1. Infrastructure Investment in Indonesia — The Economic Context

C. F. Duffield,¹ R. Duffield,² and S. Wilson³

1.0 Introduction to Indonesia

Located in South-East Asia between the Indian and Pacific Oceans, Indonesia represents the world’s largest archipelagic country. Its 17,000 equatorial islands, of which only 6,000 are inhabited, experience a tropical climate characterised by high rainfall, humidity and temperatures. The country is rich in natural resources including coal, minerals, gold, copper, nickel, oil, gas and fertile land (giving rise to agricultural products). It is also prone to natural disasters and home to the most volcanoes of any country in the world, with more than 75% of the population living within 100 km of a Holocene volcano (active within the last 11,700 years) (Smithsonian Institution 2015). For example, in early August 2018 a series of earthquakes and aftershocks hit the island of Lombok displacing an estimated 20,000 people.

¹ Professor of Engineering Project Management, Deputy Head of Department (Academic), Dept. of Infrastructure Engineering, The University of Melbourne
² Research Assistant, Dept. of Infrastructure Engineering, The University of Melbourne.
³ Research Fellow, Dept. of Infrastructure Engineering, The University of Melbourne.
Indonesia shares land borders with Malaysia, East Timor and Papua New Guinea and is closely neighboured by Australia, Singapore and the Philippines. Also of note is its proximity to China and India, the two largest and fastest growing economies in the world, and its position along major sea lanes which link the Indian Ocean to the South China Sea and the Pacific Ocean. This central location, in combination with other factors such as its rich resources and demographic composition, make Indonesia an attractive location for foreign trade, investment and political and business affairs.

1.1 Government

1.1.1 National

President Suharto’s long-standing dictatorship fell in 1998 and Indonesia has since operated as an independent democratic republic. The political system consists of three branches: the legislative; the executive; and the judicial branch.

The People’s Consultative Assembly (MPR) forms the legislative branch and comprises the House of Representatives (DPR) and the Council of Regional Representatives (DPD). The MPR is responsible for drawing up and passing laws, providing policy guidance and overseeing the performance of the President and government agencies.

The executive branch consists of the President and Vice-President, as elected by the Indonesian electorate, as well as the cabinet, as appointed by the President. The President is the Chief Executive, the Head of State and Commander-in-Chief of the Armed Forces. The most recent elections in 2014 saw the appointment of a new Government, headed by President Joko Widodo (Jokowi).

The Judiciary is based on the Supreme Court, with most legal cases being dealt with by the public, military, religious and administrative courts.

1.1.2 Regional

Indonesia is divided administratively into thirty-four provinces and hundreds of districts and municipalities. These are headed by Governors and Regents, with elected provincial and council assemblies. In 1999, most government control and tax-raising powers were decentralised
to these regional governments through the ‘Regional Autonomy Law’ (Law no. 22/1999). Many policies, laws and regulations now differ significantly between regions.

1.2 Population

At the most recent census in 2010 (BPS 2015a), the population of Indonesia was 238 million people. Currently, the estimated population is approximately 260 million (Indonesia Investments, 2017; World Bank 2017). This makes it the fourth most populous nation in the world (making up 3.5% of the world’s total population) and the most populous nation in South-East Asia making up 40.6% of the South-East Asian population (United Nations 2015a; World Economic Forum 2015a). Almost 45% of this population is <25 years of age (United Nations 2015a), meaning there will be a large number of people ready to enter the workforce and who will drive economic growth in the coming decades.

Population growth has been rapid and is forecast to continue to reach approximately 305 million people by 2035 (National Development Planning Agency 2013) and 322 million by 2050 (BPS 2015a; United Nations 2015a; World Bank 2017) (Fig. 1). The middle class and urban populations are increasing significantly. From 2003–2010 the middle class grew by 61.73%, with over seven million people being newly elevated into this category each year (World Bank 2011). An additional eight or nine million people are currently entering the middle class segment each year and numbers are expected to reach 140–150 million
by 2020, approximately double the middle class population of 2012 (Rastogi et al. 2013). Urbanisation is also occurring at one of the fastest rates in the world, increasing by about 4% per year (World Bank 2014a). Currently 54.5% of the population (World Bank 2016a) is residing in the urban areas of Indonesia and this is predicted to rise to over 65% by 2035 (National Development Planning Agency 2013) and about 71% by 2050 (BPS 2015a; United Nations 2015b).

However, a large proportion of the country still lives in poverty. As at September 2014, over twenty-seven million people (11% of the population) were living on less than USD1 per day (BPS 2015b) and approximately one hundred million people (40% of the population) on less than USD2 per day — the standard international definition of ‘poor’ (Asian Development Bank 2015a). A further sixty-eight million people are classified as ‘vulnerable’, living on just above USD2 per day (Asian Development Bank 2015a). The country’s human development index (an indicator of per capita income, life expectancy and education levels) of 0.684 in 2014 saw it ranked 108th in the world, alongside Egypt, Botswana and Palestine (United Nations Development Programme 2014). While the situation has been improving, the rate of progress is declining and the large gap between rich and poor is growing (Asian Development Bank 2015a). BPS, In September 2017, reported that the percentage of poor in Indonesia was 10.1% of the population (BPS 2017).

### 1.3 Economy

Except for several short-term dips, since the 1970s, the Indonesian economy has been steadily growing. Drastic political and financial reforms allowed the country to experience incredibly rapid growth from 1998 onwards, remaining reasonably unaffected during the 2008 GFC. Indonesia now ranks as the largest economy in South-east Asia and the 16th largest economy in the world with an expected nominal GDP of USD 873 billion (International Monetary Fund 2015). The economic growth has been largely attributed to high domestic consumption as a result of a rising middle class with increasing levels of disposable income.

However, decreased demand from key export markets for Indonesia’s main commodity products, and a slowing down of domestic consumption, have resulted in a decline in the rate of growth since 2011, with real GDP growth dropping from 5.6% in 2013 to 5% in 2014 and
4.9% in 2015 (World Bank 2015b). Recent projections indicate a growth of 5.1% in 2017 (World Bank 2018). The country’s global competitive ranking, which improved significantly from 50th in 2013 to 38th in 2014 and 34th in 2015, saw a setback in the 2015–2016 Global Competitiveness Report with a ranking of 37. For comparison, Singapore was ranked 2nd, Malaysia 18th, Thailand 32nd, the Philippines 47th and Vietnam 56th (World Economic Forum 2015a). In the 2017–2018 report, Indonesia now ranks 36th with Singapore ranked 3rd, Malaysia 23rd, Thailand 32nd, the Philippines 56th and Vietnam 55th.

Following improved household consumption and external demand (Asian Development Bank 2015b), real GDP growth was expected to rise again in 2016 to 5.1% (International Monetary Fund 2015, October) and estimated to be 5.5% in 2017 before rising to around 6% in 2020 (International Monetary Fund 2015, October; World Bank 2015b). The World Bank (2018) Global Economic Prospects reports real GDP growth for 2016 and estimates growth of 5.1% for 2017, 5.2% for 2018 and forecasts 2020 growth of 5.3%. The long term outlook is also positive, with predictions that Indonesia will be the 7th largest economy in the world by 2030 (Oberman et al. 2012) and the 4th largest by 2050 (Hawksworth and Chan 2015). Factors that are expected to facilitate this growth include Indonesia’s young population, rising urban and middle class populations, low national debt, abundant natural resources, regulatory reforms, increased macroeconomic stability and growth in infrastructure development (Austrade and DFAT 2015; Smith et al. 2015). However, reaching full economic potential will rely upon continued reforms in order to take advantage of the promising environment (World Bank 2014a).

Fig. 1.2 Indonesian GDP per capita in USD, 1980–2013. Source: World Economic Forum 2015b.
Under the master plan for the acceleration and expansion of Indonesia’s economic development — MP3EI — the Indonesian Government has set an adventurous target to become a member of the top ten global economies by 2025. This would mean that average GDP per capita would rise from USD 3,000 today to USD 15,000 and GDP per se — a heady USD 4.5 trillion (some five times the current GDP). It is intended to achieve this through a two-pronged process of acceleration and expansion. The process involves strengthening connectivity, not only throughout the archipelago but also the Association of Southeast Asian Nations (ASEAN) region.

1.3.1 Investment

Domestic consumption can no longer be relied upon as the core driver to reach Indonesia’s economic targets. The key to achieving the forecast growth will be an increase in foreign direct investment (FDI). With an expanding population, high consumption and enormous growth potential, Indonesia is well-placed as a favourable destination for many foreign investors. Indeed, foreign investment increased from USD 16.1 billion in 2010 to 24.5 billion in 2012 and 28.5 billion in 2014 (BKPM 2015) to 28.9 billion USD in 2016 (BKPM 2017a). Indonesia’s credit rating by global rating agency Fitch Ratings was also upgraded in 2012 and confirmed in 2014 to Investment Grade ‘BBB-/stable outlook’, in recognition of the country’s macroeconomic stability (KPMG Indonesia 2015; Fitch Ratings, 2014; Ho and Sapahutar 2017). However, the pace of FDI growth has slowed, with foreign investment realisation in January–September period up by a modest 14.6% in 2014, 16.8% in 2015 and a 12% increase in 2016, compared to increases of 26.1% and 22.4% in 2012 and 2013 respectively (BKPM 2015; Global business guide Indonesia 2015; BKPM 2017b). Despite the attractiveness of the region, there remain many disincentives to potential investors in Indonesia. These will be explored in the next chapter addressing challenges, risks and issues.

1.4 Infrastructure

For nearly two decades following the Asian economic crisis of 1997, both public and private spending on infrastructure in Indonesia was
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Fig. 1.3 Investment realisation of FDI 2012–June 2017 in USD per quarter.

Source: BKPM 2017b.

Notes:

- 2010, 2011 and 2012, exchange rate USD 1 = Rp 9,000
- 2013 (Q I and Q II), exchange rate USD 1 = Rp 9,300 (based on State Budget 2013)
- 2013 (Q III and Q IV), exchange rate USD 1 = Rp 9,600 (based on Revised State Budget 2013)
- 2014 (Q I, Q II and Q III) exchange rate USD 1 = Rp 10,500 (based on State Budget 2014)
- 2014 (Q IV) exchange rate USD 1 = Rp 11,600 (based on Revised State Budget 2014)
- 2015 (Q I, Q II, Q III and Q IV) exchange rate USD 1 = Rp 12,500 (based on Revised State Budget 2015)
- 2016 (Q I and Q II) exchange rate USD 1 = Rp 13,900 (based on State Budget 2016) — 2016 (Q III and Q IV) exchange rate USD 1 = Rp 13,500 (based on Revised State Budget 2016)
- 2017 (Q I and Q II), exchange rate USD = Rp 13,300 (based on State Budget 2017) (BKPM 2017b)

neglected. Underinvestment has left the country with both insufficient quality and quantity of roads, airports, railways and ports, with the current infrastructure being overcrowded, in poor condition and extremely inefficient. The resulting high costs of transportation and logistics contributed to Indonesia’s low ranking of 53rd out of 160 countries in the 2014 Logistics Performance Index (World Bank 2014b) and 63rd of 160 in 2016 (World Bank 2016b). The Indonesian Chamber of Commerce and Industry (KADIN Indonesia) stated that logistics
costs accounted for around 15% of Indonesia’s GDP, compared to 8–9% in surrounding ASEAN countries (KADIN Indonesia MP 2015). In addition, many Indonesian’s have only limited access to piped water, electricity, health care and education.

The Government of Indonesia has begun to address these issues, with increased spending over a number of years allowing the *infrastructure score* to improve from 3.7 (ranked 78th out of 144 nations) in 2012–2013 (World Economic Forum 2012) to 4.2 (ranked 61st out of 148 nations) in 2013–2014 (World Economic Forum 2013). However, this was still below the average score of the ASEAN nations (approximately 4.3) and did not improve in 2014 or 2015, with the country ranking 62nd out of 140 nations (World Economic Forum 2015a). However, in 2017 the infrastructure score increased slightly (4.5) with the current ranking of 52nd out of 137 countries on infrastructure (World Economic Forum 2017).

It has been emphasised by many observers that ongoing investment in infrastructure will be crucial for the maintenance of economic growth in Indonesia. With a growing population and increasing urbanisation, as well as global changes in climate, the demand for infrastructure development is ever increasing. Inefficiencies and high costs arising from poor connectivity present a major limitation both to the development of many industries and to attracting foreign investment. Upgrades to infrastructure, and in particular ports, will be necessary to take advantage of increased trade opportunities, especially with the formation of the ASEAN economic community (AEC) in 2015. Improvements will also help to raise quality of life, decrease the divide between rural and urban centres and reduce overall poverty.

One of the most significant and pressing issues for Indonesia is how the country is going to fund, finance and deliver the infrastructure necessary to underpin the economic growth and reform strategies for the country. Reform is required to overcome the major gap between the demand for, and the provision of, infrastructure. There are persistent difficulties in the areas of gaining approvals, finance, governance and project delivery that have resulted in poor project selection and poor project preparation (OECD 2012; Parikesit et al. 2012; Wibisono, Delmon, and Hahm 2011; Center for Infrastructure Development, 2012).

The World Bank and the OECD also identified the need for a unified voice to identify and support priority projects and to provide
guidance on best practice for the delivery of projects and the Indonesian government has responded through the establishment of the Public Private Partnership (PPP) centralised unit within the Ministry of Finance that works closely with the Directorate for PPP Development in the Indonesian National Development Planning Agency (BAPPENAS), the National Committee for the Acceleration of Infrastructure Provision (KKPPI) for policy formulation and the State Infrastructure Guarantee Company for PPP projects.

Growth centres and infrastructure development are considered the main building blocks of the proposed Indonesian economic corridors. ICT and transport infrastructure improvements in roads, seaports, airports, water, energy, power and social needs are critical, all of which require significant funds. The Indonesian government has estimated that it will only be able to provide approximately 35% of the funds required and that local and international finance is being sought to participate in infrastructure investments via the use of PPPs as alternative sources of development financing. Specific barriers to this plan remain as the current legal and regulatory regimes do not readily accommodate the PPP funding mechanism.

A recent news report related to attracting private funding for infrastructure in Indonesia noted that Indonesia is now sending delegations to China to attract private funds for infrastructure projects, according to the World Bank’s Private Participation in Infrastructure report. The report highlighted that Indonesia attracted USD 15 billion to 11 projects. In 2015 President Jokowi announced that more than USD 400 billion will be spent to accomplish 247 national strategic projects by 2019 (Roughneen 2017). Since President Jokowi took office in 2014, 30 of the projects — worth Rp 94.8 trillion (USD 6.7 billion) — have been completed (Himwan and Hapsari 2018; Ganesha 2018).

Research is required to develop and refine Indonesian infrastructure project procurement systems and to appropriately integrate these systems into processes and practice. This involves the development of an internationally attractive market; reform of internal project delivery processes; reform of legal and regulatory systems, reform such that an integrated and streamlined mechanism for infrastructure provision is developed that is appropriate not only for highly populated and developed regions such as West Java (Jakarta) but also for the balance of provinces across the archipelago.
Although there has already been major reform in how infrastructure is planned in Indonesia, the gap between demand and provision of infrastructure remains. Ongoing research into how infrastructure investment decisions should be made is required to inform the changes, advancements and reforms to infrastructure provision and management that are necessary. The next chapter focuses on Indonesian infrastructure planning, challenges and risks.

References


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Himawan, A and Hapsari, DK 2018. ‘Here is a list of 30 infrastructure projects that have been completed by Jokowi’, *Suara*, www.suara.com/bisnis/2018/04/19/150203/ini-daftar-30-proyek-infrastruktur-yang-telah-diselesaikan-jokowi


Rastogi, V, Tamboto, E, Tong, D and Sinburimsit, T 2013. Indonesia’s rising middle-class and affluent consumers: Demographic and regional shifts, BCG Henderson Institute, www.bcgperspectives.com/content/articles/center_consumer_customer_insight_consumer_products_indonesias_rising_middle_class_affluent_consumers/?chapter=3#chapter3


Smithsonian Institution 2015. Global volcanism program — the Indonesia region, volcano.si.edu

United Nations 2015a. World population prospects, the 2015 revision, esa.un.org/unpd/wpp/

United Nations 2015b. World urbanisation prospects, the 2015 revision, esa.un.org/unpd/wup/


