Government Process Re-Engineering Initiative of Loan Redemption Scheme to Empower the Farmers for the Sustained Growth of the Villages

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ABSTRACT: *About 70% of total population of India belongs to rural areas. Uttar Pradesh (UP) is the most populous state of India which is the home of 20 crore people. More than 75% of the state population resides in rural area and 60% population depends on agriculture sector for their livelihood. Generally, farmers have to take crop loan to grow crops so that they could nurture their families, fulfill their basic needs and to feed the nation while farmers face the challenge when crops do not grow up to their expectation because of climate and other reasons, it leads them bankrupt which results that they do not able to repay the loan amount to banks.*
The Government tries to waive off their loan amonts but due to the absence of state of art technology and ideas, the loan waiver scheme gets failed because duplicate and ineligible borrowers take the advantage of crop loan redemption scheme and verification of those takes too much time to filter them out, crop loan redemption process could not complete on time, absence of strict mechanism for the grievances of farmers and the Government faces the revenue loss which hinders the performance of other development and social sector schemes. In this paper, we highlight the various aspects of Crop Loan Redemption scheme implemented by Government of Uttar Pradesh (GoUP) with the help of National Informatics Centre (NIC-UP). We also study and explore Government Process Re-engineering (GPR) model implemented by GoUP through e-Governance to empower the farmers for the sustained growth of the villages in the direction of digital empowerment.
Keywords: *Crop Loan Redemption, e-Governance, Farmer, GoUP, GPR, NIC-UP*

I. INTRODUCTION

India is the second most populous nation of the world while UP is the most populous state of India. [1] In UP, 15,51,11,022 peoples out of 19,95,81,477 belongs to rural areas, as per the Census of India- 2011. [2] Uttar Pradesh is the fifth largest state in India. Geographically, it is situated in one of the most fertile tracts of the country i.e. Ganga and Yamuna basin. It produces not only sufficient food grains for the sustenance of its population but also fulfills the food grains requirement of other states. The economy of Uttar Pradesh is primarily agriculture based with major part of its population living in rural areas heavily dependent upon agriculture and allied activities. In-spite of rich in natural resources, high population density, has resulted into high rural poverty rate.

[3] Agricultural finance is one of the most prominent factors of the rural development strategies used by various development agencies and governments. Huge money has been provided to support the agricultural production and green revolution. [3] The farmers face challenges like access to irrigation, access to fertilizers, cropping patters, access to loan etc. Failure of crop leads the farmers in difficult situation because they are not able to repay the loan amount to banks and they get into the habit of drinking, gambling, violence etc which results the destructive and negative environment amongst the farmers. Sometimes, they commit suicide. This pollutes the healthy environment of villages and hinders the sustained growth of the villages.

[4] Farmer suicides account for 11.2% of all suicides in India. There are number of reasons for farmer suicides, such as monsoon failure, high debt burdens, government policies, public mental health, personal issues while failure of crop is one of the main reasons for the farmer's suicide in India.

To tackle the present situation, various recommendations have been suggested like financial help should be provided in the form of fixed deposit in the bank, with quarterly payment of interest, comprehensive

agricultural insurance scheme, attention should be given to cover cash crops, organic farming to minimize pesticides and fertilizers, Institutionalized credit system should be simplified, Gram Panchayats help suicide prone farmers, money lenders charging the exorbitant rate of interest must be punished. The mainly affected farmers are small and marginal.

Marginal and small farmer [5] owning agricultural land upto 1 hectare and more than 1 hectare to 2 hectares respectively with the name recorded in the record of rights (Khatouni). It includes total agricultural land of farmer, located within the state of UP.

[6] Record of Rights is the proof of ownership of the land parcel. [7] The total numbers of land holdings are 224.57 lakhs out of which 175.07 lakh (78.0%) are marginal farmers, 31.03 lakh (13.8%) small farmers and 18.47 lakh (8.22%) farmers hold land above 2 hectare.

To provide instant relief to the farmers and to provide a fresh loan to farmers for the crop cultivation in nation interest, Government forms crop loan redemption schemes. The existing implementation has many flaws. The existing system does not properly filter out the doubtful cases, there is a lack of latest technology to provide loan redemption in transparent and efficient manner.

[8] In 2008, then Finance Minister announced a scheme known as Agricultural Debt Waiver and Debt Relief Scheme which benefitted around 03 crore small and marginal farmers and another 01 crore farmers under One-Time Settlement scheme.

In 2014, Andhra Pradesh launched Debt Redemption Scheme which waived off agricultural loans of farmers up to 1.5 lakh per family. Under this scheme, 22.79 lakh farmers and their families who availed crop loan up to Rs. 50 thousands each got immediate relief while others whose loan amounts were above Rs. 50 thousands and up to Rs. 1.5 lakh got it repaid by the government in five installments with an initial 20 per cent payment. The Madras High Court recently directed the Tamil Nadu government to extend loan waiver to farmers. The judgment was delivered in the light of the demonstrations by grief-stricken Tamil Nadu farmers in Delhi.In its endeavors toward improving the agriculture ecosystem, the Government of Uttar Pradesh is also taking many initiatives, like adopting scientific approaches to improve productivity, reducing post harvest wastages, skill and agriculture infrastructure development and encouraging agro and food processing. To align with these initiatives and to provide a timely relief to distressed farmers, Government of Uttar Pradesh has launched the loan redemption is biggest so far by any state for upliftment and sustainable development of small and marginal farmers by adopting government process re-engineering and state of art technology in their modus operandi. By evolving the state of art technology, the new system may produce better results.

Process Re-engineering [9] involves changes in structures and in processes within the relative environment. It allows an efficient and effective change in the manner in which work is performed with all the stakeholders by reviewing, redefining and redesigning the existing system. Process Reengineering deals with the optimization. Process Re-engineering adopted by GoUP in crop loan redemption scheme has also focused on Aadhar number. [10] Aadhaar number is a 12-digit random number issued by the Unique Identification Authority of India (UIDAI) to the residents of India after satisfying the verification process laid down by the authority. An individual needs to enrol for Aadhaar only once and after de-duplication only one Aadhaar shall be generated, as the uniqueness is achieved through the process of demographic and biometric de-duplication. It is being used in many social sector schemes to filter out the duplicacy and fake records. Residents of India approach to aadhar enrolment agency for their enrolment with the aadhar. Common Service Centre- Special Purpose Vehicle (CSC-SPV) is a aadhar enrollment agency which does the new enrollments free of cost.

[11] CSCs play a vital role in effective and efficient service delivery at citizen's doorstep. CSCs facilitate various Government to Citizen (G2C) and also Government to Business (G2B) services. [12] G2C services include Aadhar, Permanent Account Number, Passport, Birth and Death Certificate, Electricity Bill Payment etc while G2B services include Goods and Services Tax, E-Marketplace, Mobile Recharge etc services. Each Village Panchayat has been targeted to open atleast one CSC for the delivery of government services at villager's doorstep in economical and transparent manner. Under Crop Redemption Scheme, the farmer can approach to CSC for getting the solution of his grievances from concerned authorities without approaching government offices. It saves farmer's time, money and energy which may be transformed to push up the agriculture activities.

II. PROBLEM ASSOCIATED WITH OLD SYSTEM

The existing system to waive off the loan amount included various issues. Government used to disburse the loan amount directly to bank and then bank verified the borrower detail and turned the balance amount to zero by internal transaction of banks.

This process did not involve seamless verification of borrower records. All steps involved human intervention. It invited various issues as below-

➢ Duplicate Borrower- It happend that same borrower took loan on same land parcel again by another bank or place.

➢ Fake Borrower- Names of unknown borrowers might be enlisted by corrupt officials.
➢ Ineligible Borrower- There were various parameters to check the eligibility of borrower but due to the lack of technology and seamless verification process, ineligible borrowers used to get benefitted.
➢ Weak mechanism to filter out the doubtful cases- As there was absence of technology, many doubtful cases got the benefit of loan redemption scheme. The borrowers' database was huge and it was practically not always possible to verify all the records manually which created the reason to select the doubtful cases.
➢ Lack of timely disbursement of loan amount- The manual verification and filtration was a time consuming process while farmers need instant relief to grow new crops in the crop season.
➢ Lack of timely disposal of grievances- The grievance disposal mechanism was very weak because it involved manual receiving of complaints and disposal after manual verification of records. It was very difficult for the farmers to track their grievances.
➢ Absence of State of Art Technology and Ideas- The technology was alien in existing system, It's absence make the whole process cumbersome.
➢ Lack of Transparency- There was lack of transparency in selection of eligible borrower, loan redemption, grievance redressal etc. There was complete absence of dynamic and centralize mechanism to supervise and monitor the overall activities performed by the concerned authorities.
➢ Revenue Loss- Government used to face huge loss due to the selection of ineligible borrowers. They were selected because of human intervention in the system. Evolution of technology and minimization of human intervention resolve it.
➢ Absence of Aadhar- Aadhar number is a unique resident number. It captures the duplicity in huge data which was not possible with old system.

III. LOAN REDEMPTION SCHEME

GoUP is committed to redeem crop loans up to rupees 1 lakh of individual small and marginal farmers, whose crop loans were disbursed by lending institutions on or before 31 March 2016. This redemption would be done after adjusting the repayments/credits received from the farmer during Financial Year (FY) 2016-17.

Criteria for the scheme:
➢ The farmer taking the loan, bank branch (through which the loan has been granted) and the farmer's owned land, all shall be in the state of Uttar Pradesh
➢ The total area of all the lands owned by the Small farmer would not exceed 2 hectares and by the marginal farmers would not exceed 1 hectare
➢ The farmer whose crop loans were restructured due to occurrence of natural calamities in accordance with the guidelines of the Reserve Bank of India (RBI) will be covered under this scheme.
➢ Crop loans taken by farmers for cultivation on government-leased land, as per the Revenue Records of government

1.1 Loans to be excluded from the scheme are as follows:
➢ Crop loans availed by Self Help Groups (SHGs) and Joint Liability Groups (JLGs)
➢ Loans to farmers by companies or corporate guaranteed loans even though disbursed by lending institutions and loans given by other institutions like Trusts, Partnerships, Micro Finance Institutions (MFIs)/ Urban Cooperative Banks (UCBs)
➢ Loans extended to sugar factories for onward lending to member farmers
➢ Term loans given for any purposes
➢ Loan or cash credit accounts given for fisheries or any kind of activities allied to agriculture
➢ Any crop loan taken by particular farmer against the same piece of land, for the same purpose but from more than one bank would not be eligible for any redemption.
➢ However, if the farmer has availed the loan from multiple banks for multiple crops against the security of different agricultural lands, the redemption would be given on proportional basis, subject to a maximum aggregate of INR 1 lakh
➢ Cases where money withdrawn from the Kisan Credit Card (KCC) account has been misutilized or not used for crop purposes, but deposited in any term/ recurring deposit account

1.2 Implementation Strategy of Government Process Re-engineering Approach- Crop Loan Redemption Scheme
GPR redefines the process of crop loan redemption scheme. It is helpful to deliver the better results by implementing the best practices and innovative ideas through information technology. GPR is adopted for the transfer of benefit in effective and efficient manner so that the farmers could be benefitted in a transparent and time bound manner, without the leakage of funds and also the sustained growth of the villages can be achieved.

The following steps have been followed for the transfer of benefit to the farmers in a transparent and efficient manner and within the time frame. Figure 1 shows the life cycle of the crop loan redemption scheme.

1. NIC developed a process re-reengineering portal, upkisankarjrahat.upsdc.gov.in, for shifting all the manual proceedings over the internet. The portal transformed the manual work culture of the scheme to the automation which helps to minimize human intervention and to gear up the process life cycle of the crop loan redemption scheme.

2. The respective state level nodal officers of banks uploaded the data on the portal in prescribed format which contains the farmer's basic information, land and loan account Kisan Credit Card (KCC) detail etc.

3. Directorate of Institutional Finance- UP sent the digitally verified bank data to department of Agriculture through farmer loan redemption portal.

4. Department of agriculture provided the data to Co- Secretary of District Level Empowered Committee (DLC) of the concerned district.

5. The Co-Secretary of DLC digitally signed the records and all the data automatically made available to the branches of concerned banks situated in respective district for further mapping of records with Aadhar and Bhulekh/Land records.

6. After mapping the data in time bound manner. NIC generated three types of list- Aadhar seeded, Aadhar non-seeded, non- Bhulekh Mapped. The records were checked on 14 State Filters, 20 District Filters and 07 Filters applied during demand generation at district. Few important of them are as below-

➢ Outstanding loan amount-repayment amount greater than 0
➢ Oustanading amount greater than 3 lacs
➢ Limit disbursement date greater than 31/03/2016
➢ Duplicate record on valid 12 digita aadhar number after UIDAI verification
➢ Duplicate record on various parameters
➢ Farmer name in bank different from bhulekh data
➢ Land of farmer in other district from where he take loan
➢ Land area filled by bank greater than 2 hect.
➢ Land Details in chakbandi and survey village
➢ Non bhulekh mapped records
➢ Loan given on other than khatouni and patta
➢ Farmer category other than Small and Marginal
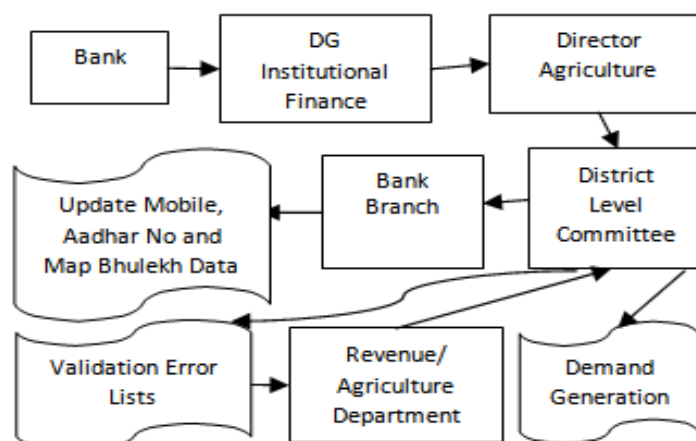➢ Aadhar and Gata number same

Fig. 1: Life Cycle of the Workflow

The records could be checked on such filters only because of digitization of all the offline records. These records enlisted under various filters were available on single click for verification by bank and tehsil officials. It reduces the time loss and revenue loss to make the system more convenient and accountable for the farmers.

7. In first phase aadhar seeded data was entertained because it was aadhar seeded which helped to filter out the duplicate and doubtful records. Also, it requires lesser verification.

8. Then again portal allowed for bank branches and tehsil officials to mark eligible or ineligible borrowers as per the guidelines of loan redemption scheme after the physical verification.

9. On the basis of recommendation of bank and tehsil officials, DLC approved the list of borrowers and generated the demand for the payment and cleared off the balance of crop loan of eligible borrowers.

10. To resolve the issues of the farmers, an online grievance module was integrated with the portal to receive and resolve the grievances of farmers online. The complaints were received by both online and offline mode.
11. After the completion of first phase, again the remaining records were mapped with Aadhar and the further process is repeated for the remaining farmers in 2nd phase while all non- Aadhar, doubtful and fuzzy records were seamlessly verified on ground level to provide the benefit to the farmers in 3rd phase.

1.3 Impact towards the empowerment of the farmers
1. Farmers come out from the trap of money lenders. They do not fall back into the debt trap and get a fresh start.
2. Farmers stop to move out from villages to cities for earning and repaying the loan amount. They are physically and mentally available for development of the villages.
3. Farmers are motivated to trust in agricultural sector which engages them in crop production in nation interest.
4. Farmers can grow crops in crop season on time, it makes them financially stable.
5. This scheme protects them from alcohol, gambling and violence due to the mental instability arises because of the crop failure. It creates peaceful, constructive and positive environment in the villages which is required for the sustained growth and development of the villages.
6. Grievance disposal mechanism is very helpful for the farmers which provide platform of disposals in quick, transparent and efficient manner. Farmers do not need to waste their time, money and energy by approaching government offices. They use their energy in crop production with full of enthusiasm.
7. Development of farmers steer the development of the villages which gives opportunity to the farmers to be part of the sustained growth of villages in constructive manner.

IV. RESULTS
The Uttar Pradesh government launched biggest loan redemption to provide benefit to the small and marginal farmers of the state by enhancing their credit worthiness and enabled them to get fresh loan from banks without falling into the moneylenders' trap. Loan data from 76 banks operating in 75 districts of UP was captured. The portal upkisankarjrahat.upsdc.gov.in was developed by considering various parameters and hosted in cloud which resulted to fulfill the functional as well non-functional requirements like usability, scalability, reliability, availability, security, throughput etc. Total 18,000 bank branches, officers from 75 disricts and all state level nodal officers of the bank used the portal without any issue. Table 1 shows that 66,06,980 numbers of borrowers are covered under the scheme while 33,18,692 small and marginal farmers are benefitted and remaining are found not eligible or under verification process for 4th Round. The liability has been transferred to the farmers' loan account. The data volume of 4th round is very little and these are put under awaited category before demand generation of 3rd round. All the records could be categorized under recommendation, non recommendation and awaited category seamlessly because of the filters applied and verification done in time bound manner. Also, the complaint redressal mechanism provides the transparent platform to the farmers.

Table 1: Statistics of Crop Loan Redemption Scheme upto 3rd Round

Number of Small and Marginal Farmers benefitted	3318692
Total Borrowers (Outstanding-Repayment <=0)	6606980
Total Aadhar feeded	4807289
DLC Recommended	3487561
Total Demand Generated	3318692
Total Liability Transferred in crore	20024.36
Total Filter Apply (State & District)	41
Complaint Received	10936

The process re-engineering approach of crop loan redemption scheme not only benefitted the farmers but also the Government by filtering out the illegible cases of borrowers. NIC validated the data on various 41 filters. The effect of the filters on overall government liability is shown in Table-2. These filters reduced the liability of 2440 Crore INR for the Government which can be used in other development and social sector schemes.

Table 2: Effect of the Filters on Overall Government Liability

S.No.	Filter Applied	Total Records Filtered	Total Liability Reduced
1	Excess repayment	1929426	16.5 Crore
2	Duplicate records on Bank, Branch, KCC ACC No, Name, Outstanding Amount, Repayment Amount	43193	179 Crore
3	NPA KCC Accounts in NON NPA Data	13534	51 Crore
4	Invalid Limit Date	19374	29 Crore
5	Other than crop loan	44464	641 Crore

6	Joint Liability Group	4831	15 Crore
7	Invalid Activity Code	256	1.35 Crore
8	Invalid Aadhar No (e.g. 999 or 666)	369	79 Lakh
9	Death with no Successor name	88	31 Lakh
10	Restructured ACC without KCC No	47426	281 Crore
11	Account Closed	14065	30 Crore
12	No Affidavit given by farmers	141646	802 Crore
13	Rejection due to duplicate Aadhar	72325	393 Crore
	Total		2440 Crore

V. CONCLUSION

The government process re-engineering approach of crop loan redemption scheme analyze and re-design the process workflow which improved the overall process in terms of enhanced efficiency, effectiveness, cost, quality and service delivery to the farmers' doorstep. This scheme has benefitted lakhs of small and marginal farmers of the state by enhancing their credit worthiness and enabled them to get fresh loan from banks without falling into the moneylenders' trap. It has given a boost to the agriculture sector. The online grievance redressal mechanism is flawlessly working to resolve the issues of farmers in effective, efficient and time bound manner. Farmers have trust in crop production to feed the nation. The farmer's movement from villages to the cities could not rise to fulfill their family needs and repay the loan amount due to the crop failure. Farmers are available in the villages for development of villages. The government of Uttar Pradesh always stands by them. Such schemes pick up the growth of the villages.

The Government Process Re-engineering Initiative of Loan Redemption Scheme has empowered the farmers for the sustained growth of the villages in the direction of making digitally empowered villages.

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