Agriculture Trading Enhancement in ASEAN by Data Driven Technology

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SAP
SDG 8.2 Target:

Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors

We focus on: Data driven Technology

SDG 8.A Target:

Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries

We focus on: Trading between Countries
Agricultural products are derived from cultivated plants or animals to sustain or enhance human life.

- We can see that the most in demand agriculture products in the world are type of high-carb crops which can give the consumer more energy when compared to other greenery.
Share of Land area used for arable agriculture, 2017
(ASEAN five major food commodities)

ASEAN Member Countries

- **BRUNEI DARUSSALAM**: 25.70 Ton / Hectare
- **CAMBODIA**: 154.28 Ton / Hectare
- **INDONESIA**: 282.40 Ton / Hectare
- **LAOS**: 305.47 Ton / Hectare
- **MALAYSIA**: 150.85 Ton / Hectare
- **MYANMAR**: 298.74 Ton / Hectare
- **PHILIPPINES**: 278.21 Ton / Hectare
- **SINGAPORE**: 4.39 Ton / Hectare
- **THAILAND**: 341.97 Ton / Hectare
- **VIETNAM**: 324.51 Ton / Hectare

(http://www.islandinfokohsamui.com)
According to the global popularity at present, the plants are still in high demand for ASEAN with the capacity to grow these plants such as Paddy, Sugarcane, Cassava, Maize and Soybean.

Furthermore, these five plants. Rice have been reached to 90% of demand in ASEAN as well.
Crop production index shows agricultural production for each year relative to the base period 2004-2006. It includes all crops except fodder crops. Regional and income group aggregates for the FAO's production indexes are calculated from the underlying values in international dollars, normalized to the base period 2004-2006.
Share of ASEAN Major Markets of Agricultural Export Commodities 2016-2017

**EXPORT AND IMPORT IN ASEAN**

- **2016**
  - Total Export: 62,587
  - Total Import: 22,138

- **2017**
  - Total Export: 75,642
  - Total Import: 24,014
For the past decade governments and farmers across the ASEAN region have started to realise the importance of technology for agriculture sector and begun to adopt it with a goal of creating a modernised system that can increase productivity. However, the progress have been hindered by various obstacles, such as lack of funding, low education and unsupportive policies.
Recommendations

**Farmer:**

The Farmer will need to collect and record the data from their agriculture productions and various condition of the land, weather, climate, cultivation procedure on their own sites as a routine and summarize the data. (via Application or Smart farm device)

**Government:**

Given the data from the farmer, the government can then take action by having a data center that can collect all the data from various farmer in the country and using that data, it will allow them to monitor the situation of the agriculture sector and also being able to estimate the direction of future outcome in which will help them with the decision making.

**Countries:**

The data can then be access publicly so that each country can utilizes the data for their decision in trading with the neighbors and other country, those data would also contain informations that can be used to improve the agriculture of each countries too such as cultivation technique or the information on various farmland that outcome great productions of specific crops or plants.
References

- Food and Agriculture organization (FAO)
- Our World in data
  https://ourworldindata.org/yields-and-land-use-in-agriculture#references
- World bank
  Agricultural Value
- Other: UN Data, etc