Some Reflections on the National Food Security Act

Ashok Kotwal
Milind Murugkar
Bharat Ramaswami

The fact that the implementation of the Act would still require targeting the bottom 67 percent is still a big problem. It would have been a lot better if the coverage had been near universal requiring the exclusion of only the top income groups (e.g., income tax payers) who could be easily identified. It is possible that the task of organizing logistics of procurement and distribution of grain for such a large population is what kept the government from not entertaining that option

THE NATIONAL Food Security Bill became an act with little parliamentary opposition and yet the debate in the media has lingered. Many questions have been raised. Would subsidized food grains solve the problem of malnutrition? Isn't there a better way to help the poor, say, by investing in health and education? Can we afford the cost of subsidizing food for such a large chunk of the population? Should we continue to waste money on the highly flawed PDS system? What is the government procurement system doing to the grain markets in India? Our aim here is to offer our own perspective on these important questions.

Impact on Nutrition and Health

India has the dubious distinction of being at the top of the chart for malnourished children and at the bottom of the chart for health indicators. In the minds of many, this is a disgrace and why India needs a scheme to provide food security. What impact would the National Food Security Act (NFSA) have on malnourishment and health?

Some components of the NFSA such as mid-day meals and maternity benefits (nutritional supplements and cash) are directly targeted at nutrition. What about the supply of cheap rice and wheat?

Some people hope that subsidized food grains will reduce malnourishment by inducing beneficiaries to consume more food grains and thereby more calories. However, malnutrition stems from many things including micronutrient deficiency (Malhotra (2012), being ill informed about nutrition (Malhotra, 2013), and poor sanitation (Hammer &Spears(2013). The fact that other things matter has led critics to dismiss the nutritional impacts of food subsidies. This is incorrect too.

Poor households typically consume about 10 kg of grain while the subsidy will be offered on a fraction of this amount (5 to 7 kgs) (Kaul (2013)). Thus, the subsidy releases resources that could be spent on the purchase of more foodgrains or other foods or even non-foods. That's why the scheme to subsidize foodgrains is essentially an income transfer programme denominated in terms of the price of foodgrains. Kaul (2013) gives estimates of the elasticities of per capita calorie intake from different food groups with respect to rice subsidy per capita: 0.123 for cereals, 0.151 for lentils, 0.237 for fruits and vegetables and 0.169 for meat. Therefore, the income effect through the subsidy will allow beneficiaries to buy more foodgrains and also more nutritious food. Since the additional income can be spent on non-foods as well, the

Ashok Kotwal is Professor of Economics at the University of British Columbia. Milind Murugkar is a policy analyst. Bharat Ramaswami is Professor of Economics at the Indian Statistical Institute, Delhi.

impacts will not just be restricted to nutrition.

Rationale for Income Transfers

People could use the extra income for medical or educational expenses; farmers could use it to supplement their expenses for farm inputs. Two third of Indian households are rather poor and living on the brink and an income transfer of even Rs. 3000 a year can be handy in avoiding it. It can allow them a chance *to live a life with dignity*.

In addition to the welfarist argument above, there are some instrumental arguments as well. First, the Indian economy has grown relatively fast over the last few decades but the gains have gone disproportionately to the top layer. The envy and resentment caused by such a pattern of growth can be politically unhealthy. It tears the social fabric leading to deterioration in institutional performance and the functioning of society.

Second, it is indisputable that the direct nutritional interventions such as meals for lactating and pregnant mothers as well as mid-day meals for school children would have a positive impact on the human capital of the next generation and should therefore be considered an investment. Third, an income transfer programme of this sort can also lead to greater output through its impact on human capital and on the risk-taking ability of the poor. Consumption can thus translate into investment.

...direct nutritional interventions such as meals for lactating and pregnant mothers as well as mid-day meals for school children would have a positive impact on the human capital of the next generation and should therefore be considered an investment.

This is not just wishful thinking. The successes of conditional transfers such as Bolsa Famila in Brazil and Progressa in Mexico are well known. Recent research from Africa have also shown positive impacts of unconditional transfers in terms of reducing hunger, increasing livestock holdings and investment in new trades (Blattman, Fiala and Martinez (2013); Haushofer and Shapiro (2013)).

Of course, these schemes are different in scale and intent from the income transfer programme under the food security act in India. But the relevant point is that a well-implemented income transfer programme can enable the poor to overcome the constraints of poverty and become more productive. The cliché that the poor will waste the money on bad habits is not borne out by the evidence.

But can we afford such an expensive programme?

The Act has expanded the coverage from 44 percent of the population under TPDS to 67 percent while reducing the subsidized amount from 7 kgs to 5 kgs per person for all except the very poor (beneficiaries of Antyodaya). It is easy to see at a rough level that the amount of grain commitment by the centre cannot have changed much as 7 x .44 = 3.08and 5 x .67 = 3.33. The additional commitments are principally because of other welfare schemes that include maternity benefits and school feeding programs but the magnitudes are not large. For this reason, Mishra (2013) calculates the incremental cost over the existing TPDS to be 0.2 percent of GDP.

Some experts have speculated that the incremental costs are underestimated. For example, Gulati et al (2012) believe that the Act will necessitate large investments in food production. We don't see why such a small increase in PDS supply will have a big impact on required food production. Of course, irrespective of NFSA, agricultural investments are necessary. But those costs cannot be attributed to the NFSA.

Mishra (2013) also mentions that there could be further additional costs due to setting up of food commissions and grandfathering of existing beneficiaries. The magnitude of these costs cannot be firmly established without assumptions of how the Act will be implemented (Sinha, 2013). Since these costs are difficult to gauge in advance, let us take the figure mentioned by Dr. Raghuram Rajan as the incremental cost due to the Act -- 0.5 percent of GDP. Is this affordable?

The answer depends on how you evaluate the benefits and opportunity costs of the extra resources used. One difficulty is that the benefits of the subsidy that actually reaches the targeted beneficiaries are intangible and what part of the allotments actually reaches them is dependent on the extent of corruption and leakage. What is pertinent is the opportunity cost of these resources. For example, what if this 0.5 percent of GDP were used as investment in education or healthcare? Would that not do a lot more good than wasting resources on PDS that is known to be a leaky bucket? Indeed, this seems like the right question to ask but implicitly the leaky bucket is being compared to well functioning system of delivering education and healthcare. The trouble is that the public education and healthcare in India are both poorly delivered (ASER, 2012, Muralidharanet al (2013)). Many parents, even poor parents, are putting their faith in private schools and

What is pertinent is the opportunity cost of these resources. For example, what if this 0.5 percent of GDP were used as investment in education or healthcare? Would that not do a lot more good than wasting resources on PDS that is known to be a leaky bucket? Indeed, this seems like the right question to ask but implicitly the leaky bucket is being compared to a well functioning system of delivering education and healthcare. The trouble is that public education and healthcare in India are both poorly delivered

public healthcare facilities are poor. A wasteful and inefficient system is being compared with another equally flawed system. In short, it is hard to evaluate benefits in either case and give a clear answer in terms of the opportunity costs of the food subsidy. What is crucial, therefore, is to assess where are the opportunities to improve the working of the system.

TPDS – a Flawed System

We believe that the affordability is not the real problem and has served to distract our attention from the main problem – the seriously flawed system of delivering the food subsidy, namely TPDS.

For politicians, the demand for a higher support price affords an opportunity to mobilize a constituency. In India, most of the grain (especially wheat) is procured from a few states. As a result, the support price, and hence the harvest price, is typically determined through bilateral bargaining between the central government and the state governments. Given the nature of parliamentary democracy in India, the ruling party cannot ignore the votes in these surplus states, and consequently the outcome of the bargaining game is a price that is higher than it would otherwise be (i.e. cash transfers).

Some of the perennial problems plaguing the TPDS are:

- It is very difficult to identify the poor. Exclusion errors are huge. According to Jha and Ramaswami (2012), only about 30 percent of the poor derive some benefit from the PDS.
- Fair price shop owners have a built in incentive to divert grain to open market. In 2004/05, about 54 percent of subsidized grain was estimated to be lost in this manner (Jha and Ramaswami, 2012). In 2009/10, the estimate is 40 percent (Ramaswami and Murugkar, 2012).
- Farmers from many states where coarse grains are important lose by having subsidized grains dumped in their area. In several states such as Karnataka, Maharashtra, Rajasthan one or more coarse grains are important staples. These coarse grains are typically cultivated in arid areas where the soil is of a low quality and the farmers are poor.

Note that the targeting problem can only be solved by making the coverage almost universal. But substituting the in-kind transfer system with a well-designed cash transfer system could solve the other two problems.

The Influence of PDS on the Market Prices of Foodgrains

What happens to the market price of grain under cash and in-kind transfers, respectively? The question is important because, in practice, it is difficult to devise a perfect safety net. Some of the poor could be left out even if the coverage was meant to be universal. Moreover, if a policy intervention causes a rise in the market price of grain, the non-poor who are not entitled to a food subsidy would be adversely affected, and this would make the scheme politically difficult to implement. Finally, even the poor beneficiaries would source part of their foodgrains from the market. Grain markets have a well defined seasonal pattern. Price levels are at their lowest at harvest time and then rise through the year to cover the costs of carrying stocks. Grain prices can be higher either because of a higher harvest price or because of greater margins of storage and distribution.

When governments procure, the initial harvest price is determined not by the forces of supply and demand but by the support price set by the government. For politicians, the demand for a higher support price affords an opportunity to mobilize a constituency. In India most of the grain (especially wheat) is procured from a few states. As a result, the support price, and hence the harvest price, is typically determined through bilateral bargaining between the central government and the state governments. Given the nature of parliamentary democracy in India, the ruling party cannot ignore the votes in these surplus states, and consequently the outcome of the bargaining game is a price that is higher than it would otherwise be (i.e. cash transfers). The power of the farm lobby to dictate prices does vary with circumstances. Shortage in the world market reduces the threat of imports and increases their power, but their power diminishes if government stocks are far in excess of need.

An additional complication is that the Central government is extremely sensitive to the possibility of under-supply to the PDS. Politicians and bureaucrats perceive the costs of insufficient supplies but nobody is held accountable for excessive stocks and high prices. Predictably, the errors are in one direction. Since the early 1990s, procurement has consistently exceeded PDS sales. This is why there have been recurrent crises of excess stocks and consequently, of storage capacity. High procurement prices and large government stocks displace private trade and therefore, bumper procurement and stocks continue until the momentum is broken by an exceptional event such as a drought

In India, post offices have typically delivered cash payments in welfare programs (such as those arising from pension and public works), but this process is vulnerable to capture by the intermediaries, which results in both delay and loss. Policy now emphasizes the direct transfer to savings accounts of beneficiaries in banks and post offices. This is possible only because of computerization of financial systems. This still does not address the issue of "last-mile" connectivity.

or by *ad-hoc* dumping of grain in the domestic (open market sales) or international market (exports).

The implication is that in our structure of procurement, there is always a tendency to accumulate excess stocks which in turn leads to high prices. If the expanded obligations under the Food Security Act are met by a mix of transfers in-kind and in cash, it will restrain the pressures on procurement and public stocks. Of course, the problem vanishes in a world where cash transfers completely replace the transfers in-kind.

A Case for Cash Transfers

We have already mentioned how the substitution of the in-kind transfers by a cash transfer scheme would solve the most common problems that plague TPDS.

An immediate objection to cash transfers is infeasibility. How can cash be transferred? Does a poor country have the systems to implement it? A cash transfer system is constructed on two pillars: a payments system to distribute the cash; and an authentication system to verify that the transaction is with the intended beneficiary. Conventional payment systems are brick-and-mortar banks and post offices. By definition, such infrastructure is not well developed in the poor remote areas of low-income countries. This has been a barrier to the use of cash transfers.

Computerization of financial systems and the use of the Internet and mobile devices have broken through this impasse. Africa leads the world in the use of mobile phones to transfer cash (See Mas and Rotman (2008) and Mas and Kumar (2008)). It has allowed urban migrants to remit money to their families still living in urban areas. Effectively, any retailer is potentially a point for banking transactions. In India, post offices have typically delivered cash payments in welfare programs (such as those arising from pension and public works), but this process is vulnerable to capture by the intermediaries, which results in both delay and loss. Policy now emphasizes the direct transfer to savings accounts of beneficiaries in banks and post offices. This is possible only because of computerization of financial systems. This still does not address the issue of "last-mile" connectivity. An emerging model here is the use of intermediaries between the banks (situated in towns and larger habitations) and the beneficiaries (resident in villages). These intermediaries, called banking correspondents, provide services of withdrawal and deposit with the help of Internet-enabled portable devices that record these transactions in real time. Internet connectivity is provided through the usual mobile phone networks.

Authentication systems require verification of the identity of the beneficiary. In a digital system, this can be done through a user-supplied numeric code or password. More secure systems rely on biometric identification such as Aadhar.

Another justification of in-kind transfers is that it leads to self-selection of only the truly needy. The effectiveness of self-selection unfortunately depends on the relative inconvenience of buying in a ration shop or even having a lower quality of food available in ration shops. The inconvenience of standing in a queue for buying something from a ration shop could be perhaps enough to deter the rich from taking advantage of it except for the fact that they can send their domestic help for such chores. A cash transfer with biometric identification would make the self-selection work more effectively, thus making even universal coverage affordable.

An infusion of cash in a local area could give rise to a sudden increase in prices. In an environment where the markets are not well developed, the rise in prices may not trigger imports from other areas to bring down the prices in a short time. In-kind transfers of food may induce an increase in demand for non food items but will not cause food price inflation. Clearly, this is a real concern about cash transfers, and it suggests that cash transfers are more appropriate for the areas where the markets are well developed.

The most serious objection to any sort of cash transfer is that food prices fluctuate and that a commitment to the poor in terms of a certain quantity of food per person cannot be maintained very easily. Consider the logistics of the problem. Suppose it is decided to give each household 25 kg of grain each month at a subsidized price and the subsidy amount required for a recipient to purchase that much grain is deposited into her account at the beginning of the month. If the market price has risen by10 percent by the time the recipient goes to buy the grain, the subsidy amount would fall short of what is required. The subsidy amount should therefore be adjusted as the market price changes. It is, of course, expensive to adjust the subsidy amount too frequently, and the cost of not adjusting it frequently enough will be borne by the poor. This can be an objection against any cash transfer scheme.

Concluding Comments

The suggestions for the reforms in the existing TPDS are the main benefits of the National Food Security Act. The fact that the implementation of the Act would still require targeting the bottom 67 percent is still a big problem. It would have been a lot better if the coverage had been near universal requiring the exclusion of only the top income groups (e.g., income tax payers) who could be easily identified. It is possible that the task of organizing logistics of procurement and distribution of grain for such a large population is what kept the government from not entertaining that option. Cash transfers would obviate those concerns while reducing the waste and leakage at the same time. In a diverse country like India, however, it is always a mistake to impose solutions from the top. Different states are at different stages of development and the best way is to let them choose the means of delivering their income transfers.

Readings

ASER Centre. *Annual Status of Education Report (Rural) 2012*. New Delhi:, 2013.

Balakrishnan, P., and B. Ramaswami, "Public Intervention and Private Speculation: The Case of Wheat Procurement,"*Journal of Quantitative Economics*, 11, (2), 59-83. 1995.

Blattman, Christopher, Nathan Fiala and Sebastian Martinez. "Employment Generation in Rural Africa: Midterm Results from an Experimental Evaluation of the Youth Opportunities Program in Northern Uganda", *Innovation for Poverty Action*, 2011.

Economic Advisory Council. *Report of the Expert Committee on National Food Security Bill*, (2011).

Gulati, Ashok, JyotiGujral, T. Nandakumaret al. "National Food Security Bill Challenges and Options." *Discussion Paper No. 2, Commission For Agricultural Costs And Prices* (2012)

Hammer, Jeffrey S. and Dean Spears. "Village Sanitation and Children's Human Capital: Evidence from a Randomized Experiment by the Maharashtra Government." *World Bank Policy Research Working Paper*.6580 (2013)

Haushofer, Johannes and Jeremy Shapiro. " Policy Brief: Impacts of Unconditional Cash Transfers", *MIT Working Paper*, Oct 24, (2013).

Jha, Shikha, and Bharat Ramaswami. "The Percolation of Public Expenditure: Food Subsidies and the Poor in India and the Philippines". *NCAER-NBER: India Policy Forum, New Delhi.* (2011).

Kaul, Tara. "Household Responses to Food Subsides: Evidence from India." *Working Paper* (2013)

Kolli, Ramesh, and S. Hazra. *Informal Sector Contribution in the Net Domestic Product-Indian Experience*, 2005.Report of the Eighth Meeting of the Expert Group on Informal Sector Statistics.

Kotwal, Ashok, Milind Murugkar, and Bharat Ramaswami. "The Political Economy of Food Subsidy in India." *The Copenhagen Journal of Asian Studies* 30.2 (2012)

Kotwal, Ashokand Bharat Ramaswami. "Delivering Food Subsidy: State vs Market" the Oxford Handbook of Food Economy, edited by Ronald Herring, forthcoming.

Malhotra, Nisha. "Child malnutrition: Why wealth isn't the only problem ."*Ideas for India*.Web.<http://www.ideasforindia.in/article.aspx?article_id=61>.

Malhotra, Nisha. "Inadequate Feeding of Infant and Young Children in India: Lack of Nutritional Information Or Food Affordability?" *Public health nutrition* 1.1 (2012): 1-9.

Mas, Ignacio, and Kabir Kumar. "Banking on Mobiles: Why, how, for Whom?" *CGAP Focus note*.48 (2008)

Mas, Ignacio, and Sarah Rotman. "Going Cashless at the Point of Sale: Hits and Misses in Developed Countries." *Consultative Group to Assist the Poor, Focus Note*.51 (2008)

Mishra, Prachi. "Financial and Distributional Implications of the Food Security Law." *Economic & Political Weekly* XLVIII.39 (2013)

Muralidharan, Karthik, NazmulChaudhuri, Jeffrey Hammer, Michael Kremer and Halsey Rogers.*Is There a Doctor in the House? Medical Worker Absence in India, Harvard University Working Paper* (2011)

Ramaswami, Bharat, and Milind Murugkar. "Food Policy Reforms: A Rapid Tour of Possibilities." *South Asia Working Paper Series, Asian Development Bank* (2013)

Sinha, Dipa. "Cost of Implementing the National Food Security Act", *Economic & Political Weekly* XLVIII.39 (2013) ❑

(E-mail :kotwal.ashok@gmail.com, milind.murugkar@gmail.com , isid.bharat@gmail.com)