Parameters for Performance Review of Commodity

Kapas

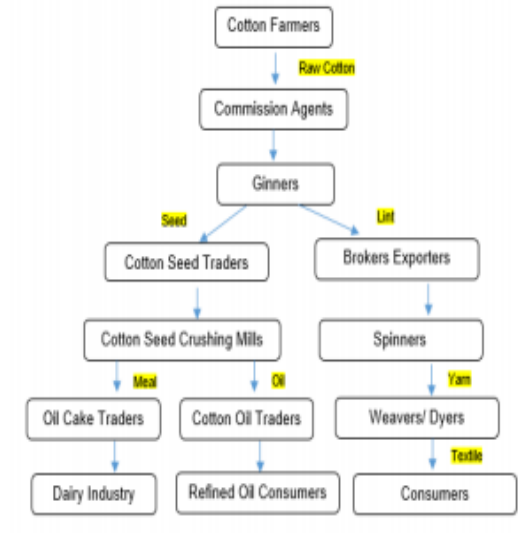
1. Background

a. Brief about the commodity such as sample picture, lifecycle and various varieties/grade of the commodity found in India

Kapas refers to the unginned fibrous substance extracted from the cotton plant (cotton boll), which covers the underlying seed. It is the primary product obtained from a cotton plant. It is picked in the form of bolls. The picking can be manual or mechanized. The picked cotton bolls which we call as Kapas is also known as Seed Cotton or Raw Cotton. A boll of Kapas contains lint (fibrous part) and cotton seed. Typically, raw cotton contains 34-35% Fiber and 63.5% seed by weight. Raw cotton is measured and stored in units of maunds (20 kg) bag each. There is no direct use of Kapas or seed cotton. Kapas is ginned to produce lint (fibre) and cotton seed. Fiber is used for manufacturing of yarn, which is used for manufacturing of textiles. Cotton seed is further crushed to obtain cotton seed oilcake and cotton seed oil. Cotton seed oil cake is used as a cattle feed and cotton seed oil is used for human consumption.

Kapas is majorly grown as summer or Kharif season crop in India. In irrigated areas of northern states like Punjab and Haryana, sowings take place during mid-April or May, while in central and southern regions, generally, sowings take place around June-July depending on onset of monsoon and continues till August. Harvesting generally starts from October onwards and continues till February.

Crop Cycle (India)											
Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Sowing			**Harvesting**								

Life Cycle: Value Chain of the Commodity	Major Varieties /Grade
	Major Varieties* Bengal Desi, Assam Comilla, V797/G-Cot-13, J-34 Hybrid, LRA 5166, H-4/H6/MECH, Sanker-6/10, Bunny / Brahma, MCU-5 /Surabhi, DCH-32 (*Varieties differ as per the Staple Length) NCDEX: Important Quality Parameters

Staple Length	Basis 29 mm
Tenderable Range	29 mm and above
Outturn	Minimum 34%
Trash content	Max 3%
Micronaire	Basis: 3.8-4.0 Micronaire
Strength	Basis: Minimum 29 GTex
Reflectance	Deliverable Range: 75-81
Yellowness	Deliverable Range: 7.5-9.5
Moisture	Max. 8%

Table: Reference Years for Commodities

Sl. No.	A	B	C
Crop Season	**Kharif**	**Kharif (Long Duration crop)**	**Rabi**
Crops	Paddy, Maize, Bajra, Moong, Soybean, Guar seed, Kapas, Sesame Seed	Castor seed and Turmeric	Wheat, Barley, Chana, RM Seed, Coriander, Jeera
Relevant Processed commodities	Guar gum, Soybean meal, Soy oil, Cotton, Cotton seed Oil cake, Gur, CPO	Castor Oil	-
Sowing Time	July onwards	July onwards	October onwards
Harvesting Time	Oct onwards	Jan onwards	March onwards
Reference Year Financial Year 2022-23 (Apr-Mar)			
Corresponding Years			
Production Year (PY)	2022-23 (July-Sept)	2021-22 (July-June)	2021-22 (July-June)
Marketing Year (MY)	2022-23(Oct-Sept)	2022-23 (Jan/Feb-Dec/Jan)	2022-23 (Mar/Apr - Feb/Mar)
Calendar Year (CY)	2022 (Jan-Dec)	2022 (Jan-Dec)	2022 (Jan-Dec)
Relationship b/w Various Years	Current Financial Year = Current Production Year = Current Marketing Year = Calendar Year	Current Financial Year = Previous Production Year = Current Marketing Year = Current Calendar Year	Current Financial Year = Previous Production Year = Current Marketing Year = Current Calendar Year
Example	FY 2022-23= PY 2022-23= MY 2022-23= CY 2022	FY 2022-23= PY 2021-22 = MY 2022-23= CY 2022	FY 2022-23= PY 2021-22 = MY 2022-23= CY 2022

Note: Coffee is a plantation crop; hence, it is not classified under either Kharif or Rabi season in the above table.

Explanatory Notes:

- India is a vast country and various crops are sown and harvested at different point of time. However, two major crop seasons, are there i.e. Kharif & Rabi. Apart from it, Zaid/Summer season is also there.

- Crop seasons are classified based upon sowing time. Normally Kharif season sowing starts from mid-June/July and new crop arrivals begin from Oct/Nov. However, early/late sowing/harvesting also takes place. Rabi season sowing usually takes place mainly from October/November and harvesting starts from March/April. Early/late sowing/harvesting also takes place. Summer crops/Zaid crops are short duration crops mainly sown during January-March and harvested during April-June.

- "Production Year" is considered as "July to June". With the start of monsoon rains during June/July the sowing of Kharif season starts and they are harvested during Sept/Oct. From Oct onwards the sowing of Rabi season crops starts and harvesting usually takes place during March/April. Thus, a single production cycle completes between July-Sept period covering Kharif, Rabi and Zaid crops. Thus production year remains same for all season crops and the period corresponds to July-Sept.

- "Marketing Year" for each crops starts from beginning of the harvest time i.e. from start of new crop produce arrivals in the market. Thus, for Kharif crops Marketing Year is generally considered as "October to September", while for Rabi crops Marketing Year is considered as "April to March". However, Marketing Year may vary slightly for some of the crops depending upon early/late maturity/harvesting.

- For processed commodities, their production starts after the start of new season crop arrivals of their underlying crop.

b. Commodity fundamentals and balance sheet as per the following format (to be prepared based on publicly available information on best effort basis):

Data for Kapas is not available from publicly available sources. So all the data presented below is for Cotton.

Kapas is the white colored fibrous substance seen covering the cotton seed, which is obtained from the cotton plant. Kapas is separated by a process called ginning which separates the lint and the seed. Lint (Cotton) is derivative product of kapas.

Table - Fundamentals & Balance sheet (quantity)

(Lakh bales of 170 Kg each)

Global Scenario	Previous FY (2021-22)	Current FY (2022-23) (P)
Opening Stocks	1105.27	1104.32
Production	1485.83	1484.61
Imports	546.80	497.32
Total Supply	3137.89	3086.25
Exports	548.90	497.70
Domestic Consumption	1489.37	1411.02
Closing Stocks	1104.32	1178.43

Source: USDA (April 2023); P= Provisional,
Data for Kapas is not available in the public domain; hence Cotton data has been provided

(Lakh bales of 170 Kg each)

Indian Scenario	Previous FY (2021-22) (P)	Current FY (2022-23) (P)
Opening Stocks	71.84	45.60
Production*	312.03	341.91*
Imports	18.00	10.00
Total Supply	401.87	397.51
Exports	42.50	40.00
Domestic Consumption	356.27	351.00
Closing Stocks	45.60	46.51

Data for Kapas is not available in the public domain; hence, Cotton data has been provided.
*: Kapas production is estimated at 170.95 lakh tonnes for FY 2022-23. It has been derived from Cotton production data for FY 2022-23 sourced from COCPC. Cotton (Lint) recovery is 34% of the Kapas/ Raw Cotton.
Cotton production is estimated at 341.91 lakh tonnes by Committee on Cotton Production and Consumption (COCPC) in its meeting held on Nov 11, 2023, P= Provisional,

(Lakh bales of 170 Kg each)

Rank	Top 10 Major Producing Countries			Top 10 Major Consuming Countries		
	Country	Previous FY (2021-22)	Current FY (2022-23) (P)	Country	Previous FY (2021-22)	Current FY (2022-23) (P)
1	China	343.24	390.62	China	432.25	467.47
2	India	312.50	313.78	India	320.18	288.16
3	United States	224.42	188.01	Pakistan	137.04	110.14
4	Brazil	150.10	166.49	Bangladesh	108.86	101.18
5	Australia	74.92	70.44	Turkey	111.42	96.05
6	Turkey	48.67	62.76	Vietnam	85.81	80.69
7	Pakistan	76.84	49.95	Brazil	42.26	40.98
8	Uzbekistan	37.14	37.14	Uzbekistan	42.26	37.14
9	Greece	17.93	18.57	United States	32.66	26.90
10	Mexico	15.62	17.93	Indonesia	33.30	23.69
	Others	184.44	168.92	Others	143.33	138.61
	World Total	1485.83	1484.61	World Total	1489.37	1411.02

Source: USDA (April 2023); P= Provisional,

(Lakh bales of 170 Kg each)

Rank	Top 10 Major Exporting Countries			Top 10 Major Importing Countries		
	Country	Previous FY (2021-22)	Current FY (2022-23) (P)	Country	Previous FY (2021-22)	Current FY (2022-23) (P)
1	United States	187.27	156.25	Bangladesh	105.02	94.77
2	Brazil	98.96	91.57	China	100.41	92.85
3	Australia	45.81	80.69	Vietnam	84.93	80.69
4	India	47.94	23.05	Pakistan	57.63	55.07
5	Greece	18.29	16.33	Turkey	70.75	51.23
6	Benin	17.93	15.37	India	12.81	22.41
7	Mali	16.65	12.17	Indonesia	33.00	22.41
8	Burkina Faso	11.53	11.01	Mexico	12.28	11.53
9	Turkey	7.26	8.97	Thailand	9.61	9.29
10	Cameroon	7.68	8.00	Malaysia	5.69	7.04
	Others	89.57	74.30	Others	54.67	50.03
	World Total	548.90	497.70	World Total	546.80	497.32

Source: USDA (April 2023); P= Provisional,

(Lakh bales of 170 Kg each)

Top 10 Major Cotton producing states in India			
Rank	State	Previous FY (2021-22) (P)	Current FY (2022-23) (P)
1	Gujarat	74.82	91.83
2	Maharashtra	71.18	80.25
3	Telangana	60.67	53.25
4	Rajasthan	24.81	27.12
5	Karnataka	19.50	21.04
6	Andhra Pradesh	17.08	17.85
7	Haryana	13.16	17.21
8	Madhya Pradesh	14.20	15.19
9	Punjab	6.47	9.22
10	Orissa	6.26	6.82
	Others	3.88	2.13
	All India Level	312.03	341.91

Source: As estimated by Committee on Cotton Production and Consumption (COCPC) in its meeting held on 15.11.2022, P= Provisional

c. Major changes in the polices governing trade in the spot markets of the commodity

Date	Major Policies governing trade and related changes
13-Apr-22	The central Govt. exempted custom duty on cotton import w.e.f. Apr 14 till Sept 30, 2022.
08-06-2022	Government has increased the Minimum Support Price of Kharif crops for the Marketing Year 2022- 23. Cotton MSP has increased to Rs. 6080 (+ 6%) per quintal for medium staple and Rs. 6380 (+ 6%) per quintal for long staple cotton as compared to price for medium staple at Rs. 5726 per quintal and Rs. 6025 for long staple during the 2021-22.
18-06-2022	The Cotton Association of India revised downward its cotton crop estimate for 2021-22 by 8.31 lakh bales to 315.32 lakh bales of 170 kgs. Each
04-Jul-22	The Centre has extended the window for duty-free imports of raw cotton till October 31, 2022 from the earlier deadline of September 30, 2022
18-Oct-22	CAI in the final estimates of the Cotton crop for the 2021-22 season, has pegged production at 307.5 lakh bales (each of 170 kg raw cotton) against 360.13 lakh bales estimated at the beginning of the season.
18-Oct-22	CAI, in its first estimate for the 2022-23, has projected the Cotton crop at 344 lakh bales as against 307.5 lakh bales produced in the last season.
14-Jan-23	Cotton Association of India (CAI) further revised the Cotton crop estimate for 2022-23 season to 330.50 lakh bales, lower by 3% as compared with previous estimate of 339.75 Lakh Bales in December 2022.
01-Feb-23	The government has announced a scheme for increasing the production of Extra Long Staple Cotton in the country under Cluster Development Initiative through PPP mode.
14-Feb-23	CAI revised the 2022-23 Cotton crop estimate downward by 3% to 321.50 lakh bales against 330.50 Lakh Bales estimated in January 2023.
16-Mar-23	CAI (Cotton Association of India) Cotton crop estimates for crop year 2022-23 was further lowered to 313 lakh bales

d. Geo political issues in the commodity and its impact on Indian scenario.

Date	Event	Key Details	Key Implications/Impact
	No Cotton/ Kapas specific Geo-political issues were seen during review period	NA	NA

NA: Not Applicable

2. Trading-related parameter

a. Monthly and Annual traded volume (quantity in appropriate units)

Month	Year	Symbol	Traded volume (MT)	Annual Traded Volume (MT)
Apr	2022	KAPAS	9,589	153,928
May	2022	KAPAS	597	
Jun	2022	KAPAS	2,417	
Jul	2022	KAPAS	3,886	
Aug	2022	KAPAS	7,635	
Sep	2022	KAPAS	11,395	
Oct	2022	KAPAS	14,000	
Nov	2022	KAPAS	27,994	
Dec	2022	KAPAS	24,140	
Jan	2023	KAPAS	23,387	
Feb	2023	KAPAS	14,324	
Mar	2023	KAPAS	14,564	

b. Annual traded volume as proportion of total deliverable supply (quantity in appropriate units)

Symbol	Traded volume (MT)	Deliverable supply(MT)	Proportion
KAPAS	153,928.00	17,095,500	0.01

c. Annual traded volume as proportion of total annual production (quantity in appropriate units)

Symbol	Traded volume (MT)	Production(MT)	Proportion
KAPAS	153,928	17,095,500	0.01

d. Annual average Open interest as proportion of total production

Symbol	Average Open Interest (MT)	Production(MT)	Proportion
KAPAS	1,502.22	17,095,500	0.00

e. Annual average Open interest as proportion of total deliverable supply

Symbol	Average Open Interest (MT)	Deliverable supply(MT)	Proportion
KAPAS	1,502.22	17,095,500	0.00

f. Monthly and Annual value of trade (in Rs. Crores)

Month	Years	Symbol	Traded Value (in Cr.)	Annual value (In Cr.)
Apr	2022	KAPAS	418.81	5,172.73
May	2022	KAPAS	21.51	
Jun	2022	KAPAS	81.55	
Jul	2022	KAPAS	127.93	
Aug	2022	KAPAS	267.46	
Sep	2022	KAPAS	380.35	
Oct	2022	KAPAS	449.86	
Nov	2022	KAPAS	947.13	
Dec	2022	KAPAS	785.56	
Jan	2023	KAPAS	770.73	
Feb	2023	KAPAS	464.26	
Mar	2023	KAPAS	457.58	

g. Monthly and Annual quantity of delivery (in appropriate units)
No delivery in FY 2022-23.

h. Monthly and Annual value of delivery (in Rs. Crores)
No delivery in FY 2022-23.

i. Monthly and Annual Average Open Interest (OI) (in appropriate units)

Month	Years	Symbol	Average Open Interest (MT)	Annual Average Open Interest (MT)
Apr	2022	KAPAS	1,454.42	1,502.22
May	2022	KAPAS	106.48	
Jun	2022	KAPAS	190.00	
Jul	2022	KAPAS	462.10	
Aug	2022	KAPAS	901.10	

Sep	2022	KAPAS	1,302.64	
Oct	2022	KAPAS	1,673.78	
Nov	2022	KAPAS	2,163.19	
Dec	2022	KAPAS	2,527.23	
Jan	2023	KAPAS	2,580.86	
Feb	2023	KAPAS	2,519.00	
Mar	2023	KAPAS	2,423.38	

j. Annual average volume to open interest ratio

Symbol	Traded to Open interest
KAPAS	40.82%

k. Total number of unique members and clients who have traded during the financial year

Symbol	Member Count	Client Count
KAPAS	98	1,539

l. Ratio of open interest by FPOs/farmers/Hedge/VCP positions to total open interest (Annual average as well as maximum daily value)

Annual average of ratio of open interest by FPOs/farmers/Hedge/VCP positions to total open interest

Symbol	VCPs/ Hedger
KAPAS	3.32%

Maximum daily value of ratio of open interest by FPOs/farmers/Hedge/VCP positions to total open interest

Symbol	VCPs/ Hedger
KAPAS	0.00%

Commodity wise client categorization is as per category details as provided by the members.

m. Number of unique FPOs / farmers and VCPs/hedgers who traded in the financial year

Commodity	Count
KAPAS	6

Commodity wise client categorization is as per category details as provided by the members.

n. Algorithmic trading as percentage of total trading

Commodity	%
KAPAS	0.76%

o. Delivery defaults

Number of instances	0
Quantity involved	0
Value involved	0

3. Price Movements

a. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international futures price (wherever relevant comparable are available).

Kapas not traded on any international Exchange.

b. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international spot price (wherever relevant comparable are available) and domestic spot price (exchange polled price).

Kapas not traded on any international Exchange.

c. Correlation between exchange futures & domestic spot prices along with ratio of standard deviation.

Correlation			
	Futures	*Spot*	*Mandi*
Futures	1	0.708844	0.049731
Spot	0.708844	1	0.111096
Mandi	0.049731	0.111096	1

Standard Deviation			
	Futures	*Spot*	*Mandi*
Futures	1	0.949655	3.01455
Spot	1.053014	1	3.174362
Mandi	0.331725	0.315024	1

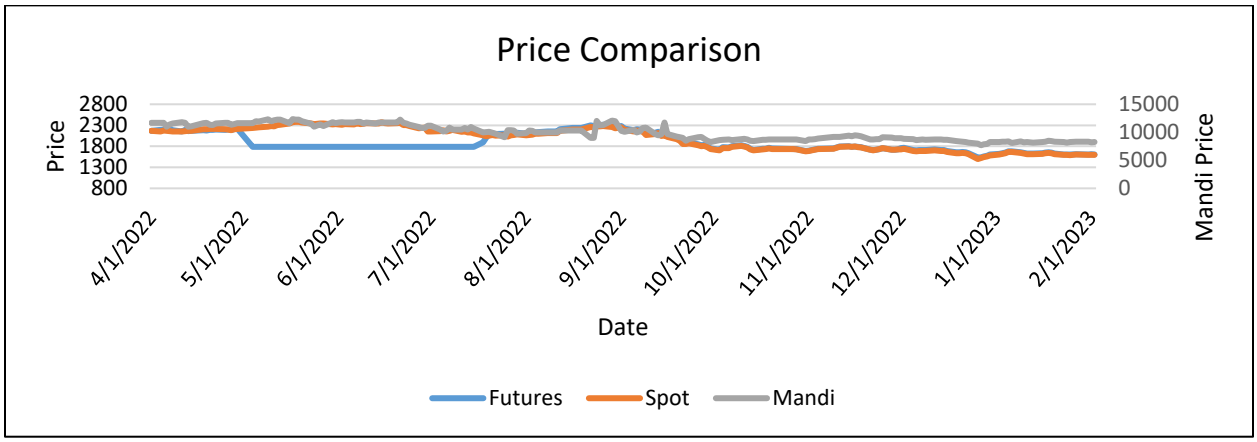
d. Correlation between international futures & international spot prices along with ratio of standard deviation (wherever relevant comparable are available).

Kapas not traded on any international Exchange

e. Comparison of Exchange polled price and mandi price (in case of agricultural commodities) / other relevant price (in case non-agricultural commodities) at basis Centre.

Correlation			
	Futures	*Spot*	*Mandi*
Futures	1	0.708844	0.049731
Spot	0.708844	1	0.111096
Mandi	0.049731	0.111096	1

Standard Deviation			
	Futures	*Spot*	*Mandi*
Futures	1	0.949655	3.01455
Spot	1.053014	1	3.174362
Mandi	0.331725	0.315024	1



Source: Spot and Future Prices: NCDEX, Mandi Prices: Agmarket

f. Maximum & Minimum value of daily futures price volatility and spot price volatility along with disclosure of methodology adopted for computing the volatility . **(Volatility calculated by Standard Deviation of daily returns for the period from 1 April 2022 to 31 March 2023)**

Futures	**Month**	**Value**
Maximum	Jul	0.019925
Minimum	May, Jun	0

Spot	**Month**	**Value**
Maximum	Dec	0.018998
Minimum	Mar	0.005505

g. Number of times the futures contract was in backwardation/ contango by more than 4% for the near month contract in the period under review

	Number of times
Contango	0
Backwardation	106

4. Others parameters

a. Qualitative and quantitative measure for Hedge effectiveness ratio (Methodology in Annexure I) and basis Risk (Volatility of Basis) along with disclosure of methodology adopted for such calculations. (Volatility calculated by Square root of Standard Deviation of daily returns for the period from 1 April 2022 to 31 March 2023)

Basis Volatility	12.17664636
Hedging Efficiency	28.99%

The methodology for hedge efficiency ratio calculation is appended as Annexure 1

b. Details about major physical markets of the commodity vis-à-vis market reach in terms of availability of delivery centers (information to be provided state-wise and UT-wise).

State	Major Trading Centre	Exchange Delivery Centre
Gujarat	Kadi	
	Rajkot	Basis Centre
	Surendranagar	
	Viramgam	
	Vijapur	
	Halvad	
	Dhrangadhra	
	Wakaner	
	Tankara	
	Morbi	
	Taragadhi	
	Padadhari	
	Shapar	
	Hadamtala	
	Gondal	
	Jasdan	
	Amreli	
	Bhavnagar	
	Botad	
	Himmatnagar	NA

Telegana / Andhra Pradesh	Hyderabad	
	Adilabad	
	Warrangal	NA
Maharashtra	Aurangabad	NA

	Akola	
	Yavatmal	
	Jalgaon	
	Beed	
	Parbhani	
	Nanded	
	Jalna	
	Amravati	
	Murtizapur	
	Akot	
	Khamgaon	
	Hinganghat	
	Dhule	
Madhya Pradesh	Indore	
	Khargone	NA
Punjab and Hariyana	Abohar	
	Malaout	
	Bathinda	
	Ludhiana	
	Hisar	
	Sirsa	NA
Rajasthan	Sri Ganganagar	
	Bhilwara	
	Hanumangarh	
	Suratgarh	
	Jaipur	NA
Tamilnadu	Erode	
	Salem	NA
Karnataka	Bijapur	
	Dharwad	
	Haveri	NA

c. Details about major physical markets of the commodity and average Open Interest for each month generated from those regions.

State	Maharashtra	Rajasthan	Madhya Pradesh	Punjab	Delhi	Gujarat
Apr-22	384	194	1316	6	30	179
May-22	45	4	10	2	2	88
Jun-22	49	14	58	6	45	103
Jul-22	105	216	305	4	55	96
Aug-22	275	263	775	11	53	215
Sep-22	266	604	865	14	55	462
Oct-22	107	1094	1187	8	57	426
Nov-22	351	1086	1508	14	182	604

Dec-22	540	521	1716	21	318	1324
Jan-23	477	518	1520	1	103	1885
Feb-23	423	477	1606	1	87	1802
Mar-23	635	263	1616	0	52	1687

d. Details, such as number and target audience, of stakeholders' awareness programs carried out by the exchange.

Following list of Awareness programme, Stakeholder engagement programme has conducted for FY 2022-23.

Sr. No.	Program Type	Location	Participants
1	Investor Awareness Program	Lucknow	38
2	Investor Awareness Program	Kadi	35
3	Investor Awareness Program	Yavatmal	87
4	Investor Awareness Program	Khandwa,Madhya Pradesh	80
5	Investor Awareness Program	Bhubaneswar	90
6	Investor Awareness Program	Wardha , Maharashtra	45
7	Investor Awareness Program	Amravati, Maharashtra	170
8	Investor Awareness Program	Washim, Maharashtra	50
9	Investor Awareness Program	Akola ,Maharashtra	53
10	Investor Awareness Program	Buldhana	70
11	Investor Awareness Program	Karanja, Washim	120
12	Investor Awareness Program	Kolkata	35
13	Investor Awareness Program	Surat	18
14	Investor Awareness Program	Guna, Madhya Pradesh	30
15	Investor Awareness Program	Anjar, Lutch, Gujarat	38
16	Investor Awareness Program	Raipur, Chhattisgarh	112
17	Investor Awareness Program	Patan, Gujarat	104
18	Investor Awareness Program	Nashik	200
19	Investor Awareness Program	Udaipur	150
20	Investor Awareness Program	Rajkot	100
21	Investor Awareness Program	Hissar	100
22	Investor Awareness Program	Nagpur, Maharashtra	120
23	Investor Awareness Program	Raipur	100
24	Investor Awareness Program	Gwalior, Madhya Pradesh	78
25	Investor Awareness Program	Bhopal , MP	54
26	Investor Awareness Program	Indore, Madhya Pradesh	47
27	Investor Awareness Program	Siliguri, West Bengal	39
28	Investor Awareness Program	Alipurduar, West Bengal	31
29	Investor Awareness Program	Meerut, Uttar Pradesh	30
30	Investor Awareness Program	Bhopal, Madhya Pradesh	44

31	Investor Awareness Program	Indore, Madhya Pradesh	80
32	Investor Awareness Program	Chennai, Tamil Nadu	24
33	Investor Awareness Program	Kanpur, Uttar Pradesh	60
34	Investor Awareness Program	Chindwara, MP	50
35	Investor Awareness Program	Seoni , MP	40
36	Investor Awareness Program	Kolkata	25
37	Investor Awareness Program	Raipur, Chattisgarh	136
38	Investor Awareness Program	Lucknow	177
39	Investor Awareness Program	Rourkela	65
40	Investor Awareness Program	Muzaffarnagar	70
41	Investor Awareness Program	Kochi	86
42	Investor Awareness Program	Bhilai	70
43	Investor Awareness Program	Thalamadla	80
44	Investor Awareness Program	Kolkata	45
45	Investor Awareness Program	Online	30
46	Investor Awareness Program	Online	18
47	Investor Awareness Program	Online	23
48	Investor Awareness Program	Odisha	9
49	Investor Awareness Program	Odisha	15
50	Investor Awareness Program	Karnataka	5
51	Investor Awareness Program	Bihar	18
52	Investor Awareness Program	West Bengal	6
53	Investor Awareness Program	Andhra Pradesh	29
54	Investor Awareness Program	Online	11
55	Investor Awareness Program	Online	7
56	Investor Awareness Program	Online	21
57	Investor Awareness Program	Online	6
58	Investor Awareness Program	Online	9
59	Investor Awareness Program	Online	14
60	Investor Awareness Program	Online	82
61	Investor Awareness Program	Online	28
62	Investor Awareness Program	Online	25
63	Investor Awareness Program	Online	50
64	Investor Awareness Program	Online	30
65	Investor Awareness Program	Online	25
66	Investor Awareness Program	Online	5
67	Investor Awareness Program	Online	10
68	Investor Awareness Program	Online	7
69	Investor Awareness Program	Online	13
70	Investor Awareness Program	Online	16
71	Investor Awareness Program	Online	23
72	Investor Awareness Program	Online	53
73	Investor Awareness Program	Online	17

74	Investor Awareness Program	Online	30
75	Investor Awareness Program	Online	15
76	Investor Awareness Program	Online	25
77	Investor Awareness Program	Online	35
78	Investor Awareness Program	Online	10
79	Investor Awareness Program	Online	30
80	Investor Awareness Program	Online	12
81	Investor Awareness Program	Online	6
82	Investor Awareness Program	Online	7
83	Investor Awareness Program	Online	20
84	Investor Awareness Program	Online	50
85	Investor Awareness Program	Online	30
86	Investor Awareness Program	Online	13
87	Investor Awareness Program	Online	10
88	Investor Awareness Program	Online	6
89	Investor Awareness Program	Online	6
90	Investor Awareness Program	Online	8
91	Investor Awareness Program	Online	13
92	Investor Awareness Program	Online	6
93	Investor Awareness Program	Online	25
94	Investor Awareness Program	Online	8
95	Investor Awareness Program	Online	14
96	Investor Awareness Program	Online	11
97	Investor Awareness Program	Online	10
98	Investor Awareness Program	Online	6
99	Investor Awareness Program	Online	9
100	Investor Awareness Program	Online	14
101	Investor Awareness Program	Online	16
102	Investor Awareness Program	Online	11
103	Investor Awareness Program	Online	8
104	Investor Awareness Program	Online	8
105	Investor Awareness Program	Online	13
106	Investor Awareness Program	Online	15
107	Investor Awareness Program	Online	25
108	Investor Awareness Program	Online	25
109	Investor Awareness Program	Online	26
110	Investor Awareness Program	Online	18
111	Investor Awareness Program	Online	52
112	Investor Awareness Program	Online	16

e. Steps taken / to be undertaken to improve hedging effectiveness of the contracts as well as to improve the performance of illiquid contracts.

- Creating an awareness about the Hedge policy to bona fide hedger.
- Awareness Program in Major trading Centre's as well as remote location to increase hedging participation from the value chain participants.
- One to one meetings with market participants to create awareness about new development / new initiatives at exchange level.
- Promoting Long hedge strategy with ginners to attract farmers/FPC.

5. Any other information to be disclosed as deemed important by the exchange or as suggested by the PAC

N.A

ANNEXURE I

Qualitative and quantitative measure for Hedge effectiveness ratio

Hedging Efficiency Methodology

Regression analysis is carried out between near month futures returns and NCDEX polled spot prices returns of the FY2022-23.

The R-Square value of the Regression analysis represents the "**Hedging Efficiency"**.

Note:-

Date for which spot prices were not available is not used for analysis.

Weekly returns are used for performing Regression Analysis.

The method used to calculate Hedging Efficiency does not consider liquidity risk because of this reason illiquid commodities can have high hedging efficiency.

References:

Ghosh, Ph.D, Nilanjan & Dey, Debojyoti & Moulvi, Nazir & Jain, Niteen & Sinha, Neha & Rachuri, Sarika. (2013). Hedging Efficiency—Measures and Empirical Study.