Asian Journal of Contemporary Education
ISSN(e): 2617-1252
DOI: 10.18488/journal.137.2018.22.159.172
Vol. 2, No. 2, 159-172
© 2018 AESS Publications. All Rights Reserved.
URL: www.aessweb.com

INDONESIA'S HIGHER EDUCATION: CONTEXT, POLICY, AND PERSPECTIVE

Volodymyr Kyrychenko[1]

[1]*Assistant to the Head of Special Project of LSPR Transpark Campus, The London School of Public Relations – Jakarta, Indonesia*
Email: kyrychenko.v@lspr.edu

Article History
Received: 29 May 2018
Revised: 6 August 2018
Accepted: 14 September 2018
Published: 10 October 2018

Keywords
Indonesian higher education
Internationalization
Globalization
Educational policy
Opening-up
Educational development.

ABSTRACT

The paper focuses on the current situation and domestic context of Indonesia's higher education system. It introduces trends, goals, and policies the government has issued to narrow the gap between domestic economic development and the challenges brought about by globalization. The author analyses the results the state has achieved as of today and examines problematic issues the country needs to pay attention to so that, the result, will bring Indonesia the desirable outcomes. This paper concentrates on a set of questions such as: What is the current higher education situation in Indonesia? What is the country's capacity to change its policy and to open-up? How does it relate to more general notions of Indonesia's education in the global perspective as well as from the perspective of the new-world-order? What are the main challenges? What is the plan of the Indonesian government to achieve educational goals?

Contribution/ Originality: This study is one of a very few studies which have investigated the nature of Indonesia's higher education at the governmental level. It explains Indonesian higher education's current context, issued policies and provides future perspectives based on personal communication with an expert staff.

1. INTRODUCTION

The current situation of the world order has changed. It involves different kinds of industries into the states' changing nature of goals and policy, including higher education. Political and socio-economical contexts such as the Trump factor or nationalistic movements have influenced the shift from one set of collaborations between countries to others (Hazelkorn, 2017; Wende, 2017). China's manifestation in higher education creates a balance in the world and motivates the Asian region to be proactive too. This especially relates to Southeastern countries that have to increase their level of education to achieve bigger economic results and development. All countries have different policies and practice different levels of internationalization. Indonesia, thus, has started to recognize the importance of education and this has led the government to change its education policies. Along with other Asian countries, the state follows International Relations theory (IRT) developed in the West and produces scientific papers based on the citation of western sources. In contradiction to this, Indonesia relies on the western education model but still limits and restricts foreign universities' abilities to be active in the country. This explains the lack of scientific

© 2018 AESS Publications. All Rights Reserved.

outcomes, not enough investment, low-level internationalization and underdeveloped statistical data. In other words, the Indonesian model is quite weak, and it needs to be re-structured and re-reformed.

From 2018, the Ministry of Foreign Affairs announced its plans to educate the new generation of Indonesianists where Indonesia recognizes the trend of higher education as a driver and plays a significant role in internationalization which can be one of the approaches to achieve economic goals.

This paper will, thus, focus on Indonesia's higher education in the domestic context and in the context of globalization. A set of questions will be discussed: What is the current higher education situation in Indonesia? What is Indonesia's capacity to change the policy and to open up, and how does it relate to more general notions of Indonesia's higher education in the global perspective as well as in the perspective of the new-world-order? What are the main challenges? What is the plan of the Indonesian government to achieve educational goals? □

Data was collected through literature review, official documents, and governmental policies. The main personal interview was undertaken in Jakarta, Indonesia, with John I. Pariwono, Expert Staff to the Directorate for Human Resource Qualification, the Ministry of Research, Technology and Higher Education (MoRTHE), May 2018. □

2. INDONESIAN HIGHER EDUCATION SYSTEM IN THE CONTEXT

Indonesia has one of the largest and diverse education systems. The country is a new emerging tiger in the Association of Southeast Asian Nations (ASEAN) economies that needs to improve its innovation performance. The government has re-organized MoRTHE to improve the cost-effectiveness of its research budgets as well as to make research more transparent and credible (GBGI, 2016).

Its current situation is changing due to economic goals as the main driver as mentioned in the "Master Plan Acceleration and Expansion of Indonesia Economic Development 2011-2015" (ASEAN Briefing) (The World Bank, 2014). The government plans to achieve a new level of economic development by 2025 through the development of quality human resources. This means that access to education and employment issues is a priority. The growth of education will create job placements that will lead to economic growth, therefore, Indonesia needs to move towards a knowledge-based economy to establish high-quality education to prepare a highly skilled workforce ensuring fast economic growth. High level and quality education mean academic education programs (university research centers), vocational (skilled graduates), and professional education programs as well as the adoption of human resources according to the development of science and technology (S&T).

Collaboration with international universities has taken place since 2008. The number of such collaborations increases from year to year. The top ten collaborations are with the USA (16.79%), Japan (13.16%), Australia (8.53%), Germany (7.16%), UK (6.72%), Singapore (5.45), Italy (4.9%), Netherlands (4.83%), Switzerland (3.59%) and France (3.37%) (Nature Index, 2018). However, questionable is the collaborative results and achievements because even after the issue of the new "2012 Higher Education Act" (2012), collaboration with foreign universities remains challenging. There are several reasons for this – firstly, there may be a high level of influence on Indonesia's higher education system from a foreign collaboration that would impact on the nationalistic and religious regime; secondly, the presence of foreign branches, campuses, etc. can challenge the function of local universities (Global Business Guide Indonesia, 2014). Nonetheless, there is still a way for foreign universities to collaborate with Indonesian institutions, for example, a double degree model, in this case, the foreign university has a license from a local university. According to DIKTI (MoRTHE), the second diploma from the foreign university is not recognized in the territory of Indonesia but it is recognized outside of the country.

The Indonesian government needs to control its level of unemployment and increase the education level of its workforce to decrease the gap between demand and skills to become a middle-income economy. The government should be more open to the role of foreign education institutions and the Indonesian private sector to enable it to achieve its education policies according to its political economic goals (Council on Foreign Affairs, 2016).

© 2018 AESS Publications. All Rights Reserved.

Furthermore, the lack of an educated labor force leads to a lack of business development and impacts economic growth and Indonesia's potential.

2.1. Higher Education System with Indonesian Characteristics

The political system of Indonesia is a democracy but with Indonesian characteristics. This is explained by the historical influence of the Dutch colonization and the relationship between the government and society nowadays with the same situation in the field of education. The government follows the western model of the education system but with Indonesian characteristics because policy did not enable foreign institutional bodies to complete activities in Indonesia till 2008 or even later (if referred to the level of internationalization and scientific outcomes).

Internationalization progress is quite slow as well as research and development (R&D) which has limitations due to the lack of English written papers, research collaboration, etc. which relates to institutional autonomy. Despite implemented policies such as, the "2012 Higher Education Act" which was targeted to promote internationalization and to encourage foreign universities to enter the country, the education system is still based on national education limiting international campuses, joint degrees, and teaching programmes (GBGI, 2012; Nikkei Asian Review, 2015).

In July 2012, the "Higher Education Act" provided universities with greater power and autonomy over their management, curriculum and use of resources in order to promote internationalization of education and encourage the entrance of foreign universities into the Indonesian education market. After the law was implemented, there was a shift in the relationship between the government and institutions from top-down to down-top. However, the inequality in education that varies from island to island and the poor number of scholarships and research collaborations show that the policy is not as effective as it is supposed to be. It reveals contradictions between estimated policy and practice in reality. An institution's autonomy is very significant and important for such a large country as Indonesia and this explains the limitations of the existing level of education. It is also designed to make the country's higher education institutions more accountable for their academic results to existing and potential students for a more competitive educational marketplace in Indonesia. In this regard, the value of autonomy creates a competitive environment for Indonesian education and will reduce the gap between the demand and needs of students (World Bank, 2014a). Additionally, the lack of autonomy influences the development of scientific and research outcomes from a financial support and human resource perspectives (WB, 2014a).

3. MAIN HIGHER EDUCATION ACHIEVEMENTS AND UNCERTAINTIES

From 2008, Indonesia should have opened up its education system to foreign institutions, however, in reality, this was not the case because the government needed to improve its situation in various crucial fields, most importantly, funding, research, and internationalization. This indicates that Indonesia is at the development crossroads (WB, 2014b). The range of uncertainties or challenges of higher education in Indonesia is determined by various factors:

3.1. Investments

Official source (Statistics Indonesia, 2017) indicates that the educational budget of 2010-2017 influenced the development of education. It was achieved by improving equitable access, quality, relevance, and competitiveness. The budget allocation function of education reflects the government's efforts to provide public services in education and as part of efforts to fulfill the constitutional mandate. Since 2009, the education allocation should have been at least 20% of the state budget or a "20 percent rule" (WB, 2014a).

Since 2010, the Indonesian government has spent in average 20% of its budget on education according to its annual budget allocation. Last year, in 2017, the amount of budget money exceeded IDR 4 trillion (416,1 trillion rupiahs). This is half of the budget spent in 2010 – 225,2 trillion rupiah (SI, 2017) (Figure 1).

© 2018 AESS Publications. All Rights Reserved.

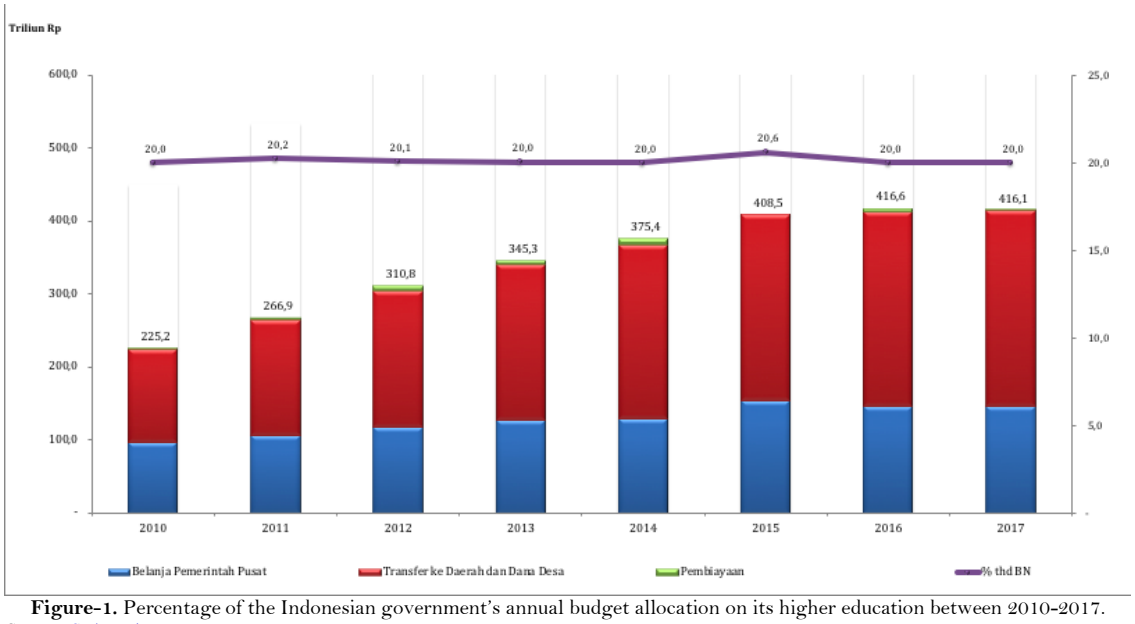

Figure-1. Percentage of the Indonesian government's annual budget allocation on its higher education between 2010-2017.
Source: SI (2017)

In 2012, the biggest expenditure by the government was on higher education at 0.59% while during the period 2013 – 2014 the rate decreased to 0.55% (2013) and 0.5% (2014) (Roser and Ortiz-Ospina, 2018) (Figure 2):

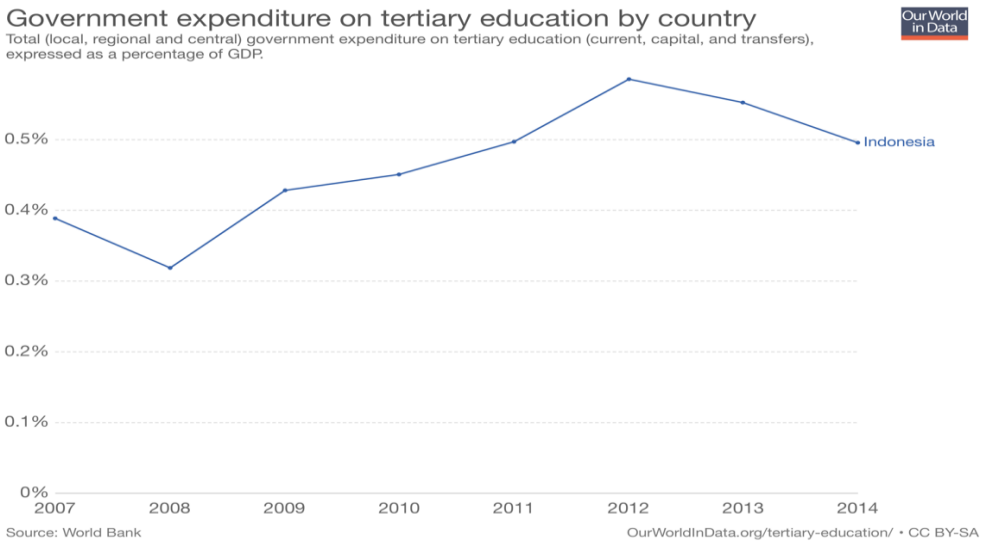

Figure-2. Percentage of expenditure by the Indonesian government on higher education between 2007-2014.
Source: Roser and Ortiz-Ospina (2018)

The mechanism of Indonesian government budget allocation for higher education is based, at least, on two modalities. First, from its annual budgetary system distributed to its ministries, where MoRTHE receives the bulk of its budget. Second, from the education endowment fund, which is administered by the Ministry of Finance. DIKTI scholarships are funded through the first modality, whereas the LPDP scholarships (scholarships launched by the Indonesian government) are funded through the second modality (Pariwono, personal communication, May 2018). On March 30, 2016, Indonesia launched the Indonesian Science Fund (Dana Ilmu Pengetahuan Indonesia, DIPI) for the development and improvement of Indonesia's capacity in science and technological innovations. The main target was to raise funds from the government and business, as well as the private sector (Desyani, 2016). In doing so, the state is building Indonesia's global competitiveness through sustainable financial infrastructure.

© 2018 AESS Publications. All Rights Reserved.

An issue of Indonesian higher education is the lack of collaboration with private companies which could invest in education development by increasing needed labor force and at the same time, reducing the problem of the unemployment rate which was 5.6% - 5.5% in 2016 – 2017 (Indonesia-Investments, 2016; Statista, 2018).

3.2. Research Outcomes

Indonesia is the fourth-largest country in the world with a population of over 250 million people but with a low illiteracy rate. During the period between 1996 and 2017, Indonesia ranked 52 in the world in terms of the number of papers published in peer-reviewed journals (SJR – Scimago Journal & Country Rank, 2018). Moreover, around 74% of Indonesian scientific projects are internationally driven due to funding constraints (DIPI, 2016). Indonesia is not in the list of countries of its size and resources in the measures of national productivity for S&T. The main reason for this is the lack of investment or irrationally allocated budgets.

The research reveals that business sector investments impact the development of higher education. For example, in successful countries such as Singapore, the USA, or Israel the expenditure on investments comes largely from the business sector rather than from the spending % of GDP. Fraser (2013) claims that if Indonesia wants to achieve its economic goals, it must reduce its poverty rate and increase the number of entrepreneurs to 2% of the population by 2025. Western Europe is still a leader in terms of % of GDP (2.4%), and of world researchers (39.7%) while East Asia and the Pacific are becoming closer by consisting of 2.1% of GDP and 38.5% of world researchers.

Currently, the Indonesian budget for R&D spending is less than 0.1% of GDP. In total, the budget for PPP is US$ 2,130.3M. Most of the money comes from the government sector at $839,164.9K, then from universities $744,041.5K, and finally from the business sector $541.051.0K (UNESCO – Institute for Statistics, 2017).

The Global Innovation Index (2017) shows that Indonesia is ranked ninety-two in terms of human capital and research. Statistics prove that expenditure on higher education directly influences the gross enrollment figure in higher education institutions. For example, in 2017, the expenditure index on education was 3.3% of GDP with the gross tertiary enrolment of 31.1% while, in 2015, expenditure on education was 3.6%, therefore, the gross enrolment was higher at 31.5% respectively. In the period between 2015 and 2017, the percentage of graduates in science and engineering (S&E) remained the same at 21.7% while R&D has decreased from 11.9% (2015) to 8.1% (2017) with the same gross 0.1% expenditure of GDP on R&D in comparison to previous years.

Globally, Indonesia is not in the top 50 countries which have produced research outputs according to the "Nature Index" 2018. China impressively takes the second position with 10,718 articles between 2016 and 2017 behind the USA. Among Asia and Pacific countries, Indonesia is in 12th position with a decreasing rate of -1.9% between 2014 and 2015. There were only 47 papers published between March 2017 and February 2018 – 7 from Universitas Hasanuddin (UNHAS), 7 – Bandung Institute of Technology (ITB), 3 – University of Indonesia (UI), 18 – Indonesian Institute of Sciences (LIPI) (Nature Index, 2018). In the regional context, ASEAN region specifically, the number of international publications of Indonesian scientists has increased significantly – from being in 4th position (behind Malaysia, Singapore, and Thailand) to 3rd position surpassing Thailand for the first time (Pariwono, personal communication, May 2018).

Although, since 2012, education policies have targeted universities to go international, the number of international collaborations decreased in 2017 (21.35%) in comparison to 2004 (74.44%) and 2012 (53.85%) which influenced an increasing rate of self-cited papers in 2017 (2134) (SJR, 2018) (Figure 3). This might indicate that Indonesia sees self-citation as a marketing strategy to promote scientific research of the country.

© 2018 AESS Publications. All Rights Reserved.

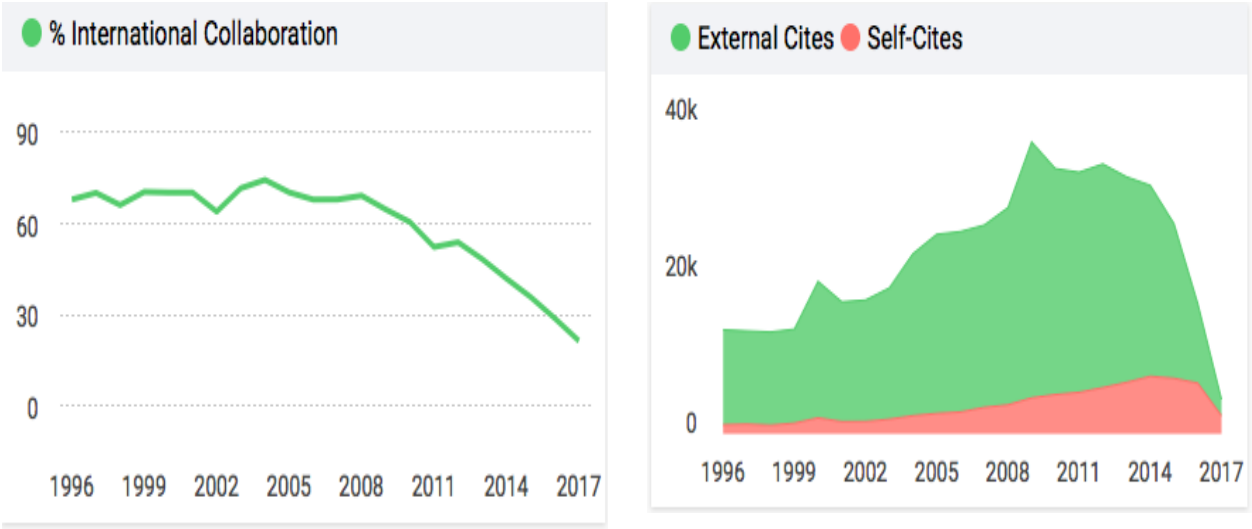

Figure-3. The decrease in the number of international collaborations led to an increase in self-cited papers between 2011-2017.
Source: SJR (2018).

The most cited documents in 2017 by subject area are Engineering (6483), Computer Sciences (4362), Physics and Astronomy (4222), Social Sciences (2024), Mathematics (1917), etc. (SJR, 2018).

MoRTHE agrees that Indonesia lacks researchers and, additionally, Indonesia does not have the financial infrastructure in place to support S&T. Furthermore, current Indonesian fiscal laws and regulations discourage sustainable and competitive research programs. Opening-up is visible but still contradictory. For example, at the turn of this century, there were only 116 permits for foreigners conducting research while in 2015 there were 512 permits. Calculating from the total population, Indonesia still requires 200,000 researchers while there are only around 24,000 (Rochim, 2016). This is around 89 researchers per million with an uneven gender percentage of 69% male and 31% of female researchers (UNESCO, 2017). The plan to improve scientific outcomes has already been implemented. Since 2012, the Directorate General of Higher Education, Ministry of Education and Culture, has issued a decree stating that it is compulsory for all in-country postgraduate students to publish their research findings in international or national accredited journals. In-country doctoral candidates have to publish at least one article from their doctoral research findings in a reputable international journal; whereas a masters' candidate must publish at least one article from their research findings in a national (Indonesian) accredited journal (Pariwono, personal communication, May 2018).

3.3. Internationalization

The current shift in politics defines "globalization" as a process of risks and crises rather than opportunities and chances (Knight and Wit, 1997; Wende, 1997;2002; Knight, 2004; Huang, 2007a;2007b; Mitchell and Nielsen, 2012; Wende and Zhu, 2016). All catalysts such as competitiveness, student mobility, ranking (prestige) make states practice internationalization approach as a response (Gacel-Ávila, 2005). In doing so, countries adopt an education environment (including curriculum) according to international standards, establish branches, create as many international collaborations as possible. So, "globalization" is a borderless and general picture of the global village which countries cannot avoid (Vidovich *et al.*, 2007). For this reason, "internationalization" is a response of states to resist these determinants provoked by globalization to succeed in developing and sustaining the education environment (Knight and Wit, 1997). One of the most important issues states have to be concerned with while practicing an internationalization approach is the domestic context which differs from country to country. This makes the internationalization process dependent on a country's concrete borders, for example, states have to rely on the level of their socio-cultural, economic and political development. Internationalization may have characteristics, for example, internationalization with Chinese characteristics or internationalization with

© 2018 AESS Publications. All Rights Reserved.

Indonesian characteristics (Kyrychenko, 2017). However, this does not disrupt "internationalization" as an international notion based on international standards but defines that the country understands "internationalization" based on its local situation and development.

"Internationalization" for Indonesian higher education means that Indonesia will "go international" in every aspect of higher education, for example, its quality and standards of an education system, research activities, and outputs (graduates) (Pariwono, personal communication, May 2018). □

In December 2017, the Ministry of Foreign Affairs called for a new generation of Indonesians during the panel discussion on "Preparing for World Indonesianists: Role of Generation Z". The Vice-Minister of Foreign Affairs, Abdurrahman Mohammad Fachir, put forward the problem of the education of the new generation Z. The audience participants were foreign students and international people who consider themselves Indonesianists. The Ministry of Foreign Affairs has used this term generally for those who have an interest in the country. Their potential role is as a "bridge" between their home institutions and Indonesian higher education institutions. In this case, the knowledge and interests in Indonesian affairs of educated Indonesians or the new generation Z would make the collaboration process more seamless (Pariwono, personal communication, May 2018).

There are a number of ways that the Indonesian government has chosen to have a new cohort of Indonesianists (Pariwono, personal communication, May 2018):

First, through faculty mobility or exchange. Since 2016, MoRTHE has launched a program called "Visiting World Class Professors". The aim of this program is to invite world-class professors from any part of the world who are interested and willing to come to Indonesia to collaborate in research and publication with faculty members from Indonesian higher education institutions for a certain period of time. In this case, the Indonesian government will cover the cost of international travel, health insurance, honorarium, and local accommodation. The quota for 2018 is 40 professors.□

Second, by providing scholarships for foreign students to obtain degrees from respective Indonesian universities. This program was launched at the beginning of the 21st century, partially to cater for Indonesian "south to south cooperation" policy. The quota for this program is around 50 per annum.

Third, by providing fellowships for Indonesian faculty members who are invited by overseas higher education institutions to become visiting lecturers in their departments of Asian Studies, in Indonesian subjects such as the Indonesian language, Indonesian culture, and Indonesian performing arts. This fellowship provides international travel, health insurance, and living allowance, for the Indonesian faculty invitees.

The quality of education is, first of all, academic rigor, faculty qualification and the outcomes of the quality assurance process (WB, 2014a). Comparing a statistical number of masters' graduates and Ph.D. graduates, it is clear that the gap is huge. The "Higher Education Statistical Year Book 2014/2015" of Indonesia (2016) shows that the number of enrolled doctoral students (S3) was 22,182 in 2014/2015 in public and private universities jointly while the number of students enrolled in masters' programmes (S2) was 258,407 in the same years. The number of masters' graduates was 56,354 from private and public universities while the number of doctoral graduates was 2,678 only (Higher Education Statistical Year Book 2014/2015, 2016) (Figure 4):

© 2018 AESS Publications. All Rights Reserved.

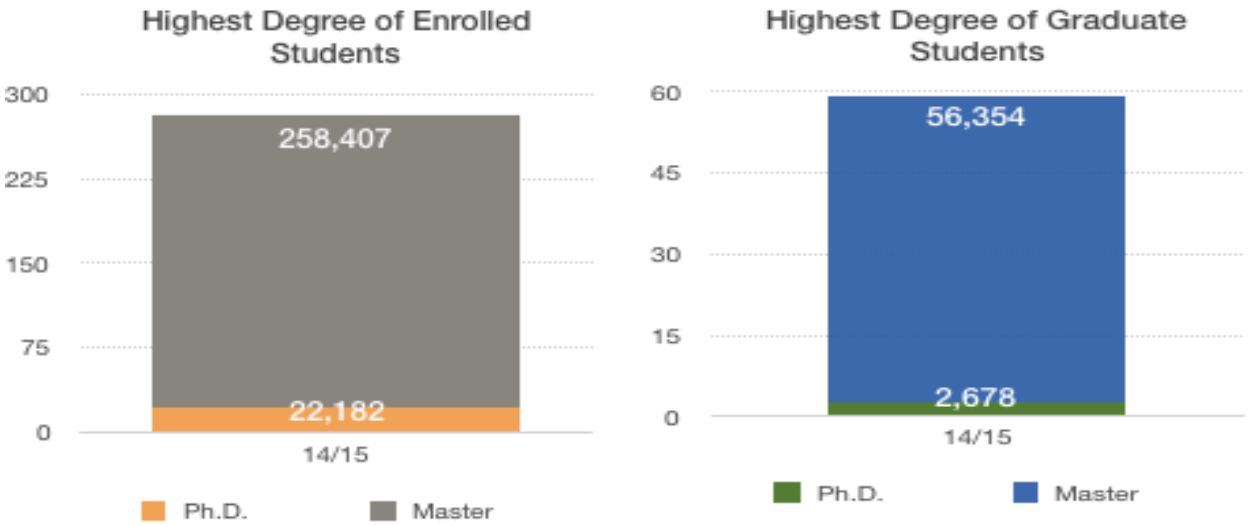

Figure-4. The number of enrolled students and graduates from S2/S3 in 2014/15 academic year.
Source: Higher Education Statistical Year Book 2014/2015 (2016).

In 2012/2013 the number of full-time lecturers with a doctoral degree was 18,191 while the number of lecturers with masters' degree was 99,594 (Center for Educational Data and Statistics, 2013). In 2011/2012 the number of higher education teachers with the highest doctoral degree was 16,523 while with masters' degree 84,330 (WB, 2014a) (Figure 5):

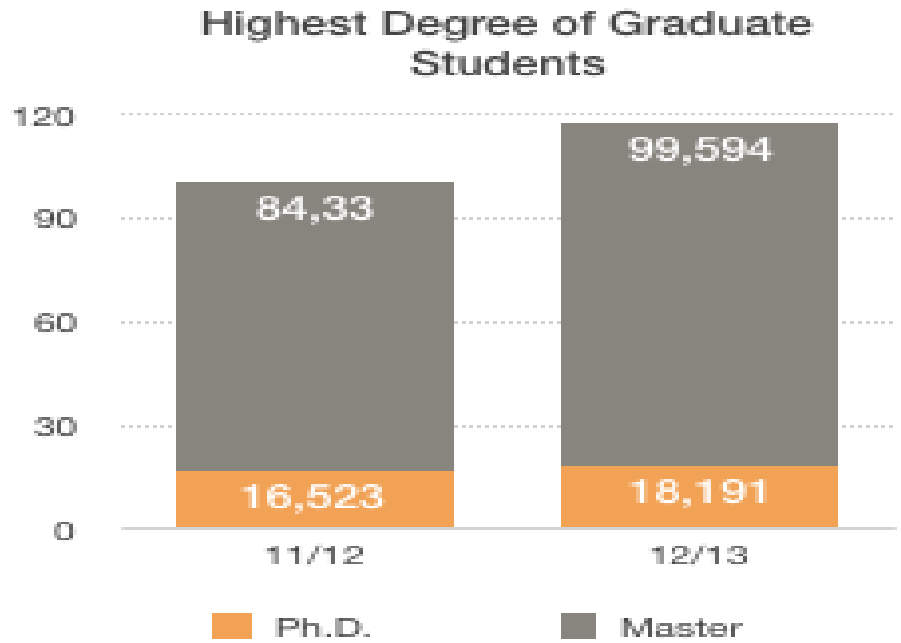

Figure-5. The number of graduate students from S2/S3 between 2011/12 and 2012/13 academic year.
Source: CEDS (2013); WB (2014a).

The reality shows that lack of institutional autonomy leads to constraints in educating a scientific generation of Indonesian graduates. For this reason, the main priority of the government is to upgrade Indonesian faculty members who have only a masters' degree to have a Doctoral degree. Currently, the percentage of faculty members with a masters' degree is approximately 55% (Pariwono, personal communication, May 2018).

Recently, in 2018, the Indonesian government announced that the main target countries to send Indonesian students to are China and the United States (Pariwono, personal communication, May 2018). However, there are no limitations on Indonesian students to choose other preferred countries for their studies. Ideally, Indonesia's target is to become the host for international students as well as its target to stand equal to other countries in education

© 2018 AESS Publications. All Rights Reserved.

and research fields. In 2016, there were 9,304 Indonesian students studied in the USA meanwhile China hosted 14, 714 students from Indonesia in 2017 (Institute of International Education, 2018; UNESCO, 2018).

In 2012, there was only a 0.12% share of international students from abroad and 0.57% of Indonesian students went to study abroad (2012). This show an unequal rate between Indonesia as a host for international students and the country's outgoing international strategy (Roser and Ortiz-Ospina, 2018) (Figure 6).

Figure-6. The share of international students studying in Indonesia between 2005-2012.
Source: Roser and Ortiz-Ospina (2018)

In 2018, the position of Indonesian universities in world rankings has improved. The University of Indonesia placed 277, Institute of Technology (Bandung) 331, and Gadjah Mada University 391 in QS World University Rankings. In Times Higher Education World University Rankings and Academic Ranking of World Universities the data is non-identified (Rosser, 2018). The low achievement in rankings is explained by the existing lack of institutional autonomy, students' critical thinking skills and limited teaching methodologies which impact the internationalization and scientific outcomes of tertiary institutions. A typical lesson in the university uses lesson materials based on PowerPoint presentation without using references. In this case, students' perception is limited because they do not go into detail, do not look at additional sources, do not checkbooks. This means that students lack curiosity which is a prerequisite for being scientific. For this reason, the development of new ways of methodologies and methods of teaching is needed. In doing so, local scholars will understand the role of tertiary education institutions to serve their functions to educate society according to the country's development and demands.

Today, the world situation of higher education has improved and the number of students completing a degree is expected to grow. There is a world demand for qualified and professional skills and, more so, understanding the importance of both developing and developed economies is prominent. Thus, Indonesia's projection is growing respectively. The demand of a population with higher education degrees is estimated to move from 8.16% (2010) to 10.33% (2020), 12.85% (2030), 15.55% (2040), and to 18.58% by 2050 (Roser and Ortiz-Ospina, 2018) (Figure 7):

© 2018 AESS Publications. All Rights Reserved.

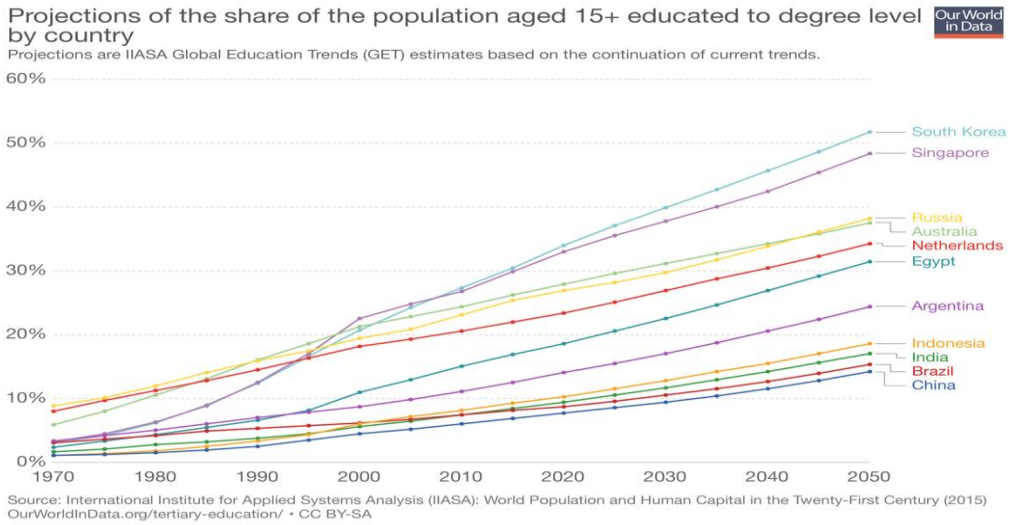

Figure-7. The projection of future demand in higher education among the Indonesians.
Source: Roser and Ortiz-Ospina (2018)

Understanding the importance of obtaining higher education and to come up with a policy to achieve economic goals and sustainable development is not only at the governmental level, but, according to predictions, at the national level as well. In this case, the projection shows that it is possible. Starting at the beginning of the century, there were only 8,88 million people with tertiary education out of the overall population (213,06 million people). Until 2015, the number increased dramatically consisting of 17,45 million out of an overall population of 252,87 million people. Respectively, the graph below shows that the population with no education is decreasing while the number of people with higher education is increasing. By 2050, it is estimated to reach 45.51% with a growth rate in the population to 289,06 million people (Roser and Ortiz-Ospina, 2018) (Figure 8):

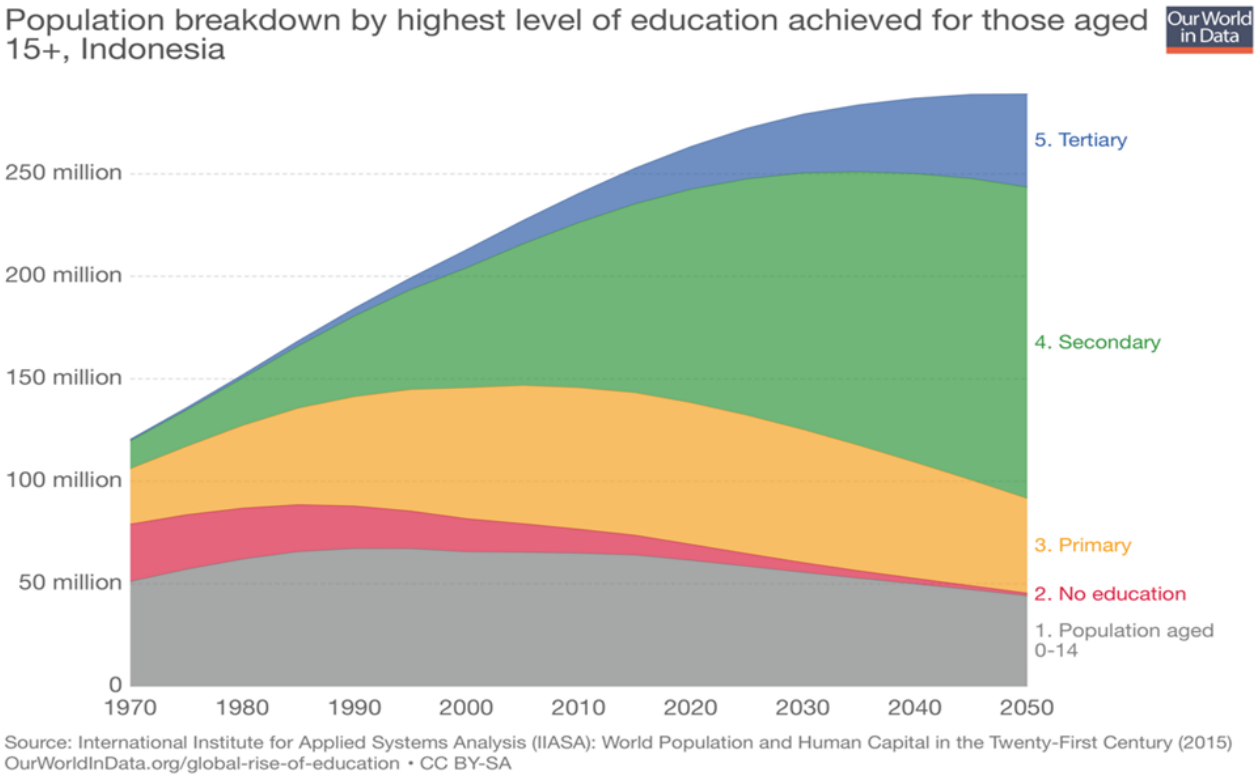

Figure-8. The number of estimated population with the tertiary education in Indonesia.
Source: Roser and Ortiz-Ospina (2018)

© 2018 AESS Publications. All Rights Reserved.

Higher education is a trend and the demand for education is growing. It is already becoming a norm, so 65% of world adults are expected to enter university for the first time in 2015 (OECD, 2017). Results show that countries with educated nations have better economic outcomes.

4. FUTURE AGENDA

The analysis based on the statistical data, governmental policy and an interview reveals that the year 2018 is the first round of Indonesia's higher education opening-up. In this regard, MoRTHE is developing new, more relevant, policies according to global or international standards. In doing so, the government will improve the level of education in terms of quality assurance, marketing strategy, education outcomes (research and graduates), and other dimensions. At the education level, the target is not only to educate a world generation of Indonesianists but also to become a host country for research and education. Based on this, there is a demand that Indonesia's higher education carries out a lot of improvements in the future.

First of all, universities should have more autonomy with open access for the young generation and scholars – locals and foreigners – to materials and research projects. It is still a problem for universities to propose good and free access in libraries and research centers which exist physically, but do not function, therefore, do not have any fruitful outcomes.

English-taught programs need to be established and more universities in Indonesia are willing to open them to attract exchange students. Education should be delivered not only for students but for teachers as well. In the field of higher education, it is called *lifelong learning*, the aim of which is to educate people continuously to bridge the gap between developments and needs. Furthermore, websites, books, and teaching materials have to be translated into (at least) English language.

The government has to give more consideration and provide detailed policy towards the development of new branches, faculties, collaborations with private or business sector, and research centers, etc. at institutional level and respectively to figure out a set of improvements to increase the rate of R&D, S&T, S&E, and student mobility at national level. This will bring new results and will lead to a better image and reputation for Indonesia's higher education. Detailed policy analysis and suggestions for improvement can be found in the full report prepared by WB (2014a).

5. CONCLUSION

Indonesia is on its way to open up its economy and higher education to the world. This is a very significant step that will determine the future of the country and its nation. As this is only the beginning, the Indonesian government has a lot of work to do to move forward. Above all, there is already a clear and distinct understanding of "internationalization" according to its domestic context. This will help the government to establish relevant policy for future development to identify economic goals. Indonesian higher education has very Indonesian characteristics such as top-down relations, foreign activities restrictions, etc. It demands re-orientation and adaptation of policy regarding the goals.

The opening-up policy started from 2008, was revised in 2012 (the "2012 Higher Education Act"), and now, in 2017/18, the government provides more scholarships, fellowships, and creates better conditions for students and lecturers. Additionally, Indonesian universities are trying to establish more research collaborations to increase their world rankings and to have the status of a prestigious educational institution. Indonesia has the potential and all the resources to do this. The research reveals that policy is established rationally and according to the country's needs and demands. MoRTHE gives support, but still with some limitations and restrictions. The situation might change significantly if the country's target is to reach economic goals by 2025. To do this, Indonesia needs more educated and skilled personnel. Funding and budget allocations are improving but with limitations in respect of collaboration with the private sector.

© 2018 AESS Publications. All Rights Reserved.

It is too early to claim that Indonesia has reached significant results in its higher education industry now. However, the state is improving in all dimensions such as stable economic growth, good reputation among the ASEAN Community by taking the leading position, and so on. Indonesia has established a good foundation for the development of education and, therefore, to become a knowledge-based and middle-income economy. Having one of the largest higher education systems in the world, Indonesia has the potential to become an equal player in higher education globally alongside such countries as India and China. This is due to the world shift in Asia-Pacific with the rise of China and political issues in Europe and the USA.

Based on the analysis of the interview and data used in this research, Indonesia views itself as a very successful country with high quality higher education. It plans not only to send students to the USA and China but to become a host country as well. However, based on the perspective of such results and preferred level of higher education development, Indonesia could achieve this within a 10 to the 20-year time frame, by the assumption of Ceteris Paribus.

Funding: This study received no specific financial support.
Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.

REFERENCES

Center for Educational Data and Statistics, 2013. Indonesia education statistic in brief 2012/2013. Ministry of Education and Culture. Retrieved from http://publikasi.data.kemdikbud.go.id/uploadDir/isi_9558997B-17EA-456E-910D-D846A6095B15_.pdf.

Council on Foreign Affairs, 2016. Indonesia's education gap. Available from https://www.cfr.org/blog/indonesias-education-gap.

Desyani, A., 2016. Indonesia launched its first funding agency for fundamental and frontiers research. Indonesian Science Fund. Retrieved from https://www.dipi.id/indonesia-launched-its-first-funding-agency-for-fundamental-and-frontiers-research/.

DIPI, 2016. Indonesian Science Fund. Indonesian Science Fund. Retrieved from http://dipi.id/download/Infografis-DIPI-2016-ENG.pdf.

Fraser, K., 2013. Is Indonesia producing enough business graduates to assist its development aspirations? Industry and Higher Education, 27(2): 85-88.Available at: https://doi.org/10.5367/ihe.2013.0148.

Gacel-Ávila, J., 2005. The internationalisation of higher education: A paradigm for global citizenry. Journal of Studies in International Education, 9(2): 121-136.Available at: https://doi.org/10.1177/1028315304263795.

GBGI, 2012. Indonesia's higher education act 2012. Available from http://www.gbgindonesia.com/en/education/article/2012/indonesia_s_higher_education_act_2012.php.

GBGI, 2016. Second class: Indonesia's higher education sector in need of reform. Available from http://www.gbgindonesia.com/en/education/article/2016/second_class_indonesia_s_higher_education_sector_in_need_of_reform_11590.php.

Global Business Guide Indonesia, 2014. After the 2012 higher education act; where are the foreign universities? Available from http://www.gbgindonesia.com/en/main/business_updates/2014/upd_after_the_2012_higher_education_act_where_are_the_foreign_universities_.php.

Global Innovation Index, 2017. Available from https://www.globalinnovationindex.org/gii-2017-report.

Hazelkorn, E., 2017. Rankings and higher education: Reframing relationships within and between states. Centre for Global Higher Education. Retrieved from http://www.researchcghe.org/perch/resources/publications/wp19.pdf.

Higher Education Statistical Year Book 2014/2015, 2016. Ministry of research, technology and higher education of the Republic of Indonesia. Available from https://www.ristekdikti.go.id/wp-content/uploads/2016/11/E-Book-Statistik-Pendidikan-Tinggi-2014-2015-revisi.pdf.

© 2018 AESS Publications. All Rights Reserved.

Huang, F., 2007a. Internationalization of higher education in the developing and emerging countries: A focus on transnational higher education in Asia. Journal of Studies in International Education, 11(3-4): 421-432.Available at: https://doi.org/10.1177/1028315307303919.

Huang, F., 2007b. Internationalisation of higher education in the era of globalisation. Higher Education Management and Policy, 19(1): 1-15. Available at: https://doi.org/10.1787/hemp-v19-art3-en.

Indonesia-Investments, 2016. Unemployment rate Indonesia falls to 5.5% of labor force. Available from https://www.indonesia-investments.com/news/todays-headlines/unemployment-rate-indonesia-falls-to-5.5-of-labor-force/item6788.

Institute of International Education, 2018. Research and insights: Current infographics. Available from https://www.iie.org/Research-and-Insights/Project-Atlas/Explore-Data/Current-Infographics.

Knight, J., 2004. Internationalization remodeled: Definition, approaches, and rationales. Journal of Studies in International Education, 8(1): 5-31.Available at: https://doi.org/10.1177/1028315303260832.

Knight, J. and D.H. Wit, 1997. Internationalisation of higher education in Asia pacific countries. Amsterdam: European Association for International Education.

Kyrychenko, V., 2017. China's state policy towards internationalization of higher education in the 21st -century. Thesis, Higher School of Economics.

Mitchell, D.E. and S.Y. Nielsen, 2012. Internationalization and globalization in higher education. Globalization-Education and Management Agendas, 22(s3): 3-22.

Nature Index, 2018. Available from https://www.natureindex.com/country-outputs/indonesia.

Nikkei Asian Review, 2015. For Indonesian higher education, it's time to grow up. Available from https://asia.nikkei.com/Viewpoints-archive/Perspectives/For-Indonesian-higher-education-it-s-time-to-grow-up.

OECD, 2017. Education at a glance 2017: OECD indicators. Paris: OECD Publishing.

Rochim, M., 2016. The ministry of research, technology and higher education's break through for research mechanism in Indonesia. Ministry of Research, Technology and Higher Education of the Republic of Indonesia.

Roser, M. and E. Ortiz-Ospina, 2018. Tertiary education. Available from https://ourworldindata.org/tertiary-education.

Rosser, A., 2018. Beyond access: Making Indonesia's education system work. Lowy Institute. Retrieved from https://www.lowyinstitute.org/publications/beyond-access-making-indonesia-s-education-system-work

SJR – Scimago Journal & Country Rank, 2018. Country rankings 1997-2017. Available from https://www.scimagojr.com/countryrank.php.

Statista, 2018. Indonesia: Unemployment rate from 2007 to 2017. Available from https://www.statista.com/statistics/320129/unemployment-rate-in-indonesia/.

Statistics Indonesia, 2017. Education budget 2010-2017. PAPBN Directorate, Ministry of Finance. Available from https://www.bps.go.id/statictable/2017/08/18/1967/data-anggaran-pendidikan-2010-2017-dari-direktorat-papbn-kementrian-keuangan.html.

The World Bank, 2014. World bank and education in Indonesia. Available from http://www.worldbank.org/en/country/indonesia/brief/world-bank-and-education-in-indonesia.

UNESCO – Institute for Statistics, 2017. How much does your country invest in R&D? Available from http://uis.unesco.org/apps/visualisations/research-and-development-spending/.

UNESCO, 2018. Global flow of tertiary-level students. Available from http://uis.unesco.org/en/uis-student-flow.

Vidovich, L., R. Yang and J. Currie, 2007. Changing accountabilities in higher education as China 'opens up'to globalisation. Globalisation, Societies and Education, 5(1): 89-107.Available at: https://doi.org/10.1080/14767720601133447.

WB, 2014b. Indonesia's higher education system: How responsive is it to the labor market? Washington, DC. Available from https://openknowledge.worldbank.org/handle/10986/20017.

Wende, M., 1997. Missing links. The relationship between national policies for internationalisation and those for higher education in general. National policies for internationalisation of higher education in Europe. Stockholm: National Agency for Higher Education.

© 2018 AESS Publications. All Rights Reserved.

Wende, V.D.M., 2002. Higher education globally: Towards new frameworks for research and policy. Cheps Inaugurals: 26-69.

Wende, V.D.M., 2017. Opening up: Higher education systems in global perspective. ESRC/HEFCE Centre for Global Higher Education Working Paper Series, 22: 1-27.

Wende, V.D.M. and J. Zhu, 2016. China: A follower or leader in global higher education? , UC Berkeley: Center for Studies in Higher Education.

World Bank, 2014a. Tertiary education in Indonesia: Directions for policy. Available from http://documents.worldbank.org/curated/en/105061468044074141/pdf/893010WP0P12940olicy0Paper0June2014.pdf.

Views and opinions expressed in this article are the views and opinions of the author(s), Asian Journal of Contemporary Education shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.

© 2018 AESS Publications. All Rights Reserved.