



Sustainable Production in Agriculture

Fertilizer, Safety, Efficiency

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Objectives

To improve the production value in Agriculture

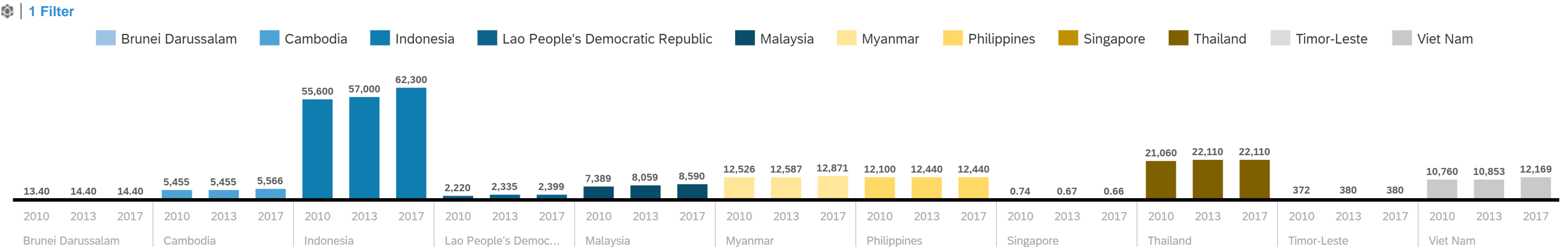
To produce more agriculture production safety with efficiency

To obtain a more sustainable area

To Develop innovative, complementary Agriculture Monitoring Systems



Agriculture Land(1000 ha) For South-East-Asia



We discovered ASEAN's agriculture land are increasing during 2010 to 2017.

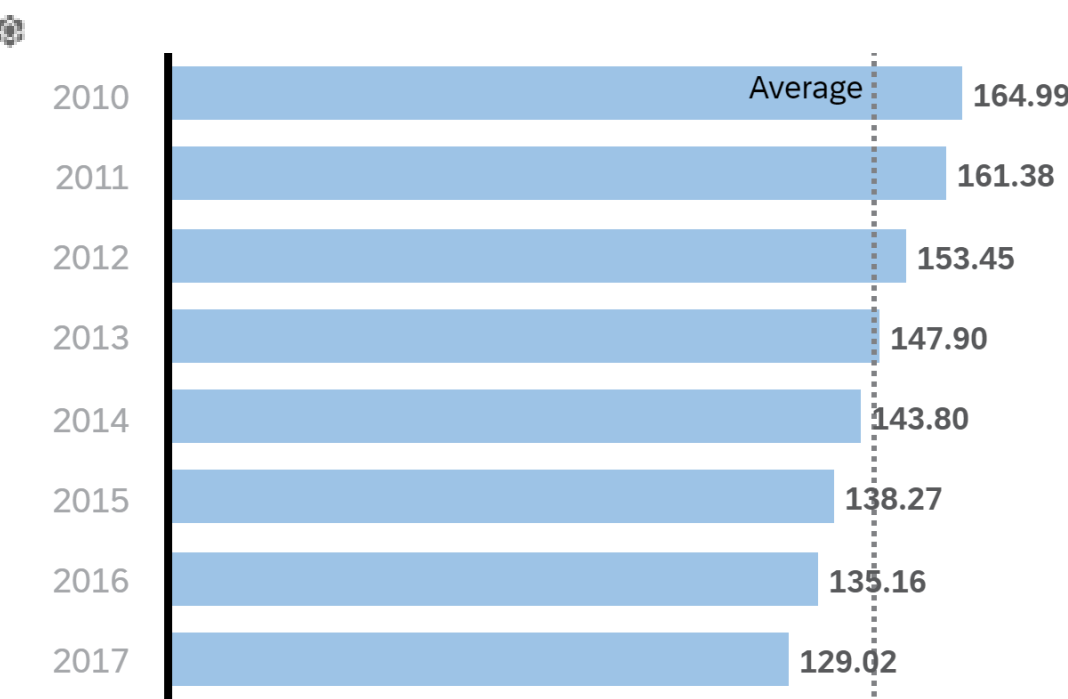
Analyze Agriculture Land(1000 ha) by Year.



💡 **2017** has the highest **Agriculture Land(1000 ha)**, showing a 5% deviation from the average. **Indonesia** is the top **Country** contributor in **2017**. [View more...](#)

GDP Share of Agriculture(%) For South-East-Asia

Analyze GDP Share of Agriculture(%) by Year.

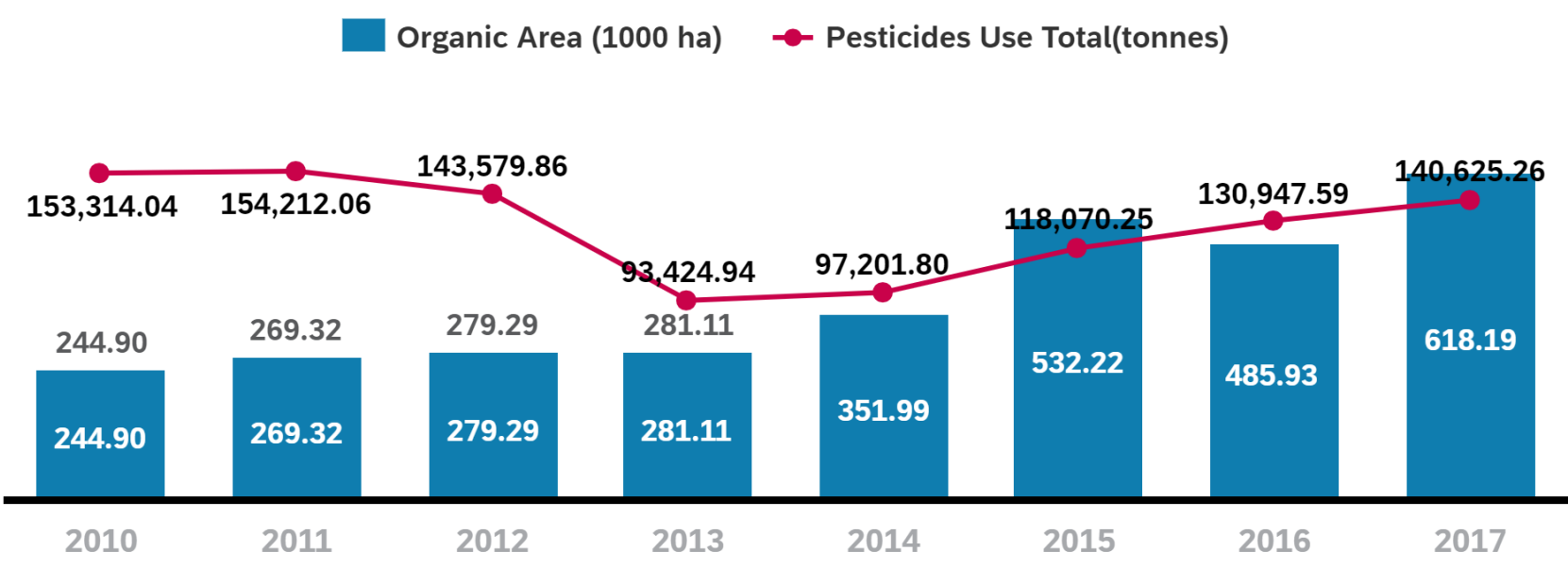


Key Finding

We discovered GDP Share of Agriculture is decreasing year by year. 2010 has the highest GDP Share of Agriculture(%), showing a 12% deviation from the average.

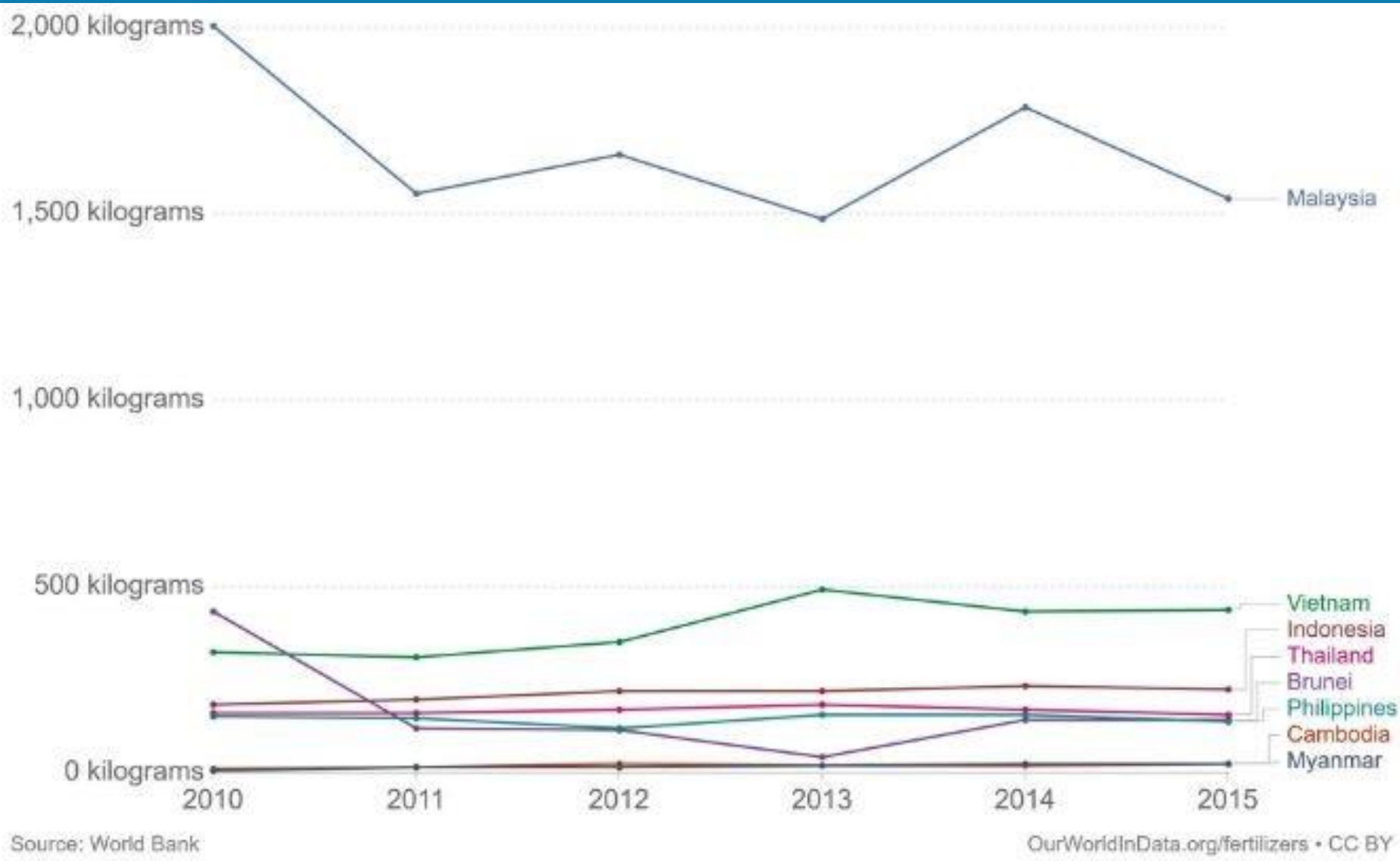
Compare the Organic Area and Pesticide Use Total

Organic Area (1000 ha), Pesticides Use Total(tonnes) per Year for South-East-Asia.

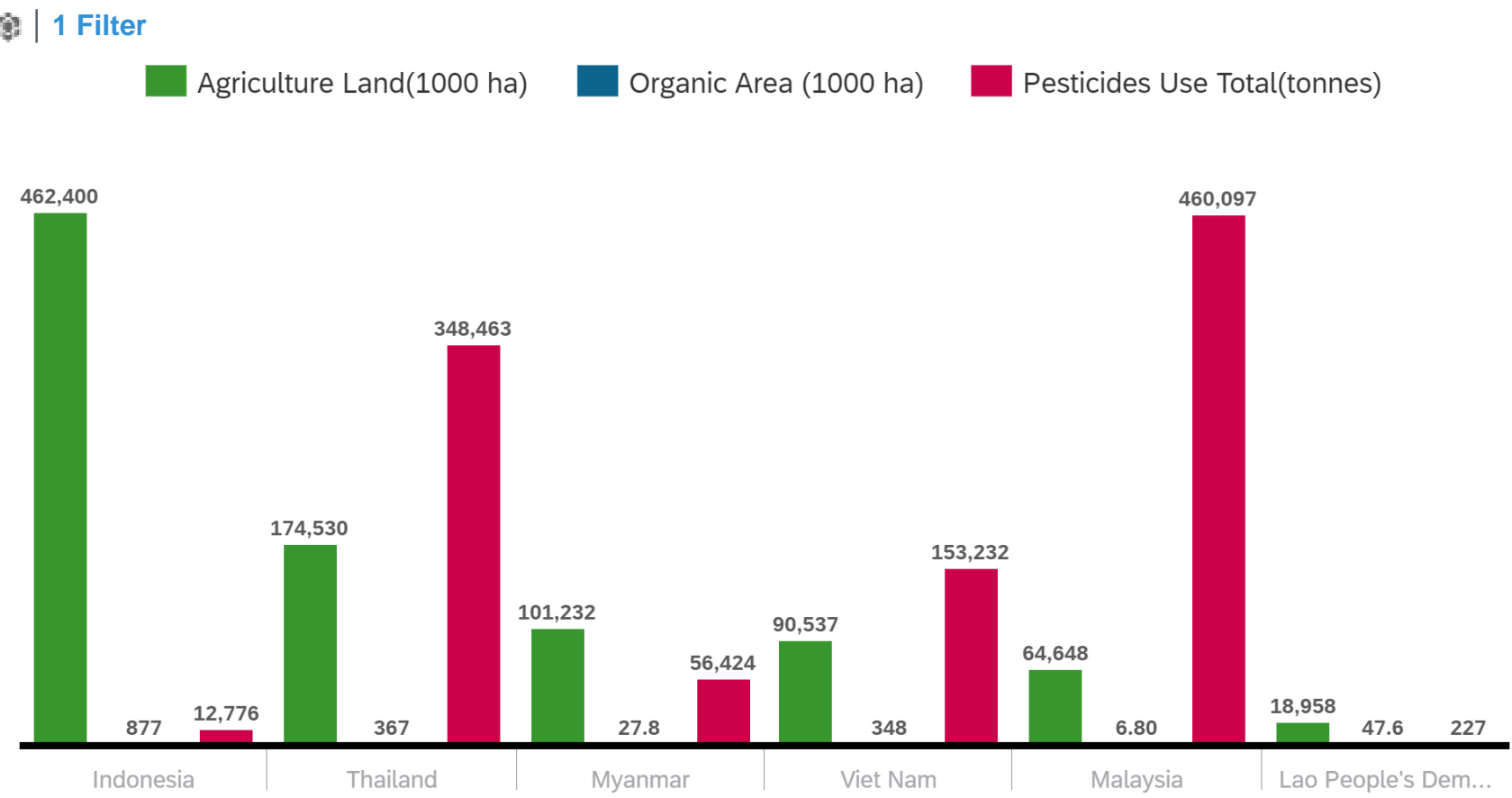


Fertilizer Use Per Hectare Of Cropland

Fertilizer products cover nitrogenous, potash, and phosphate fertilizers (including ground rock phoshate). Animal and plant manures are not included.



Agricultural Land Total, Organic Area Total and Pesticides Use Total



Key Finding 🏆

We discovered Malaysia is the highest and Myanmar is the lowest use in fertilizer from 2010 to 2015. Malaysia and Brunei were reduced in using fertilizer approximately 400 kilograms in 2011.

Average Value of Agriculture Production

Compare the **Average Value of Agricultural Production in Rice,Paddy,Oil,Palm,Maize(USD)** by Year and **Country**.

in Thousand | 🌐 | 2 Filters

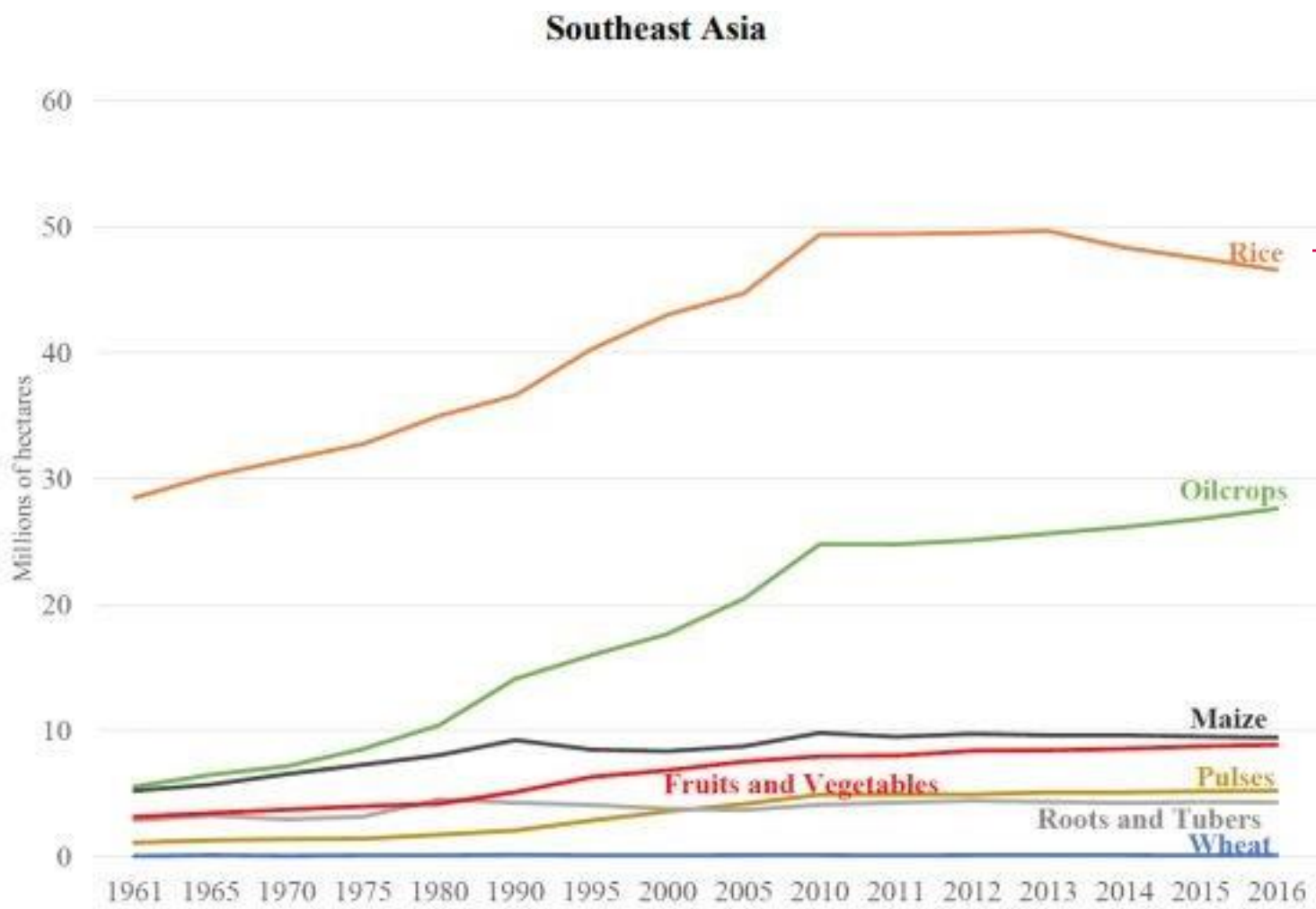
Cambodia	0.74	0.86	0.93	0.94	0.89	0.87
Indonesia	14.11	26.60	28.21	25.13	24.51	24.10
Lao People's Democratic Republic	0.34	0.35	0.36	0.43	0.50	0.51
Malaysia	4.94	6.85	5.82	5.03	5.00	3.80
Philippines	2.27	2.67	3.08	3.20	3.65	3.02
Thailand	4.07	5.41	5.25	4.09	3.59	3.37
Viet Nam	4.27	4.95	4.89	4.88	5.16	4.90
	2010	2011	2012	2013	2014	2015

Key Finding



We discovered some value of agriculture production are slightly increased and most of the agriculture production's value is decreased from 2012 to 2015. But all value of agriculture production are obviously increased in 2011. Indonesia is the highest agriculture production than other ASEAN countries from 2010 to 2015.

Most Cultivated and Productive Crop From 2010 To 2016 In Southeast Asia



Source: FAO calculation based on FAOSTAT, Food Agriculture Organization of United Nations (accessed November 2017)

Most Cultivated Crop

Most Productive Crop

79,875.47

Value of Agricultural Production in Maize(USD)

231,948.72

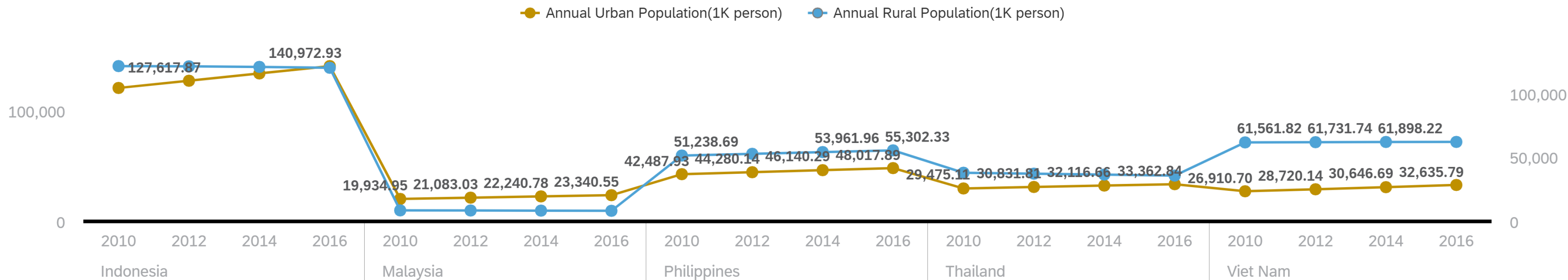
Value of Agricultural Production in Oil and Palm(USD)

578,654.83

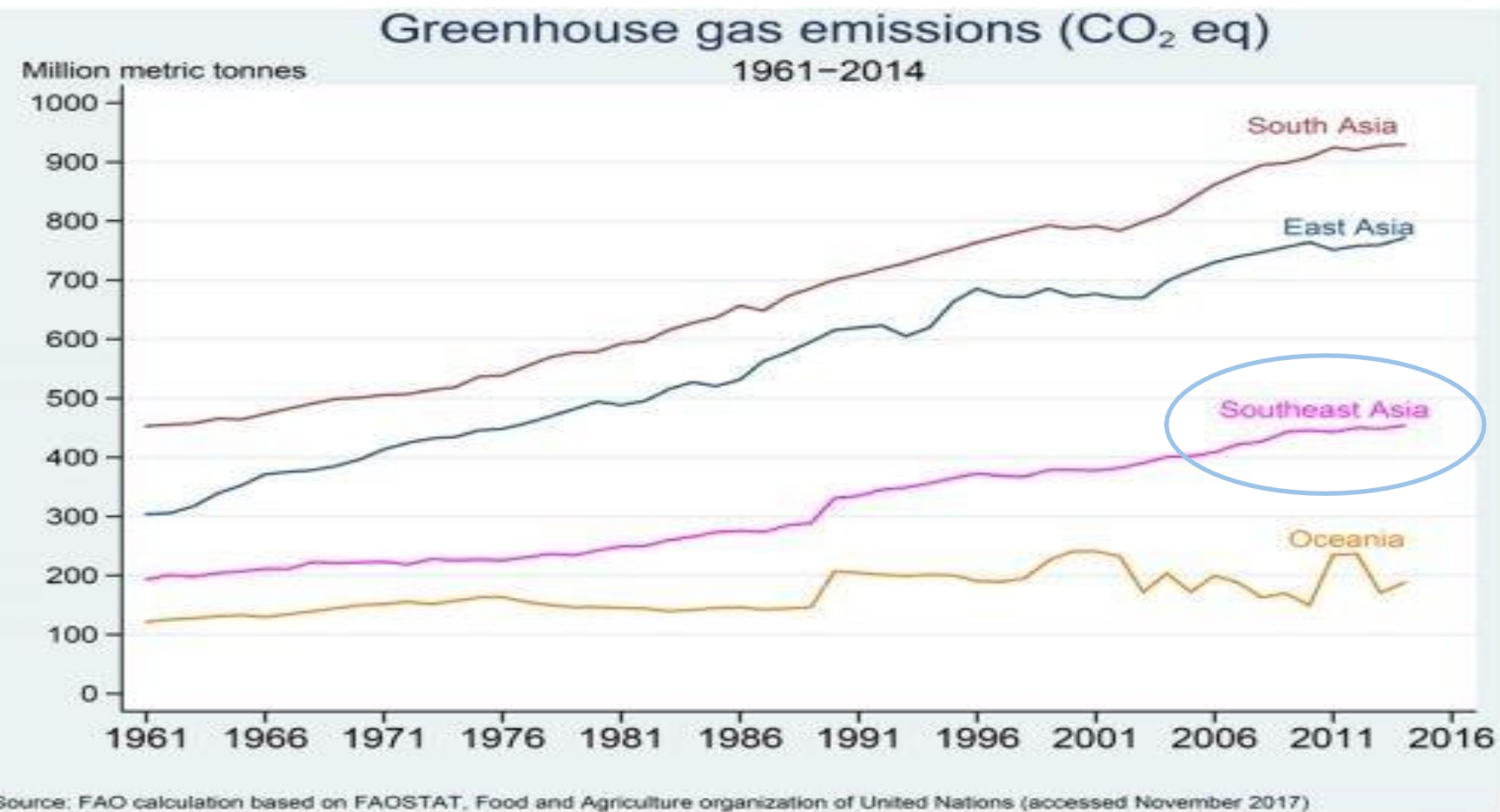
Value of Agricultural Production in Rice and Paddy(USD)

Annual Rural And Urban Population

2 Filters



Greenhouse Gas Emissions



Key Finding

We discovered South-East-Asia of Greenhouse Gas Emissions is increasing year by year. But Emissions of South-East-Asia is less than South Asia and East Asia.

Suggestions & Solutions

Farmer

1. Use Fertilizers But Less Chemical



2. Reduce Pesticides Usage



How Farmers Adapt To Climate Change?

1. Diversifying Crop Rotations



2. Integrating livestock with crop production systems

3. Improving soil quality

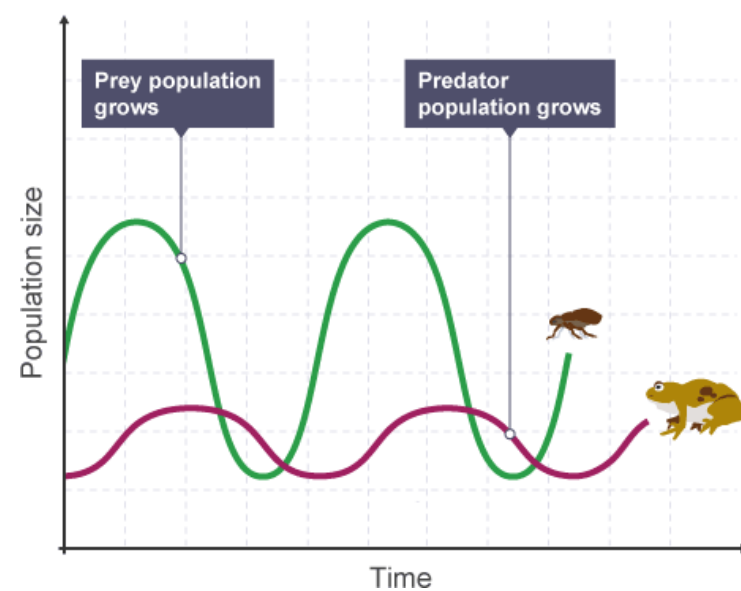


4. Minimizing off-farm flows of nutrients and pesticides

5. Implementing more efficient irrigation practices



3. Pests with Biological control



Government

Investment



- Education (Key Element)
- Agriculture Research and Development
- Good to Stores, Machines
- Rural Development (Critical Role)

Workshop



- Effective Training In Agriculture
- Food Security & Sustainable Agriculture

Create



- Good Market
- Direct From Farmers to Sell
- Standard Price

Increasing crop yield by Using Some Future Sustainable Technology Techniques



Greenhouses



Polytunnels



Urban Agriculture

References

- [1] Food and Agriculture Organization (FAO) <http://www.fao.org/statistics/en/>
- [2] The World Bank <https://data.worldbank.org/>
- [3] The Global Economy https://www.theglobaleconomy.com/indicators_list.php
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