# COFFEE VALUE CHAIN ANALYSIS AND MARKET ACCESS

INDONESIA CASE STUDY



### LEARNING EXPERIENCE FROM

- ACEH GOVERNMENT TRANFORMATION PROGRAM (AGTP-UNDP) 2010: NATIONAL CONSULTANT ON COMMODITIES
- SUSTAIN ECONOMIC GROWTH FOR ACEH (SEGA PROJECT) 2011 2012 : AUCTION MARKET SPECIALIST GAYO COFFEE
- AGRICULTURAL MARKETING AND SUPPORT ACTIVITY (AMARTA II) 2012 2013: ECONOMIST/ VALUE CHAIN SPECIALIST – NORTH SUMATERA COFFEE, SOUTH SULAWESI COCOA, WEST JAVA HORTICULTURE
- CBI NETHERLAND FOOD INGREDIENT 2014 2015: LOCAL EXPERT COFFEE
   & COCOA
- OXAM-PAPUA ENTERPRISE DEVELOPMENT PROGRAM 2012 2015: CONSULTAN PAPUA COFFEE



## VALUE CHAIN?

A series of actors and activities needed to bring a product

S. D. W. C. C.

from production to the final consumer.

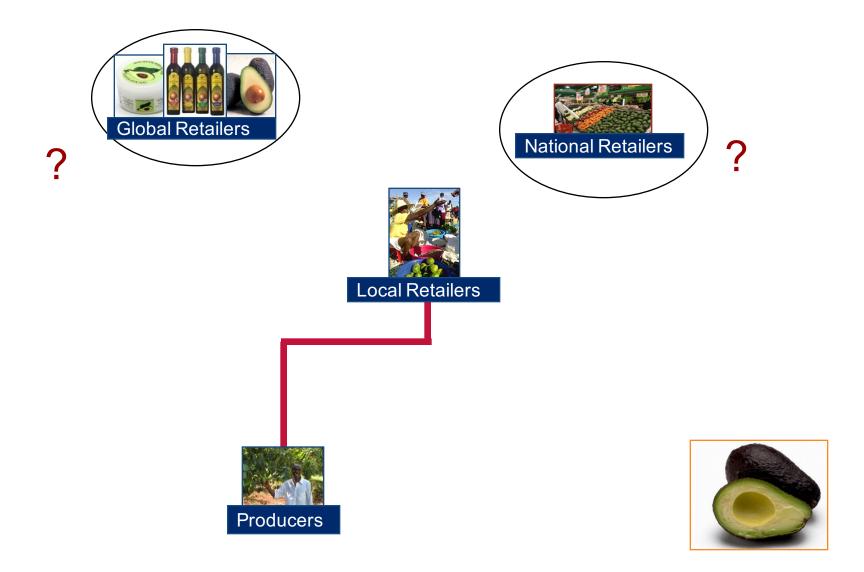


### **AVOCADO VALUE CHAIN**





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### AVOCADO VALUE CHAIN





### INDONESIA COFFEE PRODUCTION

### Two main coffee species

#### 1. Coffea Arabica

Plantations are generally at altitudes of over 1000 m, which makes it "highland coffee". The average length of coffee beans of this variety is approx. 9 mm and their colour is greenish to blue-green. The coffee beans have a strong, full flavour. Arabica beans have a caffeine content of approx. 1.2%.

#### 2. Coffea Robusta

This is "lowland" coffee, as its plantations as a rule are below 1000 m. The beans of this coffee variety are small, roundish and generally brownish to yellowy green. Their beans





# INDONESIA POSITION IN THE WORLD COFFEE TRADE

#### Total production by all exporting countries

In thousand 60kg bags

Crop year	2009/10	2010/11 2011/12	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17		
Crop year		2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/10	Volume	Contribution
Brazil	(A/R)	43,977	53,428	50,592	55,420	54,698	52,299	50,376	55,000	36%
Vietnam	(R/A)	17,825	20,000	26,500	23,402	27,610	26,500	28,737	25,500	17%
Colombia	(A)	8,098	8,523	7,652	9,927	12,163	13,339	14,009	14,500	10%
Indonesia	(R/A)	11,380	9,129	10,644	11,519	11,265	11,418	12,317	10,000	7%
Ethiopia	(A)	6,931	7,500	6,798	6,233	6,527	6,625	6,714	6,600	4%
Honduras	(A)	3,603	4,331	5,887	4,686	4,578	5,258	5,766	5,934	4%
India	(R/A)	4,827	5,033	5,233	5,303	5,075	5,450	5,800	5,333	4%
Peru	(A)	3,286	4,069	5,373	4,453	4,338	2,883	3,301	3,800	3%
Uganda	(R/A)	2,894	3,267	3,115	3,914	3,633	3,744	3,650	3,800	3%
Guatemala	(A/R)	3,835	3,950	3,850	3,763	3,189	3,310	3,420	3,500	2%
Total		127,783	139,600	147,904	149,740	152,130	148,724	151,438	151,624	100%

<sup>©</sup> International Coffee Organization



#### Total production by all exporting countries

#### In thousand 60kg bags

Crop year	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	
Indonesia	9,129	10,644	11,519	11,265	11,418	12,317	10,000	(R/A)
Philippines	189	180	177	186	193	208	200	(R/A)
Lao, People's Dem. Rep. of	544	514	541	550	506	467	500	(R)
Thailand	828	831	608	638	497	485	435	(R/A)
Vietnam	20,000	26,500	23,402	27,610	26,500	28,737	25,500	(R/A)
Total Asean	30,691	38,668	36,248	40,248	39,115	42,214	36,635	
Total Global	139,600	147,904	149,740	152,130	148,724	151,438	151,624	

© International Coffee Organization

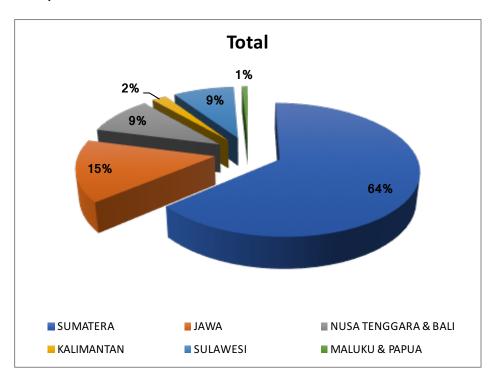


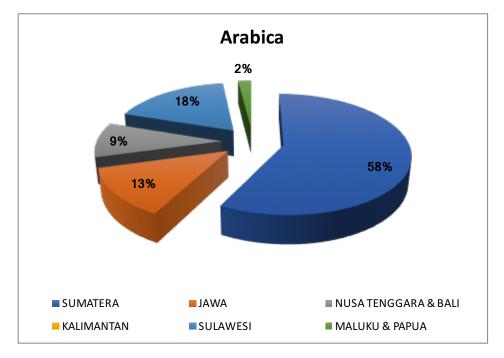


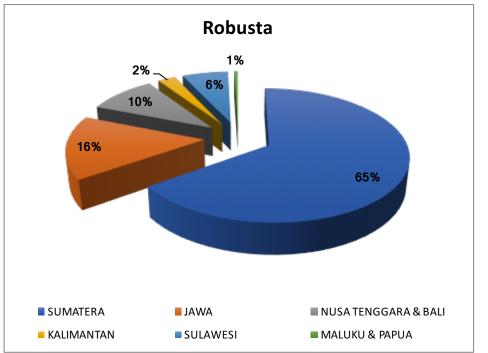
#### Luas Areal (Ha) Produksi Kopi Menurut Provinsi, 2014 Table Area (Ha) Coffee Production by Province, 2014

Provinsi/Province	Arabica	Robusta	Total
SUMATERA	118,358	585,327	703,685
JAWA	26,694	141,661	168,355
NUSA TENGGARA & BALI	19,391	85,796	105,187
KALIMANTAN		22,382	22,382
SULAWESI	36,650	57,848	94,498
MALUKU & PAPUA	4,098	4,618	8,716
INDONESIA	205,190	897,631	1,102,821

Source: http://ditjenbun.pertanian.go.id/tinymcpuk/gambar/file/statistik/2016/KOPI%202014-2016.pdf





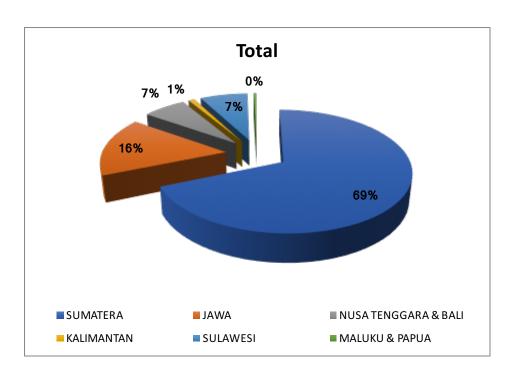


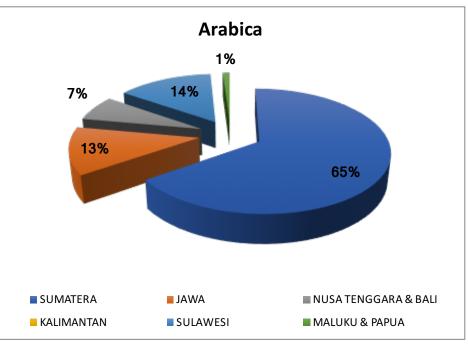


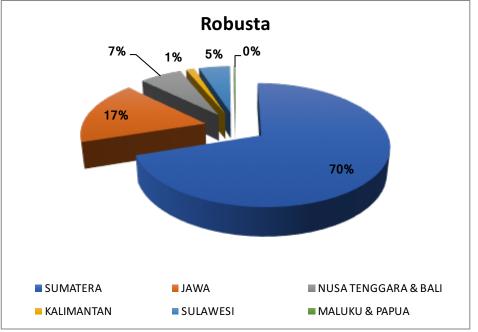
#### Produksi Kopi Arabika dan Robusta (Ton) Menurut Provinsi, 2014 Arabica and Robusta Coffee Production (Ton) by Province, 2014

Provinsi/Province	Arabica	Robusta	Total
SUMATERA	111,145	331,096	442,241
JAWA	21,416	82,086	103,502
NUSA TENGGARA & BALI	11,614	30,632	42,246
KALIMANTAN		5,937	5,937
SULAWESI	24,249	22,659	46,908
MALUKU & PAPUA	1,760	956	2,716
INDONESIA	170,185	473,366	643,551

Source: http://ditjenbun.pertanian.go.id/tinymcpuk/gambar/file/statistik/2016/KOPI%202014-2016.pdf





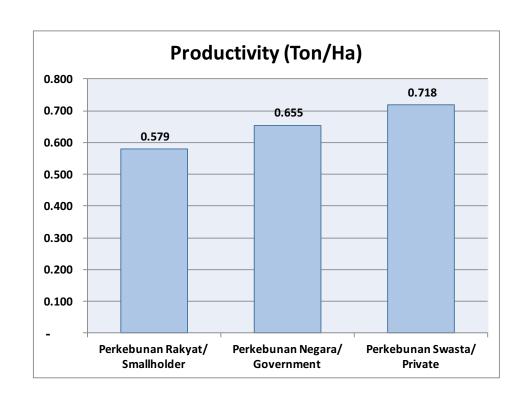


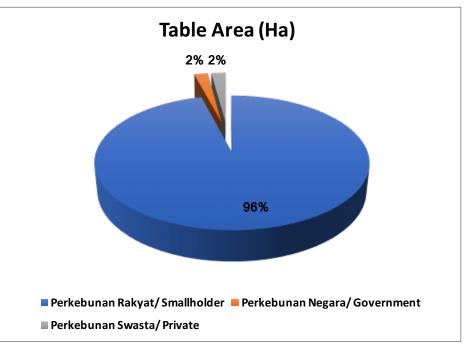


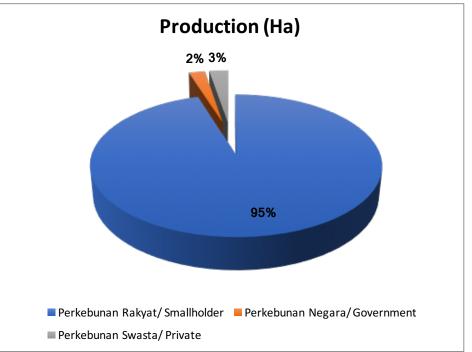
#### Produksi Kopi Menurut Provinsi dan Status Pengusahaan, 2014 Production by Province and Farming Category, 2014

In Term of	Perkebunan Raky Smallholder	Perkebunan Nega Government	Perkebunan Swas Private
Table Area	1,057,758	21,827	23,237
Production	612,571	14,293	16,687
Productivity	0.579	0.655	0.718

Source: http://ditjenbun.pertanian.go.id/tinymcpuk/gambar/file/statistik/2016/KOPI%202014-2016.pdf









### ICO INDICATOR PRICES

- Colombian Milds: One of the groups of Arabica coffee established under the Agreement. Countries in this group are: 1)Brazil 2)Ethiopia 3)Paraguay
- Other Milds: One of the groups of Arabica coffee established under the Agreement. Countries in this group are: 1) Bolivia 2)Burundi 3)Costa Rica 4)Cuba 5)Dominican Republic 6)Ecuador 7)El Salvador 8)Guatemala 9)Haiti 10)Honduras 11)India 12)Jamaica 13)Malawi 14)Mexico 15)Nicaragua 16)Panama 17)Papua New Guinea 18)Peru 19)Rwanda 20)Venezuela 21)Zambia 22)Zimbabwe
- <u>Brazilian Naturals</u>: One of the groups of Arabica coffee established under the Agreement. Countries in this group are: 1)Brazil 2)Ethiopia 3)Paraguay
- Robusta: A type of coffee produced from a tree of the botanical species Coffea canephora. One of the groups of coffee established under the Agreement, grouping all exporting countries producing Robusta mainly or exclusively. Countries in this group are: 1)Angola 2)Congo, D.R. of 3) Ghana 4)Guinea 5)Indonesia 6)Liberia 7)Nigeria 8)OAMCAF (Benin, Cameroon, Central African Rep., Congo, Cote d'Ivoire, Equatorial Guinea, Gabon, Madagascar, Togo) 8)Philippine 9)Sierra 10)Leone 11)Sri Lanka 12)Thailand 13)Trinidad and Tobago 14)Uganda 15)Vietnam

### ICO Indicator Prices - June\_July 2017 In US cents/lb

Date	Colombian Milds	Other Milds	Brazilian Naturals	Robustas
28-Jun	144.77	141.41	121.14	103.48
29-Jun	147.02	143.27	123.4	105.37
30-Jun	146.38	142.7	123.03	106.67
3-Jul	148.02	144.96	124.64	106.29
4-Jul	147.4	144.76	124.04	105.99
5-Jul	149.6	147.09	126.7	106.3
6-Jul	148.55	146.23	125.84	106.14
7-Jul	148.96	146.12	125.64	104.39
10-Jul	148.56	145.64	125.26	103.51
11-Jul	146.73	144.09	123.23	102.5
12-Jul	147.66	144.84	124.41	103.41
13-Jul	151.1	148.35	127.4	105.41
14-Jul	152.97	150.84	129.44	105.45
17-Jul	153.01	151.05	129.58	105.1
Everage	148.62	145.81	125.27	105.00

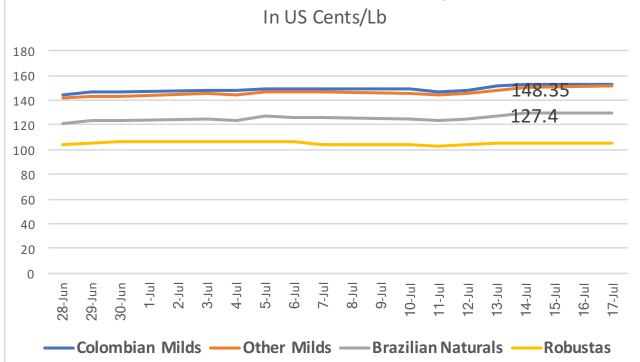




Arabica

Robusta

#### **ICO Indicator Prices - June July 2017**



COFFEE PRICES

<sup>@</sup> International Coffee Organization

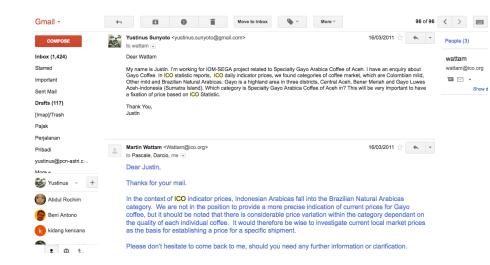
### ICO STATAMENT

16 MARCH 2011

#### **Dear Wattam**

My name is Justin. I'm working for IOM-SEGA project related to Specialty Gayo Arabica Coffee of Aceh. I have an enquiry about Gayo Coffee. In ICO statistic reports, ICO daily indicator prices, we found categories of coffee market, which are Colombian mild, Other mild and Brazilian Natural Arabicas. Gayo is a highland area in three districts, Central Aceh, Bener Meriah and Gayo Luwes Aceh-Indonesia (Sumatra Island). Which category is Specialty Gayo Arabica Coffee of Aceh in? This will be very important to have a fixation of price based on ICO Statistic.

Thank You, Iustin



Dear Justin,

Thanks for your mail.

In the context of ICO indicator prices, Indonesian Arabicas fall into the Brazilian Natural Arabicas category. We are not in the position to provide a more precise indication of current prices for Gayo coffee, but it should be noted that there is considerable price variation within the category dependant on the quality of each individual coffee. It would therefore be wise to investigate current local market prices as the basis for establishing a price for a specific shipment.

Please don't hesitate to come back to me, should you need any further information or clarification.

Best regards,

**Martin Wattam** 





# LEARNING EXPERIENCE FROM GAYO COFFEE



## GAYO ON MAP



Gayo Indicator Geopraphic:

- -Aceh Tengah
- -Bener Meriah
- -Gayo Lues

As Central of Gayo Coffee Production







Closest Existing Port in 2011 Lhokseumawe Aceh

Existing
Lift on Empty Container
At Sparrow Freight Internationals
Container Yard in Belawan Port-Nort Sumatera



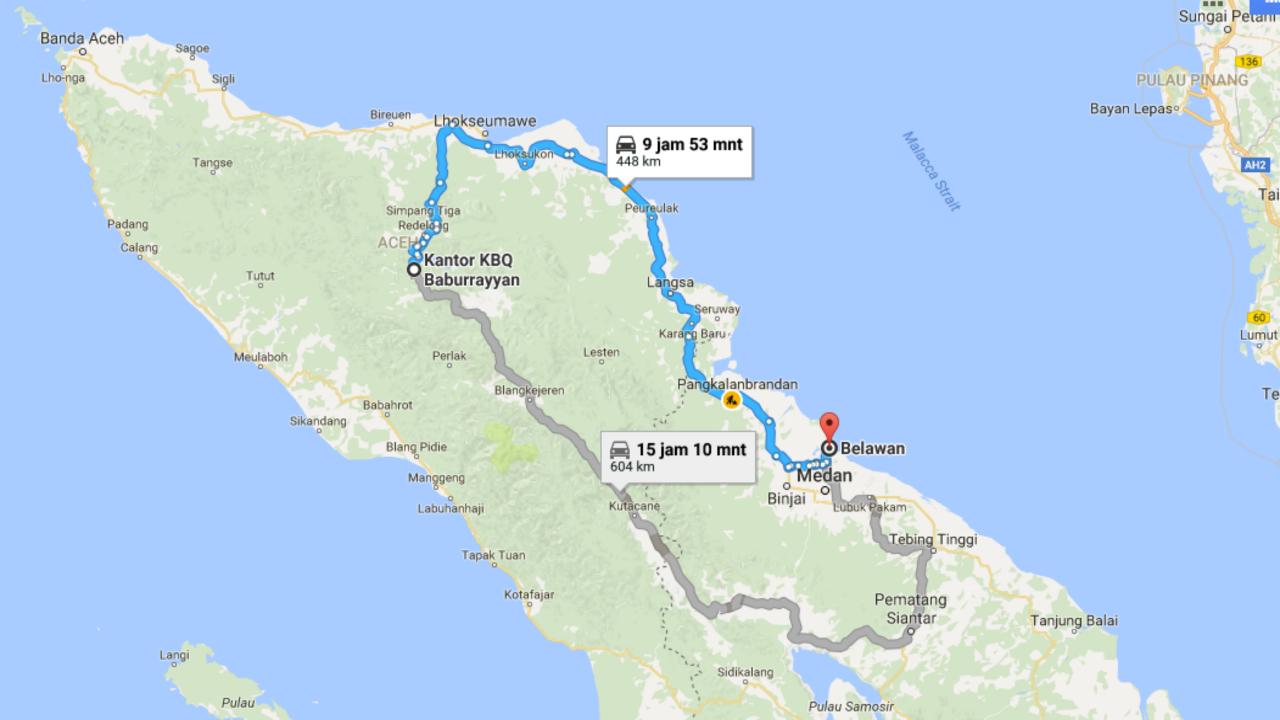


Container Port Belawan – Nort Sumatera



Loading – Uploading at Muat Malahayati Port - Aceh





### CHALLENGES FOR ACEH

#### INFRASTUKTUR

- Poor Road Accessing to Central of Production
- Poor Port (Dry port/ Area Development)
- Dependent to Other Province

#### REGULATION AND POLICY

Ekspor-Import Barrier (Belawan, Bandara Soekarno Hatta, Tanjung Perak Surabaya dan Makassar, Free Trade Zone: Batam)





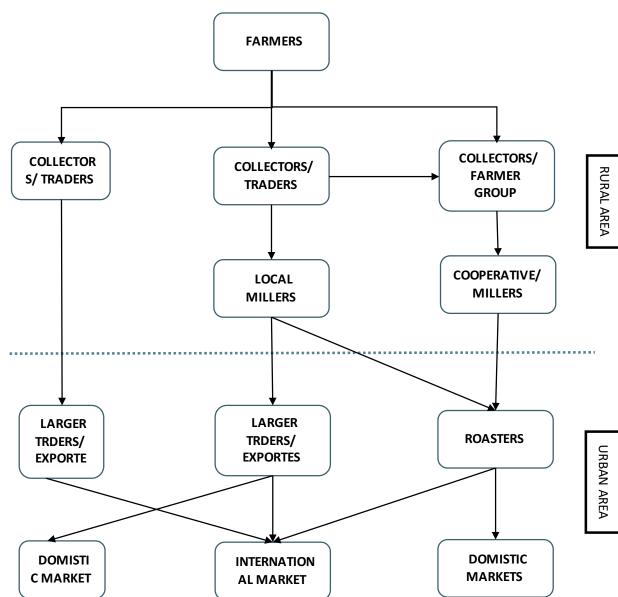


## GERERALIZED VALUE CHAIN









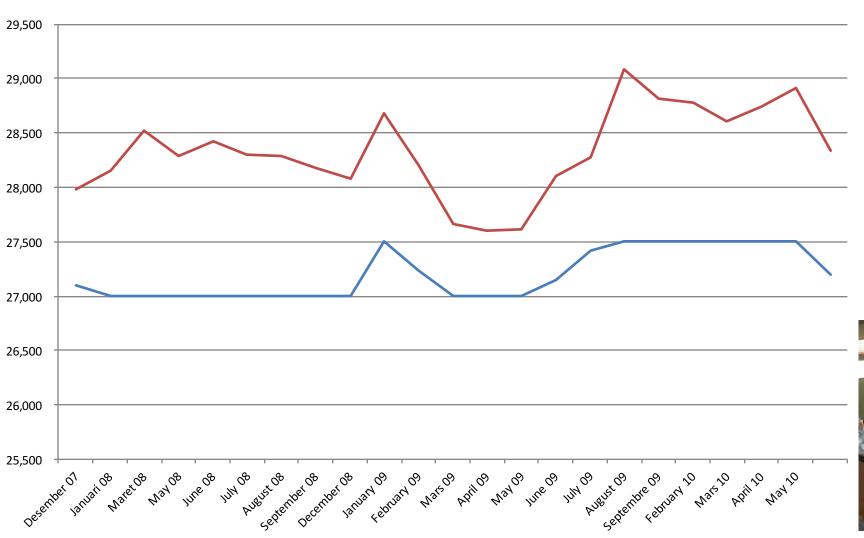






### PRICE BEFORE & AFTER CUPPING

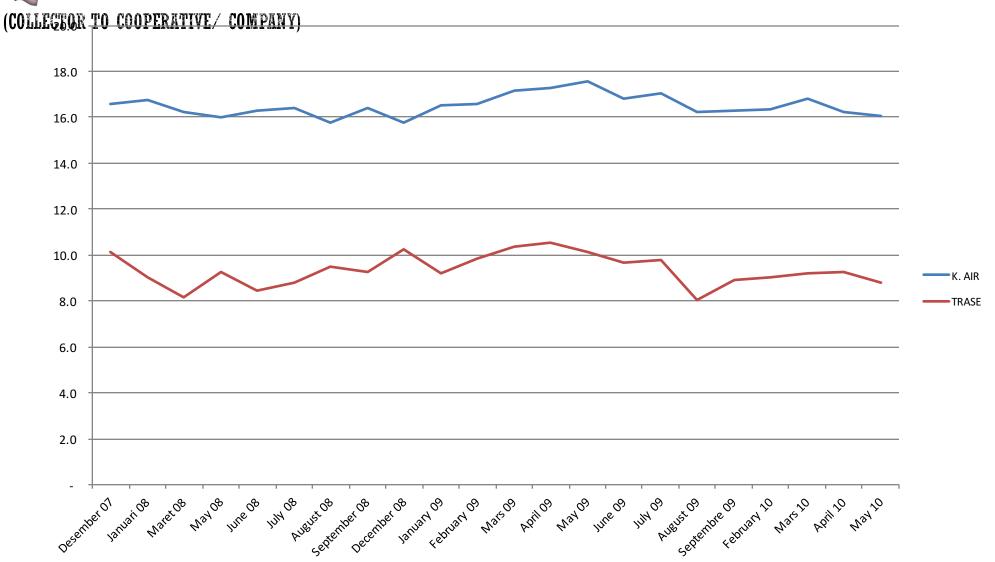
(COLLECTOR TO COOPERATIVE/ COMPANY)





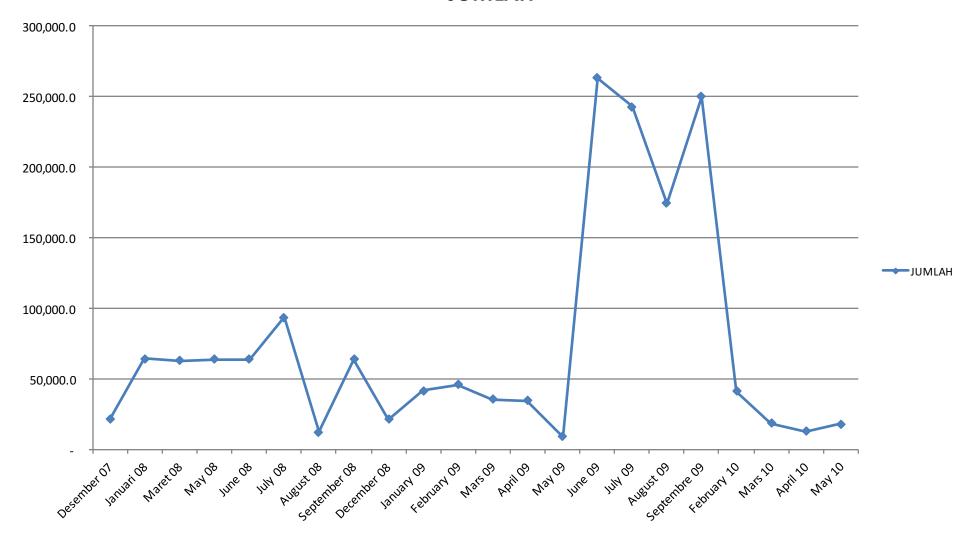
DASAR
PER KG

## QUALITY OF COFFEE ACCEPTED



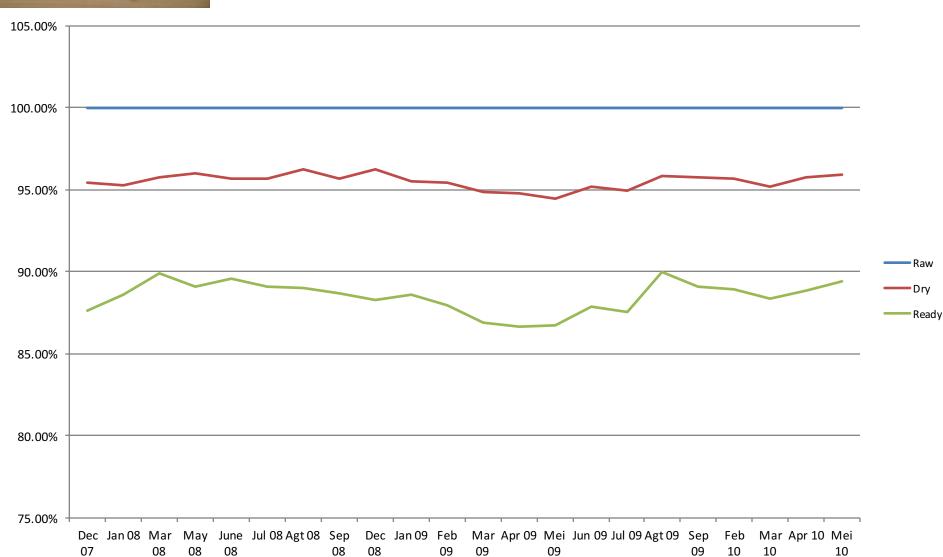
## QUANTITY OF COFFEE ACCEPTED

**JUMLAH** 





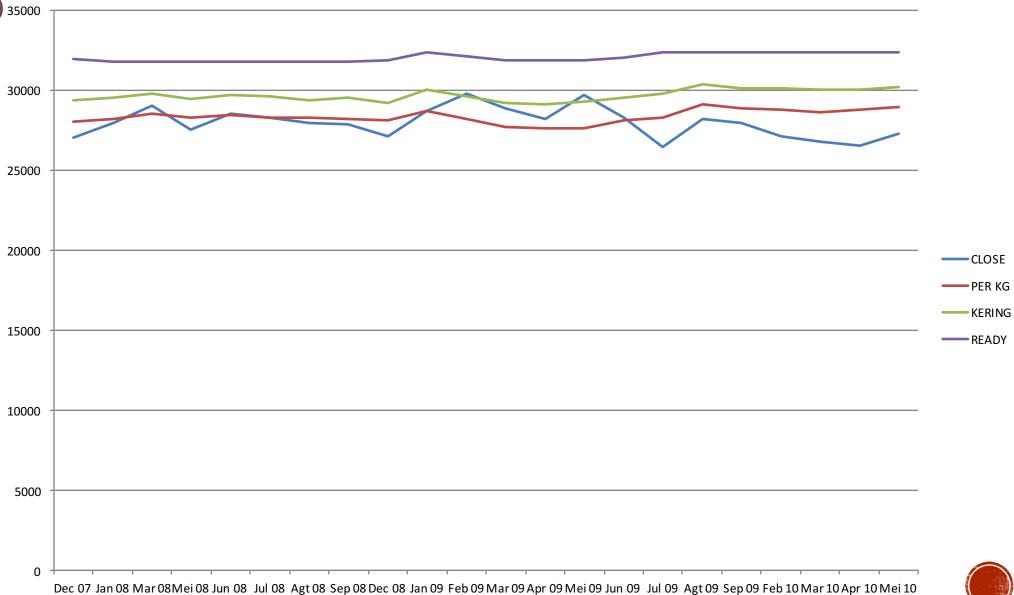
# FROM COOPERATIVE (ASALAN) TO READY EXPORT





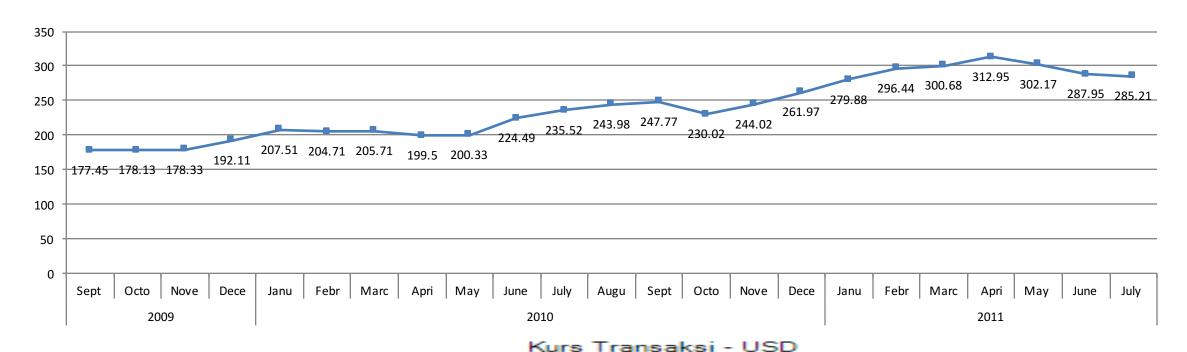
PRICES 35000

(LOCAL VS GLOBAL)



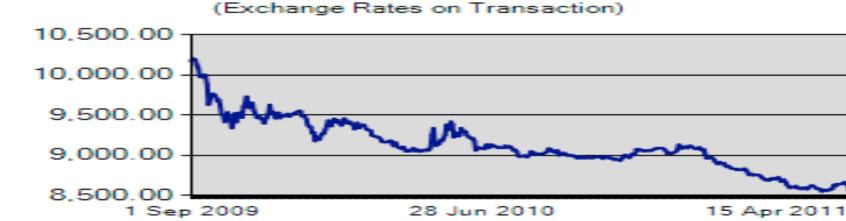


### **EXPORT MARKET 2009 - 2011**





喜



1 Feb 2010

22 Nov 2010

Source: Bank Indonesia





### GLOBAL VS LOCAL PRICE

### **11 August 2011**

Bloomberg-Coffee "C" 238.35 (-0.15) cents

1 Kg = 2.20462 pound

1 Kg = 525.471.. Cents/\$5.25471

1 US\$ = Rp. 8,520

lkg Coffee = Rp.  $8,520 \times 5.25471$ 

= Rp. 44,770.1292

Price of Coffee at Collector Level (Ready Export) was

= Rp. 59,000 or \$6.92/ Kg



## ALTERNATIVE/ SOLUTION

If Exchange Rate's been assumed constant Rp. 8.520/ 1 US%, and price at farmer level will be constant at Rp. 59.000

Than: Global price minimum \$7.3 or 331,12 cents/pound, PRICE

**DILEMA?** 

#### Solution

- 1. Cost Effective & Efficiency
- 2. Quality (competitiveness)
- New Marketing Strategy (Certification; Specialty/Niche Market)

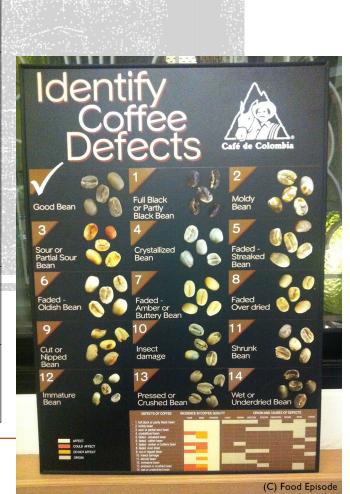


## **DEFINITION: SPESIALTY?**

The SCAA Specialty Standard for All Arabica Coffee

	Standard	Conditions	
Primary Defects	0	350 Grams Sample Green Coffee Grading To SCAA Standards	
Scondary Defects	Maximum 5		
Moisture Content	10 - 12 % (Upon Import)		
Cup Evaluation	80 Points Or Above	100 Gram Sample Roasted Coffee	
Quackers	0	100 Gram Sample Roasted Coffee	

Coffee Quality Institute (CQI) and the Q Coffee System (Programs Manager, Alexandra Katona-Carroll). SCAA Protocols | Cupping Specialty Coffee. Published by the Specialty Coffee Association of America (SCAA), Revised: November 21, 2009 • Pages: Cover + 7



# Classification based on Final Score

90 – 100	Outstanding
85 – 89.99	Excellent
80 – 84.99	Very Good

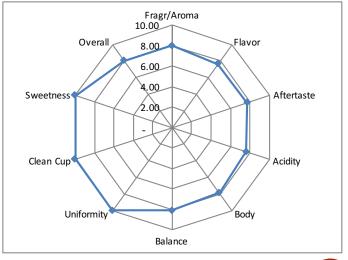
**Specialty** 

< 80.00

Below
Specialty
Quality

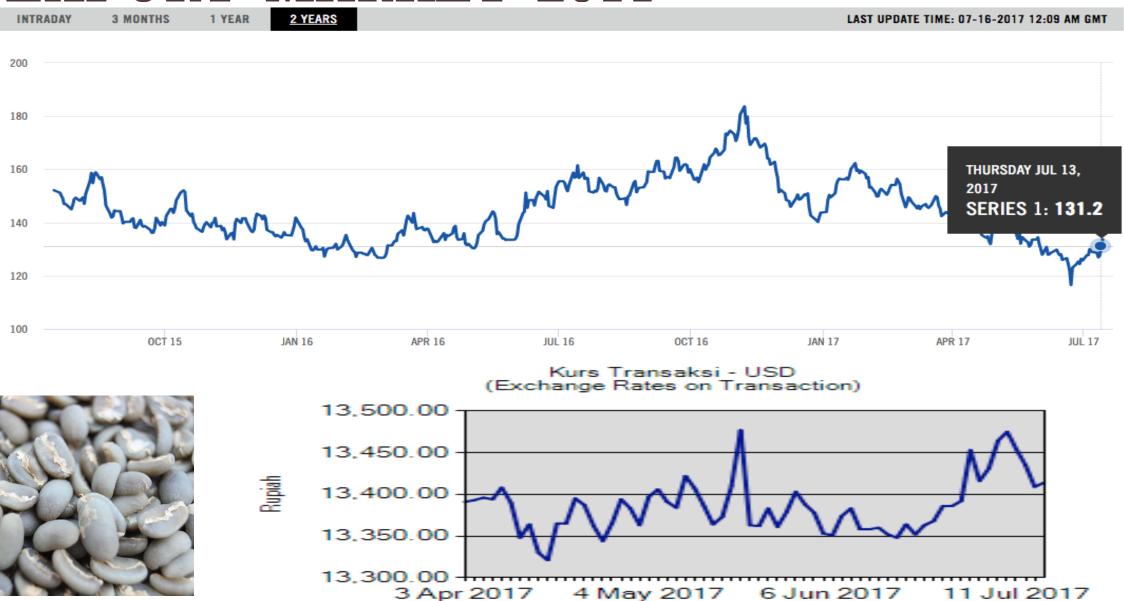
Not Specialty

Atribute	Score
Fragr/Aroma	8.00
Flavor	7.63
Aftertaste	7.75
Acidity	7.63
Body	7.88
Balance	8.13
Uniformity	10.00
Clean Cup	10.00
Sweetness	10.00
Overall	8.00
<b>Total Score</b>	85.00
Defect	-
Final Score	85.00





## EXPORT MARKET 2017



Source: Bank Indonesia



### GLOBAL VS LOCAL PRICE

### 13 July 2017

Bloomberg-Coffee "C" 131.20 (+3.60) cents

1 Kg = 2.20462 pound

1 Kg = 289.246.. Cents/\$2.892

1 US\$ = Rp. 13,275

lkg Coffee = Rp.  $13,275 \times 2.892$ 

= Rp. 38.397,742

Price of Coffee at Collector Level (Ready Export) was

= Rp. 63.000 or \$4.7457/ Kg





# LEARNING EXPERIENCE

FROM BATANG COFFEE (CENTRAL JAVA)





### COFFEE CONDITIONS

#### PRODUCTION AREA

- Scattered;
- Robusta 700 ha, cultivated about 500-900 dpl
- Arabica 300 ha, cultivated about 1,200 dpl
- -Per Farmer 500m<sup>2</sup>-<1ha
- Poor Knowledge on Good Agriculture Preactices

#### POST HARVEST

- Selling in Cherry
- Poor Processing
- Poor Knowledge on Good Processing Practices







### COFFEE INDUSTRY IN INDONESIA

- Very Likely form Upstream to Downstream at Every Coffee Region
- Involve Many Actors in Supply Chain
- Long Term Investment with Competitive Margin
- People Economic (Potentially Sustain in respecting people's economic)



**Sustainable Market** 

**Sustainable Supply** 





## THE STATE OF THE GLOBAL COFFEE TRADE

The latest facts and figures about the global coffee trade from the International Coffee Organization.



### MONTHLY TRADE STATS: EXPORTS

LATEST UPDATE: 30 NOVEMBER 2016

#### 9.13 million bags

World coffee exports amounted to 9.13 million bags in October 2016, compared with 9.31 million bags in October 2015.

#### 71.93 million bags of Arabica

In the twelve months ending October 2016, exports of Arabica totaled 71.93 million bags compared to 69.21 million bags last year

#### 40.46 million bags of Robusta

In the twelve months ending October 2016, Robusta exports amounted to 40.46 million bags compared to 43.81 million bags last year.



## WORLD CONSUMPTION, PRODUCTION

### AND STOCK CHANGE

(2012/13 - 2015/16)

• The coffee market ended 2015/16 in deficit for the second consecutive year, but stocks accumulated in 2012/13 and 2013/14 have allowed the market to remain well supplied. Data as at 14 October 2016

-3.3 million 60kg bags

Estimated deficit between production and consumption in 2015/16





### GLOBAL COFFEE PRODUCTION

DATA AS AT 14 OCTOBER 2016 - NEXT UPDATE JANUARY 2017

#### 148 million

Estimated number of 60 kg bags of coffee produced in 2015/16

**+0.9%** 

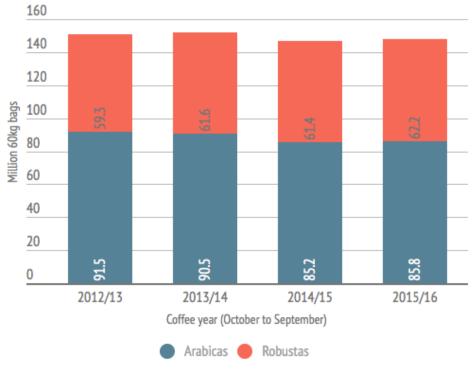
Estimated increase in global coffee production in 2015/16 compared to 2014/15

**0.7%** 

Estimated change in global production of Arabica coffees in 2015/16 compared to previous coffee year

**1.3%** 

Estimated increase in global production of Robusta coffees in 2015/16 compared to previous coffee year





### GLOBAL COFFEE CONSUMPTION

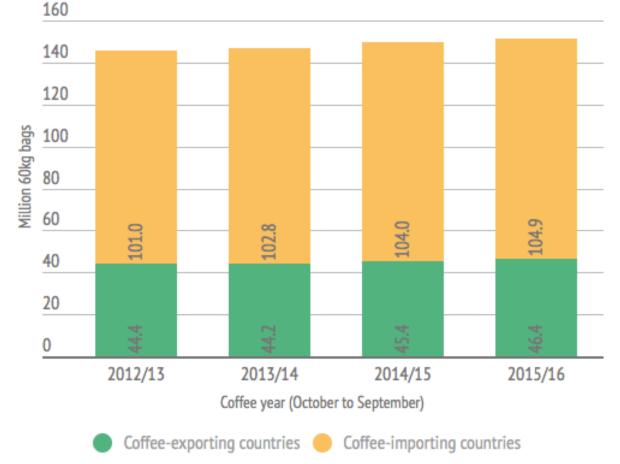
DATA AS AT 14 OCTOBER 2016 - NEXT UPDATE JANUARY 2017

#### • 151.3 million

Estimated number of 60 kg bags of coffee consumed in coffee year 2015/16 (Oct. 2015 to Sep. 2016)

#### **1.3%**

Average annual growth rate in global coffee consumption since coffee year 2012/13





### CURRENT ICO ISSUES ON COFFEE

#### **Highlights**

- Research by the ICO shows that <u>price volatility</u> in the coffee market and <u>increasing costs of production</u> for farmers means that many <u>producers operate</u> <u>at a loss in both the short and long term.</u>
- Coffee production is <u>not economically sustainable</u> for many producers, and those who can make a profit struggle to cover the costs of establishment and <u>plant renewal.</u>
- Costs of production generally increase consistently over time, whereas international prices vary significantly with no clear upwards or downwards trend, meaning that <u>coffee growing is on average becoming less profitable</u> <u>over time</u>.

### WHY DOES THIS MATTER?

- The living conditions of millions of coffee farmers are deteriorating
- Reduced profitability over time could result in consolidation of coffee farms and/or disruption to coffee supplies, with farmers choosing to leave the market, or even abandoning their crops, which can pose a phytosanitary threat to neighboring coffee farms.





# WHAT NEXT — COOPERATIVE (NATIONAL LEVEL)

- Know Your Coffee : Agri-Climatology, Varieties, Profile
- Understand Existing Condition: Input Supplies, Agriculture Practices; Processing Practices, Logistic and Financial Support
- Understand Your Market: Local, National, International Green Bean, Roasted, End
- Institutional Building: Strengthen Capacity
- Develop Strategy :
  - 1) Business Audit: Go (more) international or not?
  - 2) Selecting Target Markets: Which market to enter?
  - 3) Develop Entry Strategies: How to enter target Markets?
  - 4) Business Planning: How to Market to Target Markets?

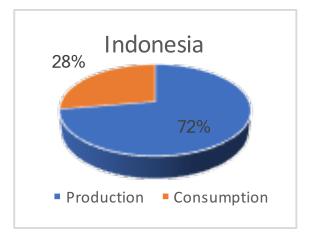


#### Coffee Statistics 2015/2016

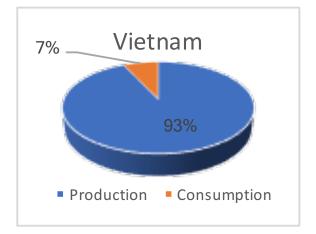
#### In 60kg bags

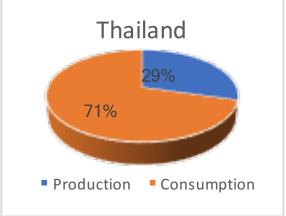
Production	Consumption	%	Kg/ Capita
11,000,000	4,200,000	38.18%	0.98
200,000	2,700,000	1350.00%	1.32
520,000	150,000	28.85%	1.35
500,000	1,200,000	240.00%	1.07
27,500,000	2,100,000	7.64%	1.34
39,720,000	10,350,000	26.06%	1.21
	11,000,000 200,000 520,000 500,000 27,500,000	11,000,000 4,200,000 200,000 2,700,000 520,000 150,000 500,000 1,200,000 27,500,000 2,100,000	11,000,000 4,200,000 38.18% 200,000 2,700,000 1350.00% 520,000 150,000 28.85% 500,000 1,200,000 240.00% 27,500,000 2,100,000 7.64%

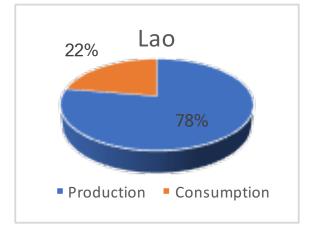
### INFO GRAPH



#### C International Coffee Organization









### WHAT NEXT - ASEAN LEVEL

#### **FOCUS**

- Research is needed to find out how to address low profitability of coffee farming, strategizing production and market
- To increase productivity and the quality of coffee through capacity building of coffee farmers and their cooperatives and strengthening the linkages with other stakeholders in the sector (National and Asean)
- To increase the quality and productivity of coffee processing businesses in terms of entrepreneurship development and business improvements through capacity building, and improve market access through a possible matching fund scheme (National and Asean)
- To ensure better export markets through strengthened linkages with exporters and capacity building among key exporters (National and Asean)
- To encourage better coffee exchange in between Asean Counties

