

# ***CORN INDUSTRY DEVELOPMENT IN INDONESIA***

***MINISTRY OF AGRICULTURE REPUBLIC OF INDONESIA***



**Presented at the Meetings for the Development of Agricultural Cooperation,  
Ministry of Agriculture and Agro-Based Industry Malaysia  
Kuala Lumpur, 5 July 2017**

# OUTLINE

## **I. INTRODUCTION**

## **II. CORN PRODUCTION SYSTEM**

## **III. NATIONAL STRATEGIC FOR CORN INDUSTRY DEVELOPMENT**

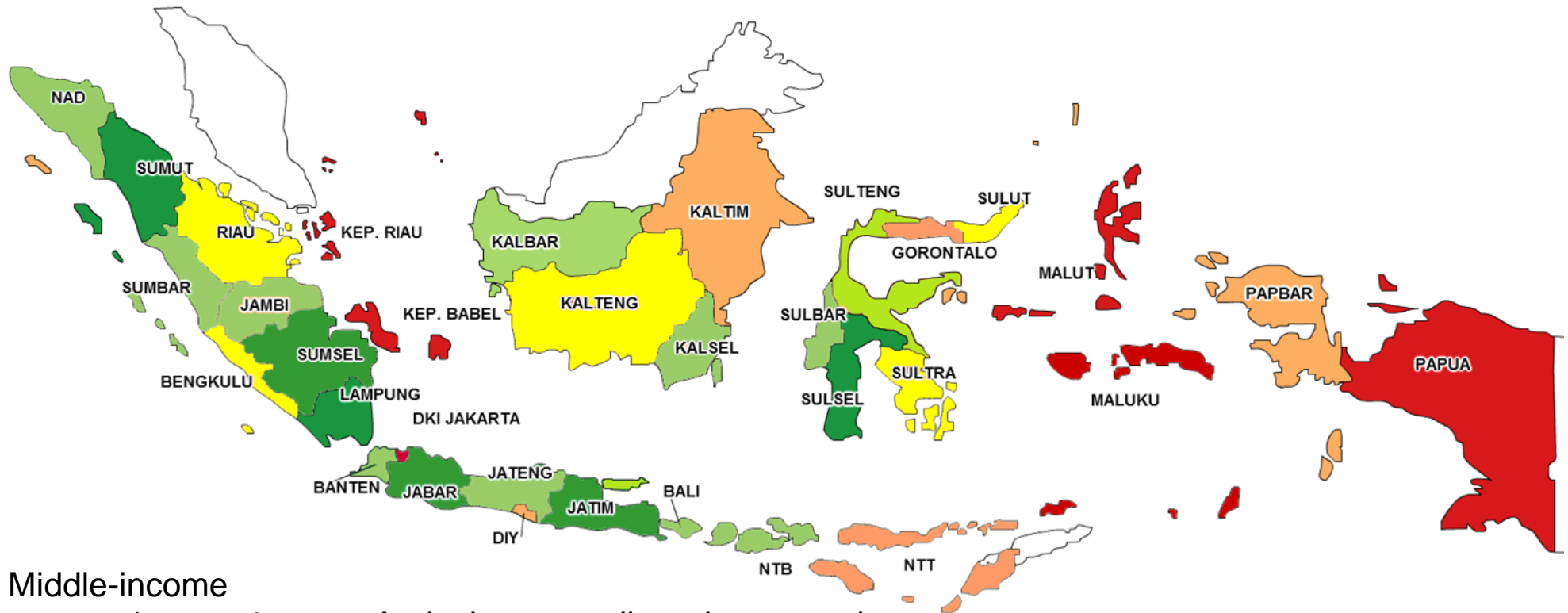
## **IV. TECHNOLOGY DEVELOPMENT AND STRENGTHENING INSTITUTION**

## **V. CORN EXPORT-ORIENTED PROGRAM IN BORDER AREA**

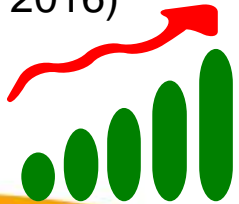
## **VI. CLOSING REMARKS**



# INDONESIA AGRICULTURE AT A GLANCE



Middle-income country (per capita 3.605,1 dollar AS in 2016)



- Agriculture contributed to around 14.4% of GDP (2016), dominated by food crops
- 42,57% of the labor force (of 125.44 million (2016)
- A leading producer of oil palm, and a major global producer of rubber, copra, cocoa and coffee
- The twelfth corn production in the world in 2016/2017 (contributing 1,0% of the global production)



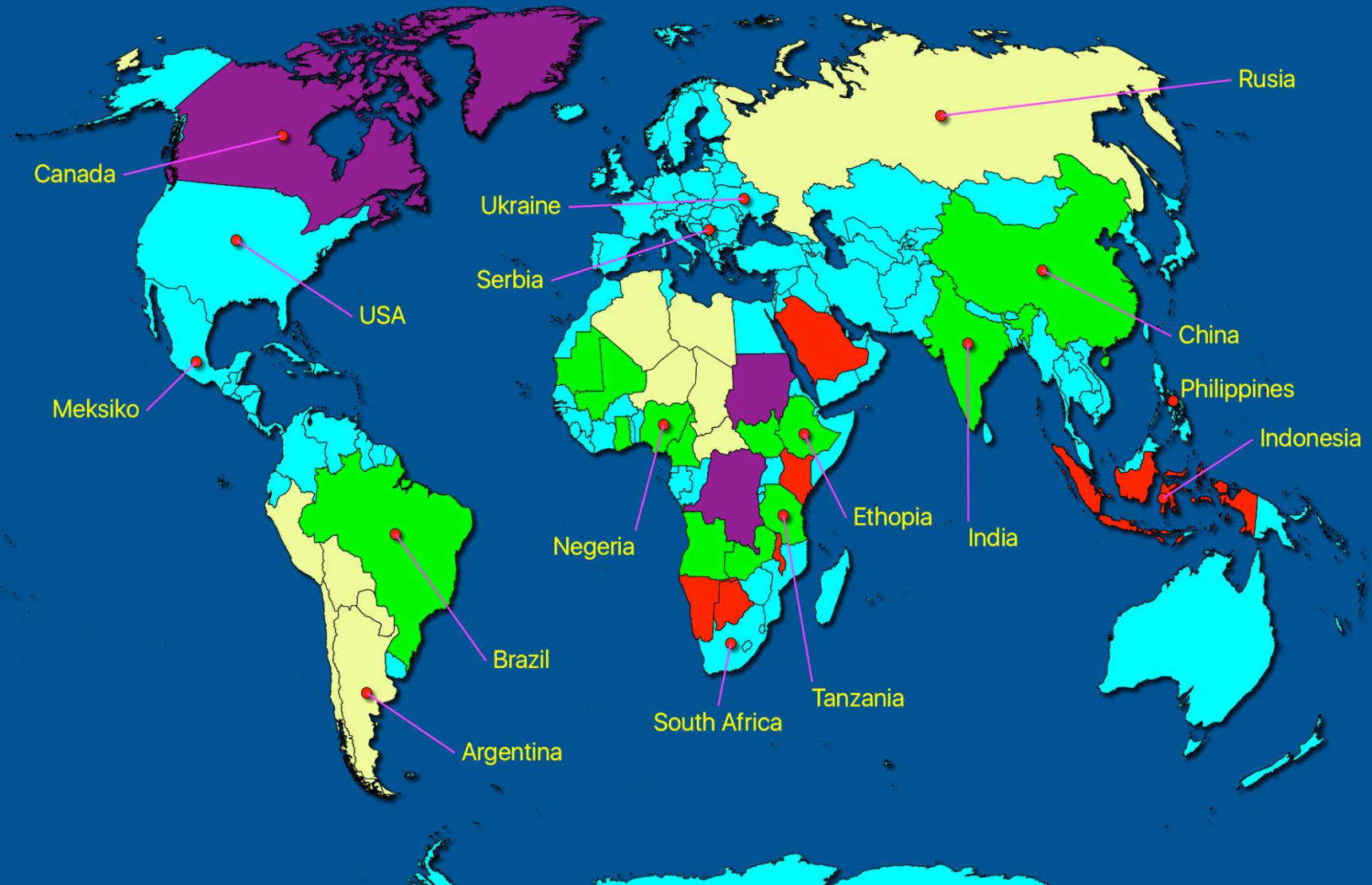


# INDONESIA CORN PRODUCTION AT A GLANCE

- ❖ Corn is the second most important cereal crop after rice, and it had emerged from a net importer to corn self sufficiency during three decades
- ❖ Corn is grown in all provinces in Indonesia :
  - East Java, Central Java, and Lampung are **the leading producers of corn** in Indonesia while South Sulawesi, North Sumatera, West Java and Gorontalo are **the second important producers**
- ❖ Corn is mainly used for feed industry and the remaining is used for food, starch, etc.



# **WORLD LEADERS IN CORN PRODUCTION, BY COUNTRY (2016/2017)**



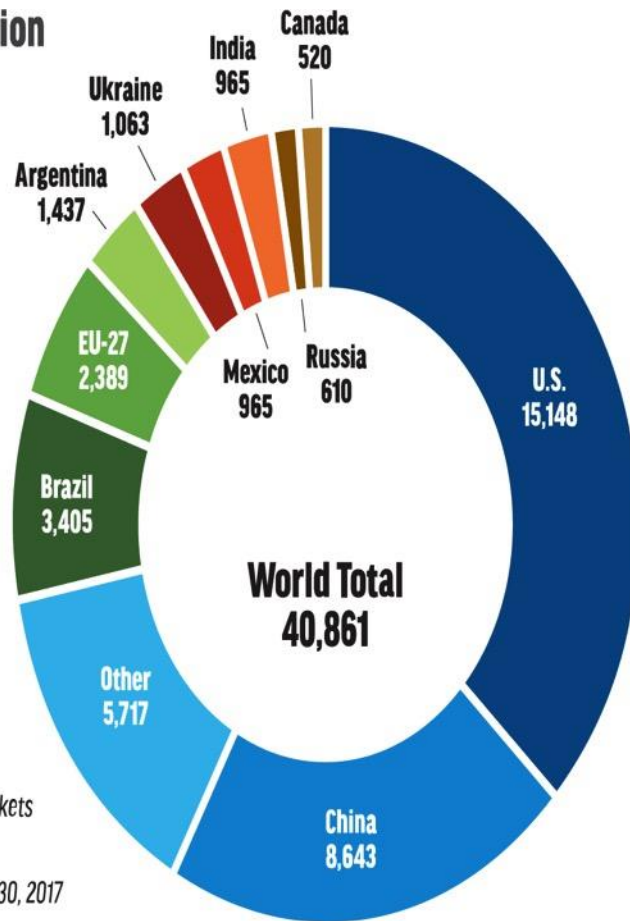


# WORLD CORN PRODUCTION AND CONSUMPTION

## World Corn Production

2016 - 2017\*

(million bushels)



Source: USDA, FAS Grain: World Markets and Trade, Jan. 12, 2017

\*Marketing Year Oct. 1, 2016 - Sept. 30, 2017

### Note:

Bushels x .0254012 = metric tons

Metric tons x 39.36825 = bushels

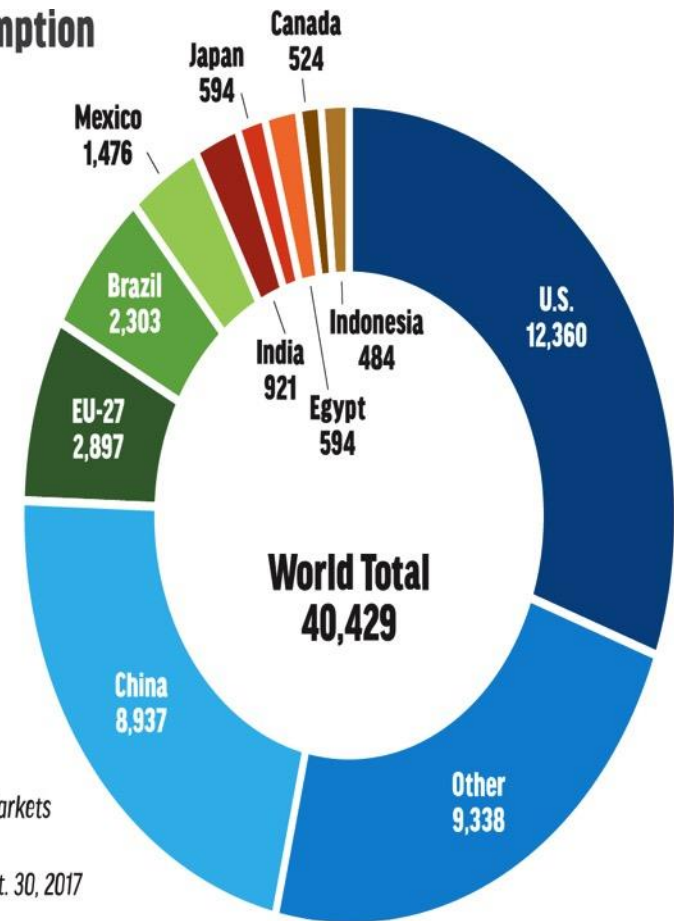
1 metric ton = 1.102 (1.1) tons

1 bushel corn = 25.40 (25) kilograms

## World Corn Consumption

2016 - 2017\*

(million bushels)



Source: USDA, FAS Grain: World Markets and Trade, Jan. 12, 2017

\*Marketing Year Oct. 1, 2016 - Sept. 30, 2017



# WORLD CORN EXPORTS AND IMPORTS

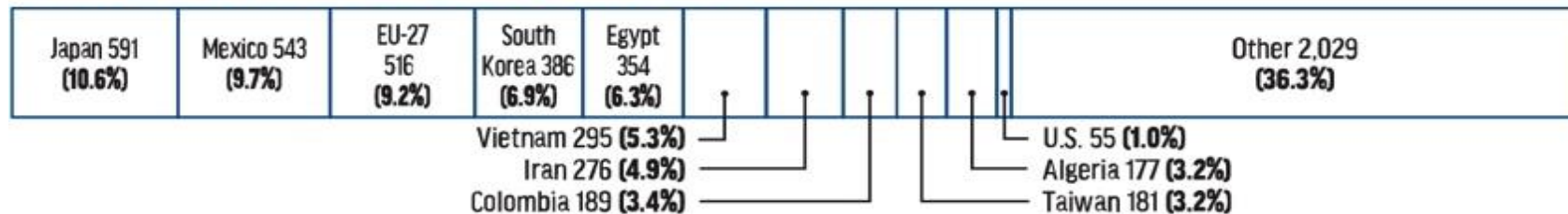
## World Corn Exports/Imports 2016 – 2017\*

(million bushels)

### EXPORTING NATIONS



### IMPORTING NATIONS

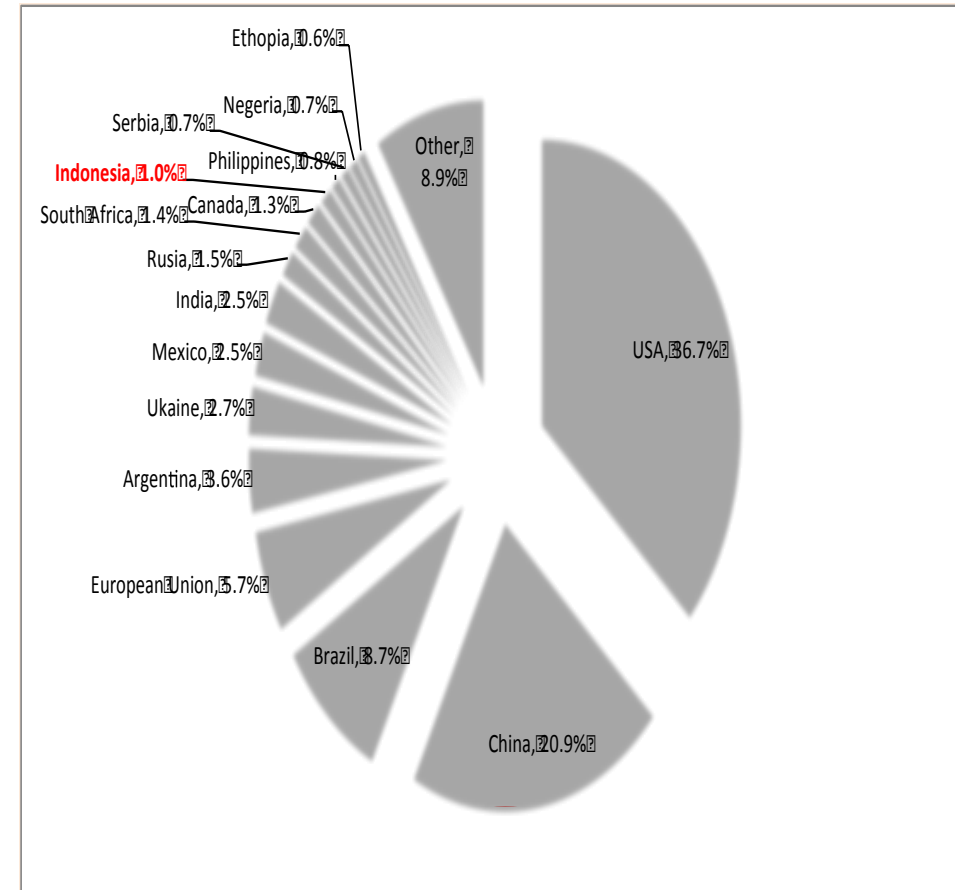
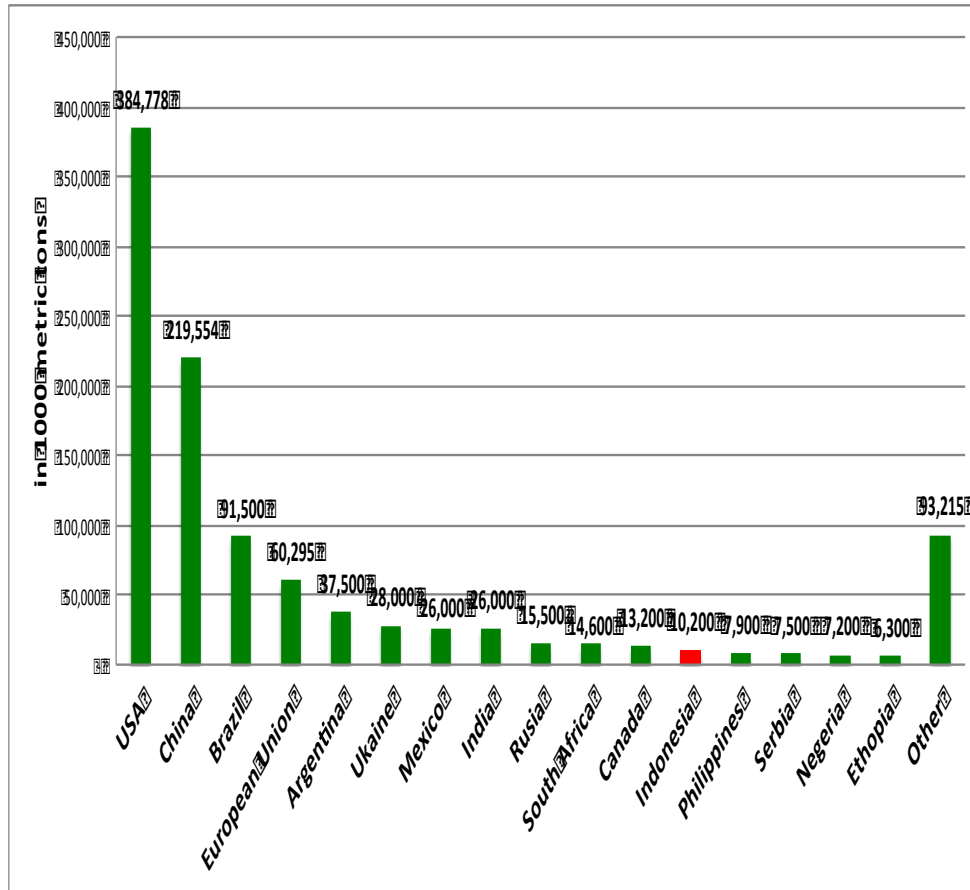


Source: USDA, FAS Grain: World Markets and Trade, Jan. 12, 2017

\*Marketing Year Oct. 1, 2016 – Sept. 30, 2017



# INDONESIA POSISTION IN GLOBAL CORN PRODUCTION 2016/2017



Corn production share worldwide by country

## Sources

US Department of Agriculture; USDA Foreign Agricultural Service, 2017.



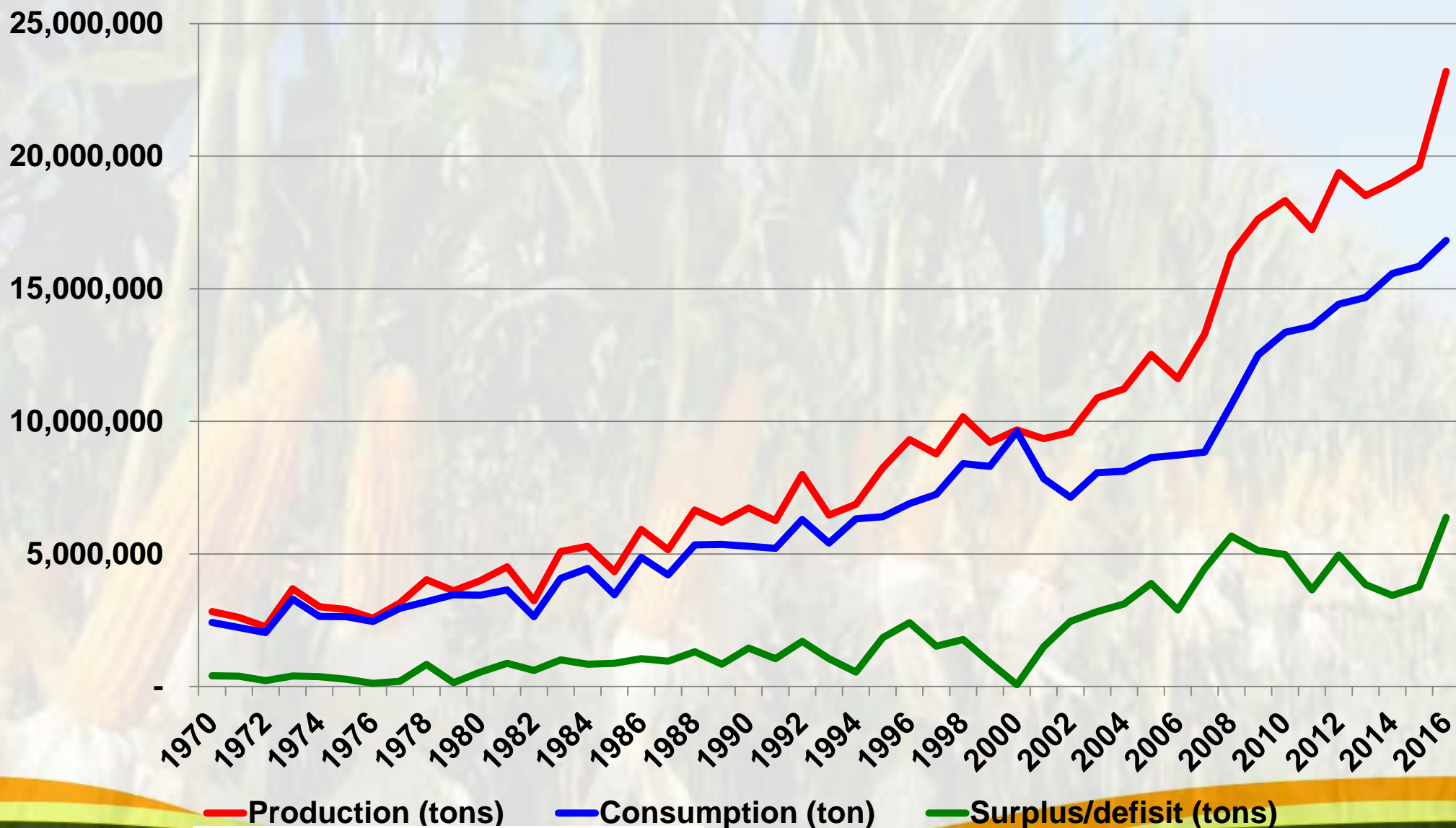




II

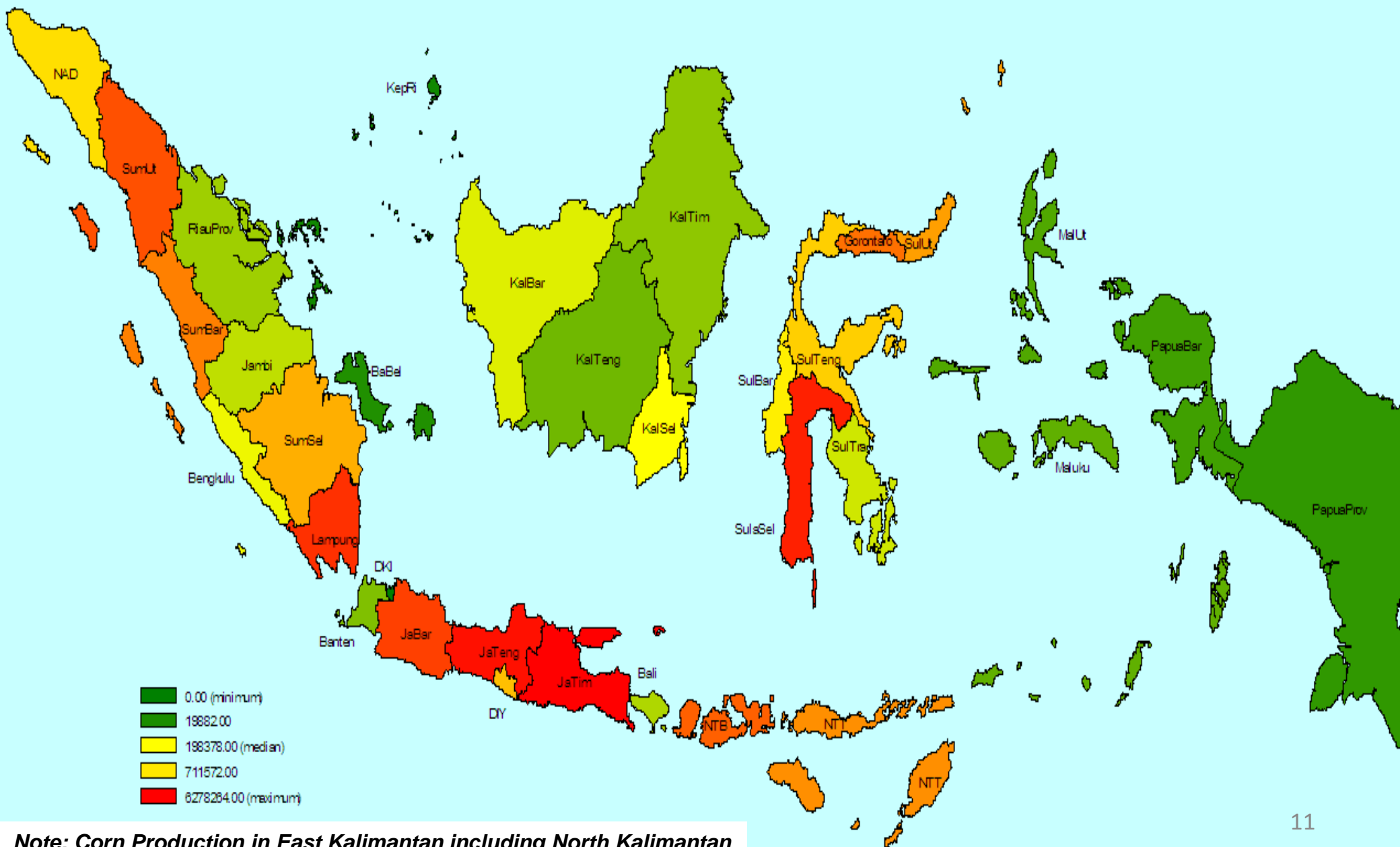
## ***CORN PRODUCTION SYSTEM IN INDONESIA***

# INDONESIA CORN PRODUCTION



Note: Production in 2016 is forecasting figures

# CORN-PRODUCING PROVINCES IN INDONESIA 2016





# MAIN PROVINCES OF CORN PRODUCTION 2016



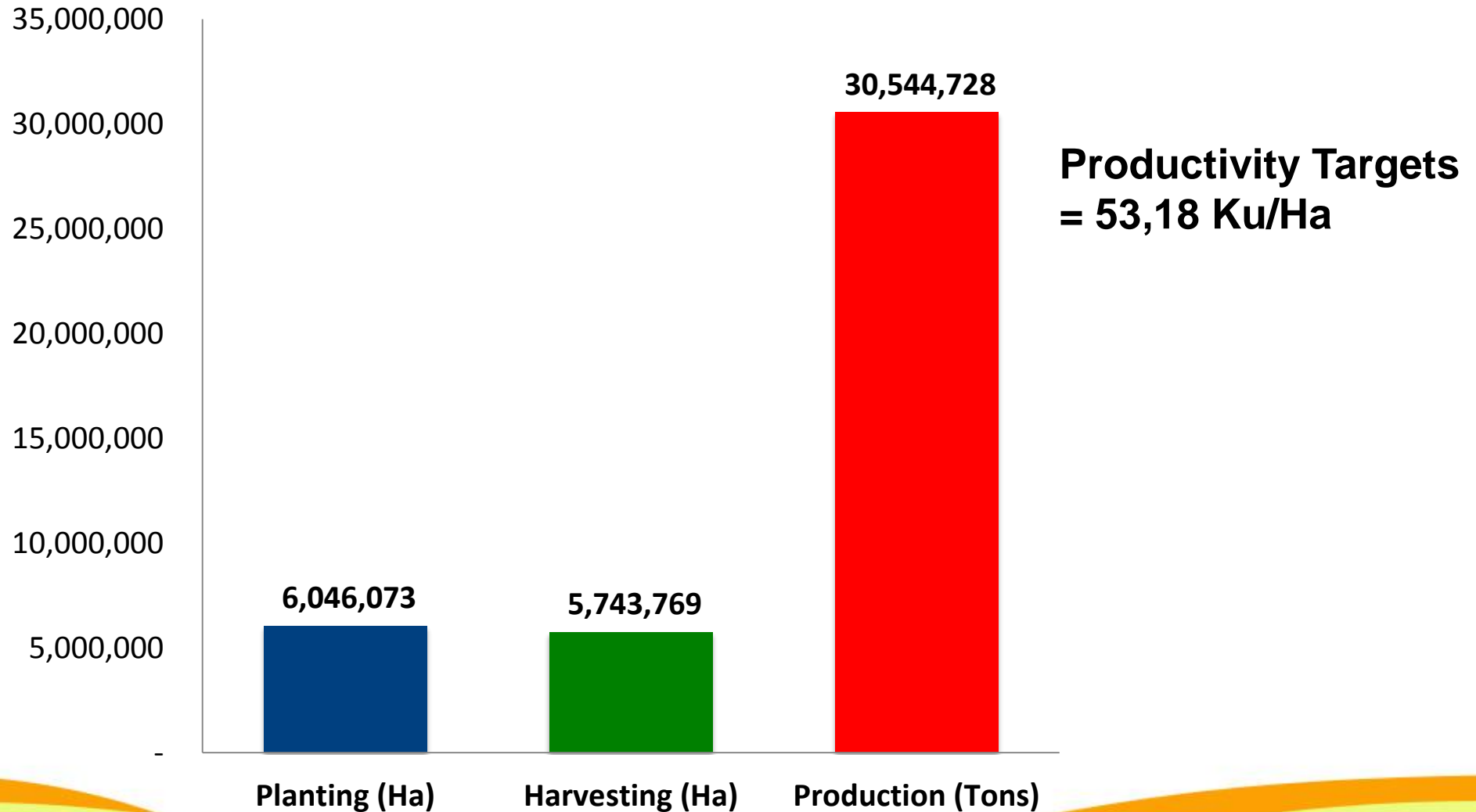
# **HARVEST AREA, PRODUCTIVITY AND PRODUCTION OF CORN 2011 - 2016**

| No | Years | Ha        | Growth    |        | Qu/Ha | Growth |        | Tons       | Growth    |        |
|----|-------|-----------|-----------|--------|-------|--------|--------|------------|-----------|--------|
|    |       |           | Ha        | %      |       | Qu/Ha  | %      |            | Tons      | %      |
| 1  | 2011  | 3.864.692 | -         | -      | 45,65 | -      | -      | 17.643.250 | -         | -      |
| 2  | 2012  | 3.959.909 | 95.217    | 2,46   | 48,96 | 3,31   | 7,24   | 19.387.022 | 1.743.772 | 9,88   |
| 3  | 2013  | 3.957.595 | (2.314)   | (0,06) | 46,78 | (2,18) | (4,46) | 18.511.853 | (875.169) | (4,51) |
| 4  | 2014  | 3.837.019 | (120.576) | (3,05) | 49,54 | 2,76   | 5,91   | 19.008.426 | 496.573   | 2,68   |
| 5  | 2015  | 3.787.367 | (49.652)  | (1,29) | 51,78 | 2,24   | 4,53   | 19.612.435 | 604.009   | 3,18   |
| 6  | 2016* | 4.384.510 | 597.143   | 15,77  | 52,83 | 1,05   | 2,03   | 23.164.915 | 3.552.480 | 18,11  |

\*2016 is forecasting figures



# Corn Production Targets in 2017



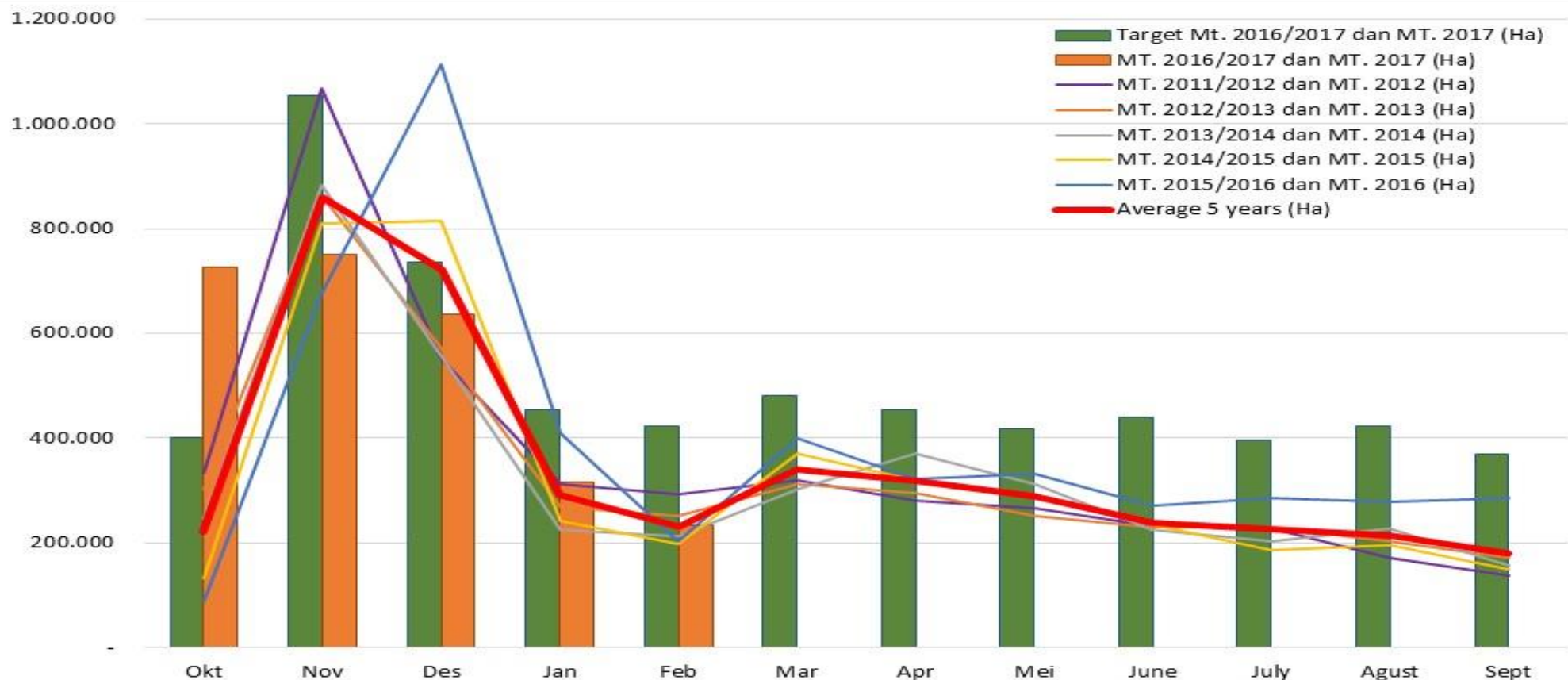


# **SCENARIO TO ATTAIN NATIONAL TARGET OF CORN PRODUCTION 2017**

| No        | Description                                 | Planting<br>(Ha) | Harvesting<br>(Ha) | Productivity<br>(Ku/Ha) | Production<br>(Ton) |
|-----------|---------------------------------------------|------------------|--------------------|-------------------------|---------------------|
| <b>1</b>  | <b>Increasing planting area 2016</b>        | <b>1,913,379</b> | <b>1,817,710</b>   | <b>51.11</b>            | <b>9,290,396</b>    |
|           | <b>Carry Over 2016</b>                      |                  |                    |                         |                     |
|           | a. Corn Development on special land 2016    | 551,540          | 523,963            | 45.00                   | 2,357,834           |
|           | b. Regular plantings (GPJH+Pengadaan Pusat) | 311,839          | 296,247            | 60.00                   | 1,777,482           |
|           | c. Swadaya society                          | 1,050,000        | 997,500            | 51.68                   | 5,155,080           |
| <b>II</b> | <b>Inreasing planting area 2017</b>         | <b>4,132,194</b> | <b>3,926,059</b>   | <b>54.14</b>            | <b>21,254,332</b>   |
|           | a. PAT                                      | 2,000,000        | 1,900,000          | 60.00                   | 11,400,000          |
|           | b. Corn Integration with Plantation Crops   | 1,000,000        | 950,000            | 45.00                   | 4,275,000           |
|           | c. Regular Crop Quality Improvement         | 1,132,694        | 1,076,059          | 51.85                   | 5,579,332           |
|           | <b>Total</b>                                | <b>6,046,073</b> | <b>5,743,769</b>   | <b>53.18</b>            | <b>30,544,728</b>   |



# CORN PLANTING AREA 2012-2016 VS TARGET 2017



| CORN PLANTING                          | Okt     | Nov       | Des       | Jan     | Feb     | Mar     | Apr     | Mei     | June    | July    | Agust   | Sept    | Okt-Sept  |
|----------------------------------------|---------|-----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| MT. 2011/2012 dan MT. 2012 (Ha)        | 334.188 | 1.066.427 | 553.348   | 312.880 | 292.291 | 318.374 | 281.707 | 265.141 | 233.025 | 226.106 | 170.147 | 136.631 | 4.190.265 |
| MT. 2012/2013 dan MT. 2013 (Ha)        | 302.147 | 862.154   | 571.610   | 268.803 | 250.365 | 310.939 | 294.188 | 251.553 | 229.794 | 229.803 | 201.984 | 170.101 | 3.943.441 |
| MT. 2013/2014 dan MT. 2014 (Ha)        | 247.103 | 881.516   | 556.900   | 223.690 | 213.435 | 303.101 | 370.637 | 311.185 | 223.501 | 203.565 | 226.470 | 156.210 | 3.917.313 |
| MT. 2014/2015 dan MT. 2015 (Ha)        | 131.364 | 809.200   | 814.035   | 240.861 | 197.501 | 369.711 | 320.049 | 289.912 | 234.170 | 184.651 | 195.490 | 149.824 | 3.936.768 |
| MT. 2015/2016 dan MT. 2016 (Ha)        | 89.911  | 676.713   | 1.113.009 | 410.203 | 203.322 | 400.677 | 321.692 | 332.187 | 270.292 | 284.769 | 277.299 | 286.112 | 4.666.184 |
| Average 5 years (Ha)                   | 220.943 | 859.202   | 721.780   | 291.287 | 231.383 | 340.560 | 317.655 | 289.996 | 238.156 | 225.779 | 214.278 | 179.776 | 4.130.794 |
| Target Mt. 2016/2017 dan MT. 2017 (Ha) | 401.494 | 1.052.809 | 736.929   | 453.779 | 422.311 | 481.788 | 454.733 | 417.946 | 439.730 | 394.929 | 421.508 | 368.117 | 6.046.073 |
| MT. 2016/2017 dan MT. 2017 (Ha)        | 725.552 | 751.417   | 636.971   | 316.881 | 233.666 |         |         |         |         |         |         |         | 2.664.487 |

Note: MT.2011/2012 – MT.2012 to MT.2015/2016 based on Pusdatin data  
 MT.2016/2017 (Okt –Des) based on Pusdatin data  
 MT. 2017 (Jan – Feb) based on LTJ UPSUS update 26 Februri 2017



# **ESTIMATION OF HARVEST AREA AND CORN PRODUCTION JANUARY - AUGUST 2017**

| No.   | Area       |                  | Prognosis Area |                  | Produktivty<br>(ku/Ha) | Production<br>(Tons) |
|-------|------------|------------------|----------------|------------------|------------------------|----------------------|
|       | Month      | Absolut (Ha)     | Month          | Absolut (Ha)     |                        |                      |
| 1     | October *  | 725,552          | January        | 592,780          | 51,20                  | 3,035,036            |
| 2     | November * | 751,417          | February       | 737,718          | 51,20                  | 3,777,114            |
| 3     | December * | 637,820          | March          | 586,475          | 51,20                  | 3,002,751            |
| 4     | January *  | 327,795          | April          | 414,739          | 51,20                  | 2,123,463            |
| 5     | February * | 400,484          | May            | 380,460          | 53,51                  | 2,035,841            |
| 6     | March *    | 429,867          | June           | 408,374          | 53,51                  | 2,185,208            |
| 7     | April **   | 410,814          | July           | 390,273          | 53,51                  | 2,088,351            |
| 8     | May **     | 413,370          | Agust          | 392,702          | 53,51                  | 2,101,346            |
| Total |            | <b>4,097,120</b> |                | <b>3,903,520</b> | <b>52,13</b>           | <b>20,349,110</b>    |

Note

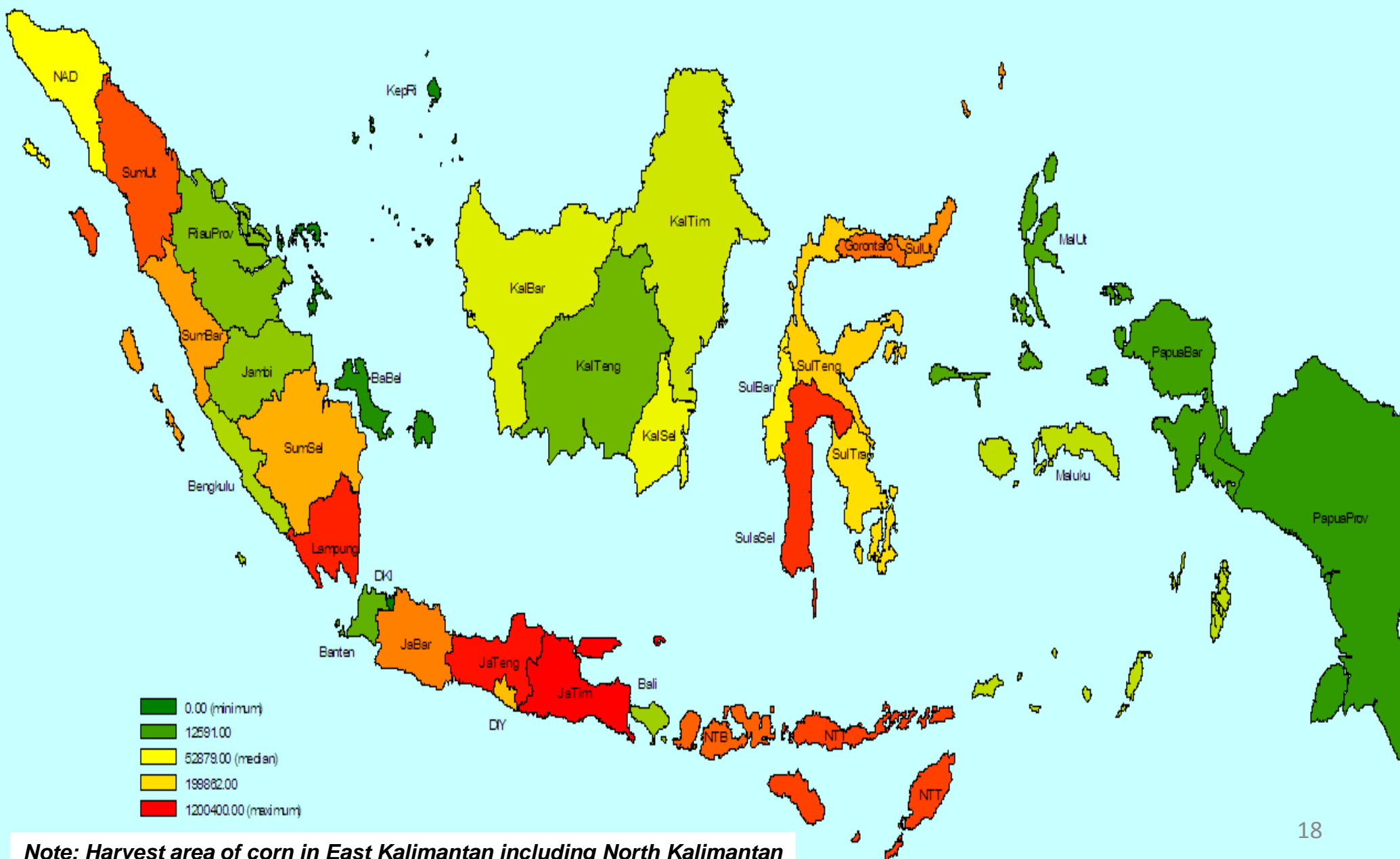
\*Data from PPD Pusdatin

\*\*Data LTT Jagung UPSUS Kementan (update 29 Mei)

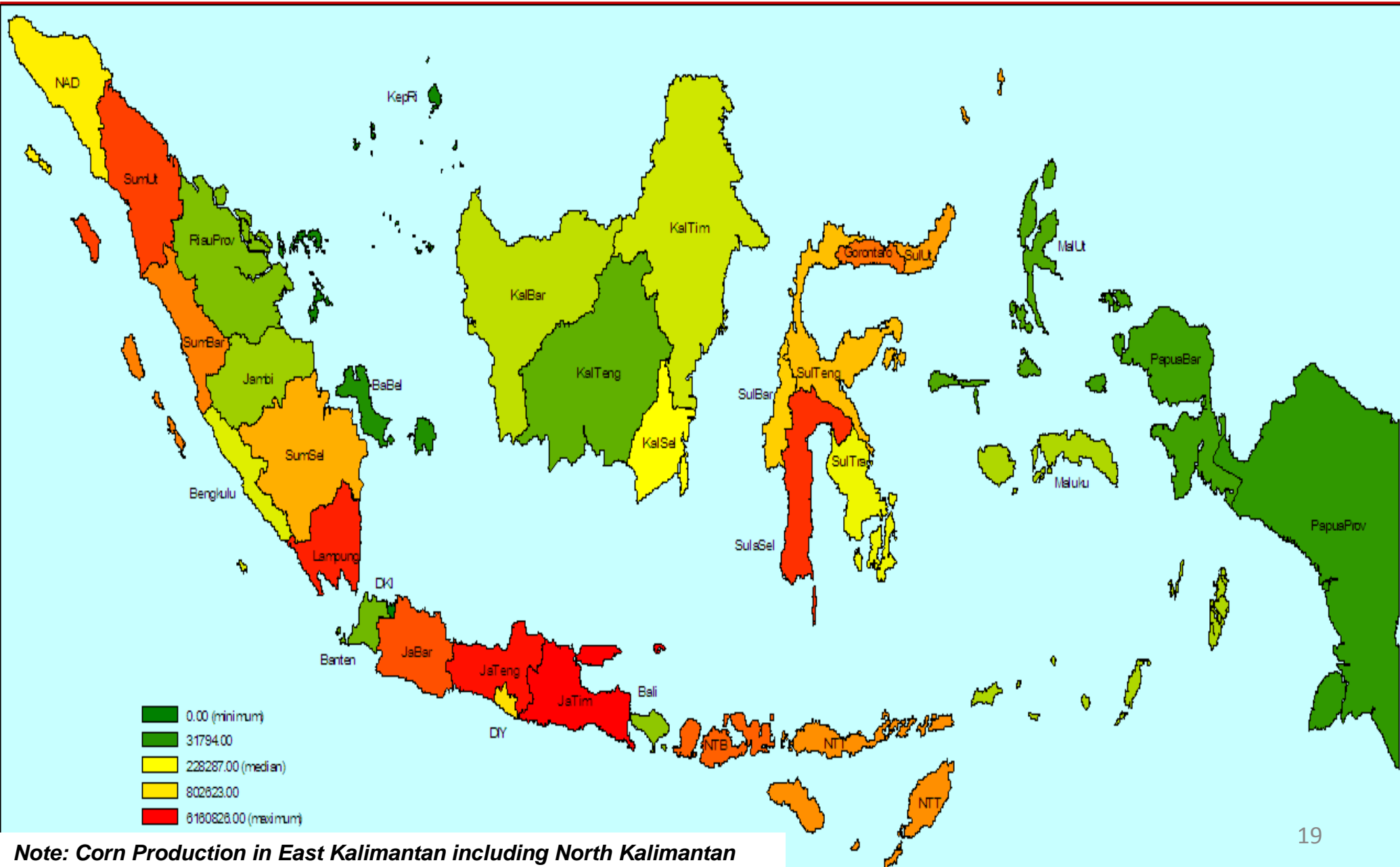




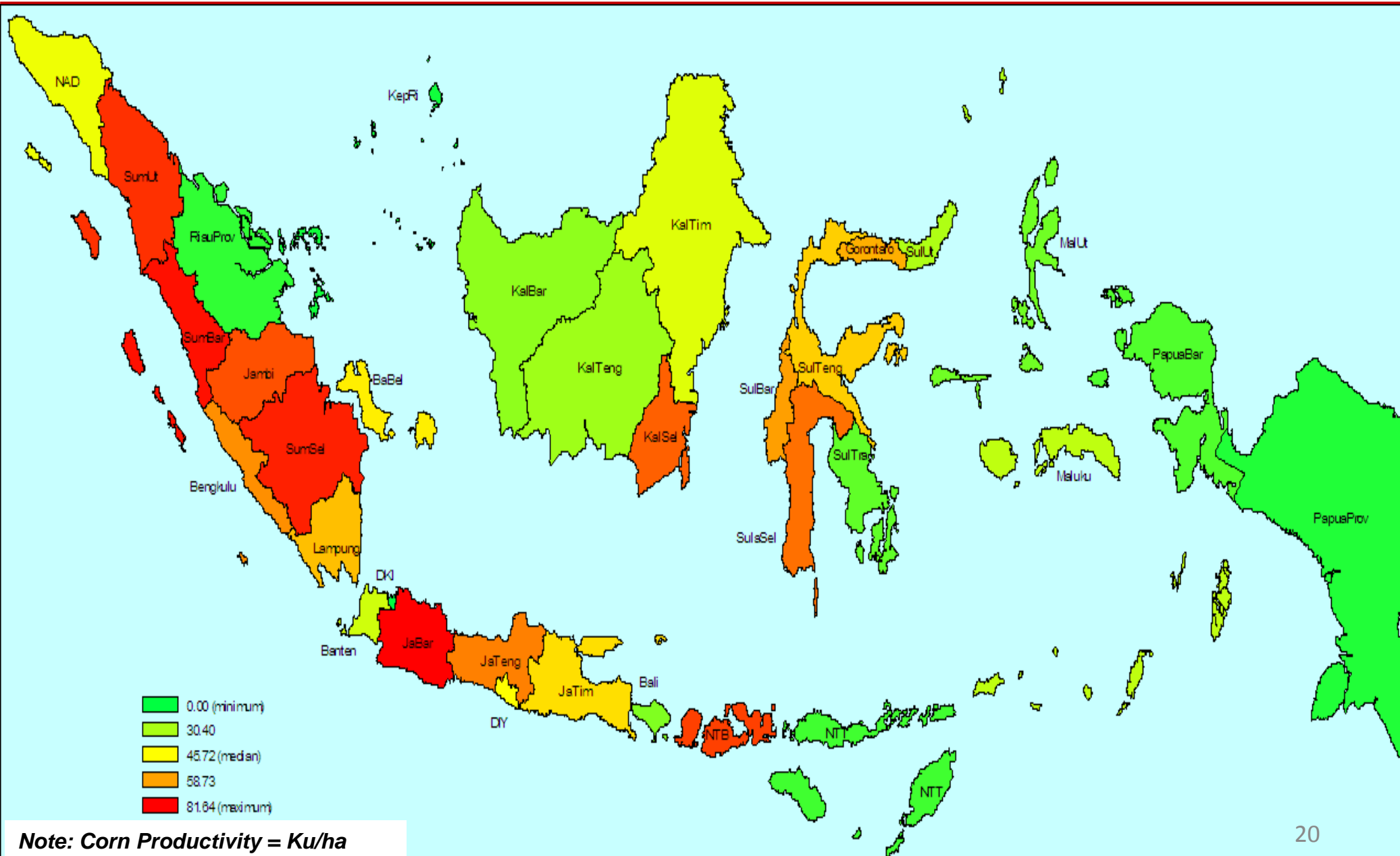
# ESTIMATION OF CORN HARVEST AREA 2017



# ESTIMATION OF CORN PRODUCTION 2017

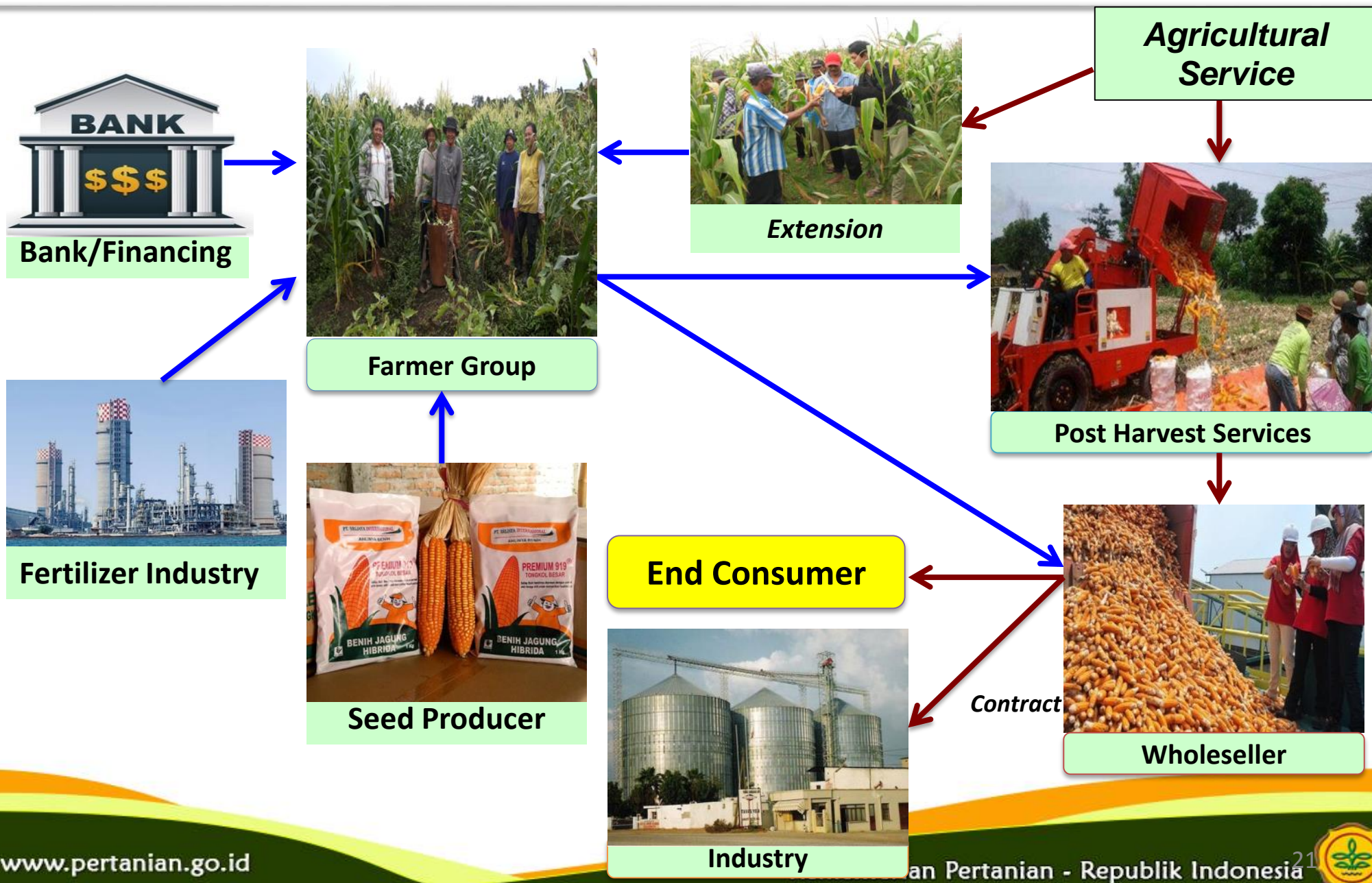


# ESTIMATION OF CORN PRODUCTIVITY 2017

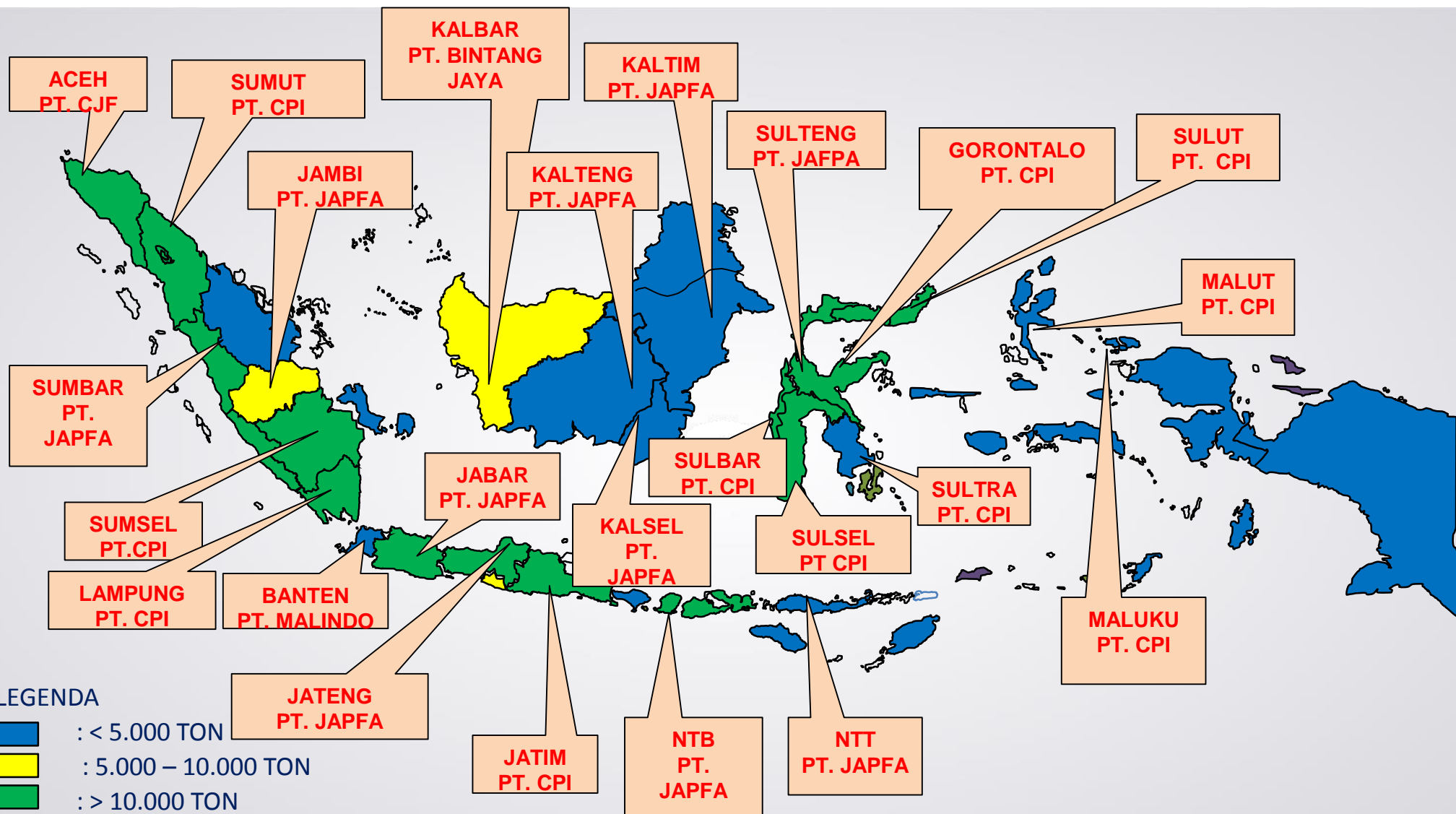




# PARTNERSHIP SCHEME FOR CORN INDUSTRY DEVELOPMENT



# GPMT PARTNERSHIP WITH CORN FARMERS



GPMT= Indonesian Feedmills Association





# ***CORN DEMAND IN INDONESIA***

- **FEED**

- Present consumption : 8,5 million ton per annum
- Growing at about 10% per annum
- Estimated demand in 2020 will reach 10 million ton per annum

- **FOOD**

- Some region in Indonesia consumes corn as staple food
- Processed food industry is growing

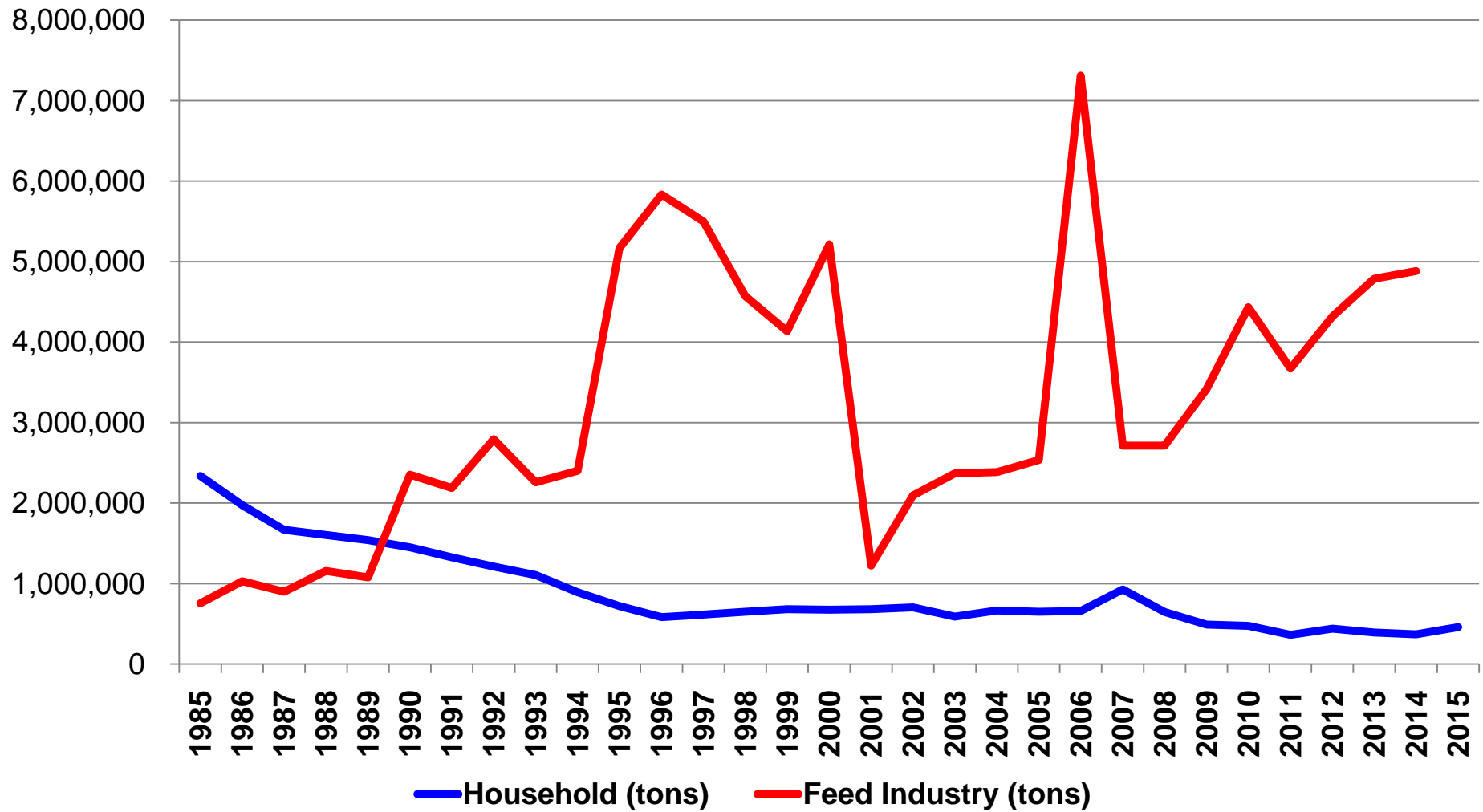
- **FUEL**

- At present only very limited use of corn for energy/fuel





# HOUSEHOLD CONSUMPTION AND CORN DEMAND FOR FEED INDUSTRY

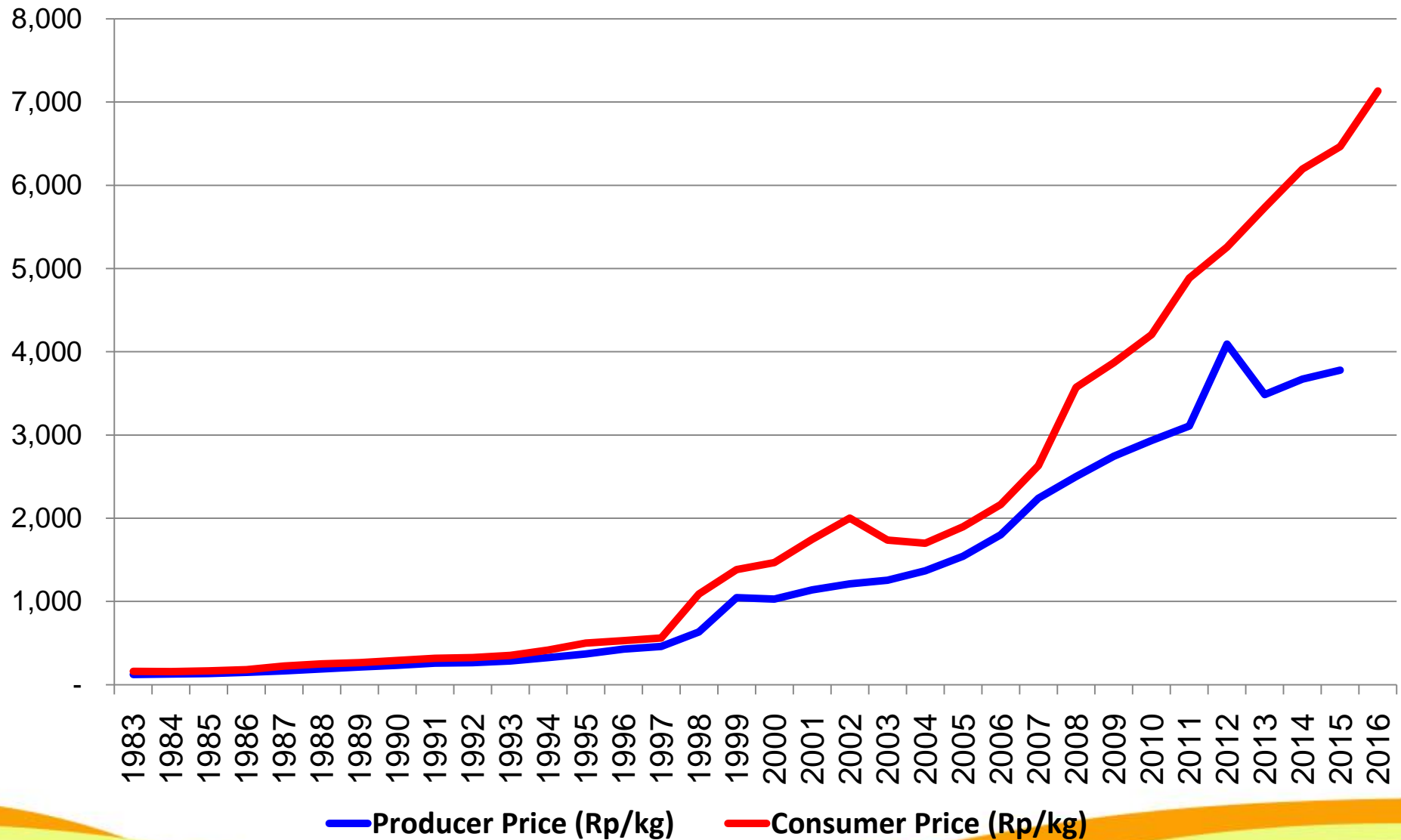


# CORN AVAILABILITY PROGNOSIS 2017

| Month             | Target            | losses           | Corn Demand Forecasting |                  |                  |                |                  |                   | Domestic Balance  | Cumulatif Balance |
|-------------------|-------------------|------------------|-------------------------|------------------|------------------|----------------|------------------|-------------------|-------------------|-------------------|
|                   |                   |                  | Consumption             | Feed Industry    | Self Mixing      | Seed           | Food Industry    | Total             |                   |                   |
| 1                 | 2                 | 3                | 4                       | 5                | 6                | 7              | 8                | 9=4+5+6+7+8       | 10=2-3-9          | 11=stock+10       |
| <b>Stock</b>      |                   |                  |                         |                  |                  |                |                  |                   |                   | <b>370.408</b>    |
| Jan-17            | 1.916.251         | 95.813           | 39.570                  | 769.282          | 295.620          | 9.076          | 309.645          | 1.423.192         | 397.247           | 767.655           |
| Feb-17            | 5.024.848         | 251.242          | 41.230                  | 769.282          | 308.017          | 8.446          | 930.065          | 2.057.040         | 2.716.565         | 3.484.220         |
| Mar-17            | 3.517.213         | 175.861          | 43.527                  | 823.131          | 325.182          | 9.636          | 849.429          | 2.050.905         | 1.290.447         | 4.774.667         |
| Apr-17            | 2.165.794         | 108.290          | 39.570                  | 807.745          | 295.620          | 9.095          | 426.322          | 1.578.352         | 479.152           | 5.253.819         |
| May-17            | 2.130.749         | 106.537          | 39.570                  | 769.282          | 295.620          | 8.359          | 286.141          | 1.398.972         | 625.240           | 5.879.059         |
| Jun-17            | 2.430.838         | 121.542          | 40.032                  | 776.975          | 299.069          | 8.795          | 354.212          | 1.479.083         | 830.214           | 6.709.273         |
| Jul-17            | 2.294.333         | 114.717          | 39.570                  | 769.282          | 295.620          | 7.899          | 494.563          | 1.606.934         | 572.682           | 7.281.955         |
| Aug-17            | 2.108.726         | 105.436          | 39.570                  | 769.282          | 295.620          | 8.430          | 391.744          | 1.504.646         | 498.643           | 7.780.598         |
| Sep-17            | 2.424.583         | 121.229          | 40.209                  | 781.690          | 300.388          | 7.362          | 287.330          | 1.416.979         | 886.376           | 8.666.974         |
| Oct-17            | 2.177.560         | 108.878          | 39.889                  | 775.486          | 298.004          | 2.409          | 358.547          | 1.474.335         | 594.346           | 9.261.320         |
| Nov-17            | 2.324.111         | 116.206          | 39.570                  | 769.282          | 295.620          | 17.687         | 284.185          | 1.406.344         | 801.561           | 10.062.881        |
| Dec-17            | 2.029.724         | 101.486          | 39.570                  | 769.282          | 295.620          | 28.329         | 255.017          | 1.387.819         | 540.418           | 10.603.299        |
| <b>Total 2017</b> | <b>30.544.728</b> | <b>1.527.236</b> | <b>481.879</b>          | <b>9.349.999</b> | <b>3.600.000</b> | <b>125.522</b> | <b>5.227.200</b> | <b>18.784.601</b> | <b>10.232.891</b> | <b>10.603.299</b> |

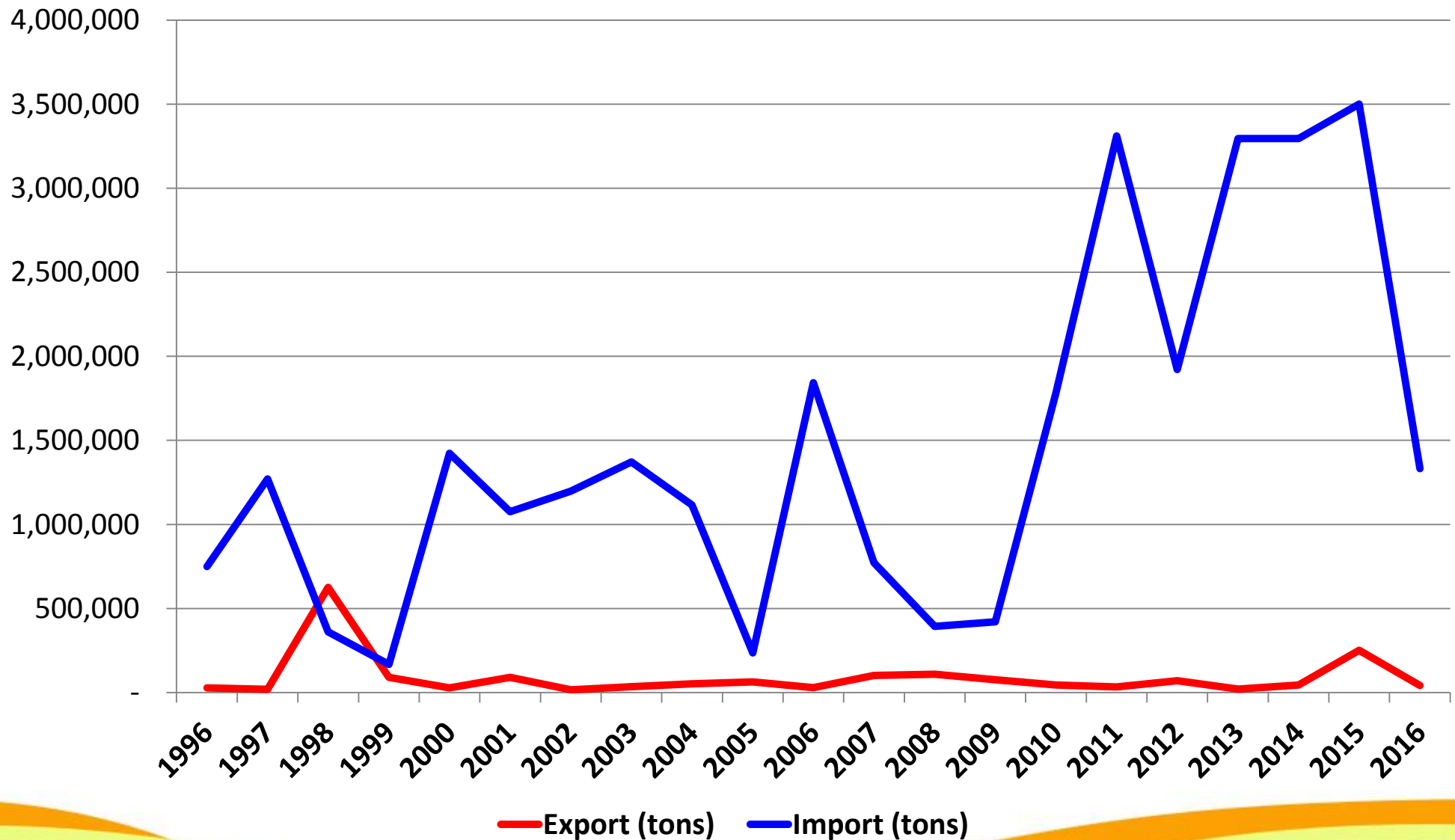


# INDONESIA CORN PRICE





# INDONESIA CORN EXPORT AND IMPORT



# PROBLEM BUSINESS OF CORN IN INDONESIA

- ❖ **Farming mainly is carried out by small holder farmer, average size is less than 0.5 ha**

Traditional, less mechanization

- ❖ **Lack of Access to financial supports from banks, farmer use their own (limited) capitals**

Generally they are not able to afford cost of technology

- ❖ **Limited post harvest processing**

- Quality of product does not meet industrial standard
- lower price received by farmers

- ❖ **Marketing**

- Middleman control and determined the price
- To many/long chain in marketing from farmer to end user





### III

## **NATIONAL STRATEGIC FOR CORN INDUSTRY DEVELOPMENT**



# ***THE POTENTIAL OF CORN PRODUCTION FOR INDONESIA FEED THE WORLD***

- The utilization of dry land has not been optimal, only 19%
- Agro-climate in Indonesia is suitable for the cultivation of corn
- Available technology and innovation as well as agricultural production facilities
- Institutional support at central and regional level
- World corn trade is getting interesting
- Corn needs in Indonesia fully be met from domestic production and expand export orientation paradigm
- Indonesia is capable to fill a corn market in ASEAN countries, amounting to a minimum of 25% or approximately 1.2 million tons
- have the opportunity to supply other countries in Asia, namely China, Japan and South Korea





# ***NATIONAL STRATEGIC FOR CORN INDUSTRY DEVELOPMENT***

## **❖ To Improve Productivity**

- Seed (hybrid)
- Fertilizers and chemicals

## **❖ To Expand planting area**

- Cropping intensity
- New development area (Integrated to plantation area 1 million hectares)

## **❖ To Improve post harvest technology**

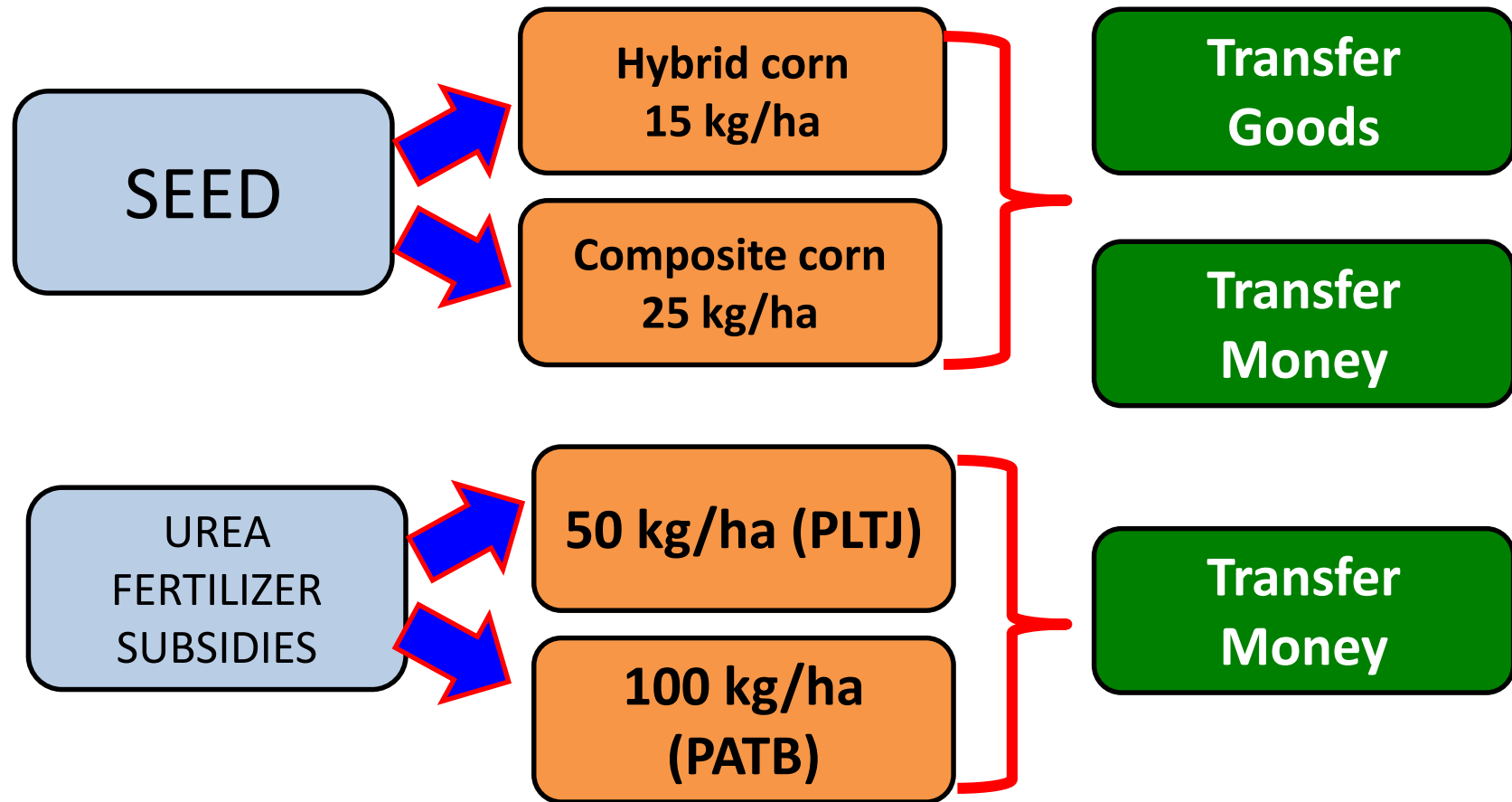
Mechanical drying and storage

## **❖ Marketing**

- Providing low interest credit for farmers (KUR)
- Contract farming
- Price Policy according to Regulation No. 63/2016 issued by the Ministry of Trade



# ***FACILITIES TO SUPPORT CORN PRODUCTION 2017***



## **Note:**

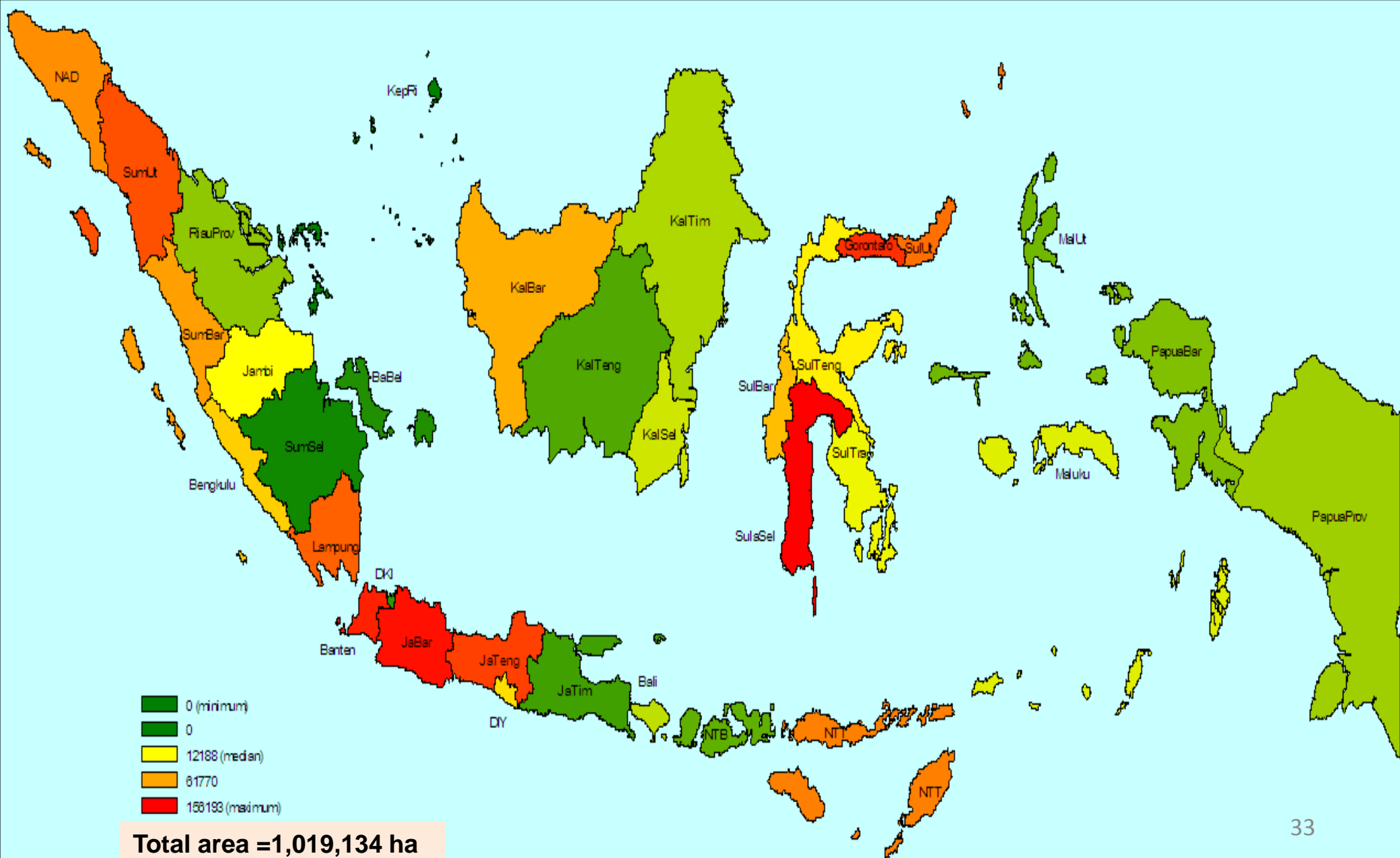
**PLTJ = Additional planting of corn area = 1,019,134 ha**

**PATB = New additional planting of corn area = 1,980,866 ha**

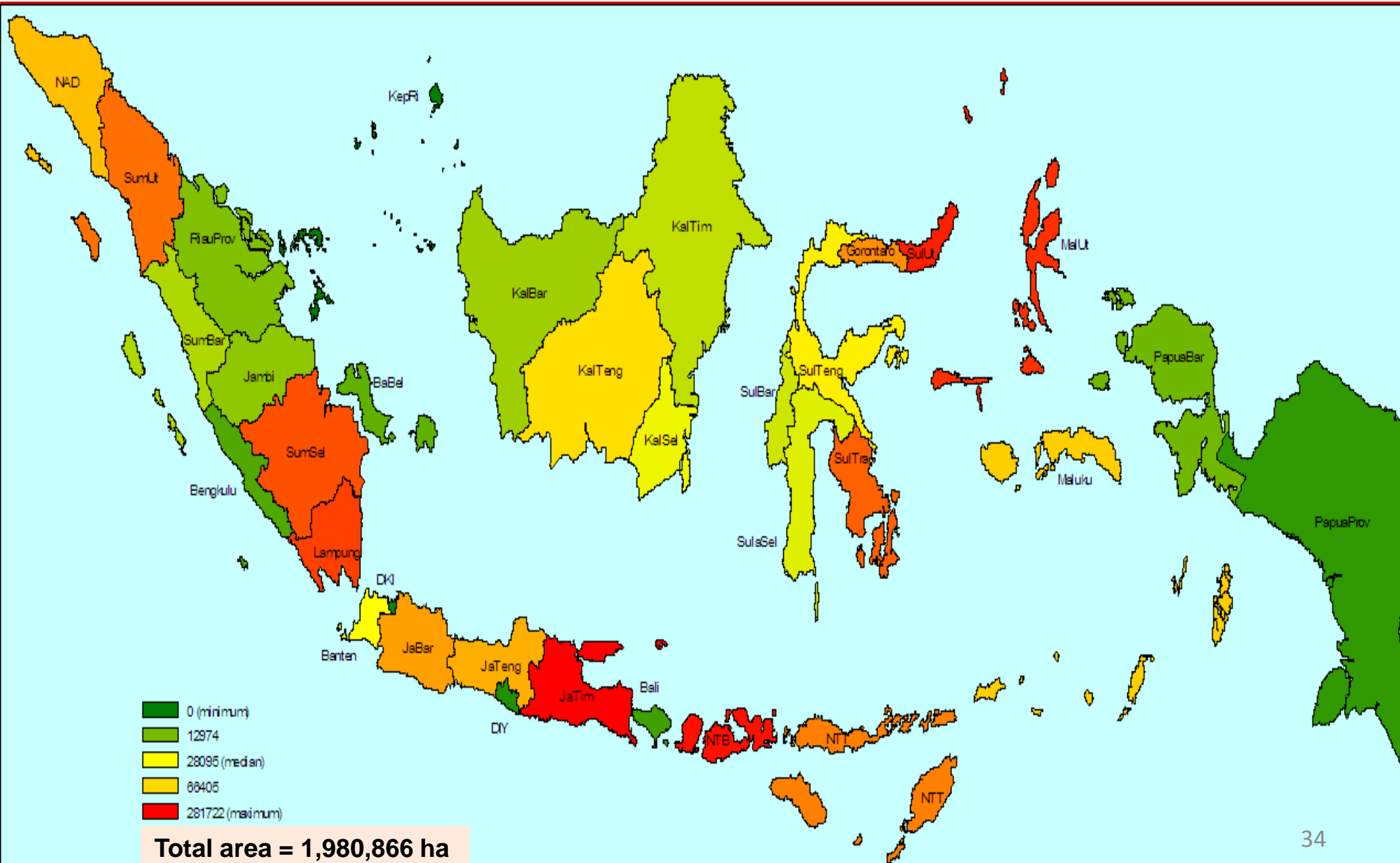
**PLTJ + PATB + Centre (100,514 ha) = 3,000,000 ha**



# ADDITIONAL PLANTING OF CORN AREA (PLTJ) 2017



### ***NEW ADDITIONAL PLANTING OF CORN AREA (PATB) 2017***





# ***THE GOVERNMENT OF CORN PRICE REFERENCE (HAP)***

Price Policy according to Regulation No. 63/2016 issued by the Ministry of Trade

| No | Corn Quality      | HAP in Farmer Level (Rp/Kg) | HAP Consumer Level (Rp/Kg) |
|----|-------------------|-----------------------------|----------------------------|
| 1. | Water Content 15% | 3.150                       | 3.650/3.750*)              |
| 2. | Water Content 20% | 3.050                       | -                          |
| 3. | Water Content 25% | 2.850                       | -                          |
| 4. | Water Content 30% | 2.750                       | -                          |
| 5. | Water Content 35% | 2.500                       | -                          |

\*) Sales prices for industrial users (as animal feed) each Rp 3,650/kg (bulk) and Rp 3750/kg (packaging)





# IV

## **TECHNOLOGY DEVELOPMENT AND STRENGTHENING INSTITUTION**

# TECHNOLOGY DEVELOPMENT

## SUPERIOR NEW VARIETIES

Varieties tolerant to drought stress such as Bima 2, Bima 4, Bima 5, Bima 15, Bima 16 and Anoman. Other varieties tolerant to soil acidity, such as Bima 7, Bima 8 and Sukmaraga

## Mentoring and Escorting

## Provision of seed source

## Cultivation and Post-harvest technology, mechanization

## The suitability of the land map

## Handling Corn Model



# CULTIVATION TECHNOLOGY SUPPORT

## ❖ The Use of mechanization to speed up and improve efficiency

- Machine planting and fertilizing
- Weeding weed machines
- Harvesting machine

## ❖ Improving the quality of land

- Self-sufficient compost in Village
- Microorganism Technology to enricher soil and amiloran (neutralizer soil poisons)

## ❖ Fertilization Technology

- Slower Fertilizer realase (fertilization only one time)
- Quickly and easy technology analysis to know the availability of nutrients (specific location recommendations)
- Establish an independent village to produce iliquid fertilizer

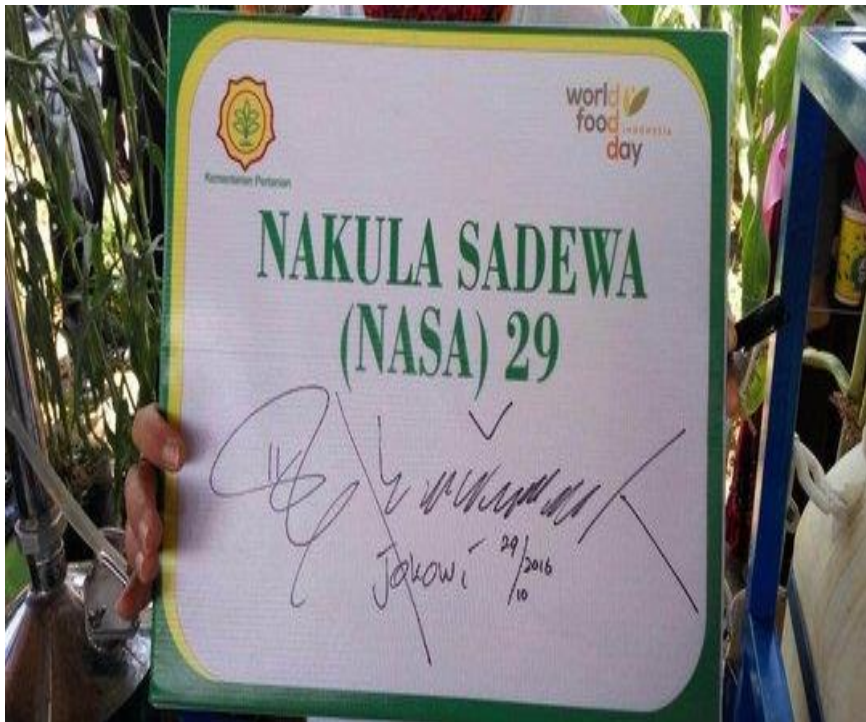




# HYBRID CORN VARIETIES PRODUCED BY IAARD 2007-2016

| Varieties          | Year | Yield Potential (tons/ha) | Specific Advantages          | Licensee            |
|--------------------|------|---------------------------|------------------------------|---------------------|
| Bima-3 Bantimurung | 2007 | 10,0                      | Stay Green                   | PT. GIS             |
| Bima-4             | 2008 | 12,0                      | Stay Green                   | PT. Adinata         |
| Bima-5. Bima-6     | 2008 | 11,0                      | Stay Green                   | Publik              |
| Bima-7             | 2010 | 12,1                      | Genjah                       | PT. Biogene Plant.  |
| Bima-8             | 2010 | 11,7                      | Genjah                       | To the public       |
| Bima-9             | 2010 | 13,4                      | Stay Green                   | PT. Srijaya         |
| Bima-10            | 2010 | 13,1                      | Stay Green                   | PT. SHS             |
| Bima-11            | 2010 | 13,2                      | Stay Green                   | PT. Tossa Agro      |
| Bima-12 Q&B-13 Q   | 2011 | 11,0                      | High Amino Acids, for Food   | To the public       |
| Bima 14 Batara     | 2011 | 13,2                      | Stay Green                   | PT. Srijaya         |
| Bima 15 Sayang     | 2011 | 12,9                      | Stay Green                   | PT. Adinata         |
| Bima 16            | 2012 | 12,4                      | Stay Green                   | PT. Pupuk Sriwijaya |
| Bima 17            | 2013 | 13,6                      | Stay Green & Rust            | PT. Go Green        |
| Bima 18            | 2013 | 13,6                      | Genjah                       | PT. Dalzon          |
| Bima 19 URI        | 2013 | 12,5                      | Stay Green, drought tolerant | To the public       |
| Bima 20 URI        | 2013 | 12,8                      | Stay Green, drought tolerant | To the public       |
| HJ 21              | 2014 | 12,2                      | Genjah (82 HST), Stay Green  | PT. GIS             |
| HJ 22              | 2014 | 12,1                      | Genjah (80 HST), Stay Green  | PT. Srijaya         |
| HJ 36              | 2016 | 12,2                      | Genjah (89 HST), Stay Green  | -                   |
| HJ 45              | 2016 | 12,6                      | Sedang (99 HST), Stay Green  | -                   |

# HYBRID TWO CORN VARIETIES





# Corn Varieties Tolerant to Drought:

Composite: Lamuru, Sukmaraga, Srikandi Yellow

Hybrid : Bima 19, Bima 20



# **THE DISSEMINATION OF MAIN CORN VARIETIES IN AREA PLANTED (2012 AND 2015)**

| NO | Wilayah                   | Area Planted of Corn Varieties (%) |              |              |             |             |             |             |             |             |             |
|----|---------------------------|------------------------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|    |                           | BISI 2                             |              | P1           | P 21        | Bisma*      |             | BISI 16     | Lamuru*     | BISI 816    |             |
|    |                           | 2012                               | 2015         | 2012         | 2015        | 2012        | 2015        | 2012        | 2015        | 2012        | 2015        |
| 1  | Sumatera                  | 4,38                               | 6,25         | 11,59        | 0,83        | 5,16        | 2,97        | 5,03        | -           | 3,22        | 7,19        |
| 2  | Jawa                      | 19,59                              | 17,09        | 20,33        | 10,07       | 6,44        | 5,58        | 0,66        | 0,09        | 0,47        | 3,26        |
| 4  | Kalimantan                | 3,83                               | 25,27        | -            | -           | 1,40        | 7,34        | -           | -           | 0,68        | 7,01        |
| 4  | Bali & Nusa Tenggara      | 5,41                               | 10,70        | -            | -           | 18,58       | 2,28        | 8,21        | 19,60       | 6,14        | 6,83        |
| 5  | Sulawesi                  | 27,43                              | 32,85        | 5,12         | -           | 3,75        | 2,86        | 8,87        | 1,37        | 1,39        | 1,07        |
| 6  | Maluku & Papua            | 27,63                              | 40,73        | -            | -           | 1,49        | 0,47        | -           | -           | -           | -           |
| 7  | National Contribution (%) | <b>16,61</b>                       | <b>16,72</b> | <b>13,92</b> | <b>5,57</b> | <b>6,33</b> | <b>4,20</b> | <b>3,49</b> | <b>3,32</b> | <b>1,57</b> | <b>4,20</b> |
| 8  | Area Planted (million Ha) | <b>0,68</b>                        | <b>0,62</b>  | <b>0,57</b>  | <b>0,21</b> | <b>0,26</b> | <b>0,16</b> | <b>0,14</b> | <b>0,12</b> | <b>0,06</b> | <b>0,16</b> |

**\*Lamuru and Bisma are composite varieties**



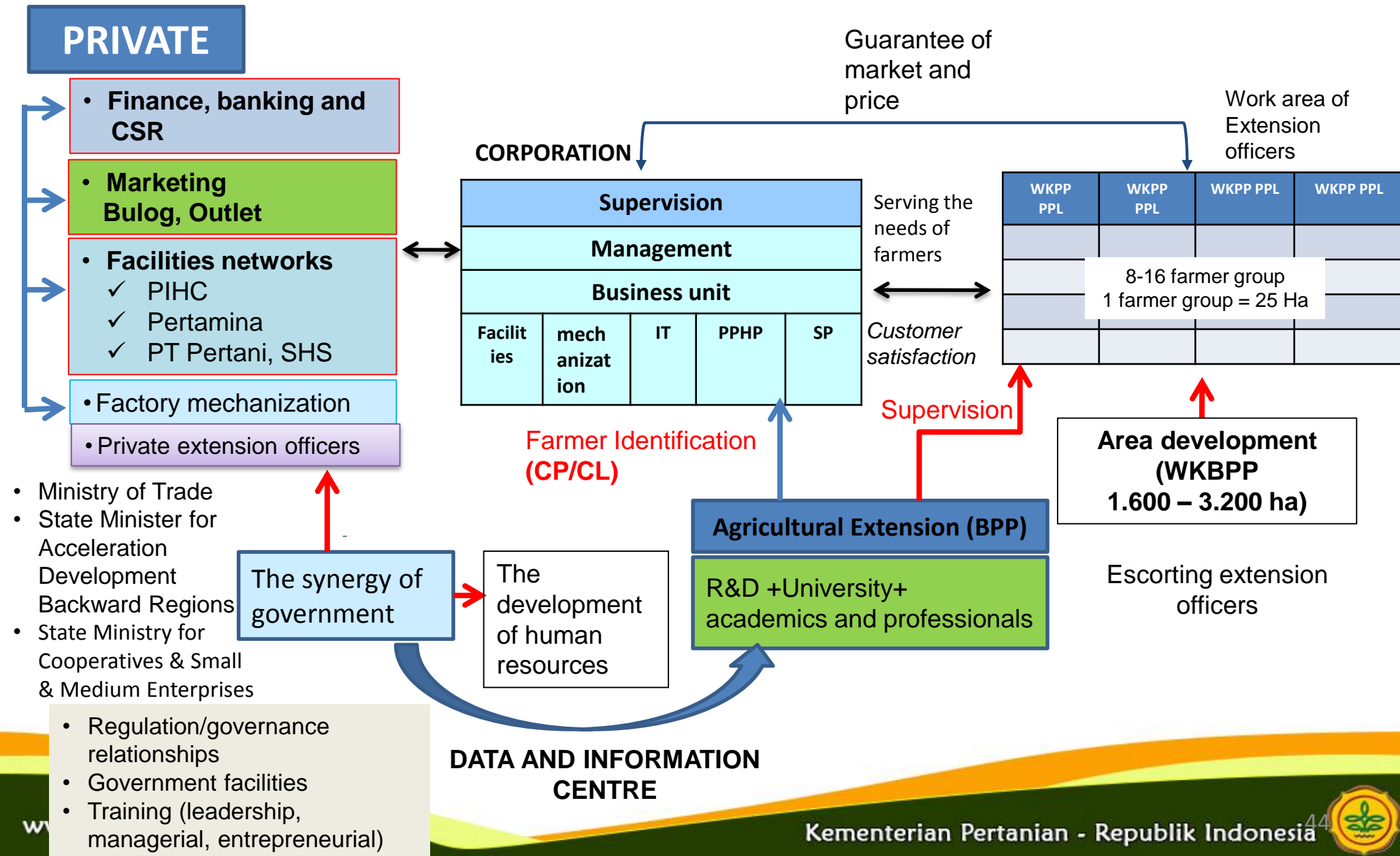


# THE DISSEMINATION OF MAIN CORN VARIETIES IN AREA PLANTED (2012 AND 2015)

| No | Wilayah                   | Area Planted of Corn Varieties (%) |              |                 |              |                           |             |
|----|---------------------------|------------------------------------|--------------|-----------------|--------------|---------------------------|-------------|
|    |                           | Other Superior Varieties           |              | Local Varieties |              | National Contribution (%) |             |
|    |                           | 2012                               | 2015         | 2012            | 2015         | 2012                      | 2015        |
| 1  | Sumatera                  | 60,15                              | 76,91        | 10,47           | 5,84         | 20,79                     | 17,50       |
| 2  | Jawa                      | 49,45                              | 41,90        | 3,06            | 22,01        | 52,09                     | 50,67       |
| 3  | Kalimantan                | 79,64                              | 56,71        | 13,01           | 3,67         | 2,21                      | 0,89        |
| 4  | Bali & Nusa Tenggara      | 47,43                              | 11,45        | 14,23           | 49,03        | 6,39                      | 15,63       |
| 5  | Sulawesi                  | 47,01                              | 54,13        | 6,43            | 5,70         | 17,69                     | 15,09       |
| 6  | Maluku & Papua            | 43,35                              | 30,34        | 27,53           | 25,85        | 0,66                      | 0,24        |
| 7  | National Contribution (%) | <b>51,74</b>                       | <b>45,21</b> | <b>6,33</b>     | <b>20,78</b> | <b>100</b>                | <b>100</b>  |
| 8  | Area Planted (million Ha) | <b>2,10</b>                        | <b>1,68</b>  | <b>0,26</b>     | <b>0,77</b>  | <b>4,06</b>               | <b>3,71</b> |



# STRENGTHENING FARMER'S ECONOMIC INSTITUTIONS





V

## **CORN EXPORT-ORIENTED PROGRAM IN INDONESIA BORDER AREA**



# INDONESIA BORDER AREAS

## MALAYSIA

- Population: 30,7 million people

## SINGAPURA

- Population: 5,5 million people

## PHILIPPINES

- Population: 101,7 million people

## REPUBLIC PALAU

- Population: 17.948 million people

## PAPUA NUGINI

- Population: 7,4 million people

## AUSTRALIA

- Population: 24,3 million people

## TIMOR LESTE

- Population: 1,2 million people



# DEVELOPMENT DIRECTION :

- ❖ The development of corn production system through an integrated regional approach
- ❖ Increase in economic activities and corn trade through the acceleration of infrastructure development
- ❖ Encourage the growth of investment in corn export-oriented.



# DEVELOPMENT TARGETS :

- ❖ Strengthening food security and economy of the border area
- ❖ The increasing corn exports from the border area
- ❖ The growth of investment in corn production system at the border area
- ❖ The more stable socio-economic political, defense and security in the border area







## THE BORDER AREA OF WEST KALIMANTAN-INDONESIA



# INDONESIA-MALAYSIA BORDER



- The land boundary has a length of **2,019.5 km**
- The boundary separates the Indonesian provinces of **North Kalimantan, East Kalimantan and West Kalimantan**, and the **Malaysian states of Sabah and Sarawak**.



# Current Condition of Internasional Cross Border between West Kalimantan (Indonesia) and Serawak (East Malaysia)



Three border gate (Pos Lintas Batas Negara/PLBN) have a length of 996 km : **PLBN Aruk-Biawak (Sambas)**, **PLBN Entikong-Tebedu (Sanggau)** and **PLBN Nanga Badau Lubuk Antu (kapuas Hulu)**.



# Borneo Economics Corridor

1  
Development of Port Capacity Maloy

2  
Executing Agency Port Facilities  
Development Maloy / Sangkulirang

3  
Development of International Port of  
Balikpapan (Container Terminal)

4  
Development of Port Facilities Penajam  
Pasir and Kariangau / Balikpapan

5  
Development of Port Tanah Grogot

6  
Development of Port of Nunukan

7  
New Samarinda airport development

## Borneo Railway

11  
Construction of railway Puruk Cahu -  
Tanjung Isuy along 203 km

## South Kalimantan

8  
Development of port facilities Pelayari

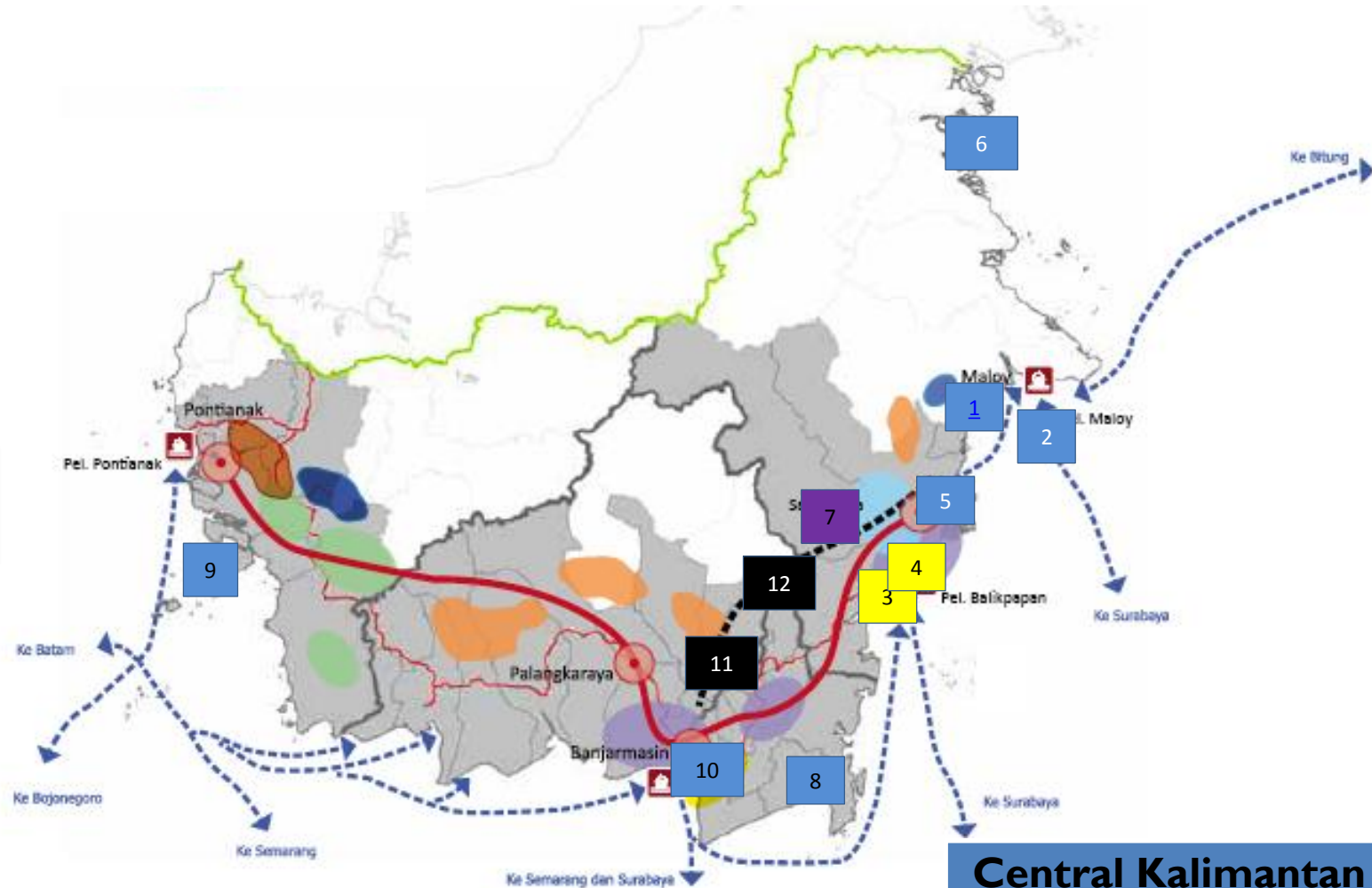
## West Kalimantan

9  
Development of port Teluk Melano

## Central Kalimantan

10  
Development of Port Teluk Pisau

12  
Construction of railway Puruk Cahu -  
Bangkuang along 185 km





# CORN

**Corn area : 31.035 ha**

**Corn Production: 113.608 Ton**

**Potential Area: 800.000 ha**

**Main Area : Bengkayang District**

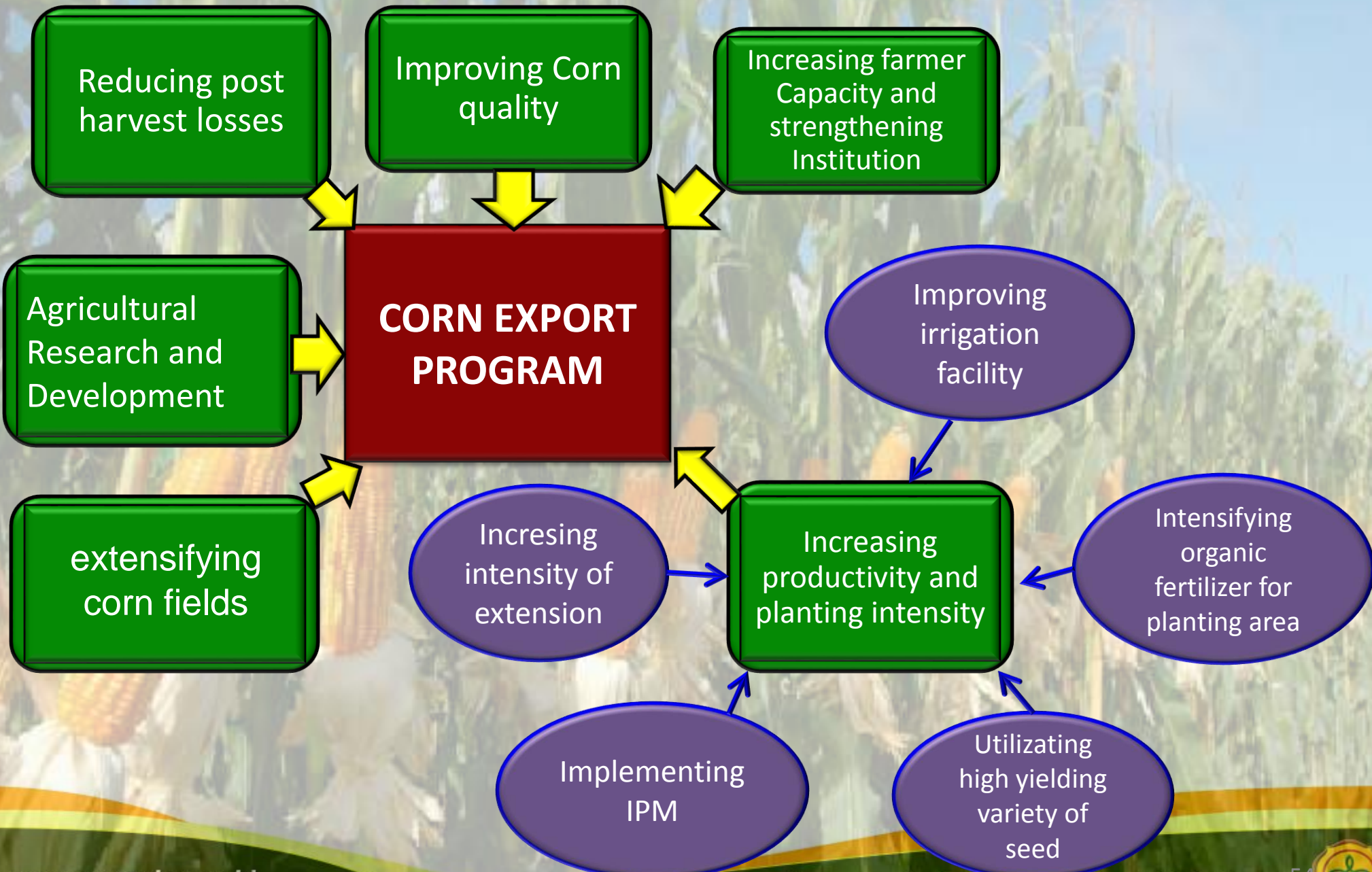


## **Potensial District:**

- Sanggau District
- Sambas District
- Sintang District
- Landak District

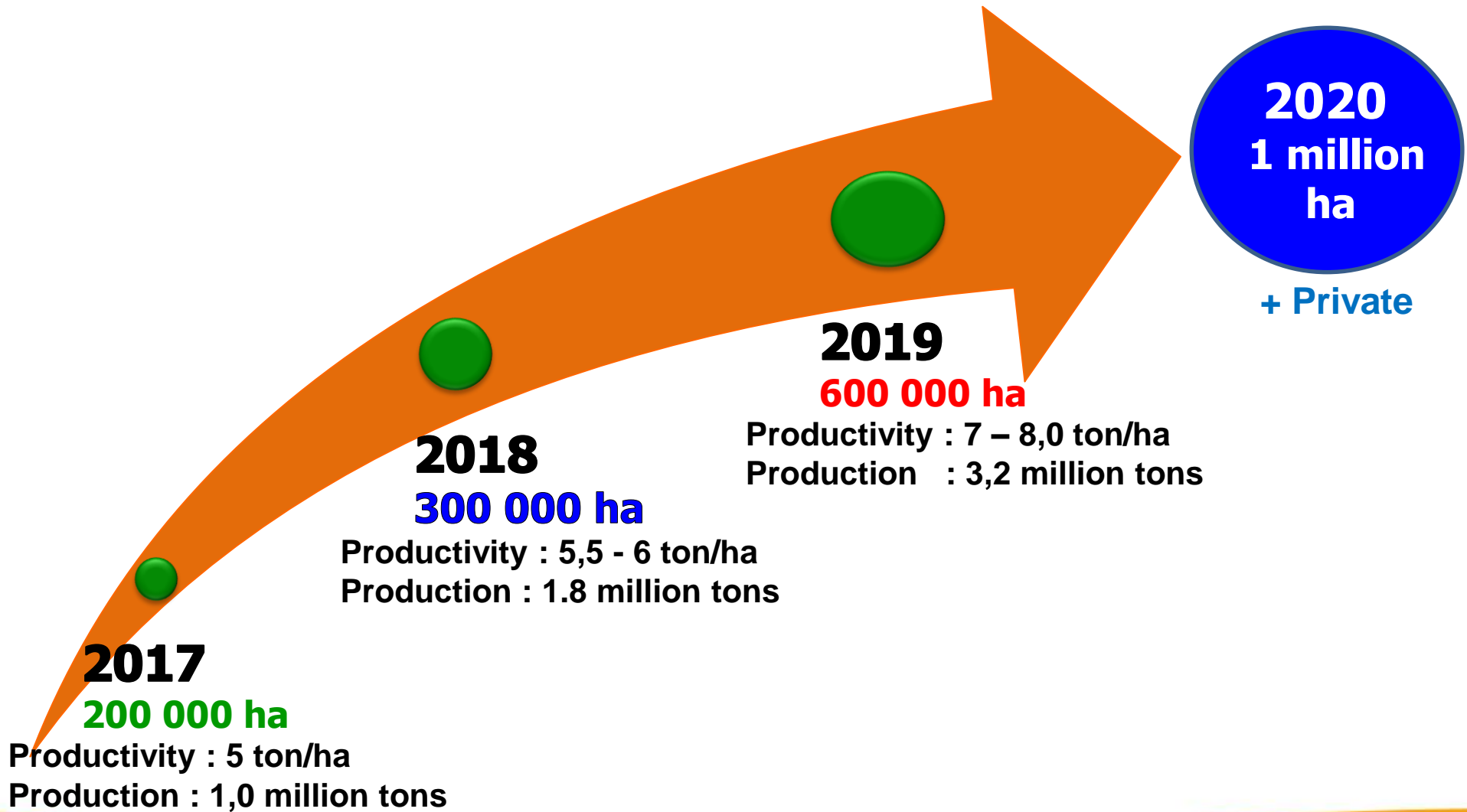








# CORN PRODUCTION TARGET



# INVESTMENT OPPORTUNITIES

## ***Upstream industry :***

1. Investment in the distribution of farm inputs such as:
  - seeds/seedlings/stem-cuttings/fingerlings/chicks etc.
  - agro-chemicals such as herbicides, fungicides, insecticides and fertilizers.
  - farm machineries such as tractors, box dryer, fertilizer applicator, harvesters, irrigation equipment etc.
2. Distribution markets and cold chain infrastructure for export products
3. Agro-chemicals manufacturing plant such as fertilizer, agro-chemicals etc.



# INVESTMENT OPPORTUNITIES

## ***Downstream Industry :***

Investment in the processing and distribution of farm produce;

- Processing of corn into intermediate and final consumer goods;
- Production and/or marketing of agro-processing equipment.
- Marketing and distribution of the consumer goods produced.



## ***Other investment :***

- ❖ Finance of all the activities in farming system (inputs, farms, processing equipment, consumer goods etc.).
- ❖ Insurance of the farm and all farm assets.
- ❖ Provision of transport services.
- ❖ Provision of warehousing services.
- ❖ Provision of veterinary services.





# AVAILABILITY OF SUPPORT TO INVESTMENT

There are a lot of supports to encourage investment in agricultural sector in the west of Kalimantan. Some of these are:

- Government Support (infrastructure, etc.)
- Research Institutes support (IAARD, the Indonesian Institute of Sciences, etc.)
- Simplifying mechanism of investment development
- Guarantee certainty in business mainly related to security



## **VI. CLOSING REMARKS**

- ❖ In Indonesia, corn is the second most important cereal crop after rice, and its production had indicated significant growth over the last three decades of which Indonesia had emerged from net importer to maize self sufficiency
- ❖ Based on corn production performance, Indonesia will continue to strengthen competitiveness to take advantage of export opportunities to the border country
- ❖ Challenges for an increasing corn demand, natural resource depletion and climate change, will require collaboration between farmers, extension, researchers, policy makers, private sectors, and many other development agencies.





***TERIMA KASIH***

**INDONESIA FEED THE WORLD**  
**SERVE OUR NEIGHBORS**