Economic growth on ASEAN countries was growing steadily in these past years. Despite the economic challenges, they remain robust since 2012. (World Bank)

Data Source: World Bank
‘Industrialization’ is a generic name for a set of economic and social processes related to the discovery of more efficient ways for the creation of value. Generally, it talks about the transformation from agricultural economy to industrialized one.
Material Footprint (Mt) of ASEAN Countries

Data Source: PNAS
Environmental Concerns regarding the Municipal Solid Waste generation

Data Source: UNEP, 2017

what does this waste composed?

which among these can still be usable and be taken back to the supply chain?
Recommendations
From Linear Supply Chain to Reverse Supply Chain

We Take
We Make
We Dispose

Linear Supply Model

Circular Supply Model
Integrating Reverse Supply Chain providing logistics from consumer back to manufacturer
Including proper waste management and its importance in curriculum

Teaching first inside the home the basic waste management practices. Always start within the family.

Programs and policies of the state reinforcing waste management practices

Having a community Material Recovery Facility

Successful implementation results into efficient waste collection greatly decreasing the municipal solid waste

Undergoing service contract with a third party service provider or investing in equipment to do so.

Sorting, Recovering and Recycling usable an integrable materials back into the supply chain.

Usable recovered materials was taken BACK TO THE SUPPLY CHAIN.
Benefits of Reverse Supply Chain

The industry together with its stakeholders can benefit in terms of:

- **COST SAVINGS** due to reduced need of virgin material consumption

Accompanies

“Green Branding”

- Provide **ADDITIONAL SERVICES** to the consumer

The environment will benefit to the effect of integrating Reverse Supply Chain in terms of:

- **Reduction** of **Municipal Solid Waste** that will probably end up in landfills, water bodies and estuaries.

- **Decreasing** demand on extracting natural resources