

Hrishipara Daily Diaries 2015-2016
Interim Report, May 2015 -March 2016
April 2016

Getting and Spending in Central Bangladesh

Money management patterns in fifty low-income households



Project Manager Kalimullah (left) checks some numbers with a boatman Diarist on the Shitalokha River, Kapasia

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The Hrishipara Daily Diaries

The Hrishipara Daily Diaries project tracks the daily money transactions of 50 low-income households living in or near to Kapasia, central Bangladesh¹. The 'Diarists' whose transactions we record are all individuals, but by tracking intra-household transfers as well as all income, expenditure and financial flows, we are able to construct a full picture of the economic and financial lives of their households². In this process we inevitably become aware of the details of their occupations, and of much of their social and even their emotional lives.

The first 'Diarists' were selected in May 2015 and the most recent in February 2016. They were selected to include a wide range of occupations and income classes from the extreme poor to the near-poor. Of the 50 Diarists, 20 are women. Ages range from under 20 to over 65.

For more detail on the origins and location of the project, how the Diarists were selected, and how their data is collected and processed, see Appendix 1.

Our Diarists

Household type, size and composition

Each of our 50 Diarists is drawn from a single household. From the point of view of data collection, the households fall into three types. Most common are households where the members live together (that is, eat from one kitchen) in a home in the Kapasia area. In such cases our Diarist is usually the household member who manages the household's money: this could be a man or a woman, and they may or may not be the chief income earner of the household. By recording all of that person's transactions, including transfers to and from other members of the household, we obtain a full picture of the whole household's economic and financial life.

The second type of household is where one of its members lives away from home, most often abroad, but contributes income to the home family. In such cases our Diarist is the resident member of the household who receives that remitted income (directly or via intra-household transfers). In these cases only the residents are considered when calculating the household size, since the remitting member does not consume any of the remitted money and uses non-reported income to support themselves overseas.

The third kind of household consists of a worker living away from their family home, but supporting it. Typically, this is a man living alone in Kapasia and sending much of his earnings back to a household in the home village. In such cases, the migrant worker is our Diarist, and his household consists of him and his village family.

The average **household size** for all 50 Diarist households is 4.04³. The largest is a nine-person 3-generation farm household, and the smallest are 1-person unmarried migrant worker households. Detail of household size and composition for the Diarist households is shown in the Table in Appendix 2.

¹ 'Hrishipara' is a neighbourhood on the outskirts of Kapasia, and is the home of *Shohoz Shonchoy*, a small-scale pro-poor MFI whose staff run the diaries.

² At the time of writing in early April 2016 more than 79,000 transaction records comprising more than half a million data points have been collected. Data from each Diarist is collected daily, and transcribed and reviewed within 36 hours. The full data (in Excel format) is available from me at any time.

³ According to *esri*, average household size nationally in 2014 was 4.5

Occupations

A full list of the occupations of the diary households can be found in a Table in Appendix 2. Most households have more than one income source, though the source they name as their 'primary' one may not be the source from which they get most of their income. That is especially true of 'farmers' some of whom receive much more from remittances or from secondary sources than from farming.

Twelve households gave their main occupation as farming, eight are general labourers, seven are shop or stallholders, and two hold government jobs (one junior and one middle-ranking). There are thirteen households whose primary work is self-employment, as a boatman, fisherman, rickshaw driver, brick-breaker (2), cycle repairer, barber, laundryman, tailor, mason, carpenter, newspaper vendor, sari trader and garbage recycler. Office helpers or shop assistants account for another three households. There is a factory worker, an Imam, and a school teacher. Two households didn't state a particular occupation: they are fully dependent on overseas remittances.

As explained in more detail in Appendix 1, these fifty Diarists were not chosen at random, but nor were they chosen to represent any given set of occupations. Rather, we wanted a broad variety of livelihoods, with a slight bias towards farmers, in whom CGAP has a particular interest.

Income levels

Our diaries provide good data on income flows, so we are able to calculate daily per capita income for all 50 households. In Chart 2, we have categorized 11 of the households as 'extreme poor', since they fall below Bangladesh's Lower National Poverty Line, which for 2016 is an income of 61.65 taka per person per day. Another 9, the very poor, fall below the Upper Poverty Line (75.64 taka, roughly equivalent to \$1.90 at PPP (Purchasing Power Parity) rates) and another 10, the moderate poor, have daily per person incomes of up to double the Upper Poverty Line. The remaining 'near poor', 20 of our Diarists, have higher incomes averaging 280 taka per day per person⁴. More detail is given in the Table in Appendix 2.

Chart 1: Self-reported main occupations of 50 Diarists

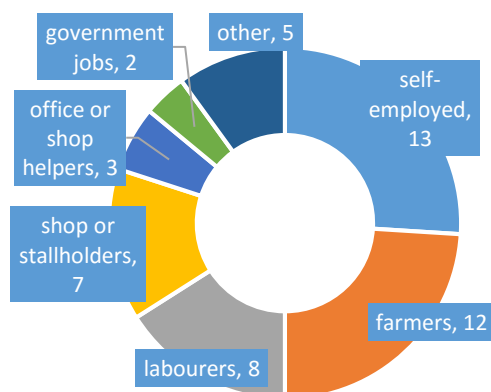
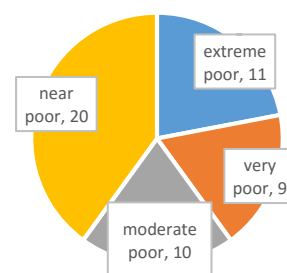


Chart 2: Income levels



⁴ These data may change, especially for the most recently selected Diarists, as we collect more information. Note also that we have not yet adjusted these figures to take into account the value of food produced and consumed by farming households: that exercise will be completed for a later Report.

Overview of daily diary data

Between 20th May 2015 and 31st March 2016 we collected 79,419 transaction records⁵ from 50 Diarists. That is an average of 1,488 for each Diarist, but the distribution is unequal, not only because the Diarists were recruited on different dates (the latest in late February 2016), but because their occupations and lifestyles lead to very different counts of transactions per day. Shopkeepers have the highest numbers of transactions because we collect daily per-item records of sales and stock purchases. The first shopkeeper we recruited (code 07MOM) has provided 15,683 records, or more than 19% of *all* records, at a rate of 65 each day. Diarists in small households, particularly if they are in low-wage jobs where their food and accommodation costs are found by their employer, record far fewer transactions: Diarist 44RJM, an unmarried trainee carpenter who gets his meals from his employer and sleeps in the workshop, provides only 2 or 3 records each day.

Categories of records

The transactions we record are all either ‘inflows’ or ‘outflows’ and fall into five categories:

- **income**: inflows from earnings of all kinds made by the Diarist (wages, self-employment, sale of goods, etc)
- **expenditure**: spending by the Diarist on personal, household and business needs
- **financial**: inflows from loans and from savings withdrawals (including interest on savings), and outflows into loan repayments (including interest on loans) and savings deposits
- **intra-household transfers**: transfers of money between the Diarist and other members of the household (these may be inflows from income earned by others, outflows of money to fund the spending needs of others, or they may be transfers for financial dealings, as when a Diarist passes money to a spouse to repay an MFI loan)
- **gifts**: we isolate gifts given to and received from people outside the household in order to gauge the level of support between different households in the area

Of the records collected so far, 31,173 (42% of all records) are in the category **income**. 34,331 (46%) are **expenditure**; 4,976 (7%) are **financial** (but this doesn't include transfer records that are made for financial purposes); 7,693 (10%) are **transfers** (of which 2,005 were made for financial purposes); and 503 (>1%) were **gifts** (we have excluded the ‘gifts’ which are the payments the project makes to Diarists for participating).

In terms of value, **income** inflows to the Diarists comes to 4.93 million taka with net transfers from other members of the household adding 1.6 million, and gifts another 0.4 million. **Expenditure** by the Diarists comes to 7.13 million (plus about 0.1 million of gifts out). The deficit is accounted for by financial inflows (loans and savings withdrawals totalling 4.18 million) exceeding financial outflows (repayments and deposits)⁶. Diarists also spent from opening cash balances.

We also record two further characteristics of transactions:

- **deferred payments**, such as shopkeeper or supplier credit, very common in Bangladesh and known as ‘*baki*’. 983 transaction records are of *baki* taken or repaid
- **mobile-phone enabled payments**, of which we recorded 157 transactions (0.19% of all records⁷)

⁵ Each transaction record comprises 7 data points, for a total of more than half a million data points so far.

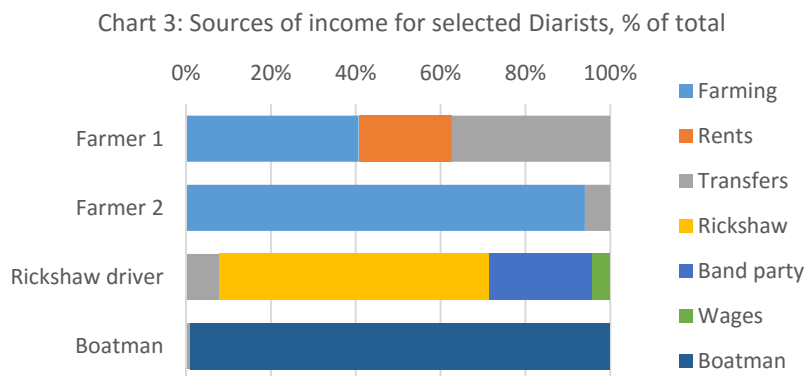
⁶ We do not anticipate that this imbalance will continue. February and March are peak building seasons and three Diarists have pulled out savings to rebuild their homes.

⁷ Among these we do *not* count cash purchases of airtime (which are numerous).

Income patterns

Multiple income sources

Most households have more than one income source. The *least* likely to have multiple sources are the labourers – though of course they may labour in different ways for different employers. One of our labourers may do farm work one day, unload sand the next, and hump goods in a shop the next. Otherwise, there does not appear to be a clear relationship between the *main occupation* and the *number of sources*. The Table in Appendix 2 suggests this, and Chart 3 illustrates it.

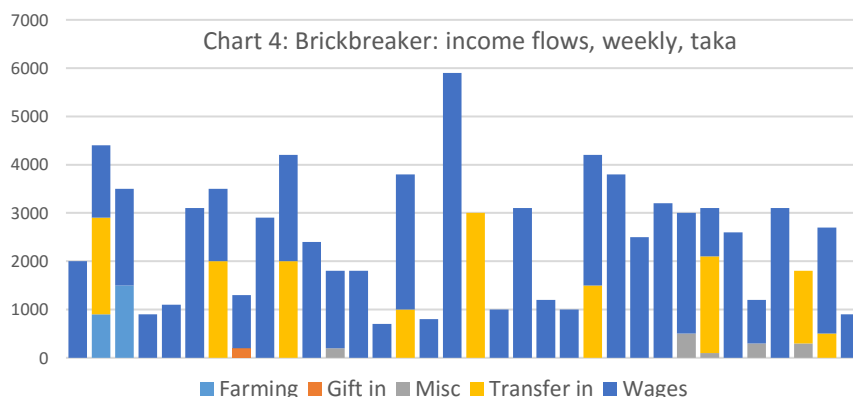


Here we see that one farmer (probably the most prosperous farmer in our sample) gets only 40% of his income from farming, and almost as much from transfers from his son overseas. The second farmer has no expatriated household members, and takes virtually all his income

from farming. Two self-employed men in transport show different patterns: the rickshaw driver gets a fair bit of income from playing in a band party, and a little more from wages (in a firewood shop) and transfers (from his wife, who makes paper boxes). The boatman, by contrast, is wholly dependent on his chosen occupation.

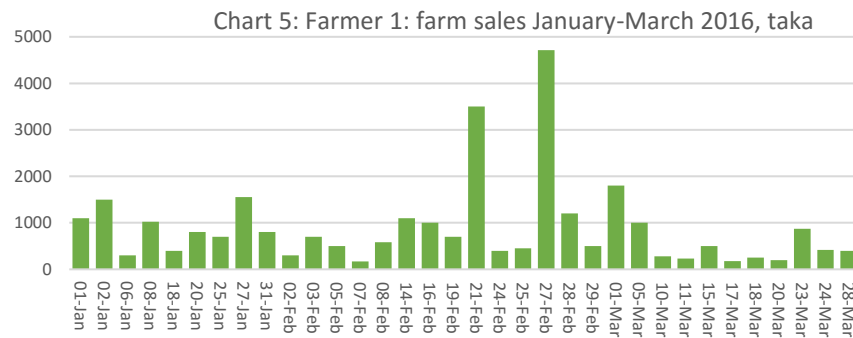
Income volatility

The general rule among our 50 Diarists is that earned income arrives frequently, in small amounts. Our two government workers (a hospital *peon* and a high-school teacher) get paid monthly, but private sector waged employees get paid more frequently than that: at two-week intervals for a garments worker and weekly for a worker in a biscuit factory, for example. Less formal employment tends to be paid even more frequently, though irregularly: a labourer on a fish-farm, and an apprentice carpenter tend to get paid when they ask for it and their employer has cash available. Traders who don't keep accounts, as is the case with most of our shopkeepers, don't distinguish carefully between income and cash flow, and dip into their cash flow when they need to spend. Many of the self-employed (like the rickshaw driver and the boatman in Chart 3) earn at least something virtually every day, but the self-employed who take on small-scale low-value contracts – for breaking bricks, or repairing dirt roads – often have to wait a few days to get paid. Chart 4 shows a brick-breaker's income, weekly from early August 2015 to the end of March 2016.



His own income varies because he doesn't work every day, and often has to wait for payment. Some income comes from his faith-healing work. Transfers come mainly from his wife, who also break bricks.

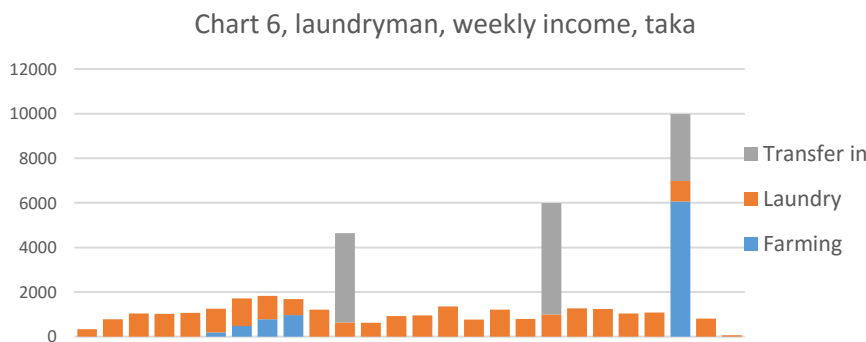
Even farmers get much of their income in small daily amounts. Though they may have some ‘lumpy’ sales, such as rice stocks just after harvest, or of livestock, they tend to grow a variety of crops and to sell them in small quantities as they ripen. Chart 5 shows the daily farm-income flows of Farmer 1 from Chart 3, for the first three months of 2016.



His biggest single daily sale was just under 5,000 taka (PPP\$ 125) on 27th February, but even that was composed of three different items: 3,500 of *jujube* sales (a fruit), 510 of pumpkin, and 700 of milk. Like many

small farmers in densely populated Bangladesh, our farmer Diarists live close to markets and are in the habit of going to market daily to sell, shop and buy farm inputs.

A more volatile income flow can be seen in the weekly income of a Diarist who runs a very small laundry from a tiny shop in a minor market (Chart 6).



Gifts

Some 750,000 taka (PPP\$ 18,750) have been recorded as income from gifts⁸, in 503 records (so the average gift size is PPP\$ 37). However, these totals and averages don't tell us much, because the gifts are of varying kinds. Sometimes they are really wage supplements: for example a biscuit factory worker gets 'given' 20 taka every working day to spend on his lunch, partly in compensation for his low wage. Sometimes they are thinly disguised bribes: a government worker who serves as a *peon* in the local hospital gets many tips from patients as payment for facilitating access to services, and he insists these are 'gifts'.

Nevertheless there remain many gifts that are genuinely acts of, often spontaneous, mutual assistance. Many occur between relatives. A few of these – among the biggest – are barely distinguishable from remittances. One of our farmers, for example, gets sent money from the Gulf by a son who has a family of his own and has long been living separately from his father's household, but who still chooses to send his father some of the good money he is earning abroad. It constitutes the bulk of his father's income.

Among the poorer Diarists, especially the extreme poor and very poor, gifts from outside the household, especially from parents and brothers, are common. A housewife whose husband and son have proved inept at running their vegetable selling business frequently gets support from her father, in sums of 50 or 100 taka and, once, as much as 4,000. She also gets help from her married daughter.

Gifts from neighbours, whether relatives or not, surge when a Diarist is hit by an especially big spending need. A fisherman who decided in a hurry to arrange his daughter's marriage when an opportunity suddenly appeared, received almost PPP\$ 2,200 from well-wishers: we tell more of his story in Chart 9 below. Funerals also bring out a lot of local generosity: one of our poorest Diarists, an occasional maidservant and casual labourer, was able to give her husband a proper ceremony when he died suddenly earlier this year, partly through the generosity of neighbours.

Our figures underestimate the extent of this kind of mutual support, since we don't capture payments which do not come directly into the hands of our Diarists. For example, one Diarist, a mason, tried to poison himself in February. The costs of his being rushed to hospital in Dhaka and treated there for several days were met by his extended family. His father gave PPP\$ 310 outright, and a cousin provided another \$ 1,080 (though, to save face, both sides have agreed to describe this *de facto* gift as a loan). These payments were made to the hospital and did not pass through our Diarist's hands.

Our Diarists are net receivers of gifts, since (after adjusting for the hospital 'tips' and so on) they received about twice as much in gifts as they gave. Diarists give to relatives and neighbours, but also, in large amounts, to places of religion, to holy men, and for religious ceremonies.



Her husband died suddenly

⁸ Gifts between members of the same household, such as (most commonly) pocket money given by parents or grandparents to children, or money given to a spouse for tea or betel nut, are recorded in our data as 'household transfers' rather than as gifts.

Expenditure

Expenditure categories

What do our Diarists spend their money on? We start with the global picture. Table 1 shows the number of transactions recorded for each expenditure category (business costs are in italics).

e-Food	14,263
e-Treats and tobacco	6,668
<i>e-Stocks for shops etc</i>	5,935
te-Transfer to household	4,521
e-Transportation	1,972
e-Phones & airtime	742
e-Toiletries	721
e-Healthcare	596
e-Fuel	497
<i>e-Farm inputs</i>	495
e-Utilities	487
e-Home construction & repair	471
e-Clothes	347
e-Education	319
e-Fees	224
ge-Gift to outsiders	180
<i>e-Newspaper stocks</i>	160
e-Personal grooming	87
e-Rent	84
e-Vehicle repair	54
e-Misc spending	53
<i>e-Worktools</i>	46
<i>e-Wages</i>	41
<i>e-Recycling material</i>	28
e-Jewellery	25
<i>e-Livestock</i>	14
e-Real estate purchase	2

Unsurprisingly, there are more than twice as many records of food purchases than of any other category. Food is bought at market stalls and small shops in small quantities: the average value of each transaction is 70 taka (PPP\$1.75).

Next comes ‘treats and tobacco’: the principal paid-for leisure activities among our Diarists are cigarettes (and *biris*, the local cheap hand-rolled version), betel leaf and nut, and tea. These purchases have an average value of 35 taka. If we cross-refer the appetite for tobacco with our records of shop sales, we see that cigarettes are comfortably the biggest item, by value, sold in the general stores in the area. Alcohol is absent from our records, though *ganja* (marijuana) is found.

‘Transfer to household’ refers to the transfers our Diarists make to other members in their household. These may fund family consumption if the Diarists happens not to be the main shopper. Often they are small amounts given as pocket-money to younger family members. Remember that they do not include transfers given to make financial transactions: these are covered elsewhere in this Report.

Table 2 shows the total values of the leading expenditure classes (ignoring business costs). House construction tops the list largely because a number of Diarists with overseas remittance incomes have used the winter dry season to build new homes. After food and treats, Diarists spent heavily on utilities, including electricity installation costs, and payments to private providers of generator power when the public system fails. Healthcare costs include two payments of 10,000 taka made at hospitals in Dhaka following serious medical problems, but is otherwise largely composed of medicines bought from local doctor/pharmacists in small quantities averaging 200 taka.

Table 2: Values of leading expenditure classes

e-Home construction & repair	- 1,714,913
e-Food	- 997,544
te-Transfer to household	- 325,664
e-Treats and tobacco	- 235,521
e-Real estate purchase	- 210,000
e-Utilities	- 163,395
e-Healthcare	- 149,752
e-Transportation	- 142,875
e-Misc spending	- 130,837
ge-Gift to outsiders	- 121,926
e-Clothes	- 114,944
e-Education	- 87,708
e-Jewellery	- 76,700
e-Rent	- 75,735
e-Fuel	- 49,517
e-Phones & airtime	- 37,958

Expenditure profiles

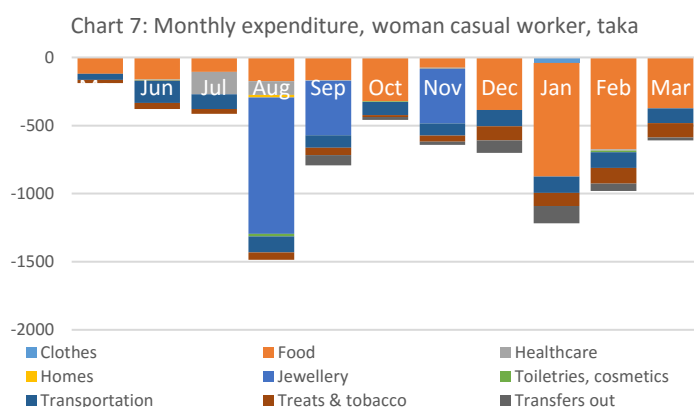
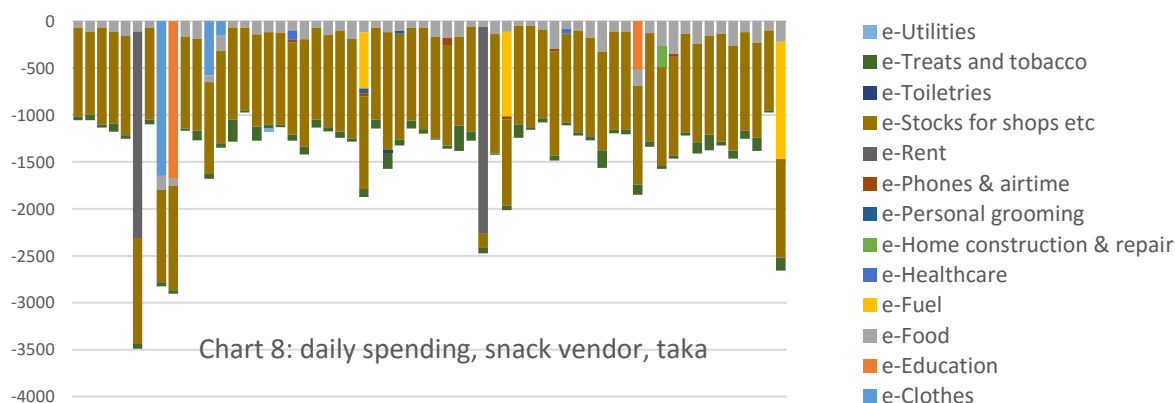


Chart 7 shows the *total* non-financial expenditure per month for the period from May 20th 2015 to end March 2016, for a casual labourer that we have categorised as *extreme poor* (per capita daily income 26 taka). A widow in her late 40s living (now) with her teenage daughter, she does odd jobs for shopkeepers and stallholders in the market. They pay her a tip (shown as ‘wage’),

and may also give her a bread roll or some other snack food. She spent in the period a total of 7,867 taka, about PPP\$ 197, or about PPP\$ 19 each month. Aside from a major investment in a gold necklace for her daughter, most of her spending was on food, spending that picked up in the new year after her daughter returned from working in a relative’s house to live with her. She spent almost nothing on clothes, a total of less than PPP\$ 1 on cosmetics and toiletries, and 30 cents on home maintenance. Her ‘treats’ were betel nut and leaf for herself and cake for her daughter. She ‘transferred’ to her daughter 5 or 10 taka pocket money each day. When she felt ill or weak she took the day off and bought simple remedies from the drug store. She lives across the river from the market where she works (7 days a week) so her transportation costs consist mainly of ferry fares.

Chart 8 shows the spending pattern – in days this time – for a snack vendor (daily per person income 110 taka) who sells each evening from a wheeled contraption that he drags to a market. The period covered is from February 1st to March 31st 2016.

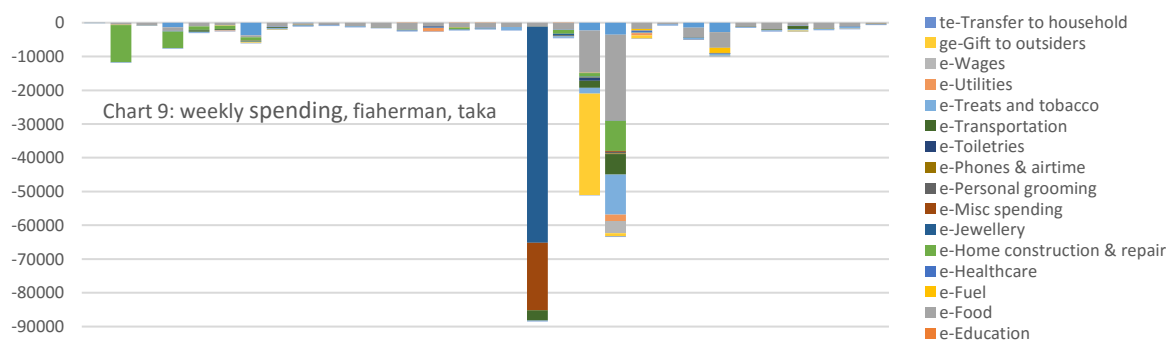


Most of his spending, by value, is for his business. Every day he buys stock (cooking oil, flour, potato, onions, chilli) and three times he buys fuel for the kerosene stove. He has a family of 5 but his food spending is low – never more than 400 a day – partly because they eat some of his snacks at home. He buys betel leaf and nut to chew himself and for his wife, and buys glasses of tea while on duty in the market. He pays his home rent monthly and splashes out, once, on clothes. The range of things that he buys is much wider than the widowed labourer, but still restricted. On most days, his income exceeds his spending.



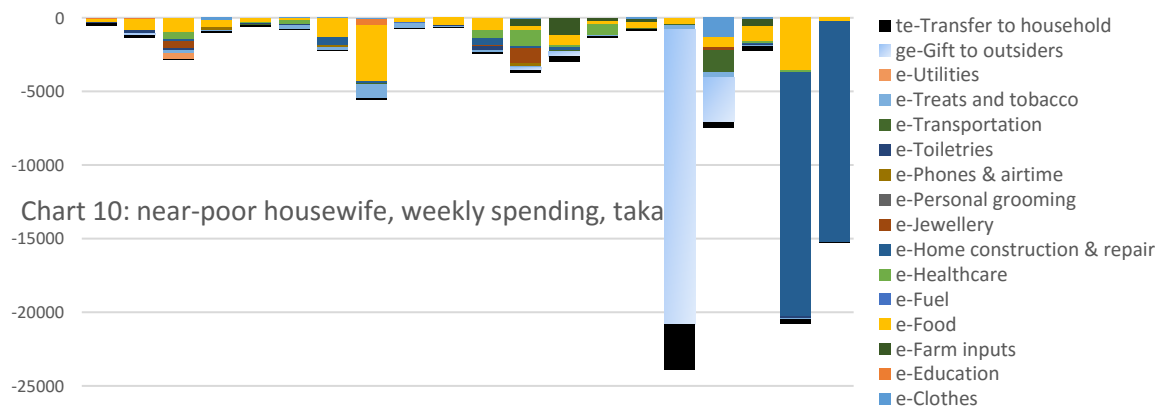
Snack vendor at work

Our next example is of a ‘near poor’ fisherman/fish seller with a daily per capita income of 220 taka (about PPP \$5.50). Chart 9 describes his spending on a weekly basis this time, to illustrate and explain the volatility of his spending.



Many weeks he spends modestly – maybe 1,000 taka of food and little else. In the opening weeks of this chart he buys a new glass-fronted steel cupboard. Then in December (just over half-way through the chart), plans for his daughter’s marriage mature. In one week he buys jewellery and donates 20,000 in cash as part of a promised dowry payment. Two weeks later he buys food and treats and spends on transportation to take his whole family to see the prospective bridegroom’s home, carrying with him another ‘gift’ of 30,000 for the new father-in-law. The next week the marriage takes place, at his home. How he found the money for this very large expenditure will be explained in the ‘finance’ section later in this Report.

Chart 10 deals with another of our ‘near-poor’ Diarists, and again we show it weekly, to describe and explain the volatility. The Diarist is primarily a young housewife, looking after two primary-school aged children. Her husband is in Singapore and remits regularly, so she has no need to seek income herself, but she has to supervise the share-cropping on the one-third of an acre farmland that they own. She has a primary school pass, and is in good health.



Her regular weekly spend is on food, with some outlays for education and health and a sprinkling of discretionary items. She also spends on farm inputs on a fairly regular basis. In February and March 2016 there are a series of somewhat larger expenditures. Her brother-in-law needed an operation on his leg so, instructed by phone by her husband, she gave him 20,000. Later that same week her husband came home on leave, and according to a local Hindu tradition she greeted him with a cash gift of 3,000 taka to buy choice fish and meat. They plan to use his leave to rebuild their home.

Baki – goods and services on credit

Taking goods or services on credit, from shopkeepers and from rickshaw drivers and the like, known as *baki*, is commonplace. It is an informal kind of consumer finance, but we deal with it here in the Expenditure section for the light it sheds on how people buy goods and services.

Forty-seven of our fifty Diarists took *baki*. Some did it more often than others, but for each of 19 of our Diarists we have recorded ten or more occasions (and we may of course have missed some).

Table 3 shows what we recorded for a rickshaw puller in the first three months of 2016.

Table 3: ‘baki’ taken and given, rickshaw-puller, 2016 Jan-Mar, taka

01 January 2016	e-Food	br	-350	dokan
06 January 2016	e-Food	br	-250	dokan
08 January 2016	e-Food	br	-220	dokan
10 January 2016	e-Food	br	-100	rice
14 January 2016	e-Food	br	-175	dokan
18 January 2016	e-Food	br	-400	dokan
21 January 2016	e-Food	br	-200	dokan
23 January 2016	e-Food	br	-200	rice
27 January 2016	e-Food	br	-250	dokan
30 January 2016	e-Food	br	-400	dokan
03 February 2016	e-Food	br	-200	dokan
05 February 2016	e-Food	br	-150	dokan
09 February 2016	e-Food	br	-150	dokan
15 February 2016	e-Food	br	-200	rice
18 February 2016	e-Food	br	-400	rice
25 February 2016	e-Food	br	-400	rice
28 February 2016	e-Food	br	-500	rice, dal etc
06 March 2016	e-Food	br	-400	rice
10 March 2016	i-Misc income	bb	500	firewood shop
11 March 2016	e-Food	br	-500	dokan
14 March 2016	i-Misc income	bb	150	band party
15 March 2016	e-Food	br	-500	rice, oil etc
18 March 2016	e-Food	br	-1500	dokan
27 March 2016	e-Food	br	-1000	dokan

Every few days he repays the shop (*‘dokan’*) where he shops for rice and other food essentials (*br* is our code for *‘baki repaid’*).

This reflects his up-and-down income as a rickshaw driver, and the fact that other bits of income also tend to get paid late. It is also, for him, a deeply engrained habit. In the table we see him being paid late (*‘bb’ baki back*) for working in a firewood shop, and for playing his drum in the band party of which he is an enthusiastic member. He also, very occasionally, gives *baki* to his rickshaw passengers – though not in early 2016.

These transactions rely on trust which in turn relies on being repeatedly honoured.

We did not try to capture *baki* transactions from the shop-keepers’ point of view, because of the burden that would have imposed on our shopkeeper Diarists who handle hundreds of small sales each day. However, they confirm that business is not possible without giving *baki*, and that *baki* management, and having the right sort of personality to form and enforce *baki* trust, are very important parts of good shop-keeping. Most record their *baki* credit in simple notebooks.



Manager Kalimullah is tempted to buy

As an example of *baki* from a vendor’s point of view we can look at a Diarist who hawks newspapers. Every morning he buys 220 copies from the wholesaler, in cash, at a cost of 930 taka (he is allowed no credit and cannot return unsold copies – he sells them for scrap). He then hawks them in the street and delivers them to regular customers. We have tracked him for 164 days so far, and find that on each day he gets income from cash-on-the-spot sales, but that on 72 days he also got paid in arrears (*baki*) by his regular customers. Those *baki* payments represent just over a quarter of his sales and some of them are more than 2,000 taka in value. He knows the risks – he tells us he once had to write off more than 20,000 taka when a long-standing client died suddenly.

Payments

Cash, cash, cash

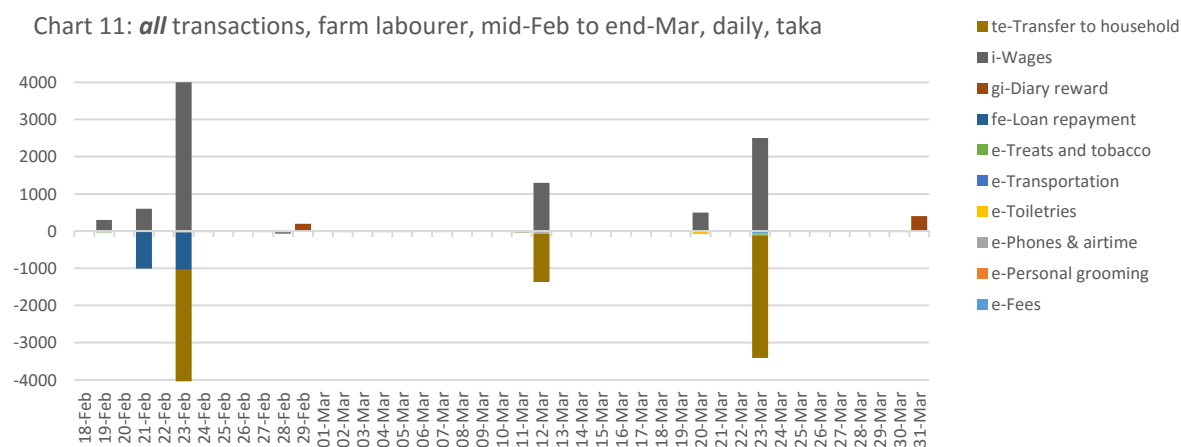
Cash, person-to-person, is overwhelmingly the most common payment method among our Diarists. Bank-facilitated systems are found only in some (by no means all) of the international remittances (see the **International remittance transfers** section, above), and in the salaries of our two government workers. The Diarist users of these bank systems interact with the bank in cash: the government workers cash out their salaries to spend them rather than using cheques, and no Diarist has a credit or debit card. Clients of bank and MFI loan and savings services, and insurance company policies, pay in and take out in cash. Shops do not offer store cards. Suppliers may offer to hold advance payments against goods, but always in cash.

Phone-based digital payments

Phone ownership and digital accounts: Of our 50 Diarists, 40 have mobile phones of their own⁹ (9 are smartphones, 28 are feature phones, and 6 are basic¹⁰). Of the 10 that don't own phones, 6 have some access to a phone in the household, leaving only 4 (8%) with no access at all.

Of our 40 Diarists who have phones of their own, 14 tell us they have opened accounts with digital providers (13 with bKash and 1 with DutchBangla). Having opened an account doesn't mean that it is used, or used regularly. In a survey in late February we found transaction records of mobile phone payments for only 9 Diarists (not all of whom owned their own phone), meaning that at least 5 Diarists claim to have accounts but we have no record of their using it.

We found in our February survey that of all transactions recorded in our database, only 0.21% were made using digital services. It seems that for our Diarists mobile phones are very important but phone-enabled money transfer services much less so. They appear of most use to migrant workers sending cash back to their villages. Chart 11 illustrates this.



The Diarist featured in Chart 11 works on a farm that is developing a fishpond. He sleeps in simple hut that also serves as a night-watchman's station. His meals are found for him by his employer. His expenditure on himself is minimal. He frequently buys airtime, in tiny amounts, to keep in touch with his home village. On most days he spends a little on tea and betel. After getting the second

⁹ 80% ownership is a little higher than was shown in a recent CGAP survey, which found rates of 92% among the well-educated, 84% among factory workers, 78% among those 'above the poverty line' and 60% overall. Perhaps ownership rates have gone up since the CGAP survey, or perhaps our Diarists are better educated or wealthier, or perhaps the Kapasia region is a high-phone-ownership area. Or all three. Note that a bigger proportion of the women phone-owners among our 50 Diarists had control over the kind of phone they bought, than in the CGAP survey.

¹⁰ These sum to 43 because three Diarists have 2 phones each.

wage payment he bought a bar of soap, a single razor blade, and small bottle of mustard oil. When he gets his wages he immediately sends all or most of it to his wife in the village, who is looking after their children. He has a phone ('feature' type) but no digital account, so he sends the money through a bKash agent in the market, paying a fee. He reports no problems with the bKash system.



Farm labourer in his lodgings, in green shirt

Many Diarists have little understanding of phone-based payments systems, and are wary. We asked three farmer Diarists their views on bKash. One said he doesn't understand it, though he's heard of it and would be open to using it if someone told him what it is. A second (the oldest of the three) has heard the name but has no intention of using it. A third (the youngest and poorest and best-educated) says he's heard of the service but it 'seems difficult' to him. He's heard that you can 'do it through an agent' and he might try that out someday but right now he has no need. A dressmaker Diarist opened an account two years back on the instructions of his city-dwelling brother, who sent him a gift of some money. He has barely used it since, and was the victim of digital-money fraud in August 2015, which has soured his view.

Digital finance

We have not yet seen any evidence of phone-based digital money services being used for intermediation (savings and credit). Nor is there evidence for the digital payment of goods or services (except buying and selling airtime). One shopkeeper used his digital account wallet to store value so that he could sell airtime to his shop customers – but gave it up as 'too bothersome' a few months ago.

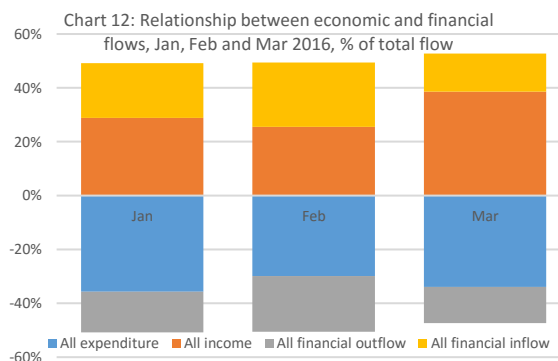
We have one Diarist who was advised by her daughter's schoolteacher to open a bKash account to receive a government education subsidy: she did, and some months later she received a payment (she says 'it's difficult, though' but our guess is she will come to value the service).

Finance

Overview

Big money: Our Diarists lead active financial lives. One measure of this¹¹ is to compare the value of all their financial transactions (taking and repaying loans, and making and withdrawing savings), which total 7.29 million taka (PPP\$ 182,000) so far, with the total value of their incomes, at 6.93 million (\$ 173,000)¹² so far. So for each taka of income, our Diarists are pushing or pulling

just over a taka through their financial tools. Of course, this ratio varies over time: Chart 12 shows that our Diarists ran especially active financial lives in February 2016, less so in March.



Note that our figure of 7.29 million taka for the value of financial transactions includes only transactions made with other parties, and therefore excludes all saving stored in and retrieved from the home, which is substantial. It also excludes transactions where one side of the deal is non-cash: thus it excludes shop-credit and a number of other quasi-financial arrangements, some of them listed in the next paragraphs. Were we to include these, the figure would be much larger. Hence the importance our Diarists attach to their financial lives.

The tools they use: So through what do they push and pull all this money? The selection of tools is broad, and many of them are *informal*. Our Diarists save and borrow in local *samitis*, (savings-and-loan clubs), or store money with *money guards* (often senior relatives or employers or shopkeepers or suppliers). They borrow interest-free from family and neighbours, or borrow on interest from their better-off neighbours. Then there's the *semi-formal* sector, Bangladesh's famous Microfinance Institutions (MFIs) such as Grameen Bank and BRAC and ASA, and their competitors, the Co-operatives. *Formal* banks and insurance companies are used by some of our Diarists, mainly as deposit-takers.

They also take shop-credit (*baki*). They use traditional systems of land and livestock credit, such as *rehan*, in which the land put up as collateral for a loan is farmed by the lender until and unless the loan is repaid in full by the borrower. Beyond that are the land- or livestock-sharing systems that have a financial element to them, such as share-cropping and share-rearing. Workers can (sometimes) take wage advances, and farmers can sell crops in advance.

General purpose tools: Most of these instruments are *general-purpose* tools serving mainly to manage cash-flow, fire-fight emergencies, or to build up nest-eggs of savings. They lack the specificity of richer-world financial markets. Some of our Diarists try to save up for their old age, but none among them has bought a Pension plan¹³. Though the insurance companies are gaining clients among the poor, they offer mainly savings instruments, usually in the form of endowment policies¹⁴. Diarists stash money away for use whenever and for whatever misfortune may befall them, but none

¹¹ Following the analysis used in the book *Portfolios of the Poor*

¹² The total value of financial transactions also just exceeds total spending (7.23 million taka). Remember that our income and expenditure totals are net of financial transactions.

¹³ Though our two government workers get some pension-like benefits from their employer, and a few Diarists receive a small means-tested 'old age benefit' or disability benefit from the government.

¹⁴ A form of contractual saving scheme, in which the saver agrees to save a set amount each month for a set term, usually ten years. At the end of the term they take back their savings with interest but (and here is the insurance element) if they die before they complete the term their family gets the full amount as if it had reached maturity.

has a fire, home, accident, disaster, health or business insurance policy. Diarists borrow from neighbours and from MFIs for all sorts of purposes, but none has a loan designed expressly to buy a home or a vehicle or an education, or to start a business. The MFIs' early focus on loans for businesses run by women has been eroded – their loans are now general-purpose¹⁵. It is an interesting debate as to whether this lack of specificity exists because clients don't want or cannot afford specificity, or because of a failure of imagination by the service providers.

Cash flow management

Following *Portfolios of the Poor*, we will divide our description of how our Diarists use their financial tools into the three main money-management problems facing poor people: cash flow management on a day to day basis, dealing with emergencies, and building up the capacity to make unusually large expenditures. We start with the first.

Our Diarists have taken 1.8 million taka (PPP\$ 45,000) in loans of all sorts in our records so far. 74% of those loans were for 500 taka (\$ 12.50) or less. Their median value was 300 taka. All of these small loans bar one were '*howlats*' – short-term interest free loans taken from neighbours, relatives or employers (the exception was taken from a *samiti*).

Table 4: *howlats* taken by maidservant December-March, taka

01/12/2015	Loan taken	500	howlat neighbour
05/12/2015	Loan taken	500	howlat real brother
14/12/2015	Loan taken	200	howlat real brother
27/12/2015	Loan taken	200	howlat brother
28/12/2015	Loan taken	100	howlat neighbour
29/12/2015	Loan taken	200	howlat neighbour
01/01/2016	Loan taken	100	howlat
04/01/2016	Loan taken	150	howlat neighbour
12/01/2016	Loan taken	100	howlat neighbour
29/01/2016	Loan taken	100	howlat neighbour
14/03/2016	Loan taken	250	howlat neighbour

Table 4 shows the *howlats* taken by a maidservant whose husband works in a run-down rice mill: they have 3 children and also look after his mother. Their *per capita* income is just 60 taka a day and we class them as *extreme poor*. Some of these *howlats* were taken to buy food when income was scarce (so-called 'consumption smoothing'). Others were taken because of their debts. They borrowed on interest, ostensibly to buy

land, but fell behind on the interest payments, so they borrowed from an MFI to reduce the private debt. Now they often find it hard to make the MFI repayments (MFIs impose a strict weekly repayment schedule) so she takes *howlats* to avoid being embarrassed at the MFI meeting. She repays these *howlats* quickly, within a few days, from her husband's or from her own income, and they are more or less up-to-date with their MFI repayments. But they still have a lot of the private interest-bearing debt outstanding. It keeps her husband awake at night.

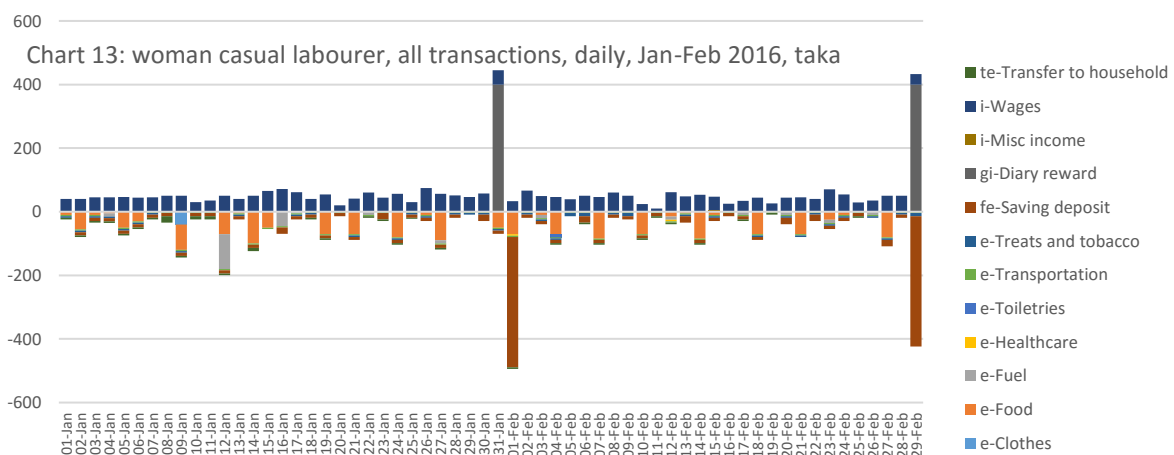
Diarists also deal with day-to-day cash-flow problems by withdrawing savings, of course. However, almost all of those withdrawals are from *home savings*: from cash stored in steel cupboards, locked trunks, tied up in cloth, hidden in the roof beams or the rice bags, even buried in the earth. The number of records we have of Diarists taking savings withdrawals from financial partners is very small compared with the number of loans and *howlats*. We do not track the money that flows from Diarists into home savings and back again¹⁶, though by comparing our Diarists' cash *balances* from

¹⁵ And Grameen has stopped offering the housing loans that were popular but loss-making in the 1990s.

¹⁶ The reason for this is that we ask our Diarists to 'tell us what money came into your hand today, and what left'. Since money is fungible, it is unreasonable to ask them whether spending was made from that day's earnings or not. That question leads only to confusion and poor data. We do, however, make a Note, whenever an unusually large amount of cash comes in (such as when an MFI loan is taken), about where the cash was stored. Conversely, if balances go significantly negative, we check with the Diarist to make sure we haven't missed some inflow.

day to day, we know that daily spending is made as much from money already in the home as from money freshly earned that day. An unsurprising finding once you see that the poor, like the rest of us, don't *really* live 'from hand to mouth'.

We chose to illustrate the use of *howlats* by the case of the extreme poor maidservant, but similar problems are faced by wealthier groups. And not every extreme poor Diarist is in the same difficulties. In Chart 7 (page 11) we showed the case of an extreme-poor widow living with her teenage daughter and doing casual work in market shops. She has schooled herself to live within her tiny income, and *never* takes *howlats*. In fact, she saves with a local MFI almost every day, but rarely takes back those savings to deal with day-to-day cash management, preferring to keep the savings available for emergencies or large-expenditure needs. Chart 13 shows *all* her transactions in January and February this year.



Here we see how she keeps her expenditure within her income, leaving room for almost daily savings deposits. The very small values of her transactions are dramatized by the fact that the monthly payments that the diary project pays her for her participation (at PPP\$ 2.50 per week) are by far the biggest transactions she experiences. She deposits them immediately into her MFI savings account. There are no savings withdrawals, and no loans or *howlats*.

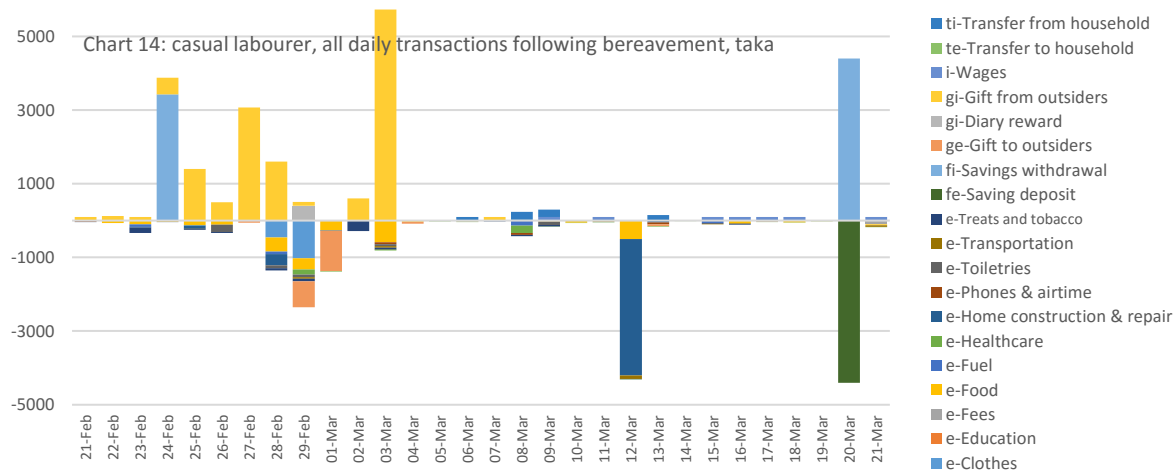
The comparison between the two women in this section is thought-provoking. Despite being the more troubled, the daily per capita income for the maidservant's household (at 60 taka) is more than double that of the casual labourer (26 taka). Housing costs for both are almost zero. It suggests that for the extreme poor successful home economics is more than just income. One reason for this, hard to describe and even harder to quantify, is to do with attitude and judgement. The other, more pertinent to this Report, is that *finding ways to better manage the household's financial affairs* may count for as much or even more than simply *increasing income*. The maidservant and her husband, preoccupied with repaying debt, save almost nothing: the only records of their saving that we have is the small compulsory weekly savings that their MFI requires from them since she joined it. The casual labourer, free of debt, finds room to save each day from a much smaller income.

Note that not everyone borrows. In the time we have known them (which is still only a matter of two or three months for some of them), 9 of our Diarists (18% of them) have not made any loan repayments of any kind. They are among 13 Diarists (26%) who have not taken any kind of loan, not even a small *howlat*. In the case of saving, only 9 of them (18%) had not made a savings deposit with another party (though virtually everyone saved at home), but 21 of them (42%) have made no saving withdrawal in the time we have known them. Savings seem to be 'stickier' than loans.

Dealing with emergencies

Insurance is the conventional way to deal with disasters, but we have seen that our Diarists don't buy insurance. How then do they manage when disaster hits?

Happily for our Diarists, there have been only four really serious incidents in the time we have been tracking them: two deaths, an attempted suicide, and a bad road accident affecting a child. When we discussed gifts (page 8) we mentioned the case of an extreme poor casual labourer whose husband suddenly died. He died on February 20th and in Chart 14 we show all her transactions on a daily basis for the month following the bereavement.



She went to her MFI, where she had a small amount still to pay on a loan she had taken a year earlier at the time of the death of her son. She wanted to release her savings there by balancing off her debt against her savings, but the MFI (ASA) did one better than that; they told her she was enrolled in their compulsory 'husband's debt-relief-on-death' scheme, which meant that they forgave the outstanding loan and gave back her savings in full. She came away with over 3,000 taka, enough to repay shopkeepers for some of the materials she had bought for the cremation. From the next day cash gifts started to arrive from well-wishers in her community culminating in more than 5,000 taka (PPP\$ 125) on a single day (3rd March). These gift comfortably covered the food and decorations and religious costs she had to find. Indeed, on 12th March she was able to buy new tin to reroof her leaky home. There was another happy twist: she remembered a commitment saving scheme at an insurance company that the couple had paid into but had abandoned in the confusion after the death of their son. She consulted our data Collector about it and they visited the insurance company's office. She was able to revive the policy by paying a lump sum of 4,500 taka which she withdrew from her savings at another MFI. The longer term financial consequences of her husband's death will not be severe: he had been disabled for several years and was earning no income.

The second death occurred on March 30th so we don't yet have the data to report on its aftermath. The attempted suicide by a Diarist we have already described under 'Gifts' (page 8), where we saw that his wider family swiftly came together to provide enough money to cover the costs of getting him to hospital in Dhaka and treating him there. The would-be suicide is a trained mason, with a primary school pass, and though we categorise his household as extreme poor (63 taka per capita daily income) his parents are middle-income farmers and his cousin was apparently able to come up with PPP\$ 1,000 very quickly.

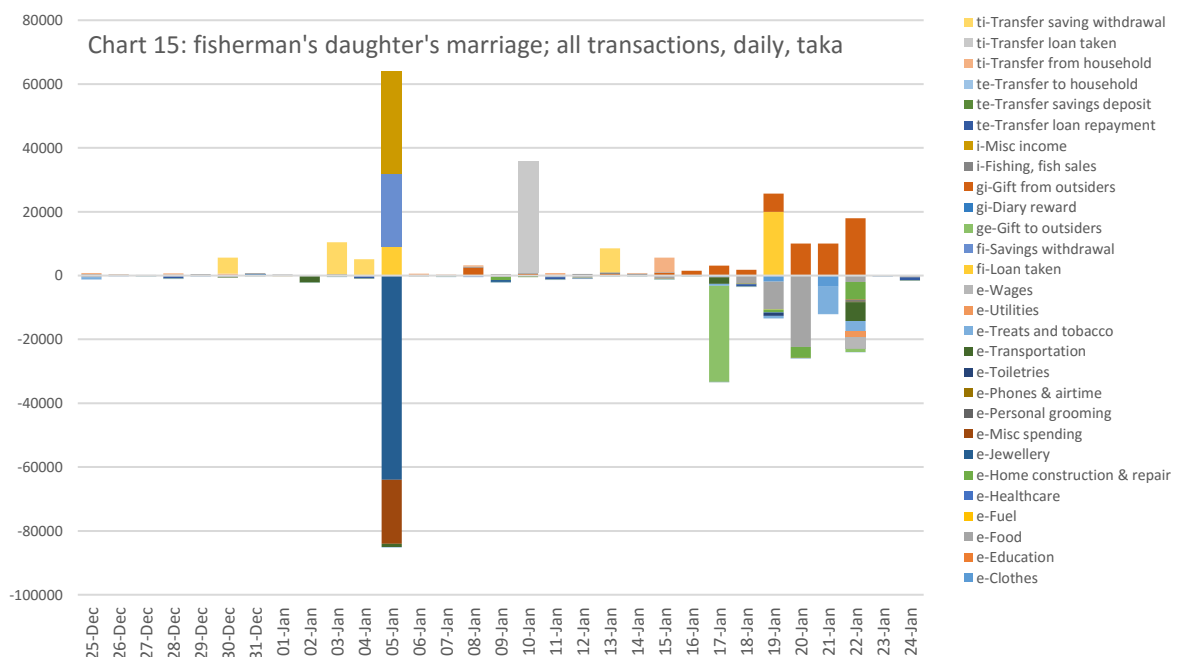
The road accident, involving an auto-rickshaw, caused a young child to lose two fingers and suffer other injuries, but the financial burden for his father, our Diarist, was not large. He is a 28-year old barber with his own small saloon, but earning for a wife, two children and his mother, rendering

them extreme poor by our reckoning (62 taka per capita daily income). However, he was able to find the two medical fees (doctor and drugs) of 3,000 and 2,650 taka out of reserves kept at home. The accident happened recently so we can't yet comment on its longer term consequences.

In summary, we have not yet seen enough emergencies to make general comments about them. The four we have looked at so far have not left the households concerned in severe economic difficulties. The emotional costs are harder to assess.

Assembling large sums

When we discussed how a fisherman Diarist organized the marriage of his daughter (Chart 9 on page 11) we promised an explanation of how he paid for it. Chart 15 therefore shows all his daily transactions for the month covering the marriage.



He spotted the marriage opportunity on December 25th. Within a few days he started to draw down his savings: 5,000 from his wife's first MFI (Al Arafa), then 10,000 and a few days later another 7,500 from his wife's second MFI (SSS), then (January 4th) 5,000 from his wife's third MFI (PIDIM). On 5th, we find he had been steadily building up savings with a money-guard, his son-in-law (an older daughter's husband), and he takes out 23,000 (a different colour in our chart since this is a direct withdrawal rather than one via his wife). January 5th was a big day: he sold much of his wife's gold jewellery and had it re-melted into new jewellery as part of the dowry, at a cost of 64,000, adding some of the cash he'd withdrawn from savings. It was also the day he gave 20,000 in cash as part of the dowry. The next large transaction came 5 days later when his wife managed to get her MFI SSS to give her a 35,000 taka loan. Later, on 19th January, he took a *howlat* of 20,000 from a relative. By then the ceremonies were underway and there was much expenditure, but also some incoming gifts, from the guests at the wedding. Taken all-in-all over the month, his balance was – just – positive, at plus 1,378. But of course he's drawn down much of his savings and run up new debt.

Another of our Diarists is a sari seller who is in our wealthier 'near poor' category, with a per capita daily income of 220 taka. Her good income comes partly from her own skill as a sari trader (she is very strong willed, as we'll see), partly from her expatriate son-in-law who sends her money from Qatar (his wife is at home as part of the trader's household and gives all her remittances to her mother), and partly from a son who works as a truck driver's helper. She has long wished to send that son to join his brother-in-law in Qatar, and has been making arrangements to that end.

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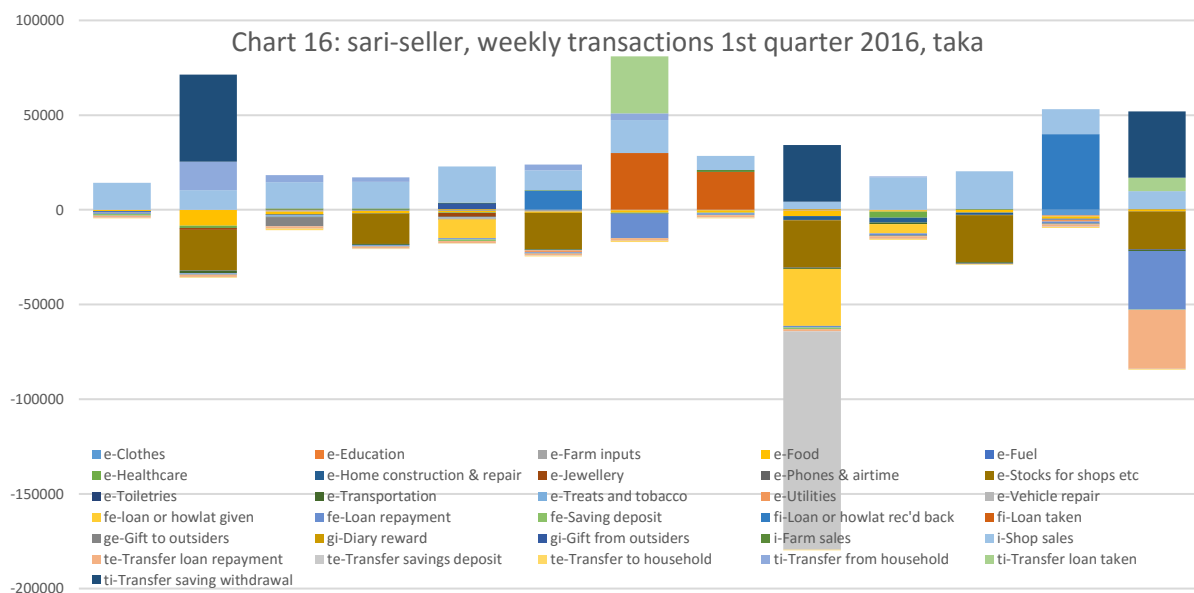


Chart 16 shows her transactions on a weekly basis for the first quarter of 2016. We note immediately that her business cash flows are strong: the sums she spends regularly on stocks (brown), and her sales (light blue) are large relative to other Diarists' numbers we have seen. Notice too that the range of different categories into which her transactions fall is greater than those we have seen so far. She begins her campaign to get her son to Qatar in the second week, when her daughter gives her 46,000 taka sourced from remitted money that had been sitting in a bank savings account for several months. Then she set about tapping the MFIs. It was not difficult for her to persuade Grameen Bank to advance her one of their special Cow Fattening loans, of 30,000 (week 7, orange). These loans are supposed to go to farmers to rear cows for the Eid festival. On the same day she helped her daughter, also in in Grameen, to get a similar sized Cow Fattening loan (light green, as it is a transfer from the daughter). She has a forceful character so the next week she persuaded Grameen to give her neighbour another 30,000 Cow Fattening loan and then persuaded that neighbour to on-lend 20,000 of it to her. Then came an upset – the agent told her there would be some delays – so she stored what she had accumulated in ready cash – more than 115,000 – in her daughter's savings account at another MFI (week 9), and settled down to wait for the agent to tell her when she should pay for her son's training course, passport, and flight.

The role of the MFIs

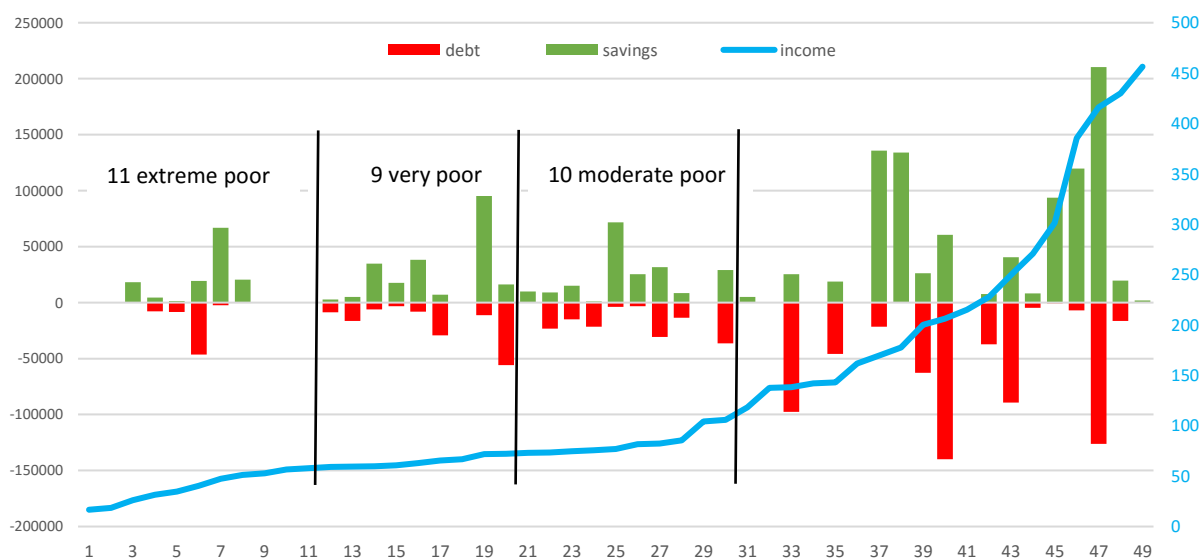
Balances: So far we have been discussing the *flows* through financial tools and devices – the savings deposits and withdrawals made, and the loans taken and repaid. We turn now to look at the *balances* – the amounts of savings held and the amounts of outstanding loan debt. You may have noticed that in the examples given so far – for example in Charts 14, 15 and 16 – drawing down savings has played a big part in how people dealt with emergencies or put together money for big expenditures, suggesting that they must have been active savers in the past. But is that also true for our Diarists in general?

Our best tool for understanding balances is to look at those that our Diarists hold with the MFIs. This may surprise, since Bangladeshi's MFIs are famous for promoting borrowing and much less so for encouraging savings. Some MFIs still insist that their 'members' (as they call their customers) are

always in debt to them, threatening to take away their borrowing rights if they don't take out a fresh loan almost as soon as they have repaid a previous one. Many MFI staff feel uncomfortable with members who want to save and not to borrow: some grudgingly allow savings accounts to members on condition that they take out at least a small loan¹⁷.

But things have been changing, and the pace of change has accelerated in recent years. In late February we surveyed the balances of those of our Diarists who have accounts at MFIs¹⁸. No less than 39 of our Diarists (78% of them) had active accounts with MFIs – most of them with more than one MFI. Chart 17 arranges all but one of our Diarists¹⁹ with the lowest per capita incomes on the left and the highest on the right, to show their MFI savings balances²⁰ and MFI loan outstanding balances in late February 2016.

Chart 17: Savings and debt balances at MFIs, taka, Diarists arranged by per capita daily income



Of our 11 *extreme poor* Diarists, only 6 have accounts at MFIs, but among all other income groups participation in MFIs is higher. So – ironically given that the original goal of the microcredit movement was ‘to reach the poorest of the poor’ – the poorest are the least likely to be using MFIs, at least in our sample.

Most Diarists with MFIs accounts have both savings and loan balances (debt) with MFIs, though a few have savings only. Twenty of them have more savings than debt, 18 of them more debt than savings. But overall, savings exceed debt by a margin of 2.5 to 1. Having started as suppliers of debt, MFIs have become low-income households’ preferred place to keep their savings.

Looking at the income classes, note that the preference for savings over debt is seen as strongly among the extreme poor and the very poor as among the not-so-poor. The propensity to hold savings but not debt, or only very small amounts of debt, is also strong among the poorer groups.

¹⁷ These behaviours are not hearsay – we have data on them in our records.

¹⁸ We were able to do this because our data collectors have built up sufficient trust among our Diarists that they were able to inspect all their MFI passbooks. Moreover Manager Kalimullah has been running *Shohoz Shonchoy* since 2002 and has good relationships with the local MFI managers, enabling him to cross-check numbers.

¹⁹ We have left the 50th out of our Chart because she is an outlier. She has had many years of receiving remittances from abroad and has systematically stashed them away in MFI savings accounts. If we included her savings balance in our Chart it would dwarf all the others, and increase the ratio of savings-to-loans to above 5:1.

²⁰ In a few cases some bank and insurance company savings are included in these numbers.

MFI savings

Diarists do of course hold savings outside MFIs. We have already mentioned the *samitis*, the money-guards, the banks and insurance companies, the Co-operatives, and the savings held in the home. These exist in large but undetermined values. We focus on MFI savings because we have more and better data on them. So what are the savings instruments that the MFIs offer?

MFIs in Bangladesh have always taken small amounts of savings at each of their weekly member meetings. At first these were compulsory and could not be withdrawn unless the membership was cancelled. Later they became more user-friendly. Now known as 'general savings', they can usually be withdrawn more or less at will, and the amount deposited each week can be varied (though in practice most members get into the habit of saving the same amount each week).

But starting in the 1990s (pioneered by the MFI BURO) MFIs started offering 'commitment savings plans' (known as DPSs²¹), where the saver commits to saving a fixed sum monthly for a fixed term of years (commonly ten), in return for a good rate of interest. These had long been formal Bank products popular with middle-class and wealthy Bangladeshis. At the turn of the century Grameen Bank began to offer the same product (the 'GPS'). MFI members quickly found that this was a better and more relaxed way of forming the large sums of money they need from time to time, than taking out the annual (and expensive) MFI loans. Demand soared. By 2005 Grameen's savings deposits exceeded its loan portfolio, and other MFIs were scurrying to offer similar products to their members.

These DPSs are at the heart of the large savings holdings of our Diarists. The extreme poor Diarist at position 5 in Chart 17 puts 1,000 taka a month into her GPS²², 'thinking of the future of my daughters'. The extreme poor brick-breaker (a woman with a disabled husband as well as a daughter to care for) at number 9 in Chart 17 stopped taking MFI loans when her husband was no longer able to work, and now saves 500 a month into a DPS at the MFI ASA. The very poor farmer who is at position 13 in the Chart built up his large savings through a Grameen GPS²³. Turning to the richer end of the income distribution, much of the savings wealth shown there is in DPSs. The farmer at position 28 pays 2,000 a month into his (though it is held in his wife's name, as are most of these MFIs). These richer Diarists, however, also use formal banks and insurance companies for their savings.

Building a pension

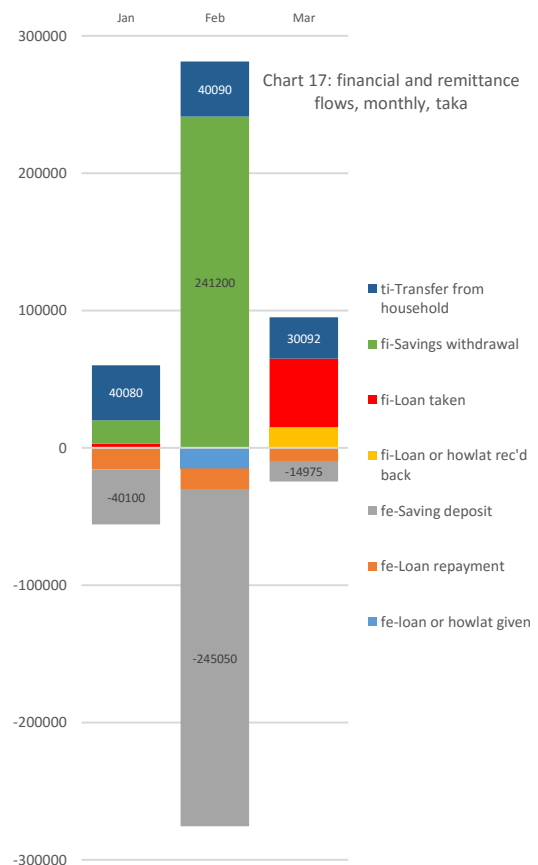
When we reviewed Chart 17, which shows Diarists' balances at MFIs, we noted that we had left out one 'outlier' (serial 50 in the Chart) who had such massive savings that it would dwarf the values of the other Diarists. Here we will look at her case. She is now about 50 years old and comes from a modest background. She married a man who runs a small restaurant. He left her for a second wife, but by that time the couple had improved their traditional mud house with a Grameen Bank housing loan (they installed cement columns and a tin roof) and under the terms of the Grameen loan the deeds to the house and the land it stands on were transferred to her own name, so she had a home if not much income. Then nine years ago her son got a job in Malaysia and things began to change. He remits large amounts of money to his mother, who has been storing it in Grameen Bank GPSs

²¹ For 'Deposit Pension Savings', after the name used by formal banks who had long provided them to the well-off. Despite the name, they are not a pension plan, though they may be the next best thing. See the next section 'Building a pension'.

²² She is one of the Diarists who have taken a loan from her MFI only because they object to her saving without borrowing.

²³ Though he has recently transferred them to a private formal bank, Mutual Trust, where he believes he gets a better deal.

(commitment savings schemes) ever since. By late February 2016 her savings balances at Grameen amounted to 1.19 million taka (PPP\$ 29,750) making hers by far the biggest savings balances of all our Diarists. Chart 17 shows some of the transactions involved in this in the first quarter of 2016. We see sums of 40,000, 40,000 and 30,000 coming in from her son for those three months. In January she simply transferred it directly into her Grameen savings. But in February her oldest GPS matured, so she took it out (241,000, in green) and deposited it, this time, into a Fixed Deposit (CD) at Grameen. The next month Grameen persuaded her to borrow: she took 50,000 and invested in a brick-field. Her son wants her to 'modernise' the house and she has reluctantly agreed, so the bricks will be used for that.



Time to rebuild the house, mum

Meanwhile she continues to live parsimoniously. Is she a miser? No, she says, she's doing it for her children – the son

who has been so good to her, a second son who may follow his brother to Malaysia if she can manage it, and a married daughter who has also supported her. She remains a huge fan of Grameen, where she has been a member since it started. She has good reason. They secured her home with their policy of insisting that the deeds to improved homes are lodged with the woman, and then helped her to secure her future with their GPS scheme.

MFI loans

Share of the lending market: In our data so far we have recorded 54 loans of 10,000 taka (PPP\$ 250) or larger so far. Of them, 38 (70%) were from MFIs, and accounted for 63% of the total value of all these loans. The rest were almost all *howlats*. The next 51 loans by value (from 1,500 to 9,999) tell a very different story. MFIs provided only 9 of them (18%) accounting for only 22% of their total value. For loans of below 1,500 value, the MFIs share is zero.

MFI loans as a share of all loans taken (of any size) is 2%, but 56% by value.

What are they for? When one of our Diarists, an extreme poor share-cropping farmer, took *howlats* of 4,200 and 5,500 from neighbours earlier this year, it was because he needed them, on those very days, to pay for farm inputs. For him, these *howlats* were clearly 'farm finance'. With MFI loans the relationship is rarely so clear. MFI loans are available according to the invariable 46-week repayment cycle. A loan is taken for farm use, say, may not coincide in time with the farm investment. The

borrower may have to store it for a time. Or they may have to borrow privately, or withdraw savings, ahead of the MFI loan and then repay the private creditor or replenish savings from the MFI loan proceeds. We see examples of these strategies in our records.

So when we look through those 38 large loans that came from MFIs it isn't always clear what they were used for. Often they are stored at home, after which some or most of their value may be spent on a business or other large purchase, or they just get whittled away in day-to-day spending.

Table 5: Farm household: all expenditure around 10th January 2016; taka

Date	CI	Description	Taka out	More details
09-Jan-16	ea	Farm inputs	100	Manure
09-Jan-16	ea	Farm inputs	80	another manure
09-Jan-16	en	Entertainment	100	Betel
09-Jan-16	ef	Food	150	Potato
09-Jan-16	ef	Food	20	Cauliflower
09-Jan-16	ef	Food	40	Tomato
09-Jan-16	ef	Food	105	Onion
09-Jan-16	ex	Utilities	25	electric bulb
09-Jan-16	ex	Utilities	30	bulb holder
09-Jan-16	ex	Utilities	250	electric motor switch
09-Jan-16	en	Entertainment	30	tea betel
10-Jan-16	eh	Home maintenance	16,000	tube well
10-Jan-16	eh	Home maintenance	8,000	timber for house repair
10-Jan-16	eh	Home maintenance	3,000	cement pillar
10-Jan-16	eh	Home maintenance	500	electric meter fitting
10-Jan-16	ea	Farm inputs	500	labour bill
10-Jan-16	ea	Farm inputs	150	cow fodder
10-Jan-16	en	Entertainment	40	tea betel
10-Jan-16	eb	Haircut	30	Shave
11-Jan-16	et	Transport	150	carrying charge pump
11-Jan-16	ez	Other expenditure	1,200	land deed process charge
11-Jan-16	eh	Home maintenance	300	electrician charge
11-Jan-16	es	Toiletry goods	52	Detergent
11-Jan-16	en	Entertainment	20	tea betel

Sometimes they (or their equivalent value – money is fungible) are deposited into savings accounts.

Sometimes it's clear what happens. The sari-seller in Chart 16, who managed to borrow three Grameen Cow Fattening loans, kept the money at home waiting to spend it to send her son abroad, but then deposited it into another MFI when the agent told her that there would be delays²⁴. Or look at Table 5 which shows the expenditure made by a farmer around 10th January, the day his wife got a 25,000 loan from her MFI. It's clear the loan went on home improvements.

Loans to shopkeepers: MFIs like lending to shopkeepers because they have steady cash flows and because their stock-in-trade reassures the MFI staff of their permanence and wealth. But our data show that shopkeepers usually buy their stock on a daily basis, in values that are small relative to the loans they are offered. So although they tell the MFI that the loan will be used to 'buy stock' (allowing the MFI staff member to tick a box) our records show that the loans are often put to other uses, or just kept as reserve liquidity in the shop. One of our Diarist shopkeepers took two loans of 60,000 and one of 30,000 within a 4 month period, from three different MFIs. When he took the first of these loans (of 60,000) he repaid 'baki' of 9,933 to his suppliers, but otherwise made no substantial investments in stock²⁵. He did however buy doors and windows, bricks and an electric meter, for a total cost of 73,000, during those months, for home improvements. He is number 31 in Chart 17 and his debts to MFIs are large, and more than twice the value of his savings. He is in some anxiety about his business, though by no means as seriously stressed as another of our shopkeeper Diarists whose case we will review below. From a business point of view, the most stable shopkeeper among our Diarists is someone who has very little debt, from MFIs or from other sources²⁶. He runs his business on a daily basis, restocking daily out of current revenue and a small reserve of liquidity.

²⁴ We have subsequently learnt that the agent now thinks the deal is completely off because of changes to Malaysian work permit laws. So she has now taken the money out of savings and repaid the Cow loans in full.

²⁵ His biggest single stock purchase of rice, the local staple, was only 3,000 taka, for example.

²⁶ His mother takes MFI loans to do a bit of farming, and the shopkeeper makes repayments on these loan from the shop's cash flow, but the debts are modest.

Are MFI loans stressful?

There is a large literature that debates whether or not MFI lending is good for very poor people. Some authors argue that the stress caused by very strictly-imposed MFI weekly repayment schedules, often (it is claimed) backed up by bullying behaviour by MFI staff anxious to achieve a very high repayment rates, damages many clients. Our data shed a bit more light on that discussion.

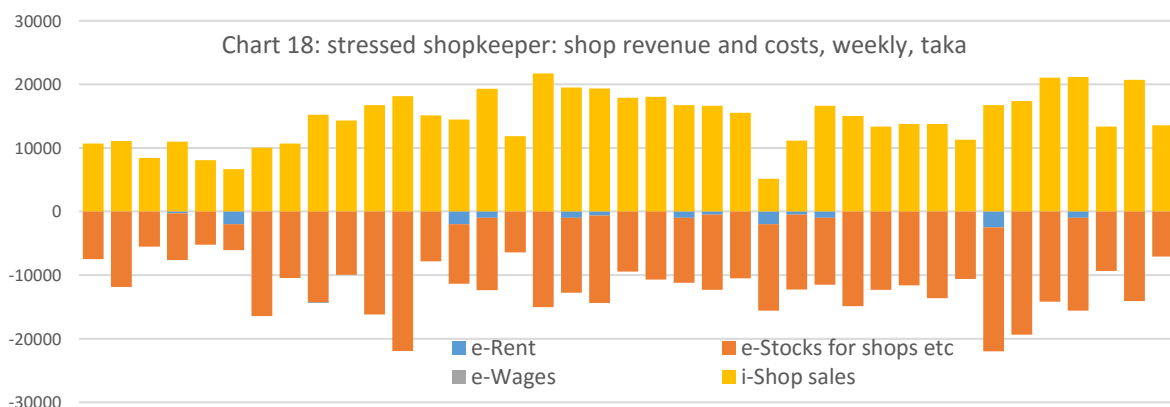
We have seen in Chart 17 that of our 11 *extreme poor* Diarists, 6 don't use MFIs at all, and that this 33% non-participation rate is much higher than among any other income class. Moreover, of the extreme poor who do use MFIs, 3 hold no loans (they just save there) and of those who are borrowing only 3 hold high-value debt. These extreme poor Diarists hold between them twice as much MFI savings as MFI debt.

This reflects a long-standing trend in the structure of MFI business in Bangladesh. MFIs have learnt by trial-and-error that lending to the extreme poor through their conventional weekly-repayment systems is very difficult, while at the same time the extreme poor have learnt that borrowing from MFIs is discouragingly tough. Meanwhile, the extreme poor have shared in the general Bangladeshi re-awakening to savings, having been distracted into taking too much debt in the heady early days of microcredit. As we have seen, the MFIs massively helped this shift with their turn-of-the-century introduction of commitment savings products for poor people.

These general observations about our data suggest that for various reasons fewer extreme poor clients are getting into trouble with their MFI loans as time goes by. But what do our detailed daily data tell us about individual cases?

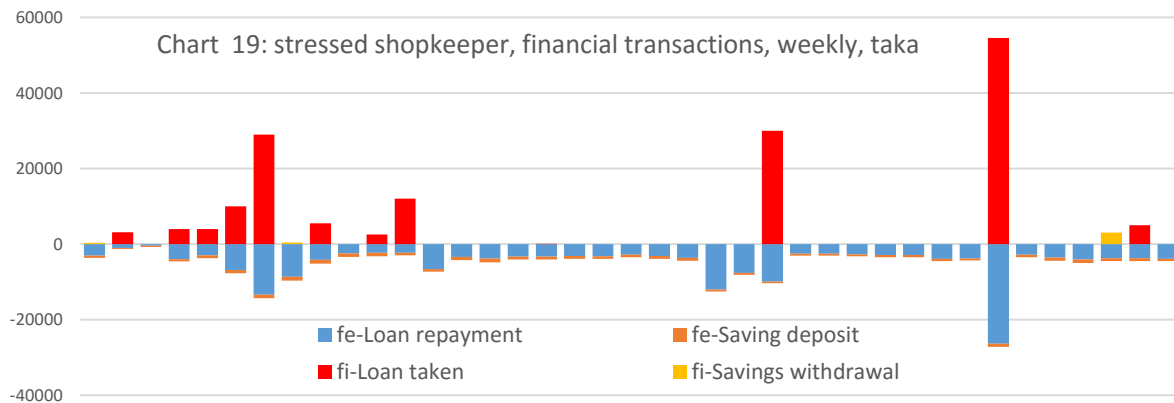
It is not for us to say who's stressed and who isn't, but when asked six of our Diarists say they suffer some stress about their MFI loans. Of these, the outstanding case is a woman shopkeeper, who tells us she is 'extremely worried' and recently revealed that she hadn't told us about one of her new MFI loans 'out of shame about taking it'. She's also said that 'I'm now just taking one MFI loan to pay off the others'.

She is a widow of 45 bringing up two teenage school girls. She inherited her shop (a general store) from her husband. She knows the business because she used to help him. It is in cramped rented premises on a busy road near a market and opposite a hospital. Like all the shopkeepers in our sample, she buys stock daily, in cash, from wholesalers, sometimes taking *baki*, and often has to give *baki* to customers. Aside from gifts from other members of her family outside her immediate household, her shop is her sole source of income. We begin with Chart 18, which shows how her shop has been running on a weekly basis.



Some weeks revenue exceeds costs, other weeks it doesn't, but over the 39 weeks shown here she took 572,000 taka takings against 471,000 of costs. So her net income from the shop was about PPP \$2,500, or \$63 a week. That's 158 taka per person per day, putting them into the 'moderate poor' category.

But her financial life complicates matters. Chart 19 shows all her financial transactions for the same 39 weeks.



During those weeks she borrowed 160,000 taka and repaid 187,000 taka of which 23,400 taka was loan interest. All the bigger loans shown in the Chart are from MFIs and, moreover, from *different* MFIs (Uddipan, BASA, IDF, Shohoz Shonchoy, and Grameen Bank). The smaller loans are *howlats*, mostly taken to find cash for the weekly MFI loan repayments. Her savings deposits and withdrawals are very small relative to her loans and repayments.

Her own assessment of her situation seems accurate. She thinks she's got into a trap where she is simply revolving loans: the incoming loans in weeks 6, 7, 12, 25 and 32 were all accompanied by quite large repayments in the same week (often the same day). Comparing the two charts, we can see that the incoming loans had some, but not a great, impact on her stock purchases for those weeks. Therefore, the approximately PPP \$585 of interest she



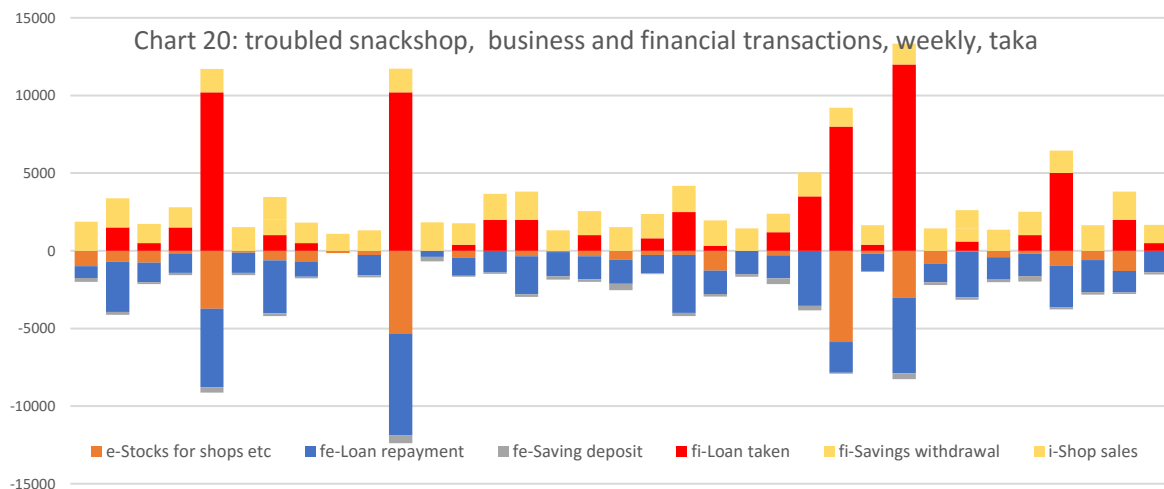
Distracted with stress

has paid (by our calculation, not hers) has simply eroded her shop income by 22% while giving few, if any, compensating benefits. She doesn't complain against the MFIs but she does say that they urge her to borrow and it's hard for her to resist: her shame at giving in to their persuasion was what caused her to delay telling us about the big loan in week 32²⁷. Aside from these financial losses, the time spent and the anxiety caused by dealing with the repayments distracts her from her business, and makes her very nervous. She would like a way out, but can't see herself finding one.

²⁷ Actually two loans, of 30,000 and 24,500 from different MFIs.

The shopkeeper's case is a clear example of MFI loans making things worse rather than better for a poor person. Only one other 'MFI-stressed' Diarist is in as bad a situation. She is also a kind of shopkeeper, but with a smaller business. She is in her late 40s and with her older husband, a former driver who was paralyzed 15 years ago, runs a snack-shop, serving breakfast snacks under a tin awning on a main road a little outside Kapasia. They have two teenage daughters, in school and college. As we shall see, their shop barely provides a living for them, so they are lucky that her former employers, who live in Dhaka, sometimes send them cash gifts.

Chart 20 shows both their shop revenue and costs, and their financial life over the weeks we have known them.



On the inflow half of the chart we see how the loans they have taken (in bright red) dominate: they took 68,600 taka in loans in the period and repaid 70,500, including loan interest. Both these sums are greater than their total shop sales of 51,600 or their stock purchases of 31,000. Their money life is mainly wrapped up in taking and repaying loans. Their biggest loans all come from MFIs – BRAC, Grameen Bank, BURO, and CSS. Most of the smaller ones are *howlats* from neighbours (sometimes shop customers) taken mostly to make weekly MFI loan repayments, although they have also borrowed privately, in small amounts, at interest rates of around 2% a week – higher than the MFIs.



He would like to escape the MFIs

The couple are divided over their situation. Her husband fears for the future of their girls, and would like to escape the MFIs. But the wife retains a very strong affection for Grameen Bank, where she been a member for most of her life. She still claims that their MFIs loans 'help our business', and it is true that when they borrow some of the proceeds go immediately into stock. She also says that in any case the problem of the daughters will be solved when she finds relatives willing to pay for them to get married. But then she tells us 'still, I am very worried: it is not good. What are we to do?'

We have already briefly described, on page 16, another of our 'stressed' MFI borrowers. This was a poor household that had unwisely borrowed heavily on the expensive private market in the expectation of making good by buying land. Somehow it fell through (we don't exactly know how), leaving them in arrears on the monthly interest payments and with the principal barely paid down at all. They turned to an MFI to borrow money to pay down some of the private debt – effectively swapping an expensive deal for a cheaper one and in some ways not a bad strategy. But because

their income is so small, and they have children and an elderly mother to care for, and they have virtually no savings, meeting the strict weekly MFI repayments has proved very difficult, and in any case the MFI didn't lend them enough to pay off more than a portion of the private debt, so that with compound interest the private debt is still growing rather than shrinking. They can't figure a way out of this trap – that's what makes them feel 'a lot of tension'.

Other Diarists are feeling the stress that naturally accompanies borrowing, and is not in any way the 'fault' of the MFIs. Our 58-year old Diarist in a low paid job in a biscuit factory is an example. He earns just 6,500 a month (PPP\$ 160) and has a wife and child in grade 7 to support. Sometime before we began our diaries his daughter married, and among the resources he put together for that was a loan that this wife took from Grameen Bank of 35,000. The repayments, and the compulsory savings, cost him 3,890 a month, some 60% of his income, leaving them just PPP\$ 0.80 per person to live on each day. They keep up-to-date with these repayments, by struggling. It is certainly stressful. But the loan is two-thirds paid down so the end is in sight.

Observations

This is an *interim* Report. We are still little more than halfway through our data collection. Our subject matter is the cash that flows through the hands of our Diarists²⁸, and our task is to find out where that cash came from, where it went, and what happened when there was a shortage or a surplus of it. This Report does little more than illustrate these *cash pathways* by assembling a small fraction of our data into tables and charts that give a sense of the ways in which money is managed.

We hope that some readers will want to drill deeper into the data, to verify or challenge what we say here, and make more specific observations about gender, occupation, educational level, income class and so on. For that reason this is an 'open source' project²⁹: the full data set (which we update and polish on a regular basis) is available to anyone at any time³⁰.

We will also need to synthesize and theorize. What do these data say about how the lives of the poor could improve, and what are the policies and actions that might help bring about those improvements? Readers from various backgrounds might search these data for insights that could influence employment law, or health services management, or agricultural policy, or welfare provisions, or education policy, or entrepreneurship training. What about the law and procedures that determine how poor Bangladeshis get overseas work?

My own particular interest is finance. I believe that the data illustrate some long-term trends that have accelerated in the last few years and which raise challenges for policy makers and service providers. Here is a brief list of them.

- **Low income households are now net savers (in money, not just in assets). Our 50 Diarists hold twice as much cash savings as they do cash debt.** Having been seduced into binge borrowing by the heady early years of microcredit, they have now realigned themselves with international habits of saving. This is good news, but needs to be reflected in policy.
- **MFIs hold a large proportion of the cash savings of low and middle income households.** Institutions that began as providers of *credit to very poor women* have been transformed

²⁸ For our Diarists cash is still king. All the transactions we recorded, except for the less than one quarter of one percent that were made by mobile phone systems, were made in cash.

²⁹ For a group at CGAP we have already produced an interim report on those Diarists who are farmers.

³⁰ At write.ser@gmail.com

into the most convenient and most trusted places to store the *cash surpluses* of poor and middle income rural households. The extreme poor are now the least likely, of all low and middle income classes, to use MFIs, and making *small* loans to especially poor people is no longer what MFIs do. The MFIs' *business plan* remains lending – that is where they make their money, but their *function* in the national financial system is now as the main receptacle of low-income household savings. The regulations that govern MFIs are still based on their role as lenders. These regulations need fundamental revision to take into account their evolving function as deposit holders, and to ensure that the savings are not only properly safeguarded but also channelled to productive uses. The better channelling of savings into pension provision is a priority, as is the linking of savings with insurance.

- **MFIs still cling to some outdated practices** that no longer respond to what their customers need. These include requiring clients to borrow continuously, discouraging clients from saving unless they are also borrowing, and clinging to an extremely narrow range of loan products. MFIs need to get together to reconsider their place in the financial world of low-income people, and to update their policies and products accordingly, and policy makers need to help them to do so.
- **Fewer very poor people are getting into difficulties with their MFI loan repayments**, but this is not always for good reasons. It is partly because many of the poorest have given up using MFIs whose products they find too inflexible, and partly because the MFIs have by and large given up on the poorest. A thorough rethink of how to design better savings and loan products for the very poorest is long overdue.
- **MFI lending continues to increase the financial vulnerability of some of their customers.** Too many MFIs lend to stressed borrowers with no consideration for their existing debt. MFIs should use modern technology to share information about each other and their clients. MFIs are increasingly profitable, but lowering loan interest rates (which they have been doing recently) is not the only way to return some of those windfalls to their clients: they should also develop systems to ensure that they don't push clients into over-indebtedness, and invent products to help them escape over-indebtedness.

Appendix 1: Setting up the project

Origins of the project

Shohoz Shonchoy (Easy Savings) is a small pro-poor MFI established in 2002 in Hrishipara, a neighbourhood close to the central Bangladesh market town of Kapasia. *Shohoz Shonchoy* specialises in unusually flexible savings and loan services (<https://sites.google.com/site/trackingp9/>). It was founded by Stuart Rutherford, who also imagined and carried out the first ‘financial diaries’ (in 1999-2000: see the book *Portfolios of the Poor* (<http://www.portfoliosofthepoor.com/>)). *Shohoz Shonchoy* offers a daily collection service to its savings and loan clients, and in the spring of 2015 it asked two of its poorer clients for permission to gather details of their money transactions on a daily basis. The idea was to see if such data could help *Shohoz Shonchoy* improve its products and services. These first two ‘Diarists’ began to provide daily data in mid May 2015.

Support from CGAP

CGAP (based in the World Bank and promoting financial inclusion worldwide) offered some support to the project in the expectation of learning more about the economic and financial lives of low-income Bangladeshis, especially as regards the *take-up of digital financial services*, the *use made of MFI services*, and the *daily lives of smallholder farmers*. As a result, from August 2016 the project steadily recruited more Diarists until by February 2016 they totalled 50.

Location

Our Diarists live or work in or around Kapasia, a moderately prosperous market town of around 400,000 people³¹ enjoying good road communications with the capital and with other regional towns in central Bangladesh. Kapasia stands on the river Shitalokha, which also links it with the capital and was once, though no longer, busy with barges. The town has government offices, a large government hospital, and a number of well-run schools and colleges. Kapasia, by policy choice, is not industrialised. There are some small-scale workshops but no garments factories (though some workers commute to ones nearby). For many years Kapasia has exported workers overseas, especially to Singapore and Malaysia but also to the Gulf countries and even to Europe. The money that these workers send back, much of it invested in new homes, is changing the look of the town, while the ideas and skills they bring with them when they return home is making the place more worldly. There are branches of nationalised and private banks, and of insurance companies and their agents. All the national MFIs (known as ‘NGO banks’) work in the Kapasia area, alongside local MFIs and Co-operatives. *Shohoz Shonchoy*, a small pro-poor MFI-Cooperative, whose staff run the Daily Diaries, is situated in Hrishipara, a semi-rural poor neighbourhood of low-caste Hindus on the northeast bank of the river, across from the main market.



³¹ 303,710 according to the 1991 census

Selection of Diarists

The first two Diarists were very poor clients of *Shohoz Shonchoy*. But with the arrival of support from CGAP all later Diarists were selected from the general population around Kapasia, irrespective of their relationship with *Shohoz Shonchoy*. The Project Manager (Md Kalimullah, the Director of *Shohoz Shonchoy*) used his extensive knowledge of the area to purposefully select Diarists to achieve a good balance of gender and age and income levels and a very wide coverage of occupations. The selection was further tweaked to include some Diarists already using digital (phone-based) money transmission services and some others who might be expected to start using them. Later, we took additional Diarists who identified themselves as smallholder farmers.

Data collection and management

Project Manager Kalimullah supervises a team of 5 Data Collectors (all of them employees of *Shohoz Shonchoy*) who visit their assigned Diarists daily and use notebooks to collect information on ‘*all the taka that came into your hand*’ and ‘*all the taka that left your hand*’ in the day³². Within 24 hours these data are transcribed into a simple database (an off-the-shelf accounts package called *Money Manager*) and sent to Stuart Rutherford (who lives in Japan). Rutherford reviews, cleans and comments on the data daily. A ‘clean’ set of daily data (subject to later discoveries of errors) is thus available within 36 hours of its collection. These routines help to maintain unusually high quality data. Excel versions of the data are regularly updated and are available from Rutherford at wite.ser@gmail.com. This way of working is unusually inexpensive compared to other financial diary projects.

³² Diarists are paid 100 taka (PPP US\$3.44) a week in acknowledgement of their help. Written confirmation of their consent to our using their data and photographs is taken, and the usual protections for their privacy are agreed.

Appendix 2 table: Basic information about the 50 Diarist households

Code	Gender	HH size	HH composition	Main occupation	Secondary occupation	Income/cap/day, taka	Income class
01KIF	F	2	widow and daughter	labourer		26	Extreme Poor
02OBM	M	5	couple and children	rickshaw puller	musician, labouring, shop helper	51	Extreme Poor
03SAF	F	3	widow and 2 daughters	shopkeeper		158	Moderate Poor
04MAM	M	5	couple and children	mason		63	Extreme Poor
05RAF	F	4	elderly couple and children	stallholder		56	Extreme Poor
06SRF	F	4	housewife + 3 children + remitter	housewife	police	205	Near Poor
07MOM	M	6	3-generations	shopkeeper	farming	70	Very Poor
08SHF	F	3	couple and daughter	brick breaker	farming	61	Extreme Poor
09SMM	M	5	couple and children	boatman		74	Very poor
10AFM	M	5	3-generation	brick breaker	faith healing, farming	76	Very poor
11SUM	M	5	3-generation	shopkeeper	labourer, musician	205	Near Poor
12KAF	F	3	widow and children	labourer		70	Very poor
13NMM	M	3	couple and son	factory worker	tutoring	90	Moderate Poor
14HYM	M	4	brothers and their parents	cycle repairer	farming	67	Very Poor
15IBM	M	4	3-generation	tailor	expatriate worker, farming	93	Moderate Poor
16ANM	M	5	couple and children	snacks vendor	mason's assistant	110	Moderate Poor
17ATF	F	4	couple and children	housewife	veg seller, farming	77	Moderate Poor
18BIM	M	5	couple and children	fisherman	brick breaking	229	Near Poor
19MDM	M	9	3-generation	farmer		69	Very poor
20ROF	F	5	couple and children	sari seller	farming, expatriate worker, truck helper	220	Near Poor
21PJM	M	4	couple and children	shoe-shopkeeper	barber, garments factory	281	Near Poor
22ALM	M	2	man and wife	laundryman	farmer	72	Moderate Poor
23HRM	M	5	3-generation	barber		62	Extreme Poor
24ABM	M	4	couple and children	farmer	expatriate worker, sewing	178	Near Poor
25HEM	M	2	man and wife	farmer		52	Extreme Poor
26BIF	F	2	divorcee and daughter	office cook	garments worker	170	Near Poor
27HDM	M	5	couple and children	government employee	medicine shop	197	Near Poor
28HIM	M	4	3-generation	farmer		490	Near poor
29ARM	F	7	3-generation + expatriate	farmer	landlord, expatriate worker	197	Near Poor
30HBM	M	6	couple and children	newspaper vendor		91	Moderate Poor
31NLF	F	4	couple and children	farmer		161	Near Poor
32FUF	F	4	desertee and children	labourer	carpentry assistant, barber, firewood shop	73	Very poor
33AKF	F	6	3-generation	labourer	housemaid	60	Extreme Poor
34NYF	F	4	housewife with sons + expatriate housewife with children + expatriate	housewife	expatriate worker, farming	312	Near Poor
35PTF	F	3		housewife/farmer	expatriate worker	434	Near poor
36SKM	M	4	couple and children	farmer	boatman, investor	78	Moderate Poor
37HSM	M	6	3-generation housewife with children + expatriate	farmer	renting out boat	25	Extreme Poor
38JHF	F	4		farmer	expatriate worker	353	Near Poor
39SNF	F	2	woman and son +expatriate	housewife/farmer	expatriate worker	492	Near poor
40RBF	F	4	couple + daughter and son-i-l	housewife/farmer	expatriate worker, teaching, engineering	426	Near poor
41RZF	F	5	couple and children	schoolteacher	shop, farming	330	Near poor
42LAF	F	4	3-generation	office cook	dressmaking	29	Extreme Poor
43SNM	M	4	couple and children	imam		105	Moderate Poor
44RJM	M	1	single man	carpenter		245	Near Poor
45ADM	M	3	couple and children	labourer	mason's assistant	83	Moderate Poor
46MZM	M	5	couple and children	labourer	boatman	72	Very Poor
47AZM	M	3	man with family in village	recycler		67	Very poor
48RMM	M	4	man with family in village	labourer		67	Very Poor
49YEM	M	1	single man away from village	labourer	domestic labour, odd jobs	318	Near Poor
50HZM	M	1	single man away from village	shop helper		167	Near Poor