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संयुक्त सचिव

भारत सरकार

उपभोक्ता मामले, खाद्य और सार्वजनिक वितरण मंत्रालय

खाद्य और सार्वजनिक वितरण विभाग

कृषि भवन, नई दिल्ली - 110001

JOINT SECRETARY

GOVERNMENT OF INDIA

MINISTRY OF CONSUMER AFFAIRS,

FOOD & PUBLIC DISTRIBUTION

DEPARTMENT OF FOOD AND PUBLIC DISTRIBUTION

KRISHI BHAWAN, NEW DELHI-110001

2nd 02/11/18
Dated the November , 2018

D.O. No. 9(1)/2018- Comp. Cell

Dear Sir/Madam,

You may be aware that in the National Conference of Food Secretaries of all the States/UTs on 'PDS Reforms and New Initiatives' held recently at Goa on 8th & 9th October 2018, the importance of 'mainstreaming of data analytics in PDS' was highlighted to bring about continuing improvements in the functioning and effectiveness of the Public Distribution System (PDS).

2. During the conference, an approach for data analytics at the State/UT level was discussed and the findings of such exercises done by few a States albeit on limited data sets, were also shared. The discussions provided valuable insights into the quality of implementation of different components of the End-to-End Computerization of PDS Operations Scheme, including FPS automation, in addition to focusing on areas, and scope for data-driven improvements in PDS operations.

3. Therefore, with a view to introducing the use of Data Analytics on PDS data in all States/UTs to enable them to identify the respective areas of improvement, streamlining PDS operations, and to facilitate rightful targeting of food subsidy under the NFSA, this Department has prepared a list of parameters to be considered for carrying out Data Analytics within the State/UT. A central team of data analysts is being set-up in this Department, comprising of experts engaged by this Department (from GIZ and WFP). This approach will not only help the States/UTs in preparing the ground for data analytics-driven interventions for continuing improvements, but also help them in building capacity at their level for undertaking regular and need-based analysis of their PDS data independently and uninterruptedly.

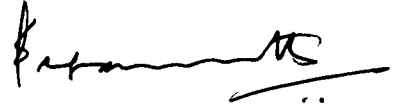
4. As part of this approach, a 2-3 member team of data analysts shall be visiting different States/UTs as per a tentative schedule (copy enclosed) to work in collaboration with State/UT's nodal officers and technical team to carry out Data Analytics of PDS data on some pre-defined parameters (copy enclosed). These analyses will be run on the entire PDS database and only the abstracts will be used by the central team to perform an in-depth analysis. Thereafter, its results and findings will be shared both with you and this Department for necessary action and feedback.

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5. To ensure the success of this exercise, I would request you to extend all the necessary support and access to PDS data to the visiting central team of data analysts. It would also be helpful if you may kindly nominate a dedicated Nodal Officer to act as a single point of contact for all coordination and facilitation purposes for this activity, and provide the contact details to this Department before 10th November, 2018.

With Regards,

Yours sincerely,



(S. Jagannathan)

Encl: As above

Principal Secretary / Secretary
Food & Civil Supplies Department
(All States/UTs)

Parameters to be considered in data analytics of PDS operations

Sr. No.	Ration Card Management System
1.	Frequent changes in ration card details to be examined considering following Date of last Aadhaar seeding and history of modification in Aadhaar number Date of last modification in ration card and history of changes in ration cards like addition/deletion of member, changes in card types, etc.
2.	Number of members attached to the ration card
3.	Ration cards with only one member
4.	Abnormalities in relationship of members with Head of Household considering Age and relationship type
5.	Difference in calculated Age as per Date of birth of beneficiaries Vs Static Age field of database table
6.	Age wise comparison of beneficiaries Age of beneficiaries more than 90 years Age of beneficiaries more than 60 years Head of Family Vs eldest female member of family
7.	Same beneficiary name, gender and age combination appearing in multiple ration cards
8.	Same Aadhaar number appearing in multiple ration cards
9.	Wrong Aadhaar numbers as per verhoeff algorithm
10.	Same member names repeated in ration cards
11.	Blank or random words appearing in member fields of ration cards
12.	Address field is blank
	FPS Management
13.	Count of AAY & PHH ration cards tagged to a FPS
14.	Count of suspension/cancellation/surrender/restoration of FPS and classification of these suspensions/cancellation based on reasons
15.	Commodity wise allocated quantity to FPSs
16.	How many complaints received against FPSs in last 6 months
17.	What is Geo location or coordinates of FPSs
18.	How many FPSs are closer to each other i) less than 500 meter ii) >500 meter and < 1 KM iii) > 1 KM and < 2 KM iv) > 3 KM
19.	What is ownership type of FPSs i) Under Panchayat: ii) Co-op. Societies: iii) Self-help Group: iv) Individuals: v) Others
20.	History of changes in ownership of FPSs (with reason)

21.	How many times additional ration cards were mapped to a FPS from the suspended FPSs
	Online Allocation and Supply Chain Management
22.	Month-on-month allocation and off-take of foodgrains from FCI depot and State Godown
23.	Month-on-month difference in allocation and distribution of foodgrains
24.	Six months trend in opening and closing balance of FPSs
25.	Variation in foodgrain allocation to FPSs and their respective closing balance of preceding month
26.	Consolidated view of transit losses at major points including State Godown, transportation (FCI to State Godown, State Godown to Secondary Godow) and FPSs
27.	Maximum volume of closing balance left at FPSs during last six months
	FPS Automation
28.	Number of unique ration cards transacted during a month Vs total number of transactions done
29.	Count of specific unique ration card transacted more than 3 times in a month
30.	Ration card transacted under different ration card category (AAY, PHH or State Card Type)
31.	Authentication of ration cards
	Finger biometric
	IRIS biometric
	OTP – UIDAI
	OTP-PDS
	Other mode of authentication
32.	Non-Authenticated transactions
	Bio-Metric authentication was not attempted
	Finger authentication failed (more than 3 times)
	IRIS authentication failed
	PDS -OTP couldn't be generated
	UIDAI –OTP couldn't receive by beneficiaries
33.	Statistics of beneficiary authentication
34.	Count of biometric finger Transactions successful after a) One attempt b) Two attempts c) Three attempts d) More than for three attempts
35.	Attempts were not made after bio-metric failure
36.	OTP generated but didn't key in for authentication
37.	Ration cards carried out authentication and non-authentication transactions in the same month
38.	Suspicious ration cards which do authentication and non-authentication transactions in last six months
39.	Ration cards which have done only non-authenticated or other mode of authentications in last six months
40.	% of allocated foodgrains off-take from FPS

41.	80% of allocated foodgrains off-take from FPSs in a) First 5 days b) Within 10 days c) Within 15 days d) More than 15 days
42.	Quantity sold out by FPSs in last 10 days without using biometric authentication
43.	Number of silent ration cards tagged to FPSs (3/6/9/12 months)
44.	Number of transactions done after office hours (between 7 PM – 8 AM)
45.	Number of transactions done during business holiday/ national holidays
46.	Number of transactions carried out beyond limit of allowed boundary of FPSs (Geo-fencing) [if data available]
47.	Beneficiary off-take Vs allocated quantity a) Beneficiary off-take > allocated quantity b) Beneficiary off-take < allocated quantity
48.	Billed Amount Vs Desired/Calculated amount a) Amount collected from beneficiaries > calculated/desired amount b) Amount collected from beneficiaries < calculated/desired amount
49.	Transactions with zero sold quantity
50.	Same ePoS transaction repeated in data (Same RC, Transaction date/time, quantity sold)
51.	ePoS transactions of FPSs time difference of less than a minute
52.	Discrepancies in data reporting of authentication a) Transaction was not authenticated by authentication flag field shows Yes b) Transaction was authenticated by authentication flag field shows No
53.	Analysis of AUA Logs
54.	Date/time of ePoS transactions/biometric authentication Vs date/time mentioned in AUA logs against same transaction
55.	Aadhaar number of beneficiary Vs Aadhaar number mentioned in AUA logs of ePoS transactions
	Health of ePoS device
56.	How many times ePoS device was rebooted
57.	How many times PDS dealer login in ePoS application a) Using biometric only b) Using username/password only c) Without using any authentication
58.	Single strength of ePoS device
59.	Charger connected or not
60.	Voltage strength
61.	Version number
62.	Reboot logs
63.	IP Address –help in identifying geo location
64.	Mac ID – to uniquely identify device
65.	Geographical locations of devices
66.	SIM installed , in what slot
67.	Request per minute – authentication , through put time, response time,
68.	

69.	PoS device got shutdown due to a) Battery dry b) Operating system failure c) Hang/other system failures
70.	Cancellation of transactions by beneficiaries with reasons