

Enablers for Direct Benefit Transfers of Fertiliser subsidy

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Key findings

A beneficiary database to identify, enrol, and target farmers with land titles, and simultaneously identify tenant farmers will be required for cash transfers in fertilisers

A combination of SHC data and KCC data to define subsidy entitlement, one time advance pay of fertiliser subsidy and use of multiple banking channels can enable cash transfers in fertiliser

In the previous note “[Barriers to Direct Benefit Transfers for Fertiliser Subsidy](#)”, we discussed various barriers to in-kind and cash transfers for fertiliser subsidy. This note discusses potential solutions to improve in-kind transfers and suggests few ideas for cash transfer pilots for fertiliser subsidy.

The framework outlined in the [Economic Survey 2015-16](#) aims to suggest the mode of transfer of benefits. It suggests both in-kind and cash transfer as potential solutions to address the challenges of the fertiliser distribution system. The government started with the in-kind transfers. Over the past few years, there was continuous effort to streamline the in-kind distribution of fertiliser. The government had taken multiple initiatives, such as:

1. Implementation of the [Mobile Fertiliser Management System \(MFMS\)](#) to digitise the fertiliser distribution supply chain.
2. [Coating of urea with neem](#) (product of the *Azadirachta indica* tree) to restrict its use for industrial purposes.
3. [Direct Benefit Transfer \(DBT\) in fertiliser](#) to identify the actual beneficiary, and rationalise subsidy payments to the manufacturers. This is a modified subsidy payment system, under which the government remits the subsidy to fertiliser companies only after fertiliser retailers have sold fertiliser to farmers through successful *Aadhaar*-based biometric authentication. The current system does not apply any restriction based either on eligibility or entitlement or both.

Evidence from [independent evaluations](#) as well as [government studies](#) suggests that these initiatives indeed help reduce leakage and improve supply to farmers. However, currently, anyone can buy any quantity of fertiliser by authenticating through *Aadhaar*. This subsidy is still not disbursed in a targeted manner due to two primary reasons. The first is the absence of a reliable database of beneficiaries. The second reason is the challenge in defining entitlement for each beneficiary.

Targeting the subsidies would be a herculean task, but can be attempted by combining several initiatives that the central government and some state governments have undertaken over the past years. The following section outlines a few ideas to address the two challenges outlined earlier:

1. [Create a beneficiary database](#): The Government of India's [Digital India Land Record Modernisation Programme \(DILRMP\)](#) is a step towards creating a beneficiary database of landowners. It aims to develop

a modern, comprehensive, and transparent land records management system, which would provide conclusive title guarantee to landowners. The programme aims to modernise the management of land records and minimise the scope of land or property disputes. It also aims to enhance transparency in the land records maintenance system and provide guaranteed conclusive titles to immovable properties in India. Currently, the programme has digitised [86.06% of the land records](#).

This database can be used to identify, enrol, and target farmers with land titles. However, the database does not have details of tenant farmers. The government of India and various state governments can take a cue from the Government of Andhra Pradesh's [Mee Bhoomi](#) initiative. This initiative aims to digitise land records, seed Aadhaar with land records, and identify tenant farmers as beneficiaries.

This database has details of landowners, area, water source, soil type, nature of possession of the land, liabilities, tenancy, and crops grown. When the *Mee Bhoomi* database is completed, it can be used to define the beneficiaries of fertiliser subsidy, in addition to many other use-cases. This is because the database offers a number of advantages:

- It has details of all the agriculture land in the state, along with land titles.
- The government has seeded the database with *Aadhaar*. This enables de-duplication of the land database and targeted delivery of subsidised fertiliser through *Aadhaar*-based authentication.
- The database also has details of tenant farmers. The government issues a

[certificate of cultivation \(COC\)](#) to tenant farmers for each cropping season and tags them to the landowner. Based on the COC, tenant farmers can avail agriculture credit from formal financial institutions.

The government may wish to try out a pilot in Andhra Pradesh for fertiliser subsidy using this database. The system can then be modified for pan-India roll-out in line with DILRMP.

2. **Define beneficiary entitlement:** According to the Economic Survey 2015-16, [65% of the fertiliser produced does not reach the intended beneficiaries](#) – that is, small and marginal farmers. These small and marginal farmers are those that have an upper land limit of two hectares. They account for [85% of the number of operational land holdings and 45% of the operated area](#). Therefore, to target these farmers, the government can cap the number of bags for various grades of fertiliser to the amounts needed for a maximum two hectares of land.

With a slightly expanded scheme to include [semi-medium farmers with an upper land limit of 4 hectares](#), the government can cover 95% of the number of operational land holdings. This leaves a small section of medium and large farmers for whom entitlement can be defined and maximum cap for subsidised fertiliser can be decided.

To define the entitlement, the government can use the following, or a combination of all, as a proxy for fertiliser requirement:

- [Soil Health Cards \(SHC\)](#), which the government used along with land record details to identify recommended fertiliser quantity in Krishna and West Godavari districts during the [pre-pilot phase of DBT in fertiliser](#).
- [Kisan Credit Card \(KCC\)](#) database, which has details of the area under cultivation and type of crop grown for each cropping season
- A database similar to the *Mee Bhoomi*, as outlined in point 1 of this section, especially for tenant farmers.

These measures can create a targeted and efficient, in-kind system of fertiliser distribution.

There is no clear indication from the government about a move to or testing out the idea for cash transfers in fertiliser. Evidence from cash transfer pilots for the Public Distribution System (PDS) of food grains has been inconclusive. A [recent experiment](#) of cash transfer for in-kind subsidy programmes in Ranchi, Jharkhand in October, 2017, created additional problems for beneficiaries, who had to withdraw cash from distant banking points. This initiative is currently in the process of being closed. Evidence from the cash transfer pilots, [launched in 2015](#), in Chandigarh and Puducherry, [was also mixed](#). In contrast, cash transfer for [Liquefied Petroleum Gas \(LPG\) has been a great success](#).

Both these programmes have target segments, operating mechanisms, and modes of subsidy payment that differ from the fertiliser programme. Therefore, we cannot extrapolate the success or failure of one programme directly to other programmes. However, we may derive some key lessons. In addition to the ones

mentioned for the in-kind subsidy, the following measures could enable cash transfers:

1. **Pay a one-time advance of cash subsidy to beneficiaries:** Based on the defined entitlement, a one-time advance payment of cash subsidy can be made to all the beneficiaries. With this one-time advance payment, farmers would not face the additional financial burden to pay market rate (around three times the current subsidised rate) to buy fertiliser. Subsequent payment of cash subsidy can be made conditional and dependent on the fertiliser purchase transaction recorded at [agricultural retail outlet through Point of Sale \(PoS\)](#) devices. The government should also ensure payment of subsequent conditional cash transfers immediately after the purchase of fertiliser. Furthermore, to ensure that the farmers spend the subsidy to buy fertilisers, the government can create a sub-account that only allows it to be spent on fertiliser at agricultural retail outlets.
2. **Enable technology to determine the amount of subsequent cash transfer:** As outlined in point 1, the amount of subsequent cash transfers should depend on the amount that farmer spends on buying fertiliser capped to the amount of entitlement. A farmer can spend this money on about 72 types of fertilisers with different levels of subsidy. Therefore, there would be a need of a sophisticated rule engine to do this complex calculation at the back-end and determine the subsidy amount to be transferred in the next cycle. Existing [MFMS](#) can be used to develop this platform. Currently, MFMS is being used to capture sale transactions of all subsidised fertiliser at the fertiliser retail outlet through PoS devices under [DBT fertiliser](#).
3. **Allow multiple channels to offer banking and transaction facilities:** The following channels can be used to reduce the hassles of cash withdrawal and address the issue of inadequate banking infrastructure and bank agent network:
 - Cashless payment facility at the fertiliser retail outlets through a merchant payment system or [Aadhaar-enabled Payment System \(AePS\)](#).
 - Cashless payment facility at the fertiliser retail outlets through wallet services, such as [Unified Payments Interface \(UPI\)](#), [Paytm](#), or a [USSD based *99# facility](#).
4. **Resolve issues in pricing policy, especially of urea:** As discussed in the [previous note](#), naphtha-based units have a higher cost of production and hence get a higher subsidy to maintain a common market price. They will not be able to compete in a decontrolled market, but are important to meet the demand for fertilisers. The New Pricing Scheme (NPS), introduced in April, 2003, aims to encourage efficiency parameters of international standards through the use of the most efficient feedstock and state-of-art technology. Until this is fully implemented, there may be a need to provide a special incentive package for such units to maintain market price within a range and to ensure sufficient supply of fertiliser.

Conclusion: Any solution to address the challenges in the fertiliser distribution system, whether in-kind or cash transfers, should be pilot-tested before a wider roll-out at the national level. Additionally, the government should follow the programme design aspects outlined [here](#) and [here](#) for the wider roll-out.