

Commodity trading and agriculture

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Agenda

- Background
- Opportunities
- About NCDEX
- Regulatory facilitation

2



Role of commodity exchanges

- Efficient price discovery
- Price dissemination to ensure that farmers can view them
- Provision of delivery platform
 - Warehousing logistics
 - Quality assurance
 - Developing grades and standards

3



Commodities in Indian context

- What are commodities ?
 - Defined by FCRA (1952) as *“Every kind of movable property other than actionable claims, money and securities.”*
- What are not commodities?
 - Indices and weather derivatives
- What are the instruments that are traded?
 - Only futures permitted
 - Options are not allowed though this issue is being actively considered

4



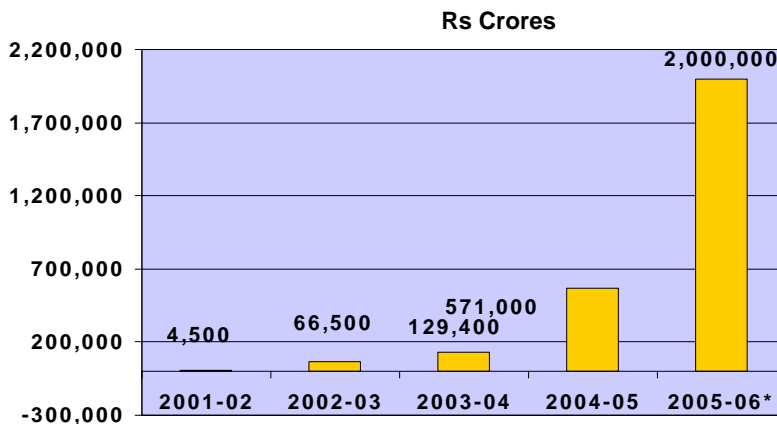
Potential of Commodity markets (Rs cr)

	Current physical volumes	Value chain → Farmers Agents Wholesalers Processors Retailers → * 5	Futures Traded Volumes
Bullion	70,000		350,000
Metals etc	110,000		550,000
Agriculture	550,000		2,750,000
Energy	300,000		1,500,000
Total	10,30,000		5,150,000

5



Growth in volumes of Indian Commodity Exchanges



* Extrapolated on the basis of current data

Impressive growth of 341 % between 2003-04 to 2004-05

Traded volume in 2004-05 around 20% of India's GDP

6



Evolution of markets

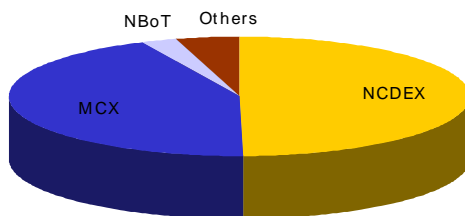
- Oldest market more than a century old
- Ban on futures trading in sixties
- Ban removed gradually
- New exchanges created
- Presently 21 regional and 3 national exist

7



Market Shares

April-March FY06



	Exchange	Share (%)
1	NCDEX	50.3
2	MCX	43.8
3	NBOT	2.5
4	Others	4.4
		100

8



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9



Market Linkages

Correlation Coefficients in Indian Markets: 1997-2005							
	Gold	Silver	Chana	Urad	Guar	Nifty	G-Sec
Gold	1	0.02	- 0.02	0.10	- 0.04	0.08	- 0.02
Silver		1	- 0.05	- 0.03	- 0.01	0.05	0.01
Chana			1	0.28	0.24	0.04	- 0.08
Urad				1	0.12	- 0.07	0.00
Guar					1	- 0.01	0.05
Nifty						1	0.08
G-Sec							1

*Correlation Coefficients for agro commodities for 2004-05

Correlation factor is a key determinant in a good risk strategy
 Findings: - Low degree of association with other assets
 - Commodities are a good portfolio diversifier

10



Volatility comparison: 1997-05

Asset	Annual Average Volatility (%)
Gold	23
Silver	25
*Chana	16
*Urad	23
*Guar	37
Govt. Securities Index	7
NSE Nifty	25

* Annual Average Volatility for 2004 and 2005

Commodities are as volatile compared to equity markets, but more volatile compared with G-Sec markets

11



Nominal Returns on Investments

For 2005

Portfolio	Comparative Nominal Returns (%)
Urad	62.4
Chana	34.1
Guar	15.4
Gold	16
Silver	18
G-Sec	3.5
Nifty	30

What matters for an investor is RAR as volatility varies across commodities
A balanced portfolio b/w stocks and commodities provides attractive yields

12



RAR Analysis suggests a diversification

For 2005

Portfolio	Comparative Nominal Returns (%)	Risk of Portfolio	Risk adjusted Return (%)
Urad	62.4	25.3	2.5
Chana	34.1	17.5	2.0
Guar	15.4	30.2	0.5
Gold	16	14	1.2
Silver	18	25	0.75
G-Sec	3.5	10	0.4
Nifty	30	18	1.7
Urad & Nifty	46.7	21.6	2.1
Chana & Nifty	32.5	17.6	1.8
Gold & Nifty	24	16	1.5
Silver & Nifty	25	21	1.2

13











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14



Our Shareholders

	Institution	Share	Size \$ bn	Domain Expertise
	NABARD	15 %	12	Apex bank for agricultural lending
	ICICI Bank	15 %	39	Largest private sector bank in India. Listed on NYSE
	NSE	15 %	1700 (vol)	Largest stock exchange in India. Highest volume in single stock futures in world.
	LIC	15 %	10 mn policies p.a.	Largest life insurance company in India
	CRISIL	12%	0.3	India's first & largest credit rating agency. Now a Standard & Poor company
	IFFCO	12%	1	Largest farmer cooperative with affiliation of 36,000 cooperatives
	PNB	8%	27	Large public sector bank with strong rural reach specially in North India
	Canara Bank	8%	24	Large public sector bank with strong rural reach specially in South India

15



Unique Model of NCDEX

	Range of commodities				
CME	★	⬡			
NYMEX	🗿	▲			
CBOT	★	⬡			
NYBOT	★				
TOCOM	🗿	▲			
LME	📦				
EUREX	★	⬡			
SICOM	★				
NCDEX	★	📦	🗿	▲	

Index	
Agro	★
Base Metals	📦
Energy	🗿
Precious Metals	▲
Bonds, currencies, indices	⬡

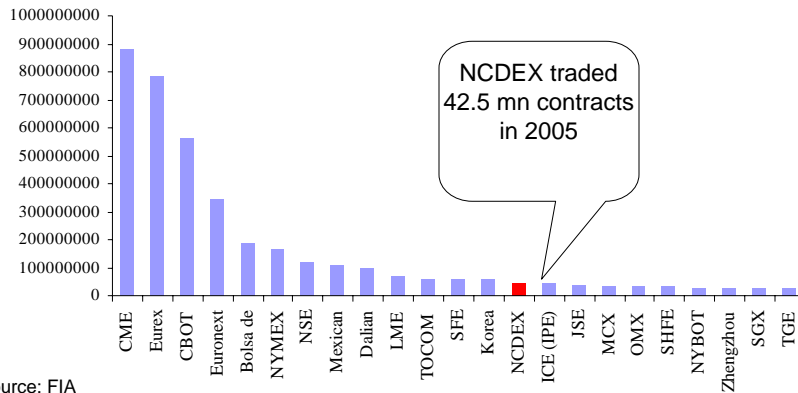
Indian model is unique and leverages technology to span entire commodity spectrum

16



NCDEX in the global map

- NCDEX ranks 14th in the world's top 20 future exchanges
- NCDEX stand 3rd largest commodity exchange in Asia
- Target to reach among the top 10



Source: FIA

17



Exchange Profile

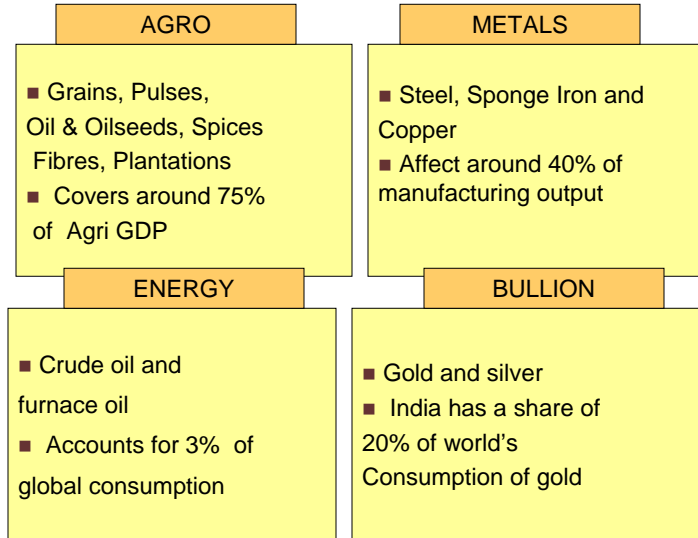
	Number	Remarks
Products	46	39 agro, 2 bullion, 2 energy and 3 metals
Members	750	Spread across India
Terminals	8,150	Accessible from 700 centres
Delivery Centres	363	Over 223 locations
Depository Participants	36	
Clearing Banks	9	
Weather Stations	88	By associate company NCMSL

Largest Settlement Guarantee Fund about Rs 1000 cr

18



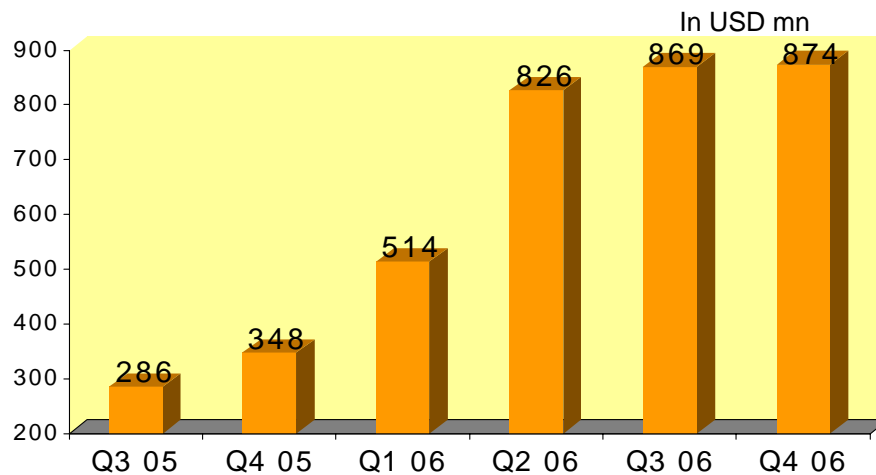
Comprehensive Product Coverage



19



Exchange Average Daily Volumes



20



Price Dissemination

ELECTRONIC	PRINT
<ul style="list-style-type: none"> ■ TV and radio ■ News agencies ■ Mobile phones ■ Integrated kiosk ■ Kisan (farmer) Call centres 	<ul style="list-style-type: none"> ■ Regional newspapers ■ Training material ■ Agri-journals
TICKER Boards (240)	Future plans
<ul style="list-style-type: none"> ■ Member offices ■ Mandis ■ Bank's rural branches ■ Rural warehouses ■ Bus stations ■ Abidjan- Cote D'Ivoire ■ Singapore- View Terminal 	<ul style="list-style-type: none"> ■ Rural Post offices ■ Railway platforms ■ Co-operative offices ■ Panchayat offices

21

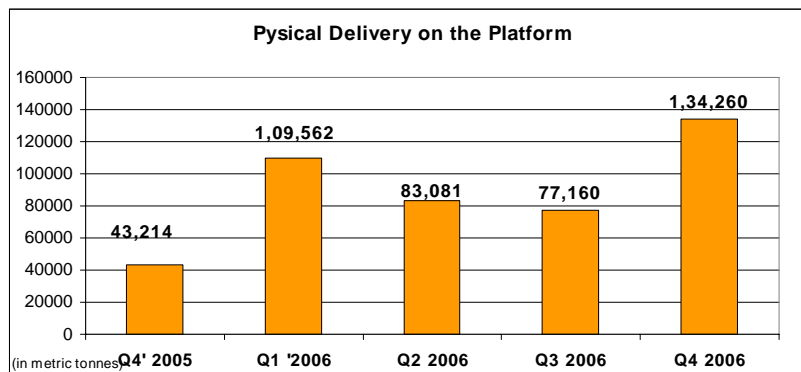


Physical Delivery on the Platform

Comm	Sugar M	Rice	Cotton seed Oilcake	Sesame seed	Urad	Guar Gum	Guar Seed	Pepper
Del/OI (%)	100	100	100	100	97.3	95.3	88.7	87.7

March 2006

In metric tonnes



22



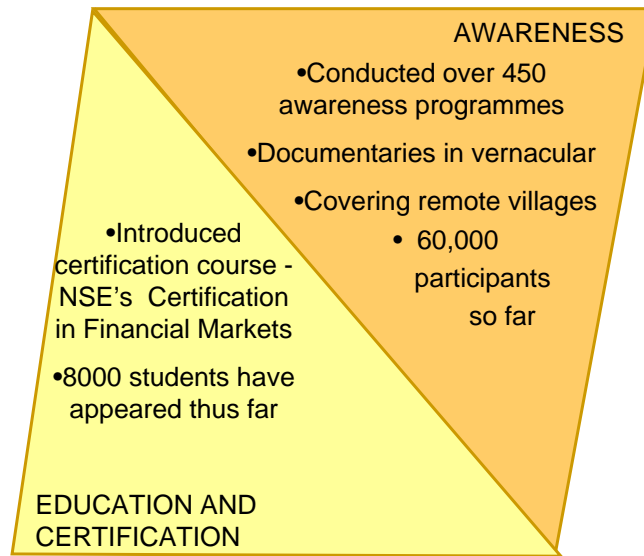
MOU's Signed

GRADING & STANDARDS	INFORMATION SHARING
<ul style="list-style-type: none"> ■ Central Institute for Research on Cotton Technology (CIRCOT) ■ Indian Agriculture Research Institute (IARI) 	<ul style="list-style-type: none"> ■ Tokyo Grain Exchange (TGE) ■ Dalian Commodity Exchange (DCE)
BUSINESS	WAREHOUSES & OTHERS
<ul style="list-style-type: none"> ■ International Petroleum Exchange (IPE) ■ Bharat Petroleum ■ Gas Authority of India Ltd (GAIL) 	<ul style="list-style-type: none"> ■ Food Corporation of India (FCI) ■ Central Research Institute for Dryland Agriculture (CRIDA) ■ Punjab State Cooperative Supply & Marketing Federation

23



Knowledge Management



24



Farmers Interface: Pre-harvest

25

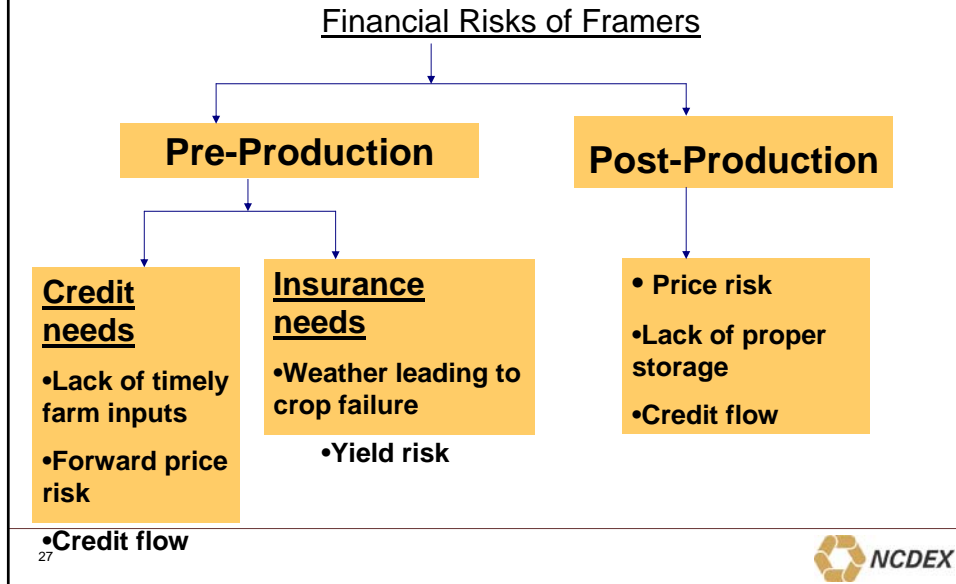


To replace Arathiyas, we need alternative '*single-window*' agencies performing with same efficiency and turn around time; costs are secondary

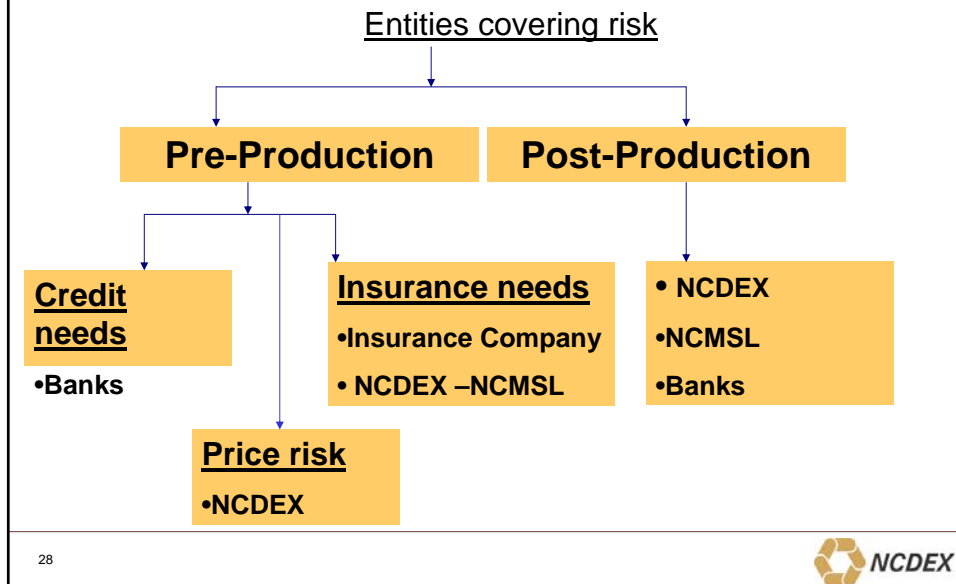
26



Present Financial Concerns



Present Financial Concerns



Banks Lending Against Commodities

- Share of Bank Lending to the **commodity sector** has witnessed a systematic decline over the years

Share of Bank lending to the Commodity Sector	
	Share(%)
2001	1.77
2002	1.57
2003	1.18
2004	1.15
2005	0.95

29



Banks lend, but...

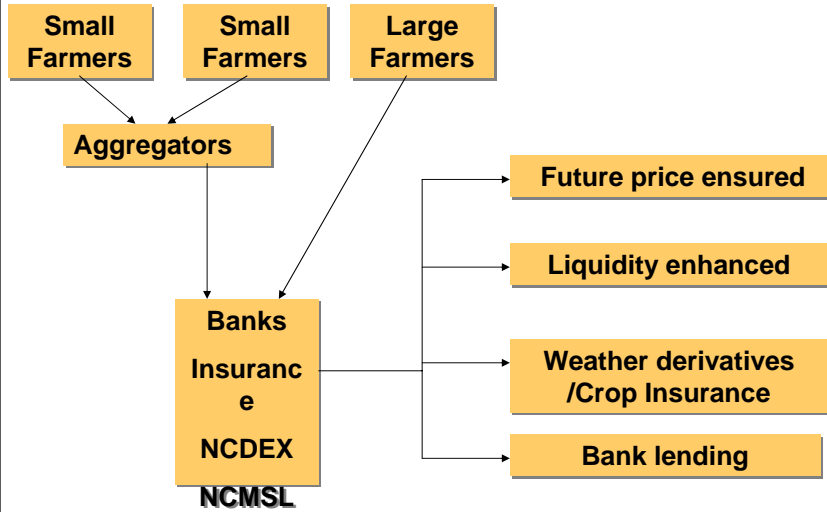
- Charge farmers high interest rates because
 - Pre Harvest
 - Price risk
 - Volumetric risk
 - Crop failure on account of natural factors as also failure in supply of inputs
 - Post Harvest
 - Price Risk
 - Grade Risk
 - Warehouse Risk
 - Physical Receipt Risk
 - Other Risks run by farmers and lenders
 - Default Risk
 - Accidental death of farmers

Banks thus cautious in lending

30



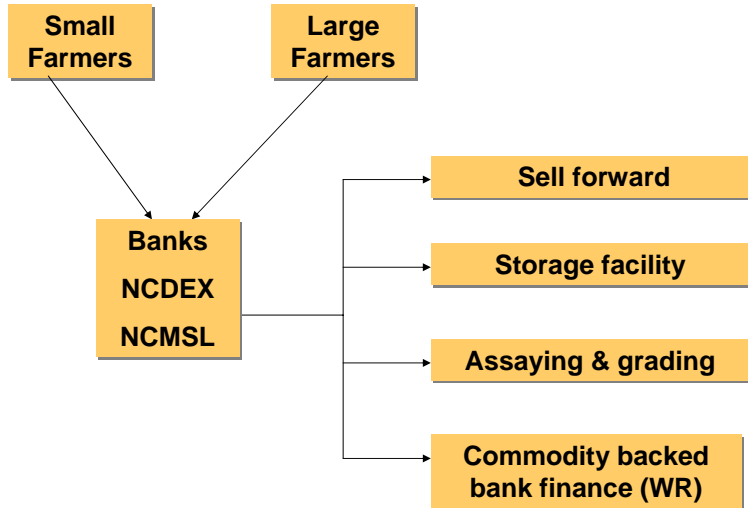
Risk Mitigation: Pre-harvest



31



Risk Mitigation: Post-harvest



32



Resulting Benefits to Farmers and Banks

- Credit Risk Lowered
 - Goods secured and sold
 - Demat WR pledged
 - Certificate for grade and quality
- Banks able to have lower lending rate
 - Credit risk nil
 - Capital needed for lending reduced
 - Grade of asset enhanced from say BB to A-
 - Basle II norms being adhered to
 - NCMSL arranged for 100 crores of lending against WRs in the last 3-4 months

33



NCDEX Initiatives

Spot Price Polling	Farmer Pilots
<ul style="list-style-type: none"> ■ Provides near real time spot price polling of traded commodities ■ Polling in principal market places 2-3 times a day ■ Process analogous to LIBOR and MIBOR Polling 	<ul style="list-style-type: none"> ■ Pre-harvest schemes for farmers in AP and Gujarat ■ Post harvest scheme for farmers in MP ■ Price Dissemination through PCOs in Rajasthan
Collateral Management	Demat Delivery Process
<ul style="list-style-type: none"> ■ Set up National Collateral Management Services Ltd. <ul style="list-style-type: none"> ■ Warehousing, assaying ■ Collateral Management ■ Food procurement for FCI 	<ul style="list-style-type: none"> ■ Enabled holding of commodity balances in electronic form ■ Demat WRs in partnership with NSDL and CDSL

34



Impact of NCDEX on farm incomes

Guar Seed Price (Rs/qttl)					
	FY02	FY03	FY04	FY05	FY06
1st Qtr	823	840	1217	1082	1491
2nd Qtr	821	1575	847	1625	1515
3rd Qtr	698	1434	978	1669	1558
4th Qtr	758	1439	958	1534	1596

Raw Jute Price (Rs qtl)					
	FY02	FY03	FY04	FY05	FY06
1st Qtr	1146	1008	842	1056	1454
2nd Qtr	1042	857	823	1405	1288
3rd Qtr	1042	827	784	1557	1422
4th Qtr	1167	804	794	1303	*

Castor Seed price (Rs/20 kgs)					
	FY02	FY03	FY04	FY05	FY06
1st Qtr	197	247	375	304	304
2nd Qtr	224	263	287	357	301
3rd Qtr	211	297	292	348	273
4th Qtr	211	363	300	305	293

*not traded anymore

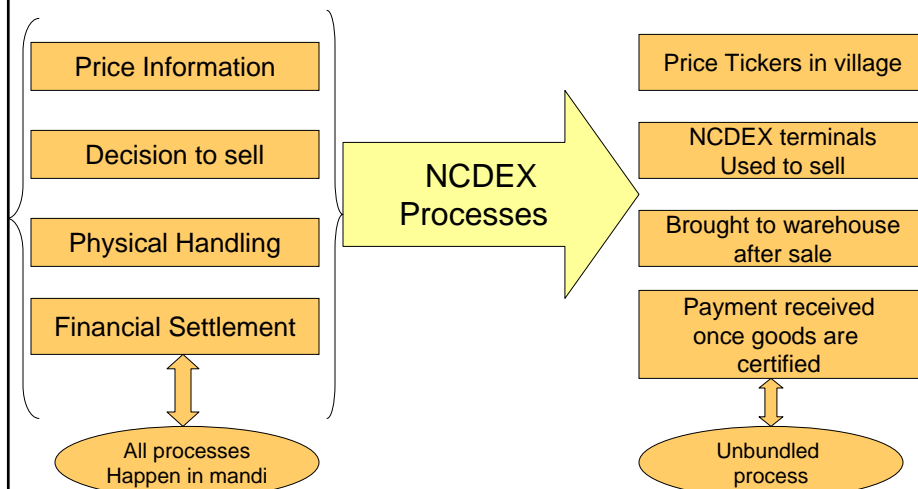
Prices are those received by the farmers after adjusting for the taxes and other incidentals. The Prices are from the following mandis: Bikaner, Calcutta and Ahmedabad/ Disa. Numbers marked in red pertain to Prices after trading was enabled on NCDEX.

35



Spot Market Forays

Present Conundrum



36



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37



Regulatory Facilitation

Sr.No.	Issues	Impact
1	Introduction of Options	a) Helpful for farmers b) Can be a substitute for MSP
2	Trading of Indices	a) Helpful for investors
3	Weather Derivatives to be permitted	a) Hedge volumetric risk for farmers
4	Bank Participation	a) Hedge risk for farmers b) Play role of aggregators
5	Mutual Funds to be permitted	a) Access to retail participation
6	FII participation to be permitted	a) More liquidity in the market b) Expertise brought in Indian market
7	Warehouse Receipts to be made negotiable	a) Facilitate greater lending for farmers

38



Thank You