

## Parameters for Performance Review of Commodity

### CRUDE SUNFLOWER OIL

#### 1. Background

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

Sunflower oil is a major vegetable oil in the world. It is used for a variety of cooking purposes. It is obtained from the Sunflower seed, which contains about 48 – 53 percent edible oil. The sunflower oil is considered as a premium when compared to other vegetable oils, as it is light yellow in colour and have high level of linoleic acid, which is good for heart patients. It also possesses good flavour and high smoke point. Linoleic acid helps in washing out cholesterol deposition in the coronary arteries of the heart. The oil is also used for manufacturing hydrogenated oil. It is also used in the preparation of cosmetics and pharmaceuticals.



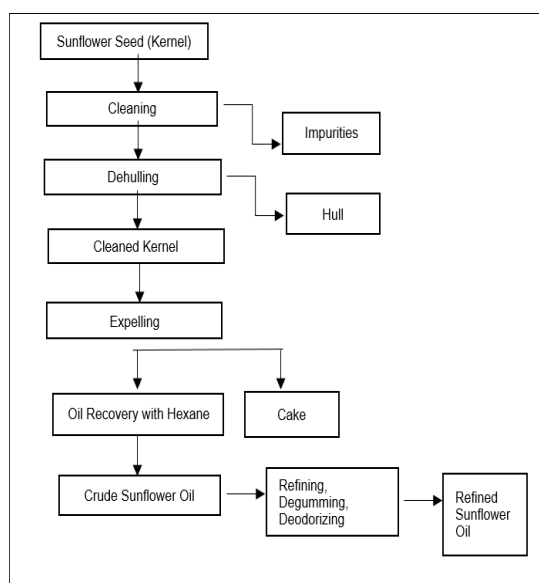
India is the second largest consumer of sunflower oil in the world after the European Union. The annual average production, imports and consumption have remained around 0.45 lakh tonnes, 28.83 lakh tonnes and 28.25 lakh tonnes respectively based on five years' average data (2020-21 to 2025-26). It means that India has a high dependency on imports to meet out its domestic consumption requirement.

Sunflower Oil in India is mainly imported from, Russia, Ukraine and Argentina. Based on last five years' data (2020-21 to 2025-26), these three countries jointly account for around 92% share in total imports in to India with Russia having highest share i.e. around 77%. In India, sunflower seed cultivated at low piece of land over an area of 1.65 lakh ha with a production of 1.89 lakh tones (2025-26). Source: Unified Portal for Agricultural Statistics, (UPAG)

#### Process of Production/Extraction

A schematic diagram of sunflower seeds processing and oil extraction methods is as following.

Processing Process of Sunflower Oil



NCDEX Quality Parameters

| Parameters                                          | Specifications  |
|-----------------------------------------------------|-----------------|
| Acid Value                                          | 4.0 (Max)       |
| Refractive index at 40°C                            | 1.4640 - 1.4691 |
| Butyro Refractometer reading at 40°C                | 57.1 - 65.0     |
| Saponification Value                                | 188 - 194       |
| Iodine value (Wij's method)                         | 100-145         |
| Flash Point (Pensky Marten Closed Cup Method)       | Above 250°C     |
| Argemone Oil                                        | Absent          |
| Moisture & insoluble impurities (percentage by wt.) | 0.5% Max        |

It shall be clear, free from rancidity, suspended or other foreign matter, separated water added coloring substance or mineral oil.

The contaminants, toxins and residues must not exceed the limits specified in FSSAI Regulations.

**Table: Reference Years for Commodities**

| Sl. No.                                                | A                                                                                         | B                                                                                                  | C                                                                                                  |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Crop Season                                            | Kharif                                                                                    | Kharif<br>(Long Duration crop)                                                                     | Rabi                                                                                               |
| Crops                                                  | Maize, Bajra, Guar seed, Kapas, Sesame Seed, Groundnut                                    | Castor seed and Turmeric                                                                           | Barley, Coriander, Jeera, Isabgol Seed, Yellow Peas                                                |
| Relevant Processed commodities                         | Guar gum, Cotton, Cotton seed Oil cake, Cotton Wash Oil ,Crude Sunflower Oil              | Castor Oil                                                                                         | -                                                                                                  |
| Sowing Time                                            | July onwards                                                                              | July onwards                                                                                       | October onwards                                                                                    |
| Harvesting Time                                        | Oct onwards                                                                               | Jan onwards                                                                                        | March onwards                                                                                      |
| <b>Reference Year Financial Year 2025-26 (Apr-Mar)</b> |                                                                                           |                                                                                                    |                                                                                                    |
| <b>Corresponding Years</b>                             |                                                                                           |                                                                                                    |                                                                                                    |
| 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 = 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 2025-25= CY 2025                                               | FY 2025-26= PY 2024-25 = MY 2025-26= CY 2026                                                       | 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) (P) |
|----------------------|-----------------------|--------------------------|
| Opening Stocks       | 28.92                 | 25.46                    |
| Production           | 204.65                | 209.34                   |
| Imports              | 120.09                | 117.58                   |
| Total Supply         | 353.66                | 352.38                   |
| Exports              | 137.09                | 133.88                   |
| Domestic Consumption | 191.11                | 193.25                   |
| Closing Stocks       | 25.46                 | 25.25                    |

Source: USDA (April 2026); P= Provisional,

(In Lakh Tonnes)

| Indian Scenario      | Previous FY (2024-25) | Current FY (2025-26) (P) |
|----------------------|-----------------------|--------------------------|
| Beginning Stocks     | 5.34                  | 5.22                     |
| Production           | 0.38                  | 0.38                     |
| Imports              | 29.05                 | 30.50                    |
| Total Supply         | 34.77                 | 36.10                    |
| Exports              | 0.55                  | 0.40                     |
| Domestic Consumption | 29.00                 | 30.50                    |
| Ending Stocks        | 5.22                  | 5.20                     |

Source: USDA (April 2026); P= Provisional,

(In Lakh Tonnes)

| Top 10 Major Producing Countries |                |                       |                          | Top 10 Major Consuming Countries |                       |                          |
|----------------------------------|----------------|-----------------------|--------------------------|----------------------------------|-----------------------|--------------------------|
| Rank                             | Country        | Previous FY (2024-25) | Current FY (2025-26) (P) | Country                          | Previous FY (2024-25) | Current FY (2025-26) (P) |
| 1                                | Russia         | 67.32                 | 68.97                    | European Union                   | 52.13                 | 50.13                    |
| 2                                | Ukraine        | 52.90                 | 47.30                    | India                            | 29.00                 | 30.50                    |
| 3                                | European Union | 32.12                 | 31.70                    | Russia                           | 25.75                 | 25.75                    |
| 4                                | Argentina      | 21.19                 | 24.11                    | Turkey                           | 10.90                 | 13.65                    |
| 5                                | Turkey         | 7.95                  | 9.35                     | Iran                             | 10.50                 | 8.50                     |
| 6                                | Kazakhstan     | 6.98                  | 9.01                     | China                            | 7.17                  | 7.93                     |
| 7                                | South Africa   | 3.13                  | 3.13                     | Iraq                             | 6.20                  | 6.40                     |
| 8                                | China          | 1.88                  | 2.96                     | Argentina                        | 5.62                  | 5.52                     |
| 9                                | Serbia         | 2.09                  | 2.09                     | Egypt                            | 4.25                  | 4.60                     |
| 10                               | United States  | 1.52                  | 1.89                     | Ukraine                          | 4.40                  | 4.55                     |
|                                  | Others         | 7.57                  | 8.83                     | Others                           | 35.19                 | 35.72                    |
|                                  | World Total    | 204.65                | 209.34                   | World Total                      | 191.11                | 193.25                   |

Source: USDA (April 2026), P= Provisional,

Countries are arranged in descending order based on the figure in Current FY 2025-26 (P)

(In Lakh Tonnes)

| Rank | Top 10 Major Exporting Countries |                       |                          | Top 10 Major Importing Countries |                       |                          |
|------|----------------------------------|-----------------------|--------------------------|----------------------------------|-----------------------|--------------------------|
|      | Country                          | Previous FY (2024-25) | Current FY (2025-26) (P) | Country                          | Previous FY (2024-25) | Current FY (2025-26) (P) |
| 1    | Ukraine                          | 47.44                 | 43.75                    | India                            | 29.05                 | 30.50                    |
| 2    | Russia                           | 42.00                 | 42.00                    | European Union                   | 24.11                 | 24.75                    |
| 3    | Argentina                        | 16.86                 | 18.25                    | Turkey                           | 12.36                 | 13.00                    |
| 4    | Turkey                           | 10.01                 | 8.00                     | Iran                             | 11.50                 | 7.00                     |
| 5    | Kazakhstan                       | 5.75                  | 7.00                     | Iraq                             | 6.10                  | 6.00                     |
| 6    | European Union                   | 6.91                  | 6.50                     | China                            | 5.32                  | 5.00                     |
| 7    | Bolivia                          | 1.30                  | 1.35                     | Egypt                            | 4.50                  | 5.00                     |
| 8    | Moldova                          | 0.41                  | 1.35                     | Uzbekistan                       | 3.25                  | 3.25                     |
| 9    | Serbia                           | 1.46                  | 1.35                     | United Kingdom                   | 2.07                  | 2.65                     |
| 10   | Belarus                          | 0.90                  | 0.80                     | Saudi Arabia                     | 2.06                  | 1.70                     |
|      | Others                           | 4.05                  | 3.53                     | Others                           | 19.77                 | 18.73                    |
|      | World Total                      | 137.09                | 133.88                   | World Total                      | 120.09                | 117.58                   |

Source: USDA (April 2026), P= Provisional,

(In Lakh Tonnes)

| Top 10 Major producing states in India |        |             |            |
|----------------------------------------|--------|-------------|------------|
| Rank                                   | States | Previous FY | Current FY |

It is a processed commodity. Further, more than 95% of the India's supply is met through imports. Thus, no such categorization is applicable for this commodity.

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

| Date        | Major Policies governing trade and related changes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02Jun-2025  | The MSP for sunflower seed fixed at ₹7,721 per quintal for KMS 2025-26, reflecting an 7% increase compared to ₹7,280, per quintal in 2024-25.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 30-May-2025 | For crude palm oil, crude soybean oil, and crude sunflower oil:<br><br>Basic Customs Duty (BCD): 10% (reduced from earlier 20%).<br><br>With Agriculture Infrastructure and Development Cess (AIDC) and Social Welfare Surcharge, the effective total duty is about 16.5%.<br><br>Refined edible oils For refined palm, refined soybean, and refined sunflower oil:<br><br>Basic Customs Duty (BCD): 32.5% (no change).<br>With cess and surcharge, the effective total duty remains around 35.75%.                                                                      |
| 01-Aug-2025 | The central govt. introduced The Vegetable Oil Products Production and Availability (Regulation) Amendment Order, 2025 (VOPPA 2025) under the Essential Commodities Act, 1955, with the added provisions of the Collection of Statistics Act, 2008. It mandates compulsory registration for manufacturers of crude and refined vegetable oils, solvent-extracted oils, blended oils, and related products, etc. to facilitate the maintenance of statistical data related to the production of edible oil and availability of vegetable oil products across the country. |

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

| Date        | Event                                             | Key Details                                                                                                                                                                             | Key Implications/Impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28-Feb-2026 | The US–Israel strikes on Iran on 28 February 2026 | The US–Israel strikes on Iran on 28 February 2026 triggered a sharp spike in crude-oil prices and fed-through into higher edible-oil and vegetable-oil costs globally, including India. | <p>Brent crude jumped roughly 7–9% on the first trading day after the strikes and then kept climbing, at one point reaching over \$100–\$120 per barrel in the weeks following the conflict start, from about \$72–\$73 before 28 February.</p> <p>The main driver was fear of a prolonged Middle-East war and disruption of shipments via the Strait of Hormuz, through which about 20% of global oil passes, effectively removing a chunk of supply from risk-free markets.</p> <p>Impact on edible and vegetable oils<br/>Higher energy costs raised processing, transport, and fertilizer prices, which in turn pushed up all major vegetable oils (palm, soybean, sunflower, rapeseed).</p> <p>Commentaries from global agri-commodity analysts noted that crude-oil spikes linked to Iran tensions have already supported vegetable-oil prices, with palm, soybean, rapeseed, and sunflower oils all seeing firming or renewed rallies in early 2026.</p> |

## 2. Trading related parameter

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

| Month                                                   | Year | Symbol | Traded volume (MT) |
|---------------------------------------------------------|------|--------|--------------------|
| Apr                                                     | 2025 | SUNOIL | -                  |
| May                                                     | 2025 | SUNOIL | -                  |
| Jun                                                     | 2025 | SUNOIL | -                  |
| Jul                                                     | 2025 | SUNOIL | -                  |
| Aug                                                     | 2025 | SUNOIL | -                  |
| Sep                                                     | 2025 | SUNOIL | -                  |
| Oct                                                     | 2025 | SUNOIL | -                  |
| Nov                                                     | 2025 | SUNOIL | -                  |
| Dec                                                     | 2025 | SUNOIL | -                  |
| Jan                                                     | 2026 | SUNOIL | -                  |
| Feb                                                     | 2026 | SUNOIL | -                  |
| Mar                                                     | 2026 | SUNOIL | -                  |
| <b>Annual Traded Volume (MT) (April'25 to March'26)</b> |      |        | -                  |

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

| Symbol | Traded Volume (MT) | Deliverable Supply( MT) | Proportion |
|--------|--------------------|-------------------------|------------|
| SUNOIL | -                  | 3,088,000               | -          |

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

| Symbol | Traded volume (MT) | Production( MT) | Proportion |
|--------|--------------------|-----------------|------------|
| SUNOIL | -                  | 38,000          | -          |

### d. Annual average Open interest as proportion of total production

| Symbol | Average Open Interest (MT) | Production( MT) | Proportion |
|--------|----------------------------|-----------------|------------|
| SUNOIL | -                          | 38,000          | -          |

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

| Symbol | Average Open Interest (MT) | Deliverable supply( MT) | Proportion |
|--------|----------------------------|-------------------------|------------|
| SUNOIL | -                          | 3,088,000               | -          |

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

| Month | Year | Symbol | Traded value (in Rs. Crores) |
|-------|------|--------|------------------------------|
| Apr   | 2025 | SUNOIL | -                            |
| May   | 2025 | SUNOIL | -                            |
| Jun   | 2025 | SUNOIL | -                            |
| Jul   | 2025 | SUNOIL | -                            |
| Aug   | 2025 | SUNOIL | -                            |
| Sep   | 2025 | SUNOIL | -                            |
| Oct   | 2025 | SUNOIL | -                            |
| Nov   | 2025 | SUNOIL | -                            |

|                                                                   |      |        |   |
|-------------------------------------------------------------------|------|--------|---|
| Dec                                                               | 2025 | SUNOIL | - |
| Jan                                                               | 2026 | SUNOIL | - |
| Feb                                                               | 2026 | SUNOIL | - |
| Mar                                                               | 2026 | SUNOIL | - |
| <b>Annual Traded Volume (in Rs Crores) (April'25 to March'26)</b> |      |        | - |

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

NA

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

NA

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

| Month                                                | Year | Symbol | Average Open Interest (MT) |
|------------------------------------------------------|------|--------|----------------------------|
| Apr                                                  | 2025 | SUNOIL | -                          |
| May                                                  | 2025 | SUNOIL | -                          |
| Jun                                                  | 2025 | SUNOIL | -                          |
| Jul                                                  | 2025 | SUNOIL | -                          |
| Aug                                                  | 2025 | SUNOIL | -                          |
| Sep                                                  | 2025 | SUNOIL | -                          |
| Oct                                                  | 2025 | SUNOIL | -                          |
| Nov                                                  | 2025 | SUNOIL | -                          |
| Dec                                                  | 2025 | SUNOIL | -                          |
| Jan                                                  | 2026 | SUNOIL | -                          |
| Feb                                                  | 2026 | SUNOIL | -                          |
| Mar                                                  | 2026 | SUNOIL | -                          |
| <b>Annual Average OI (MT) (April'25 to March'26)</b> |      |        | -                          |

**j. Annual average volume to open interest ratio**

0.00%

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

| Symbol | Member Count | Client Count |
|--------|--------------|--------------|
| SUNOIL | -            | -            |

**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      | 0.00% |
| Maximum Daily Value | 0.00% |

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

| Commodity | Count |
|-----------|-------|
| SUNOIL    | -     |

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

**n. Algorithmic trading as percentage of total trading**

| Commodity | %     |
|-----------|-------|
| SUNOIL    | 0.00% |

**o. Delivery defaults**

NA

### 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).

NA

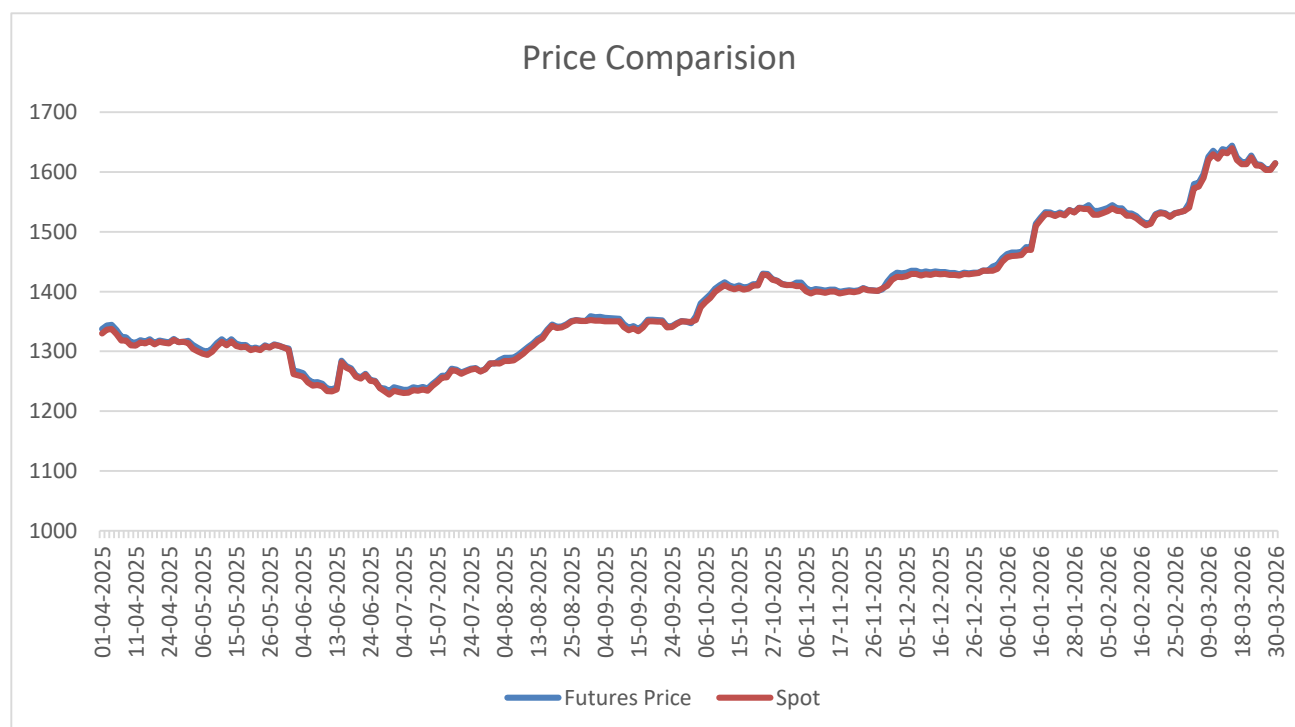
- b. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international spot price (wherever relevant comparable are available) and domestic spot price (exchange polled price).

NA

- 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>    | 0.867716       | 1           | -            |
| <i>Mandi</i>   | -              | -           | -            |

| Standard Deviation |                |             |              |
|--------------------|----------------|-------------|--------------|
|                    | <i>Futures</i> | <i>Spot</i> | <i>Mandi</i> |
| <i>Futures</i>     | 1              | 0.982663    | -            |
| <i>Spot</i>        | 1.017643       | 1           | -            |
| <i>Mandi</i>       | -              | -           | -            |



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

NA

- 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.

As Crude Sunflower Oil is a processed commodity mandi prices for the same are not available

**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 Square root of Standard Deviation of daily returns for the period from 1 April 2025 to 31 March 2026)**

Value of daily futures price volatility (April 2025- March 2026)

| Volatility | Month | Value    |
|------------|-------|----------|
| Max        | Jun   | 0.012009 |
| Min        | Dec   | 0.002044 |

Value of daily Spot price volatility (April 2025- March 2026)

| Volatility | Month | Value    |
|------------|-------|----------|
| Max        | Jun   | 0.01242  |
| Min        | Dec   | 0.002001 |

**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      | 0 |
| Backwardation | 0 |

#### 4. Others 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

|                  |        |
|------------------|--------|
|                  | SUNOIL |
| Basis Volatility | 5.6108 |
| Hedge efficiency | 99.82% |

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 Market | Availability of NCDEX Delivery Center |
|----------------|-----------------------|---------------------------------------|
| Tamil Nadu     | Chennai               | Basis Center                          |
| Telangana      | Hyderabad             | -                                     |
| Madhya Pradesh | Indore                | -                                     |
| Maharashtra    | Nagpur                | -                                     |
|                | Mumbai                | -                                     |
| Rajasthan      | Jaipur                | -                                     |
|                | Sriganganagar         | -                                     |
| Uttar Pradesh  | Kanpur                | -                                     |
| Gujarat        | Ahmedabad             | -                                     |
|                | Surat                 | -                                     |

- 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 on gross level (Long OI + Short OI)**

| Month  | Maharashtra | Gujarat | Uttar Pradesh | Madhya Pradesh | Rajasthan |
|--------|-------------|---------|---------------|----------------|-----------|
| Apr-25 | -           | -       | -             | -              | -         |
| May-25 | -           | -       | -             | -              | -         |
| Jun-25 | -           | -       | -             | -              | -         |
| Jul-25 | -           | -       | -             | -              | -         |
| Aug-25 | -           | -       | -             | -              | -         |
| Sep-25 | -           | -       | -             | -              | -         |
| Oct-25 | -           | -       | -             | -              | -         |
| Nov-25 | -           | -       | -             | -              | -         |
| Dec-25 | -           | -       | -             | -              | -         |
| Jan-26 | -           | -       | -             | -              | -         |
| Feb-26 | -           | -       | -             | -              | -         |
| Mar-26 | -           | -       | -             | -              | -         |

**Note -** The OI for Custodian Participation 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. | Program Type | Location      | No. of Participants |
|---------|--------------|---------------|---------------------|
| 1.      | IEP          | Mumbai        | 20                  |
| 2.      | IEP          | Noida         | 31                  |
| 3.      | IEP          | Delhi         | 31                  |
| 4.      | IEP          | Roorkee       | 35                  |
| 5.      | IEP          | Noida         | 42                  |
| 6.      | IEP          | Hisar         | 55                  |
| 7.      | IEP          | Delhi         | 45                  |
| 8.      | IEP          | Delhi         | 42                  |
| 9.      | IEP          | Ghaziabad     | 34                  |
| 10.     | IEP          | Ghaziabad     | 36                  |
| 11.     | IEP          | Ambala        | 48                  |
| 12.     | IEP          | Chandigarh    | 60                  |
| 13.     | IEP          | Noida         | 36                  |
| 14.     | IEP          | Noida         | 30                  |
| 15.     | IEP          | Aligarh       | 45                  |
| 16.     | IEP          | Agra          | 100                 |
| 17.     | IEP          | Delhi         | 43                  |
| 18.     | IEP          | Ghaziabad     | 53                  |
| 19.     | IEP          | Mumbai        | 65                  |
| 20.     | IEP          | Delhi         | 41                  |
| 21.     | IEP          | Ghaziabad     | 42                  |
| 22.     | IEP          | Agra          | 50                  |
| 23.     | IEP          | Andheri       | 45                  |
| 24.     | IEP          | Noida         | 35                  |
| 25.     | IEP          | Mussoorie     | 50                  |
| 26.     | IEP          | Noida         | 35                  |
| 27.     | IEP          | Yamunanagar   | 45                  |
| 28.     | IEP          | Ghaziabad     | 39                  |
| 29.     | IEP          | Noida         | 37                  |
| 30.     | IEP          | Karnal        | 32                  |
| 31.     | IEP          | Ghaziabad     | 36                  |
| 32.     | IEP          | Ludhiana      | 61                  |
| 33.     | IEP          | Noida         | 40                  |
| 34.     | IEP          | Visakhapatnam | 55                  |
| 35.     | IEP          | Ghaziabad     | 37                  |
| 36.     | IEP          | Noida         | 36                  |
| 37.     | IEP          | Ghaziabad     | 39                  |
| 38.     | IEP          | Ghaziabad     | 40                  |
| 39.     | IEP          | Varanasi      | 250                 |
| 40.     | IEP          | Delhi         | 39                  |

|     |     |                |     |
|-----|-----|----------------|-----|
| 41. | IEP | Delhi          | 36  |
| 42. | IEP | Kaushambi      | 48  |
| 43. | IEP | Prayagraj      | 40  |
| 44. | IEP | Indore         | 69  |
| 45. | IEP | Yamunanagar    | 35  |
| 46. | IEP | Akola          | 55  |
| 47. | IEP | Ludhiana       | 35  |
| 48. | IEP | Nagpur         | 57  |
| 49. | IEP | Delhi          | 53  |
| 50. | IEP | Lucknow        | 55  |
| 51. | IEP | Gorakhpur      | 35  |
| 52. | IEP | Belagaum       | 69  |
| 53. | IEP | Manglore       | 50  |
| 54. | IEP | Banglore       | 69  |
| 55. | IEP | Bhilai         | 53  |
| 56. | IEP | Hyderabad      | 73  |
| 57. | IEP | Online         | 32  |
| 58. | IEP | Latur          | 34  |
| 59. | IEP | Pune           | 27  |
| 60. | IEP | Mumbai         | 41  |
| 61. | IEP | Ahmedabad      | 136 |
| 62. | IEP | Ahmedabad      | 90  |
| 63. | IEP | Ahmedabad      | 107 |
| 64. | IEP | Jamshedpur     | 100 |
| 65. | IEP | Dehradun       | 100 |
| 66. | IEP | Chandigarh     | 400 |
| 67. | IEP | Sambhaji Nagar | 750 |
| 68. | IEP | Webinar        | 40  |
| 69. | IEP | Webinar        | 31  |
| 70. | IEP | Webinar        | 40  |
| 71. | IEP | Webinar        | 29  |
| 72. | IEP | Webinar        | 38  |
| 73. | IEP | Webinar        | 38  |
| 74. | IEP | Webinar        | 35  |
| 75. | IEP | Webinar        | 41  |
| 76. | IEP | Webinar        | 40  |
| 77. | IEP | Webinar        | 38  |
| 78. | IEP | Webinar        | 39  |
| 79. | IEP | Webinar        | 55  |
| 80. | IEP | Webinar        | 100 |
| 81. | IEP | Webinar        | 70  |
| 82. | IEP | Webinar        | 45  |
| 83. | IEP | Webinar        | 40  |
| 84. | IEP | Webinar        | 32  |
| 85. | IEP | Webinar        | 62  |
| 86. | IEP | Webinar        | 36  |
| 87. | IEP | Webinar        | 39  |

|     |     |               |    |
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| 88. | IEP | Webinar       | 39 |
| 89. | IEP | Webinar       | 35 |
| 90. | IEP | Webinar       | 32 |
| 91. | IEP | Greater Noida | 40 |
| 92. | IEP | Ghaziabad     | 31 |
| 93. | IEP | Greater Noida | 40 |
| 94. | IEP | Greater Noida | 40 |
| 95. | IEP | Agra          | 30 |
| 96. | IEP | Agra          | 30 |
| 97. | IEP | Hathras       | 40 |
| 98. | IEP | Moradabad     | 60 |
| 99. | 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.**

1. Identifying new VCPs in Madhya Pradesh, Rajasthan, Telangana, Tamil Nadu, Maharashtra, and Uttar Pradesh.
2. Conducting IEPs in the Madhya Pradesh, Rajasthan, Telangana, Tamil Nadu, Maharashtra, and Uttar Pradesh region.
3. One to one meeting with Hedgers and VCPs.

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

Some of the committee members as well as some market participants from different locations had a view that more than one centre should be taken into consideration at the time of final settlement price. The members discussed on the possibilities of considering spot prices of more than one centre for determining the FSP.

## 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 FY 2025-26.

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.