



The government patched together an intricate—and flawed—fertiliser system over the last 40 years. It now wants to dismantle that monster. The challenge before it is to preserve its pro-agriculture and pro-poor objective, while correcting the flaws that crept in, reports M Rajshekhar

Breaking and Building



ARINDAM

Are Cash Transfers Being Rushed?



The ministry of fertilisers is planning to migrate to cash transfers in three phases. In the first phase, to be completed by December, it will extend its fertiliser management software beyond the 30,000 fertiliser warehouses to 230,000 licenced retailers. In the second phase, scheduled to begin from the next kharif season (June 2012), the nutrient-based subsidy will be re-routed from companies to retailers. The third phase, cash transfers to farmers, will be rolled out once farmers are allotted unique identification (UID) numbers. Each phase is posing large questions, especially related to time.

Take phase one: connectivity to retailers. For this, the ministry needs a software that captures transactions at retailers. It needs a mobile-based application through which retailers can SMS stock positions to the ministry. It also needs to train suppliers, retailers, and district and local officials. The software is being developed by the National Informatics Centre, the government's IT department. The NIC is sourcing additional programmers from Sahara Next, the IT company of the Sahara Group. "The pilots will happen in September," says YK Sharma, deputy director-general, NIC. September is also when nationwide training will start, says a joint secretary in the fertiliser ministry.

The ministry plans to cover the entire country in six months, which seems unrealistic. Lateral Praxis, which designed the ministry's fertiliser-monitoring system, is running a similar pilot in Patna district in Bihar, involving 1,300 retailers and 28 dealers. Says Suniti Gupta, MD: "It took us three to four months to develop the software. And then, another three to four months

to stabilise the system and convince all stakeholders to submit data on a daily basis."

That is to be expected, says Himanshu, an assistant professor at the Jawaharlal Nehru University in New Delhi. "Traders will be unwilling to opt into a system that makes their inventory visible to the government," he says. "They will fear the government will use this to increase their taxes."

Or, take phase two: channelling the subsidy to retailers. Retailers are expected to inform the government, via mobile phone, about their purchases. There are unknowns here. If the retailer has recovered a part of his working capital from the subsidy, will it encourage hoarding? How does the ministry verify if the data the 230,000 retailers are messaging is correct? Through physical verification? What if the local administration decides to look the other way in exchange for rent?

Or, take phase three: cash transfer to farmers. The big question here is identifying beneficiaries. "Officially 10% and unofficially 30% of India's fields are cultivated by share-croppers (tenants)," says Himanshu. "If the cash goes to the owner's bank account, share-croppers will be left out." Also, if the ministry limits the subsidy for big farmers, how does it affect food security? If fertiliser becomes, say, twice as expensive for big farmers, they might shift to cash crops.

Despite the lack of clarity on downstream impacts, the government is pushing ahead with a plan that budgets just 30 days for pilots. "We have wasted too much time talking about pilots, says US Awasthi, managing director, Ifco. "Let India be the pilot." India is a complex country, counters Himanshu. Something that works in Punjab may not work in Vidarbha. "What is the tearing hurry? We have made so many mistakes acting on gut-feel," he says. "The idea is to find a flawless system."

Timeline

From Controls to Cash Transfers

The government has, all along, directed the fertiliser industry. How it has done so has kept changing. The current reform is the most significant undertaken by it since 1977.

Consumption: 1965-72
Price setter: Government
Subsidy: No

The Green Revolution is built around high-yielding crop varieties supported by fertiliser use. As the government woos the private sector, it sets the stage for nine urea plants to come up.

Control: 1972-79
Price setter: Government
Subsidy: Yes, to companies

As oil prices soar, companies say they can't sell at the government-set price. In 1977, the Retention Pricing Scheme (RPS) is introduced: companies are reimbursed for their additional costs and a fixed profit margin.

Confusion: 1991-2009
Price setter: Government
Subsidy: Yes, to companies

The RPS begins to miss its objectives. Companies exploit its cost-plus formula. They prefer urea to other fertilisers. So do farmers, weakening the soil. Government gropes for an alternative to the RPS.

Cash Transfer: 2010
Price setter: Market
Subsidy: Yes, to farmers

Prices of all fertilisers except urea freed. Nutrient-based subsidy replaces RPS: companies are paid a fixed amount per nutrient irrespective of their cost of production. Next move: cash transfers to farmers.

If it all goes to plan, buying or selling fertiliser will never be the same for the 120-odd companies that make up this Rs 1,00,000 crore industry or the 120 million farmers that rely on it. Starting next year, the government will stop its 34-year-old practice of giving the fertiliser subsidy to companies. It will instead begin a step-wise migration to a cash-transfer system, where the subsidy will eventually move directly to the bank accounts of farmers. The government hopes, this transition, which began in 2010, will be the panacea for all the ills that distorted the previous system in its various forms.

Think of a two-storey building that has bloated to five floors, with extensions and alterations, some legal and some illegal. That, in an analogical nutshell, is the fertiliser ecosystem today, deformed by the constant actions—and the reactions—to the system of subsidies that shapes it. Fertiliser subsidies were introduced, in 1977, to increase agri production while insulating farmers from rising prices of a crucial input. So, the government fixed the price of fertiliser, at below market rates, and reimbursed companies for shortfalls in their cost of production. It worked initially. But, in time, it created distortions.

Companies cared little for costs as the government was paying. Then, they chose to produce urea over other fertilisers because, being the base fertiliser, it drew the maximum subsidy. Since urea was also the cheapest, farmers used it more than other necessary fertilisers, harming the soil. Since the subsidy went to the company, every farmer, rich or poor, benefited from it, leaving the government with a hefty bill. The government kept tweaking policy to correct these imbalances, but it left everything fuzzy.

It left companies with an inefficient operation, a lopsided product portfolio and reluctance to expand. It left the soil with a disproportionate amount of nitrogen. It left the government's finances in disarray. A complete mess.

The government, now, wants to correct all this, by overhauling the subsidy system. The latest reform began in April 2010, when the government ended the cost-plus basis of compensation to companies. Finance Minister Pranab Mukherjee took it forward in Budget 2011 with the announcement that the government will, sooner rather than later, transfer the subsidy directly to farmer bank accounts. But all this has to be done with a sense of continuity.

To stretch the construction analogy, the government wants to give this irregular building a makeover. Except, it has to do this makeover even as people continue to live in the building. It

has to work on parallel tracks: on one line, to phase out the old system; on the other, to 'sell' the technology-driven new system without causing a disruption in outcomes for companies, sellers or farmers. And without affecting India's food security or farmer livelihoods.

THE OLD SYSTEM

"When it started, the erstwhile pricing scheme was a great idea," says S Krishnan, the previous fertiliser secretary. The Green Revolution, built on high-yielding crop varieties supported by fertiliser use, was underway. Farmers needed cheap fertilisers.

The Retention Pricing Scheme (RPS), as the first avatar of the subsidy system was called, was designed to keep domestic fertiliser prices stable, international prices of fuel and raw materials notwithstanding. "It called for close management," says Krishnan.

So, the government set fertiliser prices. Then, each manufacturer would submit its costs to the government. The ministry would test these numbers against its norms. Company whose costs were higher were paid the benchmark. Those

whose costs were below were paid actuals, removing all incentive for them to be cost-efficient. Says Sutanu Behuria, secretary, ministry of chemicals and fertilisers: "It (subsidy) is remitted to companies on the basis of just a certification from their chartered accountants."

In time, companies started exploiting the RPS. They padded their costs. They showed greater production—capacity utilisation of 120% was normal. The government introduced more controls. "The industry sees stringent regulations at every stage of production, distribution and marketing," says Satish Chander, director-general, Fertiliser Association of India, the nodal body for the industry.

Further, of all the nutrients soil needs, the RPS favoured basic fertilisers based on three essential ingredients: nitrogen, phosphorous and potassium (N, P and K). Within this, there was a bias towards nitrogen, namely urea. This was partly at the behest of the fertiliser industry, says a senior food policy researcher, not wanting to be identified. "Indian companies made urea. P and K were imported," he says. "Urea makers lobbied to keep urea prices lower than P and K."

This had disastrous consequences. Non-subsidised fertilisers cost five times the subsidised

ones. Unsurprisingly, companies crank out basic N, P and K fertilisers like urea, DAP, SSP and MOP, which contain high concentrations of one or two nutrients. Urea, for instance, contains 46% nitrogen. Such high concentrations are not needed, says an analyst who tracks the fertiliser industry. "Maybe a third of the nitrogen in urea gets used," he says. "The rest leaches into groundwater or escapes into the atmosphere."

The over-subsidisation of urea, relative to potassium and phosphates, has resulted in farmers using more urea than they should. The ideal NPK ratio is 4:2:1. But in, say, Punjab, it is 23:6:7.1. Yields are falling. In 1985-86, a kg of fertiliser gave 17.8 kg of output; in 2008-09, just 9.4 kg.

The government responded with policy flip-flops. For example, in 1991-92, it freed phosphatic and potassic fertilisers prices, only to reintroduce a subsidy in 1994. "Due to the uncertainty in policy, there has hardly been any significant investment in fertiliser capacity," says Ashok Gulati, chairman, Commission for Agricultural Costs and Prices.

THE NEW SYSTEM

It took a crisis to shake things up. As oil flared again in 2008-09, fertiliser input prices—natural gas and naphtha are used as feedstock—spiked. The subsidy bill increased to Rs 99,500 crore, from Rs 43,000 crore in 2007-08.

As the gap to international prices widened, leakages increased. "Some fertiliser is smuggled to neighbouring countries. Some goes to other industries (like plywood)," says a joint secretary in the ministry, not wanting to be identified. "About one-fifth leaks out."

In April 2010, the government brought in three big changes. One, it decontrolled all fertilisers except urea, which accounts for two-thirds of all production. Two, it scrapped the corruption-prone RPS. It replaced it with a nutrient-based subsidy system, where it would pay companies a fixed amount for each nutrient used, regardless of their cost of production. So, for 2011-12, companies will receive a subsidy of Rs 20,111 for every tonne of nitrogen used.

Three, the list of nutrients eligible for a subsidy was expanded to include sulphur, boron and zinc. Then, in Budget 2011, Finance Minister Pranab Mukherjee announced the fourth change: the subsidy will, in time, be given to the farmer as a direct cash transfer.

THE IMPACT

These are game-changing alterations for the industry and every constituency that deals with it. It touches every aspect of the distortion: capaci-

ty, production, usage, prices and subsidy.

By freeing product prices, the government is putting greater onus on companies and farmers to absorb price increases. Since P and K prices have been freed, when their prices increase globally, the government can choose how much to absorb by increasing the nutrient-based subsidy for these two ingredients. The rest will be left to companies to decide whether to pass on that increase to farmers or create a new mix with a lower concentration of these two nutrients.

Companies have been evicted from a comfortable world where they got paid for production itself. Now, says Krishnan: "They will now have to compete to sell fertilisers—through product improvements or better services."

Companies will have greater incentive to produce fertilisers other than urea, as the subsidy of P and K now matches N. "For the first time, the subsidy on nutrients is known in advance," says Chander of FAI. "We could not have taken a one-year contract for, say, rock phosphate earlier." He sees the industry expanding capacity.

However, it remains to be seen if expanding the nutrient subsidy to just sulphur, boron and zinc is enough to reverse the environmental damage suffered by the soils. Again, it comes back to subsidy regulating responses down the chain.

Define the nutrient list broadly and the government ends up giving a nationwide subsidy for a regional nutrient. Define it narrowly and it's back to the NPK bias. Krishnan suggests that states can give a subsidy for nutrient deficiencies specific to their area.

What about the fertiliser subsidy? To start with, the Centre's subsidy bill will largely depend on international prices. "It will increase marginally because more nutrients are being covered," says the joint secretary. But if the government introduces an element of targeting in cash transfers, it could slash its subsidy bill.

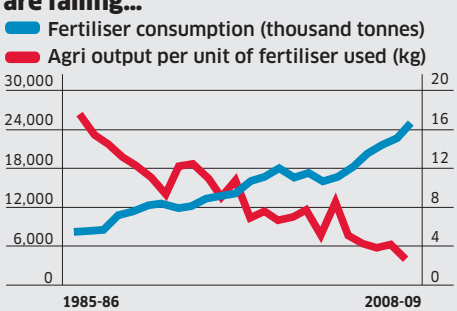
An IIM Ahmedabad study in 2009 by Vijay Paul Sharma and Hritha Thaker shows that small and marginal farmers account for 82% of farm holdings, but consumed only 52% of the total fertiliser. Fertiliser secretary Sutanu Behuria says the government is thinking of calibrating the subsidy to land holding. Cash transfers are still a work in progress and there are issues with it (See adjoining story).

The new fertiliser subsidy system points in the right direction. But it's the details of the new system that will determine if the government manages the difficult task of preserving the subsidy's pro-agriculture and pro-poor tilt, while correcting the distortions that have crept in.

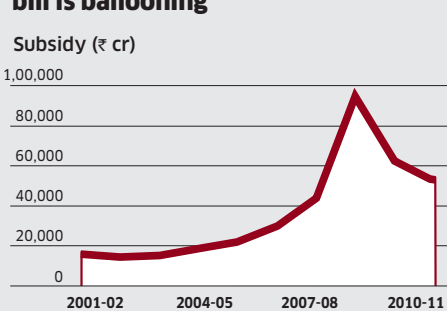
Diminishing Returns

The Retention Pricing Scheme (RPS) worked well initially. But in time, it created distorted the entire fertiliser ecosystem.

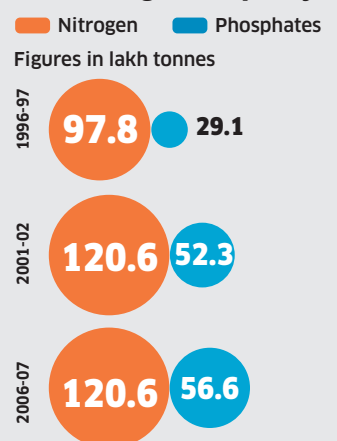
Fertiliser use is increasing but yields are falling...



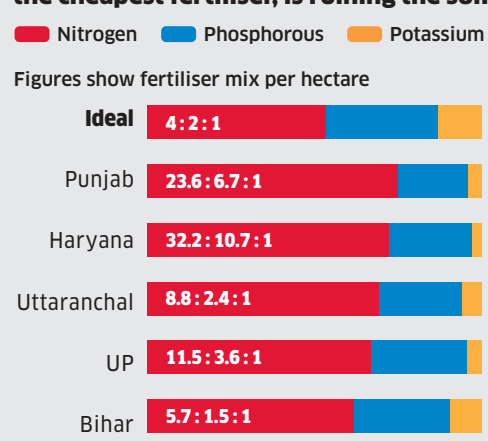
...and the government's subsidy bill is ballooning



Meanwhile, companies are not creating new capacity...



...and the over-use of urea (Nitrogen), the cheapest fertiliser, is ruining the soil



SOURCE: MINISTRY OF CHEMICALS AND FERTILISERS; DEPARTMENT OF AGRICULTURE AND COOPERATION