Davala, Sarath, Renana Jhabvala, Soumya Kapoor Mehta, and Guy Standing.
"The Impact on Nutrition." *Basic Income: A Transformative Policy for India*. London:
Bloomsbury Academic, 2015. 83–98. *Bloomsbury Collections*. Web. 26 Apr. 2023. <<http://dx.doi.org/10.5040/9781472593061.ch-005>>.

Downloaded from Bloomsbury Collections, www.bloomsburycollections.com, 26 April 2023,
14:33 UTC.

Copyright © Sarath Davala, Renana Jhabvala, Soumya Kapoor Mehta and Guy Standing 2015.
You may share this work for non-commercial purposes only, provided you give attribution to the
copyright holder and the publisher, and provide a link to the Creative Commons licence.

The Impact on Nutrition

Introduction

In one village covered by this study, two young women sat cross-legged outside their newly painted little house, in the midday heat. In front of them were two large mats, one with wheat spread across it, the other with *padi* (rice). Three young children were running around, occasionally tugging on the saris of the women, demanding attention and reassurance as strangers asked their mothers questions. The women were sifting the wheat and *padi* meticulously. They said that doing this chore normally took about four hours.

The wheat and *padi* had come from the ration shop. The women said both sacks had been adulterated by the addition of small stones and bits of grit that had been added to bring the weight of the sacks of grain and rice to the required level in the ration shop. To compound their problem, the women said that the wheat and *padi* were of low quality and made their children sick.

We tell this story as a means of highlighting a likely failing of any scheme that makes the recipient a *supplicant*, that is, someone without the capacity to make choices sensibly or to demand that the supplier treats them fairly and with respect. The villagers have had to take the food that they are offered, and if they were to object they would risk losing their entitlement to even that. Either way, it is their children who suffer most.

To understand and evaluate the impact of the basic incomes on nutrition, we need to appreciate the institutional realities in Madhya Pradesh villages. In some respects they were much like most of the rest of India, suffering from pervasive 'food poverty'. The general situation is dire. In 2012, across India, 42 per cent of all children were officially categorized as underweight, and the Prime Minister, Manmohan Singh, called the country's malnutrition levels 'a national shame'.

The main effort made by the UPA government to redress this was through a Food Security Act, intended to provide more subsidized food for a much larger

share of the Indian population. Although that obviously had no impact on the pilots, the main features would have been unchanged, since the Act was mainly intended to extend the number of people covered by the Public Distribution System (PDS).

The PDS has been designed to provide subsidized wheat grain, rice and sugar depending on possession of one of three types of card, AAY (*Antyodaya Anna Yojana*), BPL (Below Poverty Line) or APL (Above Poverty Line).

The Government of India launched the *Antyodaya Anna Yojana* (AAY) scheme in 2009 to ensure food security for the poorest of the poor in rural and urban areas of the country. The scheme targeted households that, it was estimated, could not afford two meals a day, which apparently came to about 5 per cent of India's total population. State governments had launched efforts to identify households eligible for the scheme, mainly by selecting from among the number of BPL families previously identified within the state.

It should be borne in mind that in 2013–14, the national government and various state governments were planning to introduce conditional and targeted cash transfer schemes based on targeting through use of these various cards or the principles underlying them.

At the very least, the planned extension of food subsidies through the Food Security Act and the planned use of similar criteria for cash transfer schemes would be justifiable only if the card system was working efficiently and equitably, in identifying households that should be beneficiaries. This means not excluding those that should be covered, not including those who should be excluded, and doing this in a way that is not administratively very costly. We are entitled to ask whether or not these principles or conditions will be met.

It is hard to be optimistic. The food subsidy system is extremely complex. The three items chosen for the subsidies assume and perpetuate a very limited diet – wheat grain, rice and sugar. The amounts seem arbitrary – 30 kg of wheat grain, 5 kg of rice and 2.1 kg of sugar a month for those with BPL or AAY cards.

The market rate is calculated on the basis of what PDS-quality goods cost in the market. The quality of the PDS items is lower because the wheat is two or three years old, sugar is smaller grain and rice is mostly broken (*choorivalachaval*). In the market, Basmati rice costs at least Rs.60 a kilo, and medium-quality rice costs Rs.40–45 a kilo. But the broken rice supplied by the PDS is sold in the market at Rs.26–28.

And the amount is stipulated as per family, taking no account of the great variation in size or age composition, implying that a family of two adults and

one child would be entitled to the same as another with two parents, two grand parents and five children. A family-based system for communities in which families and households vary so widely makes no sense in terms of equity.

The arbitrary amounts create problems and costs of administration, what with the need to weigh the grain and control its quality. But then there are also the myriad problems with determining eligibility to the type of card, with difficulties in obtaining cards, retaining cards, replacing lost or damaged cards and changing status. Each layer of complexity adds Type 1 errors – excluding those who should be included under the poverty criteria – and Type 2 errors – including those who should be excluded on those criteria, in principle.

The arbitrary nature of the scheme is shown further by considering the variation in the subsidy. Bearing in mind that the pilots were conducted in wheat-growing areas, the subsidy on wheat grain worked out to be 79 per cent for BPL cardholders, 86 per cent for AAY cardholders and 36 per cent for APL cardholders, based on estimates of the differences between the subsidized price and the local market price.

Meanwhile, the subsidy on rice worked out to be 79.5 per cent for BPL cardholders and 86 per cent for AAY cardholders. And the subsidy on sugar worked out to be 64.5 per cent for both BPL and AAY card-holders. The subsidy rate for kerosene worked out as 67 per cent for all groups, but it varied by distance of the household's village from the depot. The ration shop that was furthest away from the depot charged Rs.17 a litre, while the nearest charged Rs.15.

When examined closely, the difference in the value of the subsidized items for BPL and AAY cardholders came to just Rs.400 a year, if they received all the rations to which they were supposedly entitled.

Perhaps the worst structural feature of the subsidy scheme in the pilot villages is that for the BPL 77.5 per cent, for the AAY 77.7 per cent and for the APL all of the subsidy went on wheat and kerosene combined. Wheat is the local staple crop. So, subsidized wheat from Punjab was undercutting local wheat, when it was not really needed. And kerosene is not used as a domestic fuel. So the subsidy was thoroughly misplaced.

Another failing is that the disbursement of subsidized grain by the ration ('control') shop is uncertain, depending on the vagaries of supply and logistical problems. Beneficiaries are expected to be ready with cash for purchase at very short notice. For instance, in the rainy season of 2011 when the basic income pilot had just started, the state government decided to disburse three months of rations in the month of August. Again, in the rainy season of 2012, the state government

asked those with funds to pick up rations for six months. Often when a situation like this arises, poor people must borrow money to make the purchases.

When the government decided to disburse rations for six months in one go, a BPL family had to have in hand Rs.1,295 while an AAY family had to possess Rs.1,070. Unable to arrange cash at short notice, most poor families ended up borrowing at very high interest rates.

The crucial implication of these situations is that the PDS as it operated in reality depended on supplicants having liquidity or impoverishing themselves through having to resort to high-cost loans or credit. This adds to the argument made earlier that the emancipatory value of the basic income was greater than the monetary value.

There are several other points about the subsidy system as it was operating in the villages. Obliging low-income households to buy rations in bulk put considerable strain on storage capacities. Most households did not have reliable equipment, meaning that rot was likely to be common, along with a risk of losing the grain to insects and pests.

To give an idea of how it worked, in the general villages only about 29 per cent of the households at the time of the FES had either a BPL or an *Antyodaya Anna Yojana* (AAY) card. The subsidy, however, seemed to be reaching rich households as well, with 39 per cent of households in the top 40 per cent of the wealth distribution having either a BPL or an AAY card, similar to the proportion of households in the poorest wealth quintile having the card.

Some revealing reports came in the case studies, as illustrated in Plate 5, showing the home of Santoshbai and family, a household covered in the pilot in one of the general villages. For some inexplicable reason, the family only qualified for an APL card. There was no way that this could have been justifiable. And in fact, all the family had received was less than 2 kilos of grain, because the ration shop had a shortage of stocks.

If the family really qualified for an APL card, the amount it received was less than one-tenth of its entitlement. If, as was much more likely, it should have been entitled to a BPL card, the amount was less than one-fiftieth (7 per cent) of what it should have received.

Consider some others who came into the case studies. Genabai, aged 52, a Bhil wage labourer, told the enumeration team:

We don't have a ration card. So neither do we go to the control [PDS]. Nor do we buy anything from there. So I have no idea of the quality of the ration. We

had a ration card five years back, which was taken by the *sachiv* [secretary of the *panchayat*] to make a new one. We haven't received a new ration card so far ... Our neighbours also don't get anything from the control because they do not have a ration card.

This is a typical case of somebody losing entitlement due to a local bureaucratic decision, without any justification. Perhaps they had offended someone. Others pay a heavy price just in the process of obtaining one. Ramesh, a 45-year-old Bhil smallhold farmer and labourer, told the case study team:

I have a BPL card, which was recently renewed. They took 300 Rupees for the renewal, and gave us 1.7 kilos of sugar and 2 kilos of rice on it.

Here we have something that seems to have received little attention in the research on the BPL card system, which is that perversely it is a means of rent-seeking exploitation. Another widespread failing is illustrated by the case of Gabbulal, a 55-year-old disabled man from the Bhoi caste, who was chronically indebted. He told the team:

We get only kerosene from the control, with the help of an APL card, at the rate of 20 Rupees a litre. We should have a BPL card. Sometimes we borrow 200 Rupees from neighbours for grocery items.

He was actually paying more than an APL cardholder should have been paying. But he had no means of redress. And he should have been entitled to some wheat as well.

Then there was Santoshbai, aged 55, a landless labourer with three children, quite clearly very poor, who said:

We have no ration card, but we have to borrow for food which we pay back by labour.

He could not afford food for his family, but did not qualify as being poor. His plight has echoes of our discussion of the role of indebtedness. Recall the case of Gumaan Singh, aged 55, a landless member of a scheduled tribe, who had been a *naukar* for 35 years, now just surviving:

I have an APL card. I have debts of 30,000 Rupees. I am a casual wage labourer now. The ration card has become so old and worn out that it is in shreds. I have asked them to change it and give me a new card. But they haven't.

A bonded labourer who apparently only qualified for an Above Poverty Line card! But even those who have such cards have rather prosaic and practical

problems, as in the case of Rajaram, a 60-year-old landless labourer and barber from Jalodkeu village:

I have an APL ration card, which was given to me six years ago after a survey. It is completely torn now. I have applied for a new one. But nobody listens to us in this village.

Then there were the many reports in the case studies of how the poverty card system was not working well simply because obtaining decent quality food was denied. The Bhils seemed to suffer particularly badly. One couple, Tejubai and Nanuram, who had an AAY card and who had to go four kilometres to the nearest ration shop, reported that the food bought from it was often poor, and that it took a great deal of time to clean the grain.

Another Bhil, Seema, a young agricultural labourer, commented:

We go to the ration shop once a month to bring wheat, rice, sugar and kerosene. The shopkeeper does not provide the items on time. And the quality of the wheat and rice we get is not good.

So, she was making multiple time-consuming and costly trips without a high probability that the cost would be justified. That is another underappreciated failing of the PDS. It imposes financial and time costs on those least able to afford them.

A further failing, highlighted by the case studies, is that the ration shops were providing just three subsidized food items, if anything, and many eligible families just happened to grow wheat, one of those items.

Many critical reports came through the case studies. However, for the statistically minded, a more convincing indicator of the failure of the PDS to deliver subsidized food is that in the evaluation surveys conducted during the course of the pilots only a minority had a BPL card and only 3 per cent of all households had an AAY card.

Measuring household wealth by an index based on ownership of assets, only just over a third of the bottom 40 per cent had a BPL or AAY card. And only 47 per cent of scheduled tribe households and 43 per cent of scheduled caste households had either of these cards. Landless households were the most likely to have no card at all.

All these figures and case studies should be considered in a context where prominent observers have been defending the reach and effectiveness of the PDS in reducing malnutrition and poverty (e.g. Khera, 2011b). At least in these Madhya Pradesh villages, it was failing in two respects – not providing poverty

cards to those who should have been receiving them and not providing the quantity and quality of food to which they should have been entitled. That is the context in which the basic income pilot began to operate in 2011.

Income sufficiency for food

With what was happening with the ‘control’ system in mind, the first relevant question in the evaluation surveys asked whether or not the household usually had enough income to cover its food needs. In the general villages, by the time of the FES, while most households said their income was sufficient, the probability of having enough was significantly higher for those that had been receiving the basic income.

The differences were strikingly large in the case of scheduled caste and scheduled tribe households. This suggested that households were using the basic income to improve their nutrition.

However, the impact was much more visible in the tribal village, especially as a substantial number of families had insufficient income at the start to cover their food needs, in both the basic income and control villages. From the baseline, through the interim and into the final evaluation survey period, there was a steady and fairly dramatic improvement in the basic income village, whereas there was no change in the control village. By the end, the difference was highly significant statistically.

Whereas at the outset, 45 per cent of all households in the basic income village said their income was insufficient for their food needs, by the end only 19 per cent were saying this. By contrast, the respective figures in the control village were 41 per cent and 42 per cent.

Diet and eating habits

Having enough money for food is one matter; spending it and developing a different pattern of eating are not necessarily what follows. But having liquidity at least gives people greater capacity to make choices. We believed that there would be several beneficial effects.

The normal diet in the villages covered by the pilots has been wheat-based. The children receive, or are supposed to receive, supplementary meals at the *anganwadis*, consisting of cereals mainly. But in households in the villages

there was overwhelming dependence on *rotis* (flat bread). When the project started, very few were able to afford fish or meat, and few were able to buy fresh vegetables or fruit.

Cash transfers in other countries have been found to lead to improved nutrition among children, as in Brazil, where the *Bolsa Família* was found to have improved nutrition among babies aged between six and eleven months, but not between a year and three years (Soares, 2010).

We will consider the impact on children later. But first let us highlight what happened to the diets and food consumption practices. Again, we will focus on what happened in the tribal villages, since the nutritional crisis at the beginning was greater there. What happened was nothing less than heart-warming.

Although there were some changes in the consumption of different food items in the control village, they were modest compared with what happened in the basic income village, where there was huge relative and absolute expansion in the consumption of more nutritious items, most notably pulses and lentils (up by over 1,000 per cent, or from 0.3 kilos per family to 3.3 kilos) and fresh vegetables (up 888 per cent, or from 0.6 kilos to 5.5 kilos). These figures were far greater than what occurred in the control village.

The increase in consumption of fish and meat, expressed in Rupee cost, was over 500 per cent, or from Rs.20.6 to Rs.135. We will also come back to that later. There was also an increase of over 460 per cent in the consumption of eggs, and a 213 per cent increase in the consumption of wheat.

These substantial shifts could be the outcome of one or more of three changes – more purchased from the ration shop, more purchased from local markets or more produced on village farms. Clearly, the increased purchases were unlikely to come from the ration shops. But the first key point is that the basic income was associated with an improvement in the diet of most people.

One scheduled caste woman, Bhavarsingh, who described herself as mainly a wage labourer, summed up what a number of others also said:

There has been a vast change in the food habits over the last year. We used to eat *roti* with chutney in the past. But since receiving this money, we have been buying vegetables. Now we eat *roti* with *sabji* [vegetable dish]. Our food tastes better because we eat *masalas* [spiced dishes].

Anecdotes such as this may not be definitive evidence, but they capture the typical behavioural dynamics of a simple transparent scheme of assistance.

Ration shops and food markets

Let us consider what happens to the sources of food. Two changes occurred. First, by having more cash, families in the basic income villages were at least more able to purchase the subsidized items in the control shops, if they wished and if the food was available.

In fact, about 4 per cent of households in the basic income villages reported an increase in food purchased from the ration shops, which was not much different from what was happening in the control villages. But for all villages combined, there was a net reduction in such purchases, and about three-quarters reported that they did not alter their level of purchases from the ration shops, presumably because they bought just what was made available; 13 per cent did not buy anything from them.

The general picture is that what was happening around the ration shops was not part of the dynamics. The other two factors explained the change. According to the FES, there was a net shift to the use of food markets and non-ration shops in all types of village, but the shift was significantly greater in the basic income villages; 46.5 per cent of households reported that they purchased more of their food in the market compared to 35 per cent in the control villages, with just 2 per cent and 4 per cent respectively reporting that they had reduced their use of the market.

In the Post-Final Evaluation Survey, conducted in two basic income villages, questions were asked about the regularity of buying various food items. It was clear that many had increased the number of times they bought fresh vegetables (53 per cent saying they had increased the regularity with which they purchased them), milk (64 per cent) and pulses (54 per cent). In all three cases, the vast majority attributed the change to the basic income.

Something else was happening; along with increased regularity of purchase, families were using their basic income to buy food with cash instead of doing so on credit, and thus saving on a potentially high rate of interest, either monetary or, more likely, in food. For instance, when buying on credit, the household would purchase, say, one quintal of wheat and have to pay back later with two quintals, as noted in Chapter 3.

This tendency effectively reproduced 'food poverty' even in post-harvest periods. The basic income thus indirectly reduced such food poverty or 'food debt'. In effect, the basic income helped households to retain more of the food that they produced and enabled them to smooth the pattern of food consumption.

A traditional pattern was for households to borrow to buy, say, a kilo of soybean and agree to pay back 1.5 kilos of soybean when their harvest came due. This not only deprived some households of soybean in the slack season but also meant that they were effectively ‘mortgaging’ their own food production. To some extent at least, the basic income enabled them to break out of this debt cycle.

An example was a family in Ghodakhurd. Dasrath, a landowning farmer from a scheduled tribe, told the fieldwork team:

The cash transfer money has helped us a lot ... We saved every family member's money and we went to buy the groceries once for an entire month. Because of this, we saved on transport costs and the trouble of going to market again and again. Earlier, we had to go to the market three or four times a month and buy less each time, due to lack of cash ... Earlier, we had to buy soybean and wheat seed on credit as well ... We had to buy the soybean and wheat seed from the *seth* and had to pay back double the amount of soybean seed and 1.5 times that of wheat.

To break out of such a situation is an important improvement in family welfare. Another case shows how the little more made a big difference. It was the story told by Ramda, another member of a scheduled tribe in the tribal basic income village of Ghodakhurd:

We buy ration for the whole month because going to the market again and again was too expensive. And if the ration ran out by the middle of the month, then we bought a little bit from the village shop, and if there were no oil and spices, we made do with salt and chilli. But we did not face that problem this year because of the cash transfers.

Another aspect, brought out by this example among others, is that it was with regard to food that pooling the money was so common, with those from scheduled castes and tribes being particularly likely to do so.

Child nutrition and weight-for-age

Among the major hypotheses underpinning the pilot was that basic income would result in an improvement in the nutrition, and thus health and eventual development, of babies and young children. To test this hypothesis, relevant data were collected in several ways. Mothers were asked for their opinions, information was collected from the *anganwadis* serving the villages and all children up to the age of five years were weighed.

The main method was the third, which was an object lesson in the pitfalls of what is usually called 'fieldwork'. The underlying objective was to determine whether or not a child was 'underweight', or conceivably 'overweight' (obese), for his or her age, according to a methodology developed over the years by the World Health Organization (WHO).¹

Before coming to the results of this exercise, we should acknowledge that obtaining reliable measures of weight-for-age was doubly complicated. Obtaining a child's exact age in months was not easy because in some cases the mother herself was uncertain. It often took several visits and checks with relatives to ascertain the exact month of birth. Some were unfamiliar with calendar months. So, they were asked for the Hindi month, such as Saawan and Bhadon. If they were unable to recall that, questions were asked about the birth being before or after major festivals, such as Diwali, Dussehra, Rakhi or Holi. Gradually, the date was narrowed down to a reasonable estimate.

Then there was the practical problem of finding all the children and being able to weigh them properly, which required multiple visits with the equipment. The original team delegated to deal with this challenge proved less than competent. Fortunately, we were able to organize another and obtain training from UNICEF staff in the state.

However, because of the initial difficulties, we had to rely on *anganwadi* records from around the time of the outset of the pilot. These data are not ideal, since it turned out that some *anganwadis* kept incomplete or inaccurate data, possibly due to lack of training or proper equipment, perhaps because they thought it was unimportant or perhaps because they wished to give a better impression of the condition of the children in their charge than was the case.

In any case, the *anganwadis* are supposed to keep monthly records of the weight of the children and, if they are deemed to be underweight, their arm circumference, as well as keep a record of any remedial treatment.

In light of the institutional deficiencies in the *anganwadi* system, enumeration team members were delegated to weigh all the children themselves, aided by training from the UNICEF office in Madhya Pradesh and their provision of weighing machines.

As a result of all this, there is reason for more confidence in the quality of the data collected for the FES, although we had to use data from the *anganwadis* for the baseline period. There is reason to think that the data from the *anganwadis* are biased. But there is no reason to think this bias would vary by type of village. So for analytical purposes the bias can be regarded as random.

With these considerations in mind, the data showed that in basic income villages the share of children with normal weight increased from 39 per cent in April 2011 (as recorded by the *anganwadis*) to 59 per cent in September 2012, an improvement of nearly 20 percentage points. That was twice as great as in the control villages,

But what was even more notable is that, while the nutritional status of boys improved, the absolute and relative improvements for girls were much greater. In the basic income villages, the share of girls with normal weight increased by over 25 percentage points, more than double that in the control villages. The share of boys attaining normal weight-for-age rose by 14 percentage points in the basic income villages, compared with only 9 percentage points in the control villages.

So, the basic income was associated with a stronger positive effect on the nutritional status of girls. This is consistent with findings in countries such as Mexico, where a CCT was found to have reduced stunting among girls by 39 per cent and among boys by 19 per cent (Aguero et al., 2007).

Probing further, the effects on age groups varied considerably. The weakest positive effect was among the youngest, babies up to the age of six months. The impact was substantial in the case of infants aged seven to 36 months, with a drop in severe malnourishment being twice that found in the control villages. The reduction in the moderately malnourished was even more pronounced and different, being 10.5 percentage points in the basic income villages compared with a small increase in the control villages.

Figure 5.1 General villages: Weight-for-age distribution for basic income villages, by gender

Source: *Anganwadi* records for April 2011 and MPUCT FES data for September 2012

So, the overall effect was that the share of infants in that age group who moved into the normal bracket rose by nearly six times as much in the basic income villages. These are highly significant figures. And again it was among girls that a significantly bigger improvement took place (a 24 percentage point increase compared with a 15 percentage point increase for boys).

While children in all social groups benefited, the main improvement in nutritional status took place among tribal family children and the least among the upper caste, or general, family children. Most striking of all, whereas none of the tribal children in the basic income villages had normal weight for their age at the outset of the pilot, by the end nearly a quarter had attained that weight. And the share of tribal children severely underweight for their age fell from 32 per cent to 15 per cent.

One other tantalizing finding was that within basic income villages, the improvement in normal weight-for-age was 27 percentage points in SEWA villages and under 20 percentage points in non-SEWA villages, suggesting that SEWA's activities were making an additional difference.

The age factor here is relevant. By the time they reach seven months of age most children have shifted to solid food and by the age of two years most should have begun to receive food from the *anganwadi*. This continues until they are five years old, at which point they begin school. In many of the SEWA villages, complaints about the running of the *anganwadi* would be brought to the SEWA village leader who would talk to the *anganwadi* worker and the Integrated Child Development Scheme (ICDS) supervisor. In cases where she was unable to resolve the issue, she would contact the SEWA office in Indore. One SEWA organizer, Lakhina, summed up a particularly fraught situation as follows:

In our village there is a lot of casteism. The *anganwadi* teacher is a Brahmin and she did not allow scheduled caste children in the *anganwadi*. So children who needed it most were deprived. I went to the teacher and tried to talk to her. But instead of listening to me she started threatening the families in the scheduled caste locality and told them not to complain, as she had connections with the higher-ups, she was not afraid of the SEWA workers. So at our next meeting of SEWA in Indore, I brought this up and a written complaint went to the local supervisor of ICDS.

Later, along with the SEWA organizer and some women from the village, I met the supervisor and we said that she should resolve the issue; otherwise a written complaint would be sent to the Principal Secretary of the department and the concerned minister. Hearing this, the supervisor became scared and immediately went to Jagmalpipliya and convinced the *anganwadi* teacher. The next day we sent scheduled caste children to the *anganwadi* and monitored

the issue after that. The midday meal was also not cooked daily, an insufficient amount of food was being cooked and the food was not properly cooked either. With the help of the supervisor, this issue was also resolved and I was asked to supervise the cooking daily. I ensured that the children were having enough food every day.

So there is reason to think Voice also played a part. In sum, the data show that the basic incomes were linked to an overall improvement in child nutrition, in a bigger improvement for girls than for boys and in a bigger improvement for children in the more vulnerable lower caste and tribal families. They thus point to an improvement in welfare and in equity, with the basic incomes helping to reduce one of the most pernicious forms of structural inequality.

We should add that the results in the tribal villages were mixed; improvements were observed but they were of a lower magnitude than in the larger sample of general villages, while there was a bigger improvement among boys than among girls.

The fishing cooperative

There was one particular development that affected nutrition in the tribal village where the basic incomes were paid, discussed in Chapter 8. The establishment of a fishing cooperative led to a transformation of the diet of the villagers, who suddenly had access to fresh fish on a fairly regular basis. By the end of the pilot, the fishing cooperative had become firmly established and a year later it had flourished into a regular provider of fish for the villagers over much of the year. Fish had become a normal feature of village eating, whereas it had been virtually absent before the pilot began.

The alcohol bogey

A common claim by critics of a basic income is that people will waste their money on 'private bads,' most notably on alcohol and tobacco, or *bhang*, rather than on nutritious food. Therefore, it is highly relevant that, according to the FES, in the general villages a lower proportion of the basic income households increased spending on alcohol than control households, 3 per cent compared with 7.5 per cent. And more basic income households reduced their spending on it (4 per cent compared with 2.5 per cent).

The same pattern emerged in the tribal villages, where 12 per cent of basic income households reduced their spending on alcohol compared with just 1 per cent in the control village and where a lower proportion purchased more, 9 per cent compared with 12 per cent. In short, the common claim is a matter of prejudice. These results correspond to similar findings in African cash transfer schemes, most notably in Kenya (Kenya CT-OBC Evaluation Team, 2012).

One can only speculate on the reasons for a net reduction in spending on alcohol. One reason mentioned in one of the case studies may be a lead to the answer, although it is speculative. It is that more of the men were working in the fields and around the home rather than going to seek wage labour in the local town labour market.

Concluding reflections

Although the evidence on some aspects is limited, a broad narrative emerges from the evaluation data. Food deficiency fell, diets became more nutritious and balanced, and there was a relative shift from reliance on the control or ration shops to the market and own production of food. Child nutrition improved, probably quite dramatically, in that there was a substantial improvement in the weight-for-age measures and a reduction in severe malnourishment.

Improvements in nutrition affect capabilities, by tending to reduce the incidence of ill-health, particularly among infants, and by aiding concentration and school attendance. They also help in boosting economic growth and development, in that better-nourished adults tend to be more productive in their work. It is hard to measure these effects with any precision. But intuitively they make very good sense.