



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Food Loss and Waste Reduction to Sustainable Community

Collaborative of every sector can help us to achieve SDG12.3 by 2030

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Content



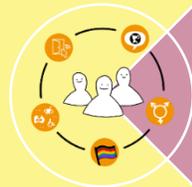
Introduction



Problem



Analytics



Recommendation

What we want to achieve

SDG 12

Target 12.3

- By 2030, halve per capita global food waste at the retail and consumer levels
- Reduce food losses along production and supply chains, including post-harvest losses

ASEAN Socio-Cultural Community 2025

C.4. Sustainable Consumption and Production

- i. Strengthen public-private partnerships to promote the adoption of environmentally-sound technologies
- ii. Promote environmental education, awareness, and capacity to adopt sustainable consumption and green lifestyle at all levels;



Introduction

Loss energy, water,
land and inputs.



Food
Loss

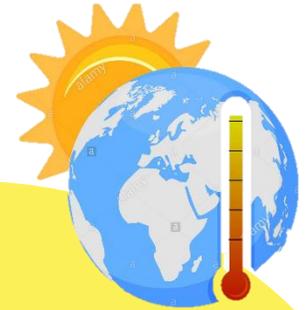


Produce
Greenhouse Gas



Food
Waste

Climate Change
&
Global Warming



Issue and Challenge for ASEAN People

Halve per capita global food waste

83 kg/
capita/year

ASEAN population make food waste approximately 83 kg/capita/year

Access sustainable and green environment

25%

Greenhouse gas come from agriculture sector cover 25% of the global greenhouse gas

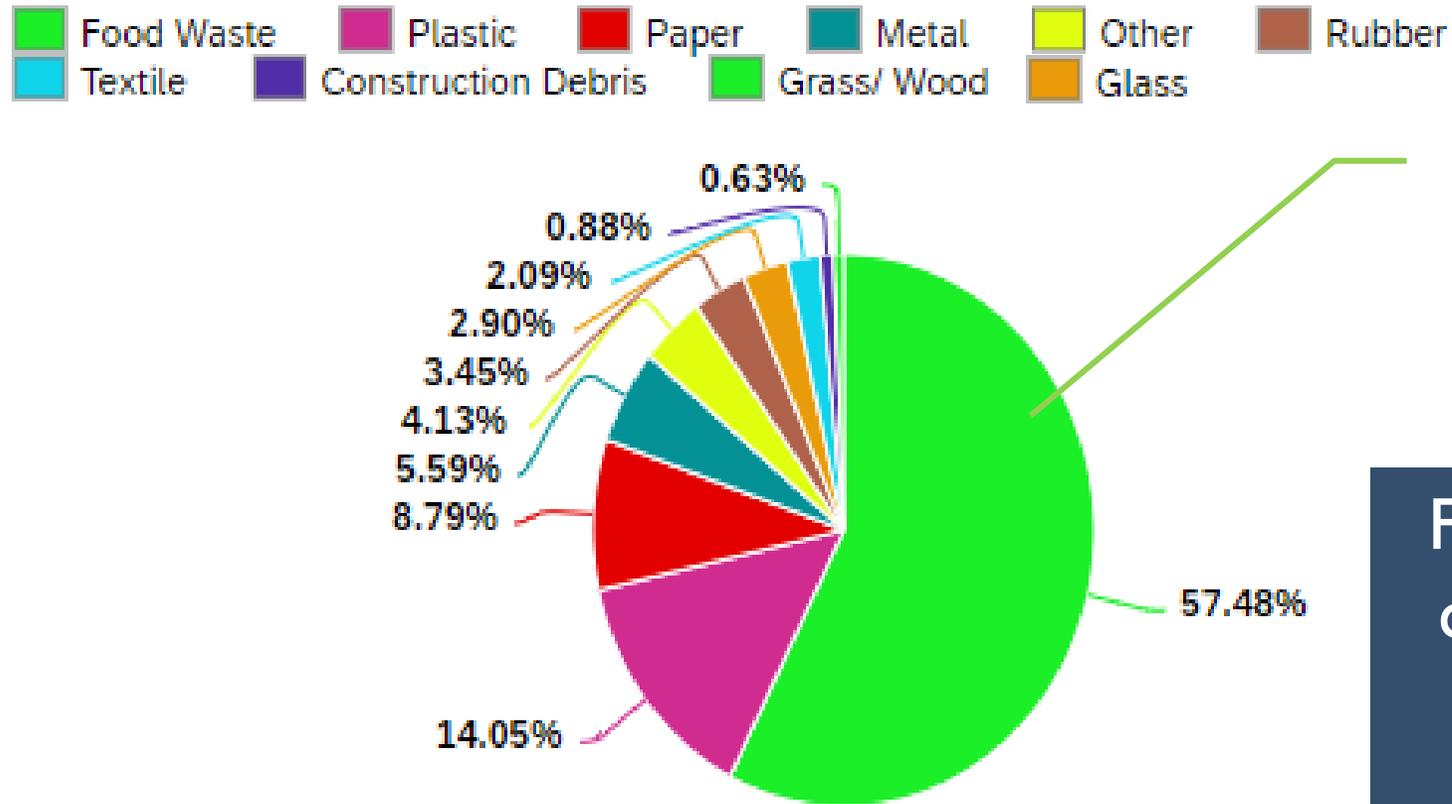
Reduce food loss

26 – 36%

Asean Food loss per capita 120 – 160 kg/year is wasted

Finding I: Food waste is the highest wasted

Figure I: waste proportion in ASEAN



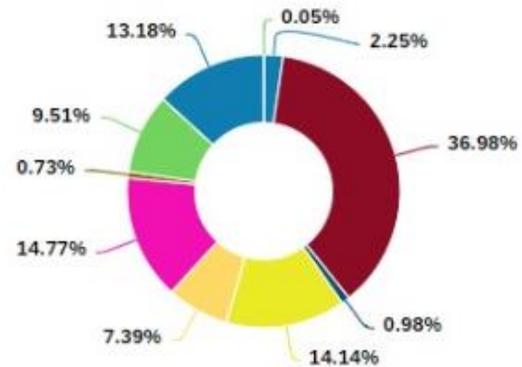
Food is wasted approximately **6/10** of total waste

FAO estimates that total annual cost of food loss and waste for the global economic is **USD 940 billion** in 2030

Finding 2: Food waste in ASEAN still high

Figure 2: Comparison food waste at any stage

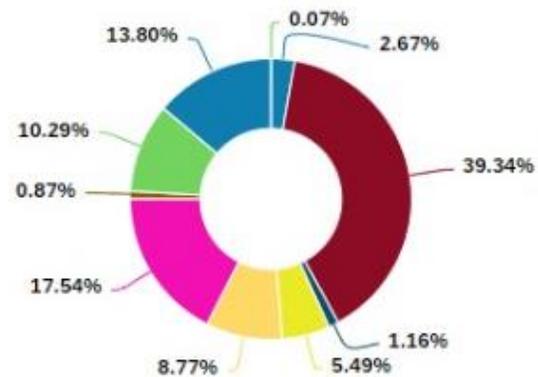
Food Waste at Food Service



Indonesia cover **38%**
The world's second largest food waster, throw food **300kg/capita/year**

Source: Asean Post, 2017

Food Waste at Household



Food Waste at Retail

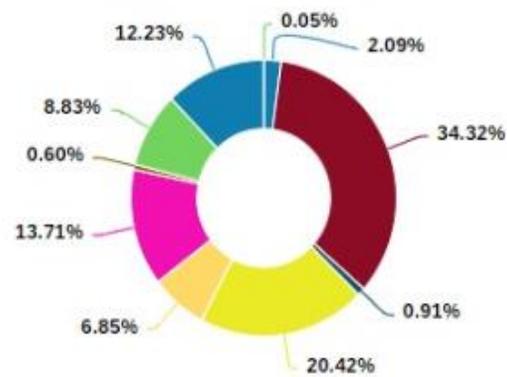
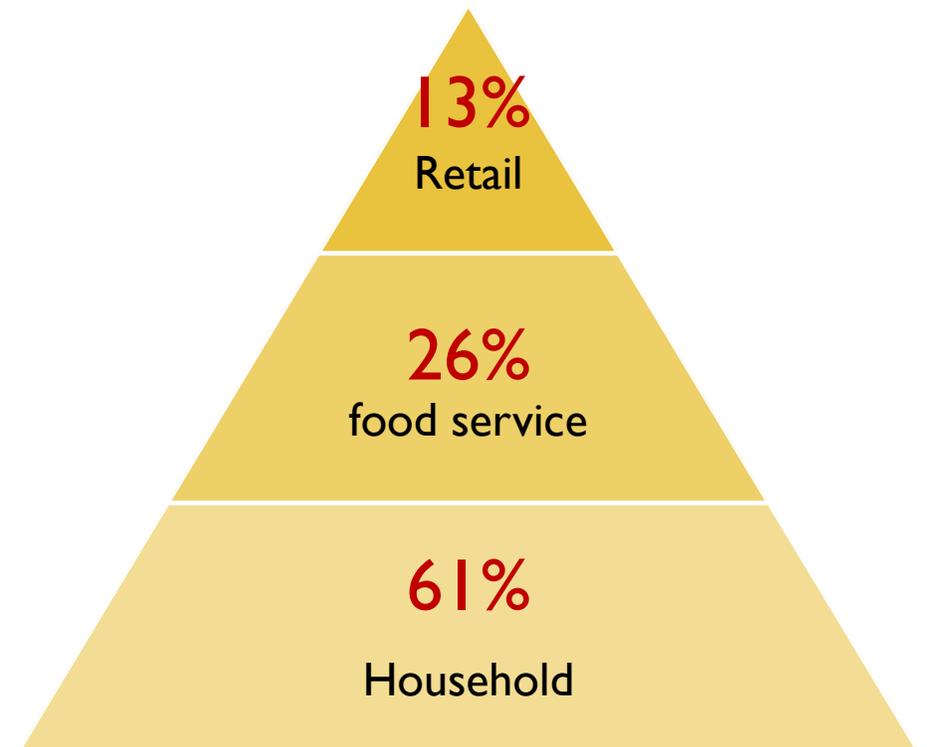


Figure 3: Percentage of food waste

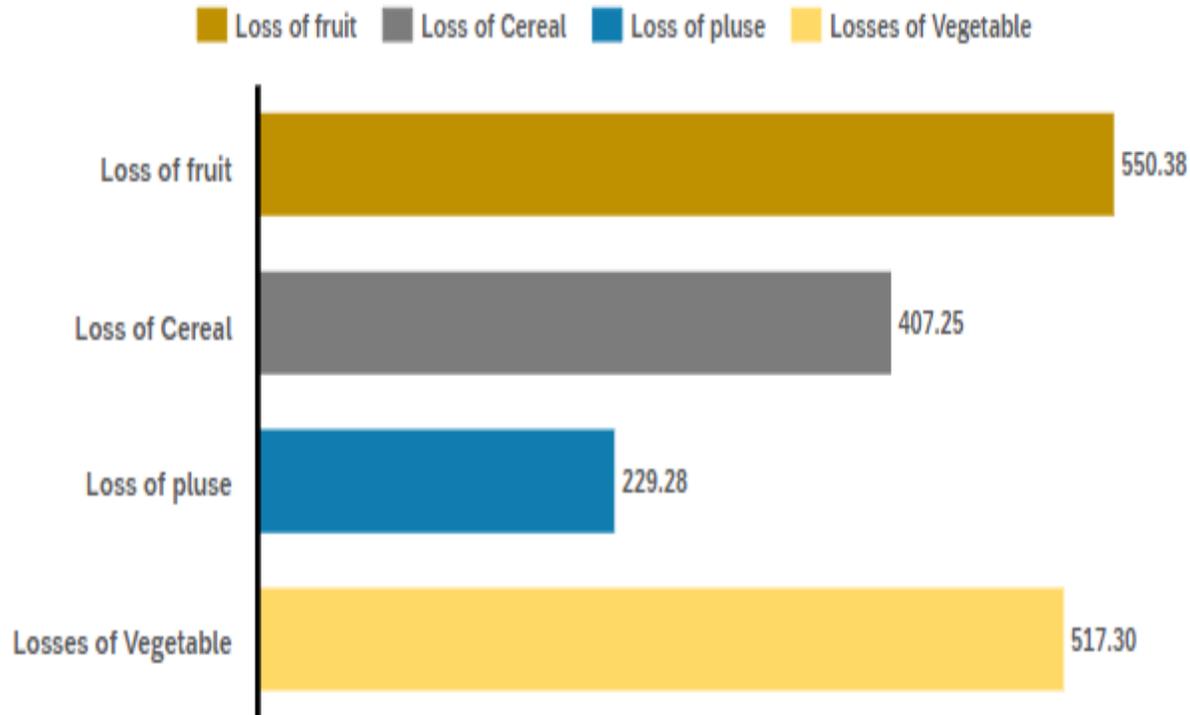


Source: Global food waste index report, 2021

Finding 3: Food loss occurs in ASEAN

Food loss at farm > 80%

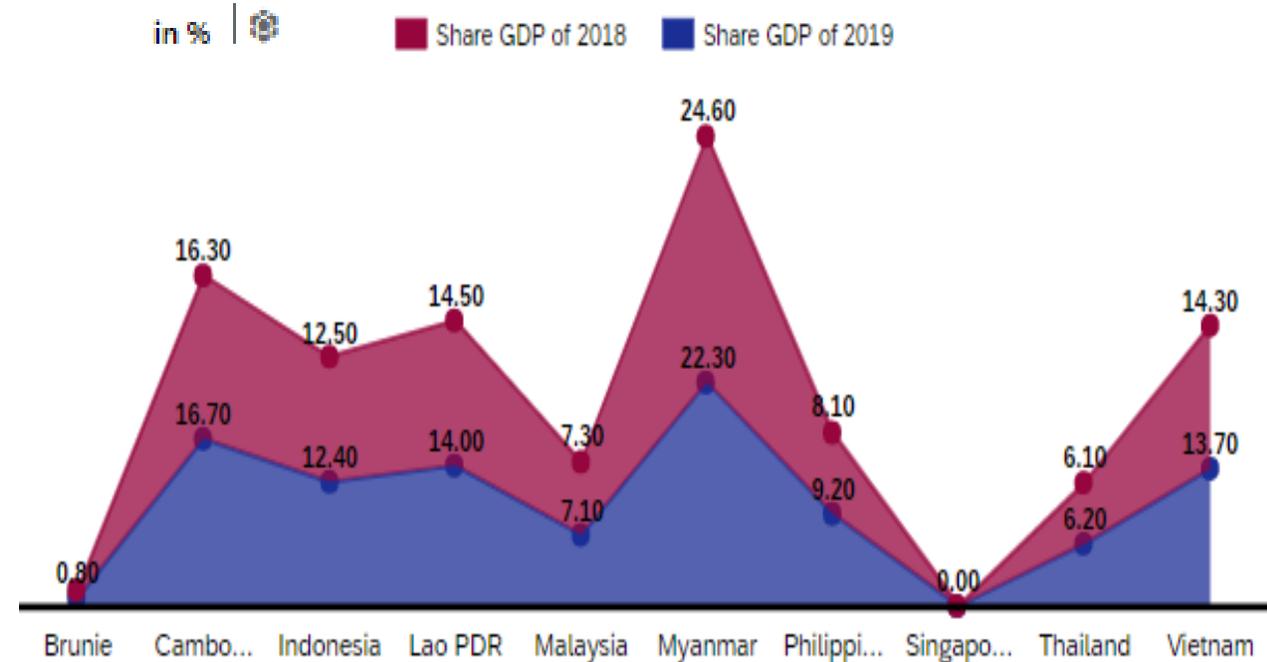
Figure 4: Loss 4 types of food



Source: FAO, 2010 - 2017

loss of fruit and vegetable > 10%

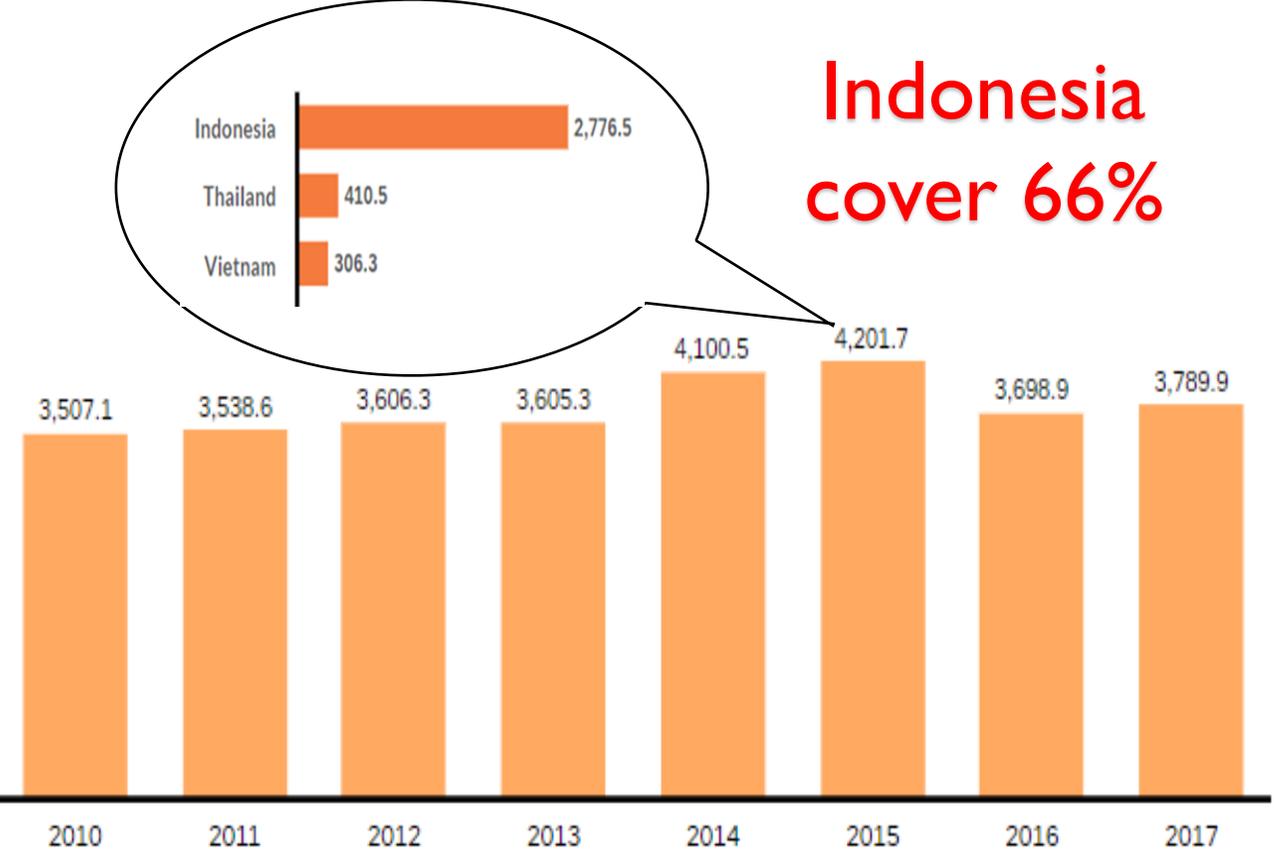
Figure 5: Comparison the share GDP in agriculture



Source: ASEAN Statistics Yearbook 2020

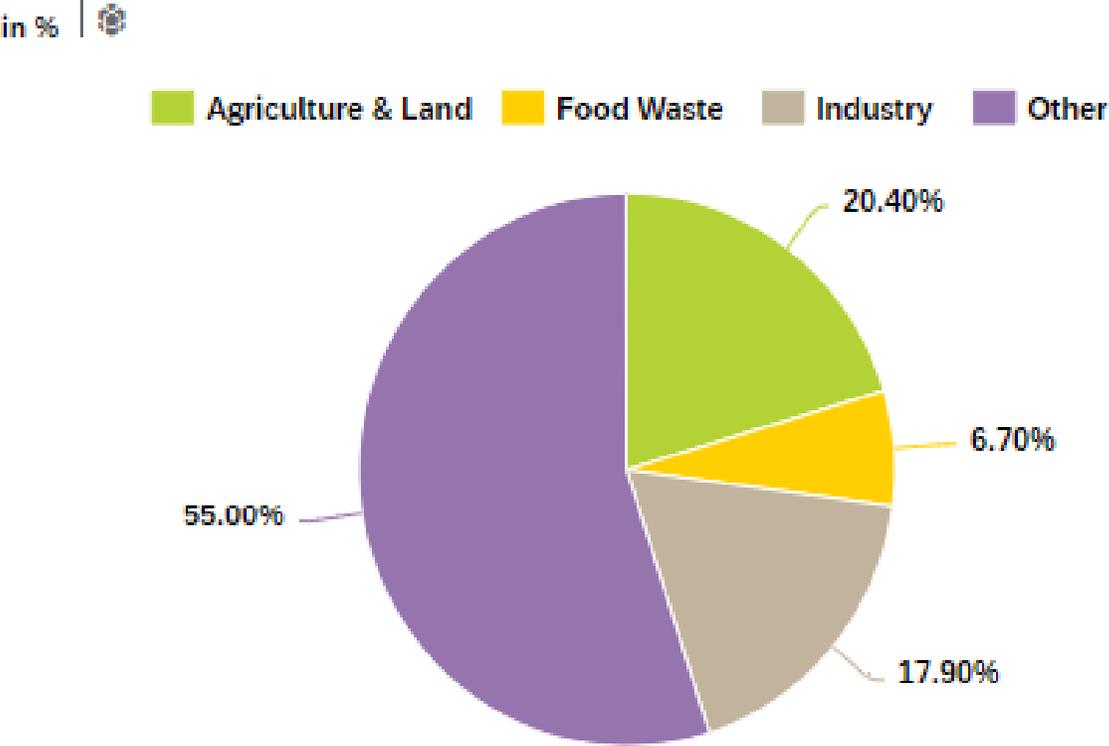
Finding 4: Agriculture, food waste to GHG Emission

Figure 6: Total GHG Emission including Land-use change and Forestry



Indonesia cover 66%

Figure 7: Percentage of GHG Emission

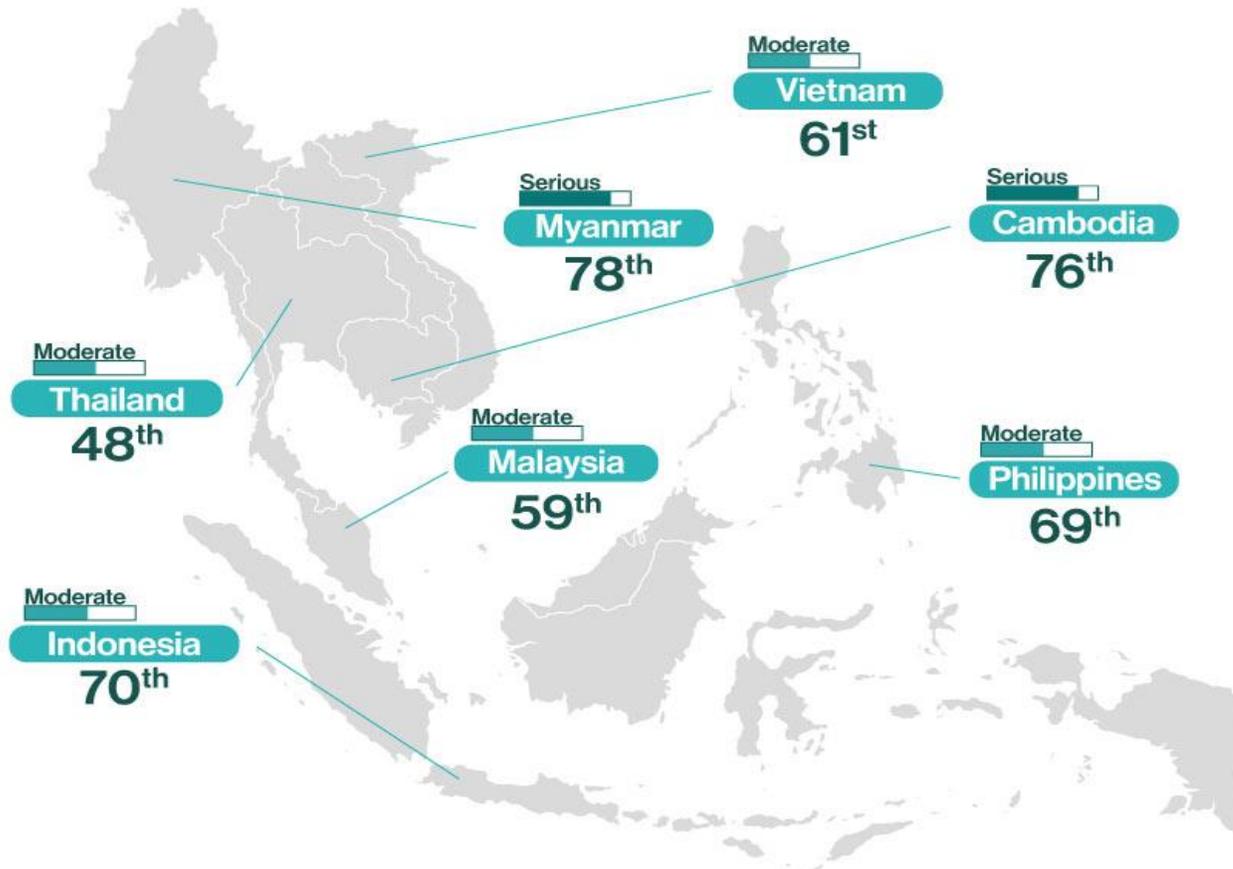


Agriculture, land and food waste cover **1/4** of total GHG emission

Source: CAIT, 2010 - 2017

Finding 5: Food waste and Hunger are still serious

ASEAN'S GLOBAL HUNGER INDEX RANKING 2020



*Brunei, Singapore and Lao PDR not included

**Out of 107 rankings

Meanwhile, Food is largely wasted every year, Asean still face the **serious hunger** issue

25.8 % children under five are **stunted**

8.4 % children under five are **wasting**

7.2 % children under five are **overweight**

Source: ASEAN Post, 2019

Recommendation: Improve supply chain



Farm

- Avoid chemical with the plant and use organic fertilizer
- Reuse food loss to be compost
- Or send some food loss to the factory



Distribution

- Well packaging during retail
- Short time for distribution
- Send food loss to the factory



Grocery Store

- Good marketing & do promotion for close to expired date product, etc.
- Well stock to keep products
- Send food loss to the factory



Home

- Buy food or vegetable as you need
- Use what you have before buying new
- Reuse food loss to be compost or feed your animals
- Or send some food loss to the factory



Factory



Friendly Environment

Good Health

Recommendation: Develop technology at farm



Create and develop technology both outdoor and indoor farm



Do data collection



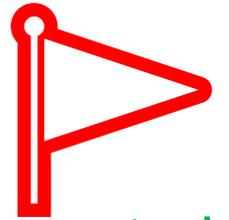
Well planning during planting and harvest

- Build the factory to recycle food waste to be compost
- Set policy to reduce food loss and waste
- Spread food loss and waste information through SNS, radio, TV, etc.
- Organize camp activities for rural area people to know more about impact of food loss and waste

Government

- Train staff to reduce food loss at farm
- Separate the waste
- Send food loss and/or waste to the factory
- Food waste campaigns at food service
- Provide an adequate amount of food for the customer

Entrepreneur



Be more **sustainable and green environment** with less amount of food loss and waste

Education

- Add additional course related to reduce food waste
- Organize activities to engage students about food waste effect
- Study tour at farm or agricultural area and/or the factory

Citizen

- Follow the policy
- Self awareness about the effect of food waste
- Separate the waste
- Reuse the waste as they can and/or send food waste to the factory

References



- FAO. 2011. Global Food Losses and Food Waste – Extent, causes and prevention. Rome. <http://www.fao.org/3/a-i2697e.pdf>
- The World Bank. <https://data.worldbank.org/country>
- UN Environment Summary Report. 2017. Waste Management in ASEAN Countries. https://wedocs.unep.org/bitstream/handle/20.500.11822/21134/waste_mgt_asean_summ%20a ry.pdf?sequence=1&%3BisAllowed
- The ASEAN Post. 2019. ASEAN start-ups are tackling food waste. <https://theaseanpost.com/article/asean-start-ups-are-tackling-food-waste>
- Move For The Hunger. The Environmental Cost. <https://moveforhunger.org/food-waste>
- FAO, A major step forward in reducing food loss and waste is critical to achieve the SDGs, 2019. <http://www.fao.org/news/story/en/item/1238015/icode/>
- Rabo Research. From food waste to future value. <https://economics.rabobank.com/publications/2018/march/from-food-waste-to-futurevalue/>
- Total Population of the ASEAN countries from 2008-2018. <https://www.statista.com/statistics/796222/total-population-of-the-asean-countries/>
- ASEAN Cooperation on Environment. ASEAN Cooperation on Chemical Waste. <https://environment.asean.org/awgcw/>
- ASEAN's Global Hunger Index Ranking 2020. <https://theaseanpost.com/article/starving-pandemic>
- ASEAN Statistics Yearbook 2020
- Food System Dashboard. <https://foodsystemsdashboard.org/compareandanalyze#>

A beautiful environment starts with **You**



THANK YOU

