

CHAPTER III

SOCIAL SETTING

In analyzing public policy needs to consider some related variables which may influence in the policy process. This study is going to analyze R&D policy particularly in term of expenditure as government decides to finance public R&D activity in Indonesia. It is much influenced by economic capacity and budgeting mechanism which varies across countries. Taking the issues into consideration, the researcher examines economic performance and social condition of Indonesia in the process of analysis.

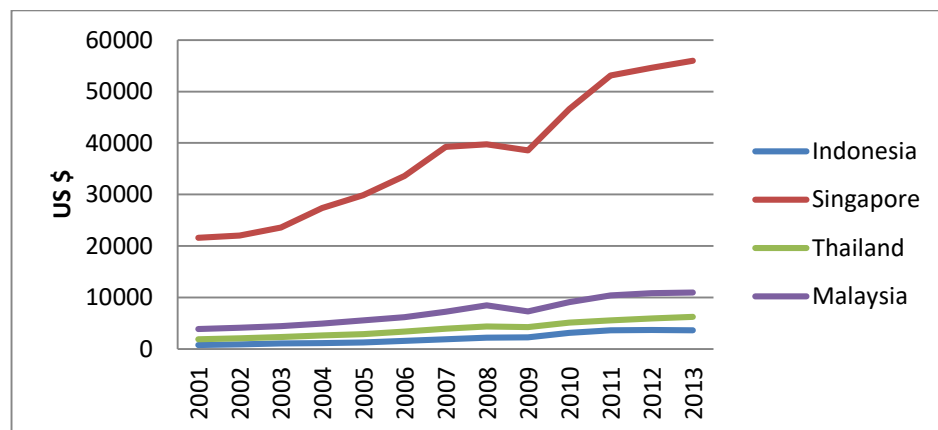
3.1 Indonesian Economic Performance

The performance of Indonesia in economic sector can be examined through various indicators. Firstly, economic growth can be considered as the primary concern of policy-makers and economy management, who make significant endeavors in this regard. Moreover, economic theory points to technical change as the major source of long run economic growth. Investments in research and development in the areas of science and technology are considered to be one of the essential criteria for a nation to evaluate its economic development and competitive power (Romer, 1990).

To measure the economic growth, Gross Domestic Product (GDP) is one of the most widely used indicators to figure out economic growth of a country. It refers to the money value of all goods and services produced over a specific time period (commonly using an annual basis) in one region. It is calculated from summarizing consumption, investment and export, minus import. Another

indicator is per capita income (PCI) which refers to the mean income of the people in an economic unit. This variable is attained by dividing GDP with the total population. PCI is employed better to determine the living standards of the people of a region (Cypher, 2014).

The following graph describes the performance of Indonesia's economy based on per capita income. As compared to some other ASEAN countries, Indonesia's per capita income is the lowest. This places Indonesia into category of lower middle income country as set by World Bank. Interestingly, Indonesia's per capita income in the last decade has gradually increased. It might signify better achievement in the society's standard of living.

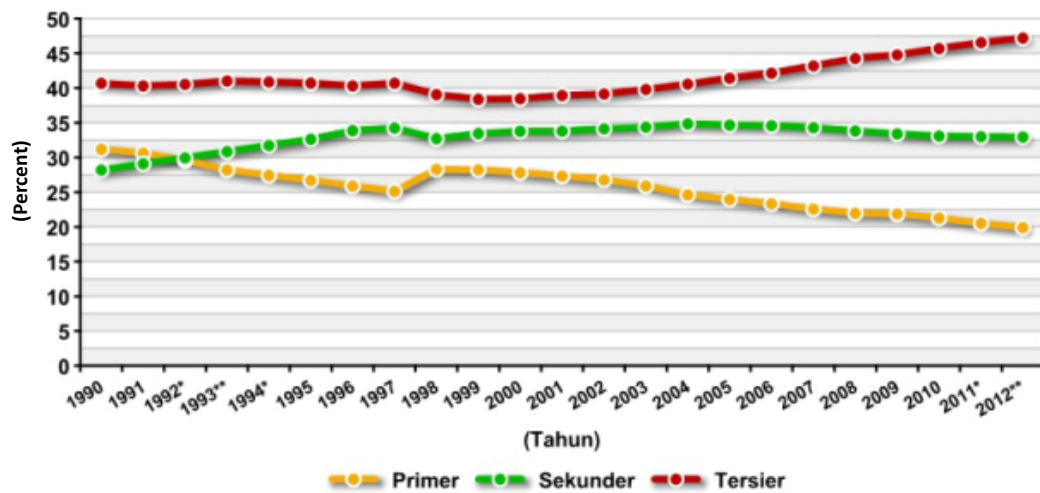


Source: World Bank

Figure 3.1. Per Capita Income of Some ASEAN Countries (2001-2013)

Secondly, the economic development of a country is indicated by the improvement of economic structure. It is when the primary sector of economy (eg. Agriculture and mining) is exceeded either by secondary sector (eg. manufacturing industries) and tertiary sector (eg. service) in the contribution of GDP. The following chart explicates the GDP contribution to economy sector in

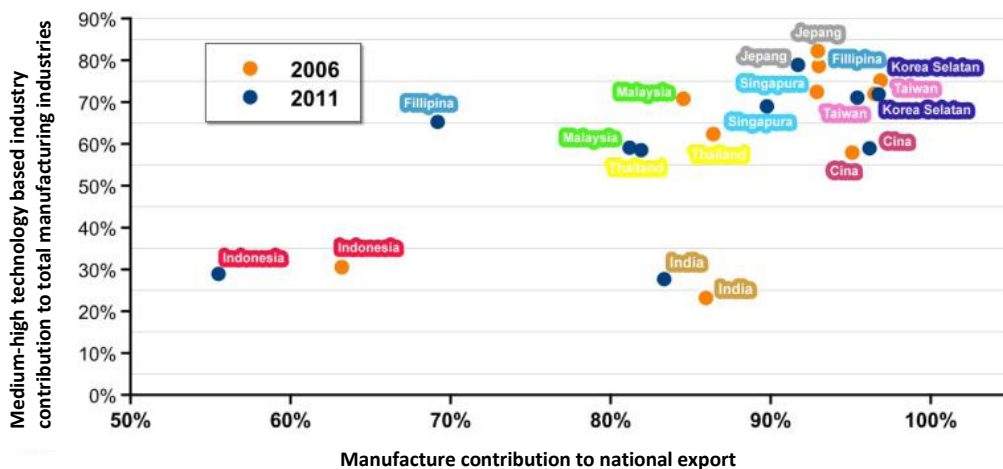
Indonesia. It can be examined, that Indonesia's economy structure has been tertiary sector and primary sector begins to decrease its performance.



Source: LIPI, 2014

Figure 3.2. GDP Contribution to Economy Sector based on constant price 2000 (1990-2012)

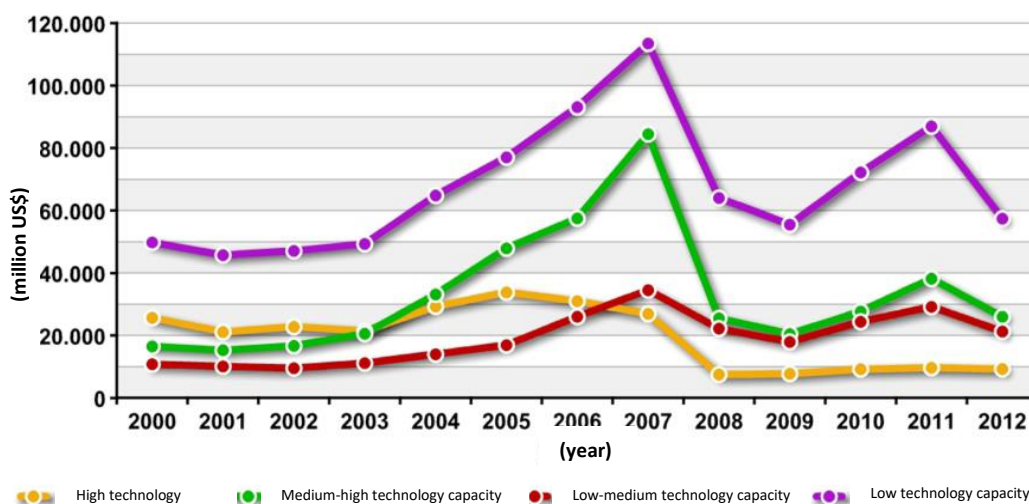
In addition, Indonesia's economic performance is still dominated by low medium technology intensity. As indicated by the following graph, the contribution of manufacturing industry with high technology intensity is relatively low as compared to other Asian countries. Even the intensity was decreasing from period of 2006 to 2011. It signifies the capacity of technological change in Indonesia is still low.



Source: LIPI, 2014

Figure 3.3. Export of High-Medium Technology based Manufacturing Industries in Some Asian countries (2006 and 2011)

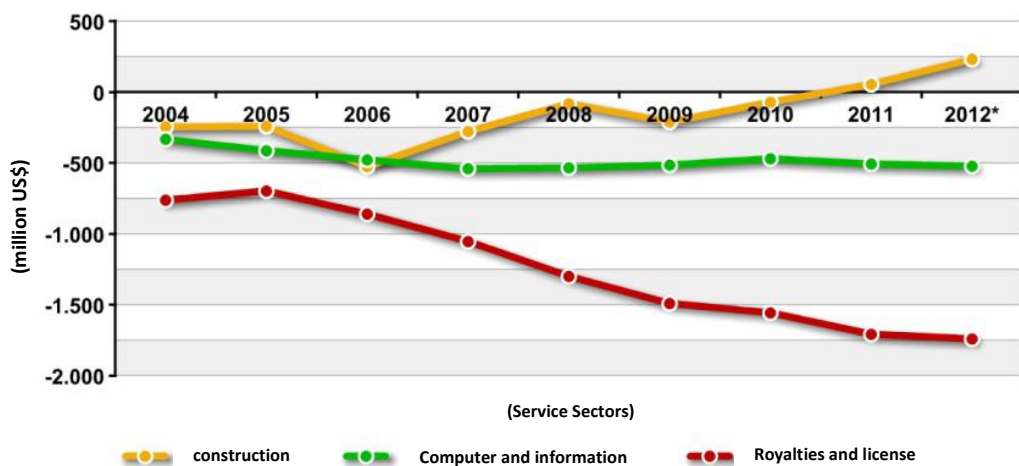
As the previous indicator, manufacturing industries based on high-medium technology is lower than Low medium capacity. In the period of 2000-2012, Indonesia' manufacturing industry had been dominated by low technology capacity.



Source: LIPI, 2014

Figure 3.4. Trade Balance on Technology Capacity based Manufacturing Industry in Indonesia (2000-2012)

Meanwhile, the tertiary sector (service) in Indonesia's economy is led by construction sector. This sector gained surplus in 2012 during the period of 2004-2012. Meanwhile service sectors on computer and information technology was on deficit. It also signifies the low capacity of technological progress in Indonesia.



Source: LIPI, 2014

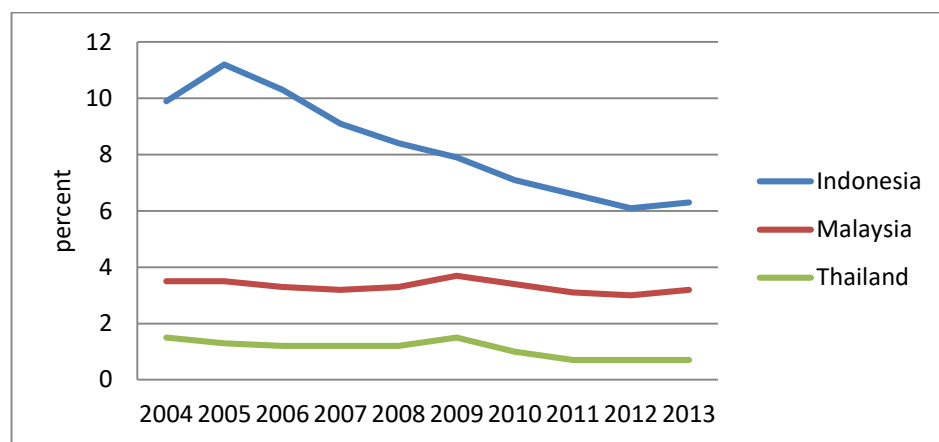
Figure 3.5. Service Sectors in Indonesia (2004-2012)

3.2 Indonesian Social Condition

Despite good performance of economic growth, Indonesia is occupied by piles of societal problems. The poverty rate in Indonesia is relatively high. It reaches 11.4% in 2013 after gradually declined from 12.5% in 2011 and 12% in 2012. It is measured by national poverty headcount ratio (the percentage of the population living below the national poverty lines)¹.

¹ World Bank Data, Browsed on 18 January 2016

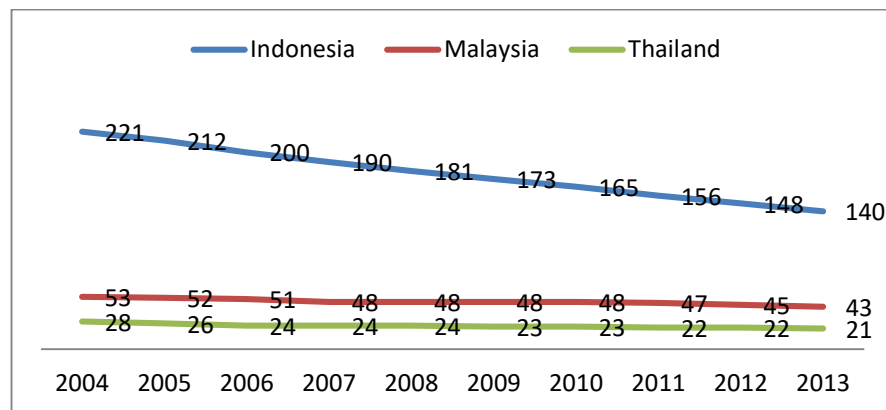
The poverty level in Indonesia closely relates to the availability of job opportunities. Unfortunately, there are many people have not got job to fulfill their needs. As indicated by the following figure, the number of unemployment in Indonesia is alarming compared to some other ASEAN countries. World Bank defines unemployment refers to the share of the labor force that is without work but available for and seeking employment (% of total labor force).



Source: World Bank

Figure 3.6. Unemployment in Some ASEAN Countries 2004-2013

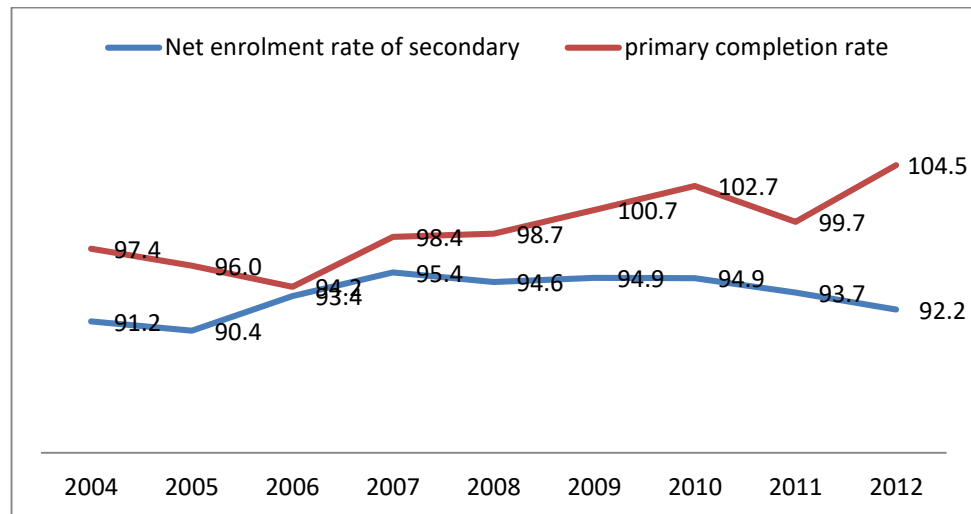
In health sectors, Indonesia is threatened by the high number of mother mortality. It is represented by maternal mortality ratio (modeled estimate, per 100,000 live births). Maternal mortality ratio is measured based on number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births. The below graph signifies mother mortality in Indonesia is higher than some other ASEAN countries in spite of the decreasing trend in the last decade (World Bank, 2016).



Source: World

Figure 3.7. Mother Mortality in Some ASEAN Countries

In education sector, the government of Indonesia should be able to ensure each citizen of education attainment as indicated by the 1945 Constitution article 31. Education is one of investments in human capital which is considered significant to drive long run development (Romer, 1990). The below figures describe the comparison between the rate of children enrolment in primary education and the completion rate in the period of 2004-2012. Overall, the attainment of primary education as the basic stage in Indonesia has performed improvement in in the completion rate. Unfortunately the number of enrolment has undergone a slight decline. It signifies there are children who could not get their right for attending primary education.



Source: World Bank

Figure 3.8. Primary Enrolment in Indonesia

The societal problems as faced by Indonesian people deserved the equal treatment from the government as well the R&D urgency. Unfortunately, as a developing country, Indonesia has limited resources that make the government to carefully manage fiscal policy and macroeconomic structure for the benefit of social welfare.