Web-Enabled Ration Distribution andControlling

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Abstract

E-government is increasingly being used to improve transparency in the government sector and to combat corruption. A well-planned e-government strategy can build a more efficient, accountable and transparent government. We first analyze the theoretical background of anti-corruption strategy which illustrates the advantages of e-government services.

Second, discusses two examples of e-government where corruption was significantly reduced and draws lessons on leadership and managerial issues in deploying information and communication technology (ICT) to combat corruption. In addition, let us discuss the e-government as an anti-corruption strategy in India and point out the urgent tasks for good e-government in India. Finally, let us analyze some challenges to the development of the e-government system and its existing problems.

Here efforts from our side are done to overcome one of the corruption problem involve in ration distribution system through a kind of electrodynamics web template where distribution of kerosene, rice, wheat etc. at rural and urban areas, will be checked, monitored and controlled with filtering the problem of corruption and adulteration .

The website will help us to remotely monitor the kerosene outlet and the vehicles providing the kerosene and ration material till it reaches the storage areas and also the distribution at local people will be done centralize through a web application which will keep record of user id and password for every people with solenoid valve, Hooper valve to control openings of ration outlet etc…this will assure us no involvement of any person directly with distribution system, also whether kerosene disposition is also sensed at web site using proximity sensor through web giving a clear idea about delivery of it.

Keywords:- distribution system, e-government, public login, ration solenoid valve.

I.   INTRODUCTION

Web Enabled Ration Distribution and Controlling is the project that will allow a smooth and easy ration distribution. This paper explains the concept of ration distribution. It also focuses on the project of Web enabled ration distribution and controlling. The project is about using the latest technology in the oldest theory of Ration Distribution of our nation. The prior Ration Distribution was known as Public Distribution System (PDS). This system enabled the distribution of food equally among poor people.In addition to household ration card, all the BPL cardholders are issued with two different colors of coupons separately for rice and kerosene. These coupons are issued in the form of small booklets for a period of one year initially. The printing cost of these booklets is collected from the cardholders @ Rs.5/- each. The rice coupons are supplied with two different quantities i.e. 4 kgs and 8 kgs.[3].Instruments of Observation are State Schedule, District Schedule, Tehsil /Taluka/Block/Sub Division Schedule, Village Panchayat/Town Schedule, Fair Price Shop (Fixed/Mobile) Schedule, Household Schedule (BPL/APL/Non-Beneficiary).[4]

Web Enabled Ration Distribution allows today's latest technology of web/internet to be used to make the work easier for the users. The complete distribution could be viewed on the Internet by any authorized person. This system also reduces the manpower of the current system.

II.   LITERATURE SURVEY

The Public Distribution System (PDS) evolved as a system of management of scarcity and for distribution of food grains at affordable prices. Over the years, PDS has become an important part of Government's policy for management of food economy in the country. PDS is supplemental in nature and is not intended to make available the entire requirement of any of the commodities distributed under it to a household or a section of the society. [1]

PDS is operated under the joint responsibility of the Central and the State Governments. The Central government, through FCI, has assumed the responsibility for procurement, storage, transportation and bulk allocation of food grains to the State Governments. The operational responsibilities including allocation within State, identification of families below the poverty line, issue of Ration Cards and supervision of the functioning of FPS, rest with the State Governments. Under the PDS, presently the commodities namely wheat, rice, sugar and kerosene are being allocated to the States or UTs for distribution. [2]

Public Distribution of essential commodities had been in existence in India during the inter-war period. PDS, with its focus on distribution of food grains in urban scarcity areas, had emanated from the critical food shortages of 1960. PDS had substantially contributed to the containment of rise in food grains prices and ensured access of food to urban consumers. As the national agricultural production had grown in the aftermath of Green Revolution, the outreach of PDS was extended to tribal blocks and areas of high incidence of poverty in the 1970s and 1980s.[2]

PDS, till 1992, was a general entitlement scheme for all consumers without any specific target. Revamped Public Distribution System (RPDS) was launched in June 1992 in 1775 blocks throughout the country. The Targeted Public Distribution System (TPDS) was introduced with effect from June 1997.
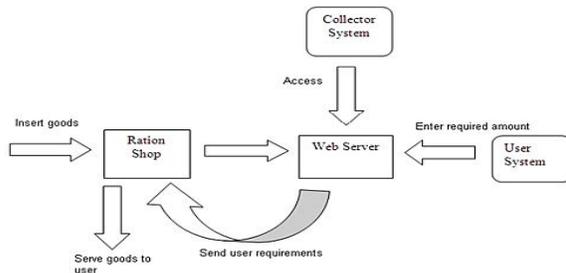
Fig: Overview of Ration Distribution and Controlling System

Figure a Block Diagram

The Revamped Public Distribution System (RPDS) was launched in June, 1992 with a view to strengthen and streamline the PDS as well as to improve its reach in the far-flung, hilly, remote and inaccessible areas where a substantial section of the poor live. It covered 1775 blocks wherein area specific program such as the Drought Prone Area Program (DPAP), Integrated Tribal Development Projects (ITDP), Desert Development Program (DDP) and certain Designated Hill Areas (DHA) identified in consultation with State Governments for special focus, with respect to improvement of the PDS infrastructure. Food grains for distribution in RPDS areas were issued to the States at 50 paisa below the Central Issue Price. The scale of issue was up to 20 kg per card.

The RPDS included area approach for ensuring effective reach of the PDS commodities, their delivery by State Governments at the doorstep of FPSs in the identified areas, additional ration cards to the left out families, infrastructure requirements like additional Fair Price Shops, storage capacity, etc. and additional commodities such as tea, salt, pulses, soap, etc.for distribution through PDS outlets. Important lessons which

may help in designing a more effective food security system for the poor. One finding that stands out is that TPDS, in spite of all its problems, has been able to improve the per household off-take of subsidized grains in PDS, when compared to pre-TPDS scenario. [6]

III. PROPOSED SYSTEM

Some of the limitations of conventional ration shop system:

- Due to the manual measurements in the conventional system, the user cannot get the accurate quantity of material.
- And also there is a chance for the illegal usage of our products in the conventional system. i.e. the materials are

robbed by making wrong entries in the register without the knowledge of the ration card holder. Due to that large amount of money given by government gets wasted.

- The Ration shops are not able to meet the requirements of the user due to the over population of our country. So the processing speed is low As a result, there is always crowd of people in the ration shop.
- Due to the human operations the working hours of the ration shops are restricted; so that the user is unable to get the material at any time i.e. 24 * 7.

Main Problems in the conventional PDS system:

- Illegal Usage
- Cannot able to get the accurate quantity of supplies
- Over crowd
- Processing speed is slow
- Selection of households – Targeting
- Hijacking of ration cards
- More than the prescribed rates are charged

To overcome those problems, we are going for the Automation of ration shop. The commodities are stored in reservoir tanks and they are measured and supplied to the user as and when required.

When goods are inserted in the ration shop, then that quantity of goods is updated in web server. That web site can be accessed by the collector whenever he requires. The user has to enter the required product and quantity using a keypad and LCD display then he gets accurate quantity of required goods. Available quantities of goods in ration shop are updated again in web server. For Block Diag. see Fig (a).
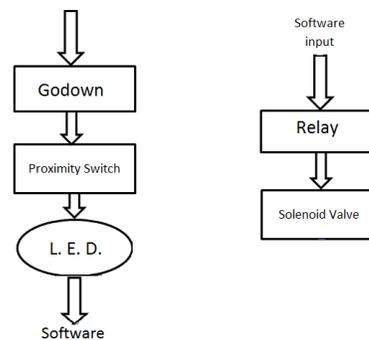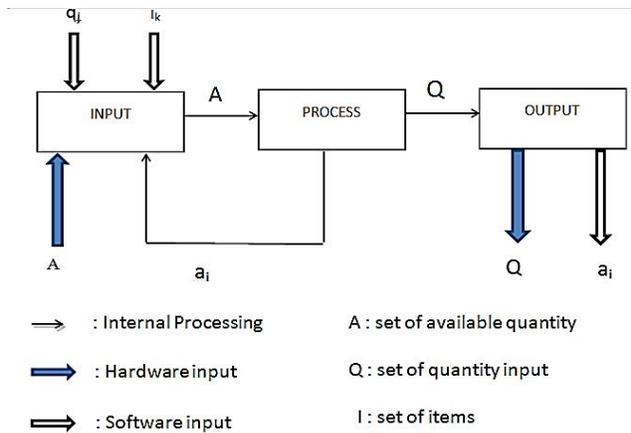
IV. ARCHITECHTURAL DESIGN

Figure b Hardware Working

When Goods are stored in the storage tanks then tank will force itself downwards, due to which the proximity switch will be pressed which will allow the LED to glow.

V. MATHEMATICAL MODEL

From fig(b).

→ : Internal Processing   A : set of available quantity

⇒ : Hardware input   Q : set of quantity input

⟹ : Software input   I : set of items

Let us assume that A is the set of quantity of goods available in the storage area.

abelongs to A, initially assume all the values as 200
A={200,200,200}

Figure b Mathematical Model

Assume that I is the set of Items
ibelongs to I;I={rice, kerosene, wheat}
Assume that q is the set for required quantity
q belongs to Q; Q={1, 2, 5, 10}
Assume that T is the set of time
T={1000, 2000, 3000}
$a_i=a_i-q_j$
Here, i is index for set A and j for set Q
$q_j \propto T$
i.e. $Q_j = \varepsilon\ T$ where ε is a permissible error

VI. CONCLUSION

As this system is a propose system we can see that by using such a system we can avoid corruption in ration/public distribution system to a large extend. This system has greater scope in future. As there is no manual data stored and all information is stored in database, the higher authority can check the details as and when it's necessary through the use of servers.

VII. REFERENCES

[1] Official website at *Ministry of Consumer Affairs, Food and Public Distribution,* PDS - Department of Food and Public Distribution.

[2] Program Evaluation Organization Planning Commission Govt. of India, New Delhi, March-2005, Performance Evaluation of Targeted Public Distribution System.

[3] Ahluwalia,D(1993):Public Dsitribution of Food in India-Coverage, Targeting and Leakages, Food Policy,Vol.18, No.1

[4] Asthana, M.D. and Pedro Medrano,ed;(2001): Towards Hunger Free India- Agenda & Imperatives, Introduction.

[5] Bhargava, P(2001): Food Security and Public Distribution System in Rajasthan. Paper presented at a seminar "Towards Hunger free India" held at New Delhi,24-26 April 2001

[6] Cornia, G.A. and F.Stewart(1993):Two Errors of Targeting, in Lipton, M. and J. van der Gaag(ed.);Including the Poor: World Bank Washington DC

[7] Datta, B. and B. Ramaswami(2001):Targeting and Efficiency in the PDS - case of A.P. & Maharashtra; Economic and Political Weekly

[8] Jha, S. and P.V.Srinivasan(2001):Taking PDS to the Poor - Directions for Further Reform; Economic & Political Weekly, May 5.

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