

Vol. 9 | No.2  
August-September, 2012

# Targeted Public Distribution System

## Targeted Public Distribution System

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### Editorial Team

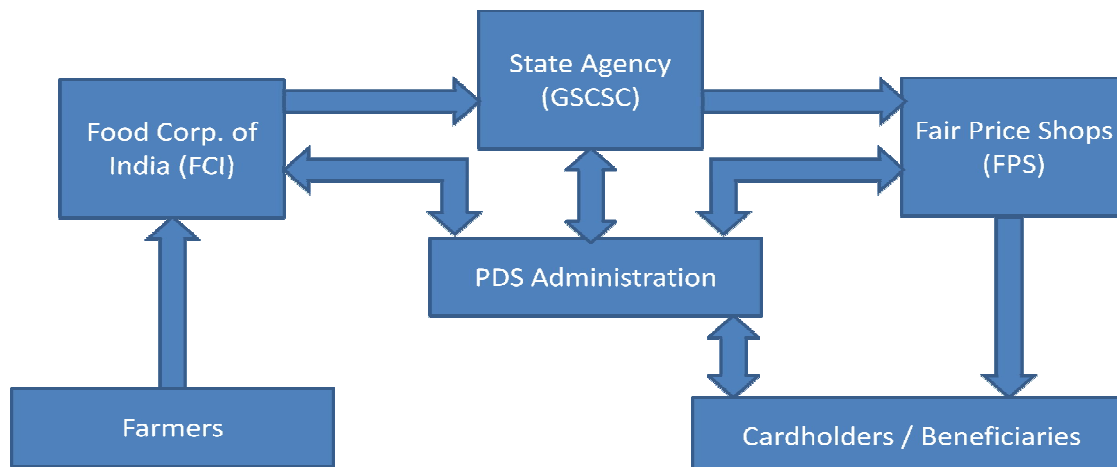
Dr. Neeta Shah  
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Targeted Public Distribution System (TPDS) is an instrument of public policy to provide food security to the poor and vulnerable sections of the society from either the price shocks or supply shortages. Under this Scheme, the Government of India (GoI) supplies essential commodities viz. wheat/millet, rice, sugar and kerosene, while the State Government has the option to add other items as considered essential. However, outcome of PDS depends on the efficiency and effectiveness of the governance framework of TPDS. Over the years, TPDS functioning has come under severe criticism due to high level of leakages/diversion in the system. One study of the Planning Commission<sup>1</sup> concluded that 58% of subsidized food grains do not reach the Below Poverty Line (BPL) families because of the *identification errors, nontransparent operations and unethical practices* in the implementation of PDS.

Recent advances in technology have enormous potential to improve not only the efficiency but also ensure delivery of subsidized essential commodities to the targeted population. All stakeholders including Central and State Governments, economists, public policy specialists, social activists etc. believe that TPDS Reform is a must and several States have been working with various Pilots. Since 2010 Gujarat has moved ahead and developed its own model of TPDS Reform Solution that is simple, scalable and cost effective. Gujarat's TPDS solution is essentially a closed loop Governance framework which utilizes database(s), computational and local National Informatics Centre's technical resources that are readily available with the State Government. Consequently, roll out of Gujarat State's TPDS reform process has, so far, been a non-disruptive, gradual and yet a comprehensive exercise benefitting key stakeholders such as Ration Card holders and the Government. Transparency Portal of PDS has not only made its functioning transparent but also aims at involving the citizen for improvements in its operational efficiency.

## Background:

- TPDS has several stakeholders such as FCI, FPS, Civil Supply Corporation and Card Holder etc.



- Deficiencies in the existing TPDS governance structure :**
  - Ineffective identity management
  - Lack of beneficiary empowerment
  - Structurally weak vigilance
  - Near absence of accountability

## PDS Computerization

A system ensuring delivery of subsidized commodities to the rightful beneficiaries by plugging the loopholes present in the existing Public Distribution System.

### Vision

- Empowerment (of beneficiary)
- Transparency (in TPDS)
- Innovation (in governance)

### Objectives

<b>Beneficiary</b>	<ul style="list-style-type: none"> <li>Identification (to eliminate bogus/duplicate cards)</li> <li>Classification (minimizing exclusion/inclusion errors)</li> <li>Ensuring Delivery of food grain (minimizing diversion/leakages)</li> </ul>
<b>Fair Price Shop(FPS)</b>	<ul style="list-style-type: none"> <li>Transaction Capturing</li> <li>Updated Record keeping</li> </ul>
<b>Logistics</b>	<ul style="list-style-type: none"> <li>Efficiency improvement (of food grain storage &amp; movement)</li> </ul>
<b>Accountability</b>	<ul style="list-style-type: none"> <li>At all levels</li> </ul>
<b>Transparency</b>	<ul style="list-style-type: none"> <li>Across Supply &amp; Delivery chain</li> <li>At all times.</li> </ul>

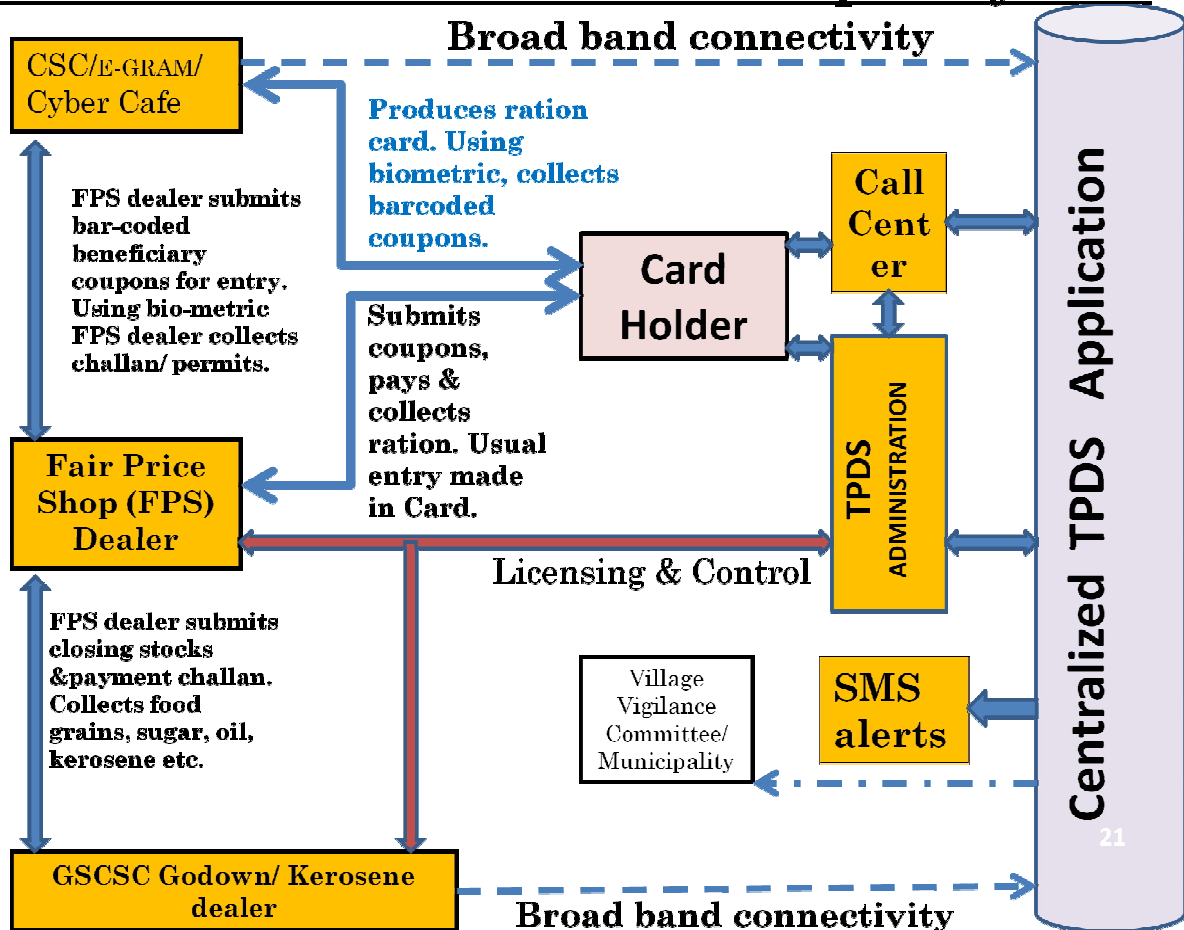
### Introducing reforms in TPDS governance structure:

- Identity Management: converging existing identities (EPIC/BPL no. etc) of the card holder and linking the same with biometric identities and making compatible with UID.
- Issuing bio-metric based FPS cards and coupons to the rightful beneficiaries.

### Solution Framework:

Gujarat had developed 'FPS - Card holder Transaction Centric' model of TPDS Solution:

## Biometric Based Barcoded Coupon System



- This model envisages each card holder having a bar coded ration card containing basic information such as name of the head of the family, number of family members, card category, Elector's Photo Identity Card (EPIC) number of persons in the family etc.



- Using Bar Coded ration card and bio-metric identification, the card holder obtains barcoded coupons from the CSC or Cyber cafe, a tool to claim his entitlement of the essential commodities.
- Each coupon sheet contains commodity-wise bar coded coupons.
- Each coupon contains details such as the name of the card holder, commodity name, quantity, price, month of entitlement, FPS name etc.
- When the card holder visits the FPS, he tears apart the commodity coupon and submits the same to the FPS along with the amount as printed on the bar coded commodity coupon.

In turn, the FPS dealer hands over the said commodity as per pre-printed quantity and also makes an endorsement in the bar coded Ration Card booklet.

In case of any misconduct, the card holder can register complaint using toll free Call Center number as printed in the Ration Card book let.

FPS dealer can go back to the CSC and get his sales register updated in the central database based on the bar coded commodity coupons collected by him.

Based on actual sales figure for each commodity, FPS dealer can obtain commodity-wise Permits for the next month

### Bar Coded Coupons



**Solution Matrix**

Issue	Solution Approach
Identity	Elector's Photo Identity Card No. + Bio-metric data of at least one member of Beneficiary Family
Classification	Convergence of Beneficiary Family's Socio-economic data e.g. BPL data, Electricity Connection no., LPG no., Land holding status etc.
Delivery	Through FOOD COUPON based upon ON LINE bio-metric verification of the Family member
Record keeping	Capturing of Transaction Data embedded in Food Coupon
Logistics efficiency	Commodity-wise aggregation of Supply and Demand Data at various stages i.e. FCI Depot, Godown, FPS, Kerosene Agent/dealer etc.
Transparency	SMS alerts, Web site
Accountability	Bio-metric authentication by Decision makers
Stake holders' Participation	Appropriate Risk-reward System particularly for the FPS dealer and the card holder.

**Implementation Strategy****Design:**

- **No Technology at FPS Level** → Less Resistance to change.
- **Authentication** → Of data creation and transaction through bio-metrics of card holders, Supply Staff, Godown manager, FPS dealers etc.
- **Differentiation among card holders** → **No bio-metric of those** APL card holders who **voluntarily** forego their food grain entitlements.
- **Demand Aggregation (Bottom up Approach)** → Card holders and FPS as building blocks.
- **Market Orientation** → Freedom of Choice-
  - Choice between Food coupon and Cash coupon;
  - Choice of FPS.



## Technology:

- **Smart Card Vs Bar Code** → Gujarat has opted for Bio Metric Based Bar coded System that works well on PAPER.
- **Centralized Architecture & Decentralized Operations** → High skill set needed at State level only.
- **Modular Software** → Ease of Solution development and roll out e.g. Permit - Godown issue module, FPS dealers' management module, MIS etc.
- **Minimizing Project Roll Out Cost & Time** → Leveraging existing IT Infrastructure created under National E-Governance Plan (NeGP).
- It has been developed with Microsoft .Net and MSSQL Server based CMS System with the usage of AJAX.
- Inclusion of 2D PDF 417 barcode in various documents like New Ration Card, e-Permit, Food Coupons etc.
- Finger-print captured as per ISO Standard (ISO 19794-4 and 19794-2 (minutiae))
- Single Sign On facility

## Management:

- **Project Ownership** → Instead of Solution provider, the Department owns the Solution from development to implementation.
- **Non-disruptive Implementation** → Transformation with continuity. Resurvey of exist cards by asking them to fill up prescribed Form no.1.
- **Codification Precedes Solution Development** → Rule based system independent of E-Champions facilitates ease of implementation.
- **Pilots as Proof of Concept (PoC)** precedes State wide roll out.

## Modules in TPDS System:

### 1. Bar-coded Ration Card Management Module

This module uses basic data of the card holder and his family members. Card holder's category depends upon his socio-economic profile while card holder's entitlement is linked to his category viz., AAY/BPL/APL. If need be, links with other government databases and schemes would enable dynamic categorization of the card holder. Further, card holder's identity details including photo and bio-metric details are also part of the basic data structure which are captured in the presence of responsible government servant and under his bio-metric authentication. This would make government servant accountable in the event of issue of fake or duplicate ration cards in future. Subject to the card category and entitlement norms identity authentication sub module triggers printing of bar coded coupons.



## 2. Scheme Management Module

The central allocation of various essential commodities is being done as per the scale of distribution policy decided by the govt. This module enables the system to set the various parameter of allocation of essential commodities.

## 3. Allocation Module

As stated earlier, GoI allocates essential commodities to the States. In turn, based upon the availability and actual numbers of category-wise cardholders and their category-wise entitlement, inter-District allocation is made from the State level. This is an inefficient method. Instead inter-District allocation should be subject to availability and actual lifting of essential commodities by FPS in the previous month. Since this Solution enables availability of FPS wise sales data of the previous month, it is easy to make inter-district allocation of essential commodities. Likewise, within a District, inter-FPS allocation of essential commodities can be made in a rational manner which would further help in improving the efficiency of transport and storage logistics management. The allocation can be done centrally upto the FPS area level.

## 4. License Management Module

Food, Civil Supplies and Consumer Affairs Department issues and monitors the various licenses like, FPS license, SKO license, Retailer/Hawker License, essential commodities license etc. This module provides the facility to issue fresh license, renew the existing license, cancellation and suspension of license etc.

## 5. e-Permit

Every month approx 65,000 e-permits being issued to FPS and retailer/hawker through the system. The permit will be generated after Finger Print verification of designated officer

- Permit can be generated only after the allocation is done.
- FPS has to submit area wise stock declaration statement to the Mamlatdar and he has to enter into the system. Permit cannot be generated until and unless stock declaration statement is not entered
- No alteration is possible in stock declaration statement of previous month.
- Once the permit is generated , stock declaration cannot be edited
- Card Type wise permit is generated
- FPS owner is free to take N number of permits in parts
- Balance will be maintained by the system and upper ceiling is monitored by the system
- Permit is generated after the finger print authentication of Dy. Mamlatdar (Supply)
- FPS owner can view the whole calculation steps applied in allocation and entitlement while getting the permit. It is available on the screen while generating the permit
- Bar-code on permit

## 6. On-line ration Card with bio-metric and without bio-metric

The existing APL card holder who has applied for new bar-coded ration card in Form-1 and don't want to avail any commodities on ration card may get the ration card from web site subject to terms and conditions applied.



## 7. Daily Commodity Price Monitoring Module

District May enter the price of selected essential commodities on daily basis. The various analytical reports are available to Senior Management Group.

### Service Maturity

It's an online end-to-end solution by connecting LIVE WEB-SERVICES which are providing real time data to end-user.

Users can see information relating to any of the FPS areas - e.g. how many Ration Cards are allotted in the given FPS area or what is the quantum of monthly authorization of various essential commodities provided to the FPS dealer(s) etc.

Similarly, whether the card holder is having LPG/PNG connections or availing Kerosene for domestic fuel and lighting. One can also scrutinize the gas connection status of non-gas card holders in a given FPS area by simultaneously accessing the list of LPG/PNG connection holders in that area. In due course, public feedback would help in avoiding duplication of fuel subsidies being availed by individual card holders and that would reduce subsidy burden of the Government of India.

### Salient features of PDS Transparency Portal:

- Provides list of 16,000+ FPS dealers and 6000+ SKO Retailers/ hawkers with address, phone nos. etc. for all Taluka in each of the 26 districts of the State,
- Provides FPS-wise list of more than 1.10 Cr ration card holders along with card holders' name, card category, LPG/PNG/Kerosene status.
- Provides district-wise list of 400+ SKO Agents and 500+ LPG Distributors who lift the SKO and LPG refills from Oil Marketing Companies every month.
- Provides Gas agency-wise list of more than 70 lakh LPG/PNG gas connection holders in the State.
- Each card holder can verify his/her ration card details as well as monthly entitlement of essential commodities on this Portal.
- Anyone can verify the authorized quantum of essential commodities to each FPS dealer/ SKO Retailer/ Hawker each month.
- Submit grievance/complaint online

### Status

- Total 5,21,000 new bar-coded ration cards generated till 19th June,2012
- During May-2012, total 1,30,676 food coupons generated from e-gram/cybercafé
- 72,000 e-Permits issued in May-2012

## Outcomes

- ✓ Savings in food grain and other essential commodities
- ✓ Online monitoring of performance parameters e.g. Issue of Permits, Coupons, disposal of applications etc.
- ✓ Elimination of more than 15 lakh duplicate/ bogus ration cards(>10% of the total) since 2011 resulting in marked improvement in the distribution efficiency of the subsidized commodities
- ✓ Proof of concept established through Pilots in more than 200 FPS areas across the State @ 1 FPS per Taluka (since April 2011)
- ✓ Digitization of 1.09 Cr ration cards (March 2012)
- ✓ Online Permit System has minimized discretion and rent seeking by supply staff
- ✓ Improvement in viability of CSC i.e. E-Grams
- ✓ Innovation(Technology orientation) in the governance of Citizen Centric Delivery Program
- ✓ PDS Transparency Portal and State Call Center have strengthened grievance redressal mechanism.

## Sustainability

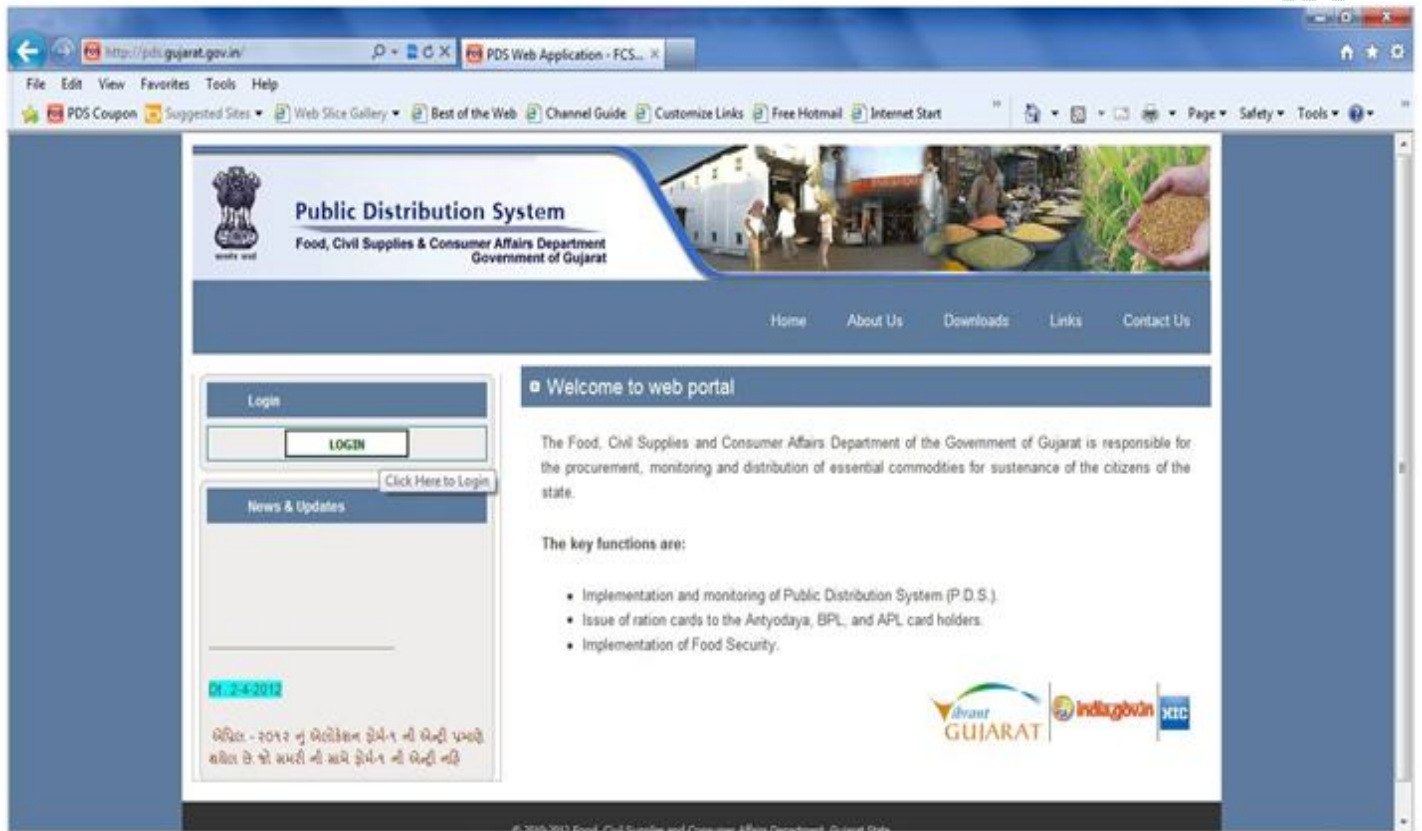
Substantial benefits have already accrued in terms of elimination of more than 10% ration cards, infusion of transparency and accountability. Official discretion has been minimized while strengthening rule-based administration. In particular, customer satisfaction has improved considerably. These aspects have been visited and appreciated by independent observers from GoI, World Food Program and Central Vigilance Committee headed by Justice Wadhwa.

## Way Forward

Government provides plethora of services for welfare and well being of the citizens particularly those who really need it. But there is a big question mark on the identification and identity management of the needy. Existing mechanism and processes have, so far, produced sub-optimal outcomes. In this context, Gujarat Model of TPDS reforms can be extended to other welfare services such as MDM and ICDS.



## Screenshots



## :: RATION CARD ALLOCATION INTERFACE ::

-: ALLOCATION - PERIOD :-

Year/વર્ષ

2012

Month/મહીનો

MAY

GO

Sr.No.	Scheme Name	Requirement	Allocation	%	Level
1	અંત્યોદયા કેરોસીન	5,681,398	4,959,860	87.30	FPS
2	અંત્યોદયા ખાંડ	1,345,754	1,278,470	95.00	FPS
3	અંત્યોદયા ઘઉં	14,207,554	14,207,554	100.00	FPS
4	અંત્યોદયા ચોખા	11,964,256	11,964,256	100.00	FPS
5	અંત્યોદયા મીઠું	747,766	747,766	100.00	FPS
6	એ.પી.એલ. ટૂ બી.પી.એલ. ઘઉં	34,608,000	34,608,000	100.00	FPS
7	એ.પી.એલ. કેરોસીન	41,735,550	36,435,135	87.30	FPS
8	એ.પી.એલ. ઘઉં	79,982,228	39,991,114	50.00	FPS
9	બી.પી.એલ. કેરોસીન	19,621,054	17,129,180	87.30	FPS
10	બી.પી.એલ. ખાંડ	4,951,060	4,703,511	95.00	FPS
11	બી.પી.એલ. ઘઉં	32,128,837	32,128,837	100.00	FPS
12	બી.પી.એલ. ઘઉં (અસ્થાયી)	2,467,592	2,467,592	100.00	FPS
13	બી.પી.એલ. ચોખા	7,414,347	7,414,347	100.00	FPS
14	બી.પી.એલ. ચોખા (સ્પે)	9,881,939	9,881,939	100.00	FPS
15	બી.પી.એલ. મીઠું	2,471,449	2,471,449	100.00	FPS



## પરિચય

ગુજરાત રાજ્યમાં અલ્પ, નગરિક પુરવઠો અને ગ્રાહકોની ખાતરીનો વિભાગની તા.૮ થી નવેમ્બર, ૧૯૬૫ના રોજ એક અલગ વિભાગ તરીકે રચના કરવામાં આવેલ છે. આ વિભાગ નીચેની કામગીરી સંભાળે છે.

[વધુ જાણો](#)

## અલ્પ સલામતિ સંબંધિત કામગીરી

- લક્ષિત જાફેર વિતરણ વ્યવસ્થા (TPOs)
- TPOs ફેસલ વિતરણમાં મુદ્દાલેલ આવશ્યક થીજ વસ્તુઓ
- અલ્પપૂર્ણી યોજના
- નીચેજ ફોર્મન યોગ
- ફુડ ફેલ્પ લાઈન
- અલ્પમ ભૂકમ યોજના
- જાફેર વિતરણ વ્યવસ્થાનું આયુર્નિરરણ
- ઓફાઈન સંગ્રહ સક્રિય
- અનાજ પ્રાપ્તિ
- મોડેલ ફેર પ્રાઈસ શીપ
- એલ.પી.જી. રીંગણ યોગ

## ગ્રાહક સુરક્ષા સંબંધિત કામગીરી

- રાજ્ય ગ્રાહક નકશા નિવારણ રાજ્ય કમિશન અને ગ્રાહક નકશા નિવારણ જિલ્લા કોરપો
- કલ્પયુક્ત પ્રોટેક્શન એજન્સી ઓફ ગુજરાત (CAPAG)
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- કલ્પયુક્ત કલ્પ
- કલ્પયુક્ત એડવાઈસ સેન્ટર
- સ્ટેડ કલ્પયુક્ત વેલફેર ફંડ

## પારદર્શીતા પોર્ટલ હસ્તકની સેવાઓ

- તમારા રેશન કાર્ડ ડિગ્રામેની ઓનલાઈન તપાસ/ખાતરી કરો
- ફેસલા રેશનકાર્ડ પાર્ટી ફૂલનદાર સહી જોડાયેલ છે
- તમારા નજીકના વિતરણમાં આવેલ વાજખી ખાતરી ફૂલન શોધો
- એલ.પી.જી. જારકોની પાફિની યોગલો
- પી.એન.જી. જારકોની પાફિની યોગલો
- તમારા વિતરણમાં આવેલ વાજખી ખાતરી ફૂલને ફૂલવેલ જમ્યાની પાફિની યોગલો

## સમાચાર

» ગુજરાત ખાખાનેલ અને મેલીબીયા (સંગ્રહ નિયંત્રણ) ફૂડમ-૨૦૧૨ [વધુ](#)



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અગ્રમંત્રીશ્રી

ફૂડ

ગ્રાહક છું

મારે જાણવું છે કે

નવું રેશનકાર્ડ કેવી રીતે પાળી શકે?

[શોધો](#)

તમારું બારકોડેડ રેશનકાર્ડ  
ઓનલાઈન પ્રીન્ટ કરો



ઓનલાઈન ફરીવાદ



ફેલ્પલાઈન

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૧૮૦૦-૨૩૩.૪૫૦૦

## Web Corer

<http://pds.gujarat.gov.in/>

<http://www.fcscg.gujarat.gov.in/>

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