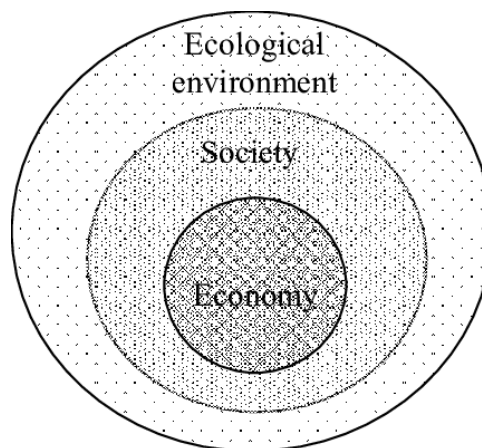


## Development Economics Midterm Exam

### Question 1

- a. An example on how economic, social, and environmental factors are interrelated to one another and must be considered together is DKI Jakarta. DKI Jakarta as seen from Table 1-4 holds the position of good on only the GINI ratio and the relatively high GDRP Growth, with a slower poverty rate decrease, slower HCI increase, and worse provincial air quality index. In pursuit of economic growth, Jakarta have managed to cut down it's green space area down to 11.2% (in 2010<sup>1</sup>), lower than the administration recommendation of 30%<sup>2</sup>. This decrease in environmental factors directly relate to the worse provincial air quality, which can affect the increase of HCI<sup>3</sup>, and that would lead to a slower poverty rate decrease.

One picture that I think illustrate the importance and interconnectedness of those three factors is the following one<sup>4</sup>. It shows that the economic factors are based on social factors, that are based on environmental factors.



- b. HCI or Human Capital Index is one of the most important concepts relating to Sustainable Development as people are in the centre of Sustainable Development. Usually dubbed People-Oriented Development, human capital is the start of any development process. There are various aspect that affect the HCI, two of the most important contributors are Education and Health.

<sup>1</sup> [https://www.researchgate.net/figure/The-Percentage-of-Green-Space-of-Jakarta\\_tbl1\\_295909351](https://www.researchgate.net/figure/The-Percentage-of-Green-Space-of-Jakarta_tbl1_295909351)

<sup>2</sup> <https://www.thejakartapost.com/news/2020/01/14/despite-regulations-jakarta-homeowners-concrete-over-green-spaces.html>

<sup>3</sup> <https://www.census.gov/content/dam/Census/library/working-papers/2017/adrm/carra-wp-2017-05.pdf>

<sup>4</sup> [https://www.researchgate.net/figure/Concentric-circle-model-of-the-three-pillars-of-sustainability\\_fig1\\_326167693](https://www.researchgate.net/figure/Concentric-circle-model-of-the-three-pillars-of-sustainability_fig1_326167693)

With the increasing value of high skilled workers, the value of education is much more prevalent than ever before. ICT (information communication technology) has managed to transform our economy and advances in science have changed the way we live. Education is also an asset that can help reduce inequality, helping people move out of poverty and lower the inequality. On the other hand, health is also important, and it has never been more in our face compared to the current Covid-19 pandemic. Not only is the cost of taking care of sick people high, the opportunity cost that is lost from them not being productive is even higher. Health in this case also include mental health and any form of nutritional defect that might hinder the proper development of a person to be a useful part in society.

## Question 2

- a. The “Normal Patterns of Development” is a phenomenon that shows an increase in a country’s per capita income is correlated with the decrease in percentage of the primary sectors (agriculture) and an increase in the secondary (manufacturing) and tertiary (services) sectors. Various developing countries shows greater growth in sectors with low productivity, while to achieve a higher growth the ideal development is through growth in sectors with high productivity such as the manufacturing sectors. This is observed by Moshe Syrquin and Hollis Chenery in a 1975 World Bank report that shows the pattern observed in multiple countries, followed by the change in other factors of developments such as education and health.
- b. Chart 1 shows the share of manufacturing across the ages, with a noticeable dip after early 2000s. After the 1998 revolution Indonesia have opt to decrease its share of manufacturing sectors, causing the “premature deindustrialization” that leads to the decline in growth of labour productivity. In the context of the “Normal Patterns of Development”, this premature deindustrialization is not following the recipe for growth as it shows that the increase in a country’s per capita income is highly correlated with the growth in highly productive sector such as the manufacturing sectors.

With the declining share of manufacturing in Indonesia, it is not hard to understand why the trend for growth of labour productivity is sloping downward. With a lower share in the highly productive sectors (manufacturing) and a strong increase of share in the low productive sectors (services), the productivity of each labour (defined as the ratio of an output to a measure of labour) will be following the decline in the manufacturing sector shown in Chart 2. This shows just how important highly productive (manufacturing) sectors are for the growth and development of a country, as it (usually) determines how productive the citizen of a country is.

### Question 3

- a. Referring to Chart 3, Indonesia relative position compared the SEA countries is right in the middle when talking about inequality using the Gini Index. With a score of 0.40, Indonesia is more unequal compared to Vietnam (0.35), Thailand (0.38), and Cambodia (0.38), while we are less unequal compared to Malaysia (0.46). When viewed together with the Per Capita GDP, Indonesia (12,400) hold a higher relative position compared to the Philippines (8,200), Vietnam (6,900), and Cambodia (4,000).

Income inequality have a profound effect on the prospect of growth in a region. While classical economic theory says that a bad income inequality is good for growth because the rich will save more, which will lead to investment that leads to growth, our modern economic theory says otherwise. A bad income inequality slows down growth as high level of poverty and inequality can lead to socio-political instability that is detrimental to growth.

- b. Using the framework that view income as:

$$\text{Assets} * \text{Rate of Return of the Assets}$$

we can see that the starting asset (be it physical capital or human capital) that a person currently has will impact their future income. Interpreting this, the more asset that a person has, the more income they will have, which will allow them to acquire more asset, which then continues and continues. That increase is one of the reasons for the rise in inequality.

Said framework validates the “Second Theorem of Welfare Economics” which states that a free market might not lead to optimum condition if income redistribution is not done. Using the previous framework, we can see that if we do not redistribute the income, the inequality will continue to rise. From my understanding the Paroush (buy durable goods) and Ownership (buy land & capital) column of Chart 4 shows the higher the number the less unequal a country is, while the IRT shows how much of that inequality that is based on an unknown variable. With this we can see that Indonesian have high ability to buy durable goods (washing machine, computers) and land. While on the other hand Malaysian are less able to buy those things, most likely because land and goods are controlled by a handful of people, with land ownership mostly lent and not owned.

Because of that a policy must be done. One of them is through a Compensating Policy that merely compensate those that do not have physical assets using subsidies and direct cash transfer. This however is not very effective as just giving money is not enough. An Integrated Policy is much more suitable as not only it helps gives physical assets to those in need, but also the infrastructure to make sure that the Rate of Return of the Assets are able to counteract the inequality.

#### Question 4

- a. I think that the current food insecurity problem faced by Indonesian is mostly due to the income loss that has happened due to Covid-19. There are four aspect to food security: availability, affordability, stability, and utilization. Covid-19 primarily affects the affordability of food, as it lowers the income that people have while limiting the transporting of good between places to lower the spread of the virus. However, in the long term if demand is not addressed properly, we could create a domino effect that lowers the availability and stability due to the losses that those in the agriculture industry have to face with a lower demand.
- b. Food security in Indonesia is highly correlated with the quality and availability of the transport infrastructure, especially the maritime one, due to the nature of our archipelago nation. Ports (in this case maritime ports), are extremely important in the development of a country, as it can significantly reduce the cost to transport goods, which can increase trade. There are many variables that comes in contention when deciding where a port must be build with the limited resource that we have, but I want to highlight a few key points that relates to the problem of food security in Indonesia. Which are: location of port in relation to other national ports, location of port in relation of international ports, factors that increase cost to transport goods, and maritime ports to critical location.

The location of a port in relation to other national ports are extremely important to make sure that shipping routes are done as efficiently as possible. Currently, most of Indonesia's biggest port is located in the western part of the country, with most of them being either in Sumatra or Java. This is problematic as it means that there is very little incentive for trade routes to go to the eastern side of Indonesia, where development is still scarce. Looking at the location of international ports however might show a reason why there is a lack of ports in the eastern part of Indonesia. Unlike the western part of Indonesia that have routes toward India and Singapore, the eastern part is not in route of any major shipping lines.

This in turn cause the cost to transport goods to be extremely high, as there are no good ports combined with no major shipping lines going through it. High costs to transport goods affect all sort of things, including availability of foods which are necessary for food security. This together with the actual placing of the ports are important when addressing the cost as a port doesn't magically fix the problem of food availability. The city, the management, and the future prospect of a port is also necessary to look at as it is also a factor that contributes to the effectiveness of a port. Take for example Tanjung Priok, a port in North Jakarta. Due to the high congestion that plagues the capital, goods from the ports can only utilize the roads when there are no people, which usually means late at night.

This limitation of road usage will limit the effectiveness of port, increasing the cost of transport even more.