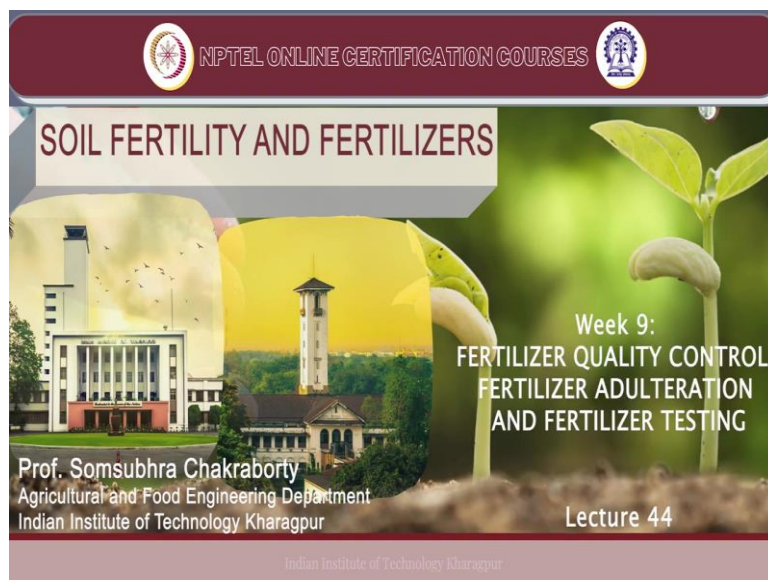


Soil Fertility and Fertilizers
Professor Somsubhra Chakraborty
Department of Agricultural and Food Engineering
Indian Institute of Technology, Kharagpur
Lecture 44

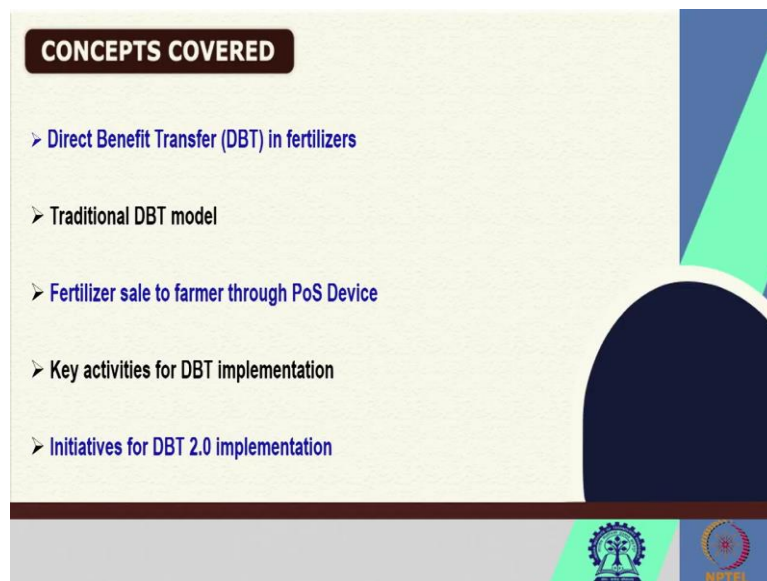
Fertilizer Quality Control, Fertilizer Adulteration and Fertilizer Testing (Contd.)

(Refer Slide Time: 0:27)



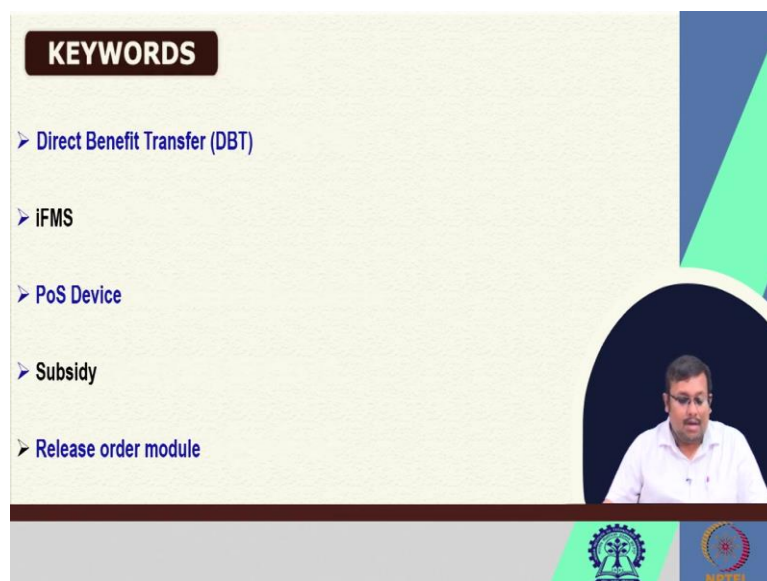
Welcome friends to this selection number 44 of NPTEL online certification course of Soil Fertility and Fertilizers. In this week we are discussing fertilizer quality control, fertilizer adulteration and fertilizer testing. And in this lecture, we are going to discuss some of the important concepts, how of discussed focusing on how government of India has promulgated several rules for subsidy transferred to our farmers and how they are doing it through advanced management system.

(Refer Slide Time: 0:57)



So, these are the concepts which we are going to cover in this lecture first of all, direct benefit transfer or DBT in fertilizers. Then we are going to discuss the traditional DBT model and then fertilizer sale to farmer to PoS service point of sale device. So, we are going to discuss how these fertilizers are being sold using these PoS device. And then we are going to discuss some of the key activities for direct benefit transfer implementation. And then we are going to discuss some initiative for DBT 2 implementation of this upcoming phase of direct benefit transfer implementation.

(Refer Slide Time: 1:45)



Now, these are the keywords a direct benefit transfer then iFMS which is a short form of Integrated Financial Management System, then PoS device or point of sale device, then

subsidy and then release order module or RO module. So, these are some of the keywords which we are going to discuss in this lecture in details.

(Refer Slide Time: 2:09)

Direct Benefit Transfer (DBT) in Fertilizers

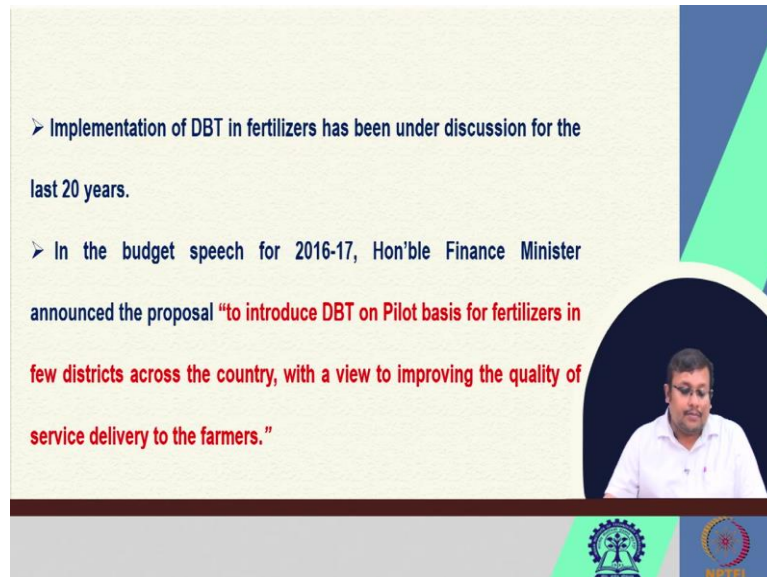
Why DBT in Fertilizers?

- 2nd largest subsidy program of Government of India.
- Involves a budget of Rs. 83,466 Crs. (as of 2019).
- Accurate targeting of beneficiaries.
- Avoids delay in provision of subsidy benefits.
- Direct and visible impact of the benefits to intended users.
- Minimize the leakages or diversion.

So, let us start with the direct benefit transfer in fertilizers. We call it DBT in from in the fertilizer terminologies. So, why do we need DBT in fertilizer? So, that is the first question comes to our mind, remember that these DBT or direct benefit transfer is the second largest subsidy program of government of India. It involves a budget of 83,466 crores of rupees as of 2019 and why it is there? It is there because of accurately targeting the beneficiaries and avoiding the delays in the provision of subsidy benefits. So, unless there is a direct benefit transfer, there may not be accurate target I mean the benefit there may be some confusion regarding the beneficiaries.

And of course, there will be delay in provision of subsidy benefits and of course, there will be direct and visible impact of the benefits to the intended users and finally, the minimizing and the leakages or diversion. So, these are the major reasons behind these DBT in fertilizers.

(Refer Slide Time: 3:39)



➤ Implementation of DBT in fertilizers has been under discussion for the last 20 years.

➤ In the budget speech for 2016-17, Hon'ble Finance Minister announced the proposal "to introduce DBT on Pilot basis for fertilizers in few districts across the country, with a view to improving the quality of service delivery to the farmers."

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for a tree emblem and NPTEL.


Now, implementation of DBT in fertilizers has been under discussion for the last 20 years. So, last 20 years we have discussed about these implementations of DBT and, but in the budget speech for 2016-17, honorable finance minister of India announced the proposal to introduce these direct benefit transfer on pilot basis for fertilizers in few districts across the country with a view to improve the quality-of-service delivery to the farmers. So, it has been initiated in that year. And, the focus of DBT was to or on the pilot basis the focus was to improve the quality of the service delivery to the farmers.

(Refer Slide Time: 4:35)



Traditional DBT Model

The key process of traditional DBT model (for example in LPG) is

- Beneficiaries and their entitlements are defined.
- After Aadhaar based authentication, subsidized entitlements are sold to the beneficiary at market price.
- The Subsidy amount is transferred to the beneficiary after sale transaction.



<https://dbtbharat.gov.in/> Department of Fertilizers



Now, what is the type of traditional DBT module? So, the key process of traditional DBT model as example in case of liquid petroleum gas, which you all know is first of all beneficiaries and their entitlements are defined, clearly defined, who are the beneficiaries and what they are entitled to get. And after Aadhaar based authentication subsidized entitlements are sold to the beneficiaries as market price. So, basically if you see, we basically procured the LPG gas for our cooking purpose at the market price and then the subsidy amount is transferred to us after sale transaction. So, this is a traditional DBT model which government of India follows in case of LPG distribution.

(Refer Slide Time: 5:32)

Complexities involved in Traditional Model

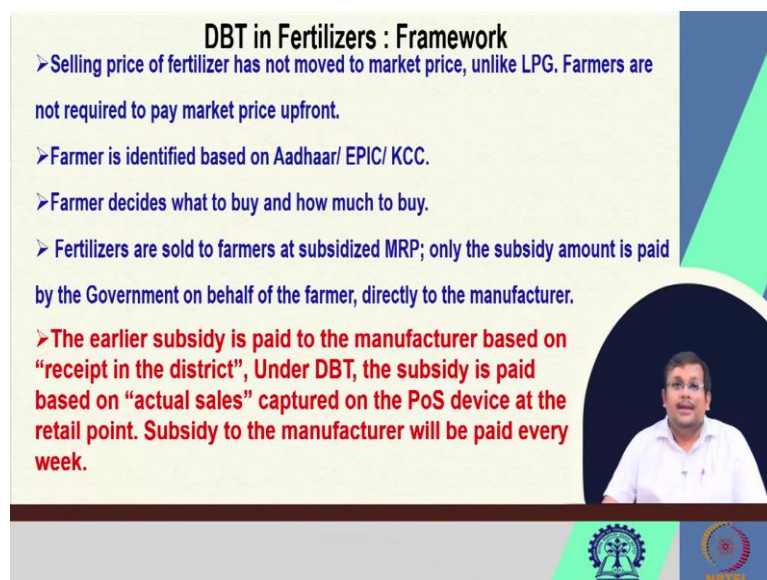
- DBT in Fertilizers is much more complex than DBT in other schemes.
- The Beneficiary is not defined. (Presently any one is allowed to purchase fertilizer).
- Beneficiary entitlement is not defined.
- Subsidy amount is **more than twice of subsidized price. (Moving MRP to Market Price will cause huge burden on farmers as he will be required to pay market price upfront.)**
- Multiple products (Urea, P&K etc) have varied subsidy amounts.
- Subsidy component varies plant / Company wise even for the same product.



Now, complexities, what are the complexities which are involved in the traditional model? If we want to replicate the same in case of fertilizer. Now, DBT in fertilizer is much more complex than DBT in other schemes because first of all the beneficiary is not defined presently anyone is allowed to purchase the fertilizer. So, in case of LPG the beneficiary is defined suppose you cannot get more than one connection of LPG. However, now, the beneficiaries are not defined in case of purchase of fertilizers. So, and also beneficiary entitlement is also not defined. So, subsidy amount is more than twice the subsidized price this is the more this is a major difficulty in case of DBT in case of fertilizer, so, the subsidy amount is more than twice of the subsidized price.

So, moving the MRP to market price will cause huge burden on the farmers as he will be required to pay the market price upfront. Now, if somebody has to follow the same traditional model of DBT for fertilizer, then a farmer has to pay the market price upfront and then wait for the subsidy to be transferred to his or her account. Now, and also multiple products are available with various subsidy amounts like urea, phosphate, potash, fertilizers and they have variety of subsidy amounts. Now subsidy component varies plant and company wise even for the same product.

(Refer Slide Time: 7:25)



DBT in Fertilizers : Framework

- Selling price of fertilizer has not moved to market price, unlike LPG. Farmers are not required to pay market price upfront.
- Farmer is identified based on Aadhaar/ EPIC/ KCC.
- Farmer decides what to buy and how much to buy.
- Fertilizers are sold to farmers at subsidized MRP; only the subsidy amount is paid by the Government on behalf of the farmer, directly to the manufacturer.
- **The earlier subsidy is paid to the manufacturer based on "receipt in the district", Under DBT, the subsidy is paid based on "actual sales" captured on the PoS device at the retail point. Subsidy to the manufacturer will be paid every week.**

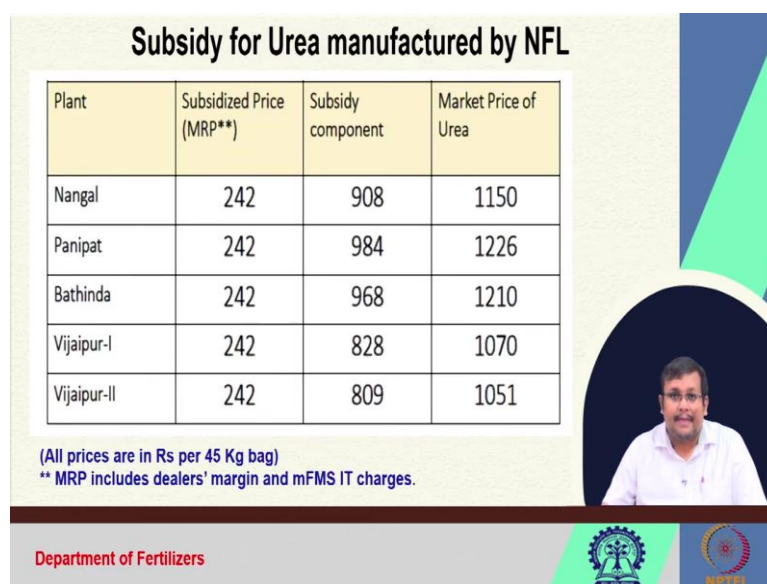
The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for the Government of India and SPTCL.

Now, what is the framework of DBT in fertilizers? Now, selling price of fertilizer has not moved to market price unlike LPG, so farmers are not required to pay the market price upfront. Now farmer is generally identified based on Aadhaar or electrical, the voter ID card and also the Kisan credit card. And farmers decide, a farmer decides what to buy and how much to buy? And fertilizers are sold to farmers at subsidized MRP only the subsidy amount

is paid by the government on behalf of the farmer directly to the manufacturer. So, here farmer procures the fertilizer at subsidized price and the subsidy amount is paid by the government directly to the manufacturer on behalf of the farmers.

Now, the earlier subsidies paid to the manufacturer based on receipt in the district, under this direct benefit transfer the subsidy is paid based on actual sales captured on the point-of-sale device at the retail point and subsidy to the manufacturer will be paid every week. Instead of several months which the earliest subsidy has to, was used to be paid in every several months. Now, it the subsidy to the manufacturer will be paid every week.

(Refer Slide Time: 9:00)




Subsidy for Urea manufactured by NFL

Plant	Subsidized Price (MRP**)	Subsidy component	Market Price of Urea
Nangal	242	908	1150
Panipat	242	984	1226
Bathinda	242	968	1210
Vijaipur-I	242	828	1070
Vijaipur-II	242	809	1051

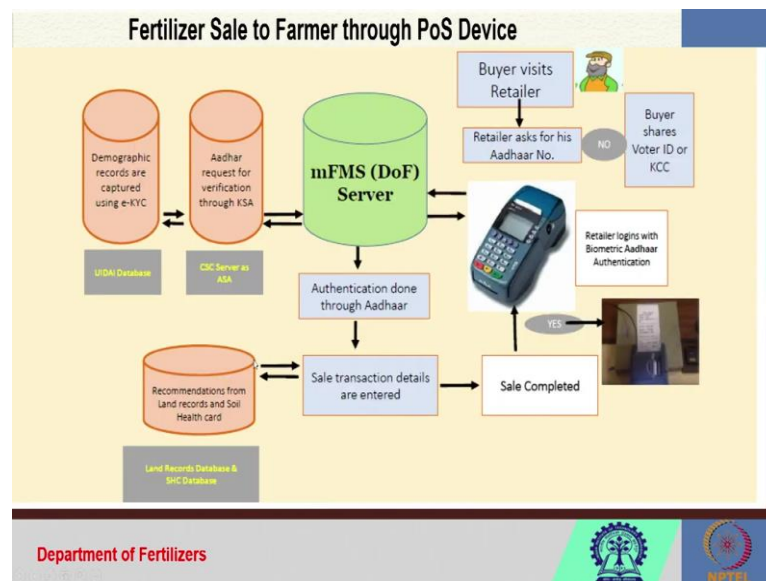
(All prices are in Rs per 45 Kg bag)
** MRP includes dealers' margin and mFMS IT charges.

Department of Fertilizers



Now, let us see some subsidy for urea manufactured by Nagarjuna fertilizer limited. So, we can see at the Nangle plant we can see the subsidized price is same for all the plant Nangal, Panipat, Bhatinda, Vijaipur-I and Vijaipur-II. But the subsidy components varies from 809 rupees to 984 rupees we can see here and the market price is also varying from different plant products. So, we can see these all-product prices are in rupees per 45 kg bag. So, you can see that subsidy component varies from location to location and market price varies however, the subsidized price is uniform across India.

(Refer Slide Time: 9:53)



Now, how this whole thing of DBT generally is operated. So, first of all the demographic records are captured using these electronic KYC that means know your customers and then Aadhaar request for verification, Aadhaar verification is done. So, first these UIDIA database which we have demographic records are captured using these e-KYC and then the Aadhaar verification is done and then the information goes to the server Department of fertilizers. Now, also, so, if any buyer visits the retailer, the retailer asked for his Aadhaar number of the buyer or farmer and if there is no Aadhaar number, then buyers share voter ID or Kisan credit card number. So, once these retailer logs in with biometric Aadhaar authentication, then this information will go to server the server will check this Aadhaar authentication and then authentication done once the authentication is done so Aadhaar, then sale transaction details are entered.

And then we can get it will consult this recommendation from land records and soil health card database and ultimately, it will go to the sale completion. Once the sale is completion, then we will get the receipts. So, buyer first visit the retailer, the retailer ask for the Aadhaar number and then enter the login the retailer login and then it goes to the request goes to the server for authentication and then once authentication of the Aadhaar authentication is done through Aadhaar then sale transaction is commenced with the recommendation from land records and soil health card scheme and then the sale is completed and the receipt is generated. So, this is how the fertilizer center farmers so PoS device. So, this is a PoS device you can see here.

(Refer Slide Time: 12:02)

Evaluation Studies & Feedback :

- Implementation of iFMS/ DBT System has streamlined the Fertilizer distribution
- Improved Supply : "Nil shortage" of urea owing to neem coating
- Improved Tracking Through iFMS
- Overcharging has reduced
- Scared to Buy Large Quantities: Both retailers and farmers are aware of this fact because of Aadhaar Authentication

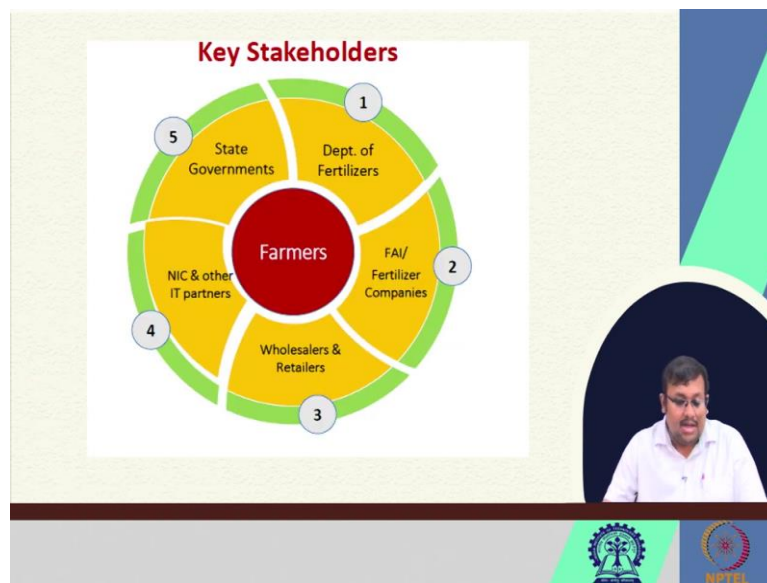
Now, we have seen that the implementation of this integrated financial management system or DBT system has streamlined the fertilizer distribution and it improved the supply because there is nil shortage of urea owing to neem coating. So, where it improved the supply the and due to the presence of neem coated urea there is nil shortage of urea because when there is an neem coated urea it is a slow release fertilizer. So, basically our controlled release fertilizer, so, there is no further shortage anymore of urea then improving improve cracking through iFMS. So, integrated farmers financial management system you can track it in a better way, then overcharging has reduced and both retailers and farmers are scared to buy the large quantities because they are aware of this fact because of this Aadhaar authentication.

(Refer Slide Time: 13:11)

- Reduction of illegal cross border sales. (e.g. Kishanganj to Nepal and Bangladesh & Karnal district of Haryana to Uttar Pradesh)
- Transaction experience has been improved and easy for farmers as authentication attempts have decreased.
- Peak Season Sales – Provision has been provided for additional 5 devices at single Retail Outlet to handle Peak Season Sale.
- Based on positive assessment of Pilot Implementation PAN India rollout of DBT was initiated.

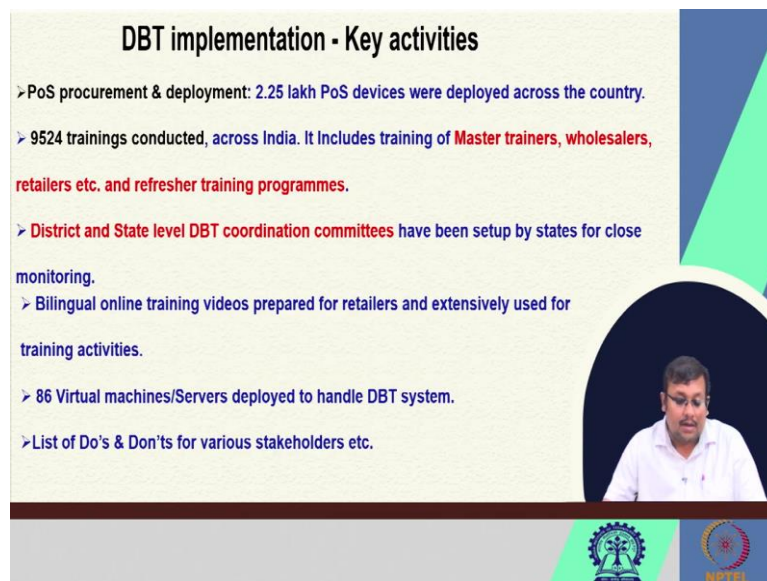
So, these are the benefits of using these DBT scheme by the government and there is also reduction of illegal cross border sales. Due to these DBT and transaction experience has been improved and easy for farmers as authentication attempts have decreased and peak season sale during the peak season sales to handle the retail outlet at the peak season sale the provisions has been provided for additional five devices. Now, based on Positive assessment of pilot implementation, Pan India rollout of DBT was initiated. So, this is how the Positive assessment was done and Pan India rollout was of DBT was initiated.

(Refer Slide Time: 13:54)



Now, what are the key stakeholders of the DBT you can see department of fertilizers and then fertilizer Association of India and fertilizer companies, wholesaler and retailers then National Information Centre and other IT partners are there and state governments. So, all these are there as key stakeholders in the DBT scheme.

(Refer Slide Time: 14:24)



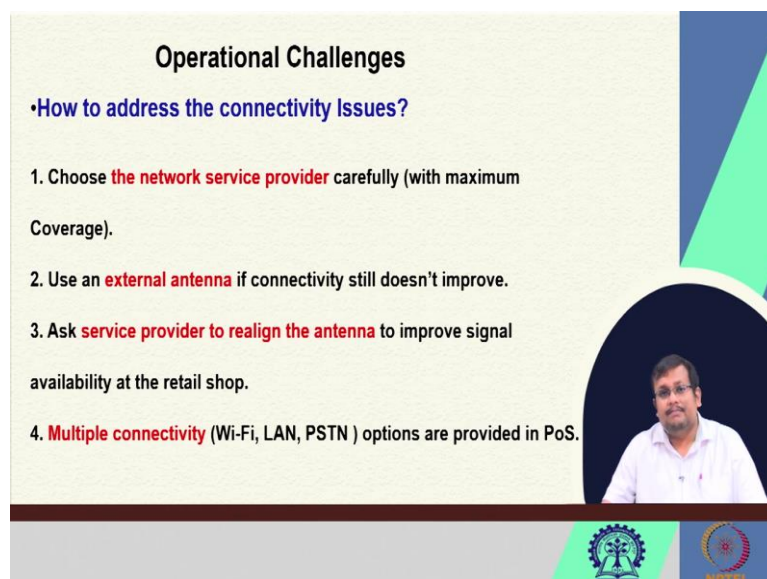
DBT implementation - Key activities

- PoS procurement & deployment: 2.25 lakh PoS devices were deployed across the country.
- 9524 trainings conducted, across India. It includes training of **Master trainers, wholesalers, retailers etc. and refresher training programmes.**
- **District and State level DBT coordination committees** have been setup by states for close monitoring.
- Bilingual online training videos prepared for retailers and extensively used for training activities.
- 86 Virtual machines/Servers deployed to handle DBT system.
- List of Do's & Don'ts for various stakeholders etc.

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for a university and NPTEL.

Now, for DBT implementation, what are the key activities? Generally for PoS procurement and deployment we have seen that there are 2.25 lakh PoS devices were deployed across the country. So, it is a huge number. The 9524 trainings were conducted across India it includes training of master trainers, wholesalers, retailers, et cetera and refresher training programmes. District and state level DBT coordination committees have been set up by state for close monitoring. Then bilingual online training videos prepared for retailers and extensively used for training activities. 86 virtual machines or servers deployed to handle the DBT system and also the list of Do's and Don'ts for various stakeholders have been circulated in this DBT scheme.

(Refer Slide Time: 15:24)



Operational Challenges

- How to address the connectivity Issues?

1. Choose **the network service provider** carefully (with maximum Coverage).
2. Use an **external antenna** if connectivity still doesn't improve.
3. Ask **service provider to realign the antenna** to improve signal availability at the retail shop.
4. **Multiple connectivity** (Wi-Fi, LAN, PSTN) options are provided in PoS.

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for a university and NPTEL.

Now, what are the operational challenges? First of all, the major operational challenge is the connectivity issue. So, how to address that connectivity? So, first of all, there is a recommendation to choose the network service provider carefully with maximum coverage then, there has to be a use of an external antenna if connectivity still does not improve and then asking the service provider to realign the antenna to improve the signal availability at the retail shop. And finally, multiple connectivity of Wi-Fi, LAN, PSTN options are provided in the PoS. So, these are some of the options to handle the connectivity issue.

(Refer Slide Time: 16:11)

Operational Challenges

How to avoid stock related issues?

1. Use RO module for fertilizer movement/ sale on a 'REAL TIME BASIS'.
2. Advice retailers to enter stock carefully in PoS Devices.
3. Acknowledge incoming stock on a real-time basis.
4. Once stock is entered :

"DO NOT SELL FERTILIZRS WITHOUT POS"

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for a gear and a tree, and the acronym 'NPTIL'.

Now, how to avoid the stock related issues? Stock related issues and other challenge in operational challenge in this DBT scheme. So, for this stock related issue use of this release order model for fertilizer movement or sale on a real time basis is recommended and advice was given to retail as to enter stock carefully in PoS device acknowledgement, acknowledge the incoming stock on a real time basis and what stock is entered do not sale fertilizer without PoS. So, these are some of the ways to handle the stock related issues.

(Refer Slide Time: 16:57)

Operational Challenges

Grievance Redressal Mechanism:

- Whatsapp
- DBT PMU.
- NIC Support Team
- 15 member Multi-lingual Help Desk.

The slide features a speaker in a white shirt in a circular inset on the right. Logos for IIT Bombay and NPTEL are visible at the bottom.

And also, there shall be there should be a grievance redressal mechanism through either WhatsApp or DBT PMU or NIC support team and there is a 15-member multilingual help desk to address these grievances, what DBT?

(Refer Slide Time: 17:17)

Potential Benefits of DBT

Direct Benefits

- Creates **Aadhaar seeded database** of beneficiaries.
- Provides **transaction visibility** at the level of buyers.
- Links the **actual sales to subsidy payments**.
- Linking **Soil Health Card Data with DBT** would lead to optimal use of nutrients and subsidy savings.
- Significant impact on **prevention of leakage and diversion of fertilizer distribution**.

The slide features a speaker in a white shirt in a circular inset on the right. Logos for IIT Bombay and NPTEL are visible at the bottom.

Now, what are the potential benefits of DBT? Direct benefits, so it creates Aadhaar seeded database for beneficiaries, it provides transaction visibility at the level of the buyers, it links the actual sales to subsidy payments, linking the soil healthcare data with DBT would lead to optimal use of nutrients and subsidy savings. So, we have already discussed the soil health card. So, if the soil healthcare data is already, we can enter this in the DBT that can help in optimal use of nutrients and subsidy savings and it can have a significant impact on

prevention of leakage and diversion of fertilizer distribution. So, these are the direct benefits of DBT.

(Refer Slide Time: 18:10)

Potential Benefits of DBT

Indirect Benefits

- Putting up PoS devices at 2.25 lakh retailers will create a channel that will provide **Unlimited Opportunities for the Government to reach Rural India. This can become a service delivery channel for other ministries.**
- **Digitizing transactions will create the purchase history of farmers, which Financial Institutions can use to provide credit to farmers based on transaction history at Fertilizer outlets.**

What are the indirect benefits? Now, putting up a PoS devices at 2.25 lakh retailer will create a channel that will provide unlimited opportunities for the government to reach rural India and this can become a service delivery channel for other ministries also where they can use this PoS service for providing other services to the farmers. And then digitizing transaction will create the purchase history of the farmers and which financial institution can use to provide credit to farmers based on transaction history at fertilizer outlet. So, these are some indirect benefits.

(Refer Slide Time: 18:49)

Comparison of Payment under DBT

•Previous System:

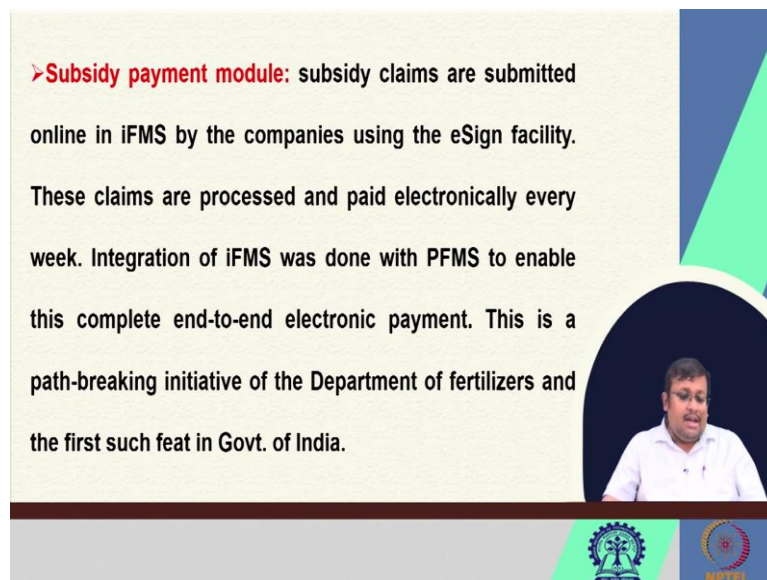
- Payments were made based on quantity received in District.
- It used to take 2-3 months to make payment, e.g., for the quantity received in March, the company became eligible to receive payment in June.

•Under DBT:

- Payments are made every week on the quantity sold through PoS.
- DBT Bills are generated on the 8th, 16th, 23rd, and the last day of every month.
- All bills are electronically processed.
- All approvals are also done electronically.

Now, if we consider if we just compare the previous DBT system and current DBT system. Earlier system, we have seen the payments were made based on the quantity received in district and it used to take 2 to 3 months to make the payment that is for quantity received in March, the company became eligible to receive the payment in June. However, under DBT, we can see that the payments are made every week on the quantity sold through PoS and DBT bills are generated on the 8th, 16th and 23rd and last day of every month and all bills are electronically processed and all approvals are done electronically. So, these are the benefits of using the DBT scheme for rapid payment repayment or rapid dispersal of the subsidy to the manufacturers.

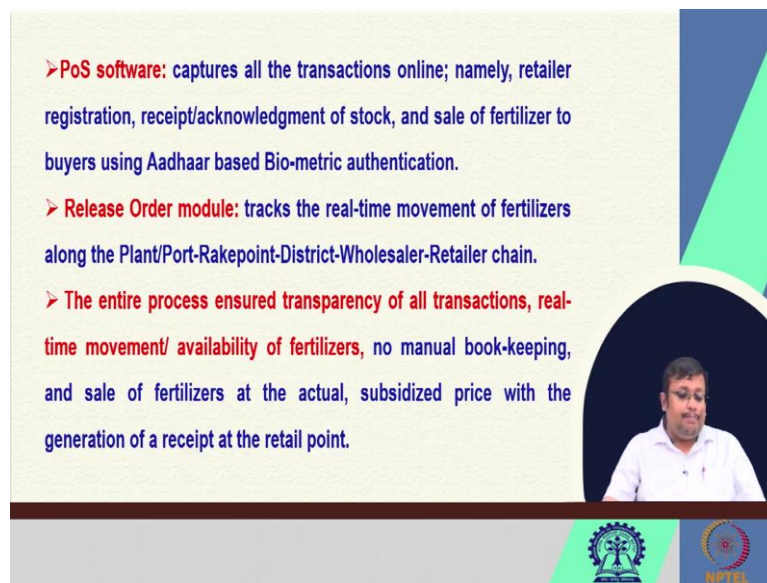
(Refer Slide Time: 19:51)



➤ **Subsidy payment module:** subsidy claims are submitted online in iFMS by the companies using the eSign facility. These claims are processed and paid electronically every week. Integration of iFMS was done with PFMS to enable this complete end-to-end electronic payment. This is a path-breaking initiative of the Department of fertilizers and the first such feat in Govt. of India.

Now subsidy payment model is there so, subsidy claims are submitted online in iFMS by the companies using the eSign facility and these claims are processed and paid electronically every week, integration of iFMS was done with PFMS. PFMS is public financial management system to enable this complete end to end electronic payment and this is a pathbreaking initiative of the Department of fertilizer and the first such feat in government of India. So, this is a very, beneficial scheme for direct dispersal of the subsidy to the manufacture without any delay.

(Refer Slide Time: 20:42)



- **PoS software:** captures all the transactions online; namely, retailer registration, receipt/acknowledgment of stock, and sale of fertilizer to buyers using Aadhaar based Bio-metric authentication.
- **Release Order module:** tracks the real-time movement of fertilizers along the Plant/Port-Rakepoint-District-Wholesaler-Retailer chain.
- **The entire process ensured transparency of all transactions, real-time movement/ availability of fertilizers, no manual book-keeping, and sale of fertilizers at the actual, subsidized price with the generation of a receipt at the retail point.**

Now, also, these PoS software capture all the transaction online, namely retailer registration, receipt or acknowledgement of the stock and sale of fertilizer to buyers using Aadhaar based biometric authentication. The release order module is the RO module which I have already talked it can track the real time movement of fertilizer along the plant port-rakepoint-district-wholesale-retailer chain. So, it can track the real time movement of the fertilizer and the entire process ensure transparency of all transaction, real time movement or availability of the fertilizer, there will be no manual bookkeeping and sale of fertilizer at the actual subsidized price with the generation of receipt at the retail point. So, you can see DBT has several benefits and both for the farmers as well as the manufacturers and there is a very transparent way of dealing with these fertilizer procurement and dispersal of fertilizer subsidy to the manufacturer.

(Refer Slide Time: 21:55)



Now there is a DBT 2 initiative also. So, in the DBT 2 initiative, there is a plan for development of a DBT dashboard and development of PoS 3 software and they are thinking to develop a desktop version of PoS software.

(Refer Slide Time: 22:13)



And this dashboard for this department of fertilizer, State Agriculture Department, district collectors, marketing Federation and cooperative societies are there. There will be list of top 20 buyer state wise and district wise and there will be also frequent buyers list state wise and district wise. Stock availability will be there and we can see availability at the port, availability at the plant, availability in the states, product wise availability and period wise availability in months, season and years.

(Refer Slide Time: 22:43)

Features of DBT PoS software Version 3.0 & Desktop Version

- Provision of **Aadhaar virtual ID option** during registration, login and sale activity in DBT Software.
- Captures sale to farmers, mixture manufacturers, planter association separately. **Multi-lingual facility.**
- Provision for **Soil Health Card (SHC) recommendation**: area-specific, crop-specific recommendations.

The slide includes a video inset of a man in a white shirt speaking. At the bottom, there are logos for the Government of India and NPTEL.

Now, features of DBT PoS software version 3 and desktop version we can see provision of Aadhaar virtual ID option during registration login and sale activity in DBT software, it can capture the sale to farmers, mixture manufacturers and planter association separately with a multilingual facility. It has the provision for soil health card recommendation, which are area specific and crop specific recommendations. So, these are the features of DBT PoS software version 3 and desktop version.

(Refer Slide Time: 23:17)

Features of Desktop version of PoS software

- Declaration from farmer on the operational land holding and crop area.
- Development of Mobile based PoS software.
- Improved version of RO module.
- Farmer-friendly app to know real-time fertilizer availability.
- Limiting quantity of fertilizers to large landholder/commercial firms
- Direct cash transfer to the farmer.

The slide includes a video inset of a man in a white shirt speaking. At the bottom, there are logos for the Government of India and NPTEL.

And there will be declination from farmer on the operational landholding and crop area. So, there will be further development of mobile based PoS software and there will be improved version of release order module. There will be farmer friendly app to know real time fertilizer

availability and there will be limiting quantity of fertilizer to large land holders or commercial firms and direct cash transfer to the farmer. So, these are some of the features of the desktop version of the PoS software.

(Refer Slide Time: 23:52)



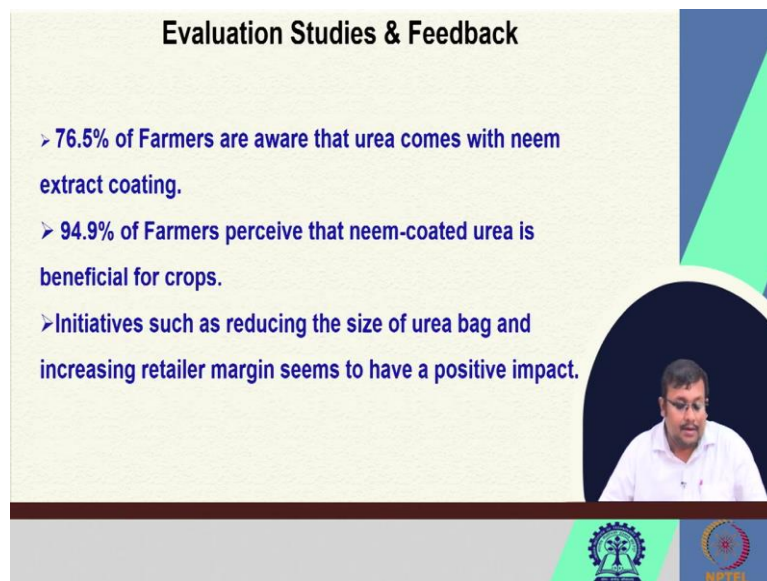
Evaluation Studies & Feedback :

- Preference for Aadhaar based system is increasing among farmers .
- Farmers prefer DBT in Fertilizer because it
 - Tracks actual buyer
 - Reduces black marketing and diversion
 - Reduces overcharging by retailers
 - Induces awareness about the quantity and price of fertilizer

The slide features a speaker in a circular inset on the right side. At the bottom, there are logos for a university and NPTEL.

So, we have seen that after the evaluation of the scheme, the preference for Aadhaar based system is increasing among the farmers. So, farmers are now preferring the Aadhaar based system. Farmers always prefer the DBT in fertilizer because it can track the actual buyer it can reduce the black marketing and diversion. It can reduce the overcharging by the retailers and it can induce the awareness about quantity and price of the fertilizer. So, these are all transparency related issues and that is why farmers are preferring these DBT nowadays.

(Refer Slide Time: 24:37)



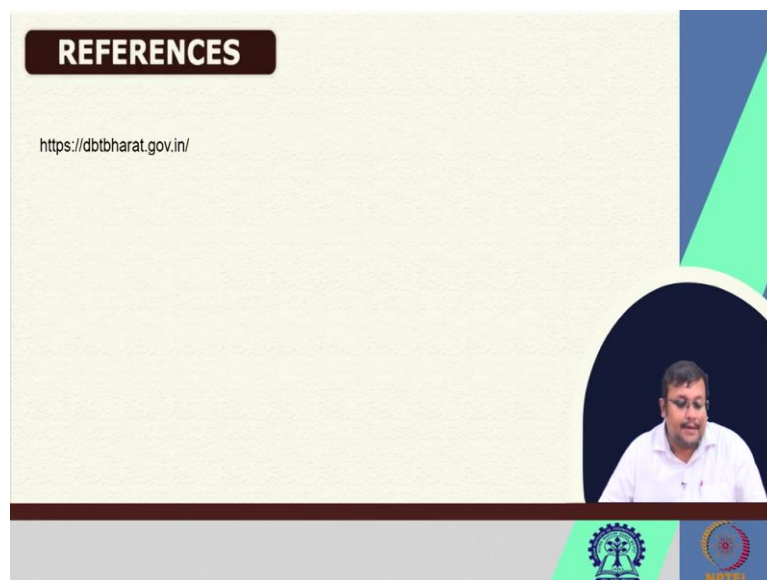
Evaluation Studies & Feedback

- 76.5% of Farmers are aware that urea comes with neem extract coating.
- 94.9% of Farmers perceive that neem-coated urea is beneficial for crops.
- Initiatives such as reducing the size of urea bag and increasing retailer margin seems to have a positive impact.

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for a university and NPTEL.

We have seen that there are 75.6 percent of the farmers are aware that urea comes with neem extract coating, and 94.9 percent of the farmers perceive that neem coated urea is beneficial for crops and initiatives such as reducing the size of the urea bag and increasing retailer margin sales to have a positive impact. So, these are some of the positive impact and feedback for these DBT skills.

(Refer Slide Time: 25:07)






REFERENCES

<https://dbtbharat.gov.in/>

The slide features a video inset of a man in a white shirt speaking. At the bottom, there are logos for a university and NPTEL.

Evaluation Studies & Feedback

- 76.5% of Farmers are aware that urea comes with neem extract coating.
- 94.9% of Farmers perceive that neem-coated urea is beneficial for crops.
- Initiatives such as reducing the size of urea bag and increasing retailer margin seems to have a positive impact.



So, guys, we have wrapped up this lecture and we have discussed the importance of DBT scheme this is a reference which you can consult for more information regarding the DBT scheme, we have discussed the advantages of DBT, what are the ways to who is the farmer can claim the, farmer can buy the fertilizer and the manufacturer can claim the subsidy and what are the end to end process, how the government can periodically disburse the subsidy to the manufacturer and what are the basic difference between traditional Benefit Transfer and the direct benefit transfer here in case of fertilizer we have discussed in details. I hope you have now gathered some in some important knowledge of fertilizer sale and then direct benefit transfer.

Please go through this link for more information regarding the direct benefit transfer. And let us wrap up our lecture here. And we will meet in our next lecture and we will discuss more about the fertilizer quality control, fertilizer adulteration and fertilizer testing in our next lecture, thank you very much.