Palm-Oil:
2018-2019, A Defining Moment for Long-Term Sustainability and Price

Presented by Arif P. Rachmat
Founder & Executive Chairman
Triputra Agro Persada Group

Defining Moment

2018 A “STRESSED TEST”

2019 The “FINALE”

SUSTAINABILITY
2018... A Defining Moment

CPO Mdx Price
(Period: 1996 – 2018)

USD/Ton

1,400
1,200
1,000
800
600
400
200


2018 Bottom > Average 1999 – 2005, but Even then Last Year Bottom was a BLIP

5-year-avg USD 625 – 675 (F)
5-year-avg USD 630

1,249
1,069

5-year-avg USD 349
185

7-year-avg USD 349
445

Forecast
From Our Prediction in 2017

The Growth Rate **PEAKED** in 2018 - 2019

From Our Prediction in 2017

The peak growth in 2018 & 2019 because of doubling of new planting between 2006-2013
New Planting Area in Indonesia Doubled in 2006 - 2013

Source: Directorate General of Estate Crops & Internal Analysis

Those Plantations Now in PRIME AGE

Defining Moment 2018
A “STRESSED TEST”

- CPO Supply
- CPO Demand
- Trade War US vs China
2018 CPO & Soyoil Production

Indonesia CPO Production

~10% (Actual)
~8% (Forecast in POC 2018)
~6% (Forecast in POC 2017)

Indonesia 2018 CPO Production

Mio Ton

Q1
Q2
Q3
Q4

9
10
12
11

~42.2%

Source: Internal Analysis

Q3 Increased MORE THAN 40% compared to Q1
## 2018 CPO & Soyoil Production

### Indonesia CPO Production

- ~10% (Actual)
- ~8% (Forecast in POC 2018)
- ~6% (Forecast in POC 2017)

### Malaysia CPO Production

- ~2.2%

### World Soyoil Production

- ~4.2%

### MPOB Stock Vs CPO Mdex Price

- In the Last Decade, Q3-Q4 were Generally the **LOWEST PRICES**
  - due to Peak Crop and Rising Stock
Last 10-Year-Data Showed that Lowest Price Occurred Most Probable in **SEPT - OCT**

**Defining Moment 2018**

A “STRESSED TEST”

- CPO Supply
- CPO Demand
- Trade War US vs China
**IDR was One of the Worst Performing Currencies in Oct 2018**

Source: Bloomberg

**Prompting Our President to PUSH B20 to Minimize Current Account Deficit due to Import of Crude Oil**

**Indonesia Biodiesel Mandatory**

Actual 2018: 3.9 mio KL vs Actual 2017: 2.6 mio KL → Growth: 46%

Source: Coordinating Ministry for Economic Affairs

September 1st Enforcement of Penalty IDR 6,000/L has PUSHED NON PSO (Industry)
**Major Issues on Logistic**

**CHALLENGES TO BE RESOLVED** to Meet Mandatory B20 & Beyond

1. Availability
   - 32 (345,000 KL/Mth) Oil Tankers & Barges

Source: Coordinating Ministry For Economic Affairs & Pertamina

---

**Major Issues on Logistic**

**CHALLENGES TO BE RESOLVED** to Meet Mandatory B20 & Beyond

1. Availability
   - 32 (345,000 KL/Mth) Oil Tankers & Barges

2. Too Scattered
   - 112 Locations

Source: Coordinating Ministry For Economic Affairs & Pertamina
**Current Delivery Points**

Logistic Delivery Points were too COMPLEX

112 Locations
Scattered in All Areas of Indonesia

Source: Coordinating Ministry for Economic Affairs & PT Pertamina

---

**Major Issues on Logistic**

- **Availability**: 32 (345,000 KL/Mth)
  - Oil Tankers & Barges

- **Too Scattered**: 112 Locations

- **Small in Numbers**: 2 (31,000 KL)
  - FAME Storages

Source: Coordinating Ministry For Economic Affairs & Pertamina

---

**CHALLENGES TO BE RESOLVED** to Meet Mandatory B20 & Beyond
Scheme of Export Levy Revised to Boost CPO Price

CPO Local Price 2018

Flexible Export Levy Mechanism

Source: KPB CPO Index, Ministry of Trade & Ministry of Finance

This Mechanism Effectively LIFTED-UP CPO Price

Defining Moment 2018

A “STRESSED TEST”

CPO Supply

CPO Demand

Trade War US vs China
Impact of US vs China Trade War on Soybean

China Soybean imports, Jan - Dec

<table>
<thead>
<tr>
<th>From</th>
<th>2017</th>
<th>2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>50.9</td>
<td>66.1</td>
<td>+15.2</td>
</tr>
<tr>
<td>United States</td>
<td>32.9</td>
<td>16.6</td>
<td>-16.2</td>
</tr>
<tr>
<td>Argentina</td>
<td>6.6</td>
<td>1.5</td>
<td>-5.1</td>
</tr>
<tr>
<td>Uruguay</td>
<td>2.6</td>
<td>1.2</td>
<td>-1.4</td>
</tr>
<tr>
<td>Canada</td>
<td>2.0</td>
<td>1.8</td>
<td>-0.3</td>
</tr>
<tr>
<td>Russia</td>
<td>0.5</td>
<td>0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Others</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>95.5</td>
<td>88.1</td>
<td>-7.5</td>
</tr>
</tbody>
</table>

Source: Bloomberg, International Grains Council, Internal Analysis

Brazil Becomes the **WINNER** and US the **LOSER**

China Import: Soybean vs CPO

Source: Mdex & Internal Analysis

2015 & 2018 **HIGH PALM OIL IMPORT** Due to Low CPO Price and Low Import of Soybean
**Soyoil Stays as Ceiling for Palm Oil**

In Q4, the spread widening because of Building Palm Oil Stocks.

**Spread WIDENED** because of Increasing Palm Oil Stock Level

**CPO Vs Crude Oil Price... The Negative Spread were Short & Short-Lived**

Crude Oil remains the **FLOOR** for CPO.
Palm Oil Continues to be a Strategic Commodity for Indonesia

Employment Absorption
- 5.5 Mio Directly Related Labours
- 12 Mio Indirectly Related Labours

Export Value
- USD18.1 Bio * (Rp 244.4 T)
- Total Export Value As The Biggest Exporting Commodity and even Higher Than Oil and Gas *) 2016

Agriculture Absorption
- 41% Smallholders
- 59% Big Plantations
- 41% Of total area is smallholder plantations
- 2.3 Mio farmers

Energy Security
- 3 Mio KL through biodiesel program in 2016
- Equal to Substitute Imported diesel we saved $1.1Bio = Rp14.83 T
- 10.8% The annual growth of job absorption form palm oil industry
- that contributes directly to the development of social welfare

Regional Stability
- 10.8% Emission reduction as a result of the use of palm oil-based biofuel

US EPA Carbon Emission
- 17% Emission reduction

Source: Ministry of State Secretariat

HIGH CONTRIBUTIONS to 3Ps (People, Planet, Prosperity)
Moratorium Shows Forward-Looking Policy Despite Strategic Role of Palm Oil

Moratorium of New Licenses & One Map Policy

UNPRECEDENTED COMMITMENT by Indonesia Government on Sustainability

ISPO Principles and Criteria Aligned to UN SDGs

ENORMOUS CONTRIBUTION of ISPO to UN SDGs

5. Responsibility to Employee Rights
6. Socio-Economic Responsibility
3. Primary Forest and Peatland Protection
4. Environment Management
1. Legality
2. Application of GAP
7. Business Development & Improvement

ISPO covers 12/17 UN SDGs
Indonesia has Made Great Efforts to Reduce Wildland Forest Fires

Key Success Factors: Collaboration & Prevention through COMMUNITY EMPOWERMENT

1. Clustering
   Coordinating Ministry for Economic Affairs (Indonesia):
   Forest and land fire prevention programs based on clusters

2. SIGAP – TNC
   A joint Project between Government, International NGO (TNC) and Private Sector

3. Prosperous Fire-free Village (DMPA)
   Fire Prevention and Environment Protection
   Social Contribution
   Economic Development

Source:
1. US Forest Service https://www.nifc.gov/fireInfo/nfn.htm
2. Ministry of Environment and Forestry Republic of Indonesia

INVITATION

SAVE THE DATE
March 18, 2019
Public Private Partnership Movement Kick-Off

Global Fire Prevention COMMITMENT MOVEMENT with Over 30 Companies
Defining Moment

2019

The “FINALE”

- CPO Supply
- CPO Demand
- Price Forecast
2019 CPO & Soyoil Production

LOWER GROWTH RATE of CPO Production in 2019 Compared to 2018

Mild to Moderate EL NINO

Weather might RESTRICT Production & Potentially BOOST Price

Source: MPOB, USDA & Internal Analysis

Source: NOAA & Internal Analysis
Defining Moment

2019
The “Finale”

CPO Supply
CPO Demand
Price Forecast

Prediction 2019: Indonesia Biodiesel Plan 6.2 Mio KL

<table>
<thead>
<tr>
<th>Year</th>
<th>PSO (Transport)</th>
<th>Non PSO (Industry)</th>
<th>2017</th>
<th>2018</th>
<th>2019 F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.6</td>
<td>~ 2.8</td>
<td>~ 3.4</td>
</tr>
</tbody>
</table>

+48%
+60%

Source: Coordinating Ministry For Economic Affairs & Internal Analysis

Signing MOU ENI and PERTAMINA
To open business opportunities in the BIOFUEL PROJECTS from PALM OIL

• President Director of Pertamina, Nickie Widyawati
• CEO of Eni, Claudio Descalzi
• Minister of Energy and Mineral Resources, Ignasius Jonan

Additional Projects in the Pipeline: PLN & B30
Supply Chain Solution

Availability

32 (345,000 KL/Mth)
48 (518,000 KL/Mth)
Oil Tankers & Barges

Source: Coordinating Ministry For Economic Affairs & Pertamina

SPEED-UP the Implementation of Mandatory B20

Supply Chain Solution

Availability

32 (345,000 KL/Mth)
48 (518,000 KL/Mth)
Oil Tankers & Barges

Source: Coordinating Ministry For Economic Affairs & Pertamina

SPEED-UP the Implementation of Mandatory B20
Delivery Points Simplification Solution

REDUCE NUMBER of Delivery Points from 112 in 2018 to 10 in 2020

Supply Chain Solution

SPEED-UP the Implementation of Mandatory B20
Maintaining the Zero Export Levy

CPO Funds More than Sufficient

Prediction in 2019

<table>
<thead>
<tr>
<th></th>
<th>IDR</th>
<th>USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Year 2018 Balance</td>
<td>20.9 T</td>
<td>1.44 Bio</td>
</tr>
</tbody>
</table>

Biodiesel Uptake: 6.2 Mio KL
Price Spread*: 3,000 IDR/Ltr
(Biodiesel – Diesel Fuel Index)
Foreign Exchange: 14,500 IDR/USD

Subsidy Needed: 18.6 T 1.28 Bio

End of Year 2019 Balance: 2.3 T 0.16 Bio

*YTD Feb 2019 average price spread 786 IDR/Ltr

Source: Coordinating Ministry for Economic Affairs, BPDP Sawit (The Estate Crop Fund)

Indonesian Government PRACTICAL & EFFECTIVE... Essential to Benefit Farmers

Palm Oil Demand

Source: Internal Analysis

Palm Oil Demand will CONTINUE to GROW
Soyoil Demand

Source: USDA & Oil World

World Soyoil Consumption

HIGHER Soyoil Demand in 2019 Compared to 2018

Defining Moment

2019

The “Finale”

CPO Supply

CPO Demand

Price Forecast
CPO Supply and Demand Forecast 2019

### Growth Rate

<table>
<thead>
<tr>
<th>Country</th>
<th>Δ 2017-18</th>
<th>Δ 2018-19</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>+ 3.9 M</td>
<td>+ 2.5 M</td>
<td>-</td>
</tr>
<tr>
<td>Malaysia</td>
<td>- 0.4 M</td>
<td>+ 0.8 M</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>+ 1.0 M</td>
<td>+ 0.7 M</td>
<td>=</td>
</tr>
</tbody>
</table>

### Supply (TON)

<table>
<thead>
<tr>
<th>Country</th>
<th>Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>+ 2.5 M</td>
</tr>
<tr>
<td>Malaysia</td>
<td>+ 0.5 M</td>
</tr>
<tr>
<td>China</td>
<td>+ 0.4 M</td>
</tr>
<tr>
<td>India</td>
<td>- 0.4 M</td>
</tr>
<tr>
<td>Europe Union</td>
<td>+ 0.0 M</td>
</tr>
<tr>
<td>Others</td>
<td>+ 0.2 M</td>
</tr>
</tbody>
</table>

### Demand (TON)

<table>
<thead>
<tr>
<th>Country</th>
<th>Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>+ 3.1 M</td>
</tr>
<tr>
<td>Malaysia</td>
<td>+ 0.5 M</td>
</tr>
<tr>
<td>China</td>
<td>+ 0.5 M</td>
</tr>
<tr>
<td>India</td>
<td>+ 0.6 M</td>
</tr>
<tr>
<td>Europe Union</td>
<td>+ 0.2 M</td>
</tr>
<tr>
<td>Others</td>
<td>+ 1.1 M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUM SUPPLY – DEMAND</th>
<th>Δ Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 1.3 M</td>
<td>+ 2.0 M</td>
</tr>
</tbody>
</table>

Note: +/- 0.5 M
Source: Internal Analysis

We don’t Predict 2018 Bottom This Year, Avg 2019 will be USD 550 – USD 600

Thank You
Arif P. Rachmat

@tap_agri
@tap_agri
tap.corsec@tap-agri.com
www.tap-agri.com