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How much can asset transfers help the poorest? The five Cs of community-level development and BRAC's Ultra-Poor Programme

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Abstract

We develop a framework for assessing community-level development programmes, building upon five related elements that are centrally important: confidence, cohesion, capacity, connections and cash (the five 'Cs'). We use this framework for evaluating the impacts over a six-year period (2002-2008) of an innovative programme, implemented in rural Bangladesh, which has assisted extremely poor households, literally the poorest of the poor. Asset transfers constitute the centrepiece of this multidimensional programme, which also supports training, organisation building, cash supports, microfinance, and so on. The provision of a substantial dose of assets has helped produce very positive results by and large. Impressive income gains have been achieved (and sustained) by the majority of assisted households. But vulnerability to downturns on account of negative events, such as illnesses and house damage, has resulted in asset losses for several assisted households. Better social protection measures will help complete the good work commenced by the asset transfer plan.

Keywords: poverty, community-level development, asset transfer, programme evaluation, Bangladesh

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How can the well-being of the poorest people be improved in a sustainable manner? Different modes of action have been implemented over the previous 60 years with varying degrees of success, each guided by theories that became dominant at particular moments, only to be surpassed by other models over time. Starting with state-directed import-substituting industrialisation, dominant through the 1950s and the early 1960s, the development assistance enterprise has passed successively through phases in which technical assistance, basic needs, land reforms, small-scale industry, structural adjustment and market-led growth, improved governance, etc., have constituted the core of the strategy for development. Favoured theories have come and gone, waxed and waned, with donor interests and needs influencing quite a few, and with always a number of competing theories vying at any one time and few ever really going away. These theories and the associated strategies have varied in terms of structure, process and agency. The state, markets and NGOs have been variously perceived as the principal agents of development. Structures associated with the preferred agency types have been built up (and others sometimes torn down) during each successive phase of development assistance.

Inattention to issues of process and power has resulted in severely derailing several of these efforts. The promise of state-led development was compromised, for instance, by lack of attention to the processes involved in building state capacity building and enforcing public accountability. Similarly, the potential for smaller-scale industrial development – expected to result in employment gains on a widespread basis through the use of 'appropriate', i.e., more labour-intensive, technology – went largely unrealised, in large part because the process of developing such technologies remained under-developed. Products and prospects promised by other modes of development assistance have run afoul of extant power equations. Structural adjustment, for instance – involving, among other things, freeing markets from excessive and often arbitrary forms of governmental control and privatising inefficiently operated public enterprises – in many cases resulted in the takeover by individuals close to the party in power of public assets at throwaway prices, exacerbating inequalities without substantially improving the prospects of poorer people.[1]

Despairing of such grand schemes for raising entire nations out of poverty, and tired of waiting for national economic growth to trickle down, voices across the world have been calling for more direct modes of intervention. Assistance provided at the level of communities – to poorer individuals or to groups – has been promoted as an alternative, or at least, as a complement, to other strategies aimed at achieving faster national economic growth.

No agreement has been reached about the forms in which assistance to communities and individuals is best provided. Diverse models of community-level development are being championed simultaneously. Prominent among them are conditional cash transfers (which have achieved considerable initial success, particularly in parts of Latin America); employment guarantee programmes (being pursued vigourously in India and elsewhere); and coordinated investments in infrastructure and social services in a small but growing group of Millennium Development Villages, principally located in Sub-Saharan Africa.

[1] On the intellectual history of the development enterprise, see, for instance, Arndt (1987); Rapley (1996); Rist (2002); and Meier and Rauch (2005).

Yet another strategy for community-level development assistance, centred upon accumulation of productive assets by the poorest of the poor, has been implemented since 2002 in rural Bangladesh. BRAC, the multinational NGO headquartered in Dhaka, is at the forefront of this new-generation community-level development programme, early results from which are reviewed below.

Since its inception in the early 1970s, when it launched relief and rehabilitation programmes in selected parts of newly independent and war-ravaged Bangladesh, BRAC has diversified its operations and expanded geographically, now working in more than 60,000 villages and 4,000 urban slums, affecting the lives of as many as 110 million people of Bangladesh (Abed and Chowdhury, 1997; Smilie, 2009). The scale of BRAC's operations is truly unprecedented: in Bangladesh its microfinance programmes have over 6.6 million borrowers; it has over 68,000 pre-primary and primary schools serving nearly five million children; and its 80,000 community health volunteers reach out to millions of people, among them some of the poorest in this country. It is now a multinational NGO operating not just in Bangladesh, but also in other parts of South Asia and in East and West Africa. It has an annual budget of over US$ 530 million, a considerable portion of which is self-financed from earnings in poultry and livestock enterprises, dairy, fisheries, handicrafts and fashion stores, printing, paper production, banking and other industries.[2]

Past projects have served as learning experiences for future programming. Based on diverse experiences with community-level assistance to the poorest families (including, most recently, its Income Generation for Vulnerable Group Development, or IGVGD programme),[3] BRAC planners developed a new wave of community-level development programmes called Challenging the Frontiers of Rural Poverty: Targeting the Ultra-Poor, better known by its acronym, CFPR/TUP (Matin, Hadi and Ahmed, 2004; Rabbani, Prakash and Sulaiman, 2006; Hulme and Moore, 2008).

F.H. Abed, BRAC's chairperson, explains the motivation that led to the development of this programme:

> Although microfinance is expanding all over the world, probably fewer than half of the people who have access to financial services through microfinance live on less than a dollar a day. Microfinance has not reached a large numbers of very poor people… BRAC's definition of the ultra poor is…living on less than 35 cents a day… BRAC has recognised that before providing microfinance to the ultra poor, it needs to invest in building up their capacity… This investment involves transferring assets (such as livestock) to them through a grant – not a loan – of around US$150, and…providing a small stipend for a limited period of time until the assets begin to deliver income streams (Abed, 2009).

[2] See 'BRAC at a Glance', December 2009, available at http://www.brac.net/index.php?nid=16 (accessed 23 September 2010).

[3] The IGVGD programme aimed to leverage food aid provided by the World Food Programme through income generation and social development training, developing a regular savings habit, providing small amounts of microcredit, and offering an opportunity to be involved in BRAC's mainstream development programmes. As of 2004, the programme was working with 1.2 million extremely poor women in Bangladesh. For further details about and evaluations of this initiative, see Hulme and Matin (2003); and Matin and Ahmed (2004).

Lack of assets is increasingly regarded as both a key characteristic and an important driver of persistent poverty. In many analysts' reckoning, assets rather than income or consumption expenditures constitute the defining feature of poverty. Possessing productive assets – including physical and financial assets as well as human and social capital – helps families generate reliable income streams on a continuing basis. Thus, poor families endowed with productive assets can more effectively carve a pathway out of poverty (Sherraden 1991, 2001; Carter and May 2001). It is believed that the risk of slipping back into poverty should also be made lower; having assets helps households cope better with adverse events. Theorists have posited the existence of a certain threshold of asset possession, below which families sink inexorably into chronic poverty (Carter and Barrett 2006). If this theoretical depiction has a bearing in reality, then the provision of a critical minimum amount of productive assets should help families rise and remain above the danger point, which is more than can be achieved by providing them only with wage employment or microcredit or income supplements (especially when these are not invested in assets).

Simply giving a one-shot dose of assets is not sufficient, however. The assisted families should also be able to use and enhance these assets successfully. Their capabilities – technical, managerial and organisational – need to be appropriate to the task in hand. Connections with markets and with service providers will have to be strengthened. In fact, attention needs to be paid in any such strategy to several interconnected elements.

Knowledge gained from successful and failed examples of the past can help assess the design of new programmes. We undertake such an assessment below, examining the design of the CFPR/TUP – hereafter referred to as the Ultra-Poor Programme – against the *five Cs of community-level development*, a framework that emerges from our own prior experiences and from our reading of diverse literatures concerned with community-level development. While this framework was not part of BRAC's design process, we explain below why it is helpful for assessments of community-level development initiatives.

Following this presentation of the analytical framework, we evaluate results achieved over the first six years of programme implementation, making use of a panel data set compiled by BRAC's Research and Evaluation Division, which contains information for more than 4,500 households of three Bangladesh districts, among the poorest in this country. In general, the programme has delivered commendable results, but greater attention to risk and vulnerability in the future can further improve programme impacts. Assets do help protect against risk and vulnerability, as discussed above – but at the cost of the assets themselves. In dealing with vulnerability, people tend to draw down their asset stocks. Thus, vulnerability is better provided against, but asset losses occur nevertheless. It is far better to have a first line of defence, composed of measures (such as affordable health care) which can help reduce the initial vulnerability to risk – thereby also helping people protect their asset stocks better. This is not particularly a feature of the Ultra Poor Programme; wherever the first line of defence is weak or non-existent, asset losses are bound to occur. Thus, designers of development programmes need to walk on two legs, helping raise assets and incomes but also simultaneously reducing vulnerability.[4]

[4] Krishna (2010) presents this argument in greater detail.

The five Cs of community-level development

The term 'community-level development' is used here to refer to a collection of development initiatives that intercede in the first instance at the community level. Rather than seeking to expand the national economy or improving regional or state-level economic prospects – and expecting that the resulting benefits will trickle down to the poorest people – these micro-level initiatives directly target poor communities and individuals.

Different natures of development initiatives are included within this rubric. Some among these projects involve community groups, while others deal in the first instance with individuals or households. Among the former group of initiatives, community-*driven* development projects assign greater responsibility and management authority to (elected or nominated) local committees; in other projects, regarded to be community-*based* but not community driven, a larger share of authority rests with staffs reporting to an external support agency (Gillespie, 2004; Binswanger et al., 2009). In practice, no fine line separates these two genres of community-level assistance. Often, these terms are used interchangeably. Still, community-driven and community-based projects are different, at least in concept, from those in which the external support agency (a government department, NGO, or donor organisation) deals directly with the individuals whom it seeks to benefit. Quite often, community organisations also have a role to play in such individual beneficiary-oriented projects, helping identify eligible individuals, providing local legitimacy, and/or carrying forward the activities initiated by the assistance project.[5] Recognising that community-level projects can be different in character and scope, we identify below some common elements that must, in some suitable combination, be addressed by all such community-level interventions.

Confidence, cohesion, capacity and connections – apart from cash (i.e., financial resources, including credit) – are the elements that make for a more complete package of community-level development assistance. Programmes that fail to pay attention to any one or more of these elements are usually unable to make any deep or lasting impact.

Inculcating *confidence* among poor people helps dispel the inertia of despair. Years of neglect or experiences of failed assistance projects have too often resulted in creating situations where poor people lose faith in the possibility of improvement. Building their self-confidence, through demonstrating how they can, in fact, take control over their situations and effect meaningful changes, is thus a key initial step. Early visible results can help generate the momentum, which other elements of the project package can then accelerate (Chambers, 1983; Bunch and Krishna, 1997; Uphoff et al., 1998). Confidence also has another facet – confidence *in* poor people – donors and technicians respecting the talents or at least potentials of poor people, and communicating this to them, which helps build their confidence.[6] Security also helps build confidence. People who are

[5] BRAC's Ultra Poor Programme seems to fit within this category of individual beneficiary oriented programmes, assisted in a top-down fashion by the programme agency but with communities playing important roles in beneficiary identification and (some) cohesion building. The argument advanced below holds that expanding the roles of community organisations in certain ways can help augment longer-term benefits. We thank David Hulme for suggesting the need for this clarification.

[6] We thank Norman Uphoff for suggesting this formulation.

more assured about the security of their lives and their property will more confidently invest time and effort in diverse development activities.

Cohesion, i.e., the ability to act collectively for mutual benefit – what has come to be known, sometimes loosely, as 'social capital' – is another important element (Putnam, et al., 1993; Krishna, 2002, 2007). Particularly because local-level institutions – such as municipal governments, civil society organisations, cooperative societies, etc. – are weak or non-existent in many developing country contexts, especially in the rural areas, it becomes important to develop structures and attitudes, rules and roles, that community members can utilise for sustaining ongoing development activities and for initiating other activities that serve the common good (Ostrom, 1990). Externally-introduced initiatives should, therefore, be seen as serving a catalytic function, helping erect the institutions, both formal and informal, that will continue to serve multiple locally initiated development efforts (Hirschmann, 1984, Agrawal and Gibson 1999). Without assisting with the task of local institutional development and helping develop social capital, external assistance can usually provide only temporary relief (Uphoff, 1986).

Developing cohesion and supporting institutional development are necessary even in cases when external assistance is intended exclusively for particular individuals or households. Community buy-in helps generate common acceptance, such that benefits provided to the poorest are not viewed with hostility by others. Additionally, in contexts where public safety nets are weak, norms and networks that facilitate the provision of community-based emergency assistance are often invaluable, particularly for the poorest residents. Mechanisms for public and participatory decision making can also help reduce the threat that local elites will capture decision-making powers and corner programme benefits (Das Gupta et al., 2004, Buur and Kyed, 2006).

Capacity building – including both technical and managerial capacity – constitutes the third important element of community-level assistance. Simply handing over cash or other material benefits to the intended beneficiaries (whether individuals or groups) is hardly very effective, unless complementary resources are also close to hand. Designers of cash transfer programmes, currently in vogue in many countries, need to pay attention equally to these other associated elements. Training in technology and management skills, sometimes involving the use of paraprofessionals, has been a recurrent feature of instructive experiences of community-level development (Krishna et al., 1997). Transferring assets, such as higher-yielding cows or goats, to very poor people will raise income streams only when these people know how (or are taught how) to take care of these breeds (Kurien, 1997). Simultaneously, they must be connected to responsive and responsible organisations that help them obtain fair prices, technical advice, healthcare services, supplies of animal feed, and so on.

Connections are important not only for these purposes but also for many others.[7] Connections with state organisations help individuals and groups obtain for themselves the opportunities, benefits,

[7] Connections between community groups and external agencies are termed by some as 'bridging social capital', a categorisation that can be mistaken in some contexts and cases. In situations where community groups or organisations take the lead in forging external connections, it is appropriate to speak of bridging social capital (Putnam, 2000). But where *individuals* (rather than community groups) play the crucial role of connectors with the outside world (e.g., see Krishna, 2002; Meinzen-Dick et al., 2002; and Tsai, 2007), no

and protections, which – while written in laws and policy documents – are quite often not realised in practice, especially by poorer people. Connections are also necessary for making social services more effective, especially since services such as education and health are essentially co-produced; their outcomes are determined jointly by state provision and the efforts and resources of citizens and community groups (Ostrom, 1996; Tendler, 1997; Abers, 1998). Connections with more remunerative market-based opportunities are equally important. Helping foster better connections, such that the intended beneficiaries can sustain and enhance benefit streams over time, is thus another important aspect of successful community-level development.

Cash – or more appropriately, financial resource provision – is often regarded as the centrepiece of the assistance effort. While it is certainly important, giving cash is rarely enough. Despite protestations to the contrary (Hanlon, 2004; Hanlon et al., 2010), unless the cash given out is invested in building assets and capabilities – including physical, human, and social capital – the gains achieved will be unlikely to persist. In order to generate sustainable benefits, cash provision has to be accompanied by – and some would say, preceded by – actions directed towards the other four Cs discussed above. No cash is given out to newly formed groups by the Grameen Bank; group members must first learn critical organisational and managerial skills and develop a savings habit (Yunus, 1997). Other well-regarded community-level initiatives have also provided cash assistance usually after organisational building and capacity development are assured.

The reverse procedure has been unfortunately adopted by some other community-level assistance programmes, including many that were supported by multilateral development agencies. It has been assumed, implicitly or explicitly, that holding out a promise of cash provision will induce communities to take by themselves all the other required actions. This assumption has been most often violated in practice, more often drawing down rather than building up social capital (Carvalho and White, 2004). Stronger communities – those which had stronger pre-existing institutions and connections – have benefited more than others; communities weaker in these regards have achieved relatively few lasting gains. Hastily implemented – without regard to many advance or accompanying steps – such programmes have delivered very uneven results, sometimes putting into question the very idea of a bottom-up development approach (Platteau and Gaspart, 2003; Mansuri and Rao, 2004).

social capital comes into play: is it valid to believe that a group's social capital will collapse if some particular individual happens to move away?

The Ultra-Poor Programme and the five Cs

A more comprehensive range of activities has been undertaken by BRAC's Ultra-Poor Programme, which is guided by a belief

> 'that the poorest people cannot benefit from a single "magic bullet"… Rather, they need a carefully sequenced set of supports that provides livelihood security; confidence-building and business/technical skill development; an asset transfer; and support for and institutionalization of their improved position within the local economy and society' (Hulme and Moore, 2008).

The longer-term objective is to 'graduate' the ultra poor into a position where they are able to avail themselves of microcredit and other 'normal' or usual forms of assistance. By virtue of having acquired greater confidence and capacity, better connections, more cohesion and inclusiveness with the rest of village society, they are expected to gain better ability for making productive use of cash.

The Ultra-Poor Programme was launched in 2002 in three of the poorest districts of Bangladesh (Rangpur, Kurigram and Nilphamari), selected with the help of spatial poverty maps coupled with the intimate area knowledge of BRAC staff. In 2002, a small group of 5,000 poorest households was initially selected for the pilot phase of this programme. Over the next four years the programme was expanded to 15 districts, serving nearly 100,000 ultra poor households.[8]

Potential programme participants were identified through multiple methodologies, combining geographical targeting, wealth ranking, and proxy means verification. Initially district and sub-districts (*upazilas*) were identified, based on spatial poverty mapping. Then, based on BRAC staff experience, particular village communities were identified. For facilitating participatory assessments and programming, larger communities were split into separate clusters, each with between 80 and 120 households. Participatory wealth ranking exercises were undertaken in cluster meetings, facilitated by specially trained BRAC staffs. Households who were ranked in the lowest two (of five) wealth categories constructed in each cluster were further surveyed for information concerned with explicitly stated (and openly advertised) targeting criteria. Two sets of criteria – exclusion criteria and inclusion criteria – were simultaneously applied (Table 1). Exclusion criteria are binding: if a household satisfies *any* one of those criteria, then it gets excluded automatically from programme assistance. Failure to meet *three or more* of the five inclusion criteria also constitutes grounds for exclusion.

[8] Based on the learning and experiences from this first phase, the programme was extended and expanded over the next five years – 2007-2011 (known as the second phase of CFPR). At the time of writing, the programme was assisting more than 300,000 ultra poor families.

Table 1: Criteria for exclusion and inclusion

Criteria	Rationale
Exclusion criteria 1. The household is borrowing from a microcredit NGO. 2. The household is a current cycle recipient of government or non-government benefits. 3. There are no adult women in the household physically able to put in the effort required for productively utilising the assets transferred.	1. Targeting those who do not or cannot participate in existing NGO programmes 2. Targeting those who do not or cannot participate in government-run programmes 3. The Ultra Poor Programme is primarily a women-oriented enterprise
Inclusion criteria 1. Own less than 10 decimals of land. 2. No adult male income earner in household. 3. School-age children working. 4. Women working outside the household. 5. No productive assets.	1. Landlessness and extreme poverty are highly correlated. 2. Absence of able bodied male labour power is an important characteristic of ultra poor households. 3. Child labour is prominent within ultra poor Households. 4. Adult women selling labour is more prevalent within ultra poor households. 5. Ultra poor households tend not to own any productive assets.

Source: Rahman and Tariq (2004), Matin et al. (2004)

Attention to the five Cs of community-level development assistance, albeit at varying levels, has resulted in the production of a comprehensive and carefully-planned programme of assistance. Confidence-building is an integral part of the Ultra-Poor Programme. BRAC staff enter into detailed discussions with each selected household; informing them about the nature of assistance on offer; helping them select particular productive assets (cows, goats, poultry, and rickshaws have predominated); showing them how, through careful upkeep and sound management, they will be able to advance economically; and guiding them through each successive programme step.[9] Experience sharing is another important activity. Seeing how others have forged ahead with the help of programme assistance helps newly selected families gain faith in their own ability to progress. Starting small and growing in phases has helped generate visible demonstrations of success.

Promoting cohesion through building institutions at the local level is another important thrust area. Village Assistance Committees (known as *Gram Daridra Bimochon* Committees) have been set up, which enlist local elites' support for the programme concept, also drawing their protection for the assisted ultra poor individuals. These committees help give the programme wider legitimacy at the local level, averting potential hostility. They can also serve a vital safety net function, enabling the

[9] Staff supervision is intensive. Staff to assisted ultra poor ratio is 1:100, and BRAC staff visit assisted households every week. These and several other details related to the working of this programme were obtained from Rabeya Yasmin, Programme Head, CFPR, BRAC – to whom the authors are grateful.

poorest to deal better with emergencies of different kinds, particularly those requiring sudden outlays of cash (Hossain and Matin, 2007). As stated above, it is hoped that the assisted ultra poor households will 'graduate' after some years, generally two, going on to join with the microfinance-providing Village Organisations (VOs), another forum for cohesion building that BRAC has helped set up within every village where it works.

Capacity building efforts are directed toward a number of related activities. Technical training is related to the particular activity (and asset type) selected by each assisted household. Training in entrepreneurship and management skills is also a crucial component. For periods as long as two years, hands-on training is provided in enterprise management and technical supervision (Ahmed et al., 2008). Increasing awareness of their social and political rights and responsibilities is another capacity building measure implemented by BRAC staff among the selected ultra poor (Rabbani et al., 2006).

Connections with local service providers as well as with markets are also facilitated to some extent. Health care services are provided to programme beneficiaries by specialised BRAC staffs (community health volunteers), in addition to the available government medical personnel. Information about market operations is provided as part of the training on enterprise development.

Cash is provided in two forms. The main component is physical asset transfer, provided in a single instalment. In addition, a weekly stipend of 70 Takas (about $1) is provided for an initial period, until the transferred asset starts yielding a regular income, which in some cases can take up two years.[10] Support in the form of inputs (related to the household enterprise) is also provided for an initial period.

This brief description of programme components shows how all five Cs are given a place in the designing and implementation of the Ultra Poor Programme. Nothing is assumed away, left to chance, or expected to arise as fallout of something else. The comprehensive nature of programme design has resulted in producing considerable initial success. Programme evaluations (presented below) show how the assisted ultra poor have achieved substantial income gains on average. Initial gains have been built upon in later years. Sustainability and scaling up seem to have been achieved hand in hand. There are indications, however, that strengthening some programme elements – some among the five Cs – will help assisted families hold on better to their asset stocks. Building stronger connections with service providers and market agencies should be useful for these purposes. Greater local cohesion will also help.

Evaluating results from the Ultra Poor Programme

Programme evaluation is facilitated by the existence of a panel data set compiled by BRAC's well regarded in-house Research and Evaluation Division. A baseline survey was conducted between June and August 2002 in the same three districts where this programme was initially launched. One-third of all programme village clusters were randomly selected for the baseline survey. All selected ultra-poor households (SUP) in these selected clusters were interviewed, with the wife or

[10] This weekly stipend was increased to 175 Takas for the second phase of CFPR.

senior female of the household serving as the principal respondent. An equal number of non-selected ultra poor (NSUP) households – those who were ranked in the lowest poverty categories during the participatory wealth ranking exercises, but who did not satisfy one or more of the selection criteria presented in Table 1 – were also surveyed. Baseline information was collected in 2002 for a total of 5,626 households, among whom 2,633 were SUP and 2,993 were NSUP households (Rabbani et al., 2006).

Households in these two groups are not exactly similar, so one cannot strictly regard them as treatment and control groups. Any such assignment would have been possible only if some among the households who satisfied the required inclusion and exclusion criteria had been randomly (and

Table 2: Baseline characteristics of beneficiaries of SUP and NSUP households

	NSUP (N=2298)	SUP (N=2251)	DIFFERENCE
	Demographic characteristics		
Household size	3.91	3.66	.25*** (.05)
Age of HH head (years)	42.85	43.21	-.37 (.38)
Female HH head	.25	.40	-.15*** (.01)
Single female HH head[11]	0.21	0.34	-.013*** (0.01)
Literate HH head	.092	.046	.05** (.01)
	Economic characteristics		
Per capita real income (Takas)	2784.50	2492.67	291.83*** (62.71)
Owned land[12]/of which cultivable land (decimals[13])	6.14/2.53	2.37 /0.33	3.7761*** (.43)
Proportion with cash savings	.20	.08	.12*** (.010)

Note: *** means significant at 99 percent level; standard errors in parentheses.

artificially) excluded from receiving programme benefits. For a variety of reasons, no such control group assignments were made; all those who satisfied the selection criteria were admitted into the programme.[14] As a result, the starting economic position of NSUP households was somewhat

[11] Single includes never married, divorced, separated and widowed women.
[12] Includes land of three types: cultivable, non-cultivable and homestead.
[13] In Bangladesh, 1 decimal is equal to 40.46 square metres.
[14] Randomised control trials – the 'gold standard' currently of development programme evaluation – require such an arbitrary withholding of programme benefits from otherwise eligible individuals. A disconnect can

better than that of SUP households, although some other household characteristics are not dissimilar (Table 2).

These figures show that (in the starting year, 2002, SUP households more often had female, single or illiterate household heads, somewhat lower incomes, and considerably less land and fewer assets as compared to NSUP households. Fewer SUP households had cash savings in 2002.[15] These results provide reassurance that the selection criteria implemented by BRAC appear to have worked reasonably well for the purpose of identifying and giving programme assistance to the poorest among the poorest.

In 2005 and again in 2008, i.e., at three-yearly intervals, the same households were resurveyed. Clearly, not all of the original households could be found in the same location; inevitably, some attrition had taken place. Table 3 reports the numbers of households who were available and resurveyed, respectively, in 2005 and 2008.

Table 3: Panel data attrition

Year	SUP	NSUP	Total	Attrition
2002	2,633	2,993	5,626	
2005	2,474	2,754	5,288	6%
2008	2,251	2,298	4,549	14%

The extent of attrition in these surveys is at the lower end of the range experienced by other surveys of a similar kind.[16] Further investigations showed that the households who were not available for the resurveys are not dissimilar (in terms of starting characteristics) from other households who have remained in the panel. In terms of starting year incomes, the presence or absence of cash savings, and asset ownership, households included within the baseline survey but not available for resurvey in 2005 are not significantly different from other households (of the same category, SUP or NSUP). Similarly, differences in terms of 2005 incomes, assets and savings are small or insignificant between households present in the panel in 2005 but not present in 2008 and others (of the same category). The numbers involved in attrition are relatively small, and no particular characteristic distinguishes households who dropped out of the panel. Thus, the extent of attrition bias is likely to be small.

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arise in this manner between the requirements of professional evaluators and programme implementers' concerns for equity and fairness. Particularly when programme design is based on locally grounded experience, building upon past programmes of a similar kind rather than writing upon a completely blank slate, it can be hard to justify the denial of likely benefits to those who happen to be consigned to a 'control group', especially if this denial is intended to last for many years.

[15] In terms of self-reported health status (for which data were collected by the survey but are not reported in Table 2), there are no statistically significant differences between these two groups.

[16] Dercon and Shapiro (2007) calculate a mean attrition rate of between 14 and 33 percent for such studies. See also Thomas, Frankenberg and Smith (2001).

SUP and NSUP households did not start at the same original positions: NSUPs were somewhat better off. Instead of comparing achievements at any particular point in time it is better to evaluate progress over time. Did SUP households achieve consistently higher income *gains* compared to NSUP households? Were they able to hold on to (or increase) the assets given by the programme? Are *increments* in health indicators, savings and the like also higher among SUPs compared to NSUPs?

Three previous evaluations conducted these kinds of exercises, using data from the first leg (2002-2005) of the same panel data set (Rabbani et al., 2006; Ahmed et al., 2008; Emran et al., 2009). Commonly, they utilised difference-in-difference methods of estimation. The *difference* in SUPs' average income between 2002 and 2005 is compared with the corresponding difference in NSUPs' average income. Similarly, *increments* in health status and other outcomes are compared. The advantage of utilising a difference-in-difference estimation method is that it 'eliminates the pretreatment differences in the outcome measures' (Stock and Watson, 2006:. 480).

Even though they employed slightly different statistical tools (and one study – Ahmed et al., 2008 – also examined event histories for a limited number of households), these evaluation exercises have arrived at broadly similar (and mostly positive) conclusions. During this initial three-year period the average income gain was considerably higher for SUPs compared to NSUPs. In addition, there is evidence of 'significant impact of program participation on… food security [and] ownership of livestock and household durables' (Emran et al., 2009: 28). In some other respects, such as health status, human capital growth and women's empowerment, the gains made by SUPs over this initial three-year period were not significantly superior to those achieved by NSUPs.

These results show (a) the promised assets (and cash stipends) were actually transferred to the intended beneficiaries; leakages, if any, were small; (b) that initially, at least, the programme package succeeded in raising incomes and savings among the people whom it assisted. But have these people been able to hold on these gains over a longer period? Did the various elements of the programme package help build capacity, cohesion, confidence and connections enough that sustained gains could be achieved by large numbers of the ultra poor? In order to address these questions we examined, for the first time, the longer panel data set covering two successive three-year periods. The results that we obtain for the first three year period (2002-2005) are similar to those obtained by the studies referred above – not surprising, since we have utilised the same data set.

Results for the second three-year period (2005-2008) are also encouraging, showing how a strategy involving asset transfers in coordination with other elements has resulted in significantly elevating the economic positions of the assisted poorest households. However, considerable numbers of SUP households have lost some part of the assets transferred to them by the programme. In part, this loss has been made up by the acquisition of additional land and possibly also other, less tangible, assets, such as human capital. Still, the inability of many assisted households to hold on to the transferred assets suggests that some elements of programme design – one or more of the five Cs – may need to be strengthened in the future. Paying more attention to sources of vulnerability and risk will help an already well-performing programme perform even better.

Examining differences over a longer period

We focus in this section upon two key variables – incomes and assets – while also viewing changes in savings behaviour and health status. Data related to savings and health are not, however, as rich as those concerned with household incomes and assets. Information about savings was collected in a binary manner: Do you or do you not have cash savings at this time? Health status was ascertained with the help of a five-point categorical scale, with self-reported scores ranging from excellent to very bad.

Household income was computed in relation to 20 different sources, including agriculture, animal husbandry, poultry rearing, day labour, begging and remittances.[17] In order to facilitate comparisons over time, per capita income was reported in constant 2002 prices, obtained after deflating the 2005 and 2008 figures by the rural consumer price index for Bangladesh.

Since asset values were not recorded at the time of the baseline survey (only the numbers of assets of different types were considered at that time), we developed an Asset Stock Index in order to track changes in households' asset ownership over the period 2002-2008. Price weights for each asset type were calculated as the average of mean reported prices for 2005 and 2008 (after excluding outliers). This asset stock index does not purport to be an accurate representation of the real value of different households' assets. Rather, it is a device that helps place a single value on the combined total of a household's assets and to track changes in this value over time.[18] Table 4 reports the computed asset values and weights. It is noticeable that land, probably the most precious asset in rural Bangladesh, does not form part of this asset index. Changes in land ownership are examined separately below.

Table 5 reports the gains made in regards to income, assets and savings, respectively, by SUPs and NSUPs over two separate three-year periods, 2002-05, and 2005-08. Figures reported in brackets reflect the percentage change over the preceding three-year period.

Income gains: SUPs started out in 2002 with average incomes lower than those of NSUPs. By 2005 they had not only closed this gap, they had actually forged ahead of NSUPs. Real per capita income increased for both SUPs and NSUPs over this first three-year period, but the average increase was 72 percent for SUPs and only 29 percent for NSUPs. Over the next three years, 2005 to 2008, the average per capita income of SUPs increased by another 74 percent; NSUPs meanwhile achieved an average income gain of 64 percent. Thus, the assisted poor have continued to pull ahead of the non-assisted poor. However, the differential rate of progress has become smaller over time.

[17] Cash stipends given to SUPs are not included within this measure of household income.

[18] The asset stock index has a consistent relationship with per capita income across NSUP and SUP and over each of the three survey years. It is also robust to alternative specifications. None of the results reported below changes significantly when one of these specifications is substituted by another.

Table 4: Asset value index

Asset	Mean Computed value (Takas)	weight in total index
Cow/Bull	6779.11	0.48
Duck/Hen	75.33	0.005
Sheep/Goat	835.96	0.06
Bed	337.86	0.02
Chair/Table	144.40	0.01
Radio/TV	926.93	0.07
Rickshaw/Van	3800.88	0.27
Ornaments	128.38	0.009
Well	899.00	0.06

It is important to note that while the average income of SUP households increased at a healthy rate, not all assisted poor achieved income gains. In fact, as many as 17 percent of all SUP households (and 19 percent of all NSUP households) saw real per capita incomes *fall* between 2005 and 2008. Considering the entire six-year period, 2002-2008, seven percent of SUPs (and 13 percent of NSUPs) experienced a reduction in real per capita income. We will examine below the natures of factors associated with increases and decreases in per capita income.

Changes in asset stocks: The assisted ultra poor (SUPs) received asset transfers as a programme component beginning in 2002; as a result, their asset stocks increased hugely (by almost 16 times) between 2002 and 2005. NSUPs did not receive any similar grant of productive assets, and they were able to increase their asset stocks by only 50 percent on average over the same initial three-year period. Between 2005 and 2008, however, the average value of asset stocks (at constant prices) among SUPs *decreased* by 12 percent, whereas NSUPs experienced an average gain of 41 percent.

Asset losses during this period were experienced by as many as 54 percent of all SUPs. Looking at different asset types we found that the largest decreases occurred in the numbers of cows and bulls – the same asset type as was given out to the largest number of the assisted ultra poor. These decreases occurred disproportionately among SUP households of all three surveyed districts; NSUPs did not experience a similar decline.[19] So it is not possible to lay the blame upon some wide-ranging livestock epidemic or natural calamity. Some other reasons must be invoked in

[19] Less than one-third of all NSUPs (compared to more than one-half of all SUPs) experienced asset stock decreases between 2005 and 2008.

Table 5: Economic indicators of NSUP and Ultra Poor in 2002, 2005 and 2008

	Year	NSUP	SUP	Difference (SUP-NSUP) (S.E)
Per capita income (in constant 2000 Takas)	2002	2,784.50	2,492.67	-291.83*** (62.59)
	2005 (increase over 2002)	3,615.45 (↑29%)	4,292.98 (↑72%)	677.54*** (71.93)
	2008 (increase over 2005)	5,970.16 (↑65%)	7,480.06 (↑74%)	1,509.90*** (116.7)
Asset value index	2002	2,132.50	829.96	-1,302.54*** (114.92)
	2005 (increase over 2002)	3,189.23 (↑50%)	13,801.15 (↑1,663%)	10,611.92*** (205.75)
	2008 (increase over 2005)	4,492.94 (↑41%)	12,207.89 (↓12%)	7,714.96*** (218.97)
Owned land/ cultivable land	2002	6.14/2.53	2.37/0.33	-3.78*** (0.42)
	2005 (increase over 2002)	5.46/2.23 (↓11%/↓13%)	3.12/0.71 (↑32%/↑117%)	-2.33*** (0.43)
	2008 (increase over 2005)	6.03/2.24 (↑10%/↑0.06%)	4.67/1.35 (↑50%/↑90%)	-1.37*** (0.41)
Proportion reporting cash savings	2002	.20	.08	-0.12*** (.01)
	2005 (increase over 2002)	.30	.94	0.64*** (.01)
	2008 (increase over 2005)	.34	.98	0.63*** (.01)

Note: *** means significance at 99 percent level

order to account for the inability of many assisted households to hold onto some part of their asset stocks. We will examine alternative explanations below.

Land holdings: As Table 5 shows, SUPs started out owning less than half the amount of land as was owned by NSUPs in 2002 (2.37 decimals compared to 6.14 decimals). Over the next six years SUPs were able to narrow this gap with NSUPs, but they were not able to come abreast. During 2002-2005 SUPs increased their land ownership by 32 percent, whereas NSUPs lost, on average, 11 percent of their former land holdings. In 2005-2008 average land holdings among SUPs increased by another 50 percent – and among NSUPs by only 10 percent. Interestingly, the

proportion of cultivable land in total land holding has increased steadily among SUPs, from 14 percent in 2002 to 29 percent in 2008.

The data provide evidence of widespread land hunger: early income gains among even the poorest households have been utilised in part for the purchase of more land. It is noteworthy that SUPs have continued to acquire more land, thereby gaining the additional status and prestige that ownership of land conveys within an agrarian society. However, their gains in land holding do not fully compensate for the loss of other kinds of productive assets between 2005 and 2008, as we will see later.

Savings and health: The incidence of cash savings among SUPs rose from less than eight percent in 2002 to 94 percent in 2005 and 98 percent in 2008. The increase during the first three-year period was largely a result of programme requirements: those who were assisted by the programme were required to save. But this requirement ceased to be operational once asset transfer was completed, and the fact that the incidence of savings among SUPs did not decline (and even rose slightly) during the next three years shows that the programme has helped nurture a savings habit among SUPs. In comparison, many fewer NSUPs had cash savings in 2008.

Self-reported health status and health improvements of household heads (occurring during the year preceding each survey) were also recorded by these three-yearly household surveys. No significant differences are visible in these regards between SUPs and NSUPs. In spite of the provision of some additional healthcare benefits to SUPs by BRAC, more than 40 percent of all respondents of both groups reported feeling 'not well' or 'not good/bad,' the bottom two points of the five-point ordinal scale utilised for this survey question in 2005 and again in 2008.

Overall, therefore, the Ultra Poor Programme has shown encouraging results. First, the selection of beneficiaries was done effectively in general. Those among the identified poorest who were left out (NSUPs) had higher incomes and greater asset holdings than those who were admitted into the programme (SUPs). Second, there was good overall targeting. Third, incomes among SUPs have increased consistently over six years; initial income gains have not been eroded with the passage of time; and the average income gains of SUPS over both three-year periods have surpassed those of NSUPs. Fourth, a savings habit has been inculcated: 98 percent of SUPs had cash savings in 2008 compared to fewer than ten percent in 2002.

With every silver lining, however, there is usually a cloud, large or small. Some cause for concern arises because as many as 1,215 SUPs (54 percent of all SUPs in the panel) drew down their asset stocks between 2005 and 2008. A majority of SUPs who experienced asset stock losses – 68 percent – also experienced negative changes in real income. To be sure, this is still a relatively small proportion: only 12 percent of *all* SUP households experienced negatives change in both incomes and assets. But since those whose assets and income both decline are in danger of falling into chronic poverty, it becomes important to identify what more needs to be done.

We examine below the factors that were associated, positively or negatively, with income gains in both three-year periods. Broadly the same factors were also associated with changes in households' asset stocks, as discussed in the next section.

Identifying factors of change

Difference-in-difference analyses can help with this exercise. The general model of identification is as follows:

Model 1: $y_{ijt} = \alpha + \beta_1 x_t + \beta_2 x_j + \beta_3 x_{jt} + e_{jit}$, where

α is the constant.

y_{ijt} is the outcome (real per capita income or asset stock) for the i^{th} household in year t;

j indicates the treatment group (j = 1 for SUP, j = 0 for NSUP);

t indicates year: t = 0 if year = start period (2002 or 2005), t = 1 if year = end period (2005 or 2008);

x_{jt} (the interaction term) is the additional affect of being in the treatment group in the end period (x_{jt}=1 if j = 1 and t = 1);

e_{ijt} is the error term

This basic model is next controlled by household characteristics (Model 2), district fixed effects (Model 3) and household events (Model 4).

Model 2: $y_{ijt} = \alpha + \beta_1 x_t + \beta_2 x_j + \beta_3 x_{jt} + C_1 [H_i] + e_{jit}$

Model 3: $y_{ijt} = \alpha + \beta_1 x_t + \beta_2 x_j + \beta_3 x_{jt} + C_1 [H_i] + C_2 [D_i] + e_{jit}$

Model 4: $y_{ijt} = \alpha + \beta_1 x_t + \beta_2 x_j + \beta_3 x_{jt} + C_1 [H_i] + C_2 [D_i] + C_3 [E_i] + e_{jit}$

$C_1 [H_i]$ is a vector of starting household characteristics (sex, age, literacy, marital status of household head, total land owned by the household);

$C_2 [D]$ are district fixed effects (capturing differences in the local political economy and culture);

$C_3 [E_i]$ is a vector of household events (such as, house damage, serious illness and death of family member, death of livestock, marriage) that occurred during the year preceding the survey;[20] and

e_{ijt} is the error term.

Tables 6 and 7 present the results of analyses that considered real per capita income as the dependent variable. Table 6 looks at the first period, 2002-2005, while Table 7 considers the period 2005-2008.

Interpreting these results is straightforward. Since the model is an additive one, the effects of different independent variables are added together. Consider the column of results reported under Model 1 of Table 6. The coefficient for the variable 'SUP 2002' shows that SUPs began in 2002 at a disadvantage of 292 Takas compared to NSUPs. The coefficient for the variable 'Year 2005' reports the time trend, indicating how per capita incomes of both the NSUP and SUP increased on

[20] We ran multicollinearity tests with each of these characteristics and events as the dependent variable, finding no reasons for concern. The occurrence of particular household events is not significantly associated with programme participation, i.e., the likelihood of events such as illnesses, floods, etc., does not differ significantly between SUPs and NSUPs. Using Log Income (in place of income) as the dependent variable did not change the results reported below in terms of which variables gained significance.

average by 831 Takas.[21] However, the Ultra Poor also experienced an additional increase of 969 Takas, as indicated by the coefficient for the variable 'SUP 2005'. Thus, the programme effect, experienced only by SUPs, exceeded the time trend that was experienced in common by both groups.[22]

Average 2005 real per capita incomes for SUPs can be computed from this model by adding together the values of SUP 2002, SUP 2005, Year 2005, and the constant term: 2784.50-291.83+969.37+830.95 = 4292.99 Takas – the same value as we saw earlier in Table 5. Average 2005 real per capita incomes for NSUPs can be computed by adding together only the constant term and the time trend (leaving aside those coefficients that do not apply to NSUPs), thus 2784.50+830.95 = 3615.45 Takas, once again the same figure that we saw in Table 5 for NSUPs.

The additive effects of household characteristics and experiences can be examined similarly with the help of Models 2-4. Consider the results reported under Model 4. Notice that for households headed by females real per capita incomes in 2005 were lower by 494 Takas on average. However, the positive coefficient (401) for the interactive term 'SUP females' shows that for female-headed *SUP* households the disadvantage was reduced by this amount: SUP female-headed households experienced a net disadvantage of 494-401 = 93 Takas.

The coefficient for the variable 'HH head single' shows that this factor was an advantage in case of men (+420 Takas). However, the next variable shows that *single* female household heads had an additional disadvantage (-708 Takas).

The age of household head has no significant effect, but his or her being literate tends to raise 2005 per capita incomes by an amount of 168 Takas. Household size has a significant negative effect – a reduction of 461 Takas for each additional member. Amount of land owned has a significant but small effect on income – an average increase of 22 Takas for each additional decimal of land. While poor families in these contexts typically covet additional land, as we will see later, the effects of additional landholding upon incomes are relatively small. In terms of district of residence, living in either Nilphamari or Kurigram (rather than in Rangpur district) tended to go together with lower 2005 per capita incomes (respectively, -884 Takas and -287 Takas).

Household events make a difference in addition to household characteristics. House damage and illnesses had longer-term pernicious effects upon incomes.[23] Much as analyses undertaken in other parts of the world have also indicated, such negative events placed households upon a downward trajectory.[24] These effects, while robustly negative in the analysis, are nevertheless under-reported in Tables 6 and 7. The surveys that were undertaken inquired only about the incidence of these

[21] As mentioned earlier, all figures are in constant 2002 Takas.
[22] Instead of simply catching up with NSUPs, as convergence theory would lead us to expect, SUPs have actually moved considerably further ahead.
[23] Marriage of household member is positively correlated with income, increasing 2005 incomes by 332 Takas on average. Reverse causality is likely here – having a higher income likely motivated people to marry earlier.
[24] See, for instance, Asfaw (2003); Fabricant, et al. (1999); Krishna (2010); Whitehead, et al. (2001); and Zhao (2006).

Table 6: Change in real per capita income between 2002 and 2005
(per capita income in 2005 is the dependent variable)

	Model 1	Model 2	Model 3	Model 4
SUP 2002	-291.83***	-371.28***	-355.60***	-354.95***
	(67.54)	(71.33)	(70.36)	(70.28)
SUP 2005	969.37***	948.62***	951.65***	964.34***
	(95.39)	(89.90)	(88.62)	(88.88)
Year 2005	830.95***	797.30***	792.77***	724.87***
	(67.17)	(63.47)	(62.57)	(63.96)
HOUSEHOLD (HH) CHARACTERISTICS (starting year)				
HH head female		-490.80***	-522.95***	-493.87***
		(120.03)	(118.78)	(118.69)
SUP female		423.46***	395.75***	401.38***
		(97.49)	(96.14)	(96.03)
HH head single		427.85	439.51*	420.58*
		(262.47)	(258.74)	(258.60)
HH head single female		-743.35***	-701.57**	-708.12**
		(286.02)	(282.00)	(281.69)
HH head age		0.43	2.26	2.06
		(1.83)	(1.81)	(1.82)
HH head literate		194.64**	175.54**	168.54*
		(87.84)	(86.61)	(86.45)
Household size		-481.78***	-463.35***	-461.65***
		(16.08)	(15.90)	(15.96)
Total land owned		23.71***	22.69***	22.44***
		(1.57)	(1.55)	(1.55)
DISTRICT FIXED EFFECTS (Rangpur is the comparison category)				
Nilphamari			-891.67***	-884.77***
			(56.34)	(56.40)
Kurigram			-274.91***	-287.30***
			(54.32)	(54.27)
HOUSEHOLD EVENTS				
House damaged				-182.43***
				(51.94)
Member ill				-186.26***
				(55.48)
Member died				-45.29
				(141.07)
Marriage				332.42***
				(95.96)
Livestock died				-97.88
				(102.37)
Constant	2784.50***	4676.64***	4914.26***	5025.32***
	(47.60)	(118.48)	(119.74)	(120.93)
R-squared	0.088	0.192	0.215	0.218
d/f	9069	9054	9052	9047

Note: * p<.10, ** p<.05, *** p<.01; standard errors are reported in parentheses

(and other) events during the year preceding the date of interview. Thus, events occurring in the year after the survey, amounting to three of six years, were missed out.

Table 7 shows how the same nature of effects was experienced over the second period, 2005-2008. The only notable differences between these two sets of results concern two variables: literacy, and residence in Kurigram district. The variable 'HH head literate' lost significance during the second period, while residence in Kurigram changed from being a significantly negative influence to being a significantly positive one (compared to residence in Rangpur).

Notably, the depressing influence upon per capita income of house damage and illnesses has continued unabated, even increasing in size during the more recent period. While BRAC officials have been aware of these negative effects – acknowledging that 'the most common crises are damage of house and severe illness of household members' and recognising that 'serious illness of household members is the major driver of downward mobility of the ultra poor households because of its high prevalence and severe effects' (Rabbani et al., 2006: 17-18) – SUP and NSUP households have nevertheless continued to face the ravages of such adverse events. The similarity of experiences across these two groups of households – as well as the lack of any significant difference between them in terms of self-reported health status scores – suggests that reducing vulnerability and risk are important tasks for the future.

Per capita incomes have more than tripled for SUP households (in constant 2002 Takas) between 2002 and 2008, far surpassing the gains made by NSUP households during the same period. But the nagging presence of vulnerability to negative events is troubling, and it is responsible, at least in part, for the drawing down of asset stocks by many SUP households. The data show that as many as 54 percent of all assisted ultra poor households suffered reductions in asset stocks over this three-year period. The average reduction in the value of of asset stock values among SUPs during the first three years of programme administration was a little less than 13,000 Takas (see Table 5), the average loss of 8,136 Takas during the second three-year period represents a potentially troubling trend.

Some part of the loss in asset stock values was made up by the acquisition of additional land. However, only 39 percent of all SUPs who suffered asset stock losses added to their land holdings during this period. Among NSUPs who suffered asset stock losses over the same period, 34 percent acquired additional land. The average incremental landholding by SUPs who lost assets is relatively small: on average, only 1.07 decimals. SUPs who did not suffer asset stock losses added almost twice as much to their land holdings between 2005 and 2008: 2.1 decimals. Thus, a simplistic explanation – that SUPs who lost (non-land) assets exchanged these assets for land – does not provide a complete accounting of these facts.

Some other reasons are also responsible for the observed reduction in SUPs' asset stocks. We conducted analyses similar to the ones reported in Tables 6 and 7 above, but this time considering Asset Stock Index as the dependent variable. Since these results are broadly similar to those

Table 7: Change in real per capita income between 2005 and 2008
(per capita income in 2008 is the dependent variable)

	Model 1	Model 2	Model 3	Model 4
SUP 2005	677.54***	356.33***	404.04***	420.86***
	(96.72)	(101.38)	(100.68)	(101.06)
SUP 2008	832.36***	777.04***	779.78***	758.68***
	(136.79)	(126.36)	(125.38)	(125.29)
Year 2008	2354.71***	2357.43***	2351.70***	2340.39***
	(96.23)	(89.29)	(88.60)	(88.64)
HOUSEHOLD (HH) CHARACTERISTICS (starting year)				
HH head female		-1022.64***	-1150.06***	-1152.58***
		(173.56)	(172.70)	(172.41)
SUP female		958.88***	908.72***	912.82***
		(135.05)	(134.06)	(133.86)
HH head single		842.61**	840.95**	784.85**
		(331.43)	(328.85)	(329.24)
HH head single female		-952.62***	-837.05**	-781.97**
		(369.37)	(366.63)	(366.78)
HH head age		0.22	1.90	1.28
		(2.66)	(2.65)	(2.65)
HH head literate		142.27	111.35	107.54
		(121.48)	(120.56)	(120.34)
Household size		-783.00***	-767.36***	-771.71***
		(23.40)	(23.35)	(23.37)
Total land owned		33.35***	31.85***	31.44***
		(2.25)	(2.23)	(2.23)
DISTRICT FIXED EFFECTS (Rangpur is the comparison category)				
Nilphamari			-436.19***	-441.48***
			(79.98)	(79.86)
Kurigram			478.12***	459.74***
			(76.75)	(76.72)
HOUSEHOLD EVENTS				
House damaged				-227.03**
				(96.64)
Member ill				-228.47***
				(87.13)
Member died				96.94
				(230.34)
Marriage				652.00***
				(128.77)
Livestock died				-87.56
				(139.67)
Constant	3615.45***	6671.46***	6501.75***	6585.60***
	(68.04)	(181.69)	(183.81)	(184.23)
R-squared				
d/f	0.175	0.298	0.309	0.312
	9091	9046	9044	9039

Note: * p<.10, ** p<.05, *** p<.01; standard errors are reported in parentheses

reported earlier (for the analysis of household income), we will not report them in full, only pointing out significant differences. Thus, household size had a positive impact on changes in the asset

stock index, even though its impact on per capita income was negative. Female-headed households were not at any significant disadvantage in terms of asset stock values. Amount of land owned had a significant but a small positive effect on asset stock values (worth only 89 Takas for each additional decimal during the 2005-2008 period).

Given the evidence at our disposal we are unable fully to account for the observed asset stock reductions. Future data collection exercises should gather richer and more continuous information about household events.[25] Our findings, especially when seen in conjunction with other evidence from Bangladesh, reviewed below, does indicate, however, that illnesses, house damage, and other such adverse household events could well have played a large part. It is encouraging to find that incomes among SUPs continued to increase, even as many of them experienced reductions in asset stocks. Only 17 percent of all surveyed SUPs suffered reductions in real per capita income between 2005 and 2008. This is an excellent result for a large-scale programme of this kind. We believe, however, that further improvements can and should be made. Addressing vulnerability and risks better will help achieve these additional advances. In the concluding section we offer some suggestions, indicating how efforts directed toward two of the five Cs – connections and cohesion – can be helpful in these regards.

Conclusion: walking on two legs

Experience has shown that the poorest individuals are hard to reach with the help of microfinance alone.[26]

> 'From the demand side, the ultra poor do not have an asset base or confidence to allow risk taking and, from the supply side, zero tolerance on non-repayment discourages the participation of those who have limited fallback options' (Sulaiman and Gulesci, 2008: 2).

Other means of transferring cash – including conditional cash transfers, employment generating programmes, etc. – may also not suffice to move people permanently out of poverty, unless they simultaneously help build capacity, forge connections, enhance cohesion and raise confidence.

Vulnerability to risk is a constant feature of the experience of poverty (Dercon, 2005). While designing programme elements – addressing the five Cs – planners should pay heed not only to the potential for gains but also to the likelihood of losses. Raising the ability of poor people to deal with the most important sources of risk (without losing one's shirt in the process) while concurrently

[25] It is possible that some SUPs exchanged material assets for human capital assets, investing in education and health, and it would be important to probe this possibility. Given the limited availability of data on these aspects, it becomes difficult to test this claim in full.

[26] The academic jury is still out on this question; different results are provided by researchers examining programs in diverse parts of the world. The positive prognoses of Khandker and Pitt (1998) and Khandker (2005:.285) – that 'Microfinance has a slightly higher impact on extreme poverty than on moderate poverty for everybody' – come up against the opposite conclusion reached, for instance, by Boonpern et al. (2009); Coleman (2006); Kondo et al. (2008); and Zaman (1999). Develtere and Huybrechts (2005) have a more nuanced conclusion, namely, that while microfinance programmes have the potential of benefiting the poorest, not many of the poorest have been reached by such programmes. Roodman and Morduch (2009) remain agnostic, questioning the evidence base of several such studies.

improving their prospects for upward mobility – these are the critical objectives that community-level development programmes must serve.

Exclusively supporting upward mobility can be of relatively little value, unless the danger of backsliding is simultaneously addressed.

> Discrete events rather than any particular household characteristics influence households' economic trajectories over time. Two types of everyday events can be distinguished. Negative events (such as illnesses and high health care costs) tend to have a depressing effect, pushing households downward. Positive events (such as higher crop yields) tend to place households upon an ascending trajectory… Over the longer term, nearly all households experience both positive and negative events. The balance of events is what matters most. Households who experience more negative and fewer positive events tend to suffer a reversal of fortune. Other households, who experience the opposite balance of events, are the ones who climb up the economic ladder. (Krishna, 2010: 16)

Influencing households' balance of negative and positive events is the critical task of development. Raising households' asset stocks can have even greater longer-term value if sources of risk and vulnerability are simultaneously (and separately) addressed.

Davis (2007: 1), in his extensive work on poverty in Bangladesh, notes how 'improvements are generally gradual, whereas declines can be caused by the types of events which are either gradual or sudden'. He identifies dowry, illnesses and adverse dependency ratios as the most important causes of households' economic decline in Bangladesh. Similarly, examining a longitudinal panel data set from rural parts of this country, Quisumbing (2007) concludes that household events such as illnesses, dowries, floods (causing house damage), and legal costs are principally implicated in reducing household income and consumption. Evidence from other countries, both developing and industrialied, shows how negative events, such as illnesses, can have a long-term deleterious effect.[27]

Although the impact of these events is underestimated in our analysis (because information about household events was recorded for only three of six years), events of a negative kind were nevertheless found to be associated with households moving backward, eroding some part of the gains that they had previously made. Households' incomes and asset stocks have suffered when illnesses and house damage have occurred. More needs to be done in the future for dealing with such events that negatively impact households' economies.

Building better connections with service providers, particularly with providers of health care (in both the government and NGO sectors), will be important in the future. Building connections with

[27] Families' long-term incomes have been computed to fall by 13 percent on average in China because of every major health incident (Gan, et al., 2005). 'Illness causes more serious economic damage to households than crop failure', a study undertaken in Cambodia concluded. 'It is impossible to pay large, lump-sum expenses for treatment just by earning additional income' (Kenjiro, 2005: 779). More than one-half of all personal bankruptcies in the United States arise on account of unbearably high medical expenses (Himmelstein, et al., 2005).

sources of low-cost financing for health care and house repair costs will help the affected households make these payments more easily – without necessarily having to dispose of their assets. Pooling risks through appropriate insurance mechanisms, especially exploring the possibility for community-level risk-sharing, can serve as another promising avenue for future action.[28] Building greater cohesion among the assisted families, and between them and their village communities, will also help make these efforts more productive in terms of raising people's abilities to cope with risk. Grounding the Ultra Poor Programme more directly within community groups will better help accomplish some among these ends. [29]

The Ultra Poor Programme has achieved commendable results during the initial six years of implementation, 2002 to 2008. Lessons from previous community-level development efforts and from early phases of the Ultra Poor Programme have fed into the design of later phases. Some additional design improvements will also help. Assisting the poorest households to build stocks of productive assets helps protect them to some extent against downside risks. However, reducing the risk itself is additionally important. Equally, the costs associated with these downside risks must be lowered. Connections and cohesion must be built to support these ends. It can then be expected with greater assurance that the ultra poor will move consistently upward, less vulnerable to backsliding on account of negative household events.

More generally, this discussion helps underline that poverty reduction is a multi-dimensional enterprise. There exist multiple limiting factors that trap people in poverty. Thus, any one-dimensional intervention – focusing on only one C – will rarely be sufficient. This fact is critically important for the design of development programmes, particularly those that have, following recent fashions, started to focus, sometimes exclusively, upon cash transfers. While cash can be, and often is, an important element of a package of assistance, giving out cash without paying heed to the other four Cs is unlikely to produce a lasting impact. Better methods are required for designing relatively high dimensionality interventions.[30] We hope that the foregoing analysis will better help development planners think through these issues. Progress against poverty will improve as a result.

[28] See Bhattamishra and Barrett (2010).
[29] According to David Hulme, who has observed this programme on the ground on multiple occasions, it 'has raised social links between ultra poor people but created divisions between ultra poor and poor in BRAC villages'. Grounding the programme better in community-based structures should help in the future. (Personal communication from David Hulme.)
[30] We thank Chris Barrett for suggesting this formulation.

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