFIs which collapsed due to mismanagement and fraud. Better governance procedures is something many, including NGO spokespeople, now look for. In this case more effective governance structures were not voluntarily put in place by all of those operating MFIs. A lack of regulation has led to open slather and the possibility of major problems.

The microfinance industry is now entering a new phase. Increased competition, the entrance of commercial providers to the market, a rapid pace of innovation, and a more experienced, informed and assertive clients who demand the provision of quality financial services are among the forces compelling MFIs to find new and cost-effective ways to satisfy market demand. Lower cost monitoring through targeted loans and the use of scoring (Schreiner 2003) to identify low-risk borrowers, may result in financial sustainability, but at the expense of less poverty alleviation. The safe borrower may not be the poor borrower (Jackson and Islam 2001). Scoring gives those with a good history of repayments advantages over those with need.

In the recent past, appropriate governance principles have increasingly imposed themselves as the basic need for any well-run company. Better standards of corporate governance has become part of the rhetoric of the globalisation process, being seen as a tool for standardising control mechanisms for major organisations worldwide, despite Meisel's questioning of the governance and economic growth link (Meisel 2004).

Regulation for good governance can still be utilised to strengthen the social impact of the microfinance sector in developing countries, regardless of its impact on economic growth. Similarly rather than focusing on financial management or on credit methodology, other issues like appropriate regulation structure, can be equally important aspects of studying MFIs role in achieving social goals.

The end, or reduction, of aid funding and the concept of sustainability debate has led to the idea of the need for an appropriate governance structure in the microfinance sector. The current growth in interest in microfinance reflects a new conception of financial sector development. While conventional development theory had suggested the transfer of capital to specific economic sectors or projects, the new approach emphasizes the importance of a sound financial system for economic development. It is argued in the new approach that microfinance services can be provided in a sustainable manner if they are efficient. Consequently, building viable and sustainable microfinance institutions is becoming recognized as a major challenge for financial system development.

Liberalisation and deregulation of the financial sector are seen as generally advisable, although there are risks, the existing conditions for financial system development are not sufficient in many developing countries for efficient outcomes and carry risks of volatility. Prudential regulation and supervision are major issues in the reform of the financial sector around the world. Regulatory issues related to the traditional banking sector have been widely discussed, but they are relatively new in the microfinance debate and have only recently become "hot topics". More and more countries across the globe are beginning to think about whether and how to regulate and supervise microfinance. The topic of microfinance regulation and supervision is gaining increasing attention, but the debate lacks clarity as well as practical conclusions. Experimentation with microfinance regulation is so recent that there is little in the way of direct historical precedents to guide the debate. Some idea of the state of discussion as to how to proceed may be gained from Christen, Lyman and Rosenberg (2003).

The starting point of most discussions on the regulation and supervision of financial markets is the justification for intervening in market mechanisms. Aspects such as the asymmetry of information between relevant market actors, issues of moral hazard and other problems render the analysis somewhat complicated.

In financial markets, information asymmetries can result in the exploitation of information advantages by agents to the detriment of principals. *Moral hazard* and *adverse selection* as a result of information asymmetries can undermine the functioning and credibility of the financial system. Regulation is thus defensible and desired to mitigate the potentially negative outcomes of uninhibited market processes. Regulation ensures confidence in deposit safety by setting appropriate requirements and ensuring that institutions are sound, with enough capital and earnings to cover risks and operational costs and enough liquidity to meet client withdrawal demands.

Debate on the sustainability of financial intermediation stems from disagreements on the appropriate role of regulation within a country's financial sector's development strategy. Some have advocated the *promotion* of microfinance through regulation (amongst other channels), notably by lowering entry requirements to encourage new market entrants, hence increasing the supply of microfinance services and the level of competition amongst microfinance operators.

There are, however, disagreements. Efforts to achieve these results via regulation may even lead to opposite results when assorted microfinance operators of dubious quality are granted financial intermediary licences, without the necessary supervisory capacity or sufficient public awareness of inherent risks. There is a widely held view that when the complex administrative structure is expanded beyond the capacity of the regulator, the regulator loses the game. Christen and Rosenberg (2000: 4) are of the view that the most carefully conceived regulations will be useless, or even worse, if they can't be enforced by effective supervision.

The role of the regulator in microfinance development is still an open issue. Some are in favour of a market-directed approach, an open banking system as it were, with the regulator simply setting the framework for the industry, while others advocate a more government-directed stance with an active promotional role for the regulator. Either way there are potential pitfalls for the unwary. Light handed regulation has in the general economic structure proved far from an unmitigated blessing in those cases where it has been applied. It relies on the presence of strong competitive discipline for enforcement through the market. Where this is missing even in a regional or local sense then regulation is required.

Regulation and supervision must also be effective, but there are important issues concerning the timing and phasing of regulation. Microfinance has grown largely outside of a regulatory framework, which many believe is a suitable environment for innovation in new products and methodologies and helps to fine tune methods of service delivery to target markets. There is virtue in waiting to regulate until a sizeable mass of viable microfinance institutions has developed. Premature specialized microfinance regulation may have the counterproductive effect of hampering innovation and diffusion, impeding the learning process of microfinance practitioners and stunting the industry.

The regulation of MFIs may cover registration to act as an MFI, reserve requirements, compliance with prudential accounting norms, and directions in respect of operations and reporting systems, while supervision may comprise on-site and off-site supervision (Task Force on Supportive Policy and Regulatory Framework for Microfinance, India, 1998: 6). All of these fit in with idea of a good governance structure.

The main reason why regulatory authorities are inclined to regulate and supervise microfinance is, as in traditional banking, to protect the deposits of customers and to ensure that reckless lending does not threaten the stability of the wider financial system. This intervention is driven mostly by the notion that regulation and supervision can promote sustainable microfinance.

In the framework of a financial system approach, adequate regulation and supervision of the MFIs increasingly move into the centre of attention to ensure the safety of the poor's deposits as well as the financial sustainability of the MFIs. Regulators must balance the primary objective of depositor protection with national goals of developing the microfinance sector. The objective of depositor protection results in regulatory emphasis on institutional sustainability. This is juxtaposed to the promotion of microfinance, including its mission of development and outreach, the increasing provision of savings for the poor and the specific role of microfinance in poverty alleviation endeavours (for discussion see: Jackson and Islam 2001). The questions stemming from the above are: what are the options for regulation? Can apex financial institutions (AFIs) have an effective role in regulating and/or supervising MFIs in Bangladesh? The purpose of the rest of this paper is to reflect on the potential role for the PKSF, an apex financial institution, to accomplish these objectives in Bangladesh.

Options for Regulation

Designing an appropriate regulatory framework requires consideration of several factors: the financial condition and structure of local microfinance institutions; their roles within the financial services industry and the capacity of the regulating entities to administer external regulation and supervision effectively (Carpenter 1997). The main options for regulation include:

No external regulation: This is the current environment for most MFIs and effectively for the Grameen Bank (GB). The GB, the cradle of microcredit movement, has produced an innovative and strong microcredit industry in Bangladesh.

Self-regulation: This would require individual MFIs to strengthen their institutions and share financial information on a consistent basis. For the MFIs to regulate themselves, requires independent boards, well-formulated and properly implemented internal controls and risk management policies and high quality auditors, who are clearly independent of the board itself.

Part self-regulation and part supervision by a third party: Under this blended approach, the regulating entity could contract with an accounting or consulting firm to conduct routine financial audits of MFIs.

Regulation through the existing legal and regulatory framework: MFIs could apply for a standard banking licence if they met all requirements for a commercial bank, such as Bangladesh Rural Advancement Committee (BRAC) has now done. The central bank currently seems reluctant to issue such banking licences.

Regulation through MFI-specific regulation: Some countries have created a distinct legal status and regulation for non-bank MFIs, such as Bolivia and Peru. In Bangladesh, this approach was used to create the GB charter, but the central bank does not currently plan to use this approach again, the exercise likely being viewed as too costly when compared to generic regulation.

In some countries there is an apex/ second-tier microfinance institution that does wholesale lending to local MFIs. As an investor, such an apex is by its nature a kind of supervisory agency. If it expects to have its loans repaid, it must evaluate and monitor the soundness of the MFIs it lends to. For MFIs that fail to meet its standards, the sanction is denial of loans. Some apexes have been successful at recovering their loans, but the justification for these apexes often also includes an expectation that they will catalyze significant quality improvements in the MFIs they fund. Few have been notably successful at this task. PKSF, the large microfinance apex in Bangladesh, seems to be an exception to the generally disappointing apex experience. The PKSF was established after a critical mass of credit-worthy MFIs had already developed- a situation that prevails in few other countries (Christen and Rosenberg 2000: 21). A clear separation of interests between the wholesaling operation and the retail MFI has to be maintained to avoid the elements of crony capitalism inherent in some other financial institutions.

The donors and developed country-based microfinance administrators are interested in developing central bank-driven systems of regulation and supervision. It is ironic to imagine that central banks struggling to supervise a handful of commercial banks should be expected to supervise hundreds of MFIs. The Bangladesh Bank (BB), the central bank of Bangladesh appears extremely reticent about getting into regulation and supervision of the MFIs.

It is generally agreed that it would not be appropriate or even possible to subject MFIs to full prudential regulation and supervision by the central bank or some other body (see for example, CGAP 1996; Berenbach and Churchill 1997; and McGuire, Conroy and Thapa 1998). The Central Bank in Bangladesh, as well as those in other Asian countries, has neither the resources nor the expertise to supervise MFIs effectively, and ineffective supervision is likely to do more harm than good.

Moreover, it is of great concern that the MFIs, if under government control, would eventually end up like the public banking sector in Bangladesh today. Besides pushing the poor out of the financial programmes, repayment rates of loans could fall, whereas it is nearly 100 per cent now under the present governance system of the MFIs.

Given the inefficiency and corrupt bureaucracy in Bangladesh, (Transparency International ranking Bangladesh consistently the most corrupt country 2001-2004) aligning the governance of MFIs under the principle of corporate governance with this administration would be extremely detrimental, if not suicidal, for the growth of the MFI sector. The seemingly smooth functioning of the MFIs would come to a standstill, and what have been up to now, well performing organizations would cease to continue their innovative programmes to assist the poor in Bangladesh.

It is also argued that outside investors and private ownership will result in improved governance (see for example, Hannig and Braun 1999). Outside investors are expected to insist on higher quality financial statements, transparency and audits so that they can gauge how the MFI is progressing. These factors taken together, it is argued, will result in increased security of deposits in privately owned MFIs.

This is a nice theoretical argument, but practice has shown that external investors are no guarantee that savings will be safe. Indeed, there are too many examples of unscrupulous external investors and private sector owners performing the opposite function and indulging in what might be termed insider lending. Private ownership as a panacea for safeguarding deposits is optimistic and naïve at best and it may well be that it is also simply impossible (Wright 2000: 7).

Regulation through AFIs

Despite Bangladesh being the home of microfinance (more precisely microcredit) movement, a regulatory framework is virtually absent. The small size and large numbers of MFIs in Bangladesh make effective regulation difficult or prohibitively costly and anyway they seldom pose any real risk to the country's financial system. Many observers credit the relaxed attitude of the authorities as a key reason for the unprecedented growth of this industry. The Government of Bangladesh is a significant microfinance benefactor in relation to GB and to the Bangladesh Rural Development Board (BRDB). Furthermore, until the recent growth of BRAC, Proshika, and Association for Social Development (ASA), by far the largest part of the microfinance industry was regulated either under the Grameen Ordinance or under the Co-operatives Act.

To date most initiatives regarding regulation have been taken by donors, arguably with limited ownership on the part of the MFIs or the Government of Bangladesh. The Government of Bangladesh responded to these initiatives with one of its own. In 1999 a task force was created comprised of the leading figures within the MFI community, the Bangladesh Bank, and PKSf, to make recommendations to the government.

During the last couple of years, a number of countries in Asia have established apex or second-tier MFIs. The main functions of these MFIs is to channel funds from the government or donor agencies to individual retail MFIs at concessional interest rates, for on-lending to final borrowers. Such institutions can be a very effective means for governments and donor agencies to channel support to MFIs. AFIs offer a number of advantages over the traditional approach whereby governments and donor agencies have supported individual MFIs on a largely ad hoc basis. Perhaps most importantly, such institutions can also contribute significantly to a more efficient microfinance sector by setting and enforcing appropriate performance and reporting standards.

As MFIs move into extending the savings services, there will be a need, as mentioned, for an appropriate regulatory framework and institutions for monitoring compliance with it. This paper argues that PKSf, the largest and most successful apex/second-tier institution in Asia (McGuire 1998: 17), should be entrusted with the responsibility of supervising the microfinance activities in Bangladesh. Although AFIs are not regulatory agencies and cannot impose any legal obligation on MFIs to meet performance and reporting standards, if they are autonomous and the principal source of funds, there is a strong incentive for MFIs to meet these standards.

AFIs with sufficient outreach might be able to take on the task because there would be economies of scope between prudential regulation and its other functions. PKSf is the largest and most successful AFI in Bangladesh. PKSf has already funded more than 200 microfinance NGOs and is in a strategic position to reinforce the system.

PKSf's role would be:

- overseeing functioning of MFIs,
- undertaking registration,
- evolving proper systems for maintenance of accounts and reporting,
- setting performance standard,
- conducting inspections,
- undertaking training and
- representing MFIs in various fora.

PKSf would also conduct the MFI's credit rating, and recommend suitable NGOs to banks, donors, and government agencies for financial assistance.

Credit and Development Forum (CDF) is the network of microfinance NGOs in Bangladesh and its strength lies in capacity building of the NGOs. The CDF's role may involve enhancing the capability of the MFIs through the implementation of a properly designed training programme. The Association for Development Agencies in Bangladesh (ADAB) can contribute to the process using its strategic importance as a member-based network with leadership in the microfinance NGO sector. Both CDF and ADAB may operate side by side with the PKSf.

The World Bank's loan to PKSf provides for a study to be carried out by the Bangladesh Bank (the central bank of Bangladesh) to formulate a suitable regulatory system for the MFIs in Bangladesh. By virtue of continuing links with the MFI sector, over time AFIs are in a much better position to have an understanding of the particular financial needs of the sector than are organizations with many other concerns and functions. AFIs are in a better position to appraise and monitor financial services and take timely remedial action if need be. It is more efficient for one institution to monitor and evaluate MFIs than for different government and donor agencies to conduct their own analyses. AFIs contribute to the development of indicators and standards of financial performance and to a system of transparent accounting and reporting. Besides assisting the central bank in supervising prudential regulations, AFIs also provide a means for several donors to pool their financial assistance, and to build up the requisite degree of expertise and professionalism, in one organisation.

The essential feature of such an AFI is that it must be autonomous. Only this will enable it to withstand political pressures in lending and recovery decisions, and allow it to build up a professional management and staff. One of the strengths of PKSf in Bangladesh is that it

appears to have been able to operate independently with little or no political interference. All this will help develop a growth-friendly regulatory policy for the MFIs.

PKSF was set up as an AFI in 1990 to assist promising MFIs to expand their microcredit operations. It favours the gradual expansion and capacity building of its partner organizations, prefers no specific models, encourages innovation, and seeks to learn from and diffuse innovations through a programme of research and evaluation. Overall, PKSF's independent and autonomous governance structure and prudent supervision policies have been responsible for its almost 100 percent repayment rate since inception, and for having greatly increased the access to loan funds of well-functioning MFIs and their borrowers.

By all accounts, PKSF has operated very successfully. A World Bank review of 1996 found that its operating policies and procedures were quite satisfactory, with sound and conservative credit approval policies, intensive credit supervision, and comprehensive external audits (McGuire 1998: 17). It should be noted that PKSF only lends to MFIs for on-lending to final borrowers. It does not provide funds, whether in the form of grants or soft loans, for scaling-up operations, institutional development or increasing equity. It does, however, provide training and advisory services, and conducts research.

PKSF is making considerable progress in establishing performance and reporting standards for the MFIs that it lends to. It encourages MFIs to recover at least their recurring administrative and funding costs from interest income. It imposes a minimum lending rate to ensure that MFIs do not lend below commercial bank rates, and to promote cost recovery from operations. It requires all MFIs to have a savings programme for members, and generally requires that these savings be kept in a bank. Only those MFIs with a good track record and high standards of financial accounting are allowed to use savings in credit programmes.

It is important that performance and reporting standards be based on results achieved rather than the model used. There is scope for a diversity of models and institutional forms, including financial intermediaries, social intermediaries and mixed financial/social intermediaries. There is a place for all of these institutional forms, and there should be a level playing field between them. AFIs should not restrict support to any particular model or models of microfinance, as this may inhibit the development of new approaches to microfinance capable of satisfying appropriate financial norms.

Standards may also have a proactive role in facilitating improvement in the performance of the microfinance sector over time. Standards can also be raised over time so that MFIs are gradually forced to improve their performance. It may also be appropriate to impose differential standards depending on the stage of development of the particular MFI, and to provide for progression from one stage to the next. AFIs have an important developmental role in assisting MFIs to improve their performance.

PKSF in Bangladesh is currently a leader in developing performance and reporting standards for MFIs, and in developing techniques for monitoring and supervision. It is likely that many of the standards currently being developed will be useful in other countries as well. In developing standards for MFIs it is also important to look at the work being done on performance standards by international networks and agencies. A general move towards adopting industry best practice methods could then emerge.

In terms of economies of scope and as an alternative to government regulation and supervision, the PKSF may well be the regulator of the hundreds and thousands of MFIs in Bangladesh. Without precluding the relevance of governmental regulation, particularly with a view towards formalisation of the MFIs, the considerable number of small, dispersed microfinance entities of diverse institutional types presents reasonable scope for the PKSF to take a regulatory and supervisory responsibility. Supervision and regulation through the PKSF appears to have reasonable support as a practical method for ensuring the transparency of the management of MFIs as well as promoting MFIs in order to have a significant impact in their goals of poverty alleviation and financial sustainability.

Conclusions, Policy Implications, and Future Research Needed

Complete regulation is not seen as the ultimate destiny of microfinance. Regulation is not the miracle cure for all the ills of MFIs, and indeed, there are innumerable instances, where regulation could not prevent the failure of MFIs. Failure to adequately reach the poorest of the poor as Hulme (2000) and many others have alluded to, cannot be addressed by regulation, safety of their deposits may. Nor can regulation ensure that microfinance is seen as only one component of a poverty alleviation package of policies. The lack of regulation does not address this issue either.

Regulation is one of the things that MFIs can't live with or without, in the sense that without it they are likely to wane in importance as subsidised funds dry up and to the extent that slack or corrupt practice appears. Nor can they necessarily live perfectly with it, in the sense that perfect regulation will always appear and safeguard everyone's savings. Whichever system or combination of systems is used, however, it is clearly time to embrace pragmatism over principle and practice over theory. It is possible to improve the system with some dedicated MFI regulation. This will reduce failure in some respects at least. The alternative models provided by the commercial banks seem inherently unlikely to do better, especially for the rural areas.

To say that savings services that are not backed by proper regulation and supervision are dangerous for the poor and therefore should be discouraged, is like arguing that cars are dangerous and therefore should be banned. We are all willing to take risks when we believe that the potential benefits make the risk-taking worthwhile-this is a decision that the poor need to be allowed to make for themselves. Full information, or more rather than less information, is desirable and consistent with moving the sector towards a more market structure and a less imperfect market at that.

This implies that MFIs seeking to regulate should be encouraged and supported, and the impact of regulation on poor clients closely studied. It will not be wise for the microfinance industry to push regulation too aggressively until it can determine whether and how regulation can be made to serve the interests of the poor, accepting this to be a fundamental goal of the exercise, along with sustainability.

This paper on regulation and supervision of MFIs through AFIs attempts to contribute substantially to the consultative process of user-friendly regulatory policy making, ensuring financial sustainability of the MFIs as well as increasing the impact on poverty alleviation. As has been shown in the paper, microfinance has some peculiarities, therefore, there is much room for more specific research to be conducted in order to understand the strengths and weaknesses of different types of regulation to ensure that the poor are not once again

marginalised with respect to financial services and that MFIs also do not remain dependent on donor funding for an infinitely for sustainability. Appropriate regulation may give confidence to investors producing sustainability and regulation of loan appraisal could assist in reducing the monitoring and transaction costs and extend the amount of loans to the truly poor, thus achieving both bottom line targets.

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The Sustainable Edge: Indigenous Livelihoods, Resilience and Created Fragility in Navosa

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How is resilience affected by development in livelihood systems? This is a vital question in development practice, and should be the first question asked during planning, but all too often resilience has been considered in a post hoc fashion, rather than 'leading the project cart.' Often, local vulnerabilities, if they are noticed at all, are not recognised until too late. The question was not even considered in the post-war years of development and modernisation when the belief in the universal good of economic progress was ubiquitous. Today, after the advent of underdevelopment theories, post-structural critique, sustainable development and participatory approaches, livelihood systems theory, and perhaps more educated and empowered local communities, ignorance cannot be excused. This paper reflects on a case where resilience is being degraded, but also attempts to address the broader question: how is rural development related to resilience?

The case study that is the basis of this paper was the author's PhD research in the Navosa region of the central Viti Levu (Fiji) hill (*colo*) country (King, 2004). That research, conducted with a focus on participation and using an eclectic application of cultural and political ecology, studied the history of land use and sustainability in Navosa. An attempt was made to dissolve the link between the research enterprise and European imperialism or colonialism (Smith, 1999, p. 1), and increase the interaction with indigenous participants such that they substantially influenced the direction of research. The visually-oriented techniques of Participatory Rural Appraisal (PRA) were especially helpful here (Chambers, 1997, pp. 102-129).

Navosa, although on the border of the Qalilevu rainforest plateau, has a hilly, savanna-like landscape with a pronounced dry season, and has been occupied for thousands of years by indigenous communities with a history of adaptive people-environment relationships, which nevertheless have changed over time. It is experiencing a resurgence of population after a catastrophic late 19th century period of disease, war and depopulation largely caused by epidemics introduced through European contact.

Development has impacted on Navosa in a variety of ways, although this may not be readily apparent to the visitor. Colonial domination (through an alliance of British and Eastern Fijian forces) after the 1876 war brought several changes. Villages were re-settled away from hill strongholds and their associated *dalo* (irrigated terraces), down to riverside (and more flood-prone) locations where government control could be more effectual and markets were closer.

However, perhaps of greater impact has been the introduction of foreign vegetation, and in particular, *Pennisetum polystachyon* or mission grass, locally named *laulau ni manivosi* or *mauniba*. Along with many other species (some beneficial, some destructive), this introduction was part of a process described as ecological imperialism (Crosby, 1986) following the intentional domestication of plants and animals that were familiar to the colonisers. The initial colonisers were the Austronesian-speaking Lapita people who introduced their favourite plants and animals, but the impact of invasive species was much more severe under British colonialism.

Pennisetum polystachyon (hereafter called *mauniba*) was introduced in 1920 from the USA as a grazing grass. It has to be assumed that little was known of its characteristics, because, apart from its use as browsing for goats in some dryland environments, it is a poor pasture species despite being highly vigorous and ecologically dominant in Navosa-like hill-savanna environments. It is now listed as a weed in many tropical areas where it was introduced (for example, tropical Australia: Humphries, Groves & Mitchell, 1991, p. 93). It achieves ecological dominance in partnership with fire, for which it is both adapted and facilitating, resulting in a pyric disclimax vegetation type that under Navosa climatic conditions leads to erosion and land degradation.

The Burns Report (Burns, Watson and Peacock, 1960) commissioned by the colonial government promoted Navosa as rangeland, and encouraged the spread of *mauniba*, despite evidence that indigenous farmer-advisors reporting to the Commission expressed opposition to this strategy, and were very concerned about the increasing prevalence of fire facilitated by *mauniba*. It is apparent from the report that a paternal, top-down and dismissive attitude to the views of local participants was taken by the Commission: who wished to reproduce a style of agricultural development in Fiji that would satisfy colonial desires using their non-local, temperate-climate base of knowledge.

The postcolonial period has also been characterised by imperialist attitudes, thus suggesting that postcolonial Fiji is neocolonial. The increased penetration of the money economy into a traditional communal economy has continued. There has been a general continuation of colonial agricultural strategies, despite a turn to support some indigenous commercial strategies, such as *dalo* and *yaqona* production. Government policy promotes commercial farming and *Pinus caribaea* forestry, including pastoral farming, and modern techniques. Other aspects of modernization also contribute to a situation of development change based on economic growth in circumstances characterised by steadily increasing populations of both people and grazing animals.

The logging of indigenous forest has been intense during the postcolonial era, for example, clear-felling on the Nanoko heights starting in the 1970s destroyed many environmental niches where valuable *yaqona* and *dalo* could be grown. Because the area was not reafforested, the area is largely unproductive today. The effects of logging continue today, but destruction may now effect the cultural system more than the environment, because logging often (perhaps usually) results in increased social conflict within and between local groups despite improved selective logging practices.

There are other degrading or potentially degrading interventions, for example, the spread of *vaivai ni mocemoce* (the *Samanea saman* tree), which invades and replaces native forest in steep dryland gullies resulting in increased erosion. All of these changes are contributing to increased land degradation, as follows. There is frequent and excessive burning of the landscape, exacerbated by the dominant fire-prone *mauniba* sward, which is reducing biodiversity, fertility, and the resilience of the land. Excessive logging destroys native forest and damages waterways, freshwater fisheries, social cohesion and community leadership. These processes increase soil erosion (especially sheet erosion on slopes), which in turn further reduces resilience. This is especially apparent during the transition period from the dry to wet seasons when denuded land is prone to sheetwash. The combined result is reduced resilience, greater fragility, and less sustainable livelihoods.

This process has been occurring despite a history of sound indigenous land management and sustainable livelihoods. The indigenous food crop plants, some of which were probably introduced with the earliest settlers thousands of years ago, are root crops and well adapted to the environmental conditions. The two most important traditional crops are the tropical yam (*uvi* and *vitua*, mainly *Dioscorea sp.*), and *dalo* (*doxo*, *doko*, *taro*, *Colocasia esculenta*), but today, the most important root crop in Navosa is *tavioka* (*Manihot esculenta*, cassava). All of these crops are termed *kakana* which means 'true food' (Pollock, 1992). Their cultural value must be partly attributed to their ability to resist natural disasters, especially cyclone shock and drought stress. The latter was largely overcome for moisture-loving *dalo* by the development of intensively-managed irrigated terraces (*dalo*) alongside waterways and on the hillsides of Navosa. All of these systems have a high energy efficiency and yield (Bayliss-Smith, 1982), and can be improved to match changed conditions. For example, one extant *dalo* was supplied with irrigation water through a flexible polythene pipe, which in Navosa is novel. This method of water transport overcomes damage to traditional canals and aqueducts resulting from animal trampling and cyclones.

In addition the indigenous food system incorporates a relatively high degree of polycultural management. This includes traditional agroforestry, or agroarboriculture, where both plant and tree crops are interplanted in diverse and complex ways. These systems, still prevalent in the hills of Navosa, exhibit a high degree of biodiversity and resilience which support local livelihoods during environmental stress or shock.

It is possible to make many comparisons between the aforementioned traditional system and non-indigenous alternatives, but the circumstances surrounding the growing of rice in the coastal lowland sugar belt of Viti Levu during the El Niño drought year of 1998 were germane. Rice is grown as a subsistence crop by commercial sugar cane farmers during the normally wet summer season. However, in 1997-1998, a summer drought caused a widespread rice crop failure. The sugar cane crop was also badly affected, with the result that food aid was distributed by the Fijian government to sugar farmers during the dry season of 1998. However, in comparison with the sugar belt, the situation in Navosa was quite different. Although there was some concern about reduced production, especially for rainfed *dalo* and *yaqona* which were suffering drought stress in the most arid locations, there was no shortage of *kakana* (or other food except certain green vegetables) in Navosa, which suggests that resilience was much greater in Navosa compared to the sugar belt.

Sugar production, apart from the aforementioned rice (and houseyard gardens) is practised as an industrialised monoculture by smallholders, and was encouraged and developed under colonialism to be independent of customary Fijian agriculture. The system is normally high-yielding but is dependent upon externally supplied inputs (fertiliser, agrichemicals) and external markets. It was abundantly apparent, at least in drought years, that crop resilience was lacking compared to traditional Fijian polyculture.

Despite the advantages of traditional crops, the Fijian government still practises a policy of encouraging relatively fragile and less resilient alternatives in its agricultural development policy, thus exhibiting a tendency to develop a capitalist mode of production over a feudal model (Naidu, 1991, pp. 12-15), often in ways that are too ambitious. For example, rather than supporting the traditional gravity-feed system of irrigation used in Navosa and elsewhere, large and costly diesel-powered pumps are being used for the irrigation of vegetable crops in the lower and middle Sigatoka Valley, despite slow adoption rates and a tendency to undermine traditional social equity. The energy efficiency of these alternatives is less than indigenous crops, and they are more dependent on the supply of inputs that are produced externally from oil and natural gas, which are becoming increasingly scarce commodities (Campbell and Laherrère, 1998). In view of the risks associated with external supply, the strategy of increased dependence on externally-produced resources seems increasingly unwise, especially when the offshore market is unstable.

In conclusion, this case study has implications for sustainable development. The current model of sustainable development (e.g., WCED, 1987) tends to be future-focussed and optimistic, in this way similar to evolutionary-based modernisation theories (Naidu, 2003), but the lessons of the past must be heeded as far as resilience is concerned. The value of sustainable indigenous livelihood strategies should be respected, and the less-sustainable substitutes which are often incorporated in modernisation projects should be questioned. A resilient and sustainable strategy of agricultural development can 'progress with the past' (Clarke, 1978) by improving traditional methods, rather than substituting them with energy-dependent and less resilient alternatives.

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An Evaluation of Microcredit as a Strategy to Reduce Poverty: A Case Study of Three Microcredit Programs in Bangladesh

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Introduction

Microcredit (MC) programs, mostly operated by non-government organisations in developing countries, advance small loans of from \$50 to \$100 to poor people to enable them to generate extra income through self-employment in small business activities. The target clients for microcredit programs in Bangladesh are functionally landless rural poor people, usually defined as those with a land-holding of less than half an acre, or those with assets that are less than the value of an acre of medium quality land, or those who are engaged in wage labour for their livelihood. Microcredit programs are seen by many as an effective tool for increasing the income of the poor and the landless and hence reducing poverty (Khandker 1998; Morduch and Haley 2002; Nojonen 2003; Remenyi and Quinones, 2000; UNICEF 1997; World Bank 1994; Wright 2000; Zaman 2000). However others, like Dawson (1997), argue that credit does not necessarily help the poor to accumulate assets, improve productivity and escape out of poverty, while Hulme (1999:1) concludes that: 'microfinance programs and institutions are increasingly important in development strategies but knowledge about their impacts is partial and contested'. Similarly, Simanowitz (2003:1) writes that: 'The nature and extent of the impact of microfinance, particularly on poverty incidence, and the nature of the economic and social outcomes that microfinance is expected to have – particularly the impact on poverty – continues to promote lively debate'. There is therefore a need to continue to evaluate microcredit programs to see how far they help to reduce poverty. This paper reports on an intensive quantitative and qualitative study of microcredit programs in a village in Bangladesh.

Methodology

A village in the Comilla district of Bangladesh was selected where the microcredit programs of three organisations – Grameen Bank, the Bangladesh Rural Advancement Committee (BRAC) and the Association for Social Advancement (ASA) – had been operating for at least 6 years. Basic socio-economic data was collected from all 873 households in the village, and was used to calculate a composite household poverty index based on seven variables – education, income, occupation, food intake, land ownership, type of house, and type of toilet. For the variables education, occupation, food intake, type of house and type of toilet a score of one to five was assigned, and for the variables income and occupation a score of one to six was assigned. The score was then standardised and households were divided into five categories – extreme poor, moderate poor, vulnerable non-poor, non-poor and rich – based on the scores obtained. These categories were defined through focus group discussions with villagers in the study village and verified through focus group discussion with some of the researchers¹ working in poverty alleviation programs in the district. For the purpose of some of the analysis the extreme poor and moderate poor categories can be grouped as poor and the remaining three categories – vulnerable non-poor, non-poor and rich – can be grouped as non-poor. These categories were used to assess the impact of microcredit on poverty. In addition a random sample of 127 microcredit clients, covering the three programs, was selected for more intensive interviewing about their experience of microcredit and its impact on their income and welfare. A further random sample of 50 households who were not microcredit clients, but had the same range of socio-economic conditions as the client households, was drawn as a control group for the analysis of the impact of microcredit on the client households.

Does Microcredit Reach the Poor?

The main target group of the microcredit organisations is the landless poor. The poverty index was used to evaluate the extent to which microcredit programs reached the poorest households. In the study village, nearly one third of the poor households were covered by the microcredit program. Microcredit did not reach the remaining two thirds of these households, and in particular did not reach to the bottom layer of extreme poor households. On the other hand, a significant amount of microcredit was provided to non-poor households, and these non-target households accounted for about 24.1 per cent of microcredit clients. The main reason for providing microcredit to these households was that this assisted the program staff to achieve their target of disbursement of credit, and to ensure repayment of the loan.

How is Microcredit Used by the Clients?

Most of the loans were used to generate income, with about 56 per cent being used in the agricultural sector and 30.8 per cent in the non-agricultural sector. The remaining 13.2 per cent of the loans were used to fulfill basic needs and repayment of credit taken from other sources. In rural areas both men and women have very limited scope to be involved in income generating activities outside agriculture, because of their low level of formal education and skills, and so credit was utilized in the sector where people already had some skills. However, the microcredit organisations did not provide any skills training in these activities for their clients.

Who Uses the Credit?

In the study village all of the microcredit clients were women. However, the credit they were advanced was mainly utilized by the male members of the household. The reason behind this is that in rural Bangladesh women have very limited scope to be directly involved with income generating activities which are operated outside their bari, or family complex, mainly because of cultural restrictions. As most income generating activities are conducted outside the bari, they involve men. The female clients themselves utilized only 4.7 per cent of the loans. These clients were mostly widows and had no other adult male family members to handle the loan. Some 9.4 per cent of women utilized their loan jointly with male members of the family, while 48.8 per cent of loans were utilized by males alone. The reason why all the MC clients were women, despite the patriarchal character of rural Bangladesh society, is that it appears to be easier to recover loans from women than from men. In rural areas women's activity is largely limited to within their bari, their family complex, so their movement is also very limited. They can't hide themselves or avoid their peers or the loan officer during their weekly meetings. Furthermore, when women are the defaulters on loans they face severe pressure, including abuse from the peer members and also from the credit officers. In the study village one of the MC clients left the village with her entire family in the dark of night after failing to

* I am very grateful to Dr. Alaric Maude, Associate Professor, School of Geography, Population and Environmental Management for his valuable comments on my draft paper.

¹ Researchers working in the Bangladesh Academy for Rural Development (BARD) in Comilla.

repay a loan, in order to escape this social pressure. On the other hand, if men are the defaulters on the loan, they can easily hide or avoid their peers or the loan officer because of their wider movement outside the bari. In the early stages of the MC program the percentage of men borrowers was higher than women, and it was reported that when men were the borrowers, they did not attend the meetings regularly. In case of default they argued with the loan officer, became arrogant, even threatened the officer and it was more difficult to recover loans from them. During qualitative data collection some of the credit officers who previously worked with an MC organisation agreed with this view and said that it is easier to handle and recover loans from women than men. Some credit officers now working in an MC organisation also supported this view privately, but were unwilling to say so publicly. Selecting women as the clients has helped to ensure a more than 95 per cent recovery of loans.

Does Microcredit Improve the Welfare of Clients?

The effect of microcredit on household welfare was evaluated by comparing change in a number of indicators of welfare in MC households with households in the control group (Table 1). As the socio-economic condition of most households in the study village improved over the period of three to five years before the survey, the absolute rate of improvement cannot be attributed solely to microcredit, but is the result of a number of factors. However, as households in the control group were selected as having the same range of socio-economic conditions as the MC group, it is assumed that any difference between the control group and the MC group in the rate of improvement is likely to be the result of microcredit. Extensive qualitative information obtained from interviews with MC clients, not reported in this paper, supports this assumption by showing in some detail the ways in which microcredit improved the welfare of MC clients. The level of each indicator, such as food consumption, at the time of the survey is also compared between MC clients and the control group, to determine if the client group has achieved a higher level of welfare than the control group. However, in the absence of accurate data for these indicators for the past, which would show whether the two groups were identical (and not just similar) before the MC programs commenced in the study village, this type of measure is less satisfactory as a test of the comparative effects of microcredit and its absence. On the other hand, it does provide a measure of the extent to which MC households had gained a level of income and welfare above the poverty line.

Table 1: Comparison of Socio-Economic Indicators of Microcredit Borrowers and Non-borrowers (control group)

Socio-economic Indicators	Percentage of MC borrowers			Percentage of Non-borrowers (control group)		
	1	2	3	1	2	3
Income	81.9	15.7	2.4	68.0	26.0	6.0
Food intake	66.6	31.5	2.4	60.0	26.0	14.0
Clothing purchase	59.1	37.0	3.9	58.0	28.0	14.0
Housing condition	55.1	44.1	0.8	62.0	38.0	0.0
Furniture owned	55.9	43.3	0.8	52.0	48.0	0.0
Electrical/ Electronic items owned	22.8	77.2	0.0	30.0	70.0	0.0
Tube-well owned	28.3	71.7	0.0	22.0	78.0	0.0
Toilet condition	40.9	59.1	0.0	20.0	80.0	0.0
Ownership of assets	42.5	52.8	4.7	38.0	58.0	4.0
Social status	38.6	59.1	2.4	32.0	66.0	2.0
Voting in election	34.6	65.4	0.0	34.0	66.0	0.0
Ability to cope with vulnerability	40.2	57.5	2.4	36.0	60.0	4.0
Dowry expenditure	85.8	12.6	1.6	86.0	12.0	2.0

Key:

- 1: Increased/Improved
- 2: No Change
- 3: Decreased/Deteriorated

Income

While it is widely accepted that poverty is a multi-dimensional concept, per capita income is an important single indicator of the standard of living. Income influences items such as food consumption, purchase of clothing, access to health and education, the standard of housing and social status. As shown in Table 1, significantly more microcredit clients experienced an increase in income after joining the program than the control group, demonstrating that microcredit intervention has helped to reduce income poverty. However, a significant proportion of microcredit clients still remained in poverty.

Food

Food is a basic human need, and lack of access to food is an important indicator of poverty. In Bangladesh meat is costlier than cereals, fruit and vegetables. Most poor people cannot afford meat, so lack of access to meat is an indicator of poverty. A number of questions were asked of the MC client group about food consumption before and after they joined a microcredit program, and most of these questions were also asked of the control group. The results show that at the time of the survey the client group had a slightly better food intake and higher expenditure on food than the control group. For example, 66.6 per cent of the MC client group reported an increase in food intake, compared with 60.0 per cent of the control group. Similarly, the percentage of families that could have three meals a day increased from 80.3 per cent to 89.8 per cent in the client group, but remained unchanged at 84.0 per cent in the control group. Qualitative data also indicates that involvement of borrowers with microcredit program stabilised their food consumption and improved their intake of nutritious food. This reveals that microcredit has had a positive impact on the food consumption of the MC clients.

Clothing

Clothing is another important basic need. Not having two sets of clothing for everyday use and a set of winter clothing is an indicator of poverty in rural Bangladesh. For a woman to have an additional shari and winter clothing for festivals or to visit relatives' houses is an indicator of a better life, but many women cannot afford these items. In response to the question of change in amount of clothing after joining the program, 59.1 per cent of microcredit clients reported that their supply of clothing had increased, while in the case of the control group 58.0 per cent reported an increase.

Furniture

A rural household usually possesses a very limited amount of furniture, such as choki, khat, alna, almirah, chairs, tables and showcases. Nowadays, when people have some surplus income they want to buy furniture to improve their living condition. Buying basic furniture is not a luxury but a necessity of life. In response to the question of whether their ownership of furniture changed after joining the microcredit program, nearly 56 per cent of microcredit clients said that their ownership of furniture had increased after joining, while in the case of the control group it was 52 per cent. At the same time, 2.4 per cent of microcredit clients had no furniture at all. They usually slept on the floor, which is made of earth, by spreading a mat. This means that these people do have not enough income to buy the very basic necessities of life.

Electrical/Electronic Items

Some rural households in Bangladesh possess electrical/electronic items like watches, irons, radios, cassette players and television sets, and a very few households own a refrigerator. The ownership of an electrical or electronic item is positively correlated with the income of the household, but does not appear to be related to participation in a MC program, as more of the households in the control group reported that their ownership of electrical/electronic items had increased compared to the MC households. A possible explanation arising from the interviews, but one needing further analysis, is that MC clients were more likely than the control group to invest extra income in their income generating activities, rather than in consumption.

Medical facilities

Microcredit clients had more access to treatment during illness than the control group. In response to the question of whether they can afford doctors and medicines during illness, 65.4 per cent of the microcredit clients and 58 per cent of the control group said 'yes'. The main reason for not being able to afford doctors during illness was lack of money, which indicates that 34.6 per cent of the microcredit clients and 42 per cent of the control group didn't have sufficient income to afford treatment during illness. Qualitative data indicates that in the case of the microcredit clients their access to medical facilities had improved due to their increased income from involvement in the microcredit program. Moreover, their awareness of health and nutrition had also improved as a result of their training by the microcredit organisation.

Toilet facilities

Microcredit client households used hygienic toilets more than the control group. In the case of microcredit clients the access to hygienic toilets more than doubled after joining the microcredit program, as shown in Table 1. The main reason for this high rate of increase is the supply of ring toilets at a concession rate by the microcredit organizations, NGOs, and the government public health department. They encourage people to use ring toilets to avoid diseases like dysentery, diarrhoea and other water transmitted diseases, which are very common in Bangladesh.

Drinking Water

Microcredit client households had slightly more access to their own tube-wells than the control group, and their ownership of a tube-well had increased slightly more than for the control group, although in both cases ownership had increased significantly. As most people in rural areas use tube-well water for drinking purposes, the recent problem of arsenic contamination of ground water in Bangladesh poses a threat to the availability of safe drinking water.

Savings

Saving is a compulsory component of the microcredit program, so all MC clients have savings with their MC organisation. Besides these savings, 22 per cent of the MC clients had other types of savings, such as in a bank, a cooperative, cash at home or an insurance policy. These savings helped MC clients to cope with day to day crises. In contrast, only 28 per cent of households in the control group had savings. Qualitative data indicates that savings had increased for almost all of the microcredit borrowers since joining the program, because borrowers have to deposit compulsory weekly savings. In addition Grameen Bank borrowers also have a pension deposit scheme.

Total Value of the Household Assets

In the case of the microcredit clients, household assets increased after joining the program. Before joining the program 33.8 per cent of the microcredit clients had assets of more than Taka 200,000, valued at prices at the time of the survey, and this proportion increased to 38.6 per cent at the time of the survey. In the control group the proportion stayed the same.

The results discussed above demonstrate that households in a microcredit program in the study village had experienced a faster rate of improvement in a number of indicators of income and welfare, although not all, than non-microcredit households (the control group), showing that microcredit can achieve modest but widespread gains in standards of living. Yet about two thirds of the extreme poor and moderate poor households were not in a microcredit program, and nearly 62 per cent of the landless people in the study village, who are the target clients for microcredit programs in Bangladesh, were not in a program. In addition, nearly half of all households in a microcredit program remained below the poverty line of Taka 606. The next sections explore the reasons for this failure to reach the poorest and to remove poverty.

Why Microcredit Does Not Reach Many of the Poor?

One set of reasons for the failure to reach the poorest households relates to the system of loan recovery. Due to pressure from the higher authority of the microcredit (MC) organisation for 100 per cent recovery of loans, the field staff (Credit Officer or Branch Manager) usually do not want to risk default by choosing clients from the very bottom layer of the poverty profile. It is the obligation of the field staff to choose clients who can ensure loan repayment on time. Moreover, the recovery system of MC is quite rigorous. For example, in the case of BRAC if a client is unable to pay an instalment in the weekly meeting often she had to face harsh treatment from her peer members and from the Credit Officer. In the afternoon usually the Credit Officer, in a group of 3 to 4 people, will visit her house to exert pressure and to negotiate with her for loan recovery. In the study village the Credit Officers also included some of the non-poor households as their clients, and used the influence of those households to recover loans. Most of the centres of the MC organisations are also located in the premises of non-poor households. Due to the hierarchical structure of the society many people listen to these influential persons and take their advice in times of crisis and necessity. There are reported cases of selling of utensils or other household goods to pay installments due to pressure from the peer members and the credit officer. Sometimes the MC organisation lodges a criminal case in the police station against the clients to recover a loan. This sort of activity ruins the prestige of the clients in their own community.

Due to this rigorous loan recovery system many households at the bottom layer of the poverty profile are afraid to take a loan from the MC organisations. During the qualitative study many households even said that it's better to strive to death than to borrow from an MC organisation, because you have to pay instalments even on the day when someone is dead in your house. They claimed that the organisations do not want to listen to even very genuine problems. Moreover, people at the very bottom find themselves powerless and voiceless in the society, and they think that involvement with these organisations will only make their lives more vulnerable.

On the other hand MC organisations regarded these households as self excluded – as not interested in participating in the MC program – and did not attempt to understand why they rejected microcredit. However, the initiator of microcredit and the founder of the Grameen Bank, Professor Yunus, believes that the poor are credit worthy, and that MC organisations should change their attitude to the selection of clients and the recovery of loans. The Grameen Bank has already initiated some changes in the Grameen Bank II model through rescheduling loans for those who are unable to pay on time, and very recently initiated very small loans for beggars. However, the attitude of the field staff towards clients who are unable to repay has not changed much. In this situation MC organisations can change their repressive systems of loan recovery. This would encourage households in the very bottom layer of the poverty profile to participate in the MC program. Another issue for poor households is the very small grace period for repayment. Usually payment of installments starts one week immediately after taking a loan, yet in most cases it takes a few weeks to get a return from the loan initiated activity. So households with no other income source to repay installments are again reluctant to take the risk of participating in the MC program.

Many households in the bottom layer of the poverty profile also do not participate in the MC program due to lack of suitable income generating skills, and those who do participate also cannot get full benefit also because of lack of proper skills. Although some of the MC organisations claim that they provide training to their clients, this only involves a knowledge of the rules and regulations regarding the loan and its repayment. It does not include training in skills which could contribute to the success of income generation activities of the clients. Microcredit could better help poor people by integrating suitable skills training with the loan component.

Why hasn't Microcredit lifted all Clients above the Poverty Line?

By participating in the MC program some households have been able to improve their socio-economic condition, while others have not, and in some cases their income has deteriorated. Credit has different impacts on different households. The socio-economic condition of a household before joining a microcredit program plays an important role in determining the extent to which microcredit can assist that household. From the qualitative study it was observed that households who already had some physical assets (land, pond, livestock, agricultural equipment, rickshaw), or human assets (education, training, skills, leadership quality, good health), or social assets (wealthy relatives, friends), and/or regular source of income (job, self-employment, wage employment) were more likely to utilize their credit for income generating activities and hence increase their income compared to very poor households. The reason for this is that repayment of installment of loan starts immediately after taking the credit, yet in most cases it takes time to get a return from the loan initiated activities. For example, when a loan is used to buy a cow it takes time to produce a calf and provide milk. Moreover, working capital is also necessary to rear the cow. Before income is generated from selling milk usually the repayment of installments is from other sources of income. The same is the case with investment of a loan in leasing land and growing crops, or leasing a pond and cultivating fish. It was again observed from the qualitative study that in most cases repayment of installments was from other sources of income or from the loan itself when a part of the loan was kept aside for repayment. The destitute and the extreme poor have no regular source of income or some other source from where they can pay installment, which discourages them from joining a program or forces them to drop out from the program.

It was observed that households who had some productive assets, particularly cultivable land, before joining the program did better than others. The reason was that they could grow some crops, particularly rice, to feed themselves and did not need to spend their cash income to buy rice, which is the main staple food. Credit was utilized for buying inputs for production of crops or leasing land to grow more crops. From the cash income they could pay the loan installments. In rural Bangladesh there is a proverb "if you have rice at home you don't have any anxiety". So when some household can grow crops for their own consumption they feel safe against external shocks such as a rise of price of rice.

Households with young energetic adults who were motivated to improve their living standard also did well by joining in the MC program. In rural areas most of the labouring jobs are heavy manual work. For example, rickshaw pulling and labouring in agriculture are all hard manual jobs. Microcredit helped these households to start an income generating activity and create new job opportunities, or fulltime employment for those who were under employed. Some households had unemployed adults, and microcredit helped to involve them in some income-generating activities which improved the economic condition of the household. For example most of the agricultural labourers, masons, carpenters and rickshaw pullers had no regular employment. With the help of loans these households created some additional income generating activities such as small business, leasing land for growing crops, and cow rearing to engage themselves when they had no work or before or after going to work.

Based on initial human asset condition the impact of microcredit may also differ between households. For example, some people have skills in making furniture. Before joining the program, these people worked as casual waged carpenters. After taking credit they utilized their credit to start their own furniture business.

From the qualitative study it was found that households where both male and female members engaged in income generating activities had larger increases in household income than those households where only male members were the income earners. It was also found that households where there was more than one income earner had a higher income than when there was only one income earner in the household.

Social assets also determine the impact of the microcredit program. Households who have educated, wealthy and elite relatives and friends have a stronger social network and can take more risk in the investment of their loans, which may bring more returns. In case of necessity they can also borrow from their network to repay the loan instalments, and the survey found several clients borrowed money from relatively wealthy relatives to repay loan instalments. For example, one of the clients started a small shop with the help of microcredit, but had a relative with a big grocery shop in Comilla town from where he could obtain goods on credit for his small shop in the village.

Households who used their loan for income generating activities, instead of using it to fulfil household consumption needs, did well after taking a loan from a microcredit organisation. As the investment of money in income generating activities in most cases created an income, this income in turn could be invested in education, health, housing and sanitation which improved living conditions.

On the other hand, some of the borrowers were not able to improve their economic condition after joining in the MC program. It was observed from the qualitative study that households who were extremely poor and lacked both human and capital resources, particularly land, were not able to make much progress by taking loans from MC organisations, because they were not able to utilise their loan for income generating activities. They had to spend most of their income to buy food items and pay loan instalments. It was observed from the qualitative study that after taking loans some of the households were forced to reduce their consumption or pass the day without food in order to pay the instalments. Household who spend most of their loan to fulfil the basic needs of the family, particularly buying foods or treatment of illness or to pay previous debts, were not able to improve their economic situation after joining in the MC program, again because they were not able to utilise their loan for income generating activities. The microcredit program is not a safety net, rather it is a program for poverty alleviation through self-employment and income generation. Similarly, households who spent the loans on social activities or festivals such as the marriage of children, including dowry and religious festivals (*puja, eid*) were not able to improve their economic condition. Furthermore, the returns from most of the MC initiated income generating activities were small due to the small size of the loans and the low productivity of traditional economic activities. For that reason, even after taking three to six loans many borrowers were not able to significantly improve their economic condition. Consequently many MC borrowers remained below the poverty line, and for the reasons discussed above it unrealistic to expect that microcredit alone will be able to eliminate poverty in rural Bangladesh.

Conclusion

The study finds that households involved in a microcredit program experienced a higher rate of improvement in their poverty status and standard of living over the three or four years since they joined a program, when compared over the same period of time with a control group of non-microcredit but otherwise similar households from the same village. However, microcredit has failed to reach the bottom layer of the extreme poor, mainly because the system of client selection discriminates against them, and the system of loan recovery discourages them from participating. Microcredit has also failed to lift all its clients above the poverty line. For both reasons it is only a partial answer to the problem of poverty, and the findings of the study support the view of those who argue that microcredit does not necessarily help the poorest of the poor. Suggestions to increase the impact of microcredit on poverty include changing the targets of MC officers to encourage them to lend to poorer clients, changing the process of loan recovery to encourage more poor households to participate in microcredit, increasing the flexibility of both the amount of the loan and the time of repayment to encourage the most productive use of loans, and providing training to enable clients to make more successful use of their loans.

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