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**for Staying Healthy & Feeding Evergrowing  
Population World Wide  
12<sup>th</sup>-13<sup>th</sup> September 2021**

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## **DIRECT BENEFIT TRANSFER (DBT) IN AGRICULTURAL RESEARCH AND EDUCATION**

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### **Abstract**

### **Introduction**

Direct Benefit Transfer is a major Government of India reform initiative launched on 1st January, 2013 to simplify the existing delivery processes using modern Information and Communication Technology (ICT). The programmes aim to transfer benefits directly into the bank/postal accounts, preferably Aadhaar seeded, of accurately targeted beneficiaries to ensure a better and timely delivery of benefits to the people. This marks a paradigm shift in the process of delivering the government benefits like wage payments, fuel subsidies, food grain subsidies, scholarships etc. directly to the beneficiaries account thereby speeding up payment processes, facilitating transparency, removing leakages while overall enhancing financial transaction process. The DBT system through customer-friendly processes ensures that the actual disbursement takes place at the doorstep of the beneficiaries through a network of bank branches and Business Correspondents (BCs) with micro ATM machines. Therefore, the DBT is intended to achieve Electronic transfer of benefits, minimising levels involved in benefit flow, Reduced delay in payments, Accurate targeting of the beneficiary and Curbing pilferage and duplication.

The subsidies provided by the Central and the State government in India today stand at about 4% of India's Gross Domestic Product (GDP). Due to transfers of through multiple channels, many times the payment process payment gets delayed and its intangible value to the beneficiary reduces before it reaches him or her. Several government schemes introduced in the past have not been able to achieve their desired goals due to various factors in service delivery. The delay and other hurdles leave a huge leakage gap of 2% of GDP every year. Apart from this, the several levels of sanction processes in the federal structure lead to further delays, thereby creating space for various inefficiencies and duplication of efforts. Thus, subsidies and benefits needed for different sections of the society require a well-targeted system of delivery of benefits to the citizens of the country. DBT will bring efficiency, effectiveness, transparency and accountability in the Government system and infuse confidence of citizens in the governance. Thus, DBT entails leveraging modern technology and IT tools to realize the dream of **MAXIMUM GOVERNANCE and MINIMUM GOVERNMENT**.



The DBT programme envisages a switch from the present electronic transfer of benefits to bank accounts of the beneficiary to transfer of benefits directly to Aadhaar seeded bank accounts of the beneficiaries by Accurate Targeting, De-duplication, Reduction of Fraud, Process Re-engineering of Schemes for simpler flow of information and funds and Greater Accountability.

### **History of Direct Benefit Transfer**

As per the decision taken in the National Committee on DBT, DBT was rolled out in the country in 43 districts, 24 selected Central Sector (CS) and Centrally Sponsored Schemes (CSS) in a phase-wise manner. Accordingly, DBT was launched in 20 districts on 1.1.2013 and 11 districts from 1.2.2013 and remaining 12 districts from 1.3.2013. The districts were identified on the basis of higher incidence of beneficiaries with bank accounts and *Aadhaar* enrolment where flow of funds was found to be relatively simpler. As a result most schemes which were brought under the purview of DBT were related to scholarships, women, child and labour welfare. DBT in LPG (DBTL) was launched phase wise from 1.6.2013. 78 additional districts were targeted for DBT and 3 more Pension schemes were brought under DBT. In Phase II, DBT was further expanded across the country on 12.12.2014 with 7 new scholarship schemes, and modified DBTL for LPG subsidy and National Rural Employment Guarantee Scheme (300 districts) brought under its ambit. Thus, DBT was implemented in 121 districts in 27 identified schemes across the country. To operationalise DBT in government schemes, the framework for electronic payments was laid which is to be followed by all Ministries/Departments and their attached Institutions/PSUs. These guidelines are also applicable to all Central Sector (CS)/Centrally Sponsored Schemes (CSS) and for all schemes where cash component is transferred to individual beneficiaries.

### **DBT Mission**

The DBT Mission was initially created in the Planning Commission to act as the nodal agency for implementation of DBT in government schemes. Presently, the DBT Mission is placed in the Cabinet Secretariat and has been entrusted with the responsibility of implementing DBT in all government subsidy/ welfare programmes throughout the country. The DBT Mission undertakes the study of existing delivery process in government schemes and subsidies and makes efforts to re-engineer the processes to simplify the fund flow, providing policy support, coordinating with various Ministries/ Departments, monitoring of DBT Programme both at Central and State level, data compilation and reports generation on DBT schemes. The DBT schemes are selected on the basis of higher incidence of beneficiaries with bank accounts and where flow of funds was found to be relatively simpler. Accordingly, most schemes are related to scholarships, subsidies, wages, benefits to women and children etc. Initially, the DBT covered schemes that involve cash transfer to beneficiaries. However, as a part of reforms in the Public Distribution System (PDS), Department of Food and Public Distribution started DBT in kind, i.e. distribution of food grains to the beneficiaries

through *Aadhaar*-enabled Point of Sale (PoS) devices. As per the redefined DBT framework, all schemes or components of schemes can be broadly classified into three categories.

i) Cash Transfer from Government to Individual Beneficiary.

Example: PAHAL, MGNREGA, NSAP, etc.

ii) In-kind Transfer from Government to Individual Beneficiary.

Example: Inputs to farmers, Food grains and kerosene through PDS, Medicines, Books etc.

### Prerequisites of direct benefit transfer

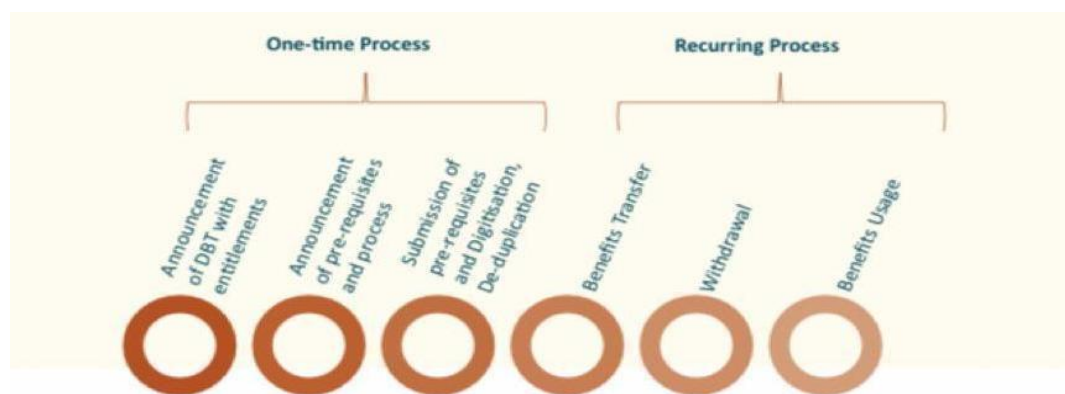
i) Identification of beneficiaries and digitisation of beneficiary database

ii) Opening of bank accounts

iii) *Aadhaar* enrolment

iv) Seeding of *Aadhaar* in beneficiary database and bank accounts

v) Service delivery



**Fig. 1: Beneficiary's journey to DBT**  
(Photo courtesy <https://www.dbtbharat.gov.in/>)

### DBT BHARAT portal

DBT is the high priority and focus area of the Government. In that direction, a DBT Bharat portal (Direct Benefit Transfer Mission, Government of India 2020) was launched in 2016 as a platform for management of all DBT applicable schemes related information. The portal (Direct Benefit Transfer Mission, Government of India 2020) has information on the scheme, beneficiaries and fund transfer details of various schemes of central and state governments.

### DBT through aadhaar seeding

It is envisaged that the Aadhaar will become the single source of identity verification in India. The Unique Identification numbers (UID), named as "Aadhaar", which identifies individuals uniquely on the basis of their demographic and biometric information, will

give residents the means to clearly establish their identity to public and private agencies across the country. *Aadhaar* is mandatory for availing DBT in any of the government welfare schemes. The use of Aadhar in government schemes is done by digitisation of beneficiary databases and making payments directly to the bank account through electronic transfer. However, *Aadhaar* seeding in beneficiary databases and bank accounts is desirable to achieve DBT objectives in its true sense. *Aadhaar* seeding is done by updating the Aadhaar number in the beneficiary database and linking the *Aadhaar* number with the bank account of the beneficiary in the Core Banking System (CBS). *Aadhaar* seeding of bank accounts in the beneficiary database helps in de-duplication and curbing leakages. Use of *Aadhaar* is beneficial to citizens as he or she will not have to carry multiple identity proofs and will provide a faster channel for receiving all welfare payments without any middle-men. The UID numbers are issued to all residents of India who satisfy the verification process that is in place. The issue of an UID number does not establish citizenship rights of the resident who has the number, but it only establishes the identity of the person.

### **AADHAAR PAYMENT BRIDGE SYSTEM**

Aadhaar Payment Bridge is the new payment service offered by the National Payments Corporation of India (NPCI) using the Aadhaar number issued by the Unique Identification Authority of India (UIDAI), known as Aadhaar Payment Bridge System and is referred as “APBS”. APBS will be used for credit transactions for Government/ Government agency disbursements APBS has the following objectives.

- To sub-serve the goal of Government of India (GOI) and Reserve Bank of India (RBI) in furthering Financial Inclusion by way of processing government disbursement using Aadhaar number.
- To promote electronification of retail payments.

### **Public Financial Management System (PFMS)**

The Public Financial Management System (PFMS) (<https://pfms.nic.in>) is a web-based online software application. PFMS is being delivered and implemented by the Controller General of Accounts (CGA), in the Department of Expenditure, Ministry of Finance. The primary objective of PFMS is to facilitate sound Public Financial Management System for Government of India by establishing an efficient fund flow system as well as a payment cum account network. PFMS is the payment platform for disbursal of funds for the schemes covered under DBT. PFMS is crucial for the success of DBT initiative as it provides various stakeholders with a real time, reliable and meaningful management information system and an effective decision support system. It helps in tracking utilisation of funds from the Central Government up to the beneficiary. The PFMS has been made mandatory for payment accounting and reporting under DBT w.e.f. April 1, 2015.



## DBT schemes of the DARE

The Department of Agricultural Research and Education (DARE) and the Indian Council of Agricultural Research (ICAR) under the Ministry of Agriculture and Farmers Welfare have nineteen (19) DBT on boarded central sector schemes. Most of the schemes are student centric i.e. various scholarships and fellowships, in addition a few faculty and farmer centric schemes are also on boarded on the DBT Bharat portal. Out of the total 19 schemes, 18 are related to agricultural education/research wherein the benefit type is cash whereas one agricultural extension is an in kind scheme. The schemes are implemented and monitored by different scheme managers at the ICAR headquarter and ICAR institute level. (Table-1). The schemes on serial number 1-15 are student centric schemes; whereas 16-18 are faculty centric and Agricultural extension is a farmer centric scheme.

**Table1 Schemes of DARE-ICAR integrated with DBT Bharat Portal**

S. No.	Scheme Code	Scheme Name	Benefit type
1	A8A18	AgEdn - IASRI scholarship for MSc and PhD	Cash
2	A73NS	AS_IVRI_Institute Scholarship for M.V.Sc. And Ph.D.	Cash
3	AMVTA	AS_NDRI_Institute Scholarship For MSc And PhD	Cash
4	AYTEW	CS- IARI Scholarship	Cash
5	ATUOB	FS - CIFE -Institutional Fellowship	Cash
6	AB5OP	AgEdn - ICAR Senior Research Fellowship	Cash
7	A4AF1	AgEdn - ICAR Junior Research Fellowship	Cash
8	AQ20K	AgEdn - India-Afghanistan Fellowship	Cash
9	AR4YI	AgEdn - India-Africa Fellowship	Cash
10	A7N6H	AgEdn - Merit Cum Means Scholarship	Cash
11	ALMOJ	AgEdn - National Talent Scholarship PG	Cash
12	AN084	AgEdn - National Talent Scholarship UG	Cash
13	A5IPK	AgEdn - NetajiSubhas ICAR International Fellowship	Cash
14	AY4IO	AgEdn - Post Matric Scholarship	Cash
15	AL11P	AgEdn - Student READY	Cash
16	ASM63	AgEdn - ICAR Emeritus Professor	Cash
17	A8MN1	AgEdn - ICAR Emeritus Scientist	Cash
18	AXDCI	AgEdn - ICAR National Professor and National Fellow	Cash
19	AWU5S	Agriculture Extension	In Kind

## Scheme notification

The fifteen schemes of the DARE have been notified under section-7 of the Aadhar Act (<https://dbtdare.icar.gov.in/Files/213777.pdf>). Therefore, every beneficiary desirous of availing the benefits under the notified schemes is required to furnish proof of possession of Aadhaar or undergo Aadhaar authentication. Every beneficiary desirous of availing the benefits under the Schemes, who does not possess an Aadhaar or has not yet enrolled for Aadhaar shall have to apply for Aadhaar enrolment, provided

he or she is entitled to obtain Aadhaar as per the provisions of section 3 of the said Act, and such individuals may visit any Aadhaar enrolment centre (list available at Unique Identification Authority of India (UIDAI) website [www.uidai.gov.in](http://www.uidai.gov.in)) for Aadhaar enrolment.

## **END TO END DIGITISATION OF DBT SCHEMES**

All Ministries/Departments require developing end to end digitisation of the DBT on boarded schemes for which a provision has to be created for online and mobile-based self-registration by beneficiaries. The online provision should enable the beneficiary to not just submit requests for new applications, but also for renewals, modification in application and subsequent benefits. The web-link for the registration/application page of all DBT Schemes will be shared with DBT Mission for making it available on public-page of DBT Bharat portal (<https://dbtbharat.gov.in/scheme/scheme-list>). For schemes, where States/implementing agencies have separate application portals, web-links for all States / UTs are required to be hosted on a single web-page centrally and provided to DBT Mission. The provision of "offline" application or application through Kiosks may continue, if necessary in the interest of the beneficiary and nature of the scheme. However, the same would only be provided as an additional provision. The provision for online application is still required to be enabled for all DBT schemes. Further, it needs to be ensured that all offline applications are 'timely' digitized through suitable mechanisms.

To facilitate and simplify the end to end digitisation of the DBT schemes, the application form is to be simple and user-friendly. The Aadhaar number and mobile number of the beneficiaries need to be collected at the time of registration. All DBT schemes notified under Section-7 of Aadhaar Act and Aadhaar authentication of beneficiaries (Biometric, OTP-based and/or Demographic based) to be conducted for all beneficiaries. In case of failure of Aadhaar authentication, beneficiaries may be provided provision to correct the issue and resubmit requests for Aadhaar authentication. Aadhaar number of all beneficiaries may be stored as per the provisions of Aadhaar Act and regulations. The beneficiaries may be able to track the status of their application (accepted, rejected, under process etc.) as per the nature of scheme through online facility.

## **SERVICE PLUS (SP)**

The DARE has configured the DBT applicable schemes on the ServicePlus (National Informatics Centre 2020). ServicePlus is a meta-data based e-Service delivery framework which is built on Low Code-No Code (LCNC) architecture for delivering electronic-services to citizens developed by NIC. This is an application which is quick to learn and easy to use with minimal effort or very less skill set. The ServicePlus application is an easy configurable application, for digitization of such services/tasks.

The ServicePlus application is already integrated with the UIDAI database for Aadhaar authentication, PFMS, UMANG and Digilocker. The main features of the ServicePlus are:

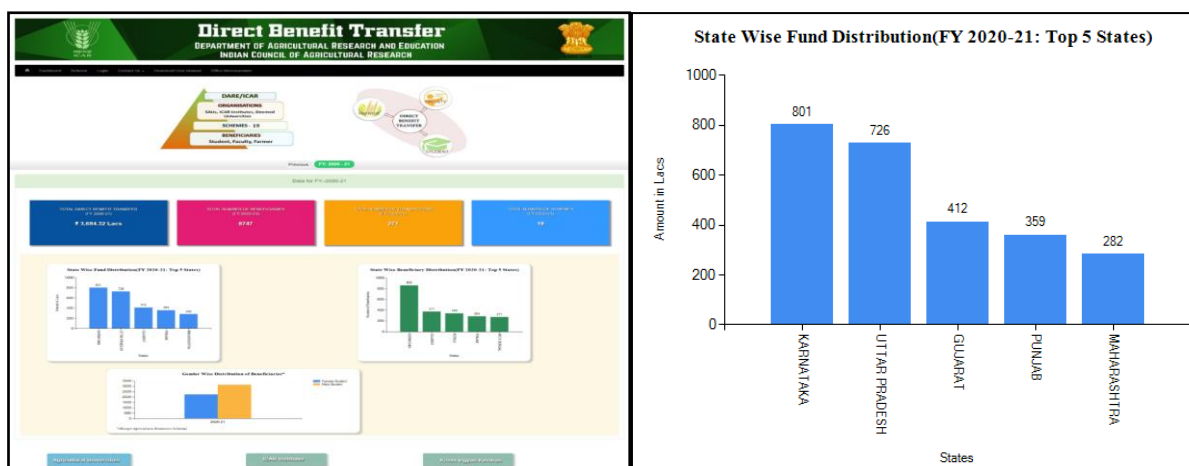
- Build Software through Dictate, Design & Deploy
- Interactive, Intelligent & Interoperable
- Automated Data Migration
- Integrated Dynamic Report Generation
- Systematic Process Flow Management

## UNIFIED MOBILE APPLICATION FOR NEW-AGE GOVERNANCE (UMANG)

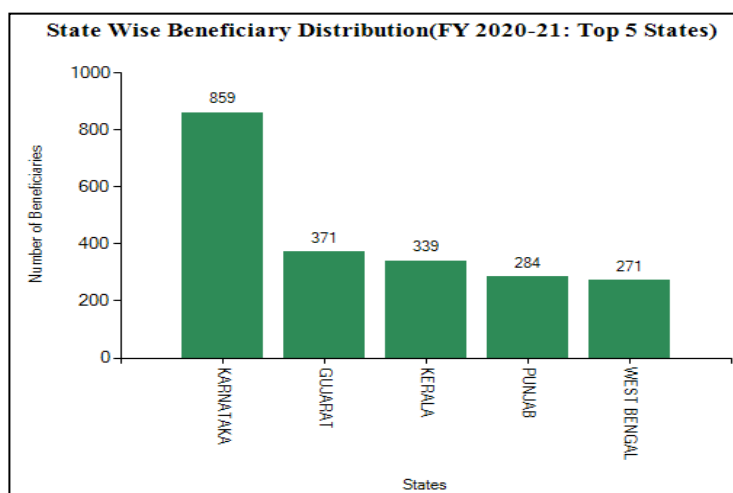
The Unified Mobile Application for New-age Governance (UMANG) (<https://web.umang.gov.in>) is developed by the Ministry of Electronics and Information Technology (MeitY) and National e-Governance Division (NeGD) to drive Mobile Governance in India. It provides a single platform for all Indian Citizens to access pan India e-Gov services ranging from Central to Local Government bodies. All the DBT schemes shall be onboarded on the UMANG application in due course of time.

## DBT-DARE MANAGEMENT INFORMATION SYSTEM

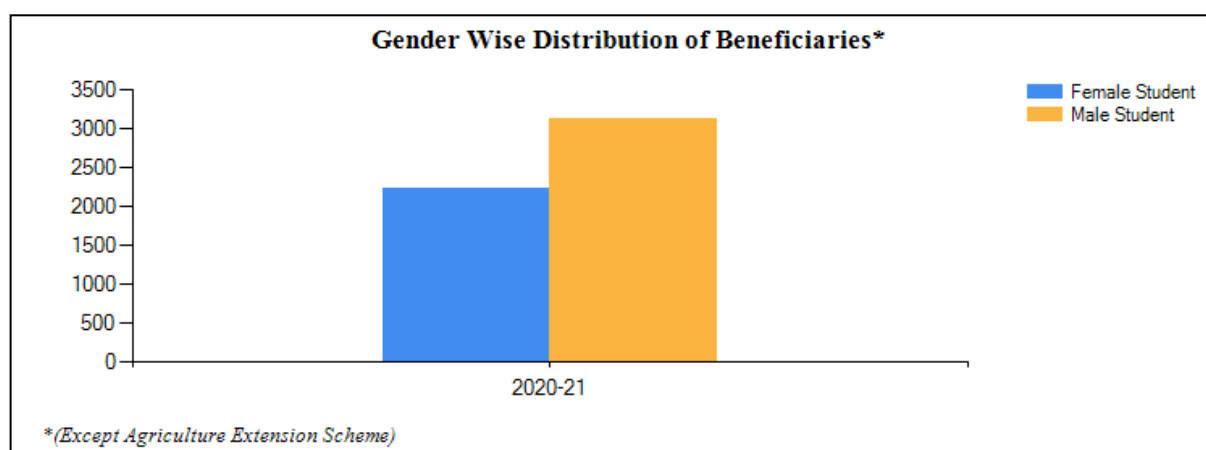
Each Ministry/Department needs to ensure that DBT Bharat portal should be updated regularly: a) Scheme Description including Budget details in Section I; b) Regular submission of District-wise monthly progress report through web-services; c) Estimated savings/gain, if any. Therefore, for management and reporting of scheme related information with respect to the beneficiary and transaction for all the 19 on boarded schemes of DARE-ICAR, a Management Information System (MIS) (Pal *et al.*, 2020) is developed at the national level and hosted (<https://dbtdare.icar.gov.in>) in the ICAR Data Centre at Indian Agricultural Statistics Research Institute (IASRI), New Delhi. This application is developed using .NET framework and uses web service for data exchange with the national level DBT Bharat portal. Each institution/agricultural university is required to provide the information with respect to the schemes being implemented at their organization.



**Fig. 2: DBT-DARE Management Information System Fig. 3: State wise fund distribution**



**Figure 4: State wise beneficiary distribution**



**Fig. 5: Gender wise distribution of beneficiaries**

### Monthly progress report

The data uploaded by the stakeholders are summed up scheme-wise in the system and the Monthly Progress Report (MPR) based on certain parameters viz. total number of beneficiaries (cumulative for the financial year), total number of transactions (monthly basis) and total fund transfer/expenditure (monthly basis) is produced. Thus, a total of nineteen (19) MPRs are generated for all the schemes in the system automatically on a monthly basis. This data under each scheme is approved by the DBT Cell (DARE-ICAR) every month before it is transferred to the DBT Bharat portal. The monthly progress report information is pulled by DBT Mission of India (<https://dbtbharat.gov.in/>) on a prefixed date and time to update the same in the national level DBT Bharat Portal. This data pulling is done by a scheduler through web service. The data exchange between two portals is done through Web Application Programming Interface (WebAPI). In the present scenario, Representational State Transfer (REST) APIs have been used for sharing of data.

## Conclusion

Agriculture is the backbone of India's rapidly-transforming economy, and one of the major challenges is the timely and targeted disbursement of funds for the government schemes. Direct Benefit Transfers (DBT) is paying benefits straight into the bank accounts of beneficiaries is seen as one of the most promising pathways to enhance the efficiency of government programs. The DBT has also been introduced in the farm sector, including higher agricultural research and education and it will be very important to ensure timely disbursement of the funds to achieve maximum benefits from the schemes.

## References

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