



## Family Food Shopping



*MicroSave's* 'Low Income Lives' series provides an opportunity to learn a lot more about how poor people manage their lives based on solid data from ground-breaking field research. In this first one, Stuart Rutherford uses data from the *Hrishipara Daily Financial Diaries*, a project which collects data from householders in central Bangladesh about how much money came into and went out of their hands each day, and for what purpose. The project has been running since mid-2015 and is building a uniquely rich and accurate understanding of their lives. Today we look at how they buy food.

We focus on three households that consume \$2 per day per person, or less, and so fall below the Bangladesh government's 'Lower Poverty Line'<sup>1</sup> and can be classed as 'extreme poor', by internationally recognised measures.

<sup>1</sup> International bodies such as the World Bank regard \$1.90 a day per person as a benchmark for extreme poverty. Note that because one US dollar converted into Bangladeshi taka at the market-exchange rate (now around 82 taka to the dollar) buys much more in Bangladesh than a dollar does in the USA, we convert from taka to dollars using Purchasing Power Parity (PPP) rates, currently 31.9 taka to the dollar.



Kabani<sup>2</sup> was married to a market porter who suffered an accident and was unable to work. Shortly after we got to know the family he died. Kabani now supports herself and her three school-age children by working sometimes as a housemaid and sometimes sorting vegetables for shops in the market. She has an older daughter who is married and living elsewhere and who helps her with gifts of money. We calculate that the family consumes \$1.44 each per day. They live in a one-room house made of corrugated tin sheets. There's a ceiling fan and a TV in the room, and a wooden cupboard. They sleep on the earth floor.



Mukhles, in his mid-thirties, migrated to our area from a poorer northern district and married a local woman. Neither of them can read or write but their children are in school. He worked at first as a farm labourer but then bought a second-hand boat and now ferries people across the river. We estimate their daily consumption at just under \$2 each. They live in two small rented rooms in an old plastered-brick building near the ferry jetty. When he and his wife quarrel, they do so over how much of his earnings he should transfer to his parents in the village.



Nikil is an older man, in his fifties, married, and has had two children. The younger, a son, lives with them and is in school. The elder, a daughter, is married to a man now working overseas, and was living with her parents-in-law. But her father-in-law is now very weak and her husband has advised her to live with her own parents. We estimate that the four of them consume \$1.54 each per day. Nikil was working on a very low wage at a biscuit factory when we met him, but has since lost that job and now prepares food in a breakfast shop for a daily wage. Both he and his wife have some primary schooling, and she sometimes earns a little as a private tutor. He is of a very mild and shy temperament.

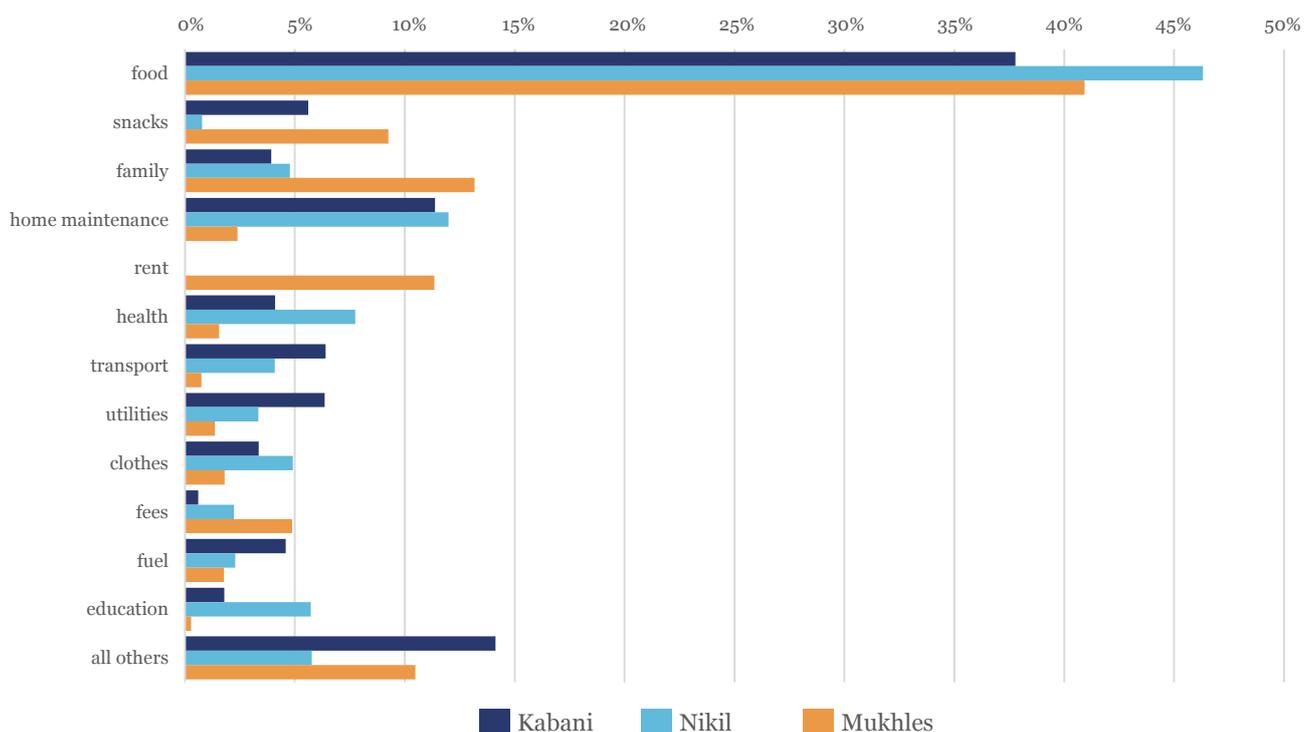
2. Not her real name, as is the case with all diarists mentioned

## The food budget: an overview

We have tracked Kabani’s transactions since August 2015, Nikil’s since September 2015, and Mukhles’s since February 2016. In that time, up to end October 2017 between them, their total combined expenditure (excluding financial payments like making savings and repaying loans) was \$18,827, of which \$7,892 (42%) was spent on food, and another \$1,033 (5%) on snacks like tea, biscuits, betel nut, and tobacco. The share of expenditure that went on food varies a little between the three diarists: for Kabani 38%, for Nikil 46%, and for Mukhles 41%. Mukhles, however, spent much more on snacks – 9% of all expenditure, while Kabani spent 6% and Nikil less than 1%.

Food was by far the biggest outlay for all three of them. Nothing else came close. Payments out to the family (such as pocket-money), and home maintenance, each came in at 8%. 5% was spent on snacks. After that we find healthcare at 4%, then transport, clothing, and utilities, each at 3%. (For Mukhles, the only one who doesn’t own his own home, house-rent came in at 11% and home maintenance at only 2%). Some of this is illustrated in Chart 1.

Chart 1: Shares of all expenditure (August 2015 to October 2017)



## What kind of food?

Perhaps you had expected that their single biggest expenditure would be food, and if you expected that the biggest item on the food shopping list is rice, you’d be right. It is the biggest of three big food items: the others being vegetables and fish. Another five items have a 2% share or more of the food budget: cooking oil, herbs and spices, fruit, meat, and poultry. Chart 2 presents this visually.

## Qualities, frequencies and volumes

Three times in 2016, then again twice in early 2017, Kabani benefited from a rice-subsidy scheme run, rather erratically, by the local government. Each time, she got 30 kilos of rice at 10 taka (31 cents) a kilo. It was very low quality rice, bug-ridden and damp from being badly stored. Some poor people, though not Kabani, buy it but can't eat it and sell it to others. When the subsidised rice is not available (that is, most of the time) she buys ordinary quality rice for about \$1.44 a kilo, 2 or 3 kilos at a time. Recently, though, she has started buying in bulk, up to 50 kilos at a time, from shops in the market, and hires a rickshaw to carry it home. She says that not only is the price lower, she has 'less tension' about food. Mukhles plies his ferry just about every day, and buys his rice from a small shop near the ferry landing. Typically, he earns \$11 in ferry fares in the day, and spends \$3 on 2 kilos of rice.

Chart 2: Shares of food spending, all 3 diarists combined

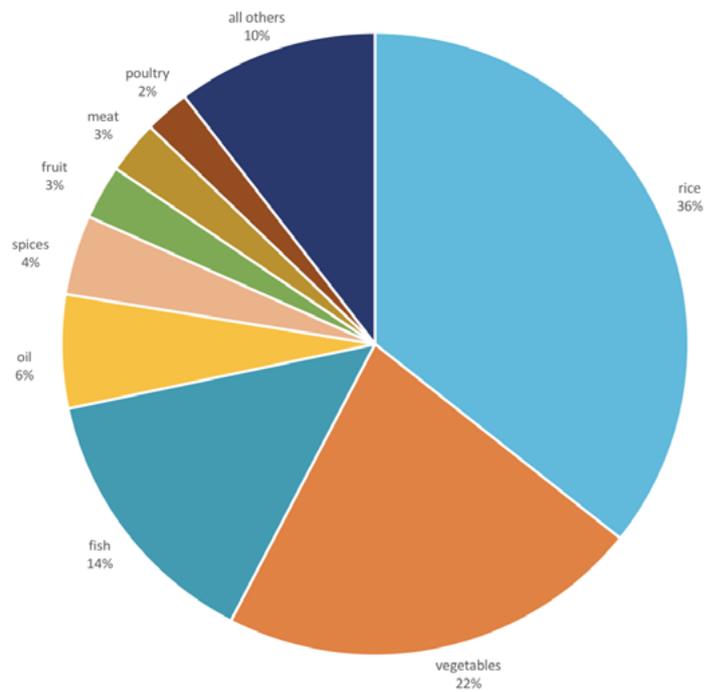


Chart 3a: The monthly pattern of Kabani's earned income PPP\$

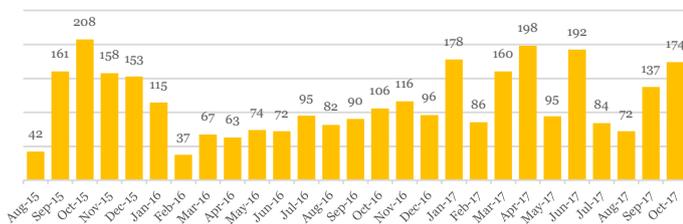


Chart 3b: Kabani's monthly spend on core items, PPP\$ (not to the same vertical scale)

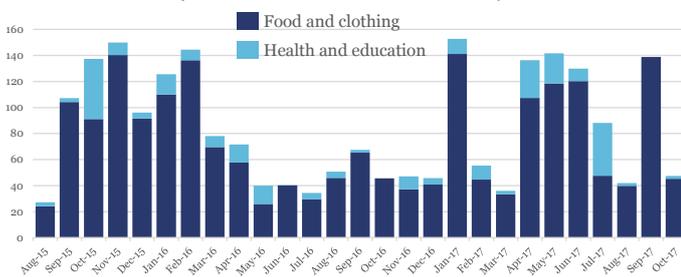
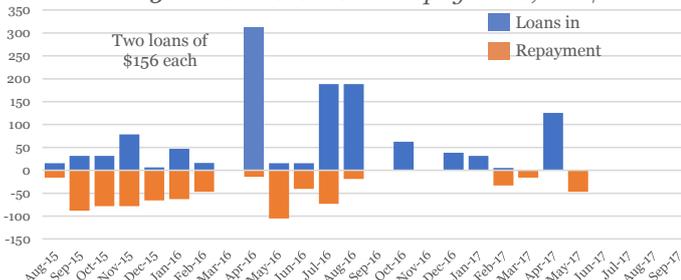


Chart 3c: Kabani's loans and repayments, PPP\$



## Coping with volatility

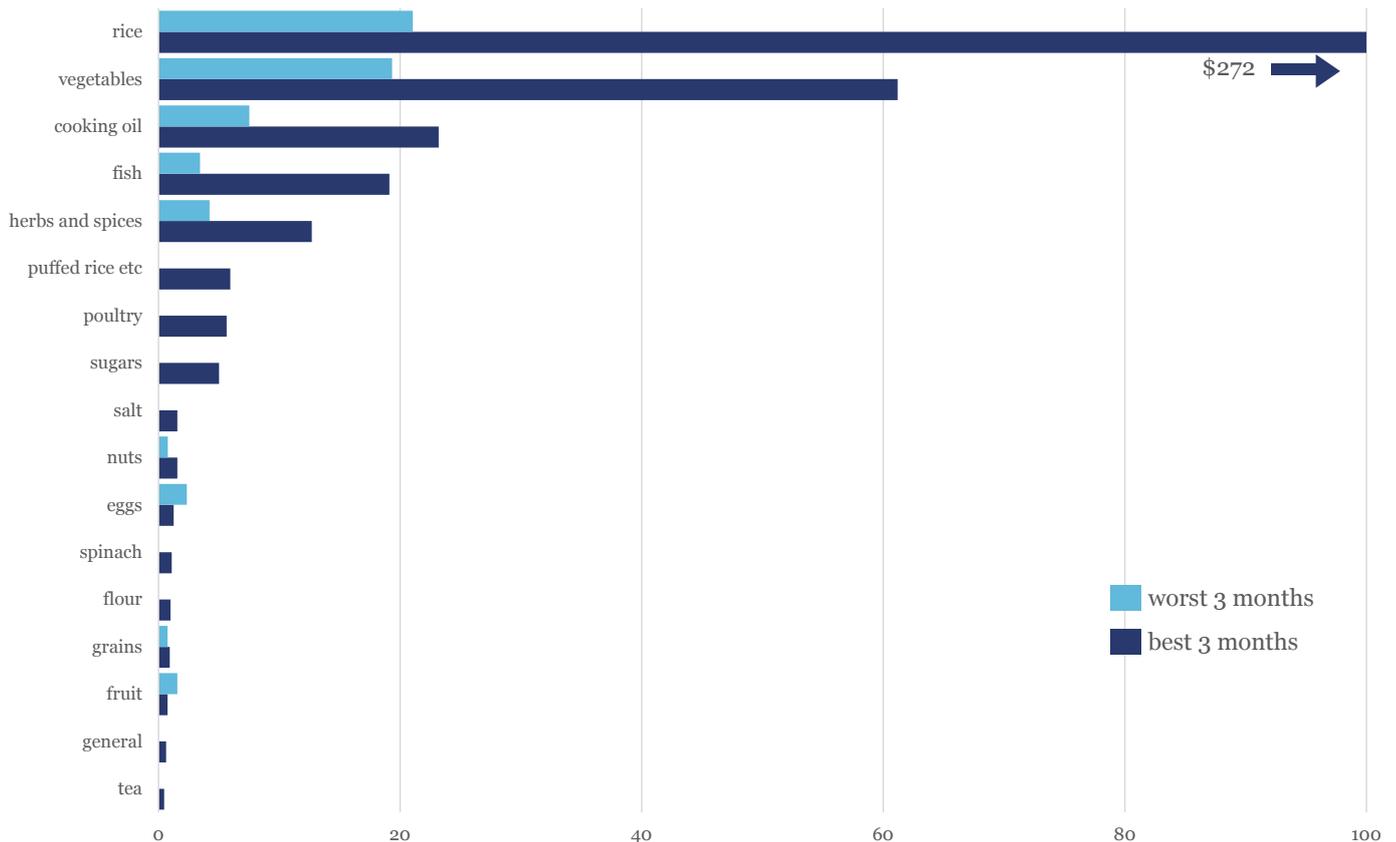
Kabani's earned income varies with the weather, with her health, and with how much work is available. This variability is shown in Chart 3a, and is broadly reflected in her core spending, shown for the same months in chart 3b. Her monthly core spending has varied between \$24 and \$141 per month in the time we have known her.

Income variability can be countered through finance (taking loans and withdrawing savings) and by accepting gifts. The relationship between these behaviours and her core spending is not, however, obvious, as we see from Chart 3c. The biggest loans she took (of \$156 each) were in April 2016, a period of average core expenditure and low earned income, but the loans were mostly spent on helping to finance her niece's marriage. The two loans in July and August 2016 went mostly on installing electricity in her home, though they did also enable her to begin her new regime of buying rice in bulk in September.

Note that from July 2017 on she avoided borrowing altogether, though she still has debt to repay. There were no large savings withdrawals around the time of the low food expenditure in mid 2016 (though she saved a little less than usual).

To some extent she chose to deal with dips in her earned income by cutting back on core spending. In Chart 4, we compare the make-up of her food shopping basket in the three months when her food shopping was at its highest, with the three months when it was at its lowest.

Chart 4: Kabani: make-up of food shopping basket, 3 good and 3 bad months: PPP\$



In the ‘bad’ months her purchases of the staples – rice, vegetables, cooking oil, fish, and herbs-and-spices, were all sharply down. Among the vegetables in those months, lentils and potato predominate. Other items she simply didn’t buy at all: poultry, sugar, salt, tea, and her favourite treat, puffed-rice. This doesn’t mean that she didn’t consume any of these things for she may have had the more durable ones already stocked at home, but she held back on buying them, in favour of satisfying other spending preferences, including a family marriage and home improvements.

Mukhles’s income stream (Chart 5) is a little less volatile than Kabani’s, and he tends to buy his groceries in small quantities almost daily. His 5-person family’s monthly shopping basket varies somewhat less than hers (Chart 6).

Chart 5: The pattern of Mukhles's earned income PPP\$

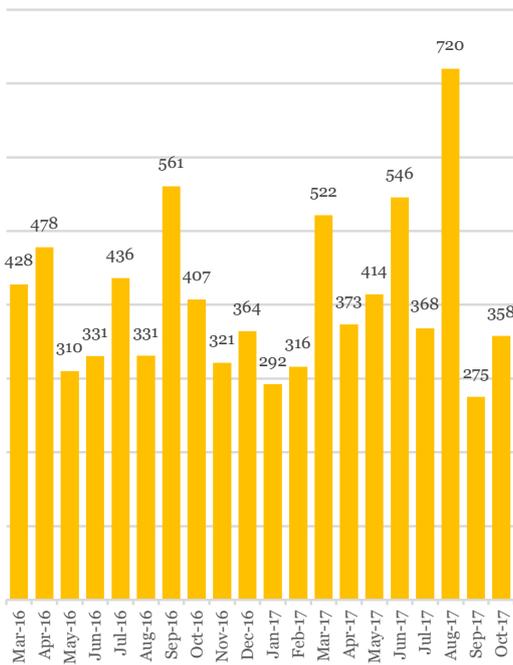
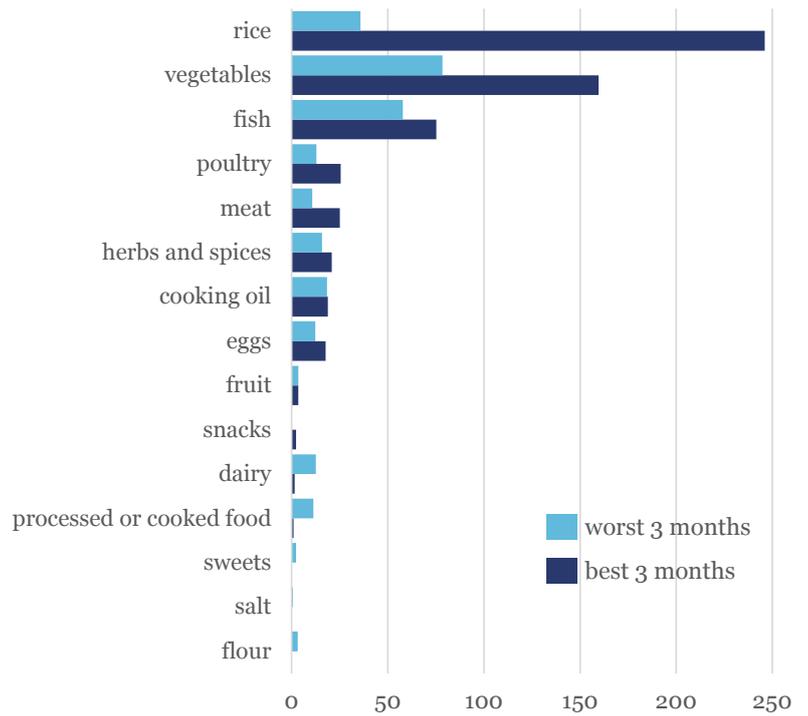
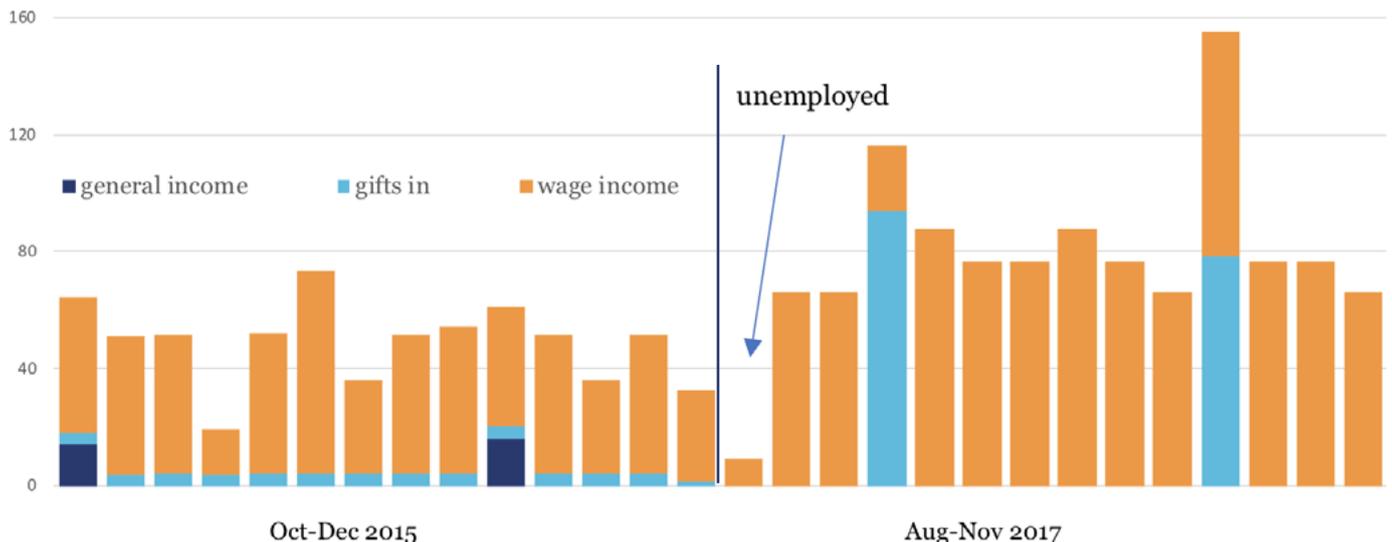


Chart 6: Mukhles: make-up of food shopping basket, 3 good and 3 bad months: PPP\$



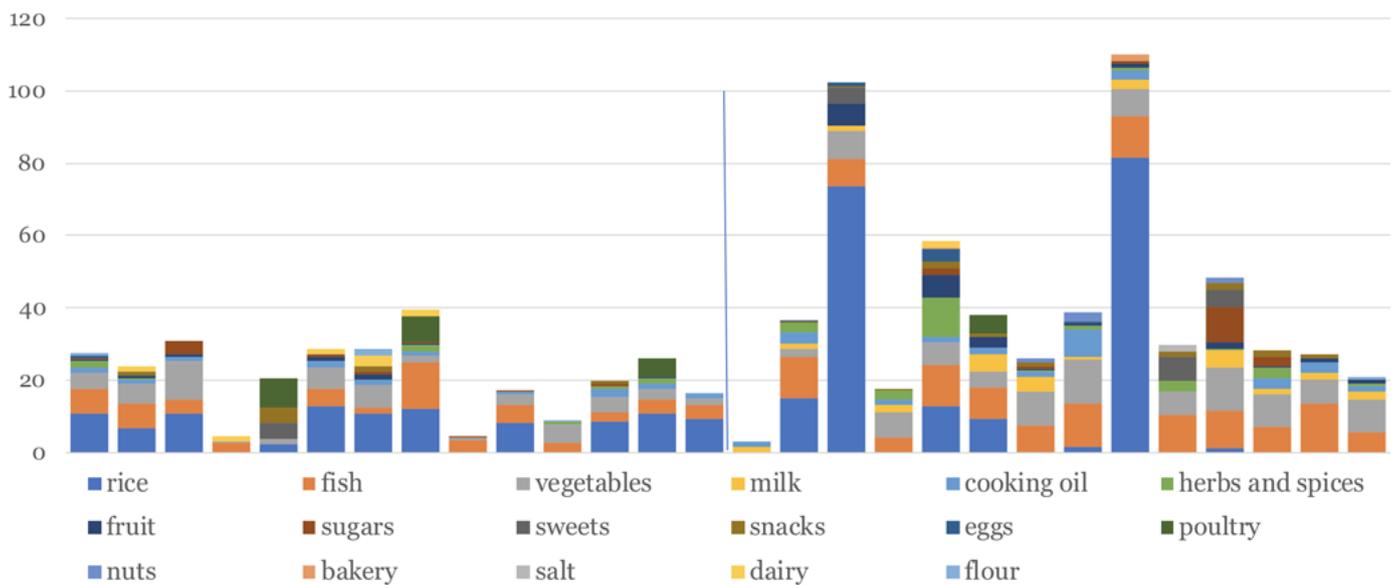
Nikil's case offers an opportunity to see what happens to food spending as circumstances change. When we met Nikil in 2015 he had a job in a small biscuit factory. He was paid, somewhat irregularly, on a fortnightly basis, and he also got a small lunch allowance in cash each day he worked. He lost that job in 2017 and took another similar job in a more distant factory on even worse pay, so he quit. He then had a few weeks of unemployment and finally settled for a menial job preparing breakfasts and other snacks in a small food stall near his home. For this he is paid \$11 a day, regularly. Chart 7 shows his weekly income for two periods, each of 3 months, the earlier period when he was at the factory, and the other very recently, since he moved to the breakfast shop.

Chart 7: Nikil, weekly income, PPP\$



Nikil’s move to the breakfast shop coincided with another change in his life, when his married daughter came to live with her parents and brother. To pay for her stay, her husband, who works overseas, began remitting sums of around \$80 – \$90 to Nikil on an occasional basis (shown in blue in the chart). Overall, then, Nikil’s income rose substantially, with the daily-waged part of it giving him a steadier income, when looked at on a weekly basis, than when he was at the factory. We use two charts to explore the impact of these changes in income, household size, and income regularity, on his food shopping. Chart 8 is drawn to the same horizontal scale as Chart 7, so we can compare week-by-week.

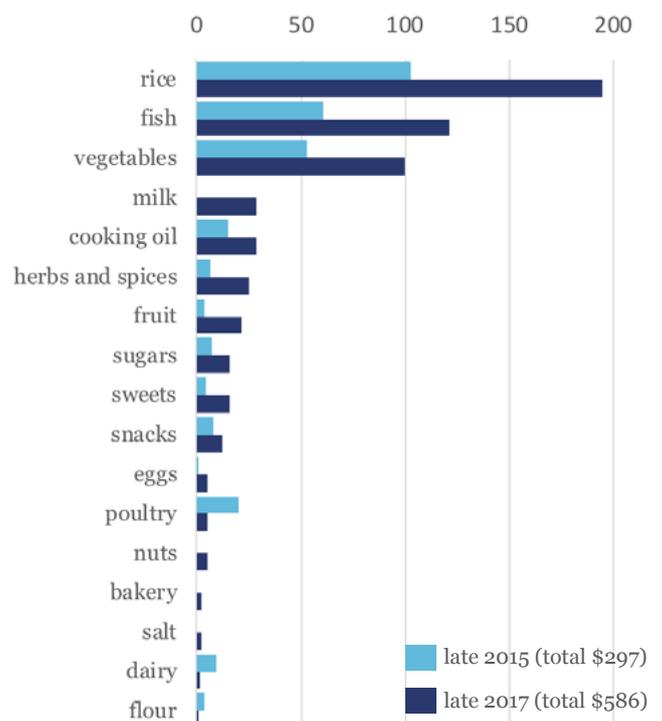
Chart 8: Nikil: composition of weekly food shopping basket over the two periods, PPP\$



We see that Nikil spent more on food during the more recent period. Note, though, that the two big expenditures on rice that stand out during the more recent period occurred in the weeks before the overseas remittances came, and were funded from cash reserves kept at home supplemented by loans. The chart also hints at the greater variety of foods bought in the later period, something that we can see observe more clearly in Chart 9, which shows the totals by food type for the two periods.

Most of the main staples – rice, fish, vegetables and cooking oil – increased roughly in proportion to his bigger income and bigger family. But some items appear that he didn’t buy before – most notably milk. He also spent more on sugar and on sweets in the later period, though he spent less on poultry and on dairy products like yoghurt. All in all, there’s no dramatic change of diet – it has become a little more plentiful and a little more varied. Nikil may

Chart 9: Nikil: food purchases, 3 months in late 2015 and 3 months in late 2017



have raised his earnings and increased his family size, but his status is little changed: indeed, he is arguably less secure than before, because, paid by the day, he could lose his job at a moment's notice.

## A role for formal financial services?

All three diarists described here are extremely poor by international standards, yet all three managed to house, feed and clothe themselves and their families over the long periods of up to 27 months that we have been observing them. Bangladesh has a long-established, diverse and ubiquitous set of highly competitive pro-poor financial service providers, including MFIs, co-operatives and fast-growing phone-based digital operators. Did they have a role in these stories?

For these three diarists we have so far seen only one use of digital services. Nikil sent \$31 to his mother-in-law in June, through bKash, Bangladesh's leading digital provider, using an agent's account. For more on digital service use among the diarists please see *DFS* and the *Hrishipara Diaries* on the [Diaries home page](#).

Of the three diarists featured here Nikil is the only one currently holding an MFI account. Kabani had a loan and some savings at a leading MFI, but when her husband died in early 2016 she closed it, believing that on her own she would find MFI repayments hard to manage. She has savings in an insurance company, and saves in small amounts at a local co-operative, but she doesn't draw on these accounts to help manage her core spending needs, preferring to ask her mother for casual loans when things are tight. Mukhles has not had an MFI account in the time we have known him. He acquired his ferry boat not through a loan but through an informal agreement with the boat's former owner, under which he paid a daily rent for the use of the boat plus a surcharge which, after many months, entitled him to its ownership. He saves in an informal club run by the boatman's committee, and sometimes takes small loans or savings withdrawals, usually spent on unanticipated needs rather than on food. Nikil has borrowed from his wife's MFI to cover core expenses, but not directly: when he became suddenly unemployed he took a private loan on interest and then repaid that loan when the annual loan-disbursement rhythm of the MFI next allowed her to borrow.

In these three cases, then, formal financial services do not feature prominently in managing core expenditure. Indeed, no single device was responsible for their success: they did not rely overly on their wider families, nor on charity, nor on loans, and certainly not on the state. They were helped by favourable circumstances: no big natural or man-made disasters occurred, prices rose but not at alarming rates, and wages have been rising, too. Above all, all three were careful: they anticipated and prepared for difficulties, and kept reserves of cash at home or within easy reach. They spent next to nothing on entertainment, and never splurged. They did not go hungry, but neither were they ambitious. Away from areas suffering calamities of one sort or another, there may be millions like them.



## Author: Stuart Rutherford

Trained originally as an architect, Stuart Rutherford later became interested in how poor people manage their money, and how they might be helped to do it better. He has collected details of many financial devices in dozens of countries and has described them in his book *The Poor and Their Money*.

With David Hulme of Manchester University, he devised and then led the first ‘financial diary’ research project, in Bangladesh in 1999. Results from the first crop of financial diary exercises were written up in *Portfolios of the Poor*, of which he is a co-author. Rutherford has also looked at money management for poor people from the point of view of a service provider, having established the MFI SafeSave in Dhaka, Bangladesh, in 1996, and has also worked as a teacher and consultant. He is married and now lives in Nagoya, Japan.

## About MicroSave

*MicroSave* is an international financial inclusion consulting firm with nearly 20 years of experience, operating in eleven offices across Asia and Africa. Our mission is to strengthen the capacity of institutions to deliver market-led, scalable financial services for all. We guide policy, provide customised strategic advice and on the ground implementation support.



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