

## Working Paper 131

ALI ZULFIQAR, MUSTAFA K. MUJERI, AND AHMED BADRUN NESSA

### Extreme Poverty and Marginality in Bangladesh: Review of Extreme Poverty Focused Innovative Programmes



ZEF Working Paper Series, ISSN 1864-6638  
Department of Political and Cultural Change  
Center for Development Research, University of Bonn  
Editors: Joachim von Braun, Manfred Denich, Solvay Gerke and Anna-Katharina Hornidge

#### Author's address

Dr. S. M. Zulfiqar Ali  
Senior Research Fellow  
Bangladesh Institute of Development Studies (BIDS)  
E-17 Agargaon, Dhaka-1207  
Bangladesh  
Tel. +880-2-9138662, Fax +880-2-8113023  
E-mail: [zulfiqar@bids.org.bd](mailto:zulfiqar@bids.org.bd)  
[www.bids.org.bd](http://www.bids.org.bd)

# **Extreme Poverty and Marginality in Bangladesh: Review of Extreme Poverty Focused Innovative Programmes**

Ali Zulfiqar, Mustafa K. Mujeri, and Ahmed Badrun Nessa

<b>ABSTRACT</b>	<b>IV</b>
<b>1 INTRODUCTION</b>	<b>1</b>
Income Poverty Reduction	1
Need to Have Extreme Poverty Focused Innovative Programmes	2
<b>2 BRAC ULTRA POOR PROGRAMME</b>	<b>3</b>
<b>3 URBAN PARTNERSHIPS FOR POVERTY REDUCTION (UPPR)</b>	<b>4</b>
<b>4 CHARS LIVELIHOODS PROGRAMME</b>	<b>5</b>
<b>5 STIMULATING HOUSEHOLD IMPROVEMENTS RESULTING IN ECONOMIC EMPOWERMENT (SHIREE)</b>	<b>6</b>
Disaggregated Fund in Different Projects (DFID)	7
<b>6 AN EXAMPLE OF AN INNOVATIVE PROJECT: LIVELIHOOD PRACTICE THROUGH SANDBAR CROPPING - A PRACTICAL ACTION PROJECT</b>	<b>9</b>
<b>7 SUMMARY AND CONCLUSION</b>	<b>10</b>
<b>8 REFERENCES</b>	<b>15</b>

## **Abstract**

Bangladesh has achieved notable progress in poverty reduction including reduction in extreme poverty since 1990. Still a good proportion of the people in the country are living in extreme poverty and suffering from various kinds of deprivation and marginalization. It is therefore important to look into the factors that are responsible for deprivation and marginalization and address them appropriately in order to help the extreme poor and the marginalized communities to overcome poverty. The majority of the anti-poverty programmes being implemented in the country suffer from a number of limitations, especially, with respect to addressing the needs and demands of the extreme poor groups and the marginalized communities. Given this context, it is critically important to have dedicated and innovative programmes to cater the needs of the extreme and marginalized people living in different areas in the country. Some innovations have already begun in respect of addressing extreme poverty and marginality in the country. This review of some of these programmes reveals that they have been successful in reaching and meeting the needs of the extreme poor households. However, given the fact that there are still a large number of extreme poor households who need support of this kind, efforts should be intensified to reach them and to bring them out of extreme poverty within the shortest possible time.

Keywords: Extreme Poverty, Marginality and Innovative Program.

JEL classification: I3 Welfare, Well-Being and Poverty

I30, I31, I38

# 1 Introduction

The extreme poor experience poverty in its multiple deprivations manifested in having little or no income or employment, little or no education, poor housing, ill health, malnutrition, social marginalization, and lack of voice and power. These poor groups subsist at the bottom of the social pyramid and are defined and characterized using terminologies such as ‘extreme poor’, ‘hardcore poor’, ‘ultra poor’, ‘severe poor’, ‘chronically poor’, ‘poorest of the poor’, ‘chronically severe poor’, and ‘marginalized chronically poor’. Although there are some common elements among these terminologies, their characterization may differ depending on specific contexts. For example, the Bangladesh Bureau of Statistics (BBS) characterizes the ‘extreme poor’ as those who live below ‘the lower poverty line income’ using the cost of basic needs (CBN) method, and ‘hardcore poor’ as those who cannot meet the lowest minimum requirements of 1,805 kilocalories per person per day using the direct calorie intake (DCI) method. These two definitions also provide different estimates for the rates of extreme and hardcore poverty in the country.

Nearly one-third (31.5 percent) of the population of around 150 million live below the national poverty line in Bangladesh. With roughly 1000 people per square kilometre it is also among the most densely populated countries worldwide. With such a high incidence of poverty, the government has been playing a key role in implementing anti-poverty programmes along with non-governmental and private business organizations. In poverty reduction, the case for government intervention rests on both efficiency and equity grounds. There also exists significant overlaps between poverty and marginality in Bangladesh as well, and the marginalized communities have always been and still are the outcomes of severe inequality and socio-economic discrimination.

## *Income Poverty Reduction*

Bangladesh has been able to achieve decent growth and macroeconomic stability over the past several years. The incidence of poverty (including moderate and extreme/hardcore poverty) has declined (Table 1). As the estimates indicate, income poverty has declined from 56.6 percent in 1991-92 to 40 percent in 2005 and 31.5 percent in 2010. Similarly, extreme poverty has also declined substantially during the same period. However, Bangladesh has to go a long way if we would like to bring the poverty rate to the level of less than 10 percent within 2021.

The calorie based measures of absolute and hardcore poverty have also declined in Bangladesh. This indicates that the issues of poverty reduction have been given importance in the national policies. However, this raises the issue of whether the extreme poverty concerns have adequately been taken into account in devising anti poverty policies and programmes in the country as the rate of reduction of extreme poverty has been rather slower and the total number of poor in the country is still quite large.

Table 1: Incidence of Absolute and Hardcore Poverty in Bangladesh in percent

Year	Based on CBN method		Based on DCI method	
	Upper poverty line	Lower poverty line	Absolute poverty (2,122 K. cal)	Hardcore poverty (1,805 K. cal)
2010	31.5	17.6	-	-
2005	40.0	25.1	40.4	19.5
2000	48.9	34.3	44.3	20.0
1995-95	50.1	35.1	47.5	25.1
1991-92	56.6	41.0	47.5	28.0

Source: Household Income and Expenditure Surveys of BBS, various years  
 CBN = cost of basic needs, DCI= Direct Calorie Intake

## ***Need to Have Extreme Poverty Focused Innovative Programmes***

As already mentioned, Bangladesh has achieved notable success in poverty reduction, particularly extreme poverty alleviation since 1990. Rapid GDP growth and urbanization process, increased remittance flow, the growth of microfinance, social transformations like the fall in the number of dependents in households and reductions in fertility, greater labour force participation, increased enrolment particularly of the women in education, rise in labour and agricultural sectors, and growth in export industries contributed significantly in reducing poverty in the country. During 2005-2010, poverty reduction rate significantly won over the population growth rate, ultimately leading to a decline in the number of poor people. Therefore, overall economic transformation has been boosted up during the period.

However, there are issues and concerns which needed to be addressed if we would like to achieve faster poverty reduction, especially the reduction of extreme poverty in the country in the near future. Growing income inequality has appeared as a considerable poverty related concern for Bangladesh. The rural income Gini coefficient increased from 0.393 in 2000 to 0.431 in 2010 whereas the urban income Gini coefficient remained unchanged at 0.497 during 2000-2005, but declined to 0.452 in 2010. Even according to the 2005 estimates of food poverty or hardcore poverty, a large proportion of people cannot afford an adequate diet.

Though having mostly an ethnically homogenous nation, Bangladesh society also accommodates heterogeneous groups of people in terms of socio-economic identities. The vulnerabilities these groups face, the realities they experience, the obstacles they go through, and the opportunities they seek, all are different in nature and extent. Their needs and priorities also do not exactly match with each other. Therefore treating them all in the same gross manner is not a prudent move. According to the principles of Vision 2021, the Sixth Five Year Plan (2011-15) (SFYP) focuses to include the excluded, disempowered, and vulnerable members of the society, particularly the women.

Children are undoubtedly the most vulnerable group in the society. Bangladesh has made significant progress in child's rights promotion, survival, and development. Nonetheless, malnutrition, diseases, poverty, illiteracy, abuse and exploitation, and natural disasters threaten children's advancement in the country. Persons with disabilities are also another group most vulnerable in the society. Bangladesh also has 45 different small ethnic communities that comprise 2 million people. Most importantly, some of the extreme poor of Bangladesh are found among these communities.

All these make the situation of the extreme poor and marginalized groups/communities even more complicated. And, thus, **standard poverty reduction programmes can hardly reach these most vulnerable groups of people in the country.** Moreover, most of the poverty reduction policies and programmes suffer from a number of limitations, especially with respect to addressing the needs and demands of the extreme poor groups and create opportunities for their upward mobility. Poverty reduction policies still concentrate more on reducing the 'incidence of poverty', but, not so much on reducing its 'depth' or 'severity'. This leads to inadequate attention to and coverage of the concerns of the extreme poor in the mainstream poverty reduction efforts along with less focus on understanding and addressing their graduated concerns.

Given this context, it is critically important to have dedicated and innovative programmes to cater the needs of the extreme and marginalized people living in different areas in the country. Some innovations have already begun in respect of addressing the extreme poverty and marginality in the country. The main purpose of the present report is therefore to review some of the extreme poverty focused special programmes that are currently in operation in the country as case studies to provide ideas about the nature and extent of those programmes and how effective they are.

In this context, four major extreme poverty focused programmes being implemented in the country are reviewed. Among them SHIREE is discussed in detail. The programme targets the bottom 10 percent of the households (in fact, one of the recent studies shows (Ali 2012) that SHIREE has been successful in targeting the bottom 2-3 percent of the poorest in the country) and provides funds for innovative projects. Finally, an example of an innovative project under SHIREE is introduced.

## 2 BRAC Ultra Poor Programme

BRAC, the world's largest NGO by membership, scope, and budget recognizes the need of a more innovative and personalized approach to successfully reach these ultra-poor households. A most comprehensive and innovative approach addressing ultra-poverty has been developed and implemented by BRAC in 2002. BRAC's Challenging the Frontiers of Poverty Reduction Targeting the Ultra Poor (CFPR-TUP) programme is precisely planned to reach the needs of ultra-poor households, who are too poor to access the benefit from traditional development interventions for instance microfinance.

It is a more advanced and personalized methodology to successfully reach the ultra-poor households. The new programme of BRAC consists of a 'push down' part, which are development programmes through targeting the ultra-poor who are excluded from the conventional micro-finance and other development interventions. For example, a 'push down' strategy for health issue i) ensures that the ultra-poor know about basic health care, ii) provides access to information about the services and iii) facilitates their access to these health resources. In other words, unlike a uniform health package, the services have been tailored to address the specific health needs identified by the poor. These include antenatal care, immunization, nutrition education, safe water supply, sanitary toilets, family planning, TB control and basic curative services.

Also the programme seeks to define the area within which the existing systems and constraints operate. The 'pushing down' strategy includes a special investment programme in the form of a grant of productive assets and stipends, skill development training to use the assets and the provision of essential health care. Alternatively, the 'pushing out' strategy focuses on the policies, structures and institutions reproducing and sustaining poverty and vulnerability. This strategy attempts to uphold the basic rights to health care of the poor by expanding the services provisions and coverage. The health programmes are expanded to outreach to bring services closer to the disadvantaged such as the poor and women. Since women do not gather in particular locations regularly and their mobility is severely restricted, home-based care and mobile services have been promoted.

The programme emerged out of three decades of learning from our rural poverty improvement programmes. The objective of this programme is to assist the ultra-poor population proceed from extreme poverty, get access to the mainstream development programmes and establish ecological livelihood improvement.

The first phase of the Targeting the Ultra Poor (TUP) programme was implemented in 2002-2006. It covered 100,000 ultra-poor households from 15 of the poorest districts of Bangladesh over a period of five years. The programme provides ongoing training in enterprise activities using the transferred asset, and also provides health services. TUP as a strategy to tackle ultra-poverty has attracted much attention over the last few years among NGO communities and academic researchers. The TUP programme works to improve the physical, human, and social capital of the poorest 20percent of the population. A core activity of the programme is to provide participants with a grant of specific physical assets. The TUP programme then provides assistance for using the transferred assets effectively as a microenterprise. In particular, BRAC staff members offer ongoing training in specific enterprise activities notably livestock and poultry rearing, fruit, vegetable and herb cultivation, operation of tree nurseries, and village vending such as circulating around the village with a pushcart (M. Shahe Emran 2009).

BRAC, initially known as the Bangladesh Rural Advancement Committee, has been at the front position of such innovative programmes for addressing extreme poverty. BRAC takes several programmes which are specifically taken for ultra-poor. Similar programmes like BRAC are already being replicated in several other countries including Uganda and Tanzania. Nowadays, more than 110 million people receive BRAC health and other services in Bangladesh. BRAC features such diverse activities as development-oriented enterprises, legal education for the poor, a bank, a university, and an internet service provider, among others. BRAC is now expanding their ultra-poor programmes abroad including activities in Afghanistan, Sri Lanka, Uganda, Tanzania, and South Sudan (Oriana Bandiera 2012).

### **3 Urban Partnerships for Poverty Reduction (UPPR)**

Urban population in Bangladesh is growing at an estimated 3.6 percent per annum and its predicted urban population will be 50 million by 2015. In the City Corporation areas, it is estimated that 35 percent of the population live in slums, 43 percent of urban households live in poverty, while 23 percent are considered extremely poor (Urban Partnerships for Poverty Reduction 2012).

UPPR builds on the approach of the Local Partnerships for Poverty Alleviation Project (LPUPAP 2000-2007), which gained wide acceptance from communities and local government partners. This approach contains its foundation community action planning, from which prioritized community contracts are developed for settlement improvements and socio-economic activities. Communities themselves execute the contracts and managed project funds.

The Urban Partnerships for Poverty Reduction project (UPPR) supports the execution of strategies that respond to the challenges of urban poverty reduction in the context of Bangladesh's rapid urbanization. The objective is "to improve the livelihoods and living conditions of 3 million urban poor and extremely poor people, especially women and children". UPPR subsidizes to urban poverty reduction by directly improving the living environment and social and economic conditions of urban poor families in 30 towns and by influencing national and local urban poverty reduction and economic development policies.

UPPR is working in slums and informal settlements in 23 cities and towns with a special focus on women and children. It is organizing communities so they can manage and improve their own lives and demand better services from the government. The project includes a settlement improvement fund (SIF) to finance safe water, toilets and a range of other physical and environmental improvements, and a socio-economic fund (SEF) providing grants for children to go to school, skills training and apprenticeships, and grants for women to set up small businesses such as shops or tailoring services. The SEF is also used to raise community awareness on key social issues like health and nutrition, domestic violence and early marriage (Urban Partnerships for Poverty Reduction 2012).

The policy and strategy of UPPR includes community mobilization and provides support to form representative, inclusive and well-managed groups. Basically it identifies all urban poor settlements and extremely poor groups (slum and non-slum) in project towns and provides support for the formation of community organizations and cross-community associations. It also provides capacity building and technical support for establishing community savings groups and preparing community action plans, databases and community proposals for physical, economic and social development.

Poor urban communities are supported to create healthy and secure living environments by meeting their demands for water supply, sanitation, drainage, electricity and public lighting, waste management, road access and community facilities and by participatory processes including community contracting. Access to town level service networks and facilities and to affordable and approved health service providers as well as improvements in the security of tenure and in housing conditions are also supported by UPPR.

The UPPR supports the formation of town-level communities, local governments, private sector and civil society partnerships. It develops the capacity of elected representatives, local governmental officials, and UPPR staff to respond to the needs of the urban poor. Furthermore, local/national funding mechanisms are established to support the urban poor communities including the provision for housing finance. The facilitation of the urban-poor policy dialogue through the networking of towns, associations of elected representatives, LG officials and community leaders are among their objectives as well as the development and implementation of communication strategies for programme information sharing, advocacy and policy dialogue.

The activities of Community Development Committees (CDCs), CDC clusters and federations depend largely on UPPR activities and funds. The costs of managing these community governance structures rely in part on management fees on UPPR projects, rather than, for example on membership fees. UPPR has noted that many CDCs are not holding annual general meetings and elections and improved accountability is needed. The on-going improvement to community savings systems and the pilot governance improvement activities will help to increase transparency and confidence in the groups.

During 2010 the project coverage was expanded to 23 cities and towns (from 16). As of October 2010, 16,913 primary groups and 1,614 Community Development Committees (CDCs) have been formed involving 493,046 households (a population of 2.137 million). In addition, nearly 700 community contracts are being processed

with a budget of US\$ 5.6 million to provide support for additional small-scale infrastructure works. This involves the construction of about 10,000 latrines, 1,300 tube wells, 95 km footpath, 45 km drain, etc (Urban Partnerships for Poverty Reduction, 2012). UPPR should place greater emphasis on social mobilization as an end in itself. This requires more focus on facilitating networking amongst CDCs promoting empowerment for independent activities, and on building capacity of clusters and federations to take on a support role.

The extent to which households are benefitting from the programme should be looked at whether impacts come from just access to services, or whether impacts require both services (e.g. water, toilets, drains, paths etc.) and support for livelihoods. As the programme is promoting a comprehensive approach to infrastructure improvement it needs to integrate the provision of water, toilets, drainage and footpaths. It is necessary to achieve significant health and livelihood outcomes and to look after whether this is a major change in livelihood security if people get formal wage employment.

UPPR will improve the living conditions of 3 million slum dwellers in Bangladesh by 2015. The poorest urban settlements in 29 towns and cities will be identified, assessed and mapped so support can be targeted at those most in need. 3 million people living in slums will be represented in community governance structures, where they can make sure their needs and views are heard and get attention. 2.75 million poor people will be covered by a programme of support to improve their nutrition (poor nutrition is a serious problem across Bangladesh, especially for women and children). Here, 615,000 people are expected to have access to an improved water supply and 717,000 to improved sanitation. Better footpaths and drainage will be provided for 1.6 million people. 260,000 poor households will be supported through savings and credit groups to access the financial means they need e.g. to start small businesses or to cover short term needs. 72,000 people will be helped to improve their skills, incomes and assets. 140,000 extremely poor women will be able to set up a small business to increase their income (Urban Partnerships for Poverty Reduction, 2012). The programme will also help Bangladesh as a country and affected communities to develop a better long term response to urban poverty.

## **4 Chars Livelihoods Programme**

*Chars* are nearly accreted from the river and are consequently low lying which makes char dwellers vulnerable to flood and erosions created from river. The salinity degree of the soils is relatively high, while the content of organic materials is relatively low. It causes low fertility compared to the mainland. Individual and household movements are high and displacements are common in char areas. A fragile state, limited assets, little opportunities of income, detachment and absence of mainland institutions and services make char dwellers' livelihoods particularly vulnerable to extreme poverty and hardships.

The Rural Development and Cooperatives Division initiated the Chars Livelihood Programme (CLP) with the financial assistance of the UK Department for International Development (DFID) in order to remove extreme poverty from the char areas. According to its outline the project should be completed in two phases – the 1st phase during July 2003 to June 2007 and the 2nd phase during July 2007 to June 2011. The major objectives of CLP are to up-lift the living standard and the socio-economic situation of the population living beside the char areas of five northern districts along the river Brahmaputra. CLP aims to reduce extreme poverty of the population living within the char areas and to improve the livelihood security for poor, vulnerable women, men and children living in 5 districts of Brahmaputra by 2015.

Approximately 6.5 million people live in 28 char upazilas of 5 districts. 2 million people living in the chars are extremely poor. The situation of the Brahmaputra chars sub-regions grabbed attention of the government for a better integration of these regions into Bangladesh's wider socio-economic development (Conroy 2010).

Char Livelihood Programme (CLP) is executing their work of improvement in the Northern part of the country covering 150 char unions in 28 upazilas in five districts, namely Kurigram, Jamalpur, Gaibandha, Bogra and Sirajganj along the river Brahmaputra.

The main policies and strategies of this programme are concentrated on achieving three outputs. Output 1 shall reduce the vulnerability of char dwellers. CLP will build infrastructure for providing improved services through public or private partnership at both local and char-wide level. It also tries to build better capability to fight any kind of hazards in union parishads and upazilas by establishing a responsive and accountable planning

cycle, improving public and private partnerships and providing funds for local service delivery and infrastructure improvement.

Another strategy of CLP (output2) shall enable poor char dwellers to effectively sustain their livelihoods and engage in the local and national economy. In this strategy CLP tries to improve agricultural production by supporting poor and vulnerable households and by developing business and financial services for the poor. Choosing suitable qualified organizations is an important factor of the strategy to success.

According to output 3, poor char dwellers should effectively influence local and national policy. In order to succeed this output, there are two strategies:

1. Developing bottom-up planning, decision-making and accountability mechanisms to ensure that char dwellers' demands and needs are articulated at union parishad, upazila, chars-wide and national levels.
2. Undertaking research, monitoring, and information dissemination to support an evidence-based policy influencing process at the national level.

There are also some other policies needed to support the major policies. Local Governance Institutions should be strengthening, so that they can plan and link the local voice to the development. They also should build social mobilization capacities, fund such mechanisms, and build union revenue mobilization.

Again the char area's transport, communications, water, sanitation, shelter, disaster management, health, education system need to be more developed in order to succeed those policies. CLP also needs to ensure a local economic development policy, citizen-based planning processes and to enable an environment reform. CLP aims to reach 100,000 of the extreme poor households on both the mainland and island chars and to provide them with a safe place to live, clean water-supply and sanitary latrines by their infrastructure component. CLP also helps the extreme poor char area people by transferring income generating assets to them like beef cattle, dairy cattle, goat or sheep, rickshaw or rickshaw van, sewing machine etc.

For the 50,000 poorest households living on island chars, the CLP is increasing knowledge, skills and capacity to cooperate with others. The programme provides training, motivation, awareness, social mobilization, related necessary education and health care.

CLP follows the Infrastructure Employment Programme (IEP) scheme to reduce seasonal poverty in some particular CLP areas (Kurigram and Gaibandha). CLP launches a special programme for young people of char areas. 1500 young people are trained on knitting and weaving of garments under this programme. According to the target, 360 people should be trained in the end of the programme in 2008. In reality they 341 people are trained, which is very close to the target (Conroy 2010). CLP initiates a non-formal primary education programme for the char children. 150 institutions are involved in the education of the char children.

CLP cares about the primary health and family planning of the char people. This programme is carried out and implemented in 3 upazilas. CLP started the implementation of a programme for the victims of erosion. CLP has been supporting the erosion victim with 3000 BDT per family. 4100 families received the grant up till now. The main difficulty for CLP is that chars are hard to reach and work at. Chars have the devastating problem of river erosion. Again there are flood prone risks which destroy what the char dwellers have. CLP is facing these common difficulties and threats.

## **5 Stimulating Household Improvements Resulting in Economic Empowerment (SHIREE)**

Shiree is a method established to support the poorest people and to provide economic liberation. It basically defines the extreme poverty and analyses the approaches of removing poverty from society. Shiree, the approach developed to implement the Economic Empowerment of the Poorest Challenge Fund, is supported by the UK Department for International Development (UK) in partnership with the Government of Bangladesh. It is represented by a syndicate of five agencies, with Harewelle International Ltd., Leading PMTC Bangladesh, the British Council, Unnayan Shamannay and the Centre for Development Studies: University of Bath. The household's economic strategy of Shiree addresses to multiple causes of extreme poverty by enhancing the capabilities of the extreme poor to cope with life.

The core objectives of Shiree are extracting primary health care including family planning services to the urban and rural poor. Women and children are the more focused groups as they are more disadvantaged in Bangladeshi society. Again it undertakes an illiteracy eradication programme among children and adults and exploits all potential options available at the local level to generate productive employment for the rural and urban poor. It also links various production inputs, particularly disbursement of credit to the rural and urban poor and contributes to improve the living conditions of urban slum dwellers.

The extreme poor are categorized as the people who have either failed to benefit from the past development support or who have even been disadvantaged by it. The compound reasons of extreme poverty require a need for intensive and coordinated assistance to fight the issues. Concentrating on people living just below the poverty line is simpler than helping those living far below it. However, focusing on the latter group is the target since those are basically the extreme poor ones.

Shiree's main vision is to pursue a country of social justice, where people overcome poverty and live with self-esteem and all necessities. It aims to contribute highly in ending poverty. Shiree constructs a mission to build strong community based organizations (CBOs) which will eventually be able to plan priorities and to implement society's own development programmes through the deployment of resources of the societies themselves, the government or the donor agencies.

Extreme poverty is defined on the basis of international poverty line as it requires multidimensional and thematic strategic funding areas. Such areas are education, health, gender equality, environmental protection, trade, food security, and governance. Addressing these thematic areas of power is vital to many poverty reduction strategies. However, extremely poor people require different strategies to improve their situation. Shiree introduces several strategies to improve extreme poor peoples' condition. Among those, advocacy is one, which means ensuring aid for the poorest. Because of the difficulties in reaching the extremely poor people for helping, it is essential that the task of reducing extreme poverty is clearly presented on the political agenda. One of the reasons behind defining and measuring the number of people living in extreme poverty is that this makes it much more difficult for them to be ignored in development efforts. For reducing extreme poverty the efficiency of aid is important. With increased aid efficiency in Bangladesh, the UK has now been given the main responsibility for dealing with extreme poverty. When all of the sectors are associated to poverty reduction, UK has taken on the mission of building 'livelihoods for the extreme poor'. They are working for maximizing aid impact by sharing analysis, dividing responsibilities and reducing transaction costs. In order to do so, UK basically monitor poverty, create better livelihoods for the extreme poor, access to justice, strengthened human security, public expenditure and financial management reform, participatory governance.

From a geographical perspective, there are several high-profile programmes operating specifically to address extreme poverty in 5 of the 6 priority areas. Again, a slightly different strategy is to focus on particular groups who are the poorest of the poor, rather than on households selected according to a particular extreme poverty line. However, Shiree also has a strategy of dividing those extreme poor people in different groups' like women, working children, disable people etc. Gender is a central theme in the Shiree's poverty reduction strategy with women being a key focus of poverty needs assessments as well as poverty strategies and policies. For the other group, working children, it aims to focus on children who are engaged in hazardous labour and it provides basic education and livelihood skills training for those children. Again, Shiree argues for the disabled people who should have equal rights in development initiatives.

Shiree may well have to engage with such debates about programme targeting. Shiree works to distinguish between approaches and activities which are really aiming to help the 'poorest of the poor' and which refer to standard poverty reduction strategies. The alleviation of poverty for the very poorest requires a different approach. Shiree needs to work out the lessons which it can gain from poverty reduction strategies and those which need to be tried, tested and even modified for the successful reduction of the poverty of the poorest 10% of the population of Bangladesh.

### ***Disaggregated Fund in Different Projects (DFID)***

DFID has given Shiree the primary objective of lifting 1 million households out of extreme poverty by 2015. In pursuit of this objective, Shiree has a "Scale Fund" which supports projects that implement 'proven' interventions at a large scale, seeking to graduate the maximum number of beneficiaries from extreme poverty. One typical example of a scale fund project is Practical Action Bangladesh (PAB), which provides one of 17 types of assets – that had been proven to be successful through a 5 year pilot prior to the Shiree project – to

about 17,000 households in Northern Bangladesh. The six Scale Fund projects are implemented by large and/or international NGOs that have sufficient capacity and infrastructure to be able to manage such sizable interventions.

Another objective of the Shiree Challenge Fund is to discover new, innovative and effective interventions that address the needs of the extreme poor. Given the wide acknowledgement of the general lack of evidence on what works for the extreme poor, a significant portion of the Shiree fund has been dedicated to support NGOs in uncovering innovative poverty reduction techniques for the ultra poor. Shiree pursues this objective through its “Innovation fund”, which supports smaller-scale, three-year long trials or experiments that seek to uncover these new interventions that can address extreme poverty in diverse geographical contexts, or add a “twist” (innovation) to existing proven interventions to contextualize them to the needs of the poor or search for greater impact.

Table 2: Details of Shiree different Fund Projects

	Scale Fund	Innovative Fund
Avg. Funding Per Project	40,00000	3,00000
Projects/NGO Partners	9	27
Beneficiary Targets (up to 2012)	125,850	27,025

Source: Gungadurdoss and Khan 2012

For instance, Inter-Cooperation, one of these NGOs, provides cows to its beneficiaries but also buys back the cow dung to generate electricity for the beneficiaries through bio-gas plants. PUAMDO, another innovation fund NGO, attempts to distribute hogs as assets to indigenous populations. Naturally, these innovation fund projects tend to be much smaller than scale fund projects and tend to be undertaken by relatively small and low-capacity NGOs. Shiree currently supports 19 such projects, in four cycles, and planned to scale up the successful ones.

Round One focused on peripheral or marginalized regions exhibiting a high incidence of extreme poverty. The result of the competitive process was 6 projects located in: the Haors (CNRS, HSI), the Chittagong Hill Tracts (Greenhill, HKI), the Southern Coastal belt (Shushilan) and one in the border area of Feni District (Aid Comilla).

The theme for Round Two was innovative approaches towards addressing seasonal hunger (Monga<sup>1</sup>) and resulted in a further 6 projects (Action Aid, MJSKS, SKS, NDP, HSI, Puamdo) located in Monga prone regions of the North West (i.e Lalmonirhat, Gaibandha, Rangpur, Kurigram, Jaipurhat, Thakurgaon, Bogra, Panchagarh, Dinajpur and Nilphamari). While the Round Two projects were initially for two years they were later extended by a year to bring them into synch the three-year Round One projects.<sup>2</sup>

The focus of the Round Three was marginalized groups who are contributing disproportionately to increase the number of extreme poor. Marginalized groups constitute of elderly people, physically challenged, religious or ethnic minorities etc. Seven NGO (i.e ADD, BOSS, Concern, GUK, Plan, SC and SSS) projects were selected to develop the livelihood of these marginalized groups.

Round Four focused on women, the elderly and the disabled who are the most vulnerable and socially excluded groups. The aim of the proposed innovations is to make a sustainable movement of the marginalized groups out of extreme poverty through the intervention provided by eight NGO namely Eco Dev, Green Hill, Handicap International, HelpAge International, IDE, PRIP Trust, SC and TRANGO). A detail list of on-going Shiree projects is presented in Appendix 1.

<sup>1</sup> Monga is refers to the local term exhibiting income, food and employment insecurity.

<sup>2</sup> Except Puamdo which ends on January 2013.

## 6 An Example of an Innovative Project: Livelihood Practice through Sandbar Cropping - A Practical Action Project

Floods have a devastating effect on livelihoods of people through destroying their homes, villages and lives when they are affected. Also, soil fertility is reduced when the waters fall down. It is almost impossible to cultivate and produce crops on the infertile land (the *char*) that the flood left.

Practical Action has been conducting the project 'Disappearing lands: supporting communities affected by the river erosion' since 2005. An innovative cropping technology called sandbar cropping which is benefitting the landless poor in the Gaibandha district of northern Bangladesh has been promoted by this project. This initiative was supported by Shiree in 2009. Through this support a large proportion of population living near the embankment of the rivers Teesta and Dhorol has been involved in the process of agricultural production to increase their earning.



Now, the infertile sandy river beds are producing thousands of pumpkins with simple technology creating an opportunity to utilize the unused resources for the benefit of ultra poor. Pumpkins are grown in holes dug in sand and filled with manure, compost and pumpkin seeds. This technology enhances the income opportunities of the ultra poor through higher yields of pumpkins. At the same time, storing the pumpkins up to a year would give them the incentive to sell them slowly when income opportunities are marginal. According to the Shiree's annual socio-economic survey 2010, the ultra poor working under this project are mainly landless; 98.4 percent of households are landless and only 6.2 percent households are engaged in sharecropping (Rahman and Reza 2012).

Sandbar cropping benefits the cultivators by increasing their income and their level of consumption. Now the poor farmers gain more confidence in their improved capacity through bumper harvests of pumpkins in the barren river areas. By two years of pumpkins production, beneficiaries gained on average of 13,248 Tk. and 20,121 Tk. respectively in years 1 and 2 (Source: PAB document cited in Rahman and Reza 2012). In the first year, all beneficiaries got free access to the land for cropping due to the low demand of cultivation in sandbar. But in the second year, due to the success of the first year's cultivation, more households wanted to have access to the sandbar to cultivate pumpkins. Hence, in year two, the coverage of the programme increased tremendously (Table 3).



Table 3: Details of Pumpkin Cultivation in both Years

Item	Year 1	Year 2
Total Beneficiary Households	583	6129
Total no of Spots	21	74
Union Coverage	12	36
Upazila Coverage	7	11
Total no of Pits	64733	613900

Total area coverage (acre)	105	1412
Total Production (MT)	1522.8	16956.77
Total Production cost (Tk.)	3522081	43335583
Total Gross Income (Tk.)	7723944	123523178
Cost-Benefit Ration	01:02.2	2.8

Source: Rahman and Reza 2012

Sandbar cropping opens a new window of income generating opportunities for the ultra poor people. As it is successful for positive changes in the lives and livelihoods of the poor, gradually more non-poor become interested in this cultivation process. As a result, day by day ultra poor are more likely to face competition to access the land for cultivation in the near future. At the same time, the agreement patterns are changed to cope with the high demand of sandbars. These are the issues of concern in the near future.

## 7 Summary and Conclusion

Bangladesh has impressively reduced poverty and improved in overall social development. Poverty reduction has been about 1.7 percentage point per year during 2005-2010. Achievements in the areas of schooling, immunizations, mortality reduction and many other social areas are also quite impressive. However, still a large number of people in the country are living in extreme poverty. Many of them are also marginalized from multiple perspectives. Those extreme poor do not benefit from the usual poverty alleviation programmes and they require special attention to help them graduate from the situation they are currently in.

There are several anti-poverty programmes that have been implemented in the country by both government and non-government organizations with support from development partners over the past several decades. Various social safety-net programmes have also been in operation in the country since independence to help the poor and vulnerable people to ensure food security, employment and other support so that they can help themselves to overcome the situation.

However, experiences of the anti-poverty and social safety-net programmes which are in operation show that a large proportion of the poorest households and the vulnerable communities are still out of these anti-poverty and social safety-net programmes. Keeping this in perspective, special and dedicated programmes have been developed (some of them are quite new and innovative as well) for the extreme poor, vulnerable and marginalized groups in recent times. These programmes have been trying to reach those otherwise excluded groups and cater the needs of those groups and households.

The review of some of those programmes for the extreme poor reveals that they are now quite large and have been successful in both reaching and meeting the needs of the extreme poor households. However, given the fact that there are still a large number of extreme poor households who need support of this kind, efforts should be intensified to reach most of them by adaptive and innovative programmes to bring them out of extreme poverty within the shortest possible time.

## Appendix

Table 1: Details of all on-going Innovative Fund Projects of Shiree

Organization	Project	Area	Targets (Number)	Years to Graduate	Budget
Round 1					
AidComilla	The Alternative Livelihoods Options (ALO) Project	Parsuram Upazila, Feni	1500	3	Total budget BDT 27,999,508 Cost per BHH 15,135 direct delivery cost per BHH is 9,028.
Centre for Natural Resources Studies (CNRS)	Khas Kanda Land Distribution among the Extreme Poor in Haor area	Jamalganj and Dharmapasha, Sunamganj	2000	3	Total budget 27,640,329 Cost per BHH 13,820 direct delivery cost per BHH is 6,006
Green Hill	Conditional Cash Transfers and Market Development	25 villages of four Upazilas in the Chittagong Hill Tracts	1200	3	Total budget is 31,675,080 cost per BHH is 26,396 of which direct delivery cost is 11,500
Helen Keller International (HKI)	Resilience to health shocks through improved agricultural production and market access for women	Laksmichhari, Upazila, Khagrachhari	450	3	Total budget 31,165,286 Cost per BHH 69,256 direct delivery cost per BHH 25,399
Helvetas Swiss Intercooperation (HSI)	Agricultural Innovations for Eliminating Extreme Poverty (AIEEP)	Sulla and Derai Upazila, Sunamganj	1000	3	Total budget is BDT 27,995,155 cost per BHH is BDT 27,995 of which the direct delivery cost is BDT 15,184
Shushilan	Innovative Approaches to Restore the Productivity of Natural Resources that are Resilient to Climate Change and Increasing Salinity	Keshabpur and Manirampur upazilas of Jessore district, Tala, Kolaroa and Shyamnagar upazilas of Satkhira district; Barguna sadar and Amtali upazilas of Barguna district.	1000	3	Total budget 27,938,000 cost per BHH 27,938 direct delivery 13,495

Round 2					
Action Aid Bangladesh	Paribarvittik Jeebo-boichitrogram (extreme poor household based biodiversity centres)	Domar and Sadar Upazila, Nilphamari District	1200	2	Total Budget 31,563,011 Cost per BHH 26,303 direct delivery cost per BHH 15,132
Helvetas Swiss Intercooperation (HSI)	Integrated approach to maximise the benefit of livestock value chains	Pirgacha and Pirganj Upazila, Rangpur	800	3	Total budget is BDT 34,853,013 cost per BHH is BDT 43,566 of which the direct delivery cost is BDT 26,774
Mahideb Jubo Somaj Kallayan Somity (MJSKS)	Artificial Insemination in Dairy & Beef Cattle Project	Ulipur & Rajarhat Upazilla in Kurigram	635	3	Total budget 32,343,219 cost per BHH is BDT 50,934 of which direct delivery cost is BDT 33,701
National Development Programme (NDP)	National Development Programme (NDP)	Dhunot, Bogra	1055	2	Total budget 27,573,119 Cost per BHH 26,136 direct delivery cost per BHH is 14,390
Panchbibi Upazila Adibashi Multipurpose Development Organsiation (PUAMDO)	Hog Rearing by the Adivasi Women with Improved Accesses to Land	Panchbibi upazila under Joypurhat district	775	2	total budget is BDT 24,746,091 cost per BHH is BDT 31,930 of which direct delivery cost per BHH is BDT 17,168
SKS Foundation	Promotion of Fruits Production Cluster Project	Shaghata and Fulchari Upazillas, Gaibandha district	1000	2	Total budget 27,730,895 Cost per BHH 27,731 direct delivery cost per BHH is 17,650
Round 3					
Action for Disability and Development (ADD)	From Margin to Mainstream: A Drive of Challenged People for Economic Empowerment	Dhaka City and adjoining places of Dhaka District	700	3	32,700,097
Bangladesh Organisation for Social Service (BOSS)	Mainstreaming Marginalised Communities (MMC)	Pabna, Rajshahi Division	400	3	14,223,630

Concern Worldwide	InvEst (Investment for Economic Empowerment of Street-dwellers)	All Zone Dhaka City Corporation	700	3	33,671,599
Gana Unnayan Kendra	Reducing extreme poor by skills development on garments	Sadar Upazila, Gaibandha District	1160	3	32,993,983
Plan International Bangladesh	Bringing Economic Empowerment to Street children (BEES)	Rayer Bazar, Mohammadpur, Natun Bazar, Mohakhali, Kachukhet, Gabtoli, Karwanbazar, Rampura DIC, Bashaboo, Sadar Ghat, Babu Bazar, Jatrabari; of Dhaka City Corporation	2500	3	31,441,583
Save the Children	Improving income and advancing social identity of rural adolescent girls	Barisal	900	3	35,953,630
Shidhulai Swanirvar Sangstha	Four Ideas for Poverty Alleviation and Climate Adaptation	Pabna, Rajshahi Division	600	3	31,989,297
Round 4					
Ethnic Community Development Organization (ECo-Development)	Economic Empowerment of Jumiya people through Medicinal Plant Cultivation	Bandarban district of Chittagong Division	750	3	Total budget is BDT 33,388,541 cost per BHH is BDT 44,518 of which direct delivery cost per BHH is BDT 21,675
Green Hill	Poverty Reduction Through Agricultural Sustainable Advancement Knowledge Transfer and Insurance	Bandarban and Rangamati Districts, Chittagong Division	1300	3	Total budget is BDT 34,484,584 cost per BHH is BDT 26,527 of which direct delivery cost per BHH is BDT 14,945
Handicap International Bangladesh	Socio Economic Empowerment of Extreme Poor People with Disabilities	Sitakundu Upazila in Chittagong district	600	3	Total budget is BDT 34,500,000 cost per BHH is BDT 57,500 of which direct delivery cost per BHH is BDT 29,067

HelpAge International	Accelerate Livelihood of Left-behind Older Workforce (ALLOW)	River islands of Kurigram and Laxmipur districts	1000	3	The total budget is BDT 34,454,561 cost per BHH is BDT 34,455 of which direct delivery cost per BHH is BDT 18,613.
International Development Enterprise (IDE)	Women Onset Technologies for Sustainable Homestead Agriculture in Bangladesh (WOTSHAB)	Barisal Districts	1000	3	The total budget is BDT 36,574,420 cost per BHH is BDT 36,574 of which direct delivery cost per BHH is BDT 19,192
PRIP Trust	Ensuring Sustainable Livelihoods for Female Construction Workers	Mirpur and Mohammadpur of Dhaka City, Dhaka District.	1000	3	The total budget is BDT 36,800,000 cost per BHH is BDT 36,800 of which direct delivery cost per BHH is BDT 22,051
Save the Children	Out-of-Poverty-Graduation-Model for Urban Extreme Poor: A Child Focused Innovation	Khulna town, Khulna Division	3600	3	Khulna town, Khulna DivisionThe total budget is BDT 34,499,958; cost per BHH is BDT 28,750 of which direct delivery cost per BHH is BDT 18,146
Training, Assistance and Rural Advancement Non-Governmental Organisation (TARANGO)	Establishing Fair Trade Handicraft Business for Indigenous Community in Bandarban	Rowangchari Upazilla of Bandarban district of Chittagong Division	750	3	The total budget is BDT 34,145,002 cost per BHH is BDT 68,290 of which direct delivery cost per BHH is BDT 34,202.

## 8 References

- Conroy, K. G. ( 2010, September). Lessons from the Chars Livelihoods Programme, Bangladesh (2004-2010). Dhaka, Bangladesh.
- Gungadurdoss, A. and R. Khan (2012) 'Optimizing Learning from Innovative Development Process: The Case of SHIREE', John F. Kennedy School of Government, Harvard University.
- M. Shahe Emran, V. R. (2009, March). Assessing the Frontiers of Ultra-Poverty Reduction. *BRAC* .
- Oriana Bandiera, R. B. (2012, December). Asset Transfer Programme for the Ultra Poor. Dhaka 1212, Bangladesh: BRAC.
- Rahman, K.A. and I. Reza (2012) 'Accessing and Retaining Access to the Sandbars by the Extreme Poor: Experiences from the Practia ACTION Project', Shiree Working Paper No. 9.
- Urban Partnerships for Poverty Reduction. (2012). Retrieved from UNDP Bangladesh:  
[http://www.undp.org/content/bangladesh/en/home/operation/project/poverty reduction/uppr](http://www.undp.org/content/bangladesh/en/home/operation/project/poverty%20reduction/uppr)
- Urban Partnerships for Poverty Reduction. (2012, May 3). Retrieved from:  
<http://projects.dfid.gov.uk/latiDocument>.

1. Evers, Hans-Dieter and Solvay Gerke (2005). Closing the Digital Divide: Southeast Asia's Path Towards a Knowledge Society.
2. Bhuiyan, Shajahan and Hans-Dieter Evers (2005). Social Capital and Sustainable Development: Theories and Concepts.
3. Schetter, Conrad (2005). Ethnicity and the Political Reconstruction of Afghanistan.
4. Kassahun, Samson (2005). Social Capital and Community Efficacy. In Poor Localities of Addis Ababa Ethiopia.
5. Fuest, Veronika (2005). Policies, Practices and Outcomes of Demand-oriented Community Water Supply in Ghana: The National Community Water and Sanitation Programme 1994 – 2004.
6. Menkhoff, Thomas and Hans-Dieter Evers (2005). Strategic Groups in a Knowledge Society: Knowledge Elites as Drivers of Biotechnology Development in Singapore.
7. Mollinga, Peter P. (2005). The Water Resources Policy Process in India: Centralisation, Polarisation and New Demands on Governance.
8. Evers, Hans-Dieter (2005). Wissen ist Macht: Experten als Strategische Gruppe.
- 8.a Evers, Hans-Dieter and Solvay Gerke (2005). Knowledge is Power: Experts as Strategic Group.
9. Fuest, Veronika (2005). Partnerschaft, Patronage oder Paternalismus? Eine empirische Analyse der Praxis universitärer Forschungsk Kooperation mit Entwicklungsländern.
10. Laube, Wolfram (2005). Promise and Perils of Water Reform: Perspectives from Northern Ghana.
11. Mollinga, Peter P. (2004). Sleeping with the Enemy: Dichotomies and Polarisation in Indian Policy Debates on the Environmental and Social Effects of Irrigation.
12. Wall, Caleb (2006). Knowledge for Development: Local and External Knowledge in Development Research.
13. Laube, Wolfram and Eva Youkhana (2006). Cultural, Socio-Economic and Political Con-straints for Virtual Water Trade: Perspectives from the Volta Basin, West Africa.
14. Hornidge, Anna-Katharina (2006). Singapore: The Knowledge-Hub in the Straits of Malacca.
15. Evers, Hans-Dieter and Caleb Wall (2006). Knowledge Loss: Managing Local Knowledge in Rural Uzbekistan.
16. Youkhana, Eva; Lautze, J. and B. Barry (2006). Changing Interfaces in Volta Basin Water Management: Customary, National and Transboundary.
17. Evers, Hans-Dieter and Solvay Gerke (2006). The Strategic Importance of the Straits of Malacca for World Trade and Regional Development.
18. Hornidge, Anna-Katharina (2006). Defining Knowledge in Germany and Singapore: Do the Country-Specific Definitions of Knowledge Converge?
19. Mollinga, Peter M. (2007). Water Policy – Water Politics: Social Engineering and Strategic Action in Water Sector Reform.
20. Evers, Hans-Dieter and Anna-Katharina Hornidge (2007). Knowledge Hubs Along the Straits of Malacca.
21. Sultana, Nayeem (2007). Trans-National Identities, Modes of Networking and Integration in a Multi-Cultural Society. A Study of Migrant Bangladeshis in Peninsular Malaysia.
22. Yalcin, Resul and Peter M. Mollinga (2007). Institutional Transformation in Uzbekistan's Agricultural and Water Resources Administration: The Creation of a New Bureaucracy.

23. Menkhoff, T.; Loh, P. H. M.; Chua, S. B.; Evers, H.-D. and Chay Yue Wah (2007). Riau Vegetables for Singapore Consumers: A Collaborative Knowledge-Transfer Project Across the Straits of Malacca.
24. Evers, Hans-Dieter and Solvay Gerke (2007). Social and Cultural Dimensions of Market Expansion.
25. Obeng, G. Y.; Evers, H.-D.; Akuffo, F. O., Braimah, I. and A. Brew-Hammond (2007). Solar PV Rural Electrification and Energy-Poverty Assessment in Ghana: A Principal Component Analysis.
26. Eguavoen, Irit; E. Youkhana (2008). Small Towns Face Big Challenge. The Management of Piped Systems after the Water Sector Reform in Ghana.
27. Evers, Hans-Dieter (2008). Knowledge Hubs and Knowledge Clusters: Designing a Knowledge Architecture for Development
28. Ampomah, Ben Y.; Adjei, B. and E. Youkhana (2008). The Transboundary Water Resources Management Regime of the Volta Basin.
29. Saravanan.V.S.; McDonald, Geoffrey T. and Peter P. Mollinga (2008). Critical Review of Integrated Water Resources Management: Moving Beyond Polarised Discourse.
30. Laube, Wolfram; Awo, Martha and Benjamin Schraven (2008). Erratic Rains and Erratic Markets: Environmental change, economic globalisation and the expansion of shallow groundwater irrigation in West Africa.
31. Mollinga, Peter P. (2008). For a Political Sociology of Water Resources Management.
32. Hauck, Jennifer; Youkhana, Eva (2008). Histories of water and fisheries management in Northern Ghana.
33. Mollinga, Peter P. (2008). The Rational Organisation of Dissent. Boundary concepts, boundary objects and boundary settings in the interdisciplinary study of natural resources management.
34. Evers, Hans-Dieter; Gerke, Solvay (2009). Strategic Group Analysis.
35. Evers, Hans-Dieter; Benedikter, Simon (2009). Strategic Group Formation in the Mekong Delta - The Development of a Modern Hydraulic Society.
36. Obeng, George Yaw; Evers, Hans-Dieter (2009). Solar PV Rural Electrification and Energy-Poverty: A Review and Conceptual Framework With Reference to Ghana.
37. Scholtes, Fabian (2009). Analysing and explaining power in a capability perspective.
38. Eguavoen, Irit (2009). The Acquisition of Water Storage Facilities in the Abay River Basin, Ethiopia.
39. Hornidge, Anna-Katharina; Mehmood UI Hassan; Mollinga, Peter P. (2009). 'Follow the Innovation' – A joint experimentation and learning approach to transdisciplinary innovation research.
40. Scholtes, Fabian (2009). How does moral knowledge matter in development practice, and how can it be researched?
41. Laube, Wolfram (2009). Creative Bureaucracy: Balancing power in irrigation administration in northern Ghana.
42. Laube, Wolfram (2009). Changing the Course of History? Implementing water reforms in Ghana and South Africa.
43. Scholtes, Fabian (2009). Status quo and prospects of smallholders in the Brazilian sugarcane and ethanol sector: Lessons for development and poverty reduction.
44. Evers, Hans-Dieter; Genschick, Sven; Schraven, Benjamin (2009). Constructing Epistemic Landscapes: Methods of GIS-Based Mapping.
45. Saravanan V.S. (2009). Integration of Policies in Framing Water Management Problem: Analysing Policy Processes using a Bayesian Network.

46. Saravanan V.S. (2009). Dancing to the Tune of Democracy: Agents Negotiating Power to Decentralise Water Management.
47. Huu, Pham Cong; Rhlers, Eckart; Saravanan, V. Subramanian (2009). Dyke System Planing: Theory and Practice in Can Tho City, Vietnam.
48. Evers, Hans-Dieter; Bauer, Tatjana (2009). Emerging Epistemic Landscapes: Knowledge Clusters in Ho Chi Minh City and the Mekong Delta.
49. Reis, Nadine; Mollinga, Peter P. (2009). Microcredit for Rural Water Supply and Sanitation in the Mekong Delta. Policy implementation between the needs for clean water and 'beautiful latrines'.
50. Gerke, Solvay; Ehlert, Judith (2009). Local Knowledge as Strategic Resource: Fishery in the Seasonal Floodplains of the Mekong Delta, Vietnam
51. Schraven, Benjamin; Eguavo, Irit; Manske, Günther (2009). Doctoral degrees for capacity development: Results from a survey among African BiGS-DR alumni.
52. Nguyen, Loan (2010). Legal Framework of the Water Sector in Vietnam.
53. Nguyen, Loan (2010). Problems of Law Enforcement in Vietnam. The Case of Wastewater Management in Can Tho City.
54. Oberkircher, Lisa et al. (2010). Rethinking Water Management in Khorezm, Uzbekistan. Concepts and Recommendations.
55. Waibel, Gabi (2010). State Management in Transition: Understanding Water Resources Management in Vietnam.
56. Saravanan V.S.; Mollinga, Peter P. (2010). Water Pollution and Human Health. Transdisciplinary Research on Risk Governance in a Complex Society.
57. Vormoor, Klaus (2010). Water Engineering, Agricultural Development and Socio-Economic Trends in the Mekong Delta, Vietnam.
58. Hornidge, Anna-Katharina; Kurfürst, Sandra (2010). Envisioning the Future, Conceptualising Public Space. Hanoi and Singapore Negotiating Spaces for Negotiation.
59. Mollinga, Peter P. (2010). Transdisciplinary Method for Water Pollution and Human Health Research.
60. Youkhana, Eva (2010). Gender and the development of handicraft production in rural Yucatán/Mexico.
61. Naz, Farhat; Saravanan V. Subramanian (2010). Water Management across Space and Time in India.
62. Evers, Hans-Dieter; Nordin, Ramli, Nienkemoer, Pamela (2010). Knowledge Cluster Formation in Peninsular Malaysia: The Emergence of an Epistemic Landscape.
63. Mehmood Ul Hassan; Hornidge, Anna-Katharina (2010). 'Follow the Innovation' – The second year of a joint experimentation and learning approach to transdisciplinary research in Uzbekistan.
64. Mollinga, Peter P. (2010). Boundary concepts for interdisciplinary analysis of irrigation water management in South Asia.
65. Noelle-Karimi, Christine (2006). Village Institutions in the Perception of National and International Actors in Afghanistan. **(Amu Darya Project Working Paper No. 1)**
66. Kuzmits, Bernd (2006). Cross-bordering Water Management in Central Asia. **(Amu Darya Project Working Paper No. 2)**
67. Schetter, Conrad; Glassner, Rainer; Karokhail, Masood (2006). Understanding Local Violence. Security Arrangements in Kandahar, Kunduz and Paktia. **(Amu Darya Project Working Paper No. 3)**
68. Shah, Usman (2007). Livelihoods in the Asqalan and Sufi-Qarayateem Canal Irrigation Systems in the Kunduz River Basin. **(Amu Darya Project Working Paper No. 4)**
69. ter Steege, Bernie (2007). Infrastructure and Water Distribution in the Asqalan and Sufi-Qarayateem Canal Irrigation Systems in the Kunduz River Basin. **(Amu Darya Project Working Paper No. 5)**

70. Mielke, Katja (2007). On The Concept of 'Village' in Northeastern Afghanistan. Explorations from Kunduz Province. **(Amu Darya Project Working Paper No. 6)**
71. Mielke, Katja; Glassner, Rainer; Schetter, Conrad; Yarash, Nasratullah (2007). Local Governance in Warsaj and Farkhar Districts. **(Amu Darya Project Working Paper No. 7)**
72. Meininghaus, Esther (2007). Legal Pluralism in Afghanistan. **(Amu Darya Project Working Paper No. 8)**
73. Yarash, Nasratullah; Smith, Paul; Mielke, Katja (2010). The fuel economy of mountain villages in Ishkamish and Burka (Northeast Afghanistan). Rural subsistence and urban marketing patterns. **(Amu Darya Project Working Paper No. 9)**
74. Oberkircher, Lisa (2011). 'Stay – We Will Serve You Plov!'. Puzzles and pitfalls of water research in rural Uzbekistan.
75. Shtaltovna, Anastasiya; Hornidge, Anna-Katharina; Mollinga, Peter P. (2011). The Reinvention of Agricultural Service Organisations in Uzbekistan – a Machine-Tractor Park in the Khorezm Region.
76. Stellmacher, Till; Grote, Ulrike (2011). Forest Coffee Certification in Ethiopia: Economic Boon or Ecological Bane?
77. Gatzweiler, Franz W.; Baumüller, Heike; Ladenburger, Christine; von Braun, Joachim (2011). Marginality. Addressing the roots causes of extreme poverty.
78. Mielke, Katja; Schetter, Conrad; Wilde, Andreas (2011). Dimensions of Social Order: Empirical Fact, Analytical Framework and Boundary Concept.
79. Yarash, Nasratullah; Mielke, Katja (2011). The Social Order of the Bazaar: Socio-economic embedding of Retail and Trade in Kunduz and Imam Sahib
80. Baumüller, Heike; Ladenburger, Christine; von Braun, Joachim (2011). Innovative business approaches for the reduction of extreme poverty and marginality?
81. Ziai, Aram (2011). Some reflections on the concept of 'development'.
82. Saravanan V.S., Mollinga, Peter P. (2011). The Environment and Human Health - An Agenda for Research.
83. Eguavoen, Irit; Tesfai, Weyni (2011). Rebuilding livelihoods after dam-induced relocation in Koga, Blue Nile basin, Ethiopia.
84. Eguavoen, I., Sisay Demeku Derib et al. (2011). Digging, damming or diverting? Small-scale irrigation in the Blue Nile basin, Ethiopia.
85. Genschick, Sven (2011). Pangasius at risk - Governance in farming and processing, and the role of different capital.
86. Quy-Hanh Nguyen, Hans-Dieter Evers (2011). Farmers as knowledge brokers: Analysing three cases from Vietnam's Mekong Delta.
87. Poos, Wolf Henrik (2011). The local governance of social security in rural Surkhondarya, Uzbekistan. Post-Soviet community, state and social order.
88. Graw, Valerie; Ladenburger, Christine (2012). Mapping Marginality Hotspots. Geographical Targeting for Poverty Reduction.
89. Gerke, Solvay; Evers, Hans-Dieter (2012). Looking East, looking West: Penang as a Knowledge Hub.
90. Turaeva, Rano (2012). Innovation policies in Uzbekistan: Path taken by ZEFa project on innovations in the sphere of agriculture.
91. Gleisberg-Gerber, Katrin (2012). Livelihoods and land management in the Ioba Province in south-western Burkina Faso.
92. Hiemenz, Ulrich (2012). The Politics of the Fight Against Food Price Volatility – Where do we stand and where are we heading?

93. Baumüller, Heike (2012). Facilitating agricultural technology adoption among the poor: The role of service delivery through mobile phones.
94. Akpabio, Emmanuel M.; Saravanan V.S. (2012). Water Supply and Sanitation Practices in Nigeria: Applying Local Ecological Knowledge to Understand Complexity.
95. Evers, Hans-Dieter; Nordin, Ramli (2012). The Symbolic Universe of Cyberjaya, Malaysia.
96. Akpabio, Emmanuel M. (2012). Water Supply and Sanitation Services Sector in Nigeria: The Policy Trend and Practice Constraints.
97. Boboyorov, Hafiz (2012). Masters and Networks of Knowledge Production and Transfer in the Cotton Sector of Southern Tajikistan.
98. Van Assche, Kristof; Hornidge, Anna-Katharina (2012). Knowledge in rural transitions - formal and informal underpinnings of land governance in Khorezm.
99. Eguavoen, Irit (2012). Blessing and destruction. Climate change and trajectories of blame in Northern Ghana.
100. Callo-Concha, Daniel; Gaiser, Thomas and Ewert, Frank (2012). Farming and cropping systems in the West African Sudanian Savanna. WASCAL research area: Northern Ghana, Southwest Burkina Faso and Northern Benin.
101. Sow, Papa (2012). Uncertainties and conflicting environmental adaptation strategies in the region of the Pink Lake, Senegal.
102. Tan, Siwei (2012). Reconsidering the Vietnamese development vision of “industrialisation and modernisation by 2020”.
103. Ziai, Aram (2012). Postcolonial perspectives on ‘development’.
104. Kelboro, Girma; Stellmacher, Till (2012). Contesting the National Park theorem? Governance and land use in Nech Sar National Park, Ethiopia.
105. Kotsila, Panagiota (2012). “Health is gold”: Institutional structures and the realities of health access in the Mekong Delta, Vietnam.
106. Mandler, Andreas (2013). Knowledge and Governance Arrangements in Agricultural Production: Negotiating Access to Arable Land in Zarafshan Valley, Tajikistan.
107. Tsegai, Daniel; McBain, Florence; Tischbein, Bernhard (2013). Water, sanitation and hygiene: the missing link with agriculture.
108. Pangaribowo, Evita Hanie; Gerber, Nicolas; Torero, Maximo (2013). Food and Nutrition Security Indicators: A Review.
109. von Braun, Joachim; Gerber, Nicolas; Mirzabaev, Alisher; Nkonya Ephraim (2013). The Economics of Land Degradation.
110. Stellmacher, Till (2013). Local forest governance in Ethiopia: Between legal pluralism and livelihood realities.
111. Evers, Hans-Dieter; Purwaningrum, Farah (2013). Japanese Automobile Conglomerates in Indonesia: Knowledge Transfer within an Industrial Cluster in the Jakarta Metropolitan Area.
112. Waibel, Gabi; Benedikter, Simon (2013). The formation water user groups in a nexus of central directives and local administration in the Mekong Delta, Vietnam.
113. Ayaribilla Akudugu, Jonas; Laube, Wolfram (2013). Implementing Local Economic Development in Ghana: Multiple Actors and Rationalities.
114. Malek, Mohammad Abdul; Hossain, Md. Amzad; Saha, Ratnajit; Gatzweiler, Franz W. (2013). Mapping marginality hotspots and agricultural potentials in Bangladesh.
115. Siriwardane, Rapti; Winands, Sarah (2013). Between hope and hype: Traditional knowledge(s) held by marginal communities.

- 116.** Nguyen, Thi Phuong Loan (2013). The Legal Framework of Vietnam's Water Sector: Update 2013.
- 117.** Shtaltovna, Anastasiya (2013). Knowledge gaps and rural development in Tajikistan. Agricultural advisory services as a panacea?
- 118.** Van Assche, Kristof; Hornidge, Anna-Katharina; Shtaltovna, Anastasiya; Boboyorov, Hafiz (2013). Epistemic cultures, knowledge cultures and the transition of agricultural expertise. Rural development in Tajikistan, Uzbekistan and Georgia.
- 119.** Schädler, Manuel; Gatzweiler, Franz W. (2013). Institutional Environments for Enabling Agricultural Technology Innovations: The role of Land Rights in Ethiopia, Ghana, India and Bangladesh.
- 120.** Eguavo, Irit; Schulz, Karsten; de Wit, Sara; Weisser, Florian; Müller-Mahn, Detlef (2013). Political dimensions of climate change adaptation. Conceptual reflections and African examples.
- 121.** Feuer, Hart Nadav; Hornidge, Anna-Katharina; Schetter, Conrad (2013). Rebuilding Knowledge. Opportunities and risks for higher education in post-conflict regions.
- 122.** Dörendahl, Esther I. (2013). Boundary work and water resources. Towards improved management and research practice?
- 123.** Baumüller, Heike (2013). Mobile Technology Trends and their Potential for Agricultural Development
- 124.** Saravanan, V.S. (2013). "Blame it on the community, immunize the state and the international agencies." An assessment of water supply and sanitation programs in India.
- 125.** Ariff, Syamimi; Evers, Hans-Dieter; Ndah, Anthony Banyouko; Purwaningrum, Farah (2014). Governing Knowledge for Development: Knowledge Clusters in Brunei Darussalam and Malaysia.
- 126.** Bao, Chao; Jia, Lili (2014). Residential fresh water demand in China. A panel data analysis.
- 127.** Siriwardane, Rapti (2014). War, Migration and Modernity: The Micro-politics of the Hijab in Northeastern Sri Lanka.
- 128.** Kirui, Oliver Kiptoo; Mirzabaev, Alisher (2014). Economics of Land Degradation in Eastern Africa.
- 129.** Evers, Hans-Dieter (2014). Governing Maritime Space: The South China Sea as a Mediterranean Cultural Area.
- 130.** Saravanan, V. S.; Mavalankar, D.; Kulkarni, S.; Nussbaum, S.; Weigelt, M. (2014). Metabolized-water breeding diseases in urban India: Socio-spatiality of water problems and health burden in Ahmedabad.
- 131.** Zulfiqar, Ali; Mujeri, Mustafa K.; Badrun Nessa, Ahmed (2014). Extreme Poverty and Marginality in Bangladesh: Review of Extreme Poverty Focused Innovative Programmes.

<http://www.zef.de/workingpapers.html>



Zentrum für Entwicklungsforschung  
Center for Development Research  
University of Bonn

# Working Paper Series

Author: Ali Zulfiqar, Mustafa K. Mujeri, and Ahmed Badrun Nessa

Contact: [gatzweiler@uni-bonn.de](mailto:gatzweiler@uni-bonn.de)

Photo: Rahul Pillai Sivashanmugham

Published by:  
Zentrum für Entwicklungsforschung (ZEF)  
Center for Development Research  
Walter-Flex-Straße 3  
D – 53113 Bonn  
Germany  
Phone: +49-228-73-1861  
Fax: +49-228-73-1869  
E-Mail: [zef@uni-bonn.de](mailto:zef@uni-bonn.de)  
[www.zef.de](http://www.zef.de)