

Parameters for Performance Review of Commodity

CASTOR SEED

1. Background

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

Castor is an important non-edible oilseed, basically a cash crop, cultivated around the world because of the commercial importance of its oil. It is reported to have originated in the tropical belt of both India and Africa.



Castor seed is processed to produce oil, with the average recovery rate being 46%. Castor oil is rich in tryglycerides called ricinolein and is the largest vegetable oil exported out of India. Traditionally, Castor oil was primarily used for medicinal purposes and as a general industrial lubricant. At present, Castor oil and its derivatives have applications in the manufacturing of soaps, lubricants, hydraulic and brake fluids, paints, dyes, coatings, inks, cold resistant plastics, waxes and polishes, nylon, pharmaceuticals and perfumes. Castor meal, the by-product of the oil extraction process, is mainly used as organic fertilizer due to its rich protein contains; however, it cannot be used as cattle fodder because of its toxicity (presence of 'ricin'). India is the leader in global Castor production and dominates in international Castor oil trade.

Castor is an annual crop. It requires moderately high temperatures with low humidity throughout the growing season to produce maximum yields. Traditionally, Castor is a kharif season crop. Time of sowing depends on the onset of monsoon. Generally, Castor seed planting takes place during July-Aug. Under certain circumstances, it can be sown even during September. Harvesting starts in December or January and extends till April. Gujarat is the largest Castor producing state followed by Andhra Pradesh and Rajasthan.

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					
FARMER VILLAGE TRADER WHOLESALER / STOCKIST OIL MILLER CASTOR MEAL FERTILIZER / EXPORT CASTOR OIL EXPORT / PAINTS / LUBRICANTS / RESINS						Major Varieties DCH 519, Gujarat castor-2, GAUC-1, J-1, GCH 7, GCH 6, RHC-1					
						NCDEX: Quality Parameters for Castor Seed (Small seed)					
						Oil content		47% Min.			
						Fotri (Husk) and damaged Seeds		2% Basis Max 3.5% with 1:1 discount			
						Sand, Silica and Stones		1% Max.			
Moisture content		5 % Basis, 6 % Maximum with moisture adjusted weight (MAW) of 1:1									

	Quality Variation	+/-2%
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Table: Reference Years for Commodities

Sl. No.	A	B	C
Crop Season	Kharif	Kharif (Long Duration Crop)	Rabi
Crops	Bajra, Groundnut, Guar seed, Kapas, Maize, Sesame Seed,	Castor seed and Turmeric	Barley, Coriander, Jeera, Isabgol Seed and Yellow Peas
Relevant Processed commodities	Guar gum, 29 mm Cotton, Cotton seed Oil cake, Cotton Wash Oil and Crude Sunflower Oil	Castor Oil	-
Sowing Time	July onwards	July onwards	October onwards
Harvesting Time	October onwards	January onwards	March onwards
Reference Year Financial Year 2025-26 (Apr-Mar)			
Corresponding Years			
Production Year (PY)	2025-26 (July-Sept)	2024-25 (July-June)	2024-25 (July-June)
Marketing Year (MY)	2025-26 (Oct-Sept)	2025-26 (Jan/Feb-Dec/Jan)	2025-26 (Mar/Apr - Feb/Mar)
Calendar Year (CY)	2025 (Jan-Dec)	2025 (Jan-Dec)	2025 (Jan-Dec)
Relationship b/w Various Years	Current Financial Year = Current Production Year = Current Marketing Year = Current 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 2025-26 = PY 2025-26 = MY 2025-26 = CY 2025	FY 2025-26 = PY 2024-25 = MY 2025-26 = CY 2025	FY 2025-26 = PY 2024-25 = MY 2025-26 = CY 2025

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):

Table - Fundamentals & Balance sheet (quantity in Lakh Tonnes)

Global Scenario	Previous FY (2024-25)*	Current FY (2025-26)*
Beginning Stocks	NA	NA
Production	NA	NA
Imports	NA	NA
Total Supply	NA	NA
Exports	NA	NA
Domestic Consumption	NA	NA
Ending Stocks	NA	NA

*Data for FY 2024-25 and 2025-26 is not available in the public domain.

(In Lakh Tonnes)

Indian Scenario	Previous FY (2024-25)	Current FY (2025-26) (P)
Beginning Stocks	NA	NA
Production	19.59	17.86
Imports	NA	NA
Total Supply	NA	NA
Exports	NA	NA
Domestic Consumption	NA	NA
Ending Stocks	NA	NA

Source: Ministry of Agriculture

NA: Data is not available in the public domain; P: Provisional;

India does not export and import castor seed; India exports Castor oil and Castor meal

Please refer to Table entitled “Reference Years for Commodities” to know type of years corresponding to financial year.

(In Lakh Tonnes)

Rank	Top 10 Major Producing Countries			Top 10 Major Consuming Countries		
	Country	Previous FY (2024-25)	Current FY (2025-26)*	Country	Previous FY (2024-25)*	Current FY (2025-26)*

	NA	NA	NA	NA	NA	NA
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*Latest data for FY 2024-25 and 2025-26 is not available in the public domain.

(In Lakh Tonnes)

Rank	Top 10 Major Exporting Countries			Top 10 Major Importing Countries		
	Country	Previous FY (2024-25)	Current FY (2025-26)	Country	Previous FY (2024-25)	Current FY (2025-26)
	NA			NA		

*Latest data for FY 2024-25 and 2025-26 is not available in the public domain.

(In Lakh Tonnes)

Top 10 Major producing states in India			
Rank	States	Previous FY (2024-25)	Current FY (2025-26)
1	Gujarat	15.95	13.61
2	Rajasthan	3.25	3.91
3	Andhra Pradesh	0.25	0.19
4	Telangana	0.02	0.02
	Other States*	0.12	0.13
	Total	19.59	17.86

Source: Unified Portal for Agricultural Statistics, Govt. of India

States are arranged in descending order based on the figure in Current FY

*: The share of other states (except for top four states given above) in the domestic production is negligible. Gujarat accounts for more than 75% of the country's Castor seed production.

Please refer to Table entitled "Reference Years for Commodities" to know type of years corresponding to financial year.

c. Major changes in the policies governing trade in the spot markets of the commodity (FY 2025-26)

Date	Major Policies governing trade and related changes
	No major policy governing castor seed was observed during period under review.

d. Geo political issues in the commodity and its impact on Indian scenario (FY 2025-26)

Date	Event	Key Details	Key Implications/Impact
28-Feb-2026	The direct military conflict between the United States,	The strait's closure or disruption caused sharp	A war between the U.S., Israel, and Iran has not

Date	Event	Key Details	Key Implications/Impact
	Israel, and Iran began on February 28, 2026, with coordinated strikes on Iranian targets.	Increases in global oil prices, as seen during past conflicts and temporary closures.	disrupted castor oil supply directly, but, overall increase in freight, insurance, and financing costs and soften industrial demand, is making exports costlier and more volatile despite India's dominant market position.

2. Trading related Parameter

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

Month	Year	Symbol	Traded volume (MT)
Apr	2025	CASTOR	166,865
May	2025	CASTOR	170,230
June	2025	CASTOR	188,485
July	2025	CASTOR	207,870
August	2025	CASTOR	154,750
September	2025	CASTOR	164,200
October	2025	CASTOR	150,385
November	2025	CASTOR	141,345
December	2025	CASTOR	164,165
January	2026	CASTOR	128,595
February	2026	CASTOR	143,510
March	2026	CASTOR	135,225
Annual Traded Volume (MT) (April'25 to March'26)			1,915,625

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

Symbol	Traded Volume (MT)	Deliverable Supply(MT)	Proportion
CASTOR	1,915,625	1,786,000	1.07

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

Symbol	Traded volume (MT)	Production(MT)	Proportion
CASTOR	1,915,625	1,786,000	1.07

d. Annual average Open interest as proportion of total production

Symbol	Average Open Interest (MT)	Production(MT)	Proportion
CASTOR	35,314.07	1,786,000	0.02

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

Symbol	Average Open Interest (MT)	Deliverable supply(MT)	Proportion
CASTOR	35,314.07	1,786,000	0.02

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

Month	Year	Symbol	Traded value (in Rs. Crores)
April	2025	CASTOR	1059.62
May	2025	CASTOR	1082.45
June	2025	CASTOR	1248.01
July	2025	CASTOR	1413.30
August	2025	CASTOR	1030.33
September	2025	CASTOR	1083.53
October	2025	CASTOR	1000.89
November	2025	CASTOR	969.33
December	2025	CASTOR	1134.09
January	2026	CASTOR	843.84
February	2026	CASTOR	917.68
March	2026	CASTOR	869.59
Annual Traded Volume (in Rs Crores) (April'25 to March'26)			12652.67

g. Monthly and Annual quantity of delivery (in appropriate units)

Expiry Month	Year	Symbol	Total Delivery (in MT)
April	2025	CASTOR	605
May	2025	CASTOR	125
June	2025	CASTOR	2,505
July	2025	CASTOR	855
August	2025	CASTOR	4,505
September	2025	CASTOR	4,280
October	2025	CASTOR	2,025
November	2025	CASTOR	4,195
December	2025	CASTOR	1,045
January	2026	CASTOR	1,465
February	2026	CASTOR	525

March	2026	CASTOR	2,220
Annual value of delivery (in MT) (April'25 to March'26)			24,350

h. Monthly and Annual value of delivery (in Rs. Crores)

Expiry Month	Year	Symbol	Total Delivery Value (in Cr)
April	2025	CASTOR	3.80
May	2025	CASTOR	0.79
June	2025	CASTOR	16.54
July	2025	CASTOR	5.77
August	2025	CASTOR	29.96
September	2025	CASTOR	28.46
October	2025	CASTOR	13.40
November	2025	CASTOR	28.55
December	2025	CASTOR	7.14
January	2026	CASTOR	9.57
February	2026	CASTOR	3.40
March	2026	CASTOR	14.61
Annual value of delivery (in Crores) (April'25 to March'26)			161.99

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

Month	Year	Symbol	Average Open Interest (MT)
Apr	2025	CASTOR	33,283
May	2025	CASTOR	32,024
June	2025	CASTOR	43,062
July	2025	CASTOR	46,908
August	2025	CASTOR	41,300
September	2025	CASTOR	37,199
October	2025	CASTOR	35,919
November	2025	CASTOR	32,717

December	2025	CASTOR	25,736
January	2026	CASTOR	32,214
February	2026	CASTOR	31,892
March	2026	CASTOR	30,279
Annual Average OI (MT) (April'25 to March'26)			35,314.07

j. Annual average volume to open interest ratio

21.96%

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

Symbol	Member Count	Client Count
CASTOR	83	1,325

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	16.65%
Maximum Daily Value	18.31%

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

Commodity	Count
CASTOR	53

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

n. Algorithmic trading as percentage of total trading

Commodity	%
CASTOR	10.98%

o. Delivery defaults

Number of instances	0
Quantity involved	-
Value involved	-

3. Price Movement

- a. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international futures price (wherever relevant comparable are available).
Not Applicable
- 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).
Not Applicable
- c. Correlation between exchange futures & domestic spot prices along with ratio of standard deviation.

Correlation			
	<i>Futures</i>	<i>Spot</i>	<i>Mandi</i>
<i>Futures</i>	1		
<i>Spot</i>	0.473085	1	
<i>Mandi</i>	0.215541	0.313298	1

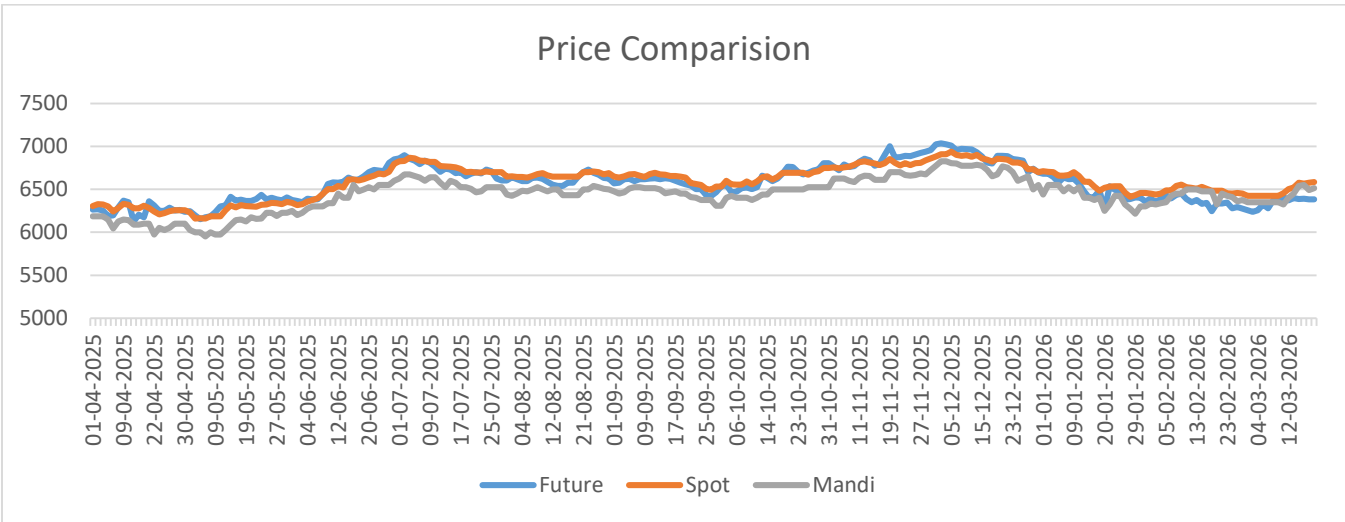
Standard Deviation			
	<i>Futures</i>	<i>Spot</i>	<i>Mandi</i>
<i>Futures</i>	1	0.582914	1.078844
<i>Spot</i>	1.71552	1	1.850778
<i>Mandi</i>	0.926918	0.540313	1

- d. Correlation between international futures & international spot prices along with ratio of standard deviation (wherever relevant comparable are available).
Not Available

- 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			
	<i>Futures</i>	<i>Spot</i>	<i>Mandi</i>
<i>Futures</i>	1		
<i>Spot</i>	0.473085	1	
<i>Mandi</i>	0.215541	0.313298	1

Standard Deviation			
	<i>Futures</i>	<i>Spot</i>	<i>Mandi</i>
<i>Futures</i>	1	0.582914	1.078844
<i>Spot</i>	1.71552	1	1.850778
<i>Mandi</i>	0.926918	0.540313	1



- f. **Maximum & Minimum value of daily futures price volatility and spot price volatility along with disclosure of methodology adopted for computing the volatility.**

	Futures		Spot	
Volatility	Month	Value	Month	Value
Max	Apr	0.010935	Jan	0.005165
Min	Aug	0.004477	Aug	0.002671

- 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.**

Contango by more than 4% for near month contract	0
Backwardation by more than 4% for near month contract	0

4. Other Parameters

- a. Qualitative and quantitative measure for Hedge effectiveness ratio and basis Risk (Volatility of Basis) along with disclosure of methodology adopted for such calculations

	CASTOR
Basis Volatility	11.44
Hedge efficiency	70.74%

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 Physical Markets	Availability of NCDEX Delivery center
Gujarat	Palanpur	Covered under Deesa
	Harij	Covered under Patan
	Deesa	Basis
	Bhabhar	ADC
	Thara	Covered under Bhabhar
	Kutch	NA
	Kadi	ADC
	Mahesana	Covered under Kadi
	Patan	ADC
	Sabaskantha	NA
	Visnagar	NA
	Vadodara	NA
	Radhanpur	NA
	Mandal	NA
Rajasthan	Barmer	NA
	Jalore	NA
	Jodhpur	NA
	Sirohi	NA
	Sumerpur	NA
Andhra Pradesh	Gadwal	NA
	Kurnool	NA
	Mahboobnagar	NA
	Wanaparthy	NA
	Others	NA

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

Note – The OI for each month is classified based on the Member level. The Average OI is ongross level (Long OI + Short OI), in MT

Month	Gujarat	Maharashtra	Punjab	Haryana	Rajasthan	Delhi	Uttar Pradesh
Apr-25	29,414	6,133	1,026	4,805	23,298	1,240	173
May-25	30,715	9,992	1,295	5,884	14,180	1,047	317
Jun-25	41,981	16,376	1,911	8,658	15,380	801	333
Jul-25	42,429	19,480	3,037	8,110	18,930	823	263
Aug-25	37,622	20,234	1,978	6,981	14,043	1,030	205
Sep-25	37,063	17,913	631	5,686	11,460	1,161	168
Oct-25	37,283	17,761	630	4,927	12,570	1,519	406
Nov-25	32,344	14,625	160	3,887	12,009	1,364	870
Dec-25	28,206	8,509	17	3,240	9,757	1,393	98
Jan-26	38,066	7,274	28	6,088	10,757	1,484	303
Feb-26	38,055	7,648	0	5,843	10,131	1,486	234
Mar-26	33,561	11,474	73	5,445	7,557	1,777	225

Note - The OI for CP is not mapped to any State/ location and hence not considered in the above data.

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

Following is the list of Awareness programmes, Stakeholder engagement programmes conducted by the Exchange in FY 2025-26:

Sr. No.	Programme	Location	Number of Participants
1.	IEP	Mumbai	20
2.	IEP	Noida	31
3.	IEP	Delhi	31
4.	IEP	Himmatnager	30
5.	IEP	Arvalli	30
6.	IEP	Roorkee	35
7.	IEP	Noida	42

8.	IEP	Hisar	55
9.	IEP	Delhi	45
10.	IEP	Delhi	42
11.	IEP	Ghaziabad	34
12.	IEP	Ghaziabad	36
13.	IEP	Ambala	48
14.	IEP	Chandigarh	60
15.	IEP	Noida	36
16.	IEP	Noida	30
17.	IEP	Patdi	25
18.	IEP	Aligarh	45
19.	IEP	Surendernagar	90
20.	IEP	Dhasa	140
21.	IEP	Agra	100
22.	IEP	Delhi	43
23.	IEP	Ghaziabad	53
24.	IEP	Mumbai	65
25.	IEP	Surendranager	60
26.	IEP	Navsari	120
27.	IEP	Delhi	41
28.	IEP	Dang	100
29.	IEP	Ghaziabad	42
30.	IEP	Agra	50
31.	IEP	Andheri	45
32.	IEP	Noida	35
33.	IEP	Mussoorie	50
34.	IEP	Noida	35
35.	IEP	Yamunanagar	45
36.	IEP	Ghaziabad	39
37.	IEP	Noida	37
38.	IEP	Karnal	32
39.	IEP	Ghaziabad	36
40.	IEP	Ludhiana	61
41.	IEP	Noida	40
42.	IEP	Visakhapatnam	55
43.	IEP	Ghaziabad	37
44.	IEP	Noida	36
45.	IEP	Ghaziabad	39
46.	IEP	Ghaziabad	40
47.	IEP	Varanasi	250
48.	IEP	Delhi	39
49.	IEP	Delhi	36
50.	IEP	Ishanpur mota	56
51.	IEP	Simej Dholka	44
52.	IEP	Lodra Santhalpur	56
53.	IEP	Kaushambi	48
54.	IEP	Prayagraj	40
55.	IEP	Indore	69
56.	IEP	Yamunanagar	35
57.	IEP	Motipura Vijapur	70
58.	IEP	Village Gokhrva	60
59.	IEP	Akola	55
60.	IEP	Lodra	80

61.	IEP	Ludhiana	35
62.	IEP	Kalsar Maahuva Bhavnager	75
63.	IEP	Nagpur	57
64.	IEP	Patan	30
65.	IEP	Delhi	53
66.	IEP	Lucknow	55
67.	IEP	Gorakhpur	35
68.	IEP	Belagaum	69
69.	IEP	Manglore	50
70.	IEP	Dholka	62
71.	IEP	Anand	52
72.	IEP	Petlad Anand	52
73.	IEP	Daskroi	60
74.	IEP	Netrang	52
75.	IEP	Sarvhan Bharuch	60
76.	IEP	Sayla Surendranager	60
77.	IEP	Gadu	48
78.	IEP	Banglore	69
79.	IEP	Bhilai	53
80.	IEP	Hyderabad	73
81.	IEP	Online	32
82.	IEP	Latur	34
83.	IEP	Pune	27
84.	IEP	Mumbai	41
85.	IEP	Ahmedabad	136
86.	IEP	Ahmedabad	90
87.	IEP	Ahmedabad	107
88.	IEP	Jamshedpur	100
89.	IEP	Dehradun	100
90.	IEP	Chandigarh	400
91.	IEP	Sambhaji Nagar	750
92.	IEP	Webinar	40
93.	IEP	Webinar	31
94.	IEP	Webinar	40
95.	IEP	Webinar	29
96.	IEP	Webinar	38
97.	IEP	Webinar	38
98.	IEP	Webinar	35
99.	IEP	Webinar	41
100.	IEP	Webinar	40
101.	IEP	Webinar	38
102.	IEP	Webinar	39
103.	IEP	Webinar	55
104.	IEP	Webinar	100
105.	IEP	Webinar	70
106.	IEP	Webinar	45
107.	IEP	Webinar	40
108.	IEP	Webinar	32
109.	IEP	Webinar	62
110.	IEP	Webinar	36
111.	IEP	Webinar	39
112.	IEP	Webinar	39
113.	IEP	Webinar	35

114.	IEP	Webinar	32
115.	IEP	Greater Noida	40
116.	IEP	Ghaziabad	31
117.	IEP	Greater Noida	40
118.	IEP	Greater Noida	40
119.	IEP	Agra	30
120.	IEP	Agra	30
121.	IEP	Hathras	40
122.	IEP	Moradabad	60
123.	IEP	Moradabad	61

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 programme in major trading centers as well as remote locations to increase hedging participation from the value chain participants.
- One to one meetings with the market participants to create awareness about the new developments / new initiatives at exchange level.
- Attend the National as well as International conferences, trade meets, seminars, etc.

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

N.A

ANNEXURE I

Qualitative and quantitative measure for Hedge effectiveness ratio

Methodology

Regression analysis is carried out between near month futures returns and NCDEX polled spot prices returns of the FY2025-26.

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