Automation in Agriculture



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Automation in Agriculture



Information & Communication Technology (ICT) for Agri. Market Linkages

Agriculture

-The Changing Ecosystem and growing pressure on Indian Agriculture

IMPACTS OF CLIMATE CHANGE

By 2030, nine out of 10 of the major crops will experience reduced or stagnant growth rates, while average prices will increase dramatically as a result, at least in part, due to climate change.



MAIZE



90%
PRICE



RICE



89%
PRICE



WHEAT







OTHER CROPS





The New Population Bomb

This time it is depopulation that will seal the fate of nations



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2	mdia	376
1	USA	158
4	Russia	103
1	Japan:	100
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2	India	1,311
3	USA	322
4	Indonesta	258
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Top five countries

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the 2000, sits country has are

*UN: India will be most populous country by 2022

Washington: India to enpermet in ingresses Chinarobeoping this world's main working sicto metion by this the United Nations and on Thursday China and frelia periodic the two largest could trice in the world, such with more than I billion people. representing 19% and 18% of the world's population. (respectively.

That by 2025, the population of India is expected to surpess that of Chine," acid the report, 'World Population Prospects: The Shrejolett, /P loused by the UN. Currently, among the 19 largest countries in the world, one is in Africa (Nigerial Dvv are in Asia (Banglahosh, Chion India Indonesia. and Published, two pre-

A significant nating of 15w people's befron he the ment were: all decades in projected for most regions of the world. starting with Europe where 34% of the population is projusting to be over 40 years old by 2000 to Latin America are the Caribbean and to Asia the population will be trees Sarmed from having 51% t



The current worst propulation expected to reach 8.50n by 2010, 9.75e. 2004 and 11.25e in 2150, the report said

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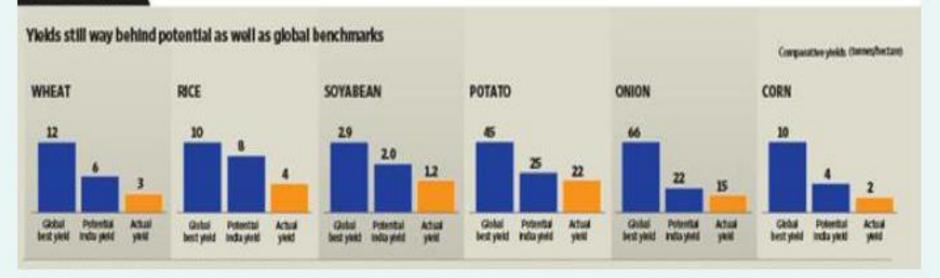
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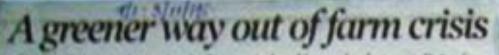
on China, butte, the US, Brazil and

FOOD CONSUMPTION TO MORE THAN DOUBLE BY 2030: REPORT

A 320% Increase in India's per-capita gross domestic product (GDP) by 2030 is likely to drive a 4% increase per annum in overall food consumption from ₹11 trillion in 2010 to ₹22.5 trillion in 20 years, said a report released by the Confederation of Indian Industry (Cli) and McKinsey and Co. on Friday. In line with this, per-capita consumption is expected post an annual 3% increase from ₹9,360 to ₹15,390. Given the rise in consumption, agricultural output could double from the current levels by 2030, the report said. At the same time, processing and exports could grow five times over 2011 levels. Also, rising affluence will see urban India's food consumption patterns change from being primarily driven by basic foods to more "high-value foods" such as fruits, vegetables and complex proteins. The report said the challenge for the industry and policymakers is to overcome supply-side barriers and ensure seamless end-to-end linkages to realize India's true demand potential.

PROBLEMS





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India staring at new food crisis: Experts

Reviving Agriculture

It needs a book in the form of public investment in irrigation and occess to technology

Villages await reforms

Do away with initiatives that have not worked for the farmer, and instead allow free market to flow in

AND DECEMBER 12 TO 10

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Bringing back the profit in farming

PECK, MERKE

Govt prepares plan to boost farm, infra

India's deepening farm crisis: 76% farmers want to give up farming, shows study

Tuesday 11 March 2014

A study by a premier social sciences research institute reinforces what policymakers and media have been talking about the past few years—that India is going through a deep agrarian crisis. The Centre for Study of Developing Societies (CSDS), based in Delhi; found that given an option majority of farmers in the country would prefer to take up some other work. Poor income, bleak future and stress are the made control of the country would be control to take up to the country work.

farming. Around 18 per cent of respondents surve pressure that they are continuing with farming. Th Farmers' was released in Delhi on Tuesday.

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Most farmers giving up farming profession in Chhattisgarh

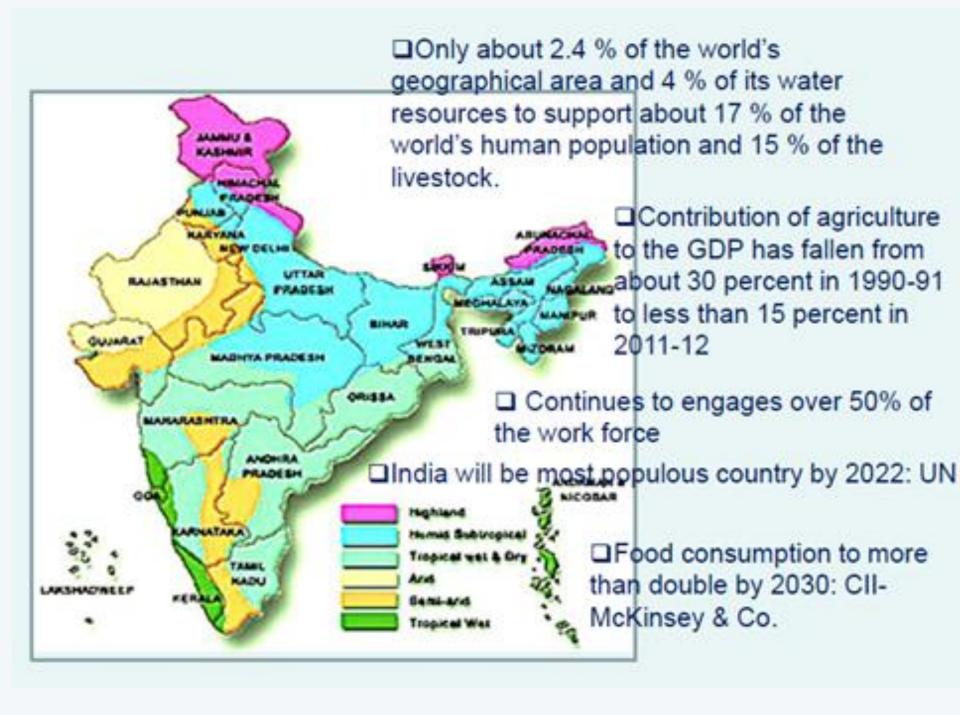
The Hitavada Date 12 May 2016

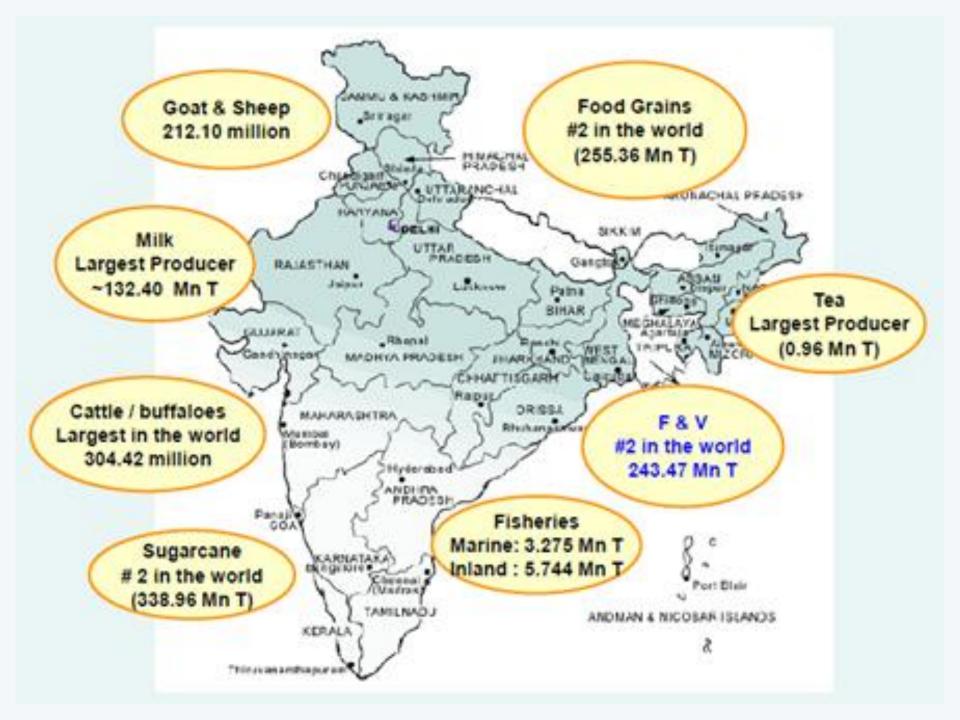
Owing to poor rainfall from last few years and loss of crops, most of the farmers across Chhattisgarh gave up farming profession and choose other work opportunities which provide certainty in job as well as finance.

In fact most of the youngsters in rural parts of the state want to make their career in other works not in agriculture profession. As per the reports of latest round of National Sample Survey Organisation (NSSO), from 2006-07 to 2015-16, Chhattisgarh recorded a decline of over 23% in the number of population who were engaged in agriculture profession. The

Indian Agriculture

- An Overview





Indian Agriculture

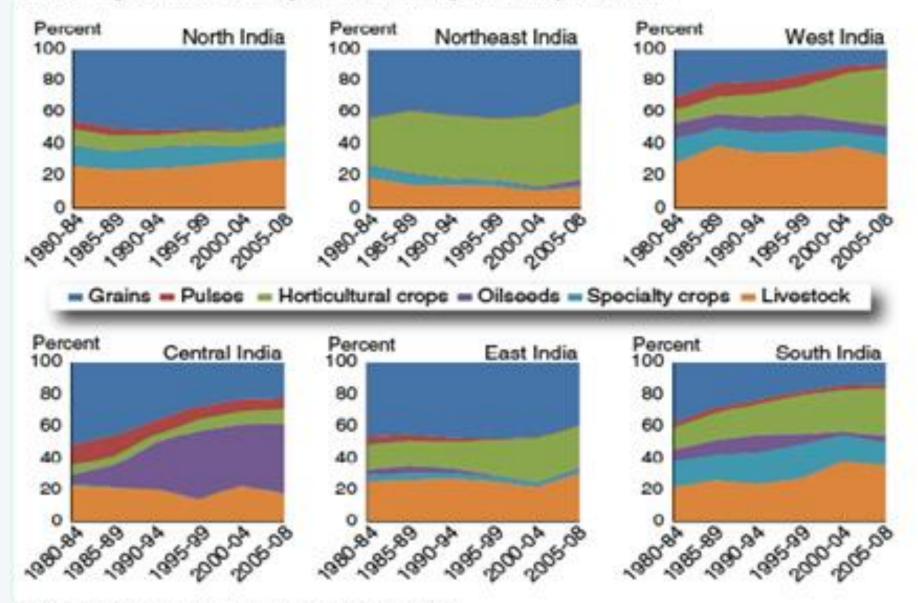
The Indian Agricultural

India accounts for only about 2.4 % of the world's geographical area and 4 % of its water resources, but has to support about 17 % of the world's human population and 15 % of the livestock.

- India has 127 different agro climatic zones, immense biodiversity and natural resources
- India is one of the biggest food grain and oilseed producers in the world
- Small farms produce 41 percent of India's total grain (49% of rice, 40% of wheat, 29% of coarse cereals and 27% of pulses), and over half of total fruits and vegetables
- Largest producer of milk, tea
- Fruits & Vegetable and Sugar

 Second in the world
- Export Earnings 14.7 Percent
- Contribution of agriculture to the overall Gross Domestic Product (GDP) of the country has fallen from about 30 percent in 1990-91 to less than 15 percent in 2011-12
- Over half of India's work force is still engaged in agriculture
- Around 7548 mandis spreaded over 630 districts

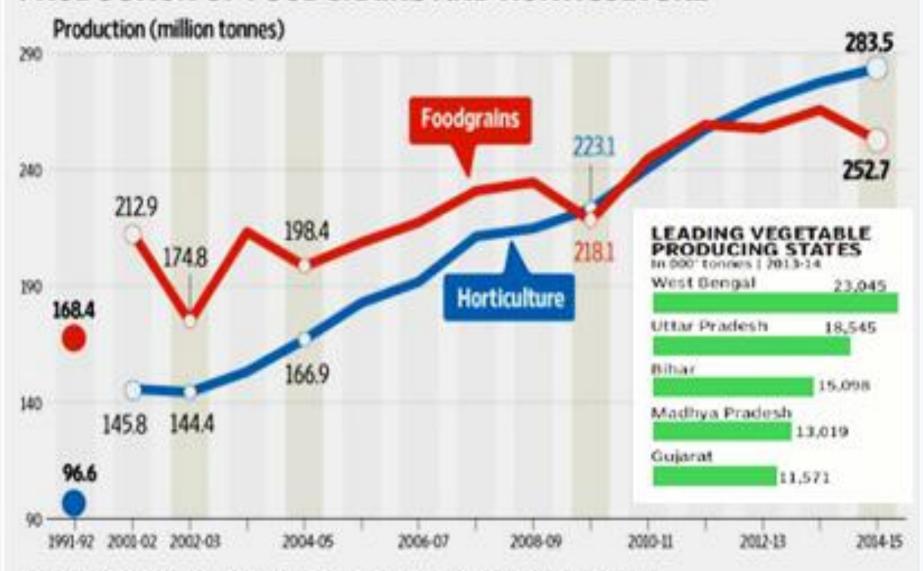
India's regions have undergone a shift in agricultural production



Note: All data are presented in 5-year averages.

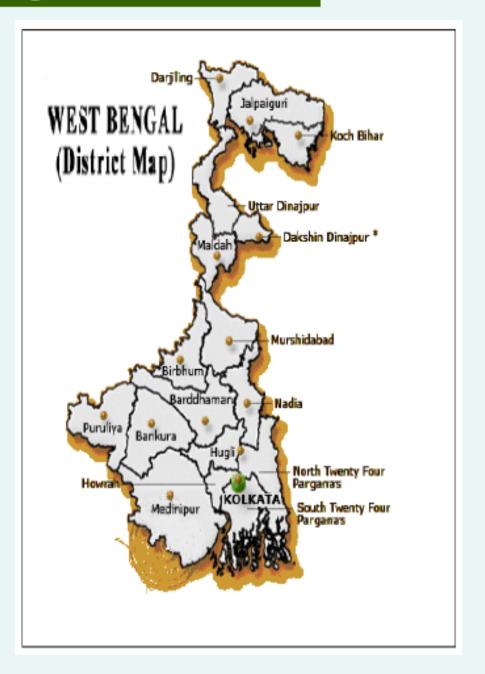
Source: USDA, Economic Research Service estimates.

PRODUCTION OF FOODGRAINS AND HORTICULTURE



Note: Years 2002, 2004, 2009, 2014 were deficit monsoon years affecting foodgrains' production

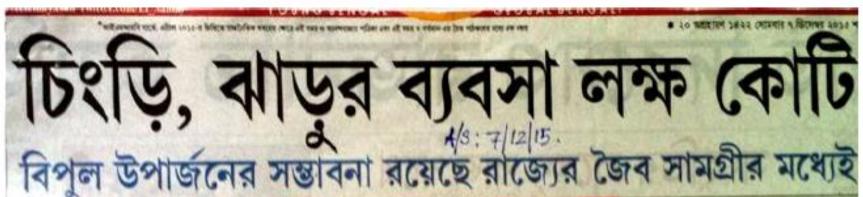
Agri. Profile of W. B.



- □ 2.7% of total area to supports over 8% of the nation's population
 □ Agriculture contributes nearly 24% to the State Domestic Product annually
- ☐ The state is first in India in the production of Rice, Vegetables, Fishery (inland) and Pineapple, second in the production of Potato and Tea and third in production of flowers

Agricultural Highlights	
Total Geographic Area (Hectares)	88,75, 200
Gross cropped Area (Hectares)	97,51,000
Net Sown Area (Hectares)	52,95,000
Cultivable Area (Hectares)	71,14,000
Irrigated Area (%)	62
Average Land Holding (Hectare)	0.82
Number of Agricultural Holdings (Units)	69,53,922
Agro Climatic Regions	6
Cropping Intensity (%)	184

WB: Biodiversity & its Potentiality



হাজে: আনুষ ক্ৰমন পৰিমণ কল। তাৰ কোনক ক্ৰ এবলিন পৰ্যন্ত ছিল না বাজা স্বকাৰ কিবে কুখ্যানীলের কাছে। মুধুকারি সমীকাম দেবা বিভেছে, বছরে কাড়র बारमात नर्तिमान ५५ त्वारी ग्रेका वकिन माझर नर कार कानकारी । पहल जान मानमान मानियान कार करे সমীকা খেকেই জনা যাকে, প্রায় ১০০ কোটি টাকা (पानिकटकान, कालानुनिया, पुन्तविनाकि, वौक्निनाकालन মতো সুগন্ধি চালের বাবদার পরিমাণ ৮৫৫ কোটি টাকা sydnet, seeint, olecus, basis sont cene time থেকেও বলমে বন কৈট্টি টাবার বাবমা হয়।

শদ্ভই হোক বা মাছ, ফেবল উদ্বিদই হোক বা মানে লাজেন জৈন সামগ্ৰীৰ বাৰদাৰ মেট প্ৰিমাণ বছৰে ১ লক্ষ an दावरात सक्ष द्वाणि वाका। या मन्नदर्क बार्शनम न्नाह বাংগাই ছিল না কোন্ত মহলের। সম্প্রতি দেই কামণ্ডী পের করেছে প্রান্তার জীব বৈচিত্র পর্যাধ। পশ্চিমবঙ্গের দেখালো পামেই এ বাব সেই পাঞ্চিতে তাব পৰিমাপ নিৰ্দাৰণ কৰতে উলোগী হয়েছে আৰত সাতটি বাজা। যাৰ मत्या बटाटम कमानी, व्यक्तातम्स, तकत्वमान, कमानिक, অসম, দিকিম, গোৱা। কাবল, এ সম্পাৰ্ক কোনও ধাবল CHE WICHOU

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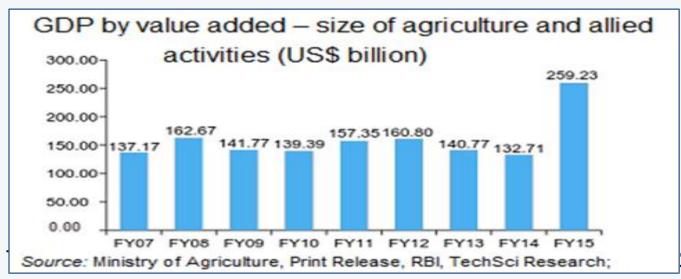
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 □ State's rich biodiversity Over Rs. 8 LCr. : W. B. Biodiversity Board □ Competitive advantages in terms of agri. product portfolio & its 	
 Agriculture contributes nearly 24% to the State Domestice Product annually The state is first in India in the production of Rice, Vegetor Fishery (inland) and Pineapple, second in the production Potato and Tea and third in production of flowers Potato: The marketable surplus available for inter State Export transaction estimated as Rs. 5.5 KCr./An. Rice: The marketable surplus available intra-inter State transaction & export estimated as Rs. 25 KCr./An. Large potentiality for employment oriented value-added agri-food processing in the downstream 	bles, of ate &

Indian Agri. Market:

Indian Agri. Market Size & Growth:

- ☐ GDP of agriculture and allied sectors in India has been growing at a compound annual growth rate (CAGR) of 3.3 per cent
- ☐ GDP of agriculture and allied sectors in India was recorded at USD 259.23 billion in FY15.



\$308 billion)

and the size of opportunity for the organised (Including online) retailers is around Rs 3.4 lakh crore, according to Kotak Institutional Equities. (Financial Express, March 23, 2016)

Indian Agriculture

- Some of its Major Challenges

Ten Major Challenges of Indian Agri. Sector:

- 1. Small and fragmented land-holdings
- 2. Seeds
- 3. Manures, Fertilizers and Biocides
- 4. Irrigation
- 5. Lack of mechanization/Technology
- 6. Soil erosion

7. Agricultural Marketing

- Distress Selling
- Inflation of Food Items
- Post Harvest Loss
- 8. Inadequate storage facilities
- 9. Inadequate transport/logistics
- 10. Low investment

FARMER SUICIDES, DISTRESS SALE OF AGRO PRODUCTS ON RISE

Daily Flonger, Wednesday, 68 March 2017 Lift YANT DAS Lin Bhuhaneswar

2015, this figure showed

Loss of life of several fair Bumper crop leaves farmers in distress

blamed erratic and inaider The Telegraph, SUBRAT DAS AND MANOJ KAR, Thursday, April 19, 2012

Farmers turn to moneylenders

PADDY ECONOMY To 1.12.16 ** Despressions

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6L tonnes imports to rein in pulse rates

Govt Explores Mozambique Land Lease, Futures Trading In Chana Banned, Export Duty On Sugar

Govt gets cracking to soften dal blow

Imports From Myanmar To Fill Gap



Prices skyrocketing under Modi govt'

Govt to import another 3k tonnes of pulses

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Cartels jacking up masoor prices, says IB

Intel Agency Submits Report Naming Firms Cornering Stocks I

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Pulses racing as prices near ₹200/kg



Onion prices up despite big harvest

India Harvested Record 19.3 Million Metric Tons, 15% Over Previous Year's

Retail onion prices soar, govt blames middlemen

Trigger Focus On WORRYING CAP

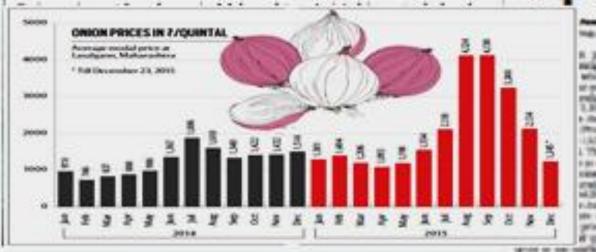
Onion price rises to Rs 54 per kg at Lasalgaon due to tight supply

As per the data maintained by the National Horticultural Development Foundation (NHRDF), the wholesale onion Lasalgaon increased to Rs 54 per kg on Friday from Rs 5 Thursday.

India Today, August 21, 2015

সিদ্ধান্ত রাজ্যের র দাম নিয়ন্ত্রণে রাজ্য কমিপ্রতিশ্ব কমিশ্র

Onions now selling for ₹1 per kg in Lasalgaon



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Maha: Send subsidies to

Bumper potato crop a worry for Bengal, Mamata writes to Arun Jaitley for help

Times of India, Mohuse Chatterjoe | Thin | Apr 24, 2015, 0" Mamata likely to offer relief as low NEW DELHI: At a time when the plight of farr wholesale price hits potato farmers

ব্যবসায়ীদের লোভে পুজোর পরও মহার্ঘ আলু

মেয়াদ শেষের মুখেও হিমঘরে মজ্ত বিপুল পরিমাণ আলু, সময় দিতে নারাজ সরকার



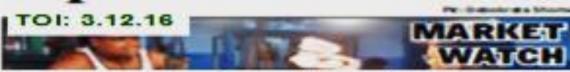
Gap between wholesale and retail prices widens

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Kolkata: The wholescale fish market continues to remain shaggeigh, but yowning price gap with the retail market is purhing up the microeconomic indicators for food in the city.

The wholesale traders feel that keeping the retail market high is actually bringing down. cumulative consumption and affecting the wholesale market eventually. They feel even the ugh prices remain low at wholesale markets, the consu-

Print



Veggie wholesale rates crash, retail prices only dip in cities

Dural Enord Trade

Veggie wholesale prices crash

But Little Impact On Retail Front

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Kelketa Seorapholi: The whiteness price of vegetals live has elected dippong from: Monday However, Succ. In limbs impact of on rotal priow Thanks to the worldingers. send the last men to the retail. months. the price of vegetab-Bee Personal grater high compared to their prices the width time (set year, Widi-the Equility years it reatinging unabased, there is an eleTOI: 7.12.16

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KEEPING PRICES IN CHECK

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Marketing award Cr

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DECODING THE PRICE PUZZLE

A study by Global Aprilles to moffmut a sody use to ble a supply. c hainin four met the - Delhi, Mambai, Banca leve and Holla to - throws that there are at least five to six intermediaties between grimary per-dison and consumer



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Middlemen to blame for price rise

& Falguri Baserjee Trus

Baganbati (Hooghly): If you bought bhindi in your para market today for Rx20 or thereabouts, here is a shocker; it costs He 1 a kilo in the fields where it is grown, only a 90-minute-drive from Kolkata.

So how does a farmer, who toiled under the sun, get a measly one-rupee coin for the same vegetable that sells at a mindboggling 1900% price difforence later? The secret lies in the supply chain - the price shoots up every time the bhindi changes hands. And it's the same with every veggle.

Despite supply outstripping demand this season, Jyoti potato is selling at over Rs 21-Rs 22 per kg due to hoarding and profitoering by aggregators. Veggie prices have skyrocketed not due to supply shortage but involvement of layers of aggregators who act as price fatteners, extracting their pound of flesh at every stage, say agricultural exports.

Each aggregator (or middleman) buys a few hundred kilograms depending on their risk taking capacity. Prabbat Kumar Das, organising secretary of the Federation of Traders' Organisation and member of the CM's task force on price of edibles, admits that prosence of several layers of aggregators that are jacking up the prices.

"In Koley Market, the biggest wholesale hub for wegetablos, there are two to three layers of middlemen. The profit each aggregator makes gots added to the cost. Consumers have to bear the price brunt," said Das.

TOI visited a pocket in Hooghly to study this chain of aggregators and wholesalers. Panna Lal Mondal, a small farmor in Baganhati, 60 km from Kolkata, was bewildered when he heard that the bhindi he grows is selling for Rs 20-24 in Kolksta, "It's unbelievable," the Skyon-old farmer exclaimed in dismix

In neighbouring Nalikul, ribbed gourd (things) that Sujit. Samanta harvested in his II cottab land has fetched him onby Rs (per kg. In Kolkata, it sells for up to Rs 26.

PEASANTS TO DINNER PLATES, HOW VEGETABLES TRAVEL

TOI visited a small but agriculturally fertile pocket in Hooghly, which grows veggies that end up in Kolkata kitchees. Baganbati, a tiny hamiet between Singur and Tarakeshwar, is only 60 km from Kolkata but by the time the vegetables reach the city, the prices shoot up by several hundred percent. What starts out at Re 1 in the field sells for Rs 20 in Kolkata. Each vegetable passes through several layers of aggregators who act as catalysts in the price spike. TOI tracks how the price increases with every change of hand



Buys from agore-

gator 1 and takes

...it to the wholesale

hub (Segraphuli)

Price: 72.50/kg

Aggregator 5

.Buys the entire

aggregator 4 at

Koley market

Price: ₹10/les

Appregator 7. Buys

Koley market and

sells it to retailers

by the deala at

Price: ₹18/kg

consignment from

in at accepts wholesale market (Malikul)

Aggregator 1 Buys from aggregator 2 and stocks up Price: 75/kg Aggregator &

Travels from Koley Market in Kolkata to buy from aggregator) Price: ₹7.50/1g

Buys from aggregator 5 in smaller quantities and sells in the market in a dasla Price: ₹14/kg



Distance. Buys from aggregator 7 and sells it to you

Buys from aggregator 2 and stocks up Price: 19/kg

Travels from Koley Market in Kolkata to buy from aggregator 3 Price: (11/los

Aggregator 6 -Buys from aggregator 5 in smaller quantities and sells in the market in a dasta Price: ₹16/kg

Buys from aggreit to the wholesale hub (Secraphuli) gator 1 and takes

Aggregator 5 Buys entire consignment from aggregator 4 at Koley market Price: ₹14/am

Buys from dasia at Koley market and sells it to retailers. Price: ₹19/kg

Buys it from aggregator 7 and selfs it to you



Aggregator & Bury, from farmer and selfs it

Aggregator 2 Buys from aggre-Buys from gator I and takes aggregator 2 and stocks up Price:19/kg

......it to the wholesale hub (Sexaphull) Price: 16/ kg Aggregators Travels from Koley Market .Buys entire

in Kolkata to consignment from appreciator buy from aggregator 3 4 at Koley market Price 211/10 Price: #14/Au

Aggregators -Buys from aggre-Buys from dasla. gator 5 in smaller at Koley market quantities and and sells it to salls in the market ertailers. in a dasta Price 719/kg

Price: ₹16/km

Brysit from aggregator 7 and selfs it to

When we go to the markets to will our produce, the middlemen refuse to buy, saying that there is no demand in Kolkata. They force us to sell at very low prices because we cannot afford to take backour crop," said Samanta 67

Tracking the movement of price between markets, it is evident that the price tends to double with each change of hands. The uniformity - 200% at each stage ... is intriguing as the costs involved at each stage are different.

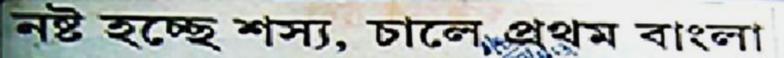
A price rise is inevitable because of the distance and the number of intermediaries involved. But a 1900% sport suggests profitoering by a section of middlemen.

Gouranga Saha, one such egregator, procures vegetables from farmers in Baganbati and takes it to his arst (20down) in the Nalikul wholesale market, where another set of aggregators waits for him. After procuring close to 1,000kg of ribbed gourd, bhindi, brinisl

likul in two light commercial vehicles, paying Rs 500 each, "I have to factor in a lot of costs, including transportation, labour, pifferage, wastage and other overheads," he said.

Saha is only partially right. There are several costs involvod but given the volume they only add to the price marginally "It's standard practice to add He I while fixing the selling price to factor in the overheads. But nowadays most aggregators are adding up to Rs 3. This and beans Saha sets out for Na- is unscrupulous," said Biswanath Agarwal, secretary of the Posta Potatoes Wholesalers' Association. Jyoti potato, for example, is overpriced by Rs t0-12 due to the involvement of middlemen, say aericultural marketing experts.

"Aggregators procure potatoes from farmers at low prices. Farmers, most of whom either have to repay loans or do not have the wherewithal to sell their produce in the markets themselves, accept the price paid by these aggregators," said Agarwal.



রাজ্যে হিম্ঘরের অভাব, কবুল মন্ত্রীর

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22cr wheat ruined: CAG

Rain damages 30k kilos rice in FCI godowns

4.5m-tonne wheat may be lost in unseasonal rain



18k quintals of grain rot in Seoni for 4 years

Food processing sector to create 2 lakh jobs in Bengal: Report

PII February 5, 2016

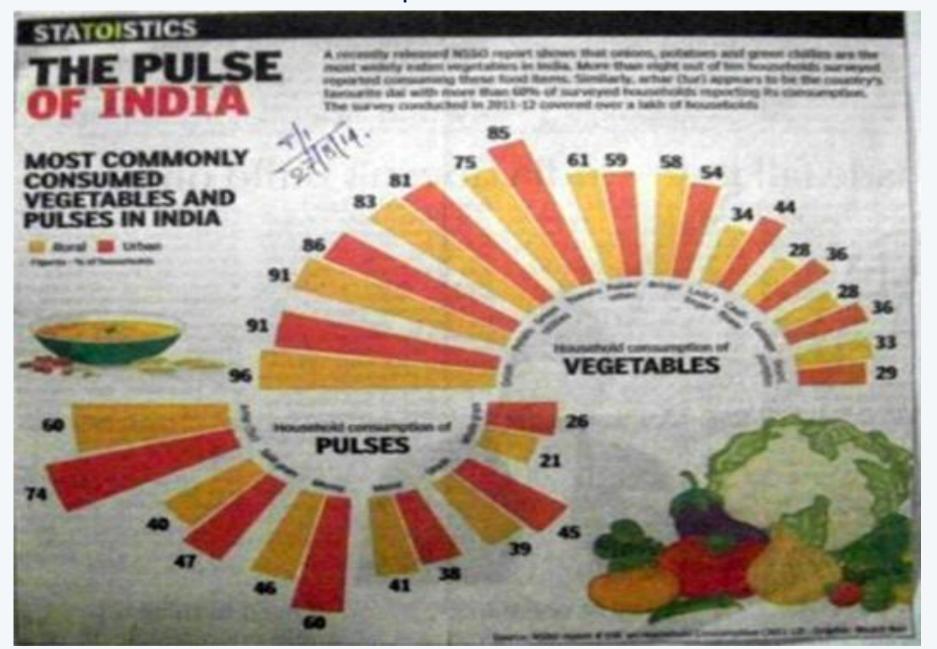
Kolkata, Feb 5 (PTI) The food processing sector in West Bengal is expected to grow ninefold to Rs 35,745 crore by 2020 and create more than two lakh jobs, a CII-KPMG report said

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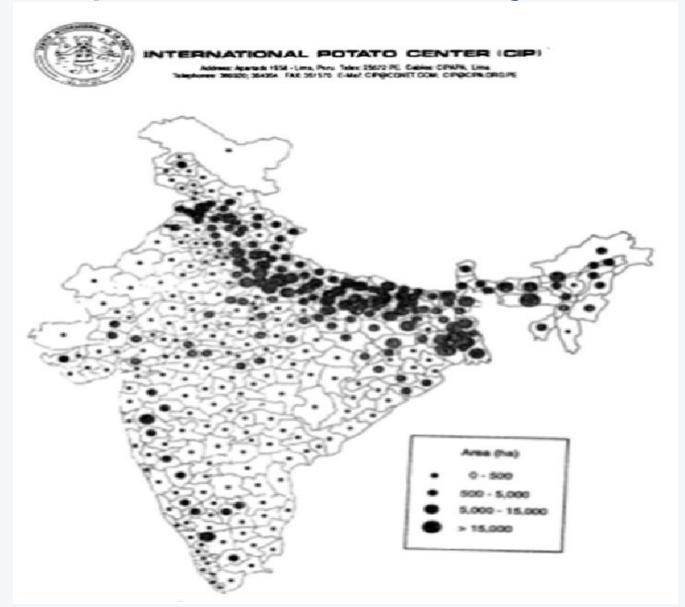
sector. (MORE) PTI AKB DKB ABM

POTATO

91% Rural & 86% Urban Population of India Consume Potato:



Potato Map of India: Inter state/Reg. Availability Gap



Potato: The Crop Calendar

		S	Sow	ing ti	me		. 3	Н	Har	vestin	g time	•	Growth period	
Season —		Kh	arif			R	bi			Zaid				
Crops	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	Major Producing States	
Soybean	S	s		н	Н			Ď.				372 - 303	MP, MH, Raj	
Cotton (Kapas)	S	S	S		H	Н							Guj, MH, AP, MP, Kar	
Turmeric	S	S	S				Н	н	н	Н			AP, TN, Or, WB, Kar, MH	
Castorseed		S	S				Н	н	н	Н			Guj, AP, Raj	
Guarseed [Cluster bean]		S	S		н	H							Rajasthan, Haryana, Punj.	
Chilli (Kharif)			S				Н	Н					AP, Kar, Or, MH, WB, Raj	
Chilli (summer)			Н								S		AP, Kar, Or, MH, WB, Raj	
Maize(Kharif) [Corn]	S	S	S	н									Kar, AP, MH, MP, UP	
Potato (Kilarii)	- 3	ŝ		- 11	H						3.0		Kalmataka, AP, TN	
Potato (Rabi)				S	5	S		Н	Н	Н			UP, WB, Punjab, Bihar, Oriss	
Mihoat					8		٤			- 14	- 11	- 11	UD, MD, Dunjab, Hanjana	
Maize (Rabi)[Corn]					5	S			H	H	Н	н	Bihar, AP, TN, Kar	
Rmseed					5	S				Н	Н		Raj, UP, Punj. Har, MP, WB, O	
Chana[Gram/chickpea]					5	S				Н	Н		MP, UP, Raj	
Barley					5	S				Н	H		Rajasthan	
Jeera [Cumin]					5	S	-		H	Ħ			Gujarat, Rajasthan	
Dhaniya [Coriander]					5	S	S		Н	Н	H		Rajasthan, MP, AP	
Black Pepper				S	5		Н	н	н	н			Kerala, Karnataka	
Mentha	Н	н							S	S	-	Н	UP	
Cardamom (Perennial Herb)				н	н	н	Н	н			-		Kerala, Karnataka, TN	
Potato (North Hills)		н	н	н	н				S	S	S		HP, Uttrakhand	
Sugarcane (summer)						Н	Н	Н	н	н	S	S	North India	
Sugarcane (spring)						Н	Н	Н	S	S			North India	
Sugarcane (winter)				S	5	н	н	н	Н	н			North India	
Sugarcane (South India)		S			н	н	Н	S	s	S			South India, Maharashtra	

Potato Production In India: An Overview

Area, production and productivity of potato during last 3 years

S. N.	YEAR	AREA	PRODUCTION	PRODUCTIVITY
	TEAR	(LAKH HA)	(LAKH MT)	(TONES/HA)
3	2013-14	19.73	415.55	21.06
4	2014-15	20.76	480.09	23.13
5.	2015-16	20.63	455.69	22.09

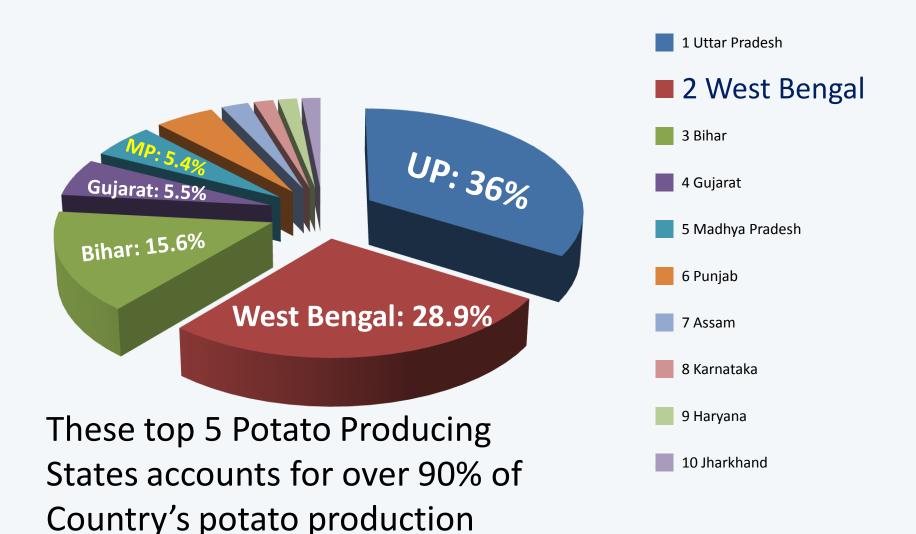
Source: Horticulture Division, Ministry of Agriculture, Government of

India, New Delhi

* - 2nd Advance estimate of Govt of India

Inter state/Regional Availability Gap:

Potato Production In India: 2013-14



MAJOR POTATO-PRODUCING STATES

Production in '000 tonnes

	'12-'13	'13-'14	% chg	
Uttar Pradesh	14,430.28	15,013.26	4.04	
West Bengal	11,591.30	12,000.00	3.53	
Bihar	6,640.55	6,536.00	-1.57	
Madhya Pradesh	2,299.00	2,322.00	1.00	1
Gujarat	2,499.73	2,300.00	-7.99	
All-India	946.51	1128.5	19.23	4

Source: Horticulture Division, Ministry of Agriculture

Compiled by BS Research Bureau

Intra State (W.B.) Market Size:

Estimated Requirement of Crops in West Bengal During 12th Plan Period - Part-B

In Lakh MT

Year	Population (Lakh)	Oil Seeds	Potato
2013-14	915.94	16.55	50.98
2014-15	923.89	16.69	51.43
2015-16	931.98	16.84	51.88
2016-17	940.35	16.99	52.34

Cooling spaces*

State	No. of cold storages	Size in million tonnes
Uttar Pradesh	2,176	13,633,039
West Bengal	502	5,901,925
Gujarat	560	2,030,873
Punjab	606	2,004,778
Andhra Pradesh (including Telangana)	404	1,577,828
Total	6,891	31,823,700.60



Source: Ministry of Food Processing Industries, Task force on Cold-chain projects * Data as of March 2014

Potato: The Business Potentiality of WB

West Bengal: Economics of Potato

Potato: Availability Analysis

			Potato: West Bengal	
Year	All India Production (LT)	Production (LT)	Requirement for Seed & Others (10%) (LT)	Actual Availibility (LT)
2013-14	415.55	115.8	11.58	104.22
2014-15	480.09	120	12	108
2015-16	455.69	136	13.6	122.4

West Bengal: Economics of Potato

From farm to market, potato price jumps 5 times in 60km

Wholesale Rates Dip To

TOI: 28.2.17

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TOI: 28.2.17

TOI: 28.2.17

TOI: 28.2.17

Intra State Transactions Per Annum: The Movements & Trends

	Actual	Consumption of the State (LT)	Farmer's	End	Consumer's End		
Year	Availability (LT)		Av. Sell Price/Ton (In Rs.)	Total Value/An. (Rs. In Cr.)	Av. Retail Price/Ton (In RS)	Total Value/An. (Rs. In Cr.)	
2013-14	104.22	50.98	3000	1529.4	12000	6117.6	
2014-15	108	51.43	2000	1028.6	10000	5143	
2015-16	122.4	51.88	3500	1815.8	14000	7263.2	

is expected in three major potato producing districts. Heoghly, Burdwan and Bankura and some blocks of other districts. The potato production.

structed to reserve to a potatostorage space for gover amentprocured potatoes. This spacewill be at the disposal of the district magistrate till March 21. most Rs 100 per packet. If the government buys out some part of the produce, I will be relived of a huge stress.

Bengal's agriculture mar-

last to a great extent. A lot of farmers will have a breather. Butthe Panchayat must prepathe list of potato farmers on a war-footing."

West Bengal: Economics of Potato

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দাম পাবেন না জেনে ক্ষোভ, দুশ্চিন্তাতেও আলুচাষি

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Potato:	West	Bengal
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Inter State/Export Transactions Per Annum: The Movements & Trends

ı		inter state/Export transactions for Anniani. The Movements & Trends						
ı	Year	Actual	Intra State	Interstate/Expo	Farme	r's End	Consumer's End	
		Availability (LT)	Transaction (Consumption of the State) (LT)	rt Transaction (LT)	Av. Sell Price/Ton (In Rs.)	Total Value/An. (Rs. In Cr.)	Av. Retail Price/Ton (In RS)	Total Value/An. (Rs. In Cr.)
ı	2013-14	104.22	50.98	53.24				
	2014-15	108	51.43	56.57				
١	2015-16	122.4	51.88	70.52				

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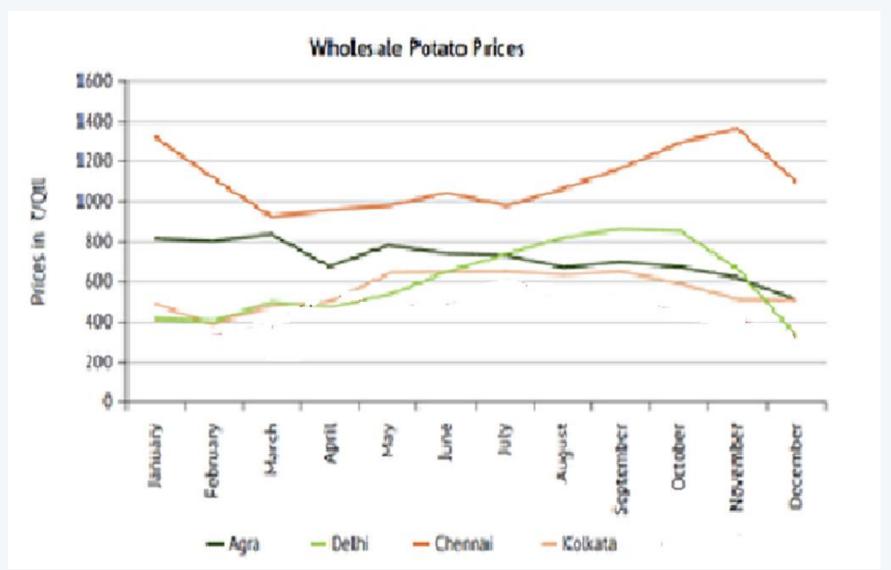
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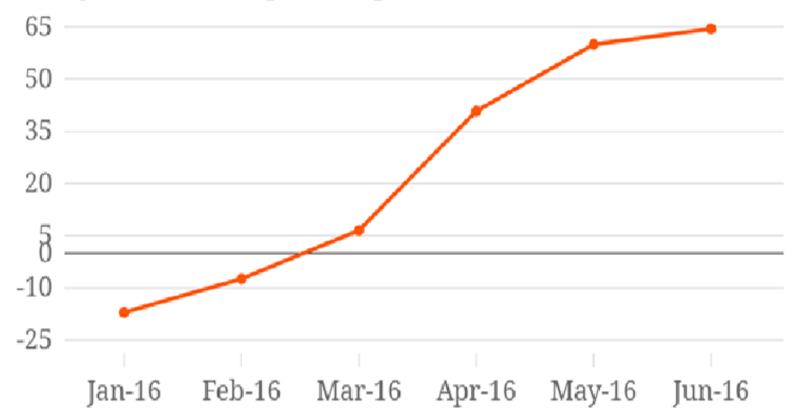
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Dynamic of Potato Economics in India:

Regional Prices Gap: The Trend





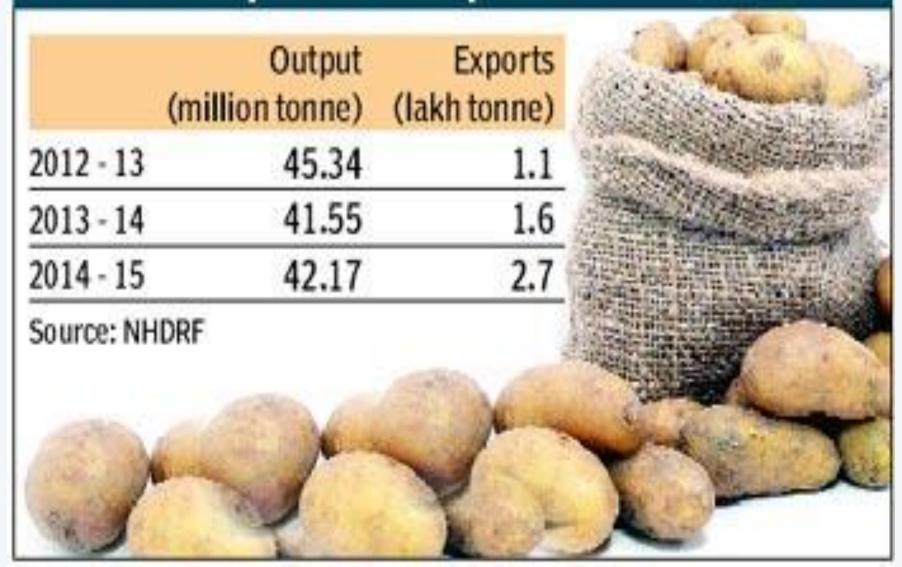


Source: Ministry of Commerce & Industries, GOI

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Growing Export Potentiality of Potato

Potato output and exports

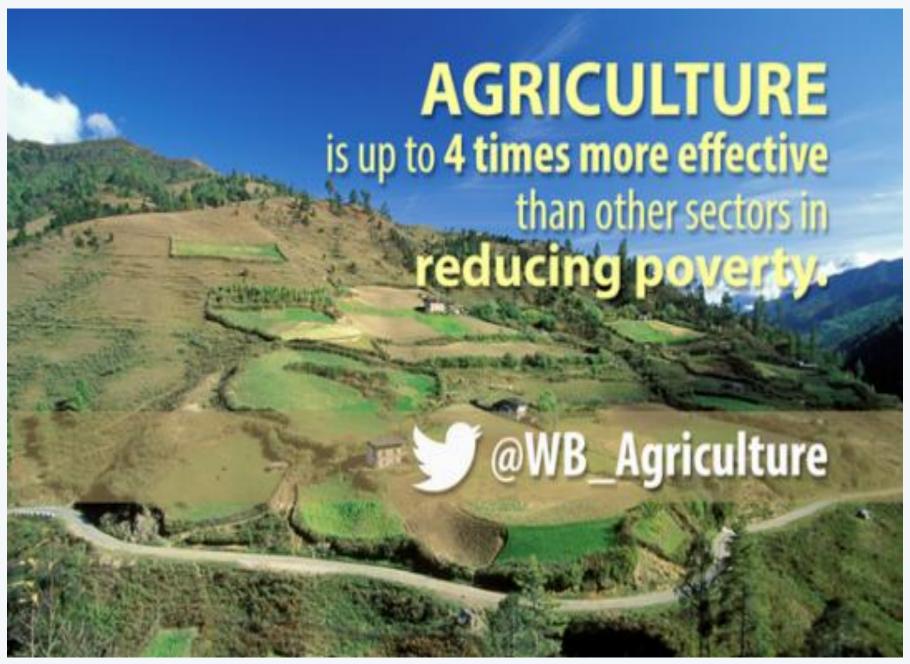




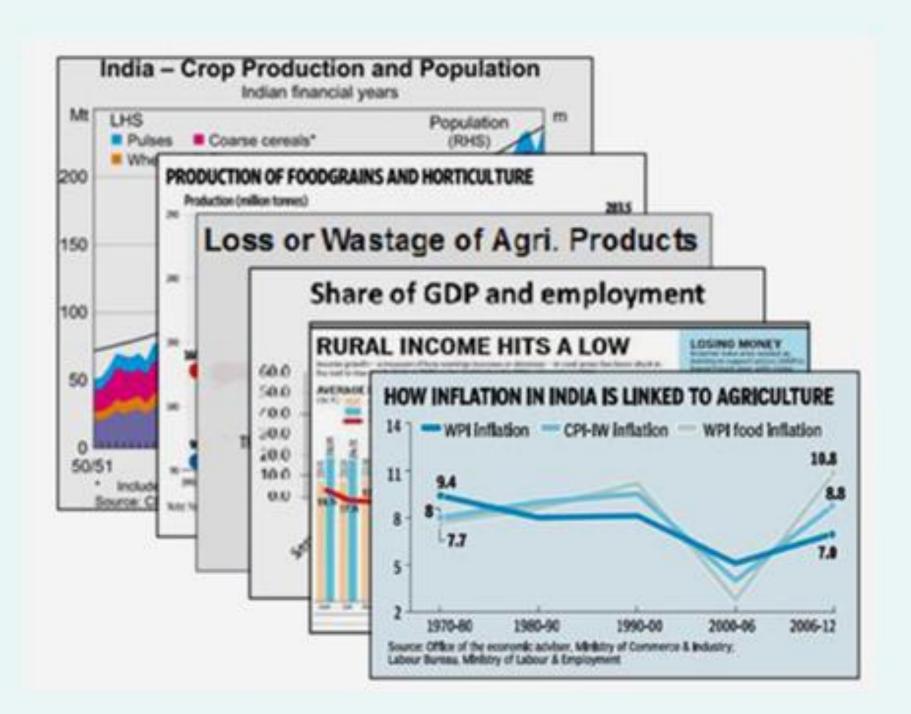
Source: Ministry of Food Processing Industries, APEDA, Ministry of Commerce & Industry, TechSci Research FY16* - Data is for April-August 2015

Indian Agriculture

- ICT Based Agri. Market Linkages



http://blogs.worldbank.org/youthink/five-reasons-why-youth-should-choose-agriculture





Agriculture and Poverty reduction





www.agriitinstitute.org





(Source: World Bank)

eKrishibazar

 A technology (ICT) driven eAuction (Forward/Reverse) based pan-India, digital agri. marketplace

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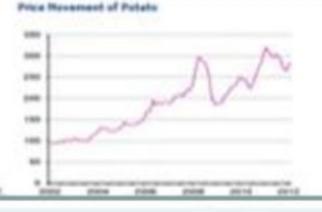
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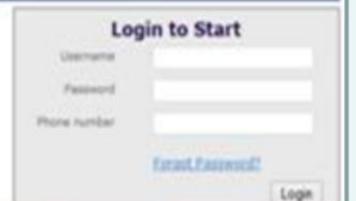
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SUPPORT SUSTAINABLE AGRICULTUR

About the





eKrishibazar:

'eKrishibazar' is a technology (Web-Mobile) driven eAuction (Forward/Reverse) based, West Bengal/ E. Reg. centric pan-India, digital agri. marketplace

- while identifying the pain points, it (eKrishibazar) is to offer a level playing field and an optimum price discovery mechanism to explore market gaps and to facilitate single-point, real-time complete & competitive transactions/mobilization of wide-range of agri. outputs & inputs to/for the concerned stake-holders of both demand & supply sides of over USD 250 billion India agri. economy

eKrishibazar: The Outline of the Proposed Marketplace

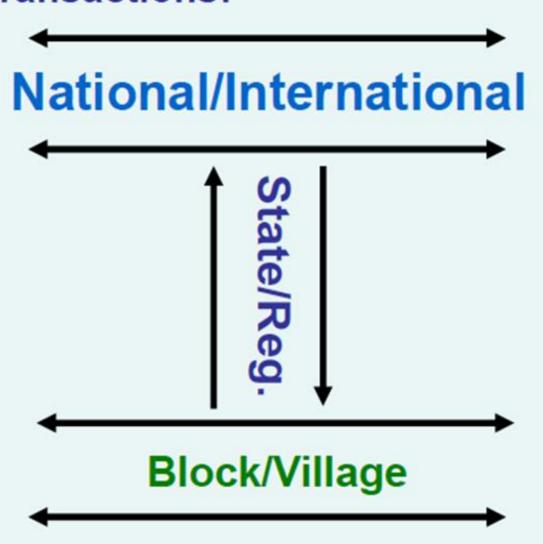
eKrishibazar: Rationalizing/eliminating intermediary bottlenecks and minimizing the huge wastages (specially the post harvest losses), it is also about process reengineering to organize and optimize the agri. value-chain in a single platform to provide **eAuction(Forward/Reverse)** based real-time cost/price rationalization to offer value-added, complete & competitive CRM & SCM solutions to the concerned verticals while integrating,

- **Supply Side:** Farmers & Farm Producers ((Agriculture & allied Fields: Foodgrains, Horticulture, Floriculture,..... Fisheries, Poultry, Dairy Animal Husbandry, ...)
- Demand Side: Urban/Semi urban markets/ (single/multi brand) Retail chains,traders/ procurement agencies,exporters, agri.-food Processing Units
- ☐ Major Service Providers
 - Cold Storage/Warehouses/Cold-chains
 - Logistic Provides
 - Concerned Govt. Dept./Agencies
 - Other stakeholders including Bank/Fin. Inst./Insurance

Product/Services Line & Ranges: In Phases

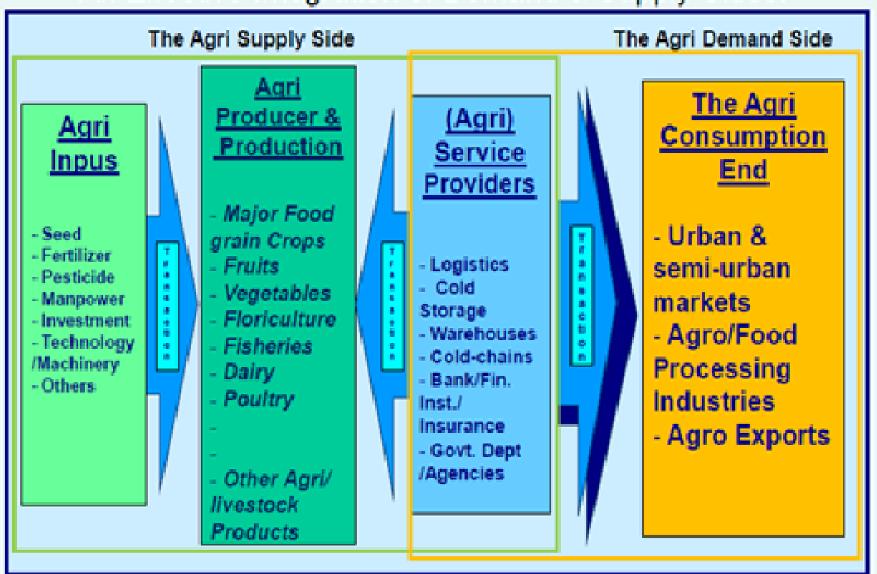
- □ eAuction (Forward/Reverse)
 - eTransaction of agri. output & inputs
 - eTransport Services
 - eCold Storage Services
 - eWarehousing Services
 - Other Services
- ☐ Banks/Fin. Inst. (including micro financing agencies) & Insurance Services
- ☐ Agri. Commodty Management Services
- Others

The Integration of Digital Highways to Facilitate Efficient Transactions:

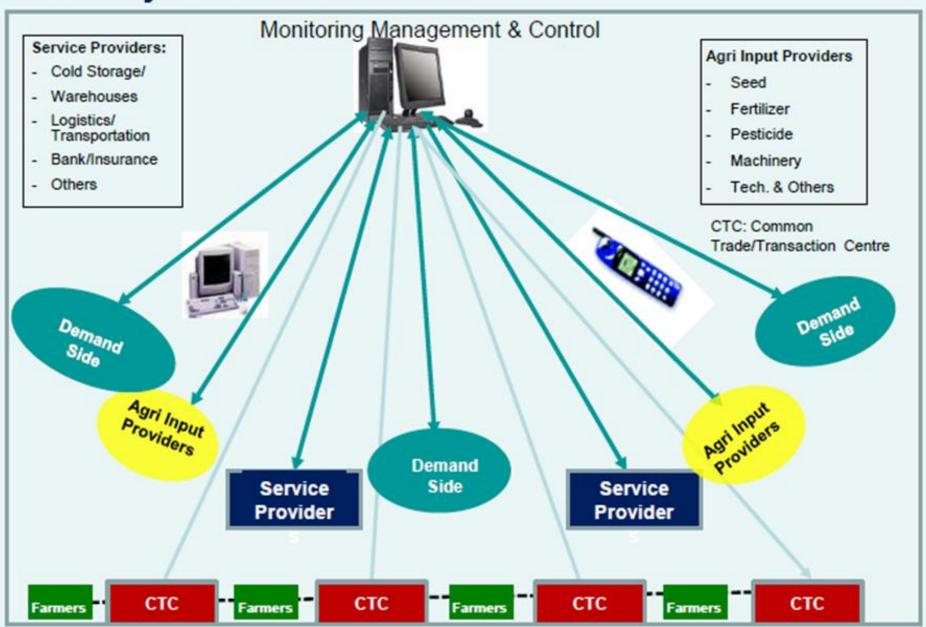


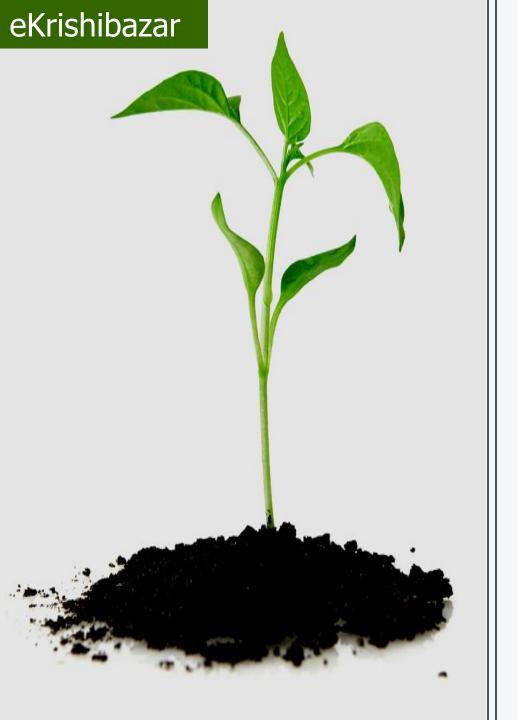
The Project At A Glance:

An Effective Integration of Demand & Supply Sides.



The Project Architecture:





Thank You

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Kolkata 700068

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Cell: 8420764230