



# **Interim Report of the Task Force on Direct Transfer of Subsidies on Kerosene, LPG and Fertiliser**



**June 2011**



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## Executive summary

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One of the priorities that have emerged in recent years is the need to strengthen India's social safety net and improve the delivery mechanisms of poverty alleviation programs. This is to ensure that vulnerable groups can withstand unforeseen shocks to income and continue to access basic goods and services at affordable prices. The 2011-12 Budget has accordingly planned for increases in expenditure to meet these goals, and also recommended direct subsidy transfers to improve the efficiency and reach of welfare benefits for the underprivileged.

This Interim Report of the Task Force for Direct Transfer of Subsidies proposes a general solution framework for the direct transfer of subsidies to beneficiaries, while also making specific recommendations for Kerosene, LPG and Fertilizers.

The proposed framework for direct transfer of subsidies is as follows:

- i) A subsidy, by its very nature, introduces two or more prices for the same good, and creates incentives for pilferage and diversion. As a result, the underprivileged suffer the most. Ensuring that goods move in the supply chain at market prices can minimize the incentives for diversion.
- ii) Where possible, it is best to empower beneficiaries and give them the choice to receive subsidies in the form of subsidized goods and services or as cash, based on their own preferences. Further, beneficiaries should also be offered choice to exercise their preference at any participating location, rather than restricting the service delivery point to a specific location.
- iii) Creation of a Core Subsidy Management System (CSMS) for the purpose of maintaining book-keeping information on entitlements and subsidies for all beneficiaries. The CSMS will also provide increased transparency in the movement of goods, levels of stocks, prediction and aggregation of demand, and identification of beneficiaries. It will be able to use analytics to detect fraud and diversion. It can also integrate with a contact centre for grievance handling. Beneficiaries can report malpractices to the Government directly making it possible for the Government to react in a timely manner.
- iv) Just as a real-time transfer of funds takes place when people top up their mobile talk time, the Government, through the CSMS will transfer the cash component of subsidies directly and in real-time to the bank accounts of beneficiaries. Beneficiaries may then access these funds through various banking channels such as bank branches, ATMs, business correspondents, internet, and mobile banking. Achieving full financial inclusion is crucial for direct transfer of subsidies.
- v) As the subsidy management systems assume same configuration under CSMS, integration of all subsidies, entitlements under one umbrella is also achievable.

The transition to direct transfer of subsidies will lead to best practices in modern retail being incorporated in public provisioning, and also to increased competition and efficiency in the manufacturing, distribution, and retailing. The use of technology makes it possible to strengthen and automate checks and balances, which will encourage participants to benefit from compliance, while simultaneously making it difficult to pilfer.

The Core Subsidy Management System (CSMS) may be implemented in-house, or through a National Information Utility. The first instance of CSMS will be implemented for fertilizer and LPG. While the CSMS automates all business processes related to direct subsidy transfer, the specific policies and business rules will continue to be framed by the policy makers in the respective Ministries. Various stakeholders can customize the CSMS for their own requirements, and extend it to integrate with their own processes. The development of the CSMS can be started immediately, as some of the policies and business rules related to the direct transfer of subsidy are being finalized.

The social programs of India are complex systems with millions of participants that have evolved over the last few decades. Hundreds of millions of beneficiaries depend upon these programs for basic sustenance. Such systems cannot be overhauled by legislation alone and neither is technology a panacea. Eventual success will hinge upon political will, good governance, incentive-compatible solution design, judicious use of technology, a structured transition plan, meticulous project management, effective supervision, audit and execution.



## Abbreviations

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AEBA	Aadhaar-enabled Bank Account
APB	Aadhaar Payments Bridge
CBS	Core Banking System
CSMS	Core Subsidy Management System
DOE	Department of Expenditure
DOF	Department of Fertilizers
DFS	Department of Financial Services
IT	Information Technology
LPG	Liquefied Petroleum Gas
MOF	Ministry of Finance
MOPNG	Ministry of Petroleum and Natural Gas
NIC	National Informatics Centre
OMC	Oil Marketing Company
PDS	Public Distribution System
UIDAI	Unique Identification Authority of India

## 1. Introduction

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The Finance Minister, Shri Pranab Mukherjee, in the Budget Speech of 2011-12 referred to a Task Force constituted to work out the modalities for the proposed system of direct transfer of subsidy for kerosene, LPG and fertilizers. He stated:

"26. During the year 2010–11, the Nutrient Based Subsidy (NBS) policy was successfully implemented for all fertilizers except urea. The policy has been well received by all stakeholders, and the availability of fertilizers has improved. The extension of the NBS regime to cover urea is under active consideration of the Government.

27. The Government provides subsidies, notably on fuel and food grains, to enable the common man to have access to these basic necessities at affordable prices. A significant proportion of subsidized fuel does not reach the targeted beneficiaries and there is large scale diversion of subsidized kerosene oil. A recent tragic event has highlighted this practice. We have deliberated for long the modalities of implementing such subsidies. The debate now has to make way for decision. To ensure greater efficiency, cost effectiveness and better delivery for both kerosene and fertilizers, the Government will move towards direct transfer of cash subsidy to people living below poverty line in a phased manner.

28. A task force headed by Shri Nandan Nilekani has been set-up to work out the modalities for the proposed system of direct transfer of subsidy for kerosene, LPG and fertilizers. The Interim report of the task force is expected by June 2011. The system will be in place by March 2012."

The Government constituted a Task Force on Direct Transfer of Subsidies on Kerosene, LPG and Fertilizer<sup>1</sup> (henceforth referred to the Task Force) under the Chairmanship of Shri Nandan Nilekani to recommend and implement a solution for direct transfer of subsidies. The Terms of Reference (Annexure I) of the Task Force highlighted the following mandate:

1. *The Task Force will study the present mechanism of transfer of subsidies on Kerosene, LPG and Fertilizer, challenges and problems in the governance structures and delivery systems;*
2. *Examine and suggest an implementable solution for direct transfer of subsidies on Kerosene, LPG and Fertilizer to intended beneficiaries with the use of Aadhaar numbers (Unique Identification numbers), Aadhaar enabled transactions and Aadhaar authentication infrastructure of the UIDAI;*
3. *Identify and suggest required changes in the existing systems, processes and procedures, IT frameworks and supply chain management;*
4. *Oversee and evaluate the implementation of the solution proposed on a pilot basis through the concerned Implementing Ministries; and*

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<sup>1</sup> The Task Force was constituted on February 14th, 2011 by the Ministry of Finance vide order No. F.No.22(02)/PF II/2011.

5. Suggest a common framework to adopt the above solution of direct subsidies in cash or otherwise for other Government welfare schemes

The Task Force has been mandated to recommend an **implementable solution** for direct transfer<sup>2</sup> of subsidies for Kerosene, LPG and Fertilizer<sup>3</sup>. The Task Force has designed a solution framework that is flexible enough to implement various subsidy disbursement models. Pilots will be conducted based on the recommendations of the Task Force.

The Task Force held several meetings with key stakeholders with respect to kerosene, LPG and fertilizer. It would like to place on record its appreciation for the assistance rendered by the officials of the various Ministries concerned, representatives of industry associations and stakeholders who have expressed their views to the Task Force.

The Interim Report of the Task Force is hereby submitted with a detailed plan of action for the pilots for an implementable solution. It is proposed to pilot this implementation strategy in a few locations across the country. This would enable the Implementing Ministries to decide on the phasing and timeframe of the eventual roll out. This would also help identify latent deficiencies and flaws in the proposed implementation strategy. The final implementation strategy can then be arrived at after taking into account the learnings from these pilot projects. The Final Report of the Task Force will be submitted after incorporating the lessons from the pilots.

It is necessary to emphasise the mandate of the Task Force vis-à-vis the respective Ministries prerogative of policy formulation. While decisions on key policies and business rules are the prerogative of the respective Ministries concerned with kerosene, LPG and fertilizer, this report provides an implementable solution framework for delivery of direct subsidies to the intended beneficiary. The Task Force deliberated on the modalities of direct transfer of subsidies in the most efficacious manner. As a strategy, the Task Force considered different phases of implementation in order to address complex issues facing these sectors.

In the three sectors above (kerosene, LPG and fertilizer), the State is the provider of the subsidized goods, directly or indirectly, to the intended beneficiary. The Task Force does not recommend substitution of public provisioning by the State. Instead it recommends a solution whereby the subsidies that are being provided by the State now can be more efficiently provided to the intended beneficiaries directly. It complements public provisioning by the State, rather than supplanting it. It also enables the State to reach out to the deserving intended beneficiary more effectively.

The Interim Report is organized as follows. Chapter 2 describes the challenges faced in the various subsidy frameworks in place today. Chapter 3 discusses an incentive-compatible design to address some of these challenges. A general solution architecture of the Core Subsidy Management System for direct transfer of subsidies is described in Chapter 4. This solution framework is modular, so that different subsidy programs can use different modules, to satisfy requirements that vary from program

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<sup>2</sup> Direct subsidy transfers imply not only direct cash transfers but other kinds of direct transfer to the intended beneficiary.

<sup>3</sup> A summary of meetings of the Task Force is provided in Annexure II.

to program. Chapter 5 discusses the challenges that may be faced in the transition to direct transfer of subsidies.

Chapter 6 applies the general solution framework to LPG, and a phased solution for direct transfer of subsidies in LPG. Chapter 7 applies the same principles to fertilizers, whereas Chapter 8 discusses the same in the context of kerosene. Each of these three chapters describes the challenges faced today, a phased transition plan, and pilots to test the transition plans. The report finally concludes with the way forward in Chapter 9.

The concerned Implementing Ministries are responsible for the implementation of the pilots. The Task Force would oversee and evaluate the implementation of the pilots in the next six months.

## **2. Present Subsidy Framework**

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### **2.1 Background**

Since independence, Governments in India have been strongly committed to addressing the issues of poverty and deprivation. Accordingly, Central and State Governments have devoted a major share of their budgets to put in place broad-ranging social safety nets and livelihood assistance programs. The fundamental objective of these programs has been to provide a basic minimum quality of life for the vast majority of people who require social assistance. They make it possible for the poor to access basic goods and services that would otherwise be unaffordable.

Governments have been providing various kinds of welfare assistance and civic infrastructure at subsidized prices. The annual subsidy disbursement of the Government of India has increased dramatically in recent years. With large amounts being spent on subsidies, the Government is examining ways to ensure that this spending is carried out in ways that maximize positive outcomes, and lead to significant poverty reductions. Direct transfer of subsidies to address inefficiencies of present subsidy disbursement (whether as cash or otherwise) has dominated the debate in the public policy space for a considerable time.

Technology advances are giving Governments an opportunity to tailor social spending and re-design schemes to improve targeting, empower beneficiaries, and reduce poverty at a household level. The issuance of the Aadhaar number, the Aadhaar authentication mechanism, widespread data connectivity especially through mobile phones, and universal coverage of the population with Aadhaar-enabled bank accounts (AEBA) provides an administrative infrastructure that makes it possible to implement a direct subsidy transfer program.

### **2.2 Types of subsidies and transfers**

The Central Government funds a large portion of many subsidy programs. In the case of certain products, some State Governments provide an additional subsidy over and above that given by the Central Government. In addition, State Governments also run their social welfare programs. The implementation and delivery mechanism, however, straddles across multiple levels of Government (Central, State, and Local).

There are different types of subsidy administration frameworks based on how various goods and services are produced and how they are delivered. The Government provides various essential goods at subsidized affordable prices. Some subsidized goods are produced and imported by both, Government and private sector, but distributed under the supervision of the Government. PDS kerosene and domestic LPG are an example of this model. Oil companies owned by the Central Government and private refineries and fractionators produce kerosene and LPG fuel, which is distributed by distributors appointed by oil marketing companies and the PDS of State Governments. The market price is administered by the Government. While the subsidy is fully funded by government, under-recoveries are funded jointly by the oil producing companies, oil marketing companies, and Government.

Fertilizers in India are produced or imported by entities in both the private and public sector. However, it is distributed through a massive supply-chain of private wholesalers and retailers. The prices of such products are also administered, and the fertilizer subsidy is transferred to the manufacturers. The farmer thus purchases subsidized fertilizers at an affordable price.

The Government, over a period of time, has introduced many social security and welfare schemes. In these schemes, cash is typically transferred to the beneficiaries without any service or product delivery. These can be classified as follows a) Direct Cash Transfers and b) Conditional Cash Transfers.

In Direct Cash Transfers, money is either delivered directly to the beneficiary or transferred into his or her bank account. Direct cash transfers are commonly used to deliver social security pensions. This money carries no further conditions once the beneficiaries are identified, and they are free to spend as they choose. Technological advances and improved telecommunications access over the last decade have made it possible to provide electronic transfer of funds into the accounts of beneficiaries. Social security pensions are an example of this model.

In Conditional Cash Transfers, cash transfers are made conditional on the achievement of certain social or development objectives, they are called Conditional Cash Transfers. In the last decade, such conditional cash transfers have been implemented extensively across some South American and some African nations. In India, this approach has been adopted in the Janani Suraksha Yojana. In these programs, beneficiaries must fulfil certain conditions to receive the cash from the Government.

### **2.3 Challenges within the present subsidy and welfare payments framework**

#### **2.3.1 Challenges with targeting**

The fundamental challenge for any subsidy framework is to ensure effective targeting of beneficiaries. Accurate beneficiary identification has traditionally been a complex task for social security and welfare programs. Targeting errors within social and welfare programs are of two types – errors of inclusion, and errors of exclusion. The former involves the wrongful inclusion of beneficiaries ineligible for the subsidy, while the latter concerns the exclusion of eligible beneficiaries.

Addressing wrongful inclusion is one of the most formidable administrative challenges for Governments. This includes the problem of ghost beneficiaries and fakes. Different eligibility norms come with different challenges. For example, it is extremely difficult to accurately assess income, one of the most common form of eligibility criteria, with any reasonable degree of accuracy. The lack of electronic databases of beneficiaries and the lack of a common unique identifier leads to misreporting of information to receive benefits. A common example is that of the same beneficiary receiving subsidy for both fuels, kerosene and LPG.

The second targeting error, the exclusion of eligible beneficiaries, is one of the biggest problems with many prevailing subsidy schemes. Many beneficiaries get excluded because they are unaware of the scheme, or are unable to fulfil the procedural formalities, or provide the documentation required, or

due to rent seeking middlemen. Also, socially disadvantaged communities are left out of social subsidy programs, often due to discrimination.

### **2.3.2 Incentive distortions and market inefficiencies**

Since subsidies, by definition, provide for the delivery of goods or services at prices that are lower than market prices, they generate several incentive distortions among those delivering, administering and receiving it. The nature of these distortions depends on the type of good, its alternative usages, market micro-structure, and the subsidy delivery mechanism.

The proposed subsidy framework should be able to handle all existing subsidy frameworks, while addressing the challenges discussed above.

### **3. Proposed Subsidy Framework**

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#### **3.1 Objectives of the proposed subsidy framework**

It should be noted that direct subsidy transfers are not a standalone solution for subsidy delivery, but just one among several strategies that may be employed to deliver welfare services. It is not a substitute for other regular government welfare services, but a complementary piece. It can be an effective strategy to channel subsidies to beneficiaries, especially in multiple price markets with pervasive incentive distortions, and it is desirable to provide choice to beneficiaries. The subsidy framework can also largely address wrongful inclusion errors (by weeding out the duplicates and fakes) while it would indirectly address wrongful exclusion errors.

Direct subsidy transfers should also be carefully tested to ensure that they bring about real choice and empowerment for beneficiaries, without distorting markets in unacceptable ways. A move towards direct transfer of subsidies will require re-engineering the subsidy administration process. In doing so, it has to address existing challenges with targeting, address leakages and diversion through transparency and use of technology, empower beneficiaries with choice in accessing subsidies, provide a quick and convenient method to report grievances, provide a robust electronic process for identification of beneficiaries, and electronic transfer of funds into their bank accounts.

#### **3.2 Desired elements of a subsidy framework**

Any effective subsidy regime has to incorporate the following elements:

1. Empowerment and choice for beneficiaries
2. Transparency in subsidy administration and information visibility
3. One price for subsidized goods
4. Efficiency in production
5. Convenient and effective grievance redressal
6. Support all types of direct subsidy transfer models
7. Fully electronic service delivery
8. An incentive-compatible solution across stakeholders
9. Effective MIS Reporting

A subsidy framework that conforms to these broad principles will limit incentive distortions and minimize inefficiencies.

##### **3.2.1 Empowerment and choice for beneficiaries**

The subsidy regime today for various products is designed with the objective of delivering specific goods and services to pre-defined categories of citizens. Accordingly, the PDS is intended to deliver food grains and kerosene to eligible beneficiaries. In case of the PDS, the consumers have to purchase their subsidized products from the designated Fair Price Shops. In many of these cases, both the product eligible for subsidy and the location of its purchase is pre-defined. To this extent, the consumer's choice is restricted, both in terms of the product purchased and the location of purchase.



In this context, the issue of the beneficiary's choice assumes significance. The direct transfer of subsidy to beneficiaries makes it possible for the beneficiary to access the product or service from more than one pre-defined channels and locations. Government distribution channels can co-exist with private providers in this subsidy framework and the beneficiary could be provided a choice. Public provisioning can be greatly improved and made effective with the approach discussed in this report, while simultaneously deepening and widening the distribution network. This enhances the delivery of goods and services for the ultimate beneficiary.

The proposed direct subsidy transfer framework would also make it possible to provide a choice to the beneficiary to either purchase subsidized goods and services or to receive the cash subsidy in the bank account or to receive the cash equivalent of the product into their bank account. The design of the framework would allow this choice to be provided to the beneficiary. This is an empowering to the beneficiary. Choice ensures that beneficiaries would not be shut out of the subsidized product if the appointed provider fails to deliver it.

Though the implementable solution offered in case of LPG and Fertiliser in this Interim Report does not immediately offer this choice, a generic subsidy regime for Government programs would require this element to be built into their design.

### **3.2.2 Transparency in subsidy administration and information visibility**

An important challenge with improving the effectiveness of any subsidy program lies in bridging the information asymmetry. A large section of society is often unaware of their rights and the welfare services offered by Governments. They face formidable challenges in accessing these services and exercising their rights.

For example, information about who withdraws what benefits under which Government Scheme, which acts as a powerful social audit instrument, comes at a great premium. The availability and dissemination of comprehensive information about these issues in the local public domain can both dramatically empower citizens and increase the effectiveness and transparency of program implementation<sup>4</sup>.

Despite tremendous increase in awareness and changes brought about by reforms like the Right to Information Act, 2005, in recent years, information asymmetry is still widespread. Even when such information is available, it can paint a distorted picture given the leakages and diversion in the distribution chain.

A direct subsidy transfer framework facilitates monitoring the subsidy transactions carried out at different levels. Information such as the availability of the product, list of beneficiaries, and details of benefits drawn, among other things, provides a powerful reconciliation and social audit mechanism. Performance of vendors who are servicing beneficiaries on behalf of the Government can be routinely published on the Government's website. Civil society organizations, activists, researchers, analysts, and local residents themselves can use this information to highlight discrepancies and irregularities in social programs.

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<sup>4</sup> The Right to Information Act, 2005, mandates in Section 4(1)(b)(xii) that every public authority shall publish the manner of execution of subsidy programmes, including the amount allocated and the details of beneficiaries of such programmes.

### **3.2.3 One price for subsidized goods**

The price of subsidized goods should preferably be the market price, or an administered price that is close to the market price. This can reduce market distortions introduced by dual pricing, improve the productivity of manufacturing and distribution, and reduce the incentives to pilfer. The subsidy, when directly transferred to the resident or their family, provides the Government with a targeting framework that can improve the effectiveness of the subsidy budget. The subsidy can then be transferred directly to the beneficiary's bank account, thus ensuring that only the individual and their family receive the subsidy.

### **3.2.4 Efficiency in production**

Subsidies today are extensively used to incentivize the production and distribution of certain goods and services. Over a period of time this has brought about market inefficiencies and the over-crowding in the market of certain goods and services. Further, uncertainty in subsidy policy also discourages firms from making large investments to improve production and distribution.

The direct transfer of subsidies to beneficiaries helps address such distortions, since the manufacturers are no longer recipients of subsidies and can compete in the market. Efficiency in production will be further encouraged by the absence of disincentives and uncertainty introduced by subsidies on manufacture.

### **3.2.5 Convenient and effective grievance redressal**

Advances in Information and Communication Technology (ICT) can dramatically improve transparency and bridge information asymmetry at all levels. The implementing Ministry can make a contact centre available to beneficiaries for reporting grievances and malpractices. Today, such information is usually available to decision makers and legislators only after a lag, when it is too late to take action. Technology makes it possible for this information to be made available to decision makers promptly.

### **3.2.6 Support all types of direct subsidy transfer models**

The proposed solution framework should be able to handle all types of direct subsidy transfer models:

1. For direct transfer of subsidy in the form of physical goods at subsidized prices, the beneficiary's entitlement account getting updated.
2. For direct transfer of subsidy refund to the beneficiary purchasing the goods at market price. This refund is transferred directly into the bank account in real-time, based on a robust authentication used at the point of sale.
3. For a conditional cash transfer may be made to the beneficiary's bank account where:
  - a. The transfer may happen after certain conditions are satisfied, which then allows the beneficiary to spend the money based on their preferences; or

- b. The transfer may happen to an identified beneficiary, but the subsidy money can only be spent on approved products or at approved locations.
- 4. For direct cash transfer to the beneficiary's bank account.

### **3.2.7 Fully electronic service delivery**

The importance of electronic delivery of services has been recognized by Government of India:

1. The IT Act, 2000<sup>5</sup> paves the way for electronic documents and authentication
2. The Electronic Services Delivery Bill<sup>6</sup> paves the way for electronic provision of services
3. The Mobile Governance Framework<sup>7</sup> sets up a framework for rolling out mobile based delivery of public services

There is a high level of user acceptance for electronic services, largely due to e-recharge for prepaid mobile connections. Like users of prepaid mobile connections, while appreciating the convenience of e-recharge, and the choice of locations, also have developed an expectation of real-time delivery, beneficiaries would be in a position to accept real time transfer of subsidy to their accounts.

### **3.2.8 Incentive-compatible solution for all stakeholders**

The stakeholders involved in the distribution of subsidized goods include the Central and State Governments, manufacturers, marketing companies, wholesalers, retailers, dealers, and the beneficiaries. Any effective subsidy regime has to align the incentives of each stakeholder in a manner that promotes the achievement of its objectives.

The solution architecture proposed in the next chapter is designed to implement the subsidy framework described in this chapter. It is also critical that institutional mechanisms of adequate supervision, audit through multiple channels be also created to ensure that the proposed subsidy regime is not misused or manipulated by vested interests.

### **3.2.9 Effective MIS Reporting**

MIS modules that provide Governments with data and reports about the entire supply chain and service delivery are an important part of the proposed subsidy framework. This would make it possible for Government to take data-driven decisions and improve the quality of services. Data analytics to enhance core decision making abilities would ensure better supervision and monitoring of subsidy delivery.

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<sup>5</sup> <http://www.mit.gov.in/content/information-technology-act>

<sup>6</sup> <http://www.mit.gov.in/content/draft-electronic-service-delivery-bill-1>

<sup>7</sup> [http://www.mit.gov.in/sites/upload\\_files/dit/files/Draft\\_Consultation\\_Paper\\_on\\_Mobile\\_Governance\\_28311.pdf](http://www.mit.gov.in/sites/upload_files/dit/files/Draft_Consultation_Paper_on_Mobile_Governance_28311.pdf)

## 4. Proposed solution architecture

This chapter describes a solution architecture for direct transfer of subsidies. One of the goals of this solution architecture is to achieve a fully electronic back-office process for direct transfer of subsidies; the subsidy itself may be in kind provisioned either directly by Government, or by vendors appointed and monitored by Government, a conditional cash transfer, or a direct cash transfer. Central and State Governments currently using technology solutions in varying degrees would be able to adopt the proposed solution architecture for their subsidy schemes.

### 4.1 Core Subsidy Management System (CSMS)

The solution architecture for direct transfer of subsidies consists of a Core Subsidy Management System (CSMS), to be implemented by the Ministry/Agency driving the subsidy scheme. The actual implementation may be done in-house, or through a National Information Utility<sup>8</sup>. The concept is similar to the Core Banking Systems (CBS) implemented by almost all large banks today.

While the CSMS automates all business processes related to direct subsidy transfer, the specific policies and business rules will continue to be framed by the policy makers in the respective Ministries. Various stakeholders can customize the CSMS for their own requirements, and extend it to integrate with their own processes. The development of the CSMS can be started immediately, as some of the policies and business rules related to the direct transfer of subsidy are being finalized.

The CSMS would maintain the subsidy accounts of all beneficiaries, and all policies related to subsidy management. The CSMS would be capable to support all forms of direct transfers of subsidies such as non-cash transfers, conditional cash transfers, direct cash transfers, etc.

In addition to maintaining the subsidy accounts, it would need to be integrated with a number of other external systems of other Government Departments, partners, and service providers to effectively monitor the scheme, and ensure the desired quality of service.

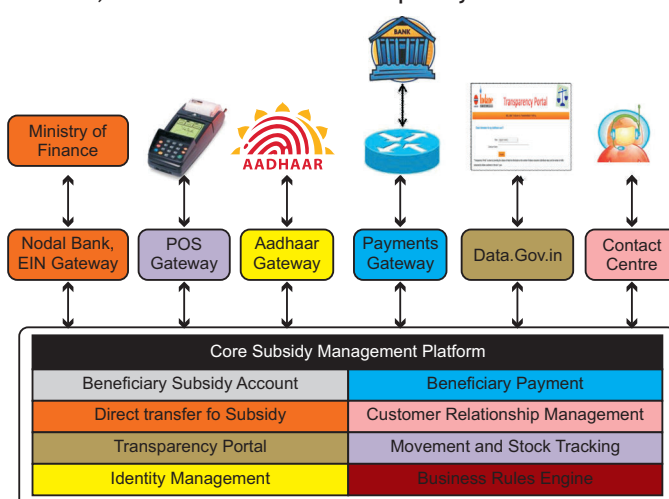


Figure 1: Core Subsidy Management System

A National Information Utility (NIU) is a company with public and private ownership set up for the purpose of developing, maintaining, and execution of complex IT projects in Government. The NIU framework was described in Report of the Technology Advisory Group for Unique Projects (TAGUP)

The CSMS (Figure 1) will contain the following modules, some of which may need to integrate with external systems. The basic modules of CSMS include:

1. Business Rules Engine
2. Beneficiary and family identification module (Aadhaar integration)
3. Product movement and stock tracking module (ERP systems integration)
4. Direct subsidy transfer module (Integration with nodal bank and payments gateway)
5. Transparency module (Data.gov.in integration)
6. Contact Centre module
7. Training, education, and outreach module
8. Logistics module
9. MIS Module
10. Module to integrate with other subsidy management systems

It is important to note that the CSMS does not replace any existing systems, but rather complements them, by extending their functionality and integrating various modules. The following sections discuss the different modules in more detail.

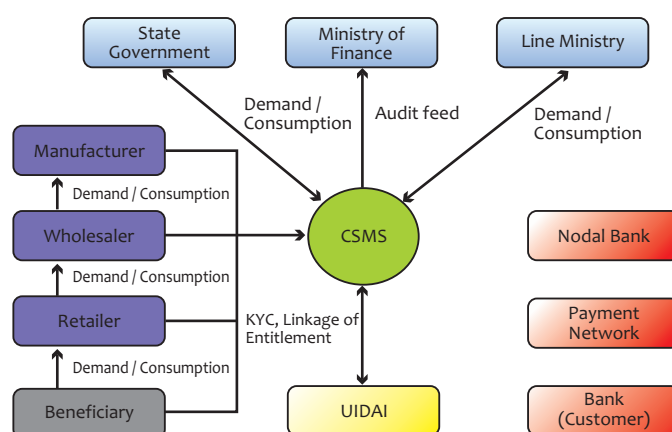
#### **4.1.1 Business Rules Engine**

The Business Rules Engine module allows the policy makers to input the business rules into the CSMS. The Business Rules Engine will support all models of direct subsidy transfer as described in Chapter 3. The policy makers can choose the model that is right for their program. Different stakeholders, such as State Governments, can also customize the CSMS with their own extensions and modifications. Most importantly, the design and implementation of the CSMS does not require the policies and business rules to be ready. These processes can be carried out simultaneously, and the rules can simply be input into the CSMS close to launch time.

#### **4.1.2 Beneficiary and family identification**

Robust identification of the beneficiary is of utmost importance in the direct transfer of subsidies, since funds will go to the beneficiary's designated Aadhaar Enabled Bank Account (AEBA). UIDAI provides an Aadhaar authentication service, which will provide a Yes/No response in real-time when the beneficiary's Aadhaar number, demographic data, biometric data and/or other information are sent for verification.

The Aadhaar authentication service which would be available online real-time, and would provide a robust and secure way to link a beneficiary's Aadhaar to their subsidy account and to their payment instrument can be used for a one-time KYC. Subsequently, every scheme may use Aadhaar authentication for transactions or put in place their own authentication mechanism for transactions. The flow of information for identification and demand for consumption is shown in Figure 2.



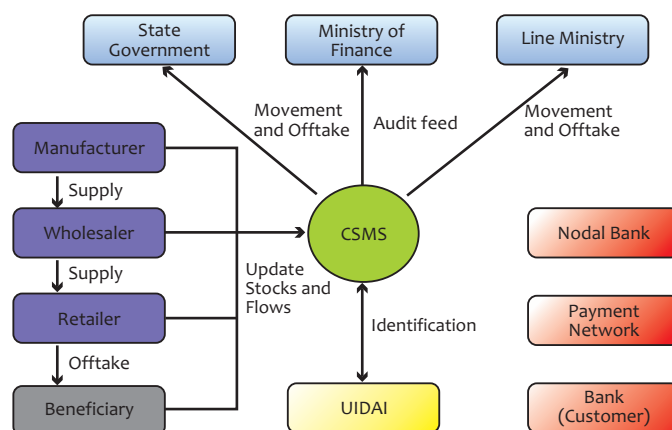
**Figure 2: Flow of information**

Aadhaar provides only authentication for individuals. Given that many subsidies are directed towards families, it is essential that the CSMS be designed to capture the Aadhaar numbers of all family members. The definition of beneficiaries and families could be laid down in the policies of the concerned Implementing Ministry.

The task of mapping Aadhaar numbers of beneficiaries and their families to existing databases is a critical process. The implementing Ministries, in consultation with the stakeholders should lay down the process for mapping Aadhaar numbers into existing databases.

#### 4.1.3 Product movement and stock tracking module

The movement of goods and stocks at various points in the supply chain should be recorded in the CSMS, in close to real-time. This requires integration with the ERP systems of manufacturers, and deployment of technology at the last mile. The flow of goods is shown in Figure 3.



**Figure 3: Flow of goods**

Technology can be deployed at the last mile to facilitate a fully electronic direct subsidy transfer process, along with robust authentication. The activities undertaken by the retailer at the point of service include supply chain management, inventory management (receipt and sale of goods), accounting, customer identification for transfer of subsidy, and billing, among other things. Depending

on the nature of the scheme, and the size of the retailer, the Point of Service technology may be a computer, a multi-purpose handheld terminal, or simply a mobile phone. The beneficiary can also receive details of the transaction on their mobile phone, balances, and even updates from time to time.

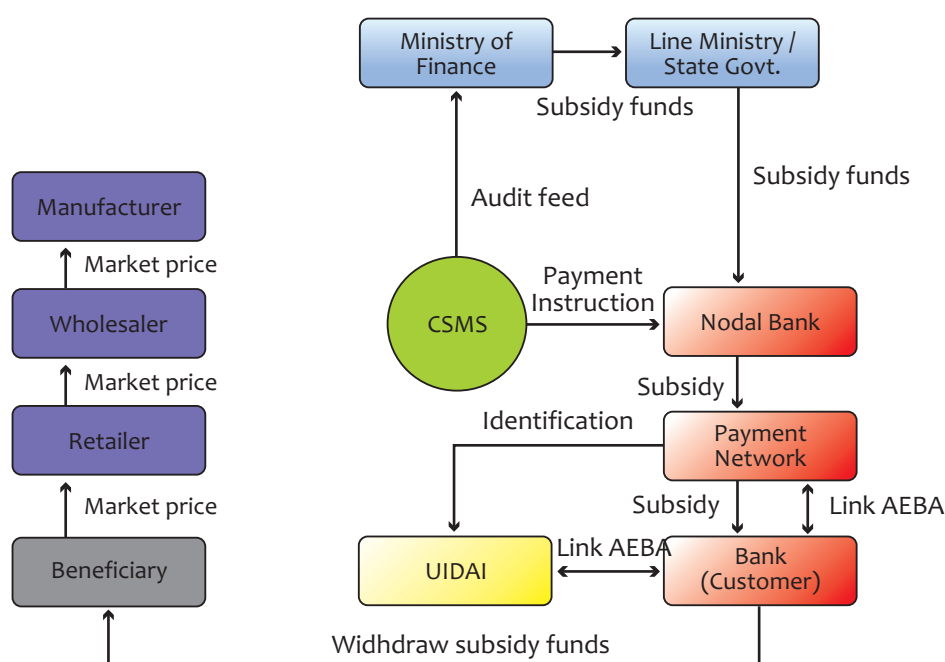
The retailer by adopting this technology can get the benefits of automating manual processes such as accounting, inventory management, reconciliation, accountability and auditability. Similarly, beneficiaries by adopting this technology will get the benefit of convenience, better service and improved transparency.

Subsidy is transferred directly to the beneficiary with robust authentication at the point of sale. The CSMS maintains book-keeping information, performs the reconciliation of retailer stocks and beneficiary entitlement, and carries out the direct subsidy transfer by issuing an instruction to the banking network.

#### 4.1.4 Direct subsidy transfer module

The real-time nature of direct subsidy transfer is essential for its success, and requires the following:

1. Ministry of Finance should fund the subsidies in advance to the implementing Ministries, so that funds are available for real-time transfers.
2. The Ministry of Finance, in consultation with implementing Ministries, should amend the General Financial Rules (GFR) that allows for a fully electronic subsidy transfer process.
3. The implementing Ministries should devise processes and systems for a fully electronic subsidy transfer process.



**Figure 4: Flow of funds**



The model envisages that the implementing Ministries utilize the services of a bank (designated bank) to anchor the direct subsidy transfer process. Funds made available by the Ministry of Finance to the Implementing Ministry, will be available to the nodal bank on a timely basis. The CSMS can then instruct the nodal bank to transfer funds on a real-time basis to the bank accounts of beneficiaries, when a product is purchased, or a condition is met, or on a periodic basis. Thus, while the CSMS manages all the business information, policies, procedures, and flow of information relating to subsidies, the anchor bank manages the flow of funds based upon instructions received from CSMS. It is worthwhile to note that while the implementing Ministry uses the nodal bank to pay out subsidies, beneficiaries may hold Aadhaar Enabled Bank Accounts in a bank of their choice, so long as it provides Core Banking facilities. Interoperable payments networks can then ensure that payments are routed to the beneficiary's bank account. This flow of funds is shown in Figure 4.

The **Report of the Technology Advisory Group for Unique Projects (TAGUP)**<sup>9</sup> laid down the design for an Expenditure Information Network (EIN). In the proposed framework for direct transfer of subsidies, these subsidies are an expenditure of the Government of India. While the EIN is not a strict dependency, it will greatly streamline the process of subsidy management and release of funds from the Ministry of Finance to Implementing Ministries in a timely manner. The CSMS should be designed so that it can be effortlessly integrated with the EIN as it becomes operational.

#### **4.1.5 Transparency module**

The TAGUP report includes a chapter on “Accountability, transparency, and self-corrective forces”, where the basic design principles for a transparency portal are discussed:

The passage of the Right to Information Act, 2005 (RTI Act) that guarantees citizen access to nearly all Government information not deemed to be critical for national security, has caused a sea change in how citizens interact with, and monitor, Government.

If deployed effectively, information technology has the potential to serve as a powerful tool to bring about transparency and accountability of Government services. Yet, increased transparency and accountability is by no means a guaranteed outcome of a Government IT project. IT projects which are not designed with an explicit objective of increasing transparency, which lack a clear channel through which the IT system will increase transparency, or which fail to take into account the interests of the various stakeholders in the IT system will fail to increase transparency or accountability.

Once roll-out on the ground begins, it is important to track the progress closely to ensure proper implementation. Reporting and analytics can be a key enabler for this. Data capture requires the use of appropriate data warehousing and business Intelligence modules. While all possible metrics cannot be thought of at the outset, casting the net wide enough will ensure that the system can accommodate future needs. Data should be provided in an easy to consume manner for end-users, whether internal or external. This requires ensuring that the data is relevant and meaningful. Suitable interfaces should be

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<sup>9</sup> [http://finmin.nic.in/reports/TAGUP\\_Report.pdf](http://finmin.nic.in/reports/TAGUP_Report.pdf)



designed in close co-ordination with such end users, and presented through an online transparency portal.

A nation-wide transparency portal such as Data.gov.in (similar to data.gov in the US and data.gov.uk in the UK) is also being actively discussed in Government. The CSMS can be integrated with such an effort, once it is in place.

#### **4.1.6 Contact Centre module**

The objective of a Contact Centre in a subsidy program is to provide a single window to the resident to air their grievances and suggestions in a simple and accessible manner.

In order to achieve this objective, a well-functioning contact centre can replicate the best practices observed in customer-facing contact centres which function today. This means that the contact centre will have to be multi-lingual, accessible through multiple channels (voice, e-mail, letter, fax, mobile) and should be geared to resolve the queries and complaints of the resident in the shortest possible time. The contact centre will in turn synthesize all the queries and complaints received from the resident to give the ministries operating subsidy programs an insight into the voice of the resident and the efficiency of their on-field operations.

Contact centres also provide the facility to escalate complaints that would otherwise go unheard. An efficient contact centre will empower the resident to lodge a complaint where it will be received and empower the government, by providing a view into areas of operation that would have otherwise gone unnoticed. Thus by empowering both parties a Contact Centre plays a critical role in enhancing the transparency and effectiveness of any program that aims to deliver benefits directly to residents.

The concept of a Contact centre for a subsidy program would serve the following objectives:

1. Provide a medium for the beneficiary to air their grievances and suggestions to the Government
2. Increase visibility into efficiency and effectiveness of on-field activities
3. Creates an effective escalation mechanism for grievances that are not addressed
4. Generates analyses of interactions with the residents to provide a monitoring mechanism for indicators of system health
5. Provides insights into systemic deficiencies and areas for improvements

#### **4.1.7 Education, training, and outreach module**

The implementation of direct transfer of subsidies will require education of beneficiaries, and training of participants such as wholesalers and retailers to use technology. This training should be imparted in a systematic way, and recorded in the CSMS. Doing so gives a complete picture to the project managers about the speed of rollout, and come up with an accurate assessment of timelines for implementation.

#### 4.1.8 Logistics module

From time to time, a subsidy program may have to communicate with its beneficiaries. For example, a card may be mailed to them upon enrollment, or upon renewal. Integration with the track and trace services of India Post and other couriers again makes it possible to ensure that any printed communication such as letters and cards are delivered to the intended beneficiaries.

#### 4.1.9 Module to integrate with other subsidy management systems

As various subsidy programs implement a CSMS, it becomes useful for these various systems to exchange information with each other, largely for purposes of verification of eligibility criteria. For example, the same beneficiary may not be allowed to consume subsidized LPG and subsidized kerosene. Such integration will also enable a holistic subsidy management for beneficiaries availing multiple subsidies. In applications like Kerosene and other State Government applications, the CSMS can be integrated with the Resident Data Hub platform.

#### 4.2 Role of banks and payments at the last mile

Access to electronic payments at the last mile is an integral part of the solution for direct transfer of both, cash and non-cash subsidies. This has been recognized by Government of India, and a number of actions have been initiated to facilitate financial inclusion and Electronic Benefit Transfers (EBTs):

1. The **Report of the Inter-Ministerial Group on Delivery of Basic Financial Services Using Mobile Phones**<sup>10</sup> describes an electronic payments architecture consisting of a central low-cost accounts repository, a mobile number and Aadhaar based account mapper, an interoperable payments switch, and the usage of biometric microATMs and mobile phones at the last mile.
2. The **Swabhiman** campaign of the Government of India in co-ordination with the Reserve Bank of India has set a target of achieving full financial inclusion in approximately 73,000 villages with population of 2,000 and more by 2012, with other habitations to follow soon after<sup>11</sup>.
3. The **Aadhaar** program of the Government of India is issuing a unique identification number to all residents, and facilitates opening a bank account for those residents who want one<sup>12</sup>. For this purpose, 64 banks have empanelled with Aadhaar to open bank accounts for all residents who choose to open one during Aadhaar enrollment without prejudice<sup>13</sup>.
4. India Post operates the largest banking and payments network in the country by reach. An ambitious modernization project is under way at India Post, which will bring its financial service infrastructure on par with those of other banks. **The Report of the Expert Committee on Harnessing the India Post Network for Financial Inclusion**<sup>14</sup> discusses a financial inclusion strategy for India Post.

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<sup>10</sup> [http://www.mit.gov.in/sites/upload\\_files/dit/files/ReportoftheInterMinisterialGroup.pdf](http://www.mit.gov.in/sites/upload_files/dit/files/ReportoftheInterMinisterialGroup.pdf)

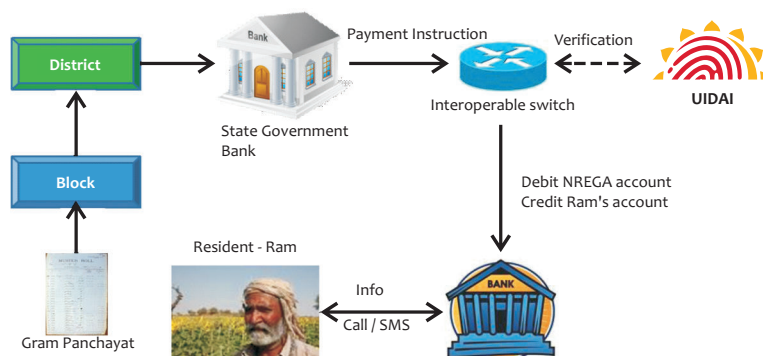
<sup>11</sup> [http://finmin.nic.in/the\\_ministry/dept\\_fin\\_services/banking/banking\\_financialincl.pdf](http://finmin.nic.in/the_ministry/dept_fin_services/banking/banking_financialincl.pdf)

<sup>12</sup> [http://uidai.gov.in/UID\\_PDF/Front\\_Page\\_Articles/Strategy/Exclusion\\_to\\_Inclusion\\_with\\_Micropayments.pdf](http://uidai.gov.in/UID_PDF/Front_Page_Articles/Strategy/Exclusion_to_Inclusion_with_Micropayments.pdf)

<sup>13</sup> [http://uidai.gov.in/index.php?option=com\\_content&view=article&id=182&Itemid=173](http://uidai.gov.in/index.php?option=com_content&view=article&id=182&Itemid=173)

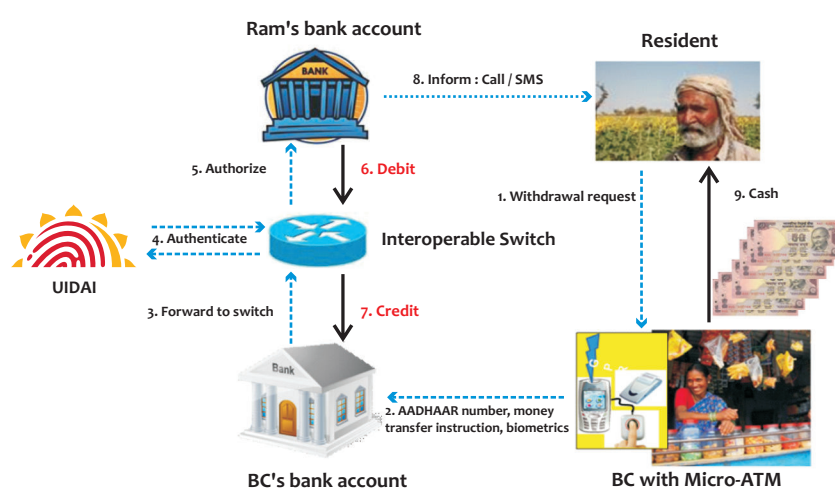
<sup>14</sup> <http://www.indiapost.gov.in/Pdf/IIEF-IndiaPostReport.pdf>

5. The **National Payments Corporation of India**<sup>15</sup> has been facilitated by the Reserve Bank of India and Indian Banks Association in co-ordination with Government of India to consolidate and integrate multiple payments systems and processes, and to facilitate an affordable payments mechanism for the common man.



**Figure 5: Aadhaar Payments Bridge, to route funds to the account of beneficiaries on the basis of their Aadhaar number.**

In order to be able to send subsidy payments to all beneficiaries, and in a manner that is convenient to them, Government of India should use all possible channels and payment instruments. Given that these subsidy payments will be based on the beneficiary's Aadhaar, the payment may be sent to any payment instrument that is linked to Aadhaar –bank accounts and any other payment instrument approved in the future. A payments bridge (Figure 6) can then be set up to route subsidy payments of Government of India to beneficiaries simply by providing the Aadhaar number and the payment. Payments should be designed to be real-time; the backend infrastructure set up should be built for real-time payment to the beneficiaries. Finally, Government subsidy schemes should budget for a suitable commission to be paid to banks for setting up and operating the payments infrastructure (Figure 5). The commission schedule may be higher initially to cover fixed costs, and subsequently taper off to cover only marginal costs, once the infrastructure is up and running.



**Figure 6: An interoperable payments network of microATMs as described in the Report of the Inter-Ministerial Group**

<sup>15</sup> <http://www.npci.org.in/aboutus.aspx>

Transition to direct transfer of subsidies would require careful planning regarding availability of bank accounts and a robust payments infrastructure. It needs to be emphasized that achieving the desired objectives, even at the pilot stage, would require a close convergence between the Aadhaar and Financial Inclusion rollout, for which action needs to be initiated right away.

#### **4.3 Role of Aadhaar**

The Aadhaar number can play an important role in addressing existing challenges within India's subsidy delivery infrastructure. When a resident enrolls for the Aadhaar number, the individual's basic demographic information and biometric details are stored in a central database, and linked to their assigned Aadhaar number. The database can then be contacted by agencies and service providers anywhere in India to confirm that the person is who they say they are.

The unique identification number stored within the centralized Aadhaar database offers potentially substantial benefits in subsidy delivery:

**1. Ensures one beneficiary has one number across subsidy programs:**

The Aadhaar infrastructure guarantees that one person can only have one Aadhaar number which can be utilized to verify identity across public programs. The number thus helps subsidy programs eliminate the twin errors of inclusion and exclusion in identifying beneficiaries. The assurance of uniqueness through biometric information in Aadhaar will deal with inclusion errors by eliminating duplicate, fake and ghost beneficiaries.

The availability of a universal identity number would also help address errors of exclusion, by enabling the poor to easily establish their identity to welfare agencies. The Aadhaar number could also help confirm the eligibility of beneficiaries for subsidies/entitlements in some cases. It could for example, help verify the age of pension beneficiaries, since the demographic information includes the date of birth. In the longer term it may help BPL families fulfill certain criteria for eligibility for the BPL list, such as not owning an Aadhaar-linked PAN card or Aadhaar-linked LPG connection.

**2. Enables real-time authentication of identity at the time of subsidy delivery:**

The Aadhaar number makes possible online, 'anytime, anywhere, anyhow' verification of an individual's identity. An authenticating agency can provide the resident's Aadhaar number and biometric/demographic information to the central Aadhaar database, which will then verify the information in a few seconds. Such real-time authentication of identity would:

- a) Enable beneficiaries to confirm that the subsidy has reached them and not been diverted
- b) Allow individuals to access benefits when they've moved out of their home village or town, since Aadhaar makes it possible to verify identity anywhere in the country. Any service provider providing a particular subsidy would be able to easily verify if the person is who they say they are. To enable this, subsidy providers could implement a cloud-based application within their

infrastructure, which would standardize their processes as well as share beneficiary information seamlessly across service delivery points.

- c) Beneficiary can access information about his entitlements and status
- d) Help governments identify leakages as the subsidy moves from the intermediary agency to the intended beneficiary
- e) Helps Government to enforce accountability in supply chain management

**3. Enables delivery of welfare benefits and subsidies through direct transfers into Aadhaar enabled Bank Accounts (AEBA) using the Aadhaar Payments Bridge:**

Governments have begun to examine direct transfers of benefits to the poor that are in the form of cash and vouchers. Such efforts give poor greater choice and agency in utilizing their entitlements. The Aadhaar number, when coupled with the total financial inclusion initiative (which aims to give every resident in the country a bank account) would help strengthen the direct delivery of such benefits to individuals.

An AEBA for every resident would enable governments and public agencies to transfer existing cash benefits electronically and directly into the resident's Aadhaar-linked bank account. The resident would then be able to access their money once they undergo Aadhaar authentication, either through local banks, appointed merchants, or Business Correspondents (BCs)<sup>16</sup>. Aadhaar authentication can be one-time for KYC, or connecting to the subsidy account, but transactional authentication (if not using Aadhaar biometric) could be done by the application itself.

The issue of cost of the authentication services to be provided by the UIDAI to Government agencies was raised. The authentication services are free upto 2013 and an appropriate decision thereafter could be taken keeping in view the interests of all the stakeholders.

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<sup>16</sup> A detailed description of the Aadhaar-linked financial inclusion strategy is available at:  
[http://uidai.gov.in/UID\\_PDF/Front\\_Page\\_Articles/Strategy/Exclusion\\_to\\_Inclusion\\_with\\_Micropayments.pdf](http://uidai.gov.in/UID_PDF/Front_Page_Articles/Strategy/Exclusion_to_Inclusion_with_Micropayments.pdf)

## 5. Planning the transition

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Successful implementation of direct transfer of subsidies depends upon careful change management. If the transition is not planned carefully, the new subsidy regime may be rejected by stakeholders. At a high level, planning the transition requires a careful phasing in of the new subsidy regime, while simultaneously building the required institutional capability for project execution and monitoring.

### 5.1 Phasing in the new subsidy regime

A new scheme is often easier to implement than changing an existing one, since it does not have to provide for legacy. However, in reality, careful change management has to be put in place to implement direct transfer of existing subsidies. The banking system in India has successfully managed its transition from manual processes and branch automation software to centralized core banking solutions. A similar transition is now desirable for direct transfer of subsidies.

A principle of least surprise is good guiding principle for change management. Essentially, the change process should be gradual, and should be implemented in a structured manner, with learnings from each phase.

For instance, if technology is being introduced for the management of a subsidy scheme, then it may be best to not alter policies drastically until computerization and automation is completed. Thus, stakeholder expectations and behaviour remain largely unchanged, as all stakeholders adjust to the technology solution. Similarly, policy changes are best implemented once technology changes have stabilized.

While it is possible to implement some of the core modules such as Contact Centers, Transparency portal etc., independent of the availability of other modules envisaged in earlier chapter, such modules will become effective only when the real time information on transfer of product and subsidy amount is readily available. Hence for such modules to piggy-back, it is required to have in place, the more fundamental and core module of software and ERP solution of stakeholders to conduct business and/or supply of subsidized product. So the first phase of the subsidy management shall be to have centralized software for Product/service transfer in place.

Immediately after this, depending on the availability of other modules in the ecosystem, their integration in the CSMS can commence as the next phase. An option is to conduct Aadhaar number seeding and authentication in the next phase. Final integration could be the banking payment systems as it may take a while for the payment systems to gear up for direct transfer of subsidy.

In case a robust ERP/Software and Aadhaar based authentications are in place, the intermediate step of transferring subsidy to wholesalers/retailers can also be considered before it is transferred directly to customers.



Another example is for direct transfer of subsidies to a beneficiary's AEBA. Since it may take a while for the payment systems in the country to gear up for direct transfer of subsidies, an intermediate step may be considered where the subsidy difference is transferred to wholesalers/retailers in the first phase, and only later on to customers.

The transition to direct transfer of subsidies can also be rolled out geographically, rather than country-wide, so long as the subsidized goods are sold at the same price everywhere. However, some changes such as targeting may have to necessarily be implemented simultaneously across the country. Arbitrage opportunities may otherwise spring up, which may be exploited by anti-social elements at the expense of the common man.

## **5.2 Institutional capacity building**

Execution and monitoring of such large, complex, IT intensive projects often requires specialized skills and manpower. This problem was recognized by the Ministry of Finance, when it set up the Technology Advisory Group for Unique Projects (TAGUP). The report was subsequently accepted in principle by the Finance Minister as part of the Budget Speech (2011-12).

The TAGUP report addresses public policy challenges and technology challenges for execution of large Government projects. It recommends setting up National Information Utilities (NIUs) for the execution of complex IT projects within Government, which leverages the talent in both Government and from private sector, provides implementation flexibility, while simultaneously retaining strategic control by Government. It also describes the importance of having a dedicated Mission Team in Government that can work with the NIU to implement the project. Apart from describing the placement of tasks and human resource policies, the report also provides recommendations on contracting, incubation, incentive compatible design for multiple levels of Government. In the section on technology challenges, it provides recommendations on solution architecture, openness, security, transparency, and privacy.

The recommendations of the TAGUP are generally applicable to all technology projects, and the same may be followed for direct transfer of subsidies.

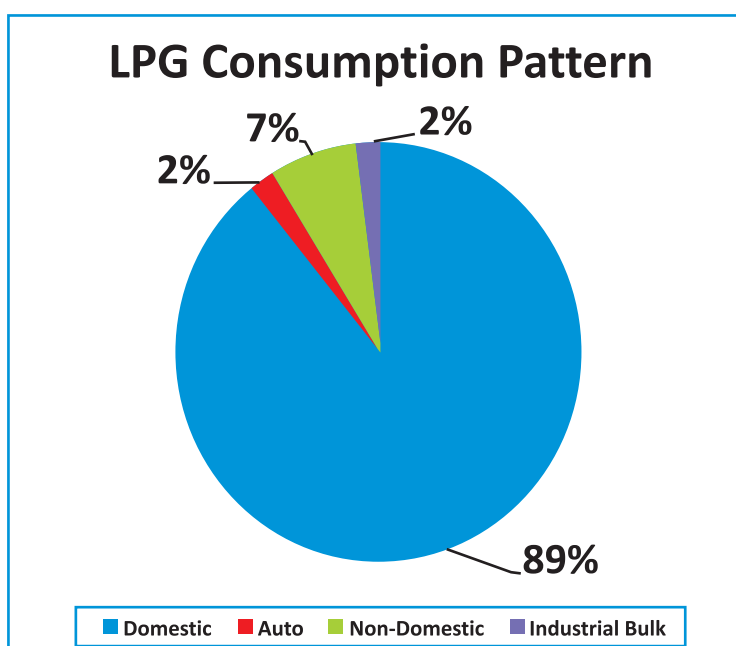
## 6. LPG

### 6.1 Introduction

Liquefied Petroleum Gas (also called LPG) is a flammable mixture of hydrocarbon gases used as a fuel in heating appliances and vehicles. The Government of India has been providing LPG to its residents, as one of the domestic cooking fuels, at subsidized prices. Subsidized LPG is provided in cylinders via the Government run Oil Marketing Companies (OMCs), through their distribution network across the country. Subsidized LPG is available in two different size cylinders of 14.2kgs and 5kgs.

Currently, the Government of India does not place any restriction on the amount of consumption of subsidized LPG by the residents. Some State Governments, however, for more equitable distribution of subsidized fuel limit the Kerosene quantity in relation to type of LPG. However, since refilled cylinder circulation and consumption is not restricted, in practice the amount of subsidized LPG consumption by a resident is unrestricted.

The country's current consumption of LPG is approximately 14,000 Thousand Metric Tons (TMT), of which indigenous production constitutes approximately 68% while the balance is met by imports. The broad consumption pattern of LPG across various applications is as follows:

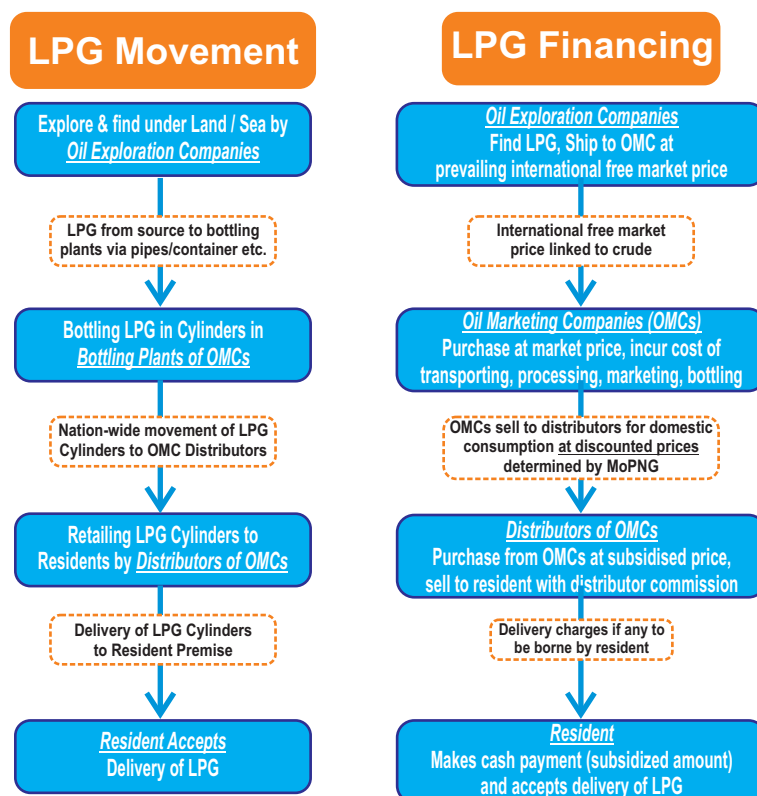


LPG originates at refinery and gas processing plants (for indigenous LPG) or at sea ports (for imports or sea bed findings) and is transported to the bottling plants across the country. Bottled LPG is sent to the distributors to serve approximately 12.5 crore households, covering almost half of the country's population.

The key stakeholders involved in the production, monitoring and consumption of LPG and the challenges they face are as follows:



The chart below explains the movement of LPG among the various stakeholders between production and consumption, along with the flow of funds through the entire supply chain of the LPG cycle.



## 6.2 The Subsidy Framework Today

### 6.2.1 Historical Pricing

The Government of India had decided that subsidies on PDS kerosene and domestic LPG, in the post-Administered Pricing Mechanism (APM) era starting from 1st April, 2002 will be on a specified flat rate basis for each depot/bottling plant and will be met from the fiscal budget.

The subsidies were calculated as the difference between cost price and issue price as per the PDS Kerosene and LPG (Domestic) Subsidy Scheme, 2002. The cost price of domestic LPG is calculated on import parity basis. The subsidies were based on international prices of LPG prevailing in the Arab Gulf market during the month of March, 2002, i.e. \$194 per MT. The issue price of the product as on 31st March, 2002 was considered for the subsidy. The frozen subsidy rates as calculated in March, 2002, were reduced to 2/3rd in 2003-04 and 1/3rd of the original rates from 1st March, 2004.

In addition, subsidy is provided on domestic LPG sales in defined far flung areas for covering a part of the freight cost up to the LPG distributor location, including the extension counters, as laid down in Freight Subsidy (For Far Flung Areas) Scheme, 2002. Effective 1st March, 2005, customs and excise duties on domestically packed LPG have been reduced to nil. This was done to reduce the under-recoveries of oil companies on these products.

Consequent to the enactment of the Finance Bill 2006, LPG (Domestic) falls under “Declared Goods” in the Central Sales Tax (CST) Act and the maximum sales tax/value added tax (VAT) rate has been fixed at 4% across all States/Union Territories. The maximum rate of VAT for domestic LPG has subsequently been increased to 5%, by amending Section 15 of the Central Sales Tax Act 1956. Subsidies were not phased out and OMCs were compensated (albeit in varying measures) through a loss sharing mechanism towards the under recoveries suffered by them. The historical trajectory of the various prices, subsidies and under-recovery are shown in the following table:

Data on Under Recoveries for LPG(D) Cylinders								
Time (date /yr)	Market Price (A)	Subsidy Scheme 2002 (B)	Retail Selling Price ( C)	Under Recovery (A-B-C)	Total subsidy to Customer (A-C)	Subsidised LPG sold	Under Recovery of OMCs	Total Subsidy to Customers
Rs/ Cylinder						TMT	Rs. Cr	
FY 02-03	317.61	67.75	240.76	9.10	76.85	7961.41	3363.00	5760.00
FY 03-04	349.89	45.18	241.30	63.41	108.59	8794.08	5523.00	9158.00
FY 04-05	406.83	22.58	263.20	121.05	143.63	9530.86	8362.00	10146.00
FY 05-06	457.39	22.58	294.75	140.06	162.64	9447.01	10246.00	11851.00
FY 06-07	456.15	22.58	294.75	138.82	161.40	9741.91	10701.00	12255.00
FY 07-08	517.37	22.58	294.75	200.04	222.62	10298.56	15523.00	17186.00
FY 08-09	544.03	22.58	299.77	221.68	244.26	10636.49	17600.00	19314.00
FY 09-10	465.92	22.58	280.85	162.49	185.07	11364.39	14257.00	16071.00
FY 10-11(Apr-Dec 10)	580.32	22.58	337.85	219.89	242.47	12368.74	13834.00	15212.00
<b>Note:</b>								
Market Price is the average of desired price for the year.								
Retail Selling Price is the average of Retail Selling at N Delhi for the year.								

### 6.2.2 Under-Recovery Sharing

The need for under-recovery sharing mechanism arose since the selling price of subsidized domestic LPG is not revised in line with fluctuations in international prices and consequently, the PSU OMCs suffered under-realization. This under-realization is compensated, in varying measures, to OMCs via different initiatives including its sharing by upstream companies, issuance of Government bonds and budgetary support.

### 6.3 Proposed Subsidy Framework

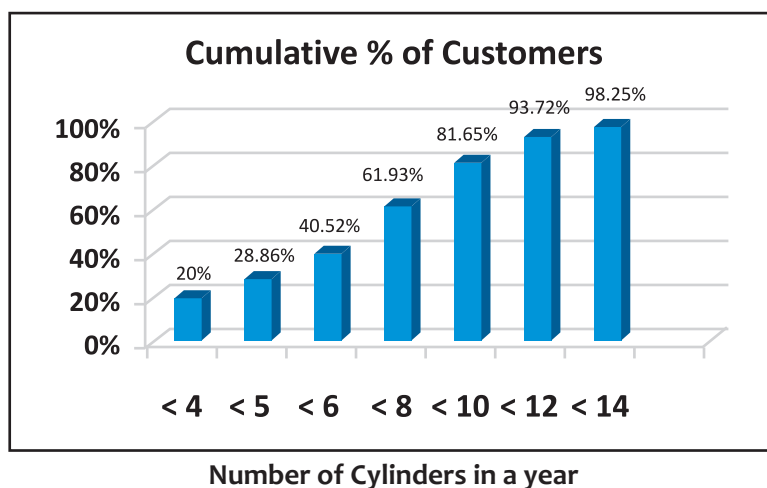
The proposed subsidy framework is considered as a phase-wise implementation, to ensure a smooth transitioning from the existing regime over a period of time, without creating any sudden and unaffordable environment for the residents. The key elements of the proposed subsidy framework are:

1. Phase I: Cap consumption of subsidized cylinders for all customers (Contingent on Government taking a policy decision to implement Phase I)
2. Phase II: Direct transfer of subsidy to customers
3. Phase III: Identify and target segmented customers

The transition will leverage basic capabilities of the OMCs to capture and develop all business processes digitally, the UIDAI component and technology for enrolment, authentication of subsidy recipients and remote banking transactions. It has been decided to implement the proposed subsidy

framework in a phased manner. The key phases are as described below. It must be noted that Phase 2 is not dependent upon Phase 1. Thus, it is expected that work on Phase 1 and Phase 2 will be started simultaneously.

### 6.3.1 Phase I: Cap on subsidized consumption



No of Cyl in a year	<= 4	5	6	7 & 8	9 & 10	11 & 12	13 & 14	>= 15
% of Customers	20%	9%	12%	21%	20%	12%	5%	2%
Cum % of Customers		28.86%	40.52%	61.93%	81.65%	93.72%	98.25%	100.00%

The Task Force is cognisant of the fact that this step of capping the subsidised cylinders is not going to serve any of the objectives for which the Task Force was set up. However this Phase was proposed by the MoPNG as an intermediate step to reduce the burden of subsidy. The number of cylinders to be issued at the subsidized rate will be restricted per household. Consumption over and above the stipulated quota will be sold at the market price. The quota and other rules under this phase shall be notified by the MoPNG, before the onset of this phase. Due to the new imposed limit on subsidized LPG under this Phase, caution has to be taken as there may be a spurt in new connections and old, inactive connections may become active. Further, it has the potential of becoming a hurdle for the next stage of reforms. The rationing phase will have to be rolled out country-wide to prevent creating disparity across geographies. This phase is completely independent of Aadhaar for its roll-out, and can be implemented by using any authentication service by the OMCs. It is expected that rationing itself will reduce the number of subsidized LPG cylinders sold and therefore reduce the subsidy bill of the Government.

**The implementation of Phase I is a policy decision that the Government needs to take and is not a specific recommendation of the Task Force in furtherance of the direct transfer of subsidies. Since it is a policy decision, it is the prerogative of the concerned Ministry. However, should the Government take a decision favouring implementation of Phase I, it is recommended that the cap be introduced with a robust authentication framework.**

### 6.3.2 Phase II: Aadhaar linkage, authentication at direct transfer of subsidy

Phase II of the project will involve appending the OMC customer databases with Aadhaars and bank

account details. The customers' Aadhaar Enabled Bank Account (AEBA) details will be used to transfer the subsidy.

The customers will buy all cylinders at market price while the Government will fix the subsidy per cylinder. OMCs will sell LPG at the market price and the subsidy amount will be directly transferred from the Government to the customers. The delivery to customers will be confirmed by an authentication service and the requisite amount will be transferred, on the successful completion and confirmation of delivery by the OMCs, to the residents. Phase II itself would be done in phases: authentication of delivery in the first phase and transfer into the bank accounts in the second phase.

Phase I and Phase II are independent of each other and the latter is not dependant on the former.

### 6.3.3 Phase III: Segmentation & Targeting

The LPG subsidy shall be given to specific categories and for the remainder of customers, it will be discontinued. Subsidy amount will be transferred to targeted customers directly as envisaged in Phase II. Phase III can be implemented only after successfully completing Phase II. It is expected that in the final phase, with only targeted customers receiving subsidized LPG, there will be a considerable reduction in the amount of subsidy outgo for the Government.

### 6.3.4 Proposed Subsidy Framework Benefit to Stakeholders

The proposed subsidy framework envisages that all stakeholders will benefit from the changes. The table below lists some key benefits for the stakeholders:

Stakeholder	Current Challenges	New Benefits
Resident Household	<ul style="list-style-type: none"> <li>● Not able to receive cylinders without a connection. Process for registering and receiving a connection</li> <li>● Only one connection per household</li> <li>● Non subsidized LPG Expensive</li> </ul>	<ul style="list-style-type: none"> <li>● Targeting to enable government to consider provide larger subsidy to the economically needy.</li> <li>● More resources with effective targeting enabling more inclusive execution of subsidy.</li> <li>● Non subsidized can become a commodity which can be purchased without customer having a connection.</li> </ul>
Oil & Gas Exploration Companies	<ul style="list-style-type: none"> <li>● Sharing subsidy burden</li> <li>● Safe Transportation of fuel production of LPG</li> </ul>	<ul style="list-style-type: none"> <li>● Financially soundness of LPG retail sale, encouraging more players to participate.</li> </ul>
Oil Marketing Companies (OMCs)	<ul style="list-style-type: none"> <li>● Under recovery on Domestic LPG Sale</li> <li>● Illegal Diversion of LPG</li> </ul>	<ul style="list-style-type: none"> <li>● Market Price selling to eliminate under recovery</li> <li>● Incentive for illegal Diversion of LPG removed with single market price</li> </ul>
LPG Distributors of OMCs	<ul style="list-style-type: none"> <li>● Illegal Diversion of LPG</li> <li>● Demand &amp; Supply Forecasting</li> <li>● Taking new initiatives in meeting customer expectations.</li> </ul>	<ul style="list-style-type: none"> <li>● Incentive for illegal Diversion of LPG removed with single market price</li> <li>● Market Price Selling to encourage more players, competition &amp; overall larger benefit to all</li> </ul>
State Government	<ul style="list-style-type: none"> <li>; Kerosene allocation and LPG connections.</li> </ul>	<ul style="list-style-type: none"> <li>● Indirect benefit in Kerosene subsidy management, with increased penetration of LPG</li> </ul>
Min. of Petroleum & Natural Gas (GoI)	<ul style="list-style-type: none"> <li>; Funding Under recovery on Domestic LPG sale</li> <li>; Illegal Diversion of LPG</li> <li>; Hindrance in geographic distribution expansion</li> </ul>	<ul style="list-style-type: none"> <li>● Rationing &amp; Targeting to reduce subsidy bill</li> <li>● Incentive for illegal Diversion of LPG removed with single market price</li> <li>● Freeing resources for inclusion, better targeting</li> <li>● Expanding the market for more players</li> </ul>
Min. of Finance (GoI)	<ul style="list-style-type: none"> <li>; Increasing under-recovery Bill</li> <li>; Subsidy misuse</li> <li>; Limited Inclusion</li> </ul>	<ul style="list-style-type: none"> <li>● Reduction/better utilization of subsidy funds</li> <li>● Increased targeted inclusion for better nation building</li> </ul>

### 6.3.5 Implementation Methodology

Phase I can be implemented after effecting the necessary notification to facilitate new pricing methodology, installing authentication procedure and software for distributorship operations and Enterprise Resource Planning (ERP) by OMCs across the country.

The deployment of solutions for an Aadhaar integrated Phase II execution will be engineered through Aadhaar numbers and connected banking platforms. Phase II will be piloted in select locations, and will be subsequently rolled out in areas where there is significant coverage of Aadhaar numbers.

In Phase III, the targeting of the customers will be initiated based on suitable notification issued by the relevant authority.

### 6.4 Proposed solution architecture – CSMS for LPG

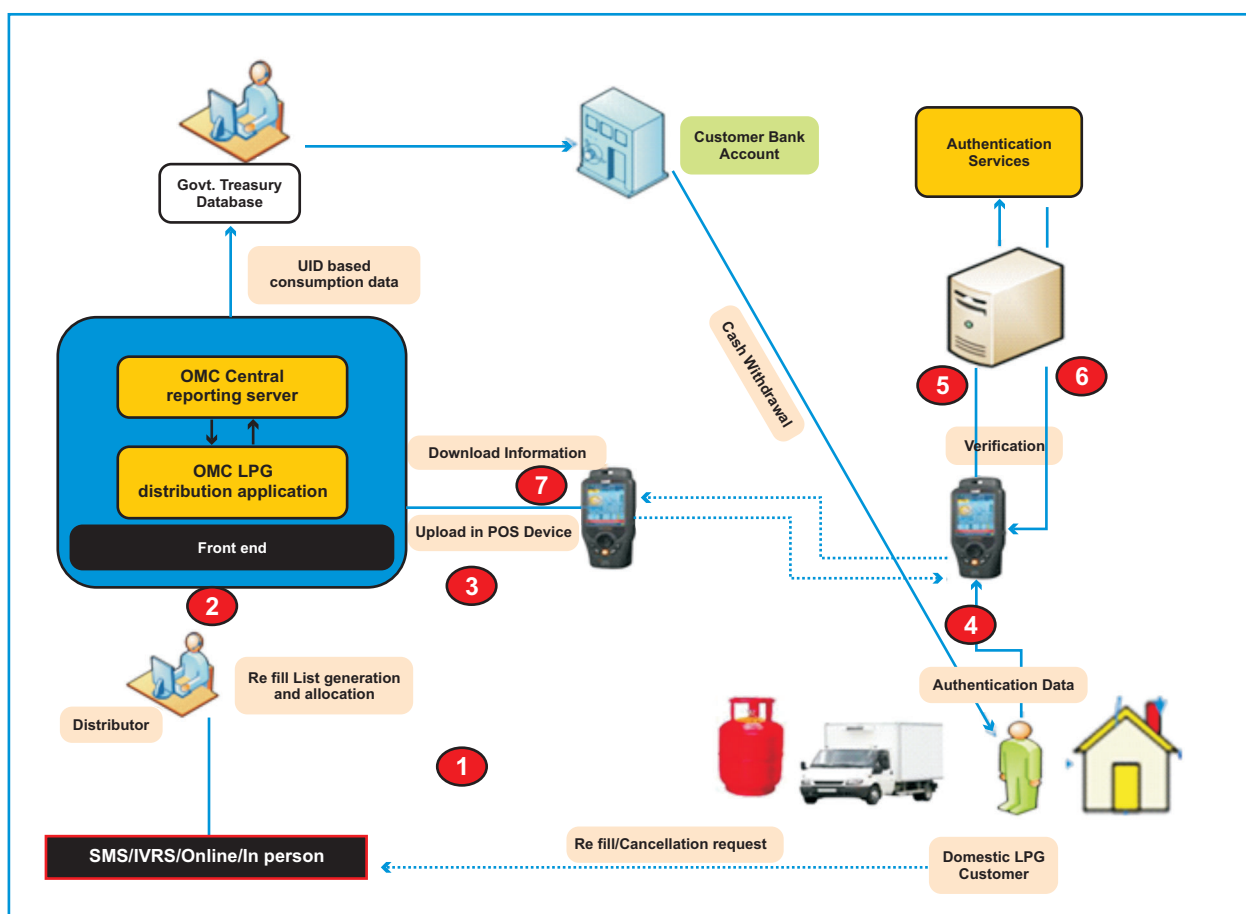
A CSMS for LPG will be implemented as described in Chapter 4. The basic solution architecture for subsidy administration and direct cash transfer is worked out based on single pricing and proper authentication models for customers who receive subsidy either as product or as cash. The model will also consider direct customer and stakeholder involvement through relationship building elements including customer empowerment via customer education, transparency web-portal, grievance redressal etc. With the following facets as the backbone, domestic LPG delivery system can be revamped:

1. Every customer (to receive subsidized LPG) will have an Aadhaar
  - a) Aadhaar numbers of beneficiaries will be verified before seeding the database to eliminate ghost connections/registrations
  - b) In order to have a wider base to eliminate duplicates, the databases of all OMCs will be pooled together. The combined database will be used for de-duplication
2. While delivering LPG, the Aadhaar number of the customer or his/her family members will be verified in order to disable unauthorized persons from receiving subsidized cylinders
3. Single price and direct subsidies will further remove the incentive for unauthorized deliveries

In the process shown below:

1. LPG cylinders are booked by customers
2. The order details are entered in the booking system (software) of the distributor
3. The delivery list for a delivery boy is transferred to handheld device
4. At the time of delivery, the device captures the authentication data from the customer

5. The device sends the authentication data to the authentication service provider to facilitate the transaction
6. The authentication service provider responds to the request received, completing the verification and enabling (or preventing) the delivery
7. The delivered data is transferred back to the distributor software



The cash will be directly transferred to the Aadhaar linked bank account of the customers. At the onset, each customer entitled for subsidized LPG will be given one unit of subsidy in cash directly in his/her bank account. Subsequently, when the LPG cylinder is sourced and received through the authentication route, additional units of subsidy will be credited to the bank account.

## 6.5 Transition

Moving from the existing subsidy disbursement system to another mechanism, where funds will be disbursed to millions of residents instead of a handful of companies will be an enormous task with many challenges.

Thus, a phased approach will be adopted in order to note learnings before a larger roll-out is attempted. The broad approach and scope of activities to be covered in each of the phases is highlighted here:



### 6.5.1 Phase I: Cap on Subsidized Consumption

The implementation of this Phase is contingent on the Government taking a policy decision to implement Phase I. In Phase I, when cylinders over and above the specified quota need to be supplied at the market rate, suitable provision will be made in the OMCs' software and ERPs. OMCs will have suitable authentication models in place to ensure that customers get cylinders as per their entitlements. The OMCs will control the ERP/Supply Chain Management (SCM) and the distributor software to cap the number of eligible cylinders which can be availed under the subsidy scheme.

The solution framework also includes publishing details pertaining to customers availing subsidized LPG on the transparency portal with dashboards providing MIS and analysis. Customers will be able to opt only for non-subsidized LPG. The transition will also require resident education which is proposed to be done through a comprehensive information and awareness campaign including advertisements in newspapers and visual media, pamphlets, SMS campaigns etc.

In order to effectively redress the complaints/conflicts and to share information, contact centres will be available. Existing OMC call centres may have to be upgraded. For distributors, the additional working capital on account of non-subsidized LPG will be compensated suitably. At the same time Marketing Discipline Guideline (MDG) provisions will be revised to incorporate irregularities which could arise due to a changed scenario.

### 6.5.2 Phase II: Aadhaar linkage, authentication at delivery and direct subsidy transfer

Phase II will require the following processes to be in place:

1. **Customer data of OMCs seeded with Aadhaars:** As LPG is delivered to households, Aadhaar numbers of all members within a household will be seeded against customer data. This will be done by collecting data directly from customers. The bank account number(s) of the customers can also be collected and seeded.
2. **Building infrastructure and processes for authentication:** De-duplication on Aadhaars to eliminate multiple and ghost connections will be done. Application software for authentication process will be developed; the hardware will be fully compatible with UIDAI standards.
3. **Empowering customers:** Information and education campaigns through multiple channels, the transparency portal and customer grievance redressal system will be in place for customer service and satisfaction.
4. **Banking platforms for direct cash transfer:** The subsidy funds will be transferred based on authentication, directly to AEBAs.

### 6.5.3 Phase III: Segmentation and Targeting

Subsidized domestic LPG will be provided only to segmented/targeted customers in Phase III. As the basic authentication framework will be in place in Phase II, in case the targeted customers have been

identified, the cash subsidy can be restricted to them. All other customers will source non-subsidized LPG. The process of identifying the targeted segments shall be notified by the Government.

### **6.6 Pilots**

In order to facilitate the proposed methodologies, a pilot will be conducted in two districts, Hyderabad and Mysore in the states of Andhra Pradesh and Karnataka respectively. The pilot will include transfer of data from the distributor software to handheld devices, Aadhaar linked authentication methodologies and transfer of data back to the main software. Proposed customer education, convenience and grievance redressal systems, the transparency portal and conflict management will also be tested during the pilot.

The detailed report on the functioning of pilot shall be submitted to the Task Force by December 2011. A Joint Working Group with members from MoPNG, OMCs, UIDAI, DFS and MoF will monitor the implementation of the pilots.

### **6.7 Transparency Portal**

As an immediate step, the OMCs have been mandated to set up a transparency portal that would show the details of all the customers of LPG who are receiving subsidized cylinders, distributor wise. This would enhance transparency, visibility and auditability of the distribution of cylinders across the country. This transparency portal would be accessible to the public and details of the consumption of subsidized cylinders of consumers across the country would be viewable. The Task Force believes that this is a major step towards transparency and accountability in provision of services.



## 7. Fertilizer

### 7.1 The Subsidy Framework Today

With the intent of maintaining equitable distribution of fertilizers and ensuring their availability at fair rates, the Government prescribes maximum prices at which fertilizers may be sold. Fertilizer subsidies have ensured that food security is attained by sustaining a minimum level of usage, and thereby maintaining good agricultural productivity.

In the present scenario, the Government subsidizes manufacturers of fertilizers to ensure that the end product is affordable for farmers. The quantum of subsidy that manufacturers receive is the difference between their normative cost of production and the subsidized Maximum Retail Price (MRP) that fertilizers are sold at. Subsidies are disbursed only on receipt of fertilizers in the districts<sup>17</sup>.

The first fertilizer sale involves a transfer from domestic manufacturers and import sources to dealers/wholesalers. The dealers sell the fertilizer stocks to the retailers from whom the farmers purchase the product. Cooperative producers have their own network for fertilizer distribution which comprises of state, district, taluk/block and village level societies.

As per the current framework, all farmers (irrespective of farm size) are entitled to subsidized fertilizers<sup>18</sup>.

The Fertilizer Control Order (FCO) includes 93 chemical fertilizer grades, which consist of straight, complex and fortified fertilizers with secondary and micro-nutrients and water soluble fertilizers. These grades can be produced / imported and sold in the country. The following fertilizers (both indigenously manufactured and imported)<sup>19</sup> are subsidized by the Department of Fertilizers (DOF) for agricultural use only:

Sl.	Fertilizer Grade	Sl.	Fertilizer Grade	Sl.	Fertilizer Grade	Sl.	Fertilizer Grade
1.	Urea	7.	Single Super Phosphate (SSP)	13.	NPK 15:15:15:0	19.	NP 24:24:0:0
2.	Di-Ammonium Phosphate (DAP)	8.	Muriate of Potash (MOP)	14.	NPK 16:16:16:0	20.	NP 28:28:0:0
3.	Di-Ammonium Phosphate (DAP) Lite	9.	NPK 10:26:26:0	15.	NPK 17:17:17:0	21.	NPS 20:20:0:13
4.	Mono-Ammonium Phosphate (MAP)	10.	NPK 12:32:16:0	16.	NPK 19:19:19:0	22.	NPS 16:20:0:13
5.	Triple Super Phosphate (TSP)	11.	NPK 14:28:14:0	17.	NP 20:20:0:0	23.	NPKS 15:15:15:09
6.	Ammonium Sulphate (indigenous only)	12.	NPK 14:35:14:0	18.	NP 23:23:0:0		

<sup>17</sup> Either from rake points or directly from fertilizer plant(s).

<sup>18</sup> Subsidized fertilizer is sold in 50 kg bags as per prescriptions laid out in the Fertilizer Control Order 1985.

<sup>19</sup> Except Ammonium Sulphate, for which subsidy is available only on indigenous production by FACT and GSFC.

In the current framework manufacturers have not been able to achieve significant efficiency and inventiveness due to their reliance on subsidies. It is hoped that by embarking on an incremental reform path, the manufacturing of fertilizers can be freed from unnecessary regulatory control and modernized while empowering farmers to purchase a vital input from a more efficient market and the entire system is rationalized so that fertilizer subsidy is optimized.

### **7.1.1 Fertilizer Supply Chain**

The quantity of fertilizer generated in the supply chain is based on demand consolidated by the Department of Agriculture and Cooperation (DAC) and the DOF, in consultation with the State Governments and manufacturers. Both, annual requirements and seasonal needs, are calculated based on the availability of rainfall data and production/import schedules of manufacturers. Distribution takes place as per the monthly supply plan finalized by the abovementioned stakeholders. A Fertilizer Monitoring System (FMS)<sup>20</sup> is used to monitor the day-to-day dispatches/imports, movement, receipt and sale of fertilizers in the districts.

The fertilizer market comprises of 2 major product types – urea and NPK (complex) – produced, imported and sold in 23 different grades. While urea makes up half of the total market, other complex fertilizers account for the remainder. Of the total urea distributed/consumed, close to 80% is indigenous while the rest is imported through 3 designated canalizing agencies<sup>21</sup>.

The costs associated with urea imports are borne by the Government and the MRP at which the imported urea is sold to the farmers is treated as recovery. While imports are expensive and are dependent on international prices of urea at a prevailing time, it is worth noting that expenditure is relatively less in cases where Off Take agreements<sup>22</sup> have been signed with other Governments. The total budgetary allocation for imported urea was Rs.9255 crore 2010-11.

Subsidy for all domestic urea producing units is different due to a range of factors such as pre-set norms, cost of fuel, technology, taxes, etc<sup>23</sup>. The subsidy is exclusive of freight, which is reimbursed separately. The total estimated subsidy on account of indigenously produced urea, including freight, stood at Rs. 15,081 crore for 2010-11. The MRP of urea is statutorily fixed and announced by the DAC. Since February 2002 till 31st March 2010, the MRP of urea was unchanged at Rs. 4,830/metric ton (MT). However, onwards of 1st April 2010, the Government has increased the MRP by 10% to Rs. 5,310/MT.

Phosphatic and Potassic (P&K) fertilizers were decontrolled and de-canalized in 1992. Up until 31st March 2010, MRP of P&K fertilizers were indicated by the Government. In fact, since February 2002 till 31st March 2010, MRPs of P&K fertilizers were unchanged. From 1st April 2010, the Government has

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20 FMS monitors movement of fertilizers at various stages in the supply chain. It has information on fertilizer companies, rates of concession on various fertilizers, MRPs and product wise/state wise details of dispatch and receipt. FMS can be accessed at <http://urvarak.co.in/>

21 MMTC Ltd., Indian Potash Limited (IPL) and State Trading Corporation (STC). Procedure and guidelines for importing urea can be accessed at [http://fert.nic.in/importexport/procedure\\_import\\_urea.asp](http://fert.nic.in/importexport/procedure_import_urea.asp)

22 For example, the Urea Off Take Agreement (UOTA) between the Government of India and Oman India Fertilizer Company (OMIFCO)

23 The range of subsidy for urea ranges from Rs. 1,000/MT to Rs. 8,000/MT for gas based units. For naphtha based units it ranges from Rs. 20,500/MT to Rs. 24,000/MT and for FO/LSHS based units it's between Rs. 9,500/MT and Rs. 16,500/MT.

implemented Nutrient Based Subsidy (NBS) for P&K fertilizers and the MRPs of these fertilizers have been left open for rationalization by manufacturers. The NBS is announced on an annual basis, taking into account benchmark prices. It is uniform for imported as well as indigenously produced P&K fertilizers. The total budget provision for P&K fertilizers for 2010-11 was Rs. 33,500 crore.

For complex fertilizers, the subsidy is released in 2 tranches:

1. On-Account claim, which comprises of 85-90% of the total subsidy amount. This fraction is released on the basis of the quantity received in the district either at the manufacturer's or at the dealer's warehouse.
2. Balance claim, which comprises of 10-15% of the total amount. This tranche is released after the on-account quantity is sold to the dealer or retailer, as the case may be (First point sale).

For indigenously manufactured Urea, two types of claims of subsidy are being disbursed:

1. Regular claims: Quantity dispatched from plant/port and corresponding receipt in that particular month i.e. quantity received against dispatches made in the current month.
2. Residual claims: Quantity dispatched in the current month but received in the subsequent month. These claims each month pertain to quantities dispatched in the previous month, and are settled at the subsidy rate of the month of dispatch.

The DOF has notified the distribution margins for different grades of fertilizers. In the case of urea, the dealer's distribution margin is Rs. 180/MT. For cooperatives, the margin is slightly higher at Rs. 200/MT. The margin is deducted from the MRP of Rs. 5,130/MT. As for PNK fertilizers, the margin is included in the subsidy. It stands at Rs. 275/MT. The dealer passes on a portion of the margin (usually Rs. 130 in the case of urea and Rs. 190-200 in the case of other fertilizers) to the retailer.

For both P&K fertilizers and urea, freight subsidy is reimbursed to the companies on receipt of fertilizers in the districts based on the quantities that are being claimed on the on-account/regular claims. Railway freight is reimbursed at actual cost, while the road freight is given, as an Interim measure on a normative basis based on an average of distances in the districts and a normative rate depending on prevalent road transport rates in the respective state.

### **7.1.2 State of the Industry**

Production of fertilizers in the country has remained largely stagnant during the past decade; the growing demand for fertilizers has been met mainly through rising imports. In the phosphate sector, the country is by and large import-dependent for critical phosphatic inputs such as rock phosphate and phosphoric acid. Rock phosphate import is about 52-53 lakh MT against indigenous availability of 13-14 lakh MT. About 25 lakh MT of phosphoric acid is imported against the indigenous production of about 13-14 lakh MT. Even indigenous production of phosphoric acid is based on imported rock phosphate. Almost 90-95% of the P&K requirements are met through imports, either in the form of finished fertilizers or fertilizer inputs.

Presently, the country has no known source of potash and the entire requirement is met through imports. Indigenous production of rock phosphate is very limited and is available only through mines in Rajasthan and Madhya Pradesh. The quality of indigenous rock phosphate is low in terms of Phosphorus Pentoxide (P<sub>2</sub>O<sub>5</sub>) content and is mainly suitable for the production of Single Super Phosphate (SSP) fertilizer.

Additionally, sulphur and sulphuric acid are available from oil refineries and smelter industries respectively, but the quantities are limited and the country is a net importer of both. The lack of long term availability of natural gas for urea plants, high cost of imported RLNG, gas prices and volatility in prices have impeded new investments in the urea sector. About 17-18 lakh MT of sulphur and the same amount of ammonia are imported.

### **7.1.3 Legal Framework**

Subsidy for decontrolled P&K fertilizers and urea is provided based on the approval of the Cabinet Committee on Economic Affairs (CCEA). The Fertiliser Control Order provides a framework for the fertilizer sector. While the Central Government is responsible for providing subsidies to the manufacturers, State Governments are responsible under the FCO for maintaining the MRP and quality of fertilizers sold in the market.

### **7.1.4 Shortcomings of the Current Framework**

The current subsidy framework has its limitations in terms of visibility of the entire supply chain, disbursement of timely subsidy claims, leakages as well as efficiencies in production.

The present Fertilizer Monitoring System implemented by the DOF is an effort to promote more transparency in the system as well as make subsidy disbursements more efficient. However, more visibility and transparency in the fertilizer supply chain from production to receipt at the retailer's point needs to be captured in the system for efficient decision making. Additional data should be captured to strengthen the FMS tool. It should be able to track the movement of fertilizers end-to-end, from the plants/ports to the farm gate, including the various transactions in the supply chain. Availability of extensive data will enable a more efficient supply chain on the back of realistic demand projections.

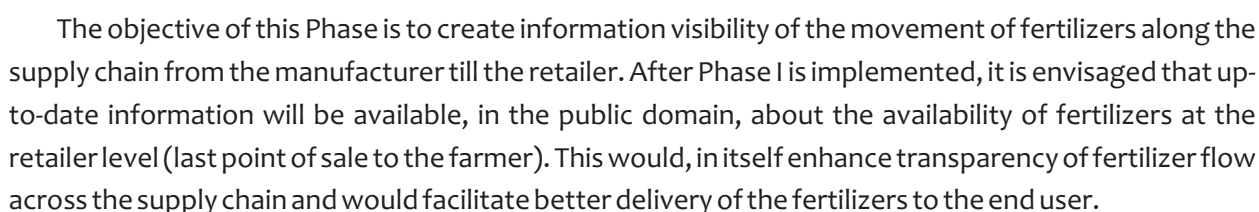
Since the claims submitted by the manufacturers have to be corroborated with documentation maintained by wholesalers and retailers, processing a claim is time consuming. As a result, there are delays in transferring the bulk of the subsidy component that comes from the Government. In the Interim, the manufacturers have to arrange for working capital to sustain production. In addition to affecting the manufacturing cycle, delays can have an unfavourable impact on imports and availability of fertilizers which can adversely influence agricultural production. The overall efficiency of the industry is lessened, as is the case with many subsidy-reliant businesses.

Subsidized fertilizers are also prone to leakages. Urea, Muriate of Potash (MOP) and Single Super Phosphate (SSP) are allegedly illegally diverted for industrial use. Urea is used for the production of urea formaldehyde which is used in garment manufacturing, melamine production, fish farming, milk

## 7.2 The proposed subsidy framework

It is proposed to be done in 3 phases:

## Flow of Current and Proposed Subsidy under NBS



National Informatics Centre (NIC) has been mandated with the task of systems implementation support. The technology solution will comprise of mapping the functionality/information flow right from manufacturing/production process (manufacturer) till the last point sale (retailer). The existing FMS will be used to map the process flow till the dispatches to the wholesaler. The technology proposed will be web, mobile and interactive voice enabled based on open source platform. The constraints in the implementation include, inter alia, the linking of over 2.3 lakh retailers across the country, varying levels of connectivity, technical prowess, financial capacity, physical capacity, and storage capacity among retailers, as also multiple sources of fertilizers.

### **7.2.2 Phase II: Subsidy Payment to Retailer**

In the Interim stage, it is envisaged that the subsidy will be released to the retailer when he receives the fertilizer. This will involve transfer of subsidy directly to the retailer's bank account on receipt of fertilizer from the wholesaler. The advantage of this Interim stage was extensively discussed in the Task Force. It was recognized that this phase would have the advantage of the fertilizer moving at the full value across the supply chain upto the retailer. This stage will also provide crucial lessons for a smooth switch over to the next phase of direct transfer of subsidy to the intended beneficiary which is much more complex due to the scale as well as the eligibility issues involved. This phase is dependent on linking the retailers to the core banking network. This will also involve, inter-alia, the need to look into the payment procedures currently being followed by the Government of India. It is expected that the payment procedure adopted will be electronic, non-repudiable, credible, and auditable and will not require extra deployment of manpower. The primary challenges in this phase would include increase in working capital requirements for stakeholders across the supply chain, increased credit requirement, space constraints at the retailer level, who now becomes the primary stockist, credit rating of retailer that may affect disbursement of subsidy and therefore supplies to farmers, issues in automated payment of subsidy, probable amendment of financial payment rules in Government and linkages with the core banking system for the retailers. The DOF has been mandated to address these challenges in a timebound manner with various stakeholders in government as well as outside.

### **7.2.3 Phase III: Subsidy Payment to Farmers**

In the long run, once the coverage of Aadhaar is extensive throughout the country, and Aadhaar enabled payments are operational, it is envisaged that the subsidy disbursement to the farmer can be done directly into the bank accounts of the intended beneficiary. However, this phase would also require that the eligibility of who is an intended beneficiary is clearly mandated by the Government. It is proposed to be done in two phases:

1. Information flow on sales to individual farmers
2. Transfer of subsidy to farmers (intended beneficiary)

## **7.3 Proposed Solution Architecture – CSMS for fertilizer**

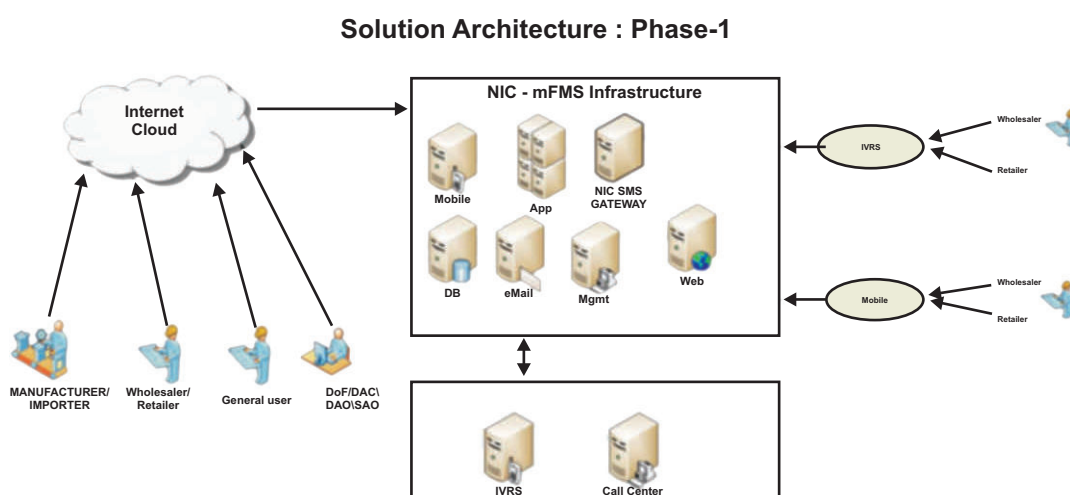
A CSMS for fertilizer will be developed as per the solution architecture discussed in Chapter 4.



### 7.3.1 Technology intervention for Phase I

Phase I will have ICT linkages that will comprise web, mobile, and IVRS based solution deployed on open source platform. They include:

1. Transparency portal
2. Dealers database
3. Registration of all wholesalers, retailers, co-operatives, Primary Agricultural Co-operative Societies (PACS) and institutional agencies involved in the sale of fertilizers across the country
4. Web based applications capturing business processes/information flow from manufacturers up to retailers (last point sale). The existing FMS will give data till dispatch to the wholesaler (first point sale)
5. Enable tracking of sale of fertilizer and disbursement of subsidy on receipt at retailer
6. Central server for Mobile/IVRS transactions and for collating information



### 7.4 Planning the Transition

As with the re-engineering of any of any incumbent system, the transition from the current subsidy regime to a more direct one will involve adjustments for all stakeholders. Meticulous planning on the back of incentive compatible subsidy architecture can smoothen the transition. A phased and linear approach that ensures incremental and convenient change has been prescribed, with the objective of making the evolution as seamless as possible. Potential challenges have been pre-empted and solutions for these prescribed, wherever possible.

#### 7.4.1 Phase I

In the first phase, a robust information management system needs to be set up. Since the FMS has been acknowledged as a good starting point, there is a need to strengthen the existing software in addition to building supplementary systems. Data on the flow of fertilizers from the manufacturer level up to the retailer level on both receipt and sales needs to be captured.



DOF has entrusted the task of capturing the sales figures at the retailer level to the National Informatics Centre (NIC). It is proposed that the information to and from retailers be linked to the existing FMS. With the availability of reliable and timely sales data, the primary objective of disbursing subsidized fertilizers to the retailers in Phase II and ultimately to the intended beneficiary (farmer) in Phase III would be made simpler. Phase I and Phase II must be planned in such a way that there is a seamless transition from Phase I to Phase II.

This information can be corroborated with sales figures available with the DOF to ascertain the quantum of sale of fertilizers to the relevant constituency. During this phase (Phase I), the freight subsidy is proposed to be paid directly to the manufacturers, as is the case today.

The disbursement of subsidy to the manufacturers should be tied to the receipt and confirmation of fertilizers at the retailer level, thereby enabling a more accountable and transparent environment. Capturing data at all points of the supply chain can also enable better analysis of the current framework. Consumption patterns for various geographies, by kind of fertilizer, will enable better demand projection and supply.

In order to integrate data sources for a more effective information system, two major constraints will have to be addressed:

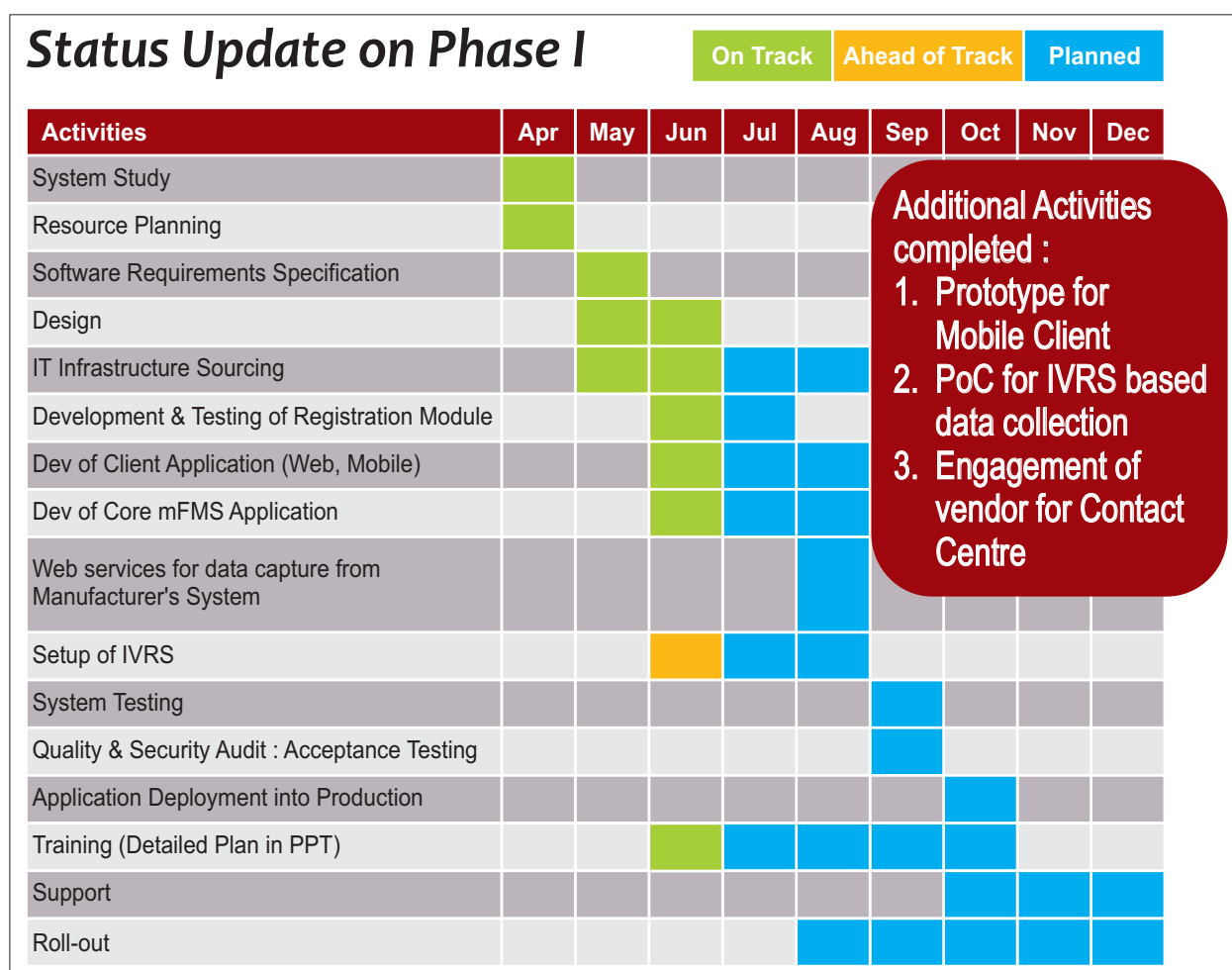
1. **Integrating with the retailer network:** Reaching out to, and working with the large number of retailers estimated to be over 2,30,000 will prove to be a challenge. It may be assumed that these retailers will have varying levels of connectivity and technical prowess.
2. **Consolidating data from multiple retail supply chains:** Tracking the data from the supply networks of all retailers is likely to be a complex task since they may be sourcing fertilizers from multiple sources.

Technology solutions can help address the abovementioned concerns. Firstly, all important stakeholders viz. wholesalers, retailers, co-operatives, PACS and other institutional agencies involved in the sale of fertilizers should be registered since it will enable better mapping of the stock's journey. Secondly, a central server for SMS transactions and collation of information would be set-up. Finally, a transparency portal showing stocks at the retailer level may be an extremely useful monitoring and management tool. Both web and mobile based links at various points in the ecosystem will help in overcoming infrastructural constraints.

The DOF has submitted that this Phase would be accomplished by December 2011, as the transition to Phases II and III are contingent on the availability of regular and robust information flows. The system study has been done by NIC and the Software Requirement Specification (SRS) is being finalized as per findings. The timelines are as follows:

Timeline	Key Activities
June 2011	<ul style="list-style-type: none"> <li>• Completion of collection of retailer database from companies. Cleaning, coding and validation of the database</li> <li>• Completion of designing of web, mobile and IVRS applications</li> <li>• Finalization of the SRS</li> <li>• Demonstration of prototypes of web, mobile and IVRS applications</li> <li>• Identification of company's nodal officers (two persons per state)</li> <li>• Finalization of training strategy</li> <li>• User awareness campaign strategy</li> <li>• Completion of design of Phase I</li> </ul>
July 2011	<ul style="list-style-type: none"> <li>• Initiate preparation of training material</li> <li>• DOF interaction with State Government with respect to rollout of the services</li> <li>• Initiate development and testing of the dealer registration application</li> <li>• Initiate development of client application (mobile)</li> <li>• Initiate development of core web application</li> <li>• Identification of resource personnel in the various states who will be master trainers</li> <li>• Sensitization of various stakeholders through mass media regarding the proposed scheme</li> <li>• Launch of dealer registration module</li> </ul>

August 2011	<ul style="list-style-type: none"> <li>• Launch of countrywide dealer training efforts</li> <li>• Setup of IVRS</li> <li>• IT infrastructure sourcing</li> <li>• Testing of client application (mobile)</li> <li>• Testing of core web application</li> <li>• Launch of user awareness campaign modules</li> </ul>
September 2011	<ul style="list-style-type: none"> <li>• Sensitization initiative to begin</li> <li>• Continue training of master trainers, wholesalers, retailers</li> <li>• Quality and security audit: Acceptance testing</li> </ul>
October 2011	<ul style="list-style-type: none"> <li>• Pilot test of applications in selected districts</li> <li>• Initiate phased operational rollout of the application along with training of end users</li> <li>• Continue training of master trainers, wholesalers, retailers</li> <li>• Full production application deployment</li> <li>• Application support setup</li> <li>• Government approval to be taken for transfer of subsidy to companies after receipt by retailer, as an Interim measure</li> <li>• Call centre support to be launched</li> </ul>
November-December 2011	<ul style="list-style-type: none"> <li>• Rollout of Phase I across the country</li> <li>• Support services to be initiated</li> <li>• Fine tuning of the solution</li> </ul>



### 7.4.2 Phase II

In the second phase of the reform process, direct transfer of subsidies to the retailers on receipt of fertilizers may be considered. The evolution to this phase assumes the completion and stabilization of the first phase. As opposed to the present scenario where the wholesaler/dealer is the primary stockist, in the second phase, the retailers will be principal stock managers.

During this phase, the credit rating of retailers will be of importance. A significant change in this phase is that subsidies will be directly disbursed to the retailers, thereby shifting the realization of the working capital to them, and away from the manufacturers.

While there is an option to transfer the subsidy to the retailer only after the sale of the fertilizers to the farmers, instead of on receipt of stocks, there are various risks associated with it. Purchasing patterns by farmers for instance, are vulnerable to seasonal fluctuations. Moreover, the retailers' ability to sell stocks will depend on their credit ratings. This may create a chain of indebtedness for the retailer and can lead to unwarranted transaction costs and rent seeking behavior. Therefore, transfer of subsidies upon receipt of stocks at the retailer level is a better option in spite of marginal risks of diversion associated with the same. Various major concerns will need to be addressed by the DOF before moving from Phase I to II:

1. **Lack of storage space:** Inadequate storage facilities at the retailers' premises may inhibit their ability to maintain adequate stocks, thereby impacting need based re-distribution at the farm-gate.
2. **Recovery issues in case of sub-standard stocks:** There may be an issue of recovering subsidies in case sub-standard stocks are supplied. Currently, the manufacturers are penalized through pending bills of the company or they remit the requisite amount by way of cheques.
3. **Difficulty in certifying receipt and sales at the retailer level:** The current system incentivizes the manufacturers' statutory auditors to certify receipt and sales by the retailers since the disbursal of the manufacturers' subsidies is linked to the same. During Phase II, the responsibility of conducting these checks will have to be automated or given to another stakeholder.
4. **Increase in working capital requirements across stakeholders in the supply chain**
5. **Automated payment release to the Retailer – This would require electronic payment of subsidy to the bank account of the retailer**
6. **Amendments, if any, to the payment rules and procedures in Government**

Technology interventions can lead to a smooth transition from Phase I to Phase II. A seamless payment infrastructure needs to be implemented during Phase II.

Phase II is a vital intermediary step in moving towards a direct-to-farmer subsidy delivery framework as it will integrate information systems with disbursal mechanisms. It is hoped that this phase will be completed by June 2012 before Phase III can be considered.

The Task force discussed the challenges for implementation of Phase II. It was decided that a Detailed Project Report (DPR) be prepared. The broad project timelines for Phase II are as follows:

#### 7.4.3 Phase III

It is envisioned that in the third phase of the transition, subsidies will be directly transferred to the end users i.e. the farmers. The advent of this phase assumes stabilization of the second phase and clarity on the eligibility of the intended beneficiaries. The transfer in Phase III may be carried out in 2 steps:

1. The flow of information on the sale of fertilizers to farmers

Timeline	Key Activities
June – August 2011	Conceptualization, consultation process with concerned ministries, stakeholders
August – October 2011	Compilation of DPR/system study report
November – January 2012	Completion of SRS and design
January – May 2012	Development of system based on Government approvals for the procedures
June 2012	Roll out of Phase II

2. Subsequent disbursement of subsidy to them

In order to move to the third phase, 3 potential issues will need to be addressed:

1. **Difficulties in assigning entitlements:** A clear and implementable methodology for defining entitlements must be developed. This will be a complex task considering the fact that land records are inaccurate and/or missing in some states. In addition, the nature of land tenure is inconsistent across the country as sharecropping and tenancy land tillage are prevalent in some parts. Fixing the quantum of subsidies will further be complicated by the fact that requirements of farmers will vary vis-à-vis cropping, fertilizer usage patterns, extent of rainfall, soil conditions, land holding/size etc.
2. **Inadequate liquidity in case subsidy is transferred post-sale:** If the subsidies will only be released after the purchase, there may be a problem of prior mobilization of funds for buying the fertilizers. Moreover, the entitlements will need to be altered frequently.
3. **Unfavorable impact on choices in case of set subsidies:** Fixed subsidies may force particular pattern of usage and will impede dynamic evolution based on actual conditions.

The extent of technological prowess will be crucial in determining the nature of transition to this phase. A database of farmers with relevant information on land holdings, type of crop(s) etc. needs to be constructed in order for the subsidy disbursement to be rational and effective. The issuance, and subsequent linkage, of Aadhaar numbers to the farmer database will be vital in identifying the intended beneficiaries. Further, the Aadhaar Payments Bridge can be leveraged to route subsidies to the farmers.

## 7.5 Pilot

The pilot for Phase I includes field testing applications in selected locations in Odisha, Rajasthan, Tamil Nadu, Assam, Maharashtra and Haryana in October- November 2011. The pilot for Phase II will be undertaken in the first half of 2012 while for Phase III pilots will depend on the stabilization of Phase II as well as clarity with respect to the eligibility norms for the intended beneficiaries.

Both Phase I and II are implementable solutions and are being proposed to be implemented by the DOF. The learnings from the Pilots would be examined to decide on the final strategy with respect to direct transfer of subsidies to the intended beneficiary. A decision on Phase III could be taken based on the experiences of implementation of the first two phases.

## **8. Kerosene**

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### **8.1 Present Subsidy Framework**

A fixed quantity of PDS kerosene is allocated by the Government of India to the States/UTs on a quarterly basis. It is then supplied by the Oil Manufacturing Companies (OMCs) to the wholesale dealers who sell it to Fair Price Shop dealers at a subsidized rate, fixed by the Government of India. Kerosene is made available to customers with a fixed monthly quota from FPSs/dedicated kerosene retail outlets operated under PDS by the State Governments/UTs. The network of distribution to the beneficiaries is controlled by the respective State Governments/UT Administrations. The scale of distribution and category of beneficiaries is decided by the State Governments/UT Administrations based on ration cards. The customer has to collect kerosene from the FPS. As it is an allocated product, the quantum of subsidy is fixed to the extent of allocations made.

Monthly quotas have to be lifted from the designated depots of OMCs by wholesalers appointed by the State Governments and OMCs. Quantities not lifted are treated as lapsed and cannot be lifted in future except with the permission of MoPNG. MoPNG also releases special quotas in case of natural calamities like floods, drought, earthquakes and during major festivals.

### **8.2 Pricing and Subsidy**

The Pricing of PDS kerosene follows the Import Parity Pricing (IPP) system for arriving at depot landed cost including elements such as FOB cost, premium, ocean freight, insurance, custom duty, ocean loss etc.

Under the PDS Kerosene and Domestic LPG Subsidy Scheme, 2002, subsidy on sale of PDS kerosene and domestic LPG is given by the Government to OMCs. The average subsidy rates for PDS kerosene since 2004-05 are Rs. 0.82/liter. However, the estimated under-recovery on PDS kerosene per liter is much higher and for the year 2010-11 it was about Rs. 17/liter for the OMCs, leading to a total under-recovery of Rs. 19,600 crore for the year.

At present, the OMCs are bearing an under-recovery of Rs. 28.28/liter<sup>24</sup> on account of the differential between the market price of kerosene and the retail price at which kerosene is sold to the consumers. The entire subsidy is provided at the stage of sales of PDS kerosene by the OMCs to their dealers; the product moves in the supply chain at a subsidized price beyond this point up to the customer.

### **8.3 Challenges in the Present Framework**

Administration of a dual rate is the main challenge in subsidy disbursement. As kerosene has the same density range and similar characteristics as High Speed Diesel (HSD), adulteration of HSD with kerosene cannot be easily detected. Apart from adulteration, kerosene is being sold at a price which bears no correlation with price of alternate fuels in the market; therefore there is considerable scope of diversion to the black market. The OMCs have been taking steps like automation of retail outlets to check

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<sup>24</sup> As on 1st May, 2011



adulteration and monitoring of tank trucks transporting MS/HSD through Global Positioning System (GPS) based Vehicle Tracking System (VTS) to check en route diversion. Since no such measures are in place for kerosene, the possibility of diversion cannot be denied.

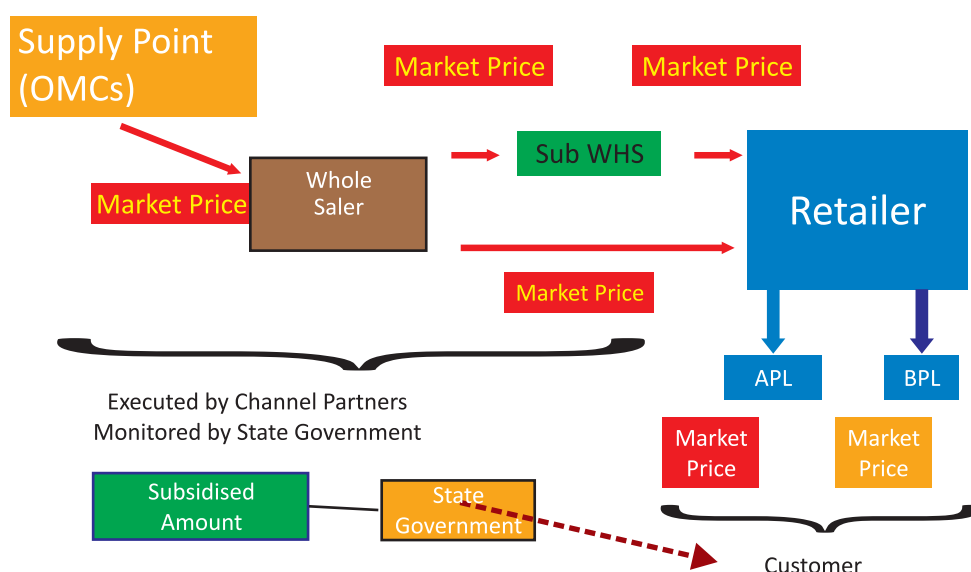
In a study conducted by the NCAER in 2005, it was estimated that 39% of the kerosene does not reach the targeted population. However, with the price differential having increased, it is felt that a much larger proportion of kerosene gets diverted and even the kerosene which reaches the customers is at a price which is higher than the price fixed by the Government. Diversions are mainly on account of depriving the bona fide beneficiary of the actual quantity of entitlement and selling the product in the name of fake/ghost or inoperative ration cards.

While the OMCs take responsibility for transport of MS/HSD till the retail outlet, kerosene being an ex-MI product, their responsibility ceases after the kerosene moves out of the OMCs' installations. Since kerosene is distributed through the PDS system, the State Governments/UT Administrations are expected to exercise checks on the movement and distribution of kerosene beyond the OMCs' installations.

Although statutory measures are in place under the Kerosene Control Order (KCO) and MS/HSD Control Order to prevent misuse of kerosene and adulteration of MS/HSD, such measures are not enough to check the malpractices given the vast retail network of 4.99 lakh FPSs throughout the country. As a result, even as the Government spends around Rs. 20,000 crore annually on kerosene subsidies through direct budget subsidy in addition to support from upstream companies and losses borne by the OMCs, the benefits largely elude the targeted population.

#### 8.4 Proposed Subsidy Framework: Direct Subsidy Transfer

### Direct Cash Transfer



In order to avoid leakage and pilferage of PDS kerosene and LPG refills in the process of distribution, a direct transfer of cash equivalent to the subsidy as per actual usage by beneficiaries would be a suitable alternative. In order to implement the Aadhaar enabled subsidy transfer system, it is required that all beneficiaries open bank accounts. The product will be supplied at the non-subsidized rate. Every month, the subsidy will be transferred to the bank accounts of beneficiaries in accordance with purchases made by them.

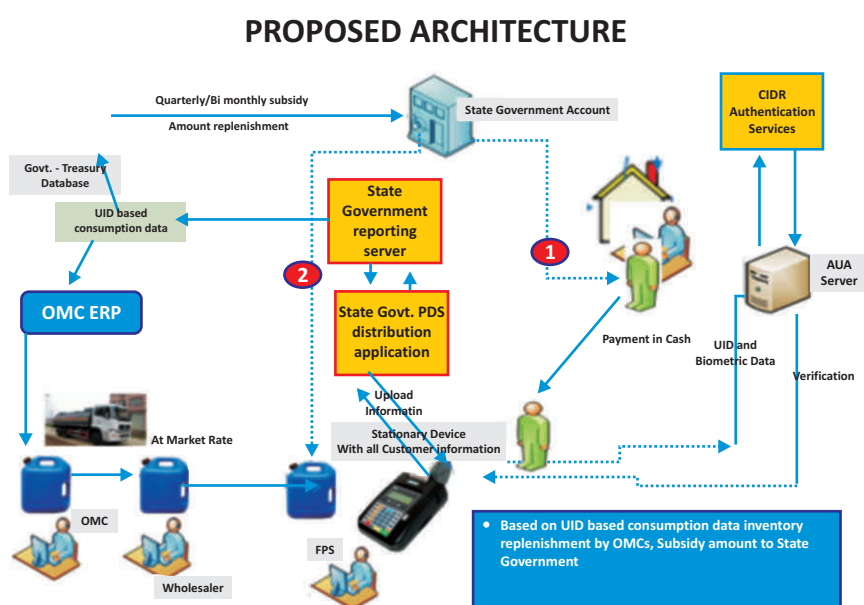
The linking of actual purchase and the corresponding calculation of subsidy entitlement will be based on each transaction, which will materialize after successful verification of the details of beneficiaries and transactions. However, considering the large number of ration cards and beneficiaries, an elaborate mechanism is required to ensure that the subsidy reaches the intended beneficiary. Therefore, a gradual approach in two phases is proposed.

### 8.5 Proposed Solution Architecture – CSMS for PDS kerosene

A CSMS for PDS kerosene will be implemented as per the recommendations in Chapter 4.

Direct transfer of subsidy to the beneficiary in case of Kerosene would entail fundamental reforms in the Public Distribution System of the State Government through which Kerosene is distributed today. This would require extensive consultation, collaboration and involvement of State Governments in the endeavour. The proposed solution as well as the Phases recommended in this chapter would need the involvement of the State Governments to implement. The Government needs to involve the State Governments in undertaking this policy reform.

In order to maintain real time data exchange and connectivity with UIDAI and the banking network, the State PDS network may have to follow a protocol of data exchange and maintain the following architecture.



## **8.6 Planning the Transition**

Movement of kerosene at a subsidized price results in malpractices. If the product moves at actual price, the RSP (Retail Selling Price) of SKO would be comparable to the market price of HSD and the incentive for diversion of kerosene for adulteration will be significantly lower.

Direct transfer of PDS kerosene subsidy in cash through State Governments/UT was discussed by the Task Force in great detail. It was proposed that::

- i) The State Governments may be given a year to put in place institutional mechanisms (by April 2012) for direct transfer of kerosene subsidy to the beneficiaries.
- ii) A pilot for direct transfer of kerosene subsidy will be initiated based on Aadhaar authentication. The subsidy on kerosene to the Government undertaking the pilot is to be linked to actual lifting of kerosene at full rates in the preceding month.
- iii) Financial incentives to be considered for States willing to implement direct transfer of kerosene subsidy earlier than the one year timeframe.

It was also decided that the proposed transfer of subsidy in cash be taken up in two phases:

### **8.6.1 Phase I: Direct Transfer of Subsidy through State Governments/UT Administration**

- i) PDS SKO to move at full RSP from the depot to the wholesaler, retailer and customer. States/UTs to establish institutional mechanism to undertake cash transfer of kerosene subsidy before 31st March, 2012
- ii) OMCs will supply the product ex-depot at the full retail price. Thereafter, the product will be moved up to the retailer and sold to the customer at the full RSP. Government of India will bear the subsidy on kerosene and transfer the differential between the RSP at retail level and the customer price as declared by it directly to the State Governments/UT Administrations.
- iii) The amount of kerosene subsidy released will be only to the extent of kerosene uplifted (by the customers after authentication at the FPS) from the oil company depots in a State/UT. If sales are not taking place at the FPS, the quantum of kerosene lifted from depots will also reduce and this will bring down the actual subsidy on kerosene. Thus, it is expected that the outgo on kerosene subsidy will reduce substantially.
- iv) The Department of Expenditure, MOF shall ensure sufficient budget provision for the entire amount of the expected kerosene subsidy. The Implementing Ministry (MoPNG) will prescribe the detail formats for utilization of the subsidy from by the State Governments/UTs. The State Governments/UT Administrations will have to transfer the subsidy amount to the actual customers of kerosene. For this, an institutional mechanism will have to be put in place by the State Governments for distribution of subsidy to bona fide beneficiaries in preparation for Phase II. If such a procedure is followed, the OMCs will not suffer any under-recovery on

kerosene, diversion/adulteration of kerosene will reduce considerably and genuine customers will get direct cash subsidy in their accounts.

- v) Transparency portals have been set up by the OMCs for online display of stocks and distribution of kerosene up to the level of wholesalers. Similar portals can be hosted by the respective State Governments/UT Administrations for stock and distribution up to the last point of sale, i.e. the FPS.

### **Policy Decisions**

The Ministry of PNG will have to work out the modalities for transfer of funds to the States/UTs, adjustment of unspent balances and prescribe the formats for the returns and utilization certificates. Budget provision will need to be provided for the entire amount of the expected kerosene subsidy. MoF will provide cash equivalent of subsidy on a monthly basis, conditional upon:

- i) States purchasing kerosene from OMCs at market price from 1st April, 2012.
- ii) The amount of cash transfer to the State/UT in the succeeding month will be limited to the actual quantity of kerosene lifted by the wholesalers from the depots of the OMCs in the preceding month.
- iii) States reform kerosene distribution through their PDS network. This reform would have to be based on the core subsidy management system that is proposed by the Task Force.
- iv) The subsidy will be related to the actual off-take by States. However, States can be incentivized for early adoption. Department of Expenditure, MoF will formulate an incentive scheme for such States/UTs which undertake transfer of cash subsidy before 31st March, 2012.

### **Dependencies**

The State Governments will have to undertake the task of transferring cash subsidies to genuine customers every month. While for the first month an advance can be given to the State Government on the basis of actual kerosene allocation for the State, from the subsequent month, the cash subsidy will be proportional to the amount lifted. The State Governments will have to evolve a mechanism to transfer the subsidy component only to those customers who have actually lifted the product from the FPS. A failure to transfer cash subsidies on time may lead to public unrest as customers can claim that they were not able to purchase kerosene at the market price in the absence of credit in their accounts. Thus, willingness of States to undertake the responsibility of direct transfer will be the main dependency in the Phase I. The mechanism to be adopted by the State Government must be in consonance with the recommendations of the Task Force relating to the Core Subsidy Management System.

#### **8.6.2 Phase II: Subsidy Transfer to Beneficiaries**

Phase II will aim at transferring the cash equivalent of subsidy directly to beneficiaries through their

bank accounts by linking transactions to Aadhaar<sup>25</sup>. For implementation of this phase, States will have to complete preparatory work and put in place an institutional mechanism for direct transfer of subsidy to beneficiaries from April 1, 2012, which will include the following:

- i) Opening of a 'kerosene' account for beneficiaries with Aadhaars to regulate issue against entitlement
- ii) Kerosene purchase will be based on successful authentication of the beneficiary. The system will involve identification of kerosene customers through Aadhaar at the point of sale and direct transfer of cash subsidy to the account of the beneficiaries once his/her identity has been established.
- iii) The cash subsidy to customers will be proportional to the actual quantity of kerosene lifted by the customer.
- iv) Providing a common subsidy platform for real-time transfer of cash equivalent of subsidy from the State to the beneficiary.
- v) Since Aadhaar will cover only 50% of the population (60 crore residents) in the next 3 years (till 2014), dependency on Aadhaar and prevalence of AEBAAs will be in areas where significant saturation has been achieved.

#### **Policy Decisions**

- i) Customer will buy kerosene at the prevailing market price.
- ii) Cash equivalent of the kerosene subsidy will be transferred to beneficiaries.
- iii) The component of cash subsidy for kerosene will reduce in accordance with the proposed scale if a kerosene customer acquires an LPG connection.
- iv) Department of Financial Services, MoF will render support to States/UTs for transfer of subsidy amount.

#### **Dependencies**

- i) Extent of Aadhaar's rollout
- ii) Authentication infrastructure
- iii) Aadhaar Payments Bridge for AEBAAs
- iv) Readiness of the banking system to handle payments

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<sup>25</sup> Also being done in Phase I, but in Phase II it will be done to AEBA

## **8.7 Pilot Plan**

### **8.7.1 Pilot in few locations**

- i) Pilot for direct transfer of cash subsidy for kerosene would be initiated in the following manner.
- ii) The pilot will be initiated in September 2011, and it will include the following:
  - a. Advance transfer of cash equivalent of subsidy for a month's kerosene quota will be made to Delhi for the first month.
  - b. Thereafter, the subsidy will be linked to actual lifting of kerosene at prevalent rates.
  - c. Sale of kerosene to BPL families will be made at market price, based on Aadhaar authentication.
  - d. Direct transfer of cash subsidy to bank accounts of beneficiaries will be made by the State Government. The transfer will be linked to actual purchase of kerosene by the beneficiaries.
  - e. An incentive may be offered to the State Government for adoption of the scheme earlier than September 2011.

### **8.7.2 Pilots in other States**

The initial pilot can be replicated in other locations based on Aadhaar penetration by December 2011.

A wider consultation with the State governments with respect to direct transfer of subsidies on kerosene needs to be undertaken. Direct transfer of subsidy for kerosene will depend to a large extent on reform of the PDS which is being implemented by the State Governments. The Task Force recommends that the MoF along with the concerned Implementing Ministries engage the State Governments in a wide ranging consultation with respect to kerosene subsidy. The Task Force recommends that the pilots in case of Kerosene be implemented after consultation with the State Governments.

## 9. The Way Forward

The mandate of the Task Force is to recommend an implementable solution for direct transfers of subsidies for kerosene, LPG and fertiliser. While the first 5 chapters covered generic principles applicable to subsidy disbursement programs across Government<sup>26</sup>, chapters 6, 7 and 8 deals with the three specific products and the proposed implementable solution with respect to them.

The recommendations of the Task Force require meticulous planning and persistent follow up on implementation by the Implementing Ministries. The **implementable solution** has to be translated into action by a clear and unambiguous plan of action. It would be the responsibility of the concerned implementing Ministries to implement the solution on the ground, with the Task Force overseeing and supervising the same. Clarity of roles and responsibilities and well defined timelines must be assigned to achieve the task in hand.

### 9.1 Plan of Action

	Phase I	Phase II	Phase III
LPG	Cap consumption of subsidized cylinders (Policy decision of Government and not a specific Task Force recommendation)	Consumers buy LPG at market price, with direct transfer of subsidy to their bank account	Identify and target segmented customers for subsidy
Fertiliser	Information visibility upto the retailer level	Direct transfer of subsidy to the retailer	Farmers buy fertilizers at market price, with direct transfer of subsidy to their bank account
Kerosene	Cash transfer through State Governments	Cash Transfer to accounts of beneficiaries	

### 9.2 LPG

#### Transparency Portal

Sl.	Area of Responsibility	Owner	Timeline
1.	Transparency Portal	OMCs	August 2011

<sup>26</sup> One of the mandates of the Task Force as per the Terms of Reference is to “suggest a common framework to adopt the above solution of direct subsidies in cash or otherwise for other Government welfare scheme



**Phase I (Cap on number of subsidized cylinders)**

Sl.	Area of Responsibility	Owner	Timeline
1.	Policy cap on subsidized Cylinders (Policy decision of Government and not a specific Task Force recommendation)	MoPNG	As per Government approval
2.	Implementation of cap	OMCs	Within 3 months of approval of policy

**Phase II (Aadhaar linkage, authentication at delivery and direct subsidy transfer)**

Sl.	Area of Responsibility	Owner	Timeline
1.	Implement Pilots	MoPNG/OMCs	December 2011
2.	Co-ordinate with MoPNG to provide Aadhaar numbers to customers in pilots and facilitate aadhaar authentication services	UIDAI	December 2011
3.	Payment procedures to be amended in Government	MoPNG and MOF	December 2011
4.	Set up payments infrastructure system for direct disbursal	DFS	December 2011
5.	Fund availability for subsidy disbursement to customer	MOF/MoPNG	December 2011
6.	Transferring subsidy into beneficiary's account (pilot)	MoPNG/OMC	December 2011

**Phase III (Segmentation and Targeting)**

Sl.	Area of Responsibility	Owner	Timeline
1.	Identifying targeted segments	MoPNG	As per Government approval
2.	Transferring cash into accounts of targeted segments	MoPNG/OMC	

### 9.3 Fertiliser

#### Phase I (Information visibility upto Retailer Level)

Sl.	Area of Responsibility	Owner	Timeline
1.	Implementation of Phase I	DOF	December 2011
2.	Provide technical support and software	DOF and NIC	December 2011

#### Phase II (Direct transfer of subsidy to the retailer)

Sl.	Area of Responsibility	Owner	Timeline
1.	Implement Pilots	DOF	December 2011
2.	Provide technical support	NIC	December 2011
3.	Co-ordinate with DOF to provide Aadhaar numbers to retailers in pilots	UIDAI	December 2011
4.	Payment procedures to be amended in Government	DOF and MOF	December 2011
5.	Set up payments infrastructure system for direct disbursement	DFS	December 2011
6.	Funds availability for subsidy disbursement to retailer	MOF/DOF	December 2011
7.	Transferring cash into account of retailers (Pilot)	DOF	December 2011

### 9.4 Kerosene

The direct transfer of subsidies in kerosene depends largely on the State Governments and PDS reform. The Task Force recommends that a wider consultation be initiated by the concerned Ministries with the possible solutions offered in the Interim report.

### 9.5 Conclusion

The recommendations of the Task Force in its Interim report do not imply finality with respect to the implementable solution. It is a roadmap for the Implementing Ministries. The Task Force would oversee and supervise the implementation of the pilots to come out with an “implementable solution” for direct transfer of subsidies in its Final Report in December 2011. The learnings from the Pilots during its implementation in the coming months will form the basis of the Final report. There could be substantial changes in the approach or methodology based on the field level experiences. The Task Force would submit its final report to Government in December 2011.

## 10. Annexure I: Terms of Reference

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F. No. 22(02)/PF II/2011

**Ministry of Finance**  
**Department of Expenditure**  
**(PF-II Division)**

New Delhi, dated the February 14, 2011

**OFFICE MEMORANDUM**

**Subject: Issues relating to potential use of UID platform for  
strengthening the public delivery system**

Reference may please be made to the meeting held on February 04, 2011 chaired by the Finance Minister on the subject mentioned above.

2. In this context, I am directed to inform you that the Government has constituted a Task Force under the Chairmanship of Shri. Nandan Nilekani, Chairman, Unique Identification Authority of India (UIDAI) to recommend and implement a solution for direct transfer of subsidies on Kerosene, LPG and Fertilizer to the intended beneficiaries.
3. A note on the constitution of above referred Task force, containing the Terms of Reference (ToR) and other details is enclosed for necessary action.
4. This issues with the approval of the Finance Minister.

(Neehar Ranjan Pandey)  
Deputy Secretary (P.F. II)  
Tel: 23093109

To

1. Sh. P.K. Basu, Secretary (Agriculture);
2. Sh. S. Sundareshan, Secretary (Petroleum & Natural Gas);
3. Sh. B.K. Sinha, Secretary (Rural Development);
4. Sh. B.C. Gupta, Secretary (Food & Public Distribution);
5. Dr. Sutanu Behuria, Secretary (Fertilizers);
6. Sh. R. Gopalan, Secretary (Economic Affairs);
7. Sh. R.S. Sharma, D.G. (UIDAI); and
8. Sh. Arun Jha, Joint Secretary (Chemicals & Petrochemicals).

## **Task Force on Direct Transfer of Subsidies on Kerosene, LPG and Fertilizer**

### **Preamble**

The Government of India provides Kerosene at subsidized prices to BPL families under the Public Distribution System (PDS). There is overwhelming evidence that this policy of giving kerosene at subsidized prices under the PDS is resulting in waste, leakage, adulteration and inefficiency. As per the NSS rounds (50th, 55th & 61st), while Kerosene use for cooking in urban and rural populations has shown a decline, LPG use for cooking has increased significantly. In addition, the sales/consumption of Kerosene (PDS and open market) during these rounds remained stagnant. This shows that PDS Kerosene is being diverted for purposes other than being used as a poor man's fuel for cooking and lighting. Therefore, it is imperative that the system of delivering the subsidized Kerosene be reformed urgently.

Domestic LPG is both heavily subsidized and available in unlimited quantity. The burden of subsidy can be reduced by either raising the price or reducing the quantity or both. Provision and delivery of subsidized LPG to intended beneficiaries is required to be undertaken.

Fertilizer subsidy, as it exists today, is available to all farmers. Large farmers, growing cash crops, are as much entitled to subsidy as the small and marginal farmers. It is not possible to differentiate the segments for which the subsidy should be given in this sector. The subsidy is, presently, given to the manufacturers of the fertilizers rather than the farmers directly.

### **Need for Reform**

In the light of the above problems in the present system of subsidising Kerosene, LPG and Fertilizer, there is a need to evolve a suitable mechanism for direct subsidies to individuals/families who are entitled to Kerosene, LPG and Fertilizer.

An effective mechanism for preventing leakages and diversion in Kerosene is to move towards a system of subsidy being passed on to BPL beneficiaries as identified by the Ministry of Rural Development through alternate mechanisms.

In the present system of subsidy on Fertilizers, there is a need to evolve a suitable mechanism for direct subsidies to individuals who are entitled to them. If a system of direct subsidy to the farmer is adopted, it becomes possible for the Government to differentiate, and decide which segment of farmers should receive subsidy (size of land-holding could be the differentiator and/or it could be nature of crop). It also becomes possible to bring in quantum restrictions- either by way of a ceiling on amount of subsidy or amount of fertilizer. As an intermediate step, release of subsidy to retailers by using aadhaar numbers, aadhaar based transactions and aadhaar authentication service can be undertaken. Department of Fertilizers has compiled a list of all registered retailers of fertilizers. This can be considered for utilisation.

## **Objectives of the Reform**

The Reform must essentially have the objective of being an implementable model of direct transfer of subsidies on Kerosene, LPG and Fertilizers to the intended beneficiary. It should also ensure that the subsidy reaches the intended beneficiary.

To achieve these objectives it would be necessary to study the existing systems and re-engineer existing systems, processes and procedures in the implementation process, design appropriate IT systems and bring about changes in the administrative system and supply chain management.

The Unique Identification Authority of India (UIDAI) has been established to issue unique identification numbers (aadhaar numbers) to the residents of India and to provide for authentication of identity. The UIDAI has started issuing aadhaar numbers across the country. With Aadhaar becoming a reality, it is possible for bringing about reforms in the present system by exploiting the potential of aadhaar number for identification, aadhaar-enabled transactions and aadhaar authentication service provided by the UIDAI. Successful implementation of such a system for Kerosene and LPG will pave the way for direct food subsidy to the BPL families at a later stage.

## **Constitution of a Task Force**

The Government hereby constitutes a Task Force under the Chairmanship of Shri. Nandan Nilekani, Chairman, Unique Identification Authority of India (UIDAI) to recommend and implement a solution for direct transfer of subsidies on Kerosene, LPG and Fertilizer to the intended beneficiaries.

## **Composition of the Task Force**

The Task Force will be headed by Shri. Nandan Nilekani, Chairman, UIDAI. The other members of the Task Force would be:

1. Expenditure Secretary
2. DFS Secretary
3. Secretary, Petroleum and Natural Gas
4. Secretary, Chemicals and Fertilizer
5. Secretary, Rural Development
6. Secretary, Agriculture
7. Secretary, Food and Public Distribution
8. DG, UIDAI
9. State Government representatives as decided by the Task Force

The Task Force can also co-opt other members who are, inter alia, experts, academicians and domain specialists to the Task Force based on necessity.

## **Terms of Reference**

1. The Task Force will study the present mechanism of transfer of subsidies on Kerosene, LPG and Fertilizer, challenges and problems in the governance structures and delivery systems;
2. Examine and suggest an implementable solution for direct transfer of subsidies on Kerosene, LPG and Fertilizer to intended beneficiaries with the use of Aadhaar numbers (Unique Identification numbers), aadhaar enabled transactions and aadhaar authentication infrastructure of the UIDAI;
3. Identify and suggest required changes in the existing systems, processes and procedures, IT frameworks and supply chain management;
4. Oversee and evaluate the implementation of the solution proposed on a pilot basis through the concerned Implementing Ministries; and
5. Suggest a common framework to adopt the above solution of direct subsidies in cash or otherwise for other Government welfare schemes.

## **Working Groups**

The Task Force is empowered to constitute Working Groups to look into specific issues.

## **Reports**

### **Interim report**

The Task Force would submit its Interim Report of an implementable solution within four months of its constitution. The recommendations of the Interim Report would be implemented on a pilot basis by the concerned Ministries under the supervision of the Task Force in the following six months from the date of submission of the Interim Report.

### **Final Report**

The Final Report would be submitted thereafter which would include the results of the implementation of the solution on the field.

## **Secretariat**

A Joint Secretary from the Ministry of Petroleum and Natural Gas will be nominated to function as Secretary of the Task Force. The Task Force will be serviced by the Ministry of Petroleum and Natural Gas and secretarial assistance will be provided by it.

## 11. Annexure II: Summary of meetings

### Summary of Meetings

Sl.	Agenda	Meeting Date
1	Understanding current subsidy regime	8-3-2011
2	Discussion on possible changes to subsidy regime for direct transfer	16-3-2011
3	Consultations	21-3-2011
4	Discussion on proposed subsidy regime	29-3-2011
5	Review with the Finance Minister	31-3-2011
6	Progress review of LPG plan of action	20-4-2011
7	Progress review of Fertilizer plan of action	27-4-2011
8	Progress review of LPG plan of action and discussion of Draft Interim report of Task Force	25-5-2011
9	Progress review of Fertilizer plan of action	8-6-2011
10	Discussion on draft Interim Report	21-6-2011
11	Finalisation of Interim Report	27-6-2011





