

## **Supporting Indonesia's Tertiary Education – Cover Note**

The Supporting Indonesia's Tertiary Education concept note has passed internal AusAID peer review.

The concept note outlines a new AUD110 million program of support for tertiary education in Indonesia over four (4) years with an expected additional second phase of four (4) years. The overarching program goal, to be met beyond its lifetime, is to achieve knowledge-driven growth that is sustainable and equitable for a prosperous Indonesia. The purpose of the proposed program is to assist Indonesian tertiary education institutions and GoI to: (i) continuously improve the quality of tertiary education outcomes, and (ii) enable more disadvantaged students to access and successfully complete tertiary education. Meeting this purpose will allow Indonesia to produce knowledge, technological innovations, and skilled workers that are needed to achieve its expected development, and enable the country to better distribute wealth across all socio-economic groups and ensure equitable growth across different regions.

The concept note for Supporting Indonesia's Tertiary Education is provided for the information of individuals/organisations.

Based on the Concept Note, and in a collaborative effort to ensure the quality of the investment, individuals/organisations are encouraged to submit views and/or issues that they would like to see further considered/clarified during the design process. All submissions submitted, and received by AusAID, are done so with the individual's/organisation's understanding of the *Submission Conditions* detailed below. Submissions should be sent to [tertiary@ausaid.gov.au](mailto:tertiary@ausaid.gov.au).

Submissions are welcomed before 31 July 2013. AusAID cannot guarantee that submissions received after this date will be considered by the design team.

### **Submission Conditions**

- Individuals/Organisations submit, and AusAID receives, submissions on the understanding that the individual/organisation, owns the material and any intellectual property (IP) in the material, and grants to AusAID a permanent, irrevocable, royalty-free worldwide, non-exclusive licence to use, reproduce, adapt and otherwise exploit such material or IP in conjunction with the design or the Supporting Indonesia's Tertiary Education. The licence granted includes the right for AusAID to sub-licence any material or IP to any of its employees, agents or contractors to use, reproduce, adapt and otherwise exploit the material or IP incorporated in the submission for the purposes of performing functions, responsibilities, activities or services for, or on behalf of, AusAID.
- AusAID may in its absolute discretion decide whether to use, reproduce, adapt and otherwise exploit such material or IP.
- The individual/organisation warrants that the submission of the material, for the purposes permitted by the submission conditions, will not infringe the moral rights of any person.
- AusAID and the design team will not respond directly to any issues or views raised by individuals/organisations.

Individual submissions will not be referenced/identified in the design document but may be referred to generically as representing a market opinion.

# SUPPORTING INDONESIA'S TERTIARY EDUCATION

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## *Concept Note*

### **I. Introduction**

1. This note sets out a proposal for AusAID to contribute to Indonesia's Tertiary Education Sector. It takes into account evidence and lessons learned from a 2-year program of demand-driven analysis and policy engagement in the Directorate-General of Higher Education in the Ministry of Education and Culture, as well as independent and multi-donor analysis. It proposes a two-phase commitment (four-year cycles) to assist Indonesia to improve the quality of tertiary education graduates, the quality of research produced by its tertiary education institutions, and access and success in tertiary education for disadvantaged students. The following sections outline the justification for investment in tertiary education, the rationale for AusAID engagement, and a proposed framework for future investment. Subject to approval, further analysis is planned for the design phase to determine the detailed scope and parameters of support.

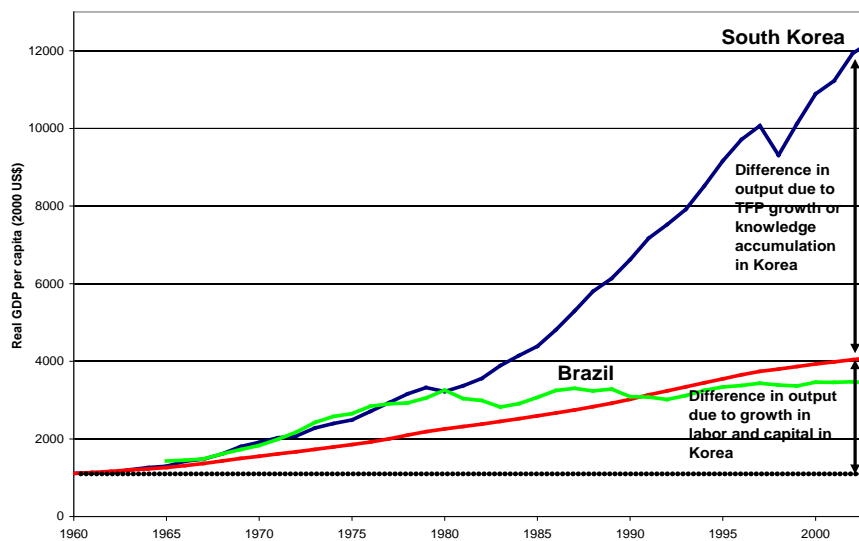
### **II. Rationale for the Program**

#### **2.1. Indonesia's New Development Challenge: Becoming a Knowledge-Based Society to Promote Growth and Eliminate Poverty**

2. Indonesia has recently emerged as a lower-middle income country, the 17<sup>th</sup> largest economy in the world with GDP per capita of over USD 3,200. It chaired ASEAN in 2011 and is currently an active member of the G20, indicating the country's growing international stature and influence. However, rapid change is not unique to Indonesia; other nations are also responding to opportunities offered by information and communication technologies, trade liberalisation, and increasing foreign direct investment. One major implication of this change is the growing importance and dominance of a particular commodity in the global economy: knowledge.
3. For the purpose of this Concept Note, the definition of "knowledge" refers to that described in the World Bank's 1999 Development Report on Knowledge for Development, which focuses on two kinds of knowledge. The first is *technical knowledge* or know-how. Engineering, medical science, and pedagogy are examples of technical knowledge. This is the kind of knowledge required for innovation and producing quality goods and services. The second kind is *knowledge about attributes*, such as the quality of a product, the viability of an innovative idea, or the robustness of a strategy. This knowledge is crucial for effective markets and well-planned development.
4. Today, the ability of a society to produce, select, adapt, commercialise and use knowledge is critical for sustained economic growth and improved living standards. In many OECD member countries, the real growth of value-added in knowledge-based industries has consistently outpaced overall growth rates over the past two decades. Emerging global economic powerhouses such as China, the Republic of Korea, and Taiwan have been investing heavily in knowledge and are now reaping the benefit.

5. Developing economies that fail to keep up with the rapid pace of knowledge production and application will likely find themselves pushed back further by the knowledge gap. The diverging development paths of Brazil and the Republic of Korea in the last five decades illustrate the impact of the knowledge gap. In 1960 the two countries had similar GDPs per capita. About four decades later, Korea's GDP per capita is four times that of Brazil. The main cause of this gap is not the difference in capital and labour investment, but rather the systematic use of knowledge and technology (see figure 1). Korea's intensive investment in knowledge has allowed its economy to combine capital and labour in a much more productive way.

**Figure 1 Knowledge as a Key Factor in the Difference between Brazil and the Republic of Korea's Diverging Development Path**



Source: Rodriquez et al (2008)

6. **If it fails to properly invest in knowledge, Indonesia's economy could stagnate, with a heavy dependency on low-end manufacturing and extractive industries, thus compromising its prospects for long term, sustainable, and equitable growth.** To maintain and accelerate economic development and continuously improve the welfare of its people in a globalised world, Indonesia will have to continually transform its economy. It needs to increasingly look to innovation for productivity growth and the competitive use of knowledge to resolve social, economic, and environmental challenges.
7. **The imperative of Indonesia's investment in knowledge and stronger reliance on its human resources is further emphasized by a demographic window of opportunity that the country cannot afford to miss.** Unlike the demographic aging trend in many economies, Indonesia will experience a demographic dividend, where the proportion of the productive cohort will exceed their dependents at an unprecedented level. The peak of this opportunity will be between 2020 and 2030. The global consulting company McKinsey predicted that by the end of that period Indonesia might well become the 7<sup>th</sup> largest economy in the world, surpassing UK and Germany (Obberman et al 2012). This scenario, however, would require some 25 million skilled workers with tertiary education degrees, up from the 7.5 million college-educated workers the country had in 2008 (UNESCO 2012).
8. **The use of knowledge will also become increasingly crucial in Indonesia's efforts to reduce poverty.** As it continues to develop as a middle income country, the poverty issues faced by Indonesia are likely to become more complex and entrenched. Today, for instance, regions with the largest proportion of poor people in the population are not necessarily the same as those with the highest actual numbers of poor people, or those with the poorest people. Indonesia needs a

better-informed policy making process to address such complexities and develop targeted and differentiated approaches to poverty reduction. This requires stronger systems for high quality evidence and analysis to inform policy makers.

9. **Furthermore, Indonesia needs highly skilled human resources to carry out its poverty reduction strategy.** Skilled engineers are needed to work on the infrastructure that is essential to improve the poor's welfare. Community-based programs require qualified case workers and facilitators. Doctors, nurses, and teachers, are necessary to improve access to and, even more importantly, quality of health and education services. A continuous supply of this human capital is crucial for effective implementation of Indonesia's plan to alleviate poverty.

## 2.2. The Role of Tertiary Education in Indonesia's Development

10. To address its new development challenges, Indonesia will have to increasingly rely on its education sector, beyond basic education. Both senior secondary and tertiary education sectors play a key role in supplying medium- and high-skilled workers to support the country's growing economy. Obberman et al (2012) of McKinsey estimate that under a business-as-usual projection, by 2030 Indonesia might experience a shortfall of 9 million skilled and semi-skilled workers, defined as those with tertiary, senior secondary, and junior secondary education (see box 1). The McKinsey report also found that "more than 95 per cent of employers expect that the skill levels required of their employees will need to rise over the next decade." While projecting the number of graduates from each level of education needed to support Indonesia's economy is tricky (see box 1), evidence suggest that the GoI needs to increase the impact and extent of investment in both senior secondary and tertiary education; the focus is not only on improving the quality of all levels, but also increasing transitions to higher levels of education.

### Box 1: How Many Graduates will Indonesia Need?

One can argue that as a fledgling middle income economy and the fourth largest population in the world, Indonesia stands to gain in harnessing more labour-intensive economic activities than knowledge-intensive ones. Then again, labour-intensive and knowledge-intensive activities are not incompatible. The textile industry, for instance, requires designers, mechanical engineers, software engineers, and managers. To add to the complexity of projecting labour needs, new jobs and entire new industries that did not exist 15 years ago are now demanding a different breed of workers, thanks to the rapid technological advancement. Technology is also rapidly changing how traditionally labour-intensive industries operate. Since no one can predict what new technological innovations would come in a year's time, let alone a decade's, any projection on an economy's need for labour and skills will inherently have some limitations.

The AusAID policy note *Education and economic development—the theory, the evidence, and a case study of Indonesia* (October 2012) estimates that, depending on the type of industry leading the country's growth in the next decade, Indonesia will experience a shortfall of between 3 per cent and 4 per cent of senior secondary graduates and up to 1 per cent of tertiary graduates by 2025. Meanwhile, Obberman et al (2012) estimate that under what they call “business as usual” projection, by 2030 Indonesia will experience an undersupply of 2 million tertiary graduates; an oversupply of 13 million vocational senior secondary graduates and an undersupply of 10 million senior secondary graduates (totaling an oversupply of 3 million senior secondary-level graduates); and an undersupply of 10 million junior secondary graduates.

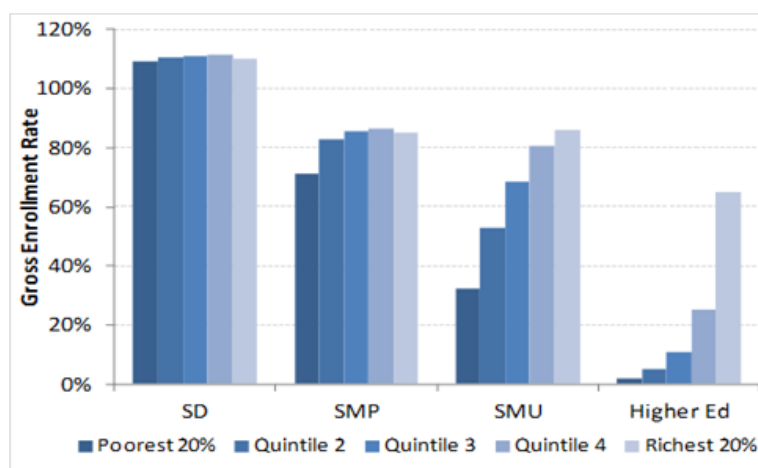
While the details may differ, existing evidence and analysis strongly points towards Indonesia investing in *both* senior secondary and tertiary education. Significant quality improvement is required at both levels; the requirement for expanded access is greater at the secondary level.

11. **Indonesia cannot afford to wait for an expanded and effective school sector before tackling its tertiary education needs.** A “chronological investment model,” in which tertiary education investment is increased only after massive gains are achieved in senior secondary education would deprive the country of the ingredients for sustainable development. Indonesia's senior secondary education produced about 2.5 million graduates in 2012, approximately half of whom go to college.<sup>1</sup> Meanwhile, the size of the tertiary student body is about 4.9 million, 80 per cent of which is at the undergraduate level (UNESCO 2011). With increasing supply flowing in to an already strained tertiary education sector, Indonesia's newly-announced policy of secondary education expansion can potentially compromise the existing quality of tertiary education.
12. **The generation of high-quality human resources to deliver basic services and the knowledge for pro-poor policy-making, both requirements for effective poverty reduction, rests primarily on the tertiary education sector.** Improving the poor's welfare requires better service delivery. Better service delivery is dependent in part on better professionals working in fields such as health and education. To illustrate the current standard of human resources engaged in service delivery in Indonesia, in the latest teacher competency test conducted by the Ministry of Education and Culture (MoEC) in 2012, more than 40 per cent of Indonesia's teachers scored below the competency threshold. Meanwhile, as identified by AusAID's Knowledge Sector Initiative, one of the root causes of the low quality of research, analysis and evidence feeding into the policy making process can be significantly attributed to Indonesia's relatively weak tertiary education sector (AusAID 2012).

<sup>1</sup> From Dr. Illah Sailah, Director of Academic Affairs, Directorate General of Higher Education, Ministry of Education and Culture, when presenting at a workshop organised by USAID's Higher Education Leadership and Management Project in Jakarta, 31 October 2012.

13. **Improving quality takes time.** Even with significant resources and highly effective policies and programs, measurable, sustained improvement in tertiary education is a long term endeavour. The Republic of Korea started to significantly increase investment in its tertiary education sector in the 1970s, when its GDP per capita was only around USD2,000 and its tertiary enrolment rate was less than 10 per cent. It took no less than 20 years for the Korean tertiary education sector to make the significant improvement, but by the 1990s it was ready to support Korea's knowledge-driven economy.
14. **Opportunities for disadvantaged students to access and succeed in Indonesia's tertiary education sector are limited.** This is not just a question of social justice but of economic inefficiency due to waste of talent. As shown in figure 2, there is a huge drop in the enrolments of the lowest two quintiles from junior to senior secondary; and an even bigger drop from senior secondary to tertiary. As senior secondary education expands, increasing competition for scarce places, this situation may be exacerbated, perpetuating disadvantage and preventing social mobility. Equally important to increasing enrolment, the tertiary education sector also needs to put systems in place to ensure the successful completion of disadvantaged students.

**Figure 2 Enrolments by Income Distribution**



*Note:* SD refers to primary education; SMP to junior secondary; SMU to senior secondary

*Source:* AusAID Economics Advisory Group (2012) from Indonesia Statistics Office and the World Bank

15. **There is a clear developmental case for GoI to expand and improve investment in both the senior secondary and tertiary education sectors; AusAID's investment decision needs to consider our capacity to make a difference.** Considerations include how and in which sector it can have the most leverage, the political economy of each sector, and GoI's own investment plans. These considerations are addressed below.

### 2.3. Why Australia should Invest in Indonesia's Tertiary Education Sector

16. **Investing in Indonesia's tertiary education sector is in Australia's national interest.** As close neighbors, the relationship between Australia and Indonesia will become more important and, at the same time, more complex. Indonesia has the potential to become an important trading partner for Australia and people mobility between the two countries will likely intensify in the coming years. Being co-members of the G20 signals a stronger partnership between the two countries on the international stage. An educated and confident Indonesia will be a strong partner for Australia in ensuring regional stability and security. **Australia has a strong interest in the growth and**

**structure of Indonesia's economy.** A strong and diverse Indonesian economy would benefit Australia's own, increase the effectiveness of the former's poverty reduction strategies, and help improve the stability of the region.

17. **Investing in Indonesia's tertiary education sector is aligned with AusAID's strategic goals.** The 2008-2013 Australian-Indonesia Partnership Country Strategy aims to help Indonesia become prosperous, democratic, and safe by, *inter alia*, ensuring sustainable growth and investing in its people. Since a strong tertiary education sector in Indonesia supports those aims, investing in the sector is in alignment with the Country Strategy's goal. The investment is also aligned with the strategic goals of the Australia's Comprehensive Aid Policy Framework (CAPF) by promoting opportunities for all to access tertiary education, ensuring knowledge-driven growth that is sustainable, and improving service delivery by increasing the quality of education and health professionals.
18. **The vast bulk of resources available to Indonesia's education sector will continue to come from GoI's own budget, more than USD30 billion in 2012.** In this context, AusAID can strategically leverage its relatively modest contribution by (a) effective targeting to address developmental challenges, which demand problem-solving, risk-taking, and room to experiment; and (b) supporting improvements in the effectiveness of GoI's own expenditure.
19. **In tertiary education, AusAID can support GoI's focus on improving quality and increasing access for disadvantaged students (see box 2).** Improving quality and equity requires not necessarily *more* investment but rather *better* investment. This requires innovation, evaluation, and scale up, all of which might carry risk to GoI. In this regard, the agency's investment can provide significant added value by lowering the cost of innovation to GoI. This is consistent with key strategic directions of aid program activities in Indonesia, in which Australia's role is to add value to existing systems and try innovative approaches, which can be subsequently rolled out in a much larger scale by the Indonesian government.
20. **Increasing quality of education in senior secondary would require a whole of system approach.** Responsibility for senior secondary schooling in Indonesia is decentralized to the provincial level. With 33 provinces and 11,000-plus schools, which exercise a limited form of School-Based Management, the operating environment is highly disparate. In order for AusAID to impact on quality improvement in the sector, it would need to influence the workings of the central government, the provincial governments, and the schools.



## Box 2: Indonesia's Education Priorities

The Ministry of Education and Culture's (formerly Ministry of National Education) 2010-2014 Strategic Plan includes the improvement of *all* levels of education, from early childhood to tertiary, in its strategic goals. However, the most ambitious plan for expansion, as articulated in the Plan, is at the senior secondary level; from 62 per cent in 2009 to 85 per cent in 2014. Expansion plans for tertiary education are relatively more modest; from 24 per cent in 2009 to 30 per cent by 2014.

Recent policy announcements and other GoI planning documents also suggest senior secondary and tertiary education are getting more attention.

The recently released Master Plan for Economic Acceleration (MP3EI) establishes "Human Capital and Science and Technology" as one of its three main pillars. The pillar emphasizes expanding access to all levels of education, and improving the quality and relevance of tertiary education. The document also mentions the importance of tertiary education in research and innovation, and a government commitment to spend gradually up to 3 per cent of GDP by 2025 to support research and development.

At the senior secondary level, the bulk of the expansion will focus on the vocational stream. MoEC is committed to reverse the proportion of vocational and general secondary schools from 30:70 in 2004 to 70:30 by 2014—there will be more than twice as many vocational senior schools as there are general senior secondary schools in Indonesia. Subsequent expansion will maintain this ratio. GoI aims to increase employment opportunities of senior secondary graduates through this plan; however, other analyses suggest that unemployment levels of the two streams have converged, while the rate of return of the vocational stream is much lower than the general stream (e.g. Chen 2009, World Bank 2010a, and Newhouse & Suryadarma 2011). Equivalency pathways (e.g. from vocational to higher education) are not well-established.

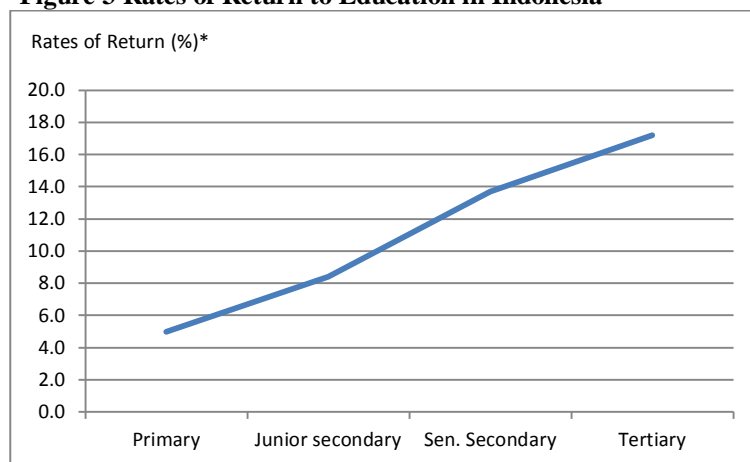
With regard to tertiary education, a new law was passed in mid-2012 to govern the sector. The law has been attracting heated debate, in particular on TEI autonomy, ever since it was drafted. The Higher Education Law, as it is called, provides opportunity for TEIs to gain more autonomy. While this idea is in line with international best practices in improving the quality of tertiary education, some elements in the public claims that granting autonomy to TEIs is the government's way of letting go of the responsibility to provide tertiary education to the people. GoI in turn tries to address this concern by stipulating that public TEIs must ensure that 20 per cent of their student body is comprised of disadvantaged students. A national scholarship scheme called *Bidik Misi* is set up to achieve this goal.

21. **In contrast, impact in the tertiary sector can be achieved by working with a much smaller number of institutions, with higher levels of autonomy and better self-governance.** The central government retains responsibility for TEIs, so any engagement at the central level would have a more direct impact on the institutions delivering services.
22. New evidence shows that the rate of return to tertiary education now exceeds those for primary and secondary—a phenomenon that may be attributable to the near-universal expansion of basic education and the stronger role of knowledge in the economy. For Indonesia, the rate of return to tertiary education is estimated to reach 17.2 per cent, which is significantly higher than senior secondary, at 13.7 per cent (see figure 3). This suggests that Australia can consider investment in Indonesian tertiary education with confidence.
23. Tertiary education's contribution is strong not only in the economic sphere. Nations with high level of educational attainment enjoy also important social benefits. Studies indicate that people



with tertiary education are much less dependent on welfare programs. The norms, values, attitudes, ethics, and knowledge that tertiary institutions impart to students contribute to the social capital necessary for constructing healthy civil societies and socially cohesive cultures, achieving good governance, and building democratic political systems. According to the OECD's latest Education at a Glance report, individuals with tertiary education also tend to be in better health, are less likely to smoke, are more actively engaged in civic life, and are less likely to engage in criminal activities

**Figure 3 Rates of Return to Education in Indonesia**



Source: Colclough, Kingdon & Patrinos (2009) *The Pattern of Returns to Education and its Implications*.

\* Rates of return are not disaggregated for general and vocational tracks at senior secondary, or for diploma and bachelor degree program at tertiary.

### AusAID's Comparative Advantage

24. **AusAID's long standing support to Indonesia's education sector provides it with the experience to navigate through the sector's political economy.** While the tertiary education sector is different from the basic education sector, in which the agency has been providing support, there are still lessons learned from the experience that would be useful for the new investment. In other words, AusAID will not be "going in blind" into the new sector. The GoI counterparts will also likely perceive AusAID as a rather experienced player. This would help in building trust, which is essential for an effective program.
25. **AusAID can tap into Australia's tertiary sector expertise in developing context-specific solutions to issues of relevance to Indonesia.** Australia has developed an effective, efficient and relatively diverse higher education system.<sup>1</sup> Over the past two decades, Australia has pursued consistent policy directions to increase the percentage of the population participating in higher education; improve productivity and efficiency in higher education; introduce competitive or performance-based funding; and diversifying higher education by government support for private provision. Although systems and solutions developed are not directly transferrable to the Indonesian context, the methods of finding effective solutions might be. This can also be combined with institutional in-depth knowledge of the Indonesian development context, as demonstrated by the long-standing presence of Indonesian studies programs in Australian universities.

<sup>1</sup> According to the Bradley Review (2008), independent analysis ranked the Australian system third in the world. Six Australian universities are in the top 100 Times Higher Education World University rankings, with 13 more listed in the top 100. Australia also has experience delivering higher education services in regional and remote areas, and has found innovative solutions to overcome the diseconomies of scale that with the relatively small sizes and geographical isolation of institutions in these areas.

26. **AusAID support to tertiary education can capitalise on the complementarities with existing investments** (see also Section 5). AusAID's long-running and high-profile scholarships program provides a network of resources at both the TEI as well as policy making levels that can potentially support the program. Over the past 10 years, Australia has funded more than 4,500 Indonesians to complete postgraduate studies in Australian universities—about one-third of these have returned as teaching and management staff of Indonesian universities. Moreover, approximately 17 per cent of Indonesian AusAID alumni have gone on to positions of national influence, where they can directly influence the trajectory of decisions in their organisation or wider<sup>1</sup>. AusAID's Knowledge Sector Initiative, which is currently being mobilised and includes education as a priority sector, can potentially pave the way to better evidence-based policy making in the tertiary education sector. The proposed tertiary education program can support the Knowledge Sector Initiative's objectives and, in the long-run, benefit from a more conducive environment for evidence-based policy making, including in relation to Indonesia's tertiary education sector.

### III. Situation Analysis and Development Challenges

#### 3.1. Overview

27. Indonesia's 3,000-plus TEIs come with considerable variations in size, structure, and quality. As a sector, Indonesia's tertiary education still has a long way to go to improve the quality of its graduates, improve the quality of its research, increase access to disadvantaged students, and support disadvantaged students successfully complete their study. This concept note will take a look at these issues under two main headings, which will be the constant theme of the program concept: (i) quality and relevance of the tertiary education outcomes, i.e. graduates and research; and (ii) access and success of disadvantaged students.

#### Quality and relevance of tertiary education outcomes: graduates and research

28. **With one in every ten university graduates unemployed despite reportedly high demand for quality graduates, the quality of learning in Indonesia's TEIs and their linkage to the job market could be significantly improved.** AusAID Economics Advisory Group's draft policy note (October 2012) suggests that while other factors such as inflexible labour regulation may play a role, the high unemployment rate is likely caused by poor quality and relevance. The World Bank found 41 per cent of employers reporting gaps in the ability of their skilled workers to think creatively and critically. A further 47 per cent claims that their skilled employees lack sufficient computer literacy and English proficiency. Even the young skilled workers themselves agree with this assessment—56 per cent report that they only feel somewhat prepared or poorly prepared to enter the workforce (di Gropello et al. 2011).
29. **Not one of Indonesia's 3,000-plus institutions has an internationally respectable standing, with its leading university coming only 201<sup>st</sup> in the 2009 Times Higher Education (THE) World University Rankings.**<sup>2</sup> Since the ranking criteria were revised in 2010 to put more emphasis on research, none of Indonesia's universities get to the top 500. Other measures of research capacity and innovation tell a similar story of under-performance. From 2000 to 2005, Indonesia's total number of publications stands at about a quarter of Thailand's output and only one-tenth of Singapore's. Finally, with only 19 patents granted by the U.S. Patent and Trademark

<sup>1</sup> Scholarships Program Concept Note 2012

<sup>2</sup> Based on 2009 THE World University Rankings, Indonesia's top three universities include the University of Indonesia (rank 201), Gadjah Mada University (rank 250) and Bandung Institute of Technology (rank 351).

Office (USPTO) in 2008, compared with Malaysia's 168 patents in the same year, Indonesia's capacity for innovation is still relatively low (The World Bank 2012).

### Access and success of disadvantaged students

30. **While quality lags, Indonesia has achieved a significant increase in tertiary education participation; however, enrolment of disadvantaged students is still low.** Annual enrolments in tertiary education have increased from around 5,000 in 1950 to more than one million in 2010 (Obberman et al 2012). The tertiary gross enrolment rate has risen from below 15 per cent in 2001 to more than 26 per cent today. However, this figure ranges from as low as 1.5 per cent for Bangka Belitung to over 122 per cent for Jakarta, indicating massive disparities (MoEC 2011). Furthermore, the poor are disproportionately under-represented in Indonesia's tertiary education. Less than 2 per cent of 19-22 year-olds from households of the lowest wealth quintile is enrolled in a TEI, compared to over 60 per cent of those from the wealthiest households.
31. **While robust supply and demand analysis is not available, the data suggests that current demand for tertiary places significantly outweighs supply.** In 2012, nearly 620,000 students took the national entrance exam which determines the intake for 61 public universities, who only offered about 120,000 seats in total. During preliminary design consultations, a small private university with a student population of 2,700 in the remote district of Sumenep, East Java reported that they turn down hundreds of applicants every year. A significant increase to the number of students completing senior secondary, as is likely with the announcement this year of GoI's commitment to compulsory 12 years schooling, will only intensify the level of competition to enter tertiary studies. In this context, students from disadvantaged background may face particularly steep competition.
32. **There are indications that disadvantaged students may struggle to complete tertiary study.** Indonesia currently does not have reliable tertiary completion data, and no accessible poverty-disaggregated completion data was discovered during the development of this concept. Inference from available data, however, implies that the national completion rate is relatively low. About 80 per cent of Indonesia's tertiary student body are at the undergraduate level, which equates to an estimated GER of nearly 21 per cent. Yet the gross graduation rate is only 12 per cent (UNESCO 2011). While GER and gross graduation rate in a given year reflect the figures for different cohorts, these figures suggest that completion rate at the undergraduate level could be lower than 60 per cent. Since international trends show that disadvantaged students are more likely to drop out than their better-off counterparts, it is likely that many disadvantaged Indonesian students who enter college do not complete their education.

### 3.2. Political Economy: New Opportunities for Reform

33. The political economy of Indonesia's tertiary education sector is currently very dynamic. The experiment of providing greatly increased autonomy to seven major public universities, which started in the early 2000s, has culminated in a very heated public debate on the perceived trade-off between quality and equity. In 2010, the Constitutional Court annulled a law that was passed by the parliament a year earlier, which granted autonomy to all Indonesian TEIs. The Court reasoned that the law, and the requirement for institutions to manage their revenue autonomously, would lead to underfunding of many institutions, negatively affecting the quality of education; and did not guarantee the achievement of national education goals, which contravened the Constitution.
34. In mid-2012, the parliament passed a new Higher Education Law, which again provoked public scrutiny. The process of drafting the law was highly politically charged and factionalized, involving members of the parliament, the Ministry of National Education and Culture (MoEC), university rectors, the Association of Private Universities, the Ministry of National Planning (BAPPENAS) and the Office of the Vice President. At one end of the debate was criticism of

MoEC's perceived attempt to curtail university autonomy and re-centralize power to the Directorate General of Higher Education (DGHE). At the other end of the spectrum, students were opposing university autonomy based on claims that it would lead to "commercialization of education" or the unreasonable increase of tuition fees by public universities.

35. When the law was finally passed, however, there was a general consensus among the public universities that it in fact provided scope for reform and quality improvement. The law provides options for public universities to become fully autonomous, semi-autonomous, or a government unit with minimal autonomy. Each option is dependent on a public university's level of preparedness, and determines how the university will utilize public funding. The law also provides more academic autonomy to both public and private universities. The new Higher Education Law also stipulates that public universities must ensure that 20 per cent of their student bodies are students from disadvantaged backgrounds. This was intended to address concerns that university autonomy would compromise access to tertiary education. There remains some likelihood that the new law would be challenged again in the Constitutional Court. However, most legal experts agree that, while some parties might not like the content of the law, it would be very difficult to argue that the law was unconstitutional, so a further challenge is less likely to be successful.
36. **Among sector stakeholders, there seems to be a consensus that Indonesia's tertiary education sector needs to improve its quality and equity, but they differ significantly on how to get there.** Early consultations indicate that the current DGHE administration would like to have stronger control over the TEIs to ensure quality and equity, and that public funding should be distributed equitably among public institutions. Leading public TEIs, however, want more autonomy and a funding system that incentivizes performance. Private universities demand more government support, including more public funding. The Ministry of Finance (MoF) is more concerned with financial accountability, which in some cases may severely compromise the autonomy of public TEIs. Students and the general public demand affordable, which sometimes translates as *cheap*, education. Further analysis on the positions and influence of other key stakeholders, such as BAPPENAS and the Office of the Vice President, will be carried out during design phase.
37. **The dynamic political economy in the sector does, however, signal an opportunity for reform.** The new Higher Education Law provides more room for innovation and at the same time demands higher accountability from TEIs. Preliminary design consultations found a huge appetite on the part of TEIs for reform and an eagerness to find new strategies for institutional improvement.<sup>1</sup> Sector stakeholders are well-informed, influential, and highly networked, and their demand to be more involved in policy making processes is an encouraging trend that could be better exploited to influence DGHE. There is also an increasing awareness of the need for robust evidence to inform the policy making processes in the sector. Furthermore, these take place against the backdrop of an increasing consensus of the Indonesian public and government on the importance of tertiary education in the country's development as reflected in the MP3EI. Taking into consideration these aspects of the political economy, the time for change is now.

### 3.3. Development Challenges

38. Indonesia's tertiary education sector is relatively young, extremely complex, and has a highly dynamic political economy, creating significant challenges for government in improving the sector. In order to increase both quality and equity, some issues must be addressed at the TEI level, and some at the central government level. Increasing autonomy for some TEIs creates scope for innovation at the institutional level but central government financing and management—the "enabling environment"—provides the framework within which TEIs can improve quality and

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<sup>1</sup> The same conclusion was reached by USAID's HELM team, who also consulted with a number of TEIs directly.

equity. One determinant of the health of the “enabling environment” is the way in which decisions and policies are made. To ensure that policies effectively contribute to quality and equity, they must be informed by evidence and analysis, and the policy making process needs to involve a wider stakeholder group. The following section describes the challenges at the TEI level, the government level, and those associated with good policy making processes, all in the context of improving quality and equity.

### Challenges at the TEI level: Producing quality outcomes, and increasing access and success

39. **Better quality graduates require TEIs to improve their learning process and their linkage with the industries.** With very few exceptions, pedagogic practices in Indonesian universities tend to emphasise rote learning and do not encourage independent inquiry or critical thinking (Hill and Thee 2011). In contrast, as various studies consistently point out, analytical capability, problem solving skills, critical thinking, communication, and social skills are exactly what Indonesian employers seek but find lacking in graduates (di Gropello et al 2011, The World Bank 2012, UNESCO 2012, and Obberman et al 2012).
40. **The low level and quality of research production may be attributed to the lack of incentives, low capacity, and lack of available resources for researchers.** Very weak linkages with the labour market and private sector also contribute to the low quality and relevance of graduates and research outputs (Hill and Thee 2011). The enactment of the new Higher Education Law, offers an opportunity to address some of these issues at the TEI level. With greater autonomy, universities should be able to initiate more intensive collaboration with industries, such as Airlangga University’s increased partnership with a number of pharmaceutical companies since it was awarded autonomy in 2006. The University of Indonesia, one of the first research universities to be awarded autonomy, has been able to supplement researchers’ salaries up to about six times the average salary of Indonesian researchers.
41. **There is room for TEIs to play a bigger role in increasing access and completion rate, especially those of disadvantaged students.** Many of the equity-related issues are rooted in access to and quality of basic and secondary education, but some can and should be addressed at the tertiary level, including targeting and on-course support. A national scholarship scheme—the Bidik Misi Scholarship—is available for students from lower income families to attend college, but it is not well utilised. In June 2012 Indonesian newspapers reported that of the 2,430 places at four major public universities available for disadvantaged students under the Bidik Misi Scholarship scheme, only about 1,500 students actually received a scholarship. Further analysis is necessary to determine the main drivers for this but our preliminary analysis suggests TEIs struggle to identify potential candidates. TEIs are also in the position to provide support to increase the completion rate of disadvantaged students (see box 3).
42. **Data availability is a serious constraint to effectively tailoring and targeting support to disadvantaged students.** Indonesian TEIs do not have adequate systems in place to track the demography of student populations and the performance of each group. Robust data, disaggregated by socio-economic criteria, for key indicators such as enrolment, completion, and on-course performance is not available. Assumptions may be drawn from aggregate data, which shows, for example, high drop-out rates overall, but we cannot currently quantify the implications for those that potentially face the biggest hurdles, social, economic, and physical, to successful completion. Addressing this information gap is the first step for TEIs to improve support for disadvantaged students.



### Box 3: What Keeps Indonesian Poor from Accessing and Completing Tertiary Education?

Academic literature and available data show that the decision to enter tertiary education is based on monetary and nonmonetary variables (The World Bank 2012). Similar variables also determine whether a student stays in college and successfully complete their study.

#### Monetary variables

*Cost-benefit barrier* arises when a particular group—usually the disadvantaged—decides that the cost of attending college is greater than its expected return to the education investment.

*Cash-constraint barrier* occurs when students who decide that the returns to education outweigh the cost are unable to put together the financial resources to study.

*Debt-aversion barrier* refers to a situation when an individual who believes that the benefit of tertiary education outweighs its cost, does not want to borrow to have the resources available to enter and study in college.

#### Nonmonetary variables

Parental education, race and ethnicity, gender, geographical location, and the quality of previous levels of education all play a role in the decision of entering college.

Unfortunately, there is no available data that identify which of these variables play the most significant role in the low enrolment—and possible low completion—of disadvantaged students in Indonesia's tertiary education. The prevailing opinion, by both GoI and the public, seems to be that cash constraint is the most deciding factor. Hence the push for subsidized tertiary education, the establishment of the national scholarship scheme *Bidik Misi*, and the plan to set up a student loan scheme.

Some leading universities in Indonesia try to address the other variables. Bogor Institute of Agriculture (IPB) and the private Paramadina University are well known for their outreach program, addressing the cost-benefit barrier by providing information on available scholarships and motivating poor students to apply. Paramadina also establishes a system that provides a venue for poor and disadvantaged students, most of whom study on scholarships, to receive support and maintain their motivation throughout the course of their study.

AusAID, in collaboration with the World Bank, will conduct a study of the factors that contribute to disadvantaged students' decision to enter college and the challenges they face to complete their study as part of the design.

### Challenges at the central government level: Enabling TEIs to perform and innovate, and establishing a system to support disadvantaged students

43. **At a systemic level, the governance of TEIs in Indonesia is characterized by a lack of autonomy and performance incentive—two main requirements for a strong, innovative tertiary education sector.** With the exception of the seven autonomous public research universities, public TEIs are subject to the rigid state budgeting system. This significantly hampers the institutions' ability to efficiently utilise available funding to respond to their specific needs. The new Higher Education Law provides for wider autonomy of public TEIs, which offers an opportunity for some institutions to reform their financial management. Furthermore, there is no policy framework that recognises the different roles of different groups of institutions, e.g. flagship research universities versus small institutions focusing on teaching, which could be a feature of a well-functioning, diversified tertiary education system in a country as populous as Indonesia (see box 4).

44. **Public funding for TEIs does not have an explicit financing formula, nor does it reward good institutional performance.** Public spending largely finances public TEIs; private TEIs are also subsidized, but on a per capita basis their subsidies are generally smaller than those provided to public institutions (The World Bank 2010b). In the late 2000s, GoI started implementing a range of financing mechanisms to increase flexibility and establish performance incentives, including block grants, competitive grants, and performance-based grants, but many of these initiatives are coming to a close. Different stakeholders provided different reasons for this, from financial regulations that do not support the provision of grants to public TEIs, to a philosophical change in the way MoEC leadership sees its role in TEI management. Further assessment on this issue will be conducted at the design stage.
45. **The national accreditation system is intended to function as a quality assurance measure, but does not reflect institutional quality accurately, comprehensively or in a timely manner.** The National Accreditation Agency (BAN-PT) employs a system that assesses inputs (*e.g.* facility and teaching staff) and not outcomes (*e.g.* quality of graduates and research). Since accreditation is done for every study program, BAN-PT is also overwhelmed with the sheer number of accreditation applications, resulting in severe backlog. Reform is currently underway, with a shift from input-based to outcome-based assessment. Plans are also developed to set up profession-based accreditation bodies to complement the BAN-PT by accrediting specific study programs.
46. **The *Bidik Misi* national scholarship scheme will likely continue to be the major source of student aid, but it needs to be coupled with a student loan scheme.** The *Bidik Misi* is a means tested scholarship scheme and there are plans to expand it to students of private universities in 2013.<sup>1</sup> As the cost of tertiary education increases, in particular due to the push for better quality, it is timely for Indonesia to establish a student loan scheme. The new Higher Education Law stipulates that the government should set up a student loan system, but major challenges lie ahead. An economic analysis on the viability of a national student loan scheme is very much needed. A weak tax system also stands in the way of an income-contingent loan scheme.

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<sup>1</sup> Until 2012, only students of public TEIs are eligible for the scholarship.



#### Box 4: A Diversified Tertiary Education Sector

Existing literatures and international experience suggest that there is a need for a tertiary education system to diversify. While Indonesia, like many other middle income countries, has prioritised establishing “world-class” research universities, recognition of the important roles of non-research TEIs is called for. The UK Open University, to illustrate, is globally recognised as a premier distance education institution, and yet it does not make the international rankings. In the US, assessments of the quality of teaching and learning at community colleges imply that the top institutions outperform some of the best four-year universities in the country. Tertiary education systems must consider the need to create excellent alternative institutions to meet the wide range of training and education needs (Salmi 2009).

In Indonesia, preliminary consultations with TEIs and their stakeholders found that the tertiary education system is indeed diversified. It is possible to group the country’s 3,000-plus institutions into at least three categories:

- **A handful, probably no more than a dozen, aspire and arguably have the potential to become globally recognised research universities.** It is from these universities that we can expect high quality research, technological innovations, and highly skilled, adaptable graduates. The six autonomous flagship research universities fall under this category.
- **A larger number of TEIs, perhaps up to four per province, cater to the skills and knowledge demands in the regions.** These TEIs may not have the resources nor the concentration of talents required to become world class research universities. They do, however, play a crucial role in influencing local policy making, producing locally relevant technologies, and supplying relatively high-skill workers for the local economy. NTT’s Nusa Cendana University and NTB’s Mataram University are members of this group.
- **The last cohort is comprised of small TEIs, some are located in relatively remote areas.** Most of these institutions are private and tend to cater to students coming from the lowest quintiles. These institutions focus on teaching and have little capacity or expectations for research. Those who do conduct research mostly use it as a learning tool, and not necessarily for producing peer-reviewed papers or technological innovation.

The Indonesian tertiary education system has not yet fully recognised the different missions of these different groups of institutions. Ideally, such recognition should be reflected in the quality assurance system and the way public funding is provided to support each group of TEIs.

*Source:* Stakeholder consultation and field visits; findings were presented at the 2012 Indonesia Update Conference, Australia National University

#### Challenges in policy making: Relying on evidence and wider stakeholder involvement

47. **GoI is now faced with the task of striking a balance among three competing imperatives: public expectations of subsidised tertiary education to ensure affordability, the availability of public funding to provide the subsidy, and the need to ensure that TEIs have the resources to provide quality education.** Indonesia’s geography and large student population—currently over 5 million for tertiary education—makes the task of determining the most appropriate architecture for the sector and building consensus around that vision even harder.
48. **Underlying all of these constraints to sector performance is a policy environment which is rarely informed by evidence and seldom comprehensively involves the sector’s major stakeholders in decision-making.** Past innovations are rarely evaluated adequately and when

they are, the results are seldom made public. Improving the policy-making process is therefore crucial for Indonesia to develop an effective reform agenda and foster a higher education system that is based on international best practices, lessons learned from its own innovations, and tailored to its specific situation.<sup>1</sup>

### 3.4. Work by Other Donors

49. The USAID launched the Higher Education Leadership and Management (HELM) Project in December 2011. The project value is USD19 million and it is expected to end by November 2016. The HELM project is designed to strengthen leadership capacity and improve management in TEIs. While it does not specifically focus on the quality of learning and research, the improvements in core management areas are expected to enable systematic improvements in the higher education sector and institutions across Indonesia, which would lead to better learning and research outcomes. The project provides technical assistance, training, and other support to strengthen the capacity in the Higher Education sector, by partnering with 50 TEIs and embedding leadership models within the Directorate General of Higher Education.
50. The Asian Development Bank (ADB) will implement the Polytechnic Education Development Project from January 2013 to December 2017. The project receives USD75 million in loans and USD16.7 million in counterpart financing. The four year project focuses on improving the quality and relevance of the polytechnic system, expanding access to polytechnic institutions, promoting entrepreneurial culture to strengthen graduate competitiveness, and strengthening governance and management of polytechnic education. The project will provide targeted support to 13 pre-selected polytechnic institutions in selected economic centres of the six economic corridors established under Indonesia's Master Plan for Economic Growth Acceleration (MP3EI).
51. The World Bank has considerable experience in providing support to Indonesia's tertiary education sector. Its most recent venture was the Indonesia Managing Higher Education for Relevance and Efficiency (IMHERE) program, worth US\$80 million in combined loans and credit, targeted towards creating an enabling environment for autonomous public higher education institutions and develop effective support mechanisms for improved higher education quality, relevance, efficiency and equity (The World Bank 2005). IMHERE worked both at the systemic policy reform level with DGHE and at the institutional level with public universities. The World Bank's own progress reports highlighted lack of progress of key components of the program, both in implementing systemic reforms and in disbursement of grants to institutions. The latter is attributed to delays caused by procurement processes. The main constraint to progress, however, was that the program was designed around the 2009 law for education enterprises, which was annulled by the Constitutional Court in 2010. This effectively removed the legal basis for university autonomy, and had severe implications around the program's ability to support DGHE and grantee institutions to strive for university autonomy.

## IV. Program Description

### 4.1. Goal and Purpose

52. The **overall goal of the program**, to be met beyond its lifetime, is **to achieve knowledge-driven growth that is sustainable and equitable for a prosperous Indonesia**. This aligns with lessons

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<sup>1</sup> This is the case for all sectors in Indonesia, and not only for the tertiary education sector. AusAID's Knowledge Sector Initiative is addressing this issue in a wider scale.

learned in the diagnostic work conducted to inform the Concept, which identify that the ability of a society to produce, select, adapt, commercialise and use knowledge is critical for sustained economic growth and improved living standards (see paragraphs 2-6 above). The goal also emphasises equity of access and equality of opportunity as important foundations for prosperity. This responds to lessons learned in other diagnostic work conducted to inform the Concept, which identifies opportunities to take advantage of the demographic dividend and address regional disadvantages in Indonesia through knowledge generation (see paragraphs 7-9). Finally, this goal echoes Indonesia's own plan to become a developed country by 2025, as stated in the MP3EI, as well as AusAID's country strategy.

53. Meeting this goal requires Indonesia to strengthen its tertiary education sector. **The purpose of the proposed program is to assist Indonesian tertiary education institutions and GoI to: (i) continuously improve the quality of tertiary education outcomes, and (ii) enable more disadvantaged students to access and successfully complete tertiary education.** Meeting this purpose will allow Indonesia to produce knowledge, technological innovations, and skilled workers that are needed to achieve its expected development, and enable the country to better distribute wealth across all socio-economic groups and ensure equitable growth across different regions.

## 4.2. Design Principles and Considerations

54. The design of the Tertiary Education Program hinges on four interlinking principles. These principles reflect both AusAID's country program strategic direction and the current situation of Indonesia's tertiary education sector.
55. **First, the program needs to be designed to be flexible and adaptive to changes.** This principle recognises the complexity of Indonesia's tertiary education landscape and the sector's dynamic political economy. In this environment, AusAID needs to make the best use its strength and comparative advantage, and at the same time be realistic about what it can achieve. The sector's dynamic political economy also means that a rigidly structured program would encounter severe challenges during implementation.
56. **Secondly, the program needs to focus on areas where AusAID can add the most value.** An overambitious program that addresses every challenge faced by Indonesia's tertiary education sector would be counterproductive. A strategic decision must be made about the program focus. This should be done by capitalizing on AusAID's comparative advantage and taking into consideration the current environment, as well as work done by GoI and other donors.
57. **The third principle is the recognition that it should be Indonesian stakeholders who drive reform.** International experience has shown that donor-imposed interventions are seldom effective or sustainable. While the program should provide information on alternative and novel approaches, local stakeholders must have ownership of the program and interventions on the ground.
58. **The fourth and final principle is that change, especially the kind that this program seeks to drive, takes time.** The program needs to run on a relatively longer timeline to allow significant and sustainable changes at the TEI level. The longer time frame is also necessary to ensure that the knowledge of what works are effectively disseminated to influential stakeholders in the sector so that they are well-placed and informed to take advantage of reform opportunities.

### Box 5: Becoming an Effective Donor Partner in Indonesia's Tertiary Education Sector

Notwithstanding AusAID's long history and strong record of investment in Indonesia's education sector, this program will require AusAID to engage with a different group of stakeholders and on different types of policy and implementation challenges, compared to our current focus on the schooling system. We acknowledge that this will require us to establish new relationships, build knowledge and credibility, and develop a more practical and evidence-based understanding of what works and what doesn't in the sector. That process is already well underway, thanks to the two-year program of analytics responding to DGHE's policy agenda and the collaborative analysis and policy engagement work delivered by the World Bank, but there is much more to be gained in terms of practical, first-hand implementation experience.

The proposed program provides a platform for us to learn lessons, alongside influential sector stakeholders, about what works at the institutional level, but also to identify where institutional change is constrained by broader policy or regulatory settings; to learn lessons about the impact of those broader "enabling environment" settings; and to understand opportunities offered by alternative settings. As AusAID's knowledge, experience, and credibility in the sub-sector grows, we will be able to set a more comprehensive policy agenda for engaging government. We will also be able to identify the champions for change and opportunities for action, based on a contemporary "working" knowledge of the sector. Our policy agenda in the first phase of engagement is therefore modest and largely (though not exclusively) focused at the institutional level but will evolve and strengthen in successive phases.

### 4.3. Areas of Focus and Theory of Change

59. Referring to the development challenges in Indonesia's tertiary education sector (section 3.3), investments by other donor agencies (section 3.4) and the design principles (section 4.2), this concept note has identified areas where AusAID could focus under the program.
60. The current drivers of change are TEIs as well as students and their families. Large enterprise, private sector organisations – beneficiaries of the graduates and innovations of a healthy tertiary education sector are likely partners once initial changes deliver benefits. It is therefore appropriate for Australia to initially focus its investment on:
  - Supporting TEIs to improve the quality of their outcomes (graduates and research), and increase access and success of disadvantaged students;
  - Demonstrating to GoI and the private sector alternative ways to enable TEIs to do the above; and
  - Supporting a policy dialogue that is based on evidence and a wider stakeholder involvement.
61. The theory of change underpinning the program concept is based on three critical assumptions, outlined below. The proposed program description included in this concept note, addresses each of the assumptions.
62. **First, TEIs are in the best position to develop strategies to improve quality and increase access for disadvantaged students at their own institutions and from their own catchment areas, but they may not have the motivation or sufficient, flexible resources to carry out the strategy.** The program can therefore help these institutions further strengthen their strategy and provide them with resources that they can use flexibly. While the program cannot support all institutions in Indonesia, it can support a small group and demonstrate a viable way for GoI to effectively support and enable TEIs. Evaluation of the results, if conducted with GoI partners,

will form a shared body of evidence that can be used for policy dialogue to support systemic change and scale-up in later phases of implementation. This links to the second assumption under the theory of change.

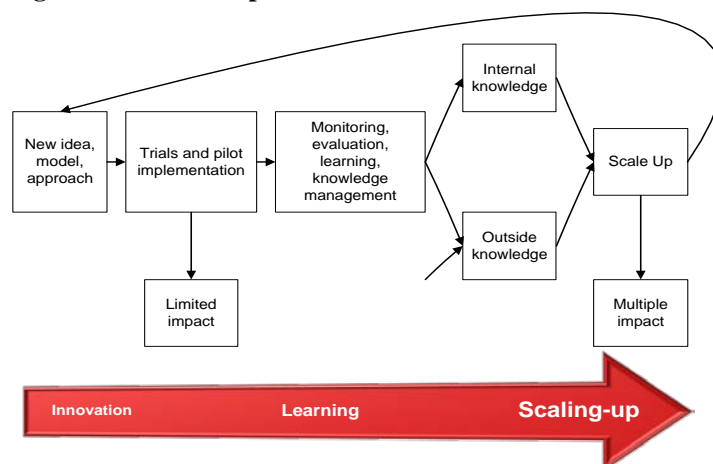
63. **Second, GoI is familiar with alternative ways to enable TEIs to improve quality and increase access for disadvantaged students, but they do not have strong evidence to support a lasting change and face budget constraints that cause them to focus current investment on basic and senior secondary education.** To address this, the program draws on international best practices and Indonesia’s own innovations in the past to identify the most viable modality to enable TEIs. Evaluation and policy research will then be conducted on the support to TEIs to extract evidence and lessons learned on the efficacy of the approach. This evidence will then become the basis for policy dialogue and a more sustainable change in the sector.
64. **Third, a lasting change to improve the tertiary education sector is difficult without the involvement of a wider group of stakeholders.** A traditional “policy engagement” model relies on the provision of technical assistance to the government to develop a new regulation is unlikely to result in real or sustained change. Hence the program will engage a wider group of stakeholders and use evidence—drawn from the support to TEIs—to generate a public discourse on how the government can effectively enable TEIs to improve their quality and increase access for disadvantaged students.

#### 4.4. Building Blocks for the Program Design

##### The Scale-Up Model

65. The preferred model for the program is therefore one that utilizes an adaptive approach, instead of a prescriptive one, with a time frame of eight years. Under this preferred model, the program will have two four-year cycles. During the first cycle, a number of interventions will be conducted in a small number, up to twenty, TEIs. A robust M&E system will capture the lessons learned from these interventions. At the end of the second year, an evaluation will be conducted and the result will be used to further improve the interventions. A mid-term review will be carried out at the end of the first cycle. The result of the mid-term review, combined with lessons learned from international best practices, will guide Indonesian decision-makers and AusAID on further scale up. In the second cycle, the program would be expected to reach optimal scale. Figure 4 provides a diagram of the scale up model.

**Figure 4 The Scale Up Model**



Source: Linn (2001)

## Competitive Funding

66. In order to increase access to tertiary education, raise completion rates, and improve the quality of the graduates, countries have implemented a variety of measures and programs which can be divided into three possible approaches: (i) national policy measures that apply to all institutions; (ii) supply-driven programs funded for all institutions; and (iii) demand-driven innovation funds which are accessed on a competitive basis. National measures consist of regulations, norms and standards that all institutions are expected to follow. In the case of Indonesia, for example, the government has put in place a licensing system to regulate the establishment of new private institutions and accreditation procedures that provide a framework for quality improvement in all institutions. Supply-driven programs are funding lines available to any institution interested in receiving financing for the purpose of the program. In Pakistan, for example, the Higher Education Commission (HEC) offers PhD scholarships for overseas studies whose beneficiaries are available, after they terminate their doctorate, to work at HEC expense in any tertiary education institution willing to recruit them for two years. Finally, demand-side programs make funds available to eligible tertiary education institutions which compete on the basis of the quality of their proposals. Other donors, for instance the World Bank, have used this instrument to support tertiary education reform in many countries, including in Indonesia.
67. When deciding on which modality would be more appropriate and effective for AusAID, we need to consider several criteria, among them the feasibility of the proposed approaches in the present political and administrative context, the level of ownership by potential beneficiary institutions, and the sustainability of the various approaches. The first modality is conditional upon the existence of a national reform program and a clear agreement between the government and AusAID. At the present time, however, the Ministry of Education has not defined a targeted program of reforms and innovations that AusAID could buy in and support in a programmatic manner. The second approach has the advantage of being inclusive of all tertiary education institutions, but presents the risk that the funds could be spread very thinly and does not give any guarantee that they would be used effectively by recipient institutions. It is difficult if not impossible to build in assurances of performance when funds are available as an entitlement. The third modality, competitive funding, has several advantages. It promotes ownership among the competing institutions and encourages them to think strategically about the use of additional resources in support of their efforts to improve equity and quality. It can also contribute to increased sustainability if beneficiary institutions are requested to provide counterpart funding on a progressive scale.
68. Of the available options, a competitive funding scheme is the preferred one for the reasons mentioned above. Its success depends on the objectivity and integrity of the competitive selection process. This is achieved by preparing a clear and thorough set of rules and criteria inscribed in an operational manual, implementing a fully transparent process of which peer reviewing by independent experts is an integral part, and advertising the results publicly to build confidence and credibility.



### Box 6: The Power of Competitive Funds

Well-designed competitive funds can greatly stimulate the performance of tertiary education institutions and can be powerful vehicles for transformation and innovation. One of the first such funds promoted by the World Bank, Argentina's Quality Improvement Fund (FOMECA), was instrumental in encouraging universities to engage in strategic planning for the strengthening of existing programs and the creation of new interdisciplinary graduate programs. Within universities, faculties that had never worked together started cooperating in the design and implementation of joint projects. In Egypt, the Engineering Education Fund helped introduce the notion of competitive bidding and peer evaluation in the allocation of public investment resources. The fund promoted, in an effective manner, the transformation of traditional engineering degrees into more applied programs with close linkages with industry.

A fundamental prerequisite for the effective operation of competitive funds—and one of their significant benefits—is the practice of transparency and fair play through the establishment of clear procedures and selection criteria, as well as the creation of an independent monitoring committee. In Chile, a second wave of tertiary education reforms has been supported by a competitive fund for diversification (development of technical institutes in the non-university sector) and quality improvement of all public universities. Brazil, Mexico, and Uganda have encouraged the formation of advanced human capital in science and technology through competitive funding mechanisms. In all these cases, the participation of international peer review experts has figured prominently.

In some countries with a diversified tertiary education system with unequally developed types of institutions, there may be a compelling argument for offering several financing windows with different criteria, or for setting up compensatory mechanisms to create a level playing field between strong and weak institutions. In a project supported by the World Bank in Indonesia during the 1990s, three different windows were designed to serve universities according to their actual institutional capacity. In the last tertiary education project financed by the World Bank in China, the top universities were required to form a partnership with a university in a poor province as a condition for competing. In Egypt the competitive fund in the Engineering Education Reform project had a special window for technical assistance to help less experienced engineering schools prepare well-formulated proposals. In Chile, a special window was opened to provide preparation funds for universities requiring assistance in strategic planning and subproject formulation.

The voluntary nature of competitive funds is an important success factor. The availability of additional resources can encourage tertiary education institutions to embrace reforms and innovations, while leaving out those not willing or ready to transform themselves.

### Strategy to Influence Sector-Wide Change

69. If a systemic change is to be induced by the demonstration of success and lessons learned, then the following will need to be included in the program's core business:

- **Knowledge generation.** More than to keep the program on track, the M&E system under this program will have a bigger function, i.e. to draw lessons learned and use them as evidence to inform policy making processes. This will require the M&E system to have a dedicated research arm that conducts impact evaluation of the program and policy research based on its processes and results.
- **Effective communications strategy.** As the program aims to influence sector-wide change, the results from the M&E system, including the impact evaluation and policy research, will need to be communicated effectively to the Indonesian stakeholders. This function need to also encourage debates on Indonesia's TE sector reform.



## 4.5. Summary of Program Description

### Overview

70. The activities and outputs of AusAID's tertiary education program in Indonesia are arranged in three pillars:

- **Pillar 1 provides grant funding for a group of tertiary education institutions (TEIs)** to develop and implement strategic plans focused on: (i) increasing access to, and successful completion of, tertiary education for students from disadvantaged backgrounds and (ii) improving the quality of graduates and research outputs.
- **Pillar 2 collects lessons learned from the program to generate shared and credible evidence** for use by Indonesian and Australian partners to inform policy dialogue about tertiary education.
- **Pillar 3 communicates evidence and information** delivered from Pillar 2 activities using purposefully selected channels to engage different target audiences in Indonesia and enable informed public discourse about tertiary education in Indonesia.

Figure 5 summarises the relationship between these pillars and the proposed end-of-program outcomes as well as the program purpose and goal.

71. The focus of the program is demonstrating opportunities to improve the quality of graduates and research outputs from Indonesian universities. This will be delivered through a competitive grants program that supports a small number of purposefully selected tertiary education institutions (TEIs) to plan, implement and review organisational changes to:

- increase access to tertiary education for students from disadvantaged backgrounds;
- increase the proportion of tertiary students from disadvantaged backgrounds that successfully graduate; and
- improve the quality of graduates and research outputs.

**Figure 5 – Relationship between program pillars, end-of-program outcomes, purpose and goal**

GOAL	Indonesia achieves knowledge-driven development that is sustainable and equitable to create a prosperous society	
PURPOSE	Indonesian tertiary education institutions and Gol: (i) continuously improve the quality of tertiary education outcomes, and (ii) enable more disadvantaged students to access and successfully complete tertiary education	
END-OF-PROGRAM-OUTCOMES	The program's participating TEIs effectively and sustainably increase access and success of disadvantaged students, and improve the quality of their learning outcomes	Indonesian stakeholders use evidence and lessons learned from the program to inform a sector-wide reform agenda and motivate implementation of reforms
PILLARS	<b>Pillar 1</b> Grant funding for TEIs to develop and implement strategic plans focused on: (i) increasing access to, and successful completion of, tertiary education for students from disadvantaged backgrounds and (ii) improving the quality of graduates and research outputs.	<b>Pillar 3</b> Communicate evidence and information delivered from Pillar 2 activities using purposefully selected channels to engage different target audiences in Indonesia and enable informed public discourse about tertiary education in Indonesia.
	<b>Pillar 2:</b> Collect lessons learned from the program to generate shared and credible evidence for use by Indonesian and Australian partners to inform policy dialogue about tertiary	

## End-of-program Outcomes

72. Participants in the first phase of the program will initiate change to deliver two end-of-program outcomes:

- the program's participating TEIs effectively and sustainably increase access and success of disadvantaged students, and improve the quality of their learning outcomes; and
- Indonesian stakeholders use evidence and lessons learned from the program to inform a sector-wide reform agenda and motivate implementation of reforms

The exact number of participating TEIs will be decided during the design phase. This Concept estimates around twenty TEIs will participate in the program. This figure is also used as a basis to estimate the program value (see Section 6).

73. The first end-of-program outcome is informed by lessons learned in the diagnostic work conducted to inform the Concept, which identify that tertiary education graduates and research have variable quality and are not always relevant to the needs of Indonesia's employment market or development needs. In addition, there are students and potential students that face disadvantages of poverty, physical disability, gender, distance and ethnicity when trying to access or successfully complete tertiary education. Program interventions will be targeted at activities and outputs that contribute to and support organisational changes in participating TEIs to address these opportunities.

74. The second end-of-program outcome seeks to use the experiences of partners in the first phase of implementation to motivate and catalyse further change. Building on the scale-up approach (see figure 4) and recognising the context for institutional change in Indonesian higher education, the concept realistically invests in active collection and synthesis (Pillar 2) and communication and use (Pillar 3) of information and evidence to support a longer-term change process. In this way, the program concept provides risk-minimising approaches for Australia to continue to invest in tertiary education improvement in Indonesia. If activities with initial TEI partners are successful and motivate wider interest and changes, there is an opportunity for Australia to "chase change" with additional support. On the other hand, if initial investments have limited success or only localised results, the relevance of continued investment by Australia could be reconsidered.

75. These outcomes will be delivered through activities and outputs under three pillars, which are described below to give a better understanding of how outcomes will be delivered.

### *Pillar 1: Organizational Change in Selected Tertiary Education Institutions*

76. During the first four years of implementation, approximately 85% of program funds will be disbursed through competitive grants and a challenge fund used by partner TEIs purposefully selected from three institutional contexts: research universities, regional centres of excellence, and locally relevant TEIs. The exact sample of TEI partners for the first phase will depend on the competitive process, but the initial group of TEIs is anticipated to include 2-4 research universities, 6-8 regional centres of excellence, and 8-10 locally relevant TEIs (see box 4). The Concept envisions the selection process to take into account selected regions targeted by the Indonesia Australia Partnership, particularly the 5 provinces targeted in eastern Indonesia: East Java, NTB, NTT, Papua and Papua Barat. The exact target composition of TEIs and target regions will be decided during the design phase.

77. The program will support partner TEIs to identify and address changes in key aspects of organisational performance to enable effective implementation of grants. By the end of the first four year period of implementation, the estimated twenty TEIs will deliver the following end-of-program outcome: *participating tertiary education institutions effectively and sustainably*

*increase access and success of disadvantaged students, and improve the quality of their learning outcomes.*

78. The program will be implemented progressively and purposefully – starting with a small number of TEIs that will prepare a strategic plan and receive grants through competitive processes or a challenge fund. The program will support development of new capacity and organisational change in participating TEIs to implement, monitor and refine their planned access and quality strategies.
79. TEIs will be invited to express interest in participating in the first phase, against carefully prepared criteria (focused on readiness to engage in this program of organisational change to contribute to the nominated end-of-program outcomes). An independent technical advisory panel will be used to short list institutions and conduct interviews to select the first twenty institutions. Criteria for selection will include: (i) readiness to engage in the proposed organisational change processes; (ii) motivation and capacity to contribute to meaningful change in the quality, accessibility and success of their tertiary education offerings – especially for disadvantaged students; (iii) cost sharing and other resources offered to complement program funds; and (iv) innovative partnering and twinning relationships offered by proponent TEIs to strengthen the capacity and enabling environment for change in practice.
80. Short-listed institutions will be supported to prepare a strategic plan that sets out actions to change the quality of learning outcomes, the access of disadvantaged students to tertiary education and the completion success of those students. The program design will include a menu of options to encourage TEIs to think more broadly about available interventions. Selected activities in these plans will be funded for implementation by competitive grants allocated by the program. Where there are systemic challenges or opportunities identified in the strategic plans, a challenge fund will be used to allow a selected TEI or group of TEIs to develop solutions for wider adoption.
81. Australian grant funding will be available to support participating TEIs to:
  - Improve the quality of learning outcomes they deliver, especially for disadvantaged students. Success in this area would include: more students, especially those that are disadvantaged, graduating within the planned course duration; improved graduate and employer satisfaction with academic outcomes; an increasing trend in the proportion of graduates gaining employment in their sector of choice; a reduction in the time between graduation and first professional employment; and a wage premium paid to attract and retain quality graduates.
  - Improve the quality of research outcomes they deliver. Success in this area would include: increased number of research staff qualified with international-standard PhD; increased proportion of Indonesian research papers published in peer-reviewed journals, especially international journals monitored by international web-based knowledge ratings (e.g. the eigen factor [[www.eigenfactor.com](http://www.eigenfactor.com)] or the social sciences citation index); an increasing trend in research proposed, conducted and reported through partnerships of TEIs (both national, regional and international)
  - Increase the access to, and success of, tertiary education for students living with disadvantage. Success in this area would include: an increasing proportion of the student body selected from groups living with disadvantage (e.g. women and men living with poverty, distance from centres of learning, disability or ethnic minority); the institutional capacity to identify and target the demographic of the TEI catchment area and its student body to enable targeting as well as monitoring and reporting of disaggregated enrolment rates, graduation rates and time to graduation for different social groups.
82. By focusing on demand-led interventions in partner TEIs – that is implementing selected activities set out in their strategic plans – the program will ensure ownership and sustainability. At the same time, the designed menu of options will set out a clear mandate for Australian investment to manage expectations and ensure efficient and effective use of those funds to achieve the end-of-

program outcomes. Box 7 provides several examples of activities proposed by TEIs that can be funded by the competitive grant.

### **Box 7: Examples of Activities Proposed by TEIs under a Competitive Grant Scheme**

#### **Project 1: Curriculum reform at the Faculty of Medicine**

Background: The self-evaluation report has revealed weaknesses in the curriculum and pedagogical practices that the strategic plan of the Faculty wants to address.

Objectives: Incorporate ICTs in support of a more innovative curriculum

Project components: Training of academics; purchase of pedagogical equipment to strengthen the basic sciences labs; purchase of simulation equipment for clinical training; purchase of computers and information resources for the library

Expected benefits: More relevant teaching and learning in nursing, obstetrics and paediatrics, nutrition, physiotherapy, and medical technology programs.

#### **Project 2: Establishment of a new Technology Program in Mining Equipment**

Background: The mining sector is in full development and productivity is being raised by the use of increasingly automated equipment. But there is a lack of qualified technicians to operate and maintain these pieces of sophisticated equipment.

Objective: Establish a new mining technology specialist training program to serve the needs of the mining industry.

Project components: Establishment of industry linkages; curriculum design; training of future teachers in the new program, construction of a mini plant with advanced automated equipment for training and simulation of all mining activities for the future students.

Expected benefits: Qualified graduates with the necessary skills to enter the labour market easily and work effectively as operators of automated mining equipment

#### **Project 3: Increasing Successful Completion of Disadvantaged Students**

Background: A local TEI caters mainly to local students, who mostly come from poor households. The current completion rate is estimated to be 50-60 per cent.

Objective: Improve the completion rate of the entire student body, which is mostly comprised of disadvantaged students.

Project components: Establish a better system to track progress and completion of students and one that can identify early signs of students facing challenges; identify main causes for attrition; develop and implement context-specific approaches to support students to complete study.

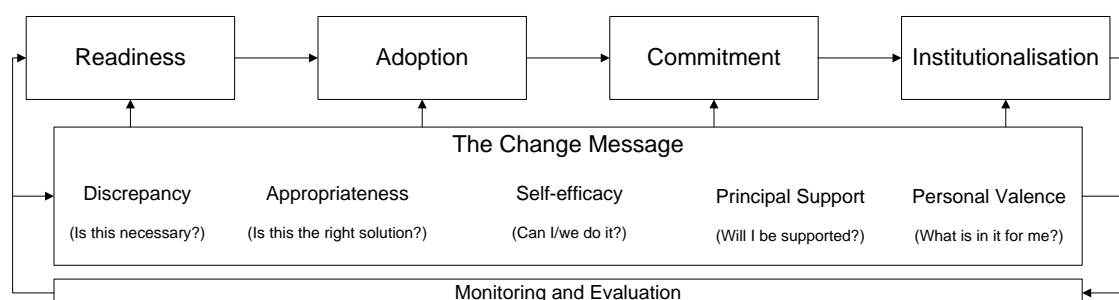
Expected benefits: More disadvantaged students who are enrolled can successfully complete their study and subsequently make better contribution to the local economy and development.

83. Program implementation will use a scale-up approach (see Figure 4). Starting with a small number of TEIs in year 1, lessons will be learned from implementation of the first round of grants. These lessons will be synthesised and communicated so that the next round of recipients can use them to improve the quality, efficiency and effectiveness of the grant process as well as the outputs and intermediate outcomes arising from each grant. This approach emphasises the importance of on-going research, monitoring and evaluation to inform each grant cycle as well as start building a coalition for organisational change in tertiary education. Specific research, monitoring and evaluation interventions form Pillar 2 of the program.

## Pillar 2: Research and Policy Analysis

84. During the first four years of implementation, approximately 6 per cent of program funds will be used to collect, synthesise and report shared and credible evidence to inform policy making. This will include collection of data to identify systemic constraints and opportunities experienced by participating TEIs undergoing organisational change as well as examples of how TEIs have responded to those constraints and opportunities. Evidence will also be collected on the efficacy of the modality, i.e. competitive funding, on enabling participating TEIs to make improvement. ***This pillar links the first and second end-of-program outcomes: lessons and evidence are collected from having participating TEIs effectively and sustainably increase access and success of disadvantaged students, and improve the quality of learning outcomes; these lessons and evidence are then to be used by Indonesian stakeholders to inform a sector-wide agenda and motivate implementation reforms.***
85. This concept recognises that organisational change and related policy development does not occur in a predictable way, and that decisions are informed by more than evidence. As a result, the program focuses more on the progressive engagement of stakeholders in the program and the progressive readiness of stakeholders to adopt effective new ways of working, or rejecting approaches shown to be less effective.
86. Shared and credible evidence will support this change process (ODE 2011). Shared in this case means by DGHE, the initial sample of an estimated twenty participating TEIs and AusAID. Credible in this case means information collected with sufficient methodological robustness to either support well-informed professional judgement or be acceptable for peer reviewed publication.
87. Research and evaluation activities will initially focus on testing drivers for organisational change, using the model shown in figure 6 as a theoretical framework. The stage of organisational change (*e.g.* readiness, adoption *etc.*) would be established for partner TEIs and then drivers of change to the next level (*e.g.* content of change messages or strategies for change) identified for each one. Progress of organisational change and delivery of intermediate outcomes and outputs, such as those used to describe what success would look like in Pillar 1 above, would then be correlated against the stage of change and drivers of change. Lessons learned from this would help target interventions in the next group of TEIs and ultimately lead to a framework for policy and institutional change. Evaluation will also be conducted on the efficacy of competitive funding in delivering organisational change in participating TEIs. Specifically, it will look into the hypothesis that a more flexible funding scheme that is linked to a clear strategic planning and a set of result indicators is an efficient and effective way to create a sustainable change that improves the performance of TEIs.

**Figure 6 Theoretical Framework for Organizational Change Research**



Source: Adapted from Armenakis et al (1999)

88. This concept also recognises that organisational change does not happen in a vacuum: the success of TEIs in increasing access to disadvantaged students and improving the quality of learning outcomes and research depend also on a conducive environment that enables positive changes and innovation to take place – and more importantly, be sustained. It also relies on individuals and groups in an organisation being motivated to adopt and then commit to change (see Figure 7). Common constraints faced by different types of TEIs are probably indicative of an underlying systemic constraint that needs to be addressed at a sector policy level. Symptomatic indicators such as these, which will be captured by the program's performance framework, will be used to structure a policy research agenda for the program. Together with collected learnings from organisational change processes, independent analyses as derivatives of this research agenda will be used as a basis of evidence to engage tertiary education policy makers in dialogue for systemic reforms.

**Figure 7 Theoretical framework for organisational performance**



Source: Lusthaus et al (2002)

### **Pillar 3: Communications and Policy Dialogue**

89. During the first four years of implementation, approximately 9 per cent of program funds will be used to communicate learning and enable public discourse on improving the quality, relevance and equity of tertiary education.
90. As part of the program knowledge-to-policy strategy, the program will support work with a wide range of other Indonesian stakeholders that influence the context in which tertiary education is delivered in Indonesia and the enabling environment for organisational change in Indonesian TEIs. The end of program outcome arising from this component of the program is: ***Indonesian stakeholders use evidence and lessons learned from the program to inform a sector-wide reform agenda and motivate implementation of reforms.***
91. Activities under this pillar will communicate information and evidence generated from the program under Pillar 2 to other TEIs, DGHE and other relevant stakeholders in Indonesia, including MoF and BAPPENAS. As part of the design phase we will commission a political economy analysis of the tertiary education sector, examining this sector's key actors, key institutions, political interests and coalitions, as well as the political drivers of prevailing policies. This will be used to inform the program of the landscape that it will be operating in, the interests



of the stakeholders that it will deal with, and the strategies for policy engagement that it needs to put in place.

92. AusAID and DGHE will collaborate to identify shared and credible information that can be used for policy dialogue. This will be used to explore options for creating an enabling environment and changing the motivation for TEIs to adopt and commit to changes that improve practice. These options may form a basis for future support from Australia in subsequent phases of the program.
93. Evidence and information from the first phase of program implementation will also be used to inform other TEIs, civil society groups including national and regional chambers of commerce (e.g. Kadin); students groups; and the media of opportunities to improve the quality of tertiary education learning as well as increase access and success for disadvantaged students seeking tertiary education.
94. Experience in other programs also highlights the importance of creating “safe spaces” where policy makers, tertiary institution leaders and students can engage in informed discourse to improve the performance of tertiary education institutions in Indonesia. The program will encourage state and non-state actors to create and use such safe spaces for this discourse. This could include physical spaces (e.g. national conferences and workshops), virtual spaces (e.g. Facebook or blogs) or regular newspaper columns and similar forums to stimulate discourse. The stimulation of discourse and substantive interaction between influential actors is expected to organically catalyse the development of coalitions for reform across a range of different stakeholders. A comprehensive Communications and Policy Engagement Strategy will be developed as part of the design phase

## V. Linkages with Other AusAID Programs

95. Two of AusAID’s flagship programs are also very closely related to Indonesia’s tertiary education sector. The agency’s Scholarship Program is currently one of, if not the largest overseas scholarship program in Indonesia. It has helped Indonesian university graduates to pursue their study at prestigious Australian institutions. Many alumni have gone to play key roles in Indonesia’s policy making processes. Meanwhile, the new Knowledge Sector Initiative sets out to improve Indonesia’s evidence-based policy making processes. This requires strengthening the country’s research capacity, including those at universities.
96. **Strengthening the learning process at Indonesia’s TEIs would improve the quality of intake to the Scholarship Program.** At the other end, improving the enabling environment for research—an area that will be addressed by the Knowledge Sector Initiative and can be supported by a tertiary education program—would strengthen the impact of the scholarship outcomes. With a third of the Scholarship Program alumni return to work at Indonesian TEIs, this concerted effort would provide them with better opportunities to apply their knowledge and skills as researchers and teaching staff.
97. **Meanwhile, improving researchers’ capacity at the university level under a tertiary education program will directly improve the outcomes of the Knowledge Sector Initiative.** A major component of the Knowledge Sector Initiative is to strengthen the supply of knowledge. This requires a strong tertiary education system that produces and incentivizes researchers as the main knowledge supplier. Indeed, the Knowledge Sector Initiative identifies the lack of quality of researchers and decision makers graduating from Indonesian TEIs as high risk for the success of the initiative. *Vice versa*, the Knowledge Sector Initiative can pave the way for the tertiary education program to influence the policy making process in Indonesia’s tertiary education sector.



## VI. Program Value

98. The total program value for the first four-year cycle is estimated to be \$110 million. This includes the competitive funding (Pillar 1), generation of knowledge and evidence (Pillar 2), and communication of said evidence and facilitation of public debate (Pillar 3). The bulk of the program value is based on estimates for the annual competitive funding for an estimated twenty TEIs, which may range from \$100,000 for a small TEI to \$2 million for a large research university.

## VII. Performance Management

99. Although the main mode of program delivery is relatively uncomplicated, the organisational change that will be sought by this initiative and the policy changes it attempts to influence are inherently complex<sup>1</sup>. Organisational dynamics in TEIs is probably non-linear, which means change is likely to be unpredictable and multi-dimensional. The program will need a performance measurement system that can evaluate performance of a complex adaptive system; it will also need to identify what common systemic issues are constraining organisational developments of TEIs.

100. To do so, the performance measurement framework will need to incorporate the following principles<sup>2</sup>.

Flexible and dynamic	<ul style="list-style-type: none"> <li>• Capture an emerging model of causal relationships</li> <li>• Evaluate and revise the evaluation design periodically</li> <li>• Capture, preserve and learn from the “noise” in the system – evaluations should capture unexpected system behaviours as well as expected ones.</li> </ul>
Consider complex interrelationships among system components	<ul style="list-style-type: none"> <li>• Incorporate multiple strategies, cycle times, time horizons, dimensions and informants</li> <li>• Be explicit about what evaluation findings actually mean – including context-specific interpretation of findings</li> </ul>
Consider patterns and structures of different levels of the system	<ul style="list-style-type: none"> <li>• Make information about performance measurement processes open and accessible to all stakeholders</li> <li>• Recognise similarities and differences between organisational contexts</li> <li>• Communicate findings to others in terms that they care about and understand</li> <li>• Evaluate to inform action</li> </ul>
Transformative	<ul style="list-style-type: none"> <li>• Make evaluation an integral part of the intervention</li> <li>• Use evaluation as a positive feedback mechanism</li> </ul>
Emergent	<ul style="list-style-type: none"> <li>• Conduct an evaluability assessment to assess whether systems in place can provide useful data</li> <li>• Track pattern and pattern changes over time rather than focusing exclusively on behaviour change of specific groups or individuals</li> </ul>

<sup>1</sup> Rogers (2008) characterises complex programs as interventions with emergent outcomes and/or recursive causality (where “a small initial effect may lead to a large ultimate effect through a reinforcing loop or critical tipping point”).

<sup>2</sup> Adapted from Eoyang and Berkas (1999), ‘Evaluation in Complex Adaptive System’, in M. Lissack and H. Gunz (eds) *Managing Complexity in Organizations*. Westport, CT: Quorum Books.

101. A Performance Measurement Framework for the program that takes account of the above features will be developed during the design phase. The Framework will articulate an approach to *progress* monitoring and *performance* monitoring to complement the approach to performance *evaluation* set out above, as well as a systematic approach to use performance information to support effective program management and policy dialogue.

## VIII. Risks and Risk Management

102. The following are the key risks to achieving the program outcomes, which must be managed during implementation. Program risks and strategies to mitigate these will be further explored during the design phase.
103. **A key operating risk is that Indonesia's rigid financial system may compromise the flexibility of TEIs in utilizing AusAID's funding.** As described in the earlier parts of this concept note, Indonesia's rigid budgeting system is identified as one of the deterrents for innovations at the TEI level. The program's aim to address this issue by providing competitive funding may face some difficulties with Indonesia's financial system. **The program will address this risk by involving representatives from the MoF during the design phase and throughout program implementation.** The design team has started consulting the directors at DGHE and sought dialogue with their MoF counterparts. Consultation with MoF will intensify during the design phase.
104. **The highly dynamic political economy of the sector may provide major challenges to achieving the outcomes of the program.** One of the end-of-program outcomes is to have Indonesian stakeholders use evidence and lessons learned from the program to inform a sector-wide reform agenda. The political economy of the sector will play a major role in how the evidence are shared and used as a basis for a reform agenda. **The risk will be managed by working with all major stakeholders, which will be mapped out in detail during the design phase.** This will increase the likelihood that evidence from the program will be seriously considered in policy discussions. The communication strategy developed under Pillar 3 will take into account the need for this wider stakeholder involvement. A list of key stakeholders has been identified (see Section 3.2 on Political Economy); further analysis on the sector's political economy and identification of a wider group of stakeholders will be conducted during the design phase.
105. With the program channelling about 80 per cent of the program value directly to TEIs, **a fiduciary risk is identified.** However, the World Bank has supported programs that channelled funds to TEIs since early 2000s, and the level of fiduciary accountability of participating institutions was acceptable to the Bank's standards. While AusAID may have different fiduciary standards from the Bank, the latter's experience implies that measures can be introduced to reduce the risk. **Measures to mitigate this risk will include a fiduciary assessment of participating institutions and establishing strong controls and robust financial procedures.** These measures will be considered in more detail during the design process.
106. Activities under the investment do not pose any potential risk to child protection, displacement and resettlement, or disability, hence complying with AusAID's safeguards.

## **IX. Design Process Next Steps**

107. The design process is expected to complete by end of 2013. Over this period, further in-depth dialogue will be conducted with stakeholders to both develop the design and maintain Indonesian stakeholder ownership of it. Key partners for dialogue will include public and private TEIs (management, faculty members and students), DGHE, representative of industry users of tertiary education graduates, MoF, and other development partners. The political economy analysis, to be conducted during the design phase, may identify other stakeholders to engage.
108. A robust M&E system and an effective communication strategy are pivotal to the program's success, and these will be developed during the design phase.

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