Indonesia’s National Characteristics: Challenges and Opportunities

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Key Points

- The population of Indonesia is expected to exceed 300 million by mid-century. This population will likely be wealthier and more urbanised than it is currently. Such growth could place additional strain on food and water security.

- To ensure unemployment levels remain manageable, the government needs to aim for greater economic growth. This will require investment in infrastructure which is currently held up by bureaucratic inefficiencies.

- Climate change is expected to exacerbate food and water insecurities as the country experiences changes to traditional seasonal conditions. The current policy of building dams to improve access to irrigation is likely to relieve some of these pressures.

- Poor food distribution networks and self-sufficiency policies have the potential to worsen food security. A lax attitude towards the regulation of water supplies, furthermore, is likely to lead to deteriorating water security.

Summary

Indonesia aspires to become a high income country by 2030. Demographic and economic trends suggest that this might be possible but emerging challenges arising from climate change and food and water security could hamper the country’s efforts to reach this goal.
This paper examines population trends, the impact of racial differences on political stability and economic trends in order to ascertain the kinds of challenges that the country will need to address in the near future if it is to meet its developmental goals. The paper then examines where the country is at in terms of the future challenges of climate change and food and water security. It finds that without adequate governance and a strong desire to tackle these challenges, Indonesia is unlikely to be able to overcome the hurdles that currently stand in its path towards greater development.

Analysis

Population Trends

Indonesia is an archipelagic country made up of over 17,000 islands, not all of which are inhabited. It has the fourth largest population in the world with over 255 million citizens, the majority of whom live in the west of the country on the islands of Java and Sumatra. Java alone is home to roughly 60 per cent of the population. Understandably, this region dominates the others politically and economically. A government-sponsored transmigration programme has been in place since independence to encourage citizens to move from the congested islands of Java, Madura, Bali and Lombok to less populated regions, such as Papua, Kalimantan and Sulawesi. These migrants are encouraged to bring greater levels of development to these areas and since the initiative was adopted close to nine million Indonesians have moved from the country’s core to its periphery. To encourage people to take up the offer, the government provides land, money and fertiliser to those who move for more than 18 months in order to allow them to sustain a small farm. The transmigration programme has been opposed by some for damaging natural rainforests and threatening the indigenous cultures of the eastern regions, particularly that of Papua where migrants outnumber the indigenous Melanesian population. The programme has been widely derided as it has largely failed to relieve demographic pressures in the core of the country.

Between 2000 and 2010, the Indonesian population grew at an average annual rate of 1.49 per cent. In 2014, the rate remained relatively unchanged at 1.43 per cent. Population growth is highest in the eastern province of Papua at 5.46 per cent and lowest in Central Java at 0.37 per cent. According to the Indonesian National Development Planning Board (Bappenas), the population is expected to reach 296 million by 2030. Population growth is projected to continue until the 2050s, which is when it is expected to start declining. By this time, however, the population is likely to be considerably larger than 300 million.

Urbanisation, which is already rapidly underway, is also expected to continue. Currently more than half the population lives in urban areas and some estimates suggest that by 2025 almost 70 per cent will live in cities. Increasing urbanisation has the potential to bring positive economic effects but if not properly managed could have deleterious impacts upon the wealth and wellbeing of the country. Jakarta, Indonesia’s capital and largest city, is already notorious for its acute traffic congestion, lack of housing and access to clean water. If the development of urban infrastructure does not keep pace with the urbanisation of the
country then it is likely to face considerable challenges mainly in relation to decreased productivity and increasing social disadvantage.

The Indonesian population is also relatively young. As of 2015, the average age is below 30. Again, if properly managed, this could have significant benefits for the country. On the other hand, if mishandled, the youthful population could become a burden to future development. In order for unemployment to remain low, the economy will need to expand at a greater rate than it is currently. Without increased economic growth, Indonesia will struggle to create jobs for its expanding population leading to greater social disadvantage and greater demands for social welfare which will place an additional burden upon the Indonesian state.

**Racial Differences Not As Significant As In The Past**

Due to the insularity of many of the islands making up the country as well as historical influxes of people to the archipelago, Indonesia is incredibly diverse. Historically, some communities lived in relative isolation while others were part of trading or seafaring networks. As a result there are hundreds of different ethnic groups and cultures; however, most of the population is either Javanese or Sundanese. The Javanese have long dominated the political affairs of the country and all seven post-independence presidents have come from this ethnic background – although Abdurrahman Wahid was of Chinese descent on his father’s side. Many members of the state apparatus, including the bureaucracy, are also Javanese.

Such differences alone do not account for the tensions that sometimes emerge between the various racial and ethnic groups present in the archipelago. There are usually other underlying factors that lead to confrontation. For instance, during the early years of independence, ethnic Chinese dominated the professions, manufacturing, retail and
wholesale trade. Shortly after gaining independence, President Sukarno made a point of attempting to limit their influence in the economy. Perceived inequalities between ethnic Chinese and wider Indonesian society has sometimes made the minority a target of violent mobs. In 1966, after the violence that toppled Sukarno from power, General Suharto removed Chinese language and civilisation courses from Indonesian universities. Ethnic Chinese were discouraged from displaying Chinese characters on their shop fronts and celebrating religious festivals outside their temples.

Tension between the Chinese minority and broader Indonesian society rose to the surface in May 1998 amid the ousting of Suharto. During the rioting Chinese businesses bore the brunt of the violence as many Indonesians saw them as wealthy beneficiaries of the corrupt New Order regime. Their persecution has been caused more by a sense of economic inequality rather than racial difference. Since the ousting of Suharto, however, the situation has improved for the Chinese ethnic community but it is sometimes still used as a scapegoat during political campaigning. For instance, during the 2014 election campaign, President Jokowi was accused of being a Chinese Christian in an effort to weaken his chances of becoming elected.

There is evidence of greater racial tolerance in Indonesia in recent years. For example, in 2014, a Christian and ethnically Chinese politician, Basuki Tjahaja Purnama, more widely known as Ahok, became governor of Jakarta. He is the first ethnic Chinese to ever hold the post and is the first from a minority background since Sukarno appointed Henk Ngantung, a Christian artist, to the job in 1964.

While Ahok campaigned for the position of deputy governor in 2012, an attempt was made to make racial issues a central component of the campaign. Fauzi Bowo, the incumbent governor, claimed that he was a “real” Jakartan and questioned whether Ahok was a “true” Indonesian. Such campaign tactics suggest that race and ethnicity have the potential to still be meaningful markers of identity in contemporary Indonesia. Race does not appear to be as important as it perhaps was in the past, however, as it did not prevent Ahok or Jokowi from winning office.

_Economic Trends_

To escape the middle income trap by 2030 and provide its young population with jobs to maintain favourable rates of unemployment, the Indonesian Government predicts that it will need to achieve an average economic growth rate of seven per cent over the next five years. Such a target is highly ambitious as it has not experienced growth of this magnitude since the mid-1990s. During the ten years Susilo Bambang Yudhoyono was in office, the economy grew at an average of around five per cent a year. Since late 2012, however, economic growth has been on a downward trend. Higher growth has been called into question as the economy grew at 4.71 per cent year on year in the first quarter of 2015, its slowest pace since 2009.
Currently, the government is pinning its hopes on an increased level of public spending on infrastructure projects in the second half of 2015 to boost the level of economic growth. It has revised its target to 5.4 per cent this year, down from 5.7 per cent at the time the state budget was released earlier in 2015. Given that bureaucratic hurdles have constrained spending in the first half of the year it is likely that without further reform economic performance in the second half of 2015 will remain lacklustre.

Centuries of colonial exploitation continue to have an effect upon the Indonesian economy. The country continues to see itself as unfairly treated by international actors and the government enacts policies that it sees as benefiting the national economy and wider society. Economic nationalism is widespread, particularly in the extractive and agricultural sectors.

Economic nationalism increased during the economic downturn. In 2014, the government implemented a new mining law that restricted the export of some raw materials and banned the export of others that had not been processed. This policy was enacted in an attempt to bolster domestic value-added sectors. In a more recent bid to boost domestic industries, the government increased a number of import duties in July 2015. Import duties on consumer goods, mostly foodstuffs and textiles, increased by 30 per cent while duties on other goods, such as alcoholic drinks, rose by up to 150 per cent. The measures, which are not seen as protectionist by the Indonesian government and comply with World Trade Organisation rules, are expected to generate additional revenue of only 800 billion rupiah ($81.5 million) in the second half of 2015, making them relatively minor.

While foreign direct investment continues to increase, there is evidence that many foreign investors who receive a business permit find it difficult to operate in the country over the long term. In order to assuage the sentiment of foreign investors and increase the level of foreign investment in the country, the government will need to tone down its nationalism and refocus its attention on bureaucratic reform, infrastructure and logistics.
Potential Impacts of Climate Change

As an archipelagic country with 80,000 kilometres of coastline, Indonesia is highly vulnerable to the effects of climate change. It is predicted that it will experience rising sea levels, warming oceans and more severe tropical cyclones. Rainfall patterns are expected to change. Sumatra and Kalimantan are predicted to become wetter while Java, Bali and Nusa Tenggara are likely to experience a drier climate. The risk of drought is likely to increase during critical times of the growing season while greater precipitation levels during the wet season is likely to lead to more severe flooding and a greater potential for landslides. Such outcomes will pose a direct threat to the country’s food and water security as well as indirect threats to efforts to alleviate poverty and create more stable economic conditions.

Rising sea levels could also result in a loss of 1,500 Indonesian islands by 2050, according to the Maplecroft Climate Change Vulnerability Index. At least 42 million Indonesians currently live within three kilometres of the coast and less than ten metres above sea-level; rising sea levels could place their livelihoods and them at increased risk. Large sections of Jakarta could also be threatened by inundation. Some predictions suggest that Soekarno-Hatta International Airport, the country’s main airport serving the greater Jakarta area on the island of Java, could be at risk by as early as 2030. Such forecasts have worrying economic ramifications for the country. Mitigating or adapting to the reality of climate change will also carry considerable economic costs that the country is unlikely to be able to meet on its own.

In a bid to better manage a looming food and water crisis the Jokowi administration has pledged to increase dam building around the country, particularly in drought-prone regions. These dams, if constructed, will assist in providing farmland with much needed irrigation during the dry periods of the year. It is hoped that some of these dams will also be able to provide some regions with a more reliable supply of potable water, thereby reducing the impact of the water crisis.

Food Security

Indonesia is a net importer of all its major staple food commodities, including rice, corn, cassava, soybeans and sugar. Currently, it has a high degree of food security although there are lingering problems with distribution in some rural areas and amongst poorer communities. These issues are reflected in the high number of underweight children under the age of five relative to neighbouring states. In 2013, about 20 per cent of children under the age of five were underweight in Indonesia compared to 13 per cent in Malaysia and 9 per cent in Thailand. Such figures suggest that the country is not immune to food security pressures.

Indonesia initiated a food self-sufficiency policy in October 2012, aiming to meet 90 per cent of the country’s food requirements from domestic sources by 2014. Though this goal was not achieved Jokowi plans to pursue self-sufficiency in rice, beef, sugar and other crops such as shallots, corn and soybeans during his five year term. He has unveiled an import-substitution policy that aims to lessen the country’s need for imports. The Yudhoyono administration tried a similar policy to increase cattle and soybean production but found that it only increased the prices of domestic goods.
Jokowi aims to improve agricultural productivity by increasing the access farmers have to quality seeds and water as well as by improving the country’s irrigation infrastructure. Opening new tracts of land for agriculture is also high on the president’s agenda. He has indicated that he would like to see an additional 1.2 million hectares of rice grown in Indonesia within the next three years through the development of new farmland. His administration appears willing to resurrect the controversial Merauke Integrated Food and Energy Estate (MIFEE) in the Papuan province of Merauke, an agribusiness mega-project that was drawn up during the Yudhoyono administration. MIFEE was abandoned after an outcry against the large-scale environmental, social and cultural destruction that was likely to accompany the project.

The recent cut to the quota of imported Australian cattle is symptomatic of the on-going effort to achieve self-sufficiency. Unfortunately, in pursuing policies such as these, the Indonesian government only stands to jeopardise the country’s food security. Indonesian cattle producers are reportedly able to supply close to 80 per cent of beef consumed in the country. Cutting beef imports, however, is unlikely to lead to increased domestic production. Instead, it will result in lower domestic demand for beef, as it is priced out of reach for many
consumers. Already, the price of beef has skyrocketed. In July 2014, Indonesian consumers were paying approximately 75,000 rupiah ($7.65) per kilogram; a year later, in the aftermath of the reduction on Australian imports, beef is priced between 120,000 and 140,000 rupiah (between $12.25 and $14.30) per kilogram.

Continued population growth, combined with other pressures on limited farmland, is likely to put additional strain upon the supply of food. Indonesia is already a net importer of rice, the staple food for the majority of its population. Jokowi has made rice self-sufficiency a pillar of his food security drive. He wants Indonesia to not only achieve rice self-sufficiency but also become a net exporter of the grain. In January 2015, the president declared that his government aimed to distribute farming equipment throughout the country to boost the production of the staple crop. The Central Statistics Agency (BPS) has estimated that production of milled rice in 2015 will increase by 6.64 per cent compared to 2014 levels, to around 48.3 million tons. If this increase in production is achieved it will represent the largest annual increase in the past decade. BPS suggests that the increase in production is attributable to government initiatives introduced this year. Given that the 2015 dry season could be longer than usual, it remains to be seen whether this estimate is feasible.

It appears that Indonesia is capable of ensuring adequate supplies of food for its population but shortcomings in its distribution systems and a lack of infrastructure to deal with climatic variation continue to reduce its food security. Improving distribution networks, ensuring that food producers are integrated into the supply network and improving access to infrastructure, such as dams, will likely ensure better food security into the future.

**Water Security**

Indonesia is not a water-scarce country, as it has access to more than two trillion cubic metres of internal renewable water resources per year. Due to the unequal distribution of the resource, however, some areas of the country face greater water pressures than others. The island of Java, which is home to almost 60 per cent of the population, has less than ten per cent of the country’s water. Kalimantan, on the other hand, which is home to roughly six per cent of the population, has 30 per cent of its water.

Water availability also fluctuates throughout the year, making the country susceptible to seasonal variation in supply. A lack of adequate water storage intensifies water stress during the dry period of the year, usually between April and September. Most of the renewable water is surface water but, since many of the rivers are heavily polluted, groundwater is often the preferred option for both municipal and industrial consumption. In urban areas, groundwater is the main source of clean water for 74 per cent of households.

Overuse of groundwater has resulted in increasing salinity in reserves, particularly near Jakarta. It has also caused the rate of subsidence, a phenomenon that occurs when the extraction of groundwater causes layers of rock and sediment to slowly compress together, resulting in the land sinking, to increase. Greater Jakarta, which is built upon a swampy plain, has sunk by four metres over the past three decades. The capital is subsiding at the fastest rate of any major city in the world, by an average of three inches per year and currently up
to 40 per cent of it is below sea level. If the phenomenon is left unaddressed it is probable that the city will be increasingly susceptible to flooding in coming decades.

Currently, the city has imposed regulations that limit the amount of water that can be daily extracted from licensed wells. A 2008 law imposes fines of up to one billion rupiah ($101,800) and six year jail terms for misuse of groundwater. Enforcement is weak, however, and many illegal wells exist in the city. Most of Jakarta’s residents refuse to connect to the piped water distribution network because it is more expensive, not always available and the water sometimes appears dirty when it comes out of the tap.

Java is predicted to face a clean water crisis. It is estimated that, in 2015, water demand in Java will reach 164.7 million cubic metres per year, while the availability of water is only 30.6 million cubic metres per year. Ensuring that the entire Indonesian population has access to clean water by 2019, one of Jokowi’s election promises, could cost as much as 767 trillion rupiah ($78.1 billion), a figure that the government is unlikely to be able to meet on its own.

Over 80 per cent of surface and ground water in Indonesia is used by the agricultural sector for the irrigation of crops. The agricultural sector is also likely to increasingly compete with the burgeoning industrial sector and a growing population for access to water.

<table>
<thead>
<tr>
<th>Islands</th>
<th>Available Water Demand (million meter3/year)</th>
<th>Water Demand (million meter3/year)</th>
<th>Surplus/deficit (million meter3/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumatra</td>
<td>111.077</td>
<td>49.583</td>
<td>61.494</td>
</tr>
<tr>
<td>Java</td>
<td>30.569</td>
<td>164.672</td>
<td>-134.102</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>140.005</td>
<td>23.093</td>
<td>116.912</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>34.787</td>
<td>77.305</td>
<td>-42.517</td>
</tr>
<tr>
<td>Bali</td>
<td>1.067</td>
<td>28.719</td>
<td>-27.651</td>
</tr>
<tr>
<td>NTB</td>
<td>3.508</td>
<td>2.519</td>
<td>989</td>
</tr>
<tr>
<td>NTT</td>
<td>4.251</td>
<td>8.797</td>
<td>-4.546</td>
</tr>
<tr>
<td>Maluku</td>
<td>15.457</td>
<td>575</td>
<td>14.882</td>
</tr>
<tr>
<td>Papua</td>
<td>350.598</td>
<td>1.319</td>
<td>349.279</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>691.317</strong></td>
<td><strong>358.596</strong></td>
<td><strong>336.763</strong></td>
</tr>
</tbody>
</table>

Source: Food & Fertiliser Technology Centre
Source: thejakartapost.com

As the population expands and greater pressure is placed upon the water supply there will be less available for the agricultural sector. Farmers need to be encouraged to adopt modern irrigation systems that reduce wastage. Automated watering technologies, for instance, are more precise and less wasteful than current systems widely used in Indonesia. Production of water-intensive crops, such as rice, will also need to be shifted from the island
of Java to other regions where water resources are more plentiful. Such a shift could, however, take a toll upon the natural environment and increase transportation costs.

**Expectations for the Future**

In the coming decades the Indonesian population is expected to continue to increase, albeit at a slower pace than in the recent past. This growth is likely to be accompanied by growing levels of individual wealth and urbanisation. If these factors are not properly prepared for and managed the country could experience social, economic and environmental challenges.

Indonesia aspires to continue its economic development by becoming a high income country by 2030. Its demographic profile is such that, with proper planning, it is likely to be able to achieve this goal. In order to reach this point, however, it needs to overcome a number of obstacles, some of which it has been aware of for some time. Endemic corruption, an unwieldy bureaucracy and insufficient infrastructure are some of the major problems holding back the economic development of the country.

Emerging challenges such as climate change and the impacts that it could have upon the country’s food and water security are emerging problems that could further prevent it from reaching its developmental goals. With an increasing population domestic food production will either need to increase or more will need to be imported from abroad. Both options are likely to be met with opposition from certain quarters. Increasing domestic production will likely put further pressure on the natural environment and exacerbate water insecurity. Increasing foreign imports, on the other hand, could prove to be unpopular domestically, particularly as the government has consistently promised greater levels of self-sufficiency. With an increasingly urban population and environmental constraints the latter option seems the most likely to be met with some level of success.

In meeting these challenges, Indonesia will, now more than ever, require good governance, political willpower and strong decision-making. In recent times, this appears to be lacking.

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