Evolving ASEAN-Australia relations in Higher Education.
Towards a Regional Knowledge Network?

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Australia's attitude towards ASEAN has waxed and waned over recent decades, including in higher education. In part a reflection of tensions between its geography and history, it highlighted the question of the extent to which Australia saw itself as an Asian country (an uncertainty shared by number of its ASEAN neighbours). Reviewing changes in several key indices (Asian languages strategy, International student policy, Education as Aid), the prospects for a regional knowledge network comprising Australia, ASEAN and China are assessed, with the conclusion that the whole would be greater than the sum of the parts, but that for the prospect to be realised, greater consistency in Australian government policy towards the region is needed.

Key words: Australia, ASEAN, higher education relations, Asian languages, international students, education aid, regional knowledge network.

> *Your economic ties have increased, your political ties have increased,*
> *but to be part of the family, you must develop the social side, the people*
> *to people side and that's been limited (Lee, Kuan Yew)*

The complex relations between ASEAN and Australia have evolved substantially over the 40 years since Australian became an ASEAN dialogue partner in 1974. No less so in higher education, which has been the most dynamic sub-sector within ASEAN-Australia relations in education, accounting for both the bulk of educational mobility, as well as most educational cooperation (Fraser, Simkin and Wright 1994). Drawing on the author's longstanding involvement with higher education in the ASEAN region, the analytic lens focuses on higher education relations, as one window on the evolution of Australia's relations with ASEAN, over the period 1974-2014. Given that the 10 ASEAN systems present too wide a window, the article's gaze is largely restricted to 5 key ASEAN member states (Indonesia, Malaysia, Philippines, Thailand and Viet Nam), encompassing both the world's largest majority-Muslim nation, as well as a range of levels of development, and political ideologies. For comparative purposes, Singapore, something of an outlier within ASEAN, is treated in notes to the some of the tables, and some reference is also made to China, for reasons that become clearer towards the latter part of the argument.

Overall, the argument is made that, while progress has indeed been made on ASEAN-Australia relations over the period, notably in higher education, the rise of China, and its higher education and research system has changed the equation for both, opening up opportunities for greater regional academic relations, in which the whole would form more than the sum of the parts. While as Jayasuriya and others have pointed out, regional architecture is as yet less well defined within the Asia-Pacific, and specifically ASEAN,

relative to the more mature and well-developed regional programmes and relations in the European Union, it is argued that there is considerable, if as yet somewhat under-explored, potential to extend and deepen regional relations in higher education, both between ASEAN and Australia. If one accepts Dent's distinction between inter-regionalism and trans-regionalism (Dent 2003), and the implications of Jules, and Jayasuria's work on open regionalism it would be true to say that signs of the latter, indicated by common spaces and associated ASEAN-Australia networks between individuals, and organisations, are still maturing in higher education and research (Jayasuriya 2003, 2004, Jules 2014) – but have nonetheless grown significantly in density and significance.

A genuine, deeply rooted trans-regional network of higher education and research relations between Australia and ASEAN, while important, is still at a more embryonic stage, and, while both ASEAN's and Australia's achievements on regionalism tend to be outweighed by their rhetoric, China's dramatic rise presents new opportunities to extend regional knowledge networks (Welch 2010b, 2011, 2012c, 2012d). Given this importance of China to each, the latter part of the analysis thus also explores the potential for a wider regionalism that embraces China's dynamic higher education and research system. The prospects offered by a tripartite regionalism (ASEAN, Australia, China) are considered in the final sections of the analysis.

CONTINUITY AND CHANGE: ASEAN-AUSTRALIA RELATIONS SINCE 1974

The past 40 years, since Australia became ASEAN's first dialogue partner in 1974, has been witness to an evolving set of relations, notably including education (AusAID 2004, Chin and Richardson 2004). In turn, this needs to be set against the rich and multi-faceted intra-ASEAN diversity, including religious, cultural and linguistic diversity, both within and between ASEAN member states, and levels of development, from wealthy, technologically highly-developed nations such as Singapore, to very poor developing nations such as Laos and Myanmar.

Table 1.   *Development Indicators, Selected SE Asian states.*

COUNTRY	HDI 1990	HDI 2011	HDI Rank 2011	Net Primary Enrolment 2001-2009 M and F		GDP per capita (PPP$) 2010	Public Expenditure on Ed'n (% of GDP)	Adult Literacy Rates 2001-2009 M and F	
Indonesia	0.481	0.543	124	94	97	3,880	2.8 (2010)	89	95
Malaysia	0.720	0.793	61	95	95	13,186	5.1 (2010)	90	95
Philippines	0.571	0.644	112	89	88	3,560	2.7 (2009)	96	95
Thailand	0.707	0.768	103	89	90	7,672	5.8 (2011)	92	96
Viet Nam	0.610	0.691	128	..	..	2,875	6.6 (2010)	91	95

UNDP 2012: 217-226, World Bank (n.d.)

Note: Singapore's HDI in 2010 was 26; Australia's was 2, China's was 101.

The extent to which Australia has come to see itself as an Asian country (FitzGerald 1997), - albeit a quite distinctive one – marks a further arena of change, as well as how much that view is shared by its ASEAN neighbours. The decades from the mid-1970s arguably revealed Australia moving on from its past self-understanding as an outpost of British empire, together with a sense of regional insecurity (Beeson 2001, Welch 2013), towards a more systematic engagement with the region. Most recently, the major *Australia*

in the Asian Century White Paper, launched in 2012 by then Prime Minister Gillard, identified Indonesia as one of a handful of priority countries, (and four languages), for which a country strategy paper was then devised (DFAT Indonesia Profile, DFAT 2013). The White Paper, including its educational dimensions, was announced as a major initiative, although experienced regional analysts argued that Australia had been here before – repeatedly – and that the paper was best seen as yet one more chapter in Australia's waxing and waning relations with ASEAN, and engagement with Asia more generally.

What follows represents much more than a simple expansion of ASEAN-Australia relations in education. The initial stage, characterised by the Colombo Plan, occurred in an era of post-colonial development for much of developing South East Asia. At the time, a hierarchy of development between 'core' and 'periphery' nations was commonly assumed by Western theorists (although the specific terms and the theoretical implications were by no means universally employed), the Cold War set limits to cultural ties, including student and staff mobility, and functionalist assumptions of a uni-linear model of development based on modernisation theory were only gradually being superseded by more complex frameworks (Welch 1985). Higher education in the region was generally under-developed, with local factors such as Viet Nam's longstanding war (which, although Australia had established diplomatic relations with Ha Noi in 1973, only finally ending in 1975). Malaysia's ethnic discrimination against non-Bumiputras[1], and Myanmar's decades-long isolation and neglect of higher education were further examples that limited access and opportunity. (Welch 2011a, ADB 2012, ADB 2013).

Forty years later, much had changed. Although, in education, three issues - Asian Languages, Overseas Students, and Educational Aid – show striking continuity over the period, by the 21st. century the context had altered considerably. Perhaps the most dramatic change was the global shift to Asia, including in higher education - an acknowledgement that the region had evolved into the most dynamic in the world, with some stellar levels of development present, including among ASEAN member states (SCMP 2013, DFAT 2012a, Bhandari and Lefebure 2015, RIE 2015).

> *The changes ... mark a significant shift in the global economy towards Asia ... pinpointing it as the centre of gravity of the world's economic mass (OECD 2010: 26).*

While three giant economies, China, India and Japan, would lead Asia's resurgence, other large countries like Indonesia and Vietnam would also have significant economic mass. Even Thailand and Malaysia could have economies larger than France has today (OECD 2010: 23).

Singapore had taken its place among the wealthiest league of nations, while the dragon in the room, China, had thrust its way on to the world stage so emphatically, that both ASEAN and Australia each paid more attention to China than each other. Such changes had barely been dreamed of, four decades earlier (Lee 2015).

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[1] *Bumiputras* refers to ethnic Malays, who are comprise around 60 per cent of the total population, and in practice still gain preference in education and employment, despite quotas in education being formally abandoned in 2003.

Values constituted a second change element. International education had traditionally been based on the twin pillars of goodwill and development, as the authors of a contemporary review of Australia's international education highlighted: "Australia's educational assistance to overseas students aims to export both goodwill and people who can solve problems" (Cleverley and Jones, 1976: 31, Megarrity 2005, 2008). In theory this benefitted both sides, if not always equally in practice. The developing nations of Southeast Asia benefitted from capacity development, in the form of scholarships from wealthy Australia, although some concerns were already being expressed about whether the content of such programmes was always appropriate (Cleverley and Jones 1976, Toh and Farrelly 1982). Awardees, who as a condition of their scholarship needed to return to their homeland upon completion (and mostly did), brought back much-needed skills, and often went on to gain leadership positions, not just in education. Australia benefitted from the regional goodwill that such schemes engendered. The last three decades or so, however, marked the growth of a much more commercial imperative in international education, notably in Australia, but more recently also evident in ASEAN member states such as Singapore and Malaysia. (Altbach and Welch 2010, Welch 2011a and b, 2012, MoE Malaysia 2015). International education is now commonly conceived of as an 'industry', with an estimated total value globally of more than US$2 trillion. The Asia-Pacific region is the most dynamic growth centre of this industry, as is seen below, and Australia is only one competitor for students from the region.

A third change element was the character of Australian immigration which, at the onset of the period, had barely seen the end of discriminatory migration policies that limited settlement prospects for ASEAN-origin students. But by the 21st century, a strong policy shift towards skilled migration led to the fact that around half of Australia's applicants for permanent residence were being drawn from its own international students, many of whom still stemmed from the ASEAN region (Welch 2013, p. 120). (More recent policy changes made it more difficult for international students to remain in Australia, after graduation). Indeed, migration from ASEAN member states rose from 10 per cent of the total intake in 1982-3, to 20 per cent in 2002-3 (APH 2005). This, too, however was not entirely new: the Goldring report of 1984 had confirmed that some 75 per cent of private international students gained permanent residence in the 1970s (Meadows 2011, p. 61).

Australia's shift to Asia had marked effects. By 2011, ASEAN-Australia two-way trade had reached US$88 billion (DFAT 2012a), with an imbalance towards ASEAN evident with respect to both goods, and services. Of Australian service sector exports, education was now the most significant, and within education, higher education formed the major component. Underpinning this development was the rise of the Asian middle class, including in ASEAN. Across the Asia-Pacific, the middle class totalled 525 million in 2009, representing 28 per cent of the global total. Projections were that by 2020 this would have increased more than threefold, to 1.74 billion individuals and 54 per cent of the world total. By 2030, the same projection indicated almost 3.3 billion, or 66 per cent of the global total middle class (OECD 2010: 28). Although China and India will form a big part of that growth, the growing middle class in ASEAN member states such as Thailand, Indonesia, Malaysia and Viet Nam will be also be important.

Three features form the basis for further growth in academic relations between ASEAN and Australia. First is the common aim by ASEAN member states to develop at least a top tier of 'world class' universities, within a wider context of subscribing to the discourse of knowledge based economy as the means towards development. Second is the South

East Asian middle class's propensity to save and invest in education, seeking out desirable destinations and higher education institutions (HEIs) for their children. Third is the growth of ASEAN migrant communities in Australia, among which many individuals are well educated and interested to form and strengthen knowledge bridges with their countries of origin. The combination of these three offer considerable potential to expand two-way flows of both students and academics between Australia and ASEAN. The desire to build top-tier research universities has already issued in substantial initiatives across the region and has been an important element in the development of a more multi-polar world of knowledge (Royal Society 2011, Welch 2011a, 2011b, 2012b, 2013b). It is argued that the extension of this trend in the region will underpin more extensive and intensive academic relations between ASEAN and Australia in the decades to come, based on a richer, denser, more egalitarian mode of regional relations.

KEY THEMES AND THEIR EVOLUTION.

As indicated above, a striking continuity of themes that underpin Australia's regional relations with ASEAN in the education field is evident over the period 1974-2014, notably in the trinity of Asian languages, Education as Aid, and International students. By the end of the era, a fourth theme of academic collaboration was becoming much more prominent, as the data below indicate. The following section outlines the evolution of these themes.

Asian languages

As early as the mid-1970s, Asian languages were already listed as a growth area (Cleverley and Jones 1976: 13-15). The Auchmuty Report of 1970 gave a major stimulus (pushed in part by Australian business who were concerned, then as now, at inadequacies in Asia literacy among young Australians), and the growth of economic and cultural ties to Asia and ASEAN (Auchmuty 1970). The report stimulated something of a move towards Asian languages, including Indonesian. The Asian Studies Coordinating Committee, for example, established by the Australian Education Council in 1972, made grants available for the development of new curricula. As a result, the Intercultural Studies Project of the University of Sydney developed Social Studies materials for Indonesia and Malaysia, while Flinders University supplemented its existing specialist Indonesian staff (Cleverley and Jones 1976:15).

Asian languages were a striking omission from Jones' later coverage of Australia's international relations (Jones 1986). The relative growth and decline of Asian languages, however, shines an interesting light on Australia's regional relations, including with ASEAN. The most recent iteration, enshrined in the *Australia in the Asian Century* document, designated 4 languages as priorities: Chinese, Hindi, Indonesian, and Japanese (DFAT 2012b). Enrolments in Indonesian studies and Indonesian language, and the fate of departments of Indonesian in Australian universities are perhaps the most apposite example. Despite various versions of an Asian language strategy (Welch 2013: 102), some less well-financed than others, and the longstanding Australia-Indonesia Institute founded in 1989, one of whose aims is "the encouragement of the study of the Indonesian language and culture in Australia and the English language and Australian culture in Indonesia", (DFAT Australia-Indonesia), a longstanding pattern of advance and retreat is evident, at both national and institutional levels, rather than substantial policy continuity. The *Building Relationships through Intercultural Dialogue and Engagement* (BRIDGE) program (Indonesia), designed to foster Asia literacy and inter-cultural understanding

between the two nations, is one initiative, that supported Indonesian language programs in Australian schools, for example, but the Myer Foundation funds on which it in part depends, lapsed at the end of 2012.

Cuts to tertiary education funding, inadequate weighting of languages in tertiary entrance scales, and the well-known resistance of the Anglosphere to learn other languages, have all played their role. But policy discontinuity has also helped contribute to an outcome whereby enrolments in Indonesian at tertiary level actually declined in recent years, despite the rising importance of Indonesia in world terms, and growing ties with Australia in particular (DFAT Indonesia Profile). Even the existence of the Australia Indonesia Youth Exchange, founded 30 years ago, which offers young Australians the chance to live in Indonesia, failed to halt the decline. Nor did a tenfold increase in the working holiday visa scheme (from 100 to 1000), announced in 2012, that was designed to encourage people from each country to experience the other's cultures. The number of students enrolled in Indonesian at Australian education institutions actually declined by 40 per cent over the last decade (DFAT Indonesia Profile, Jakarta Post 2013, Asia Education Foundation 2013, Henderson, 2011). Despite Indonesian again being listed as a priority language within the *Australia in the Asian Century* White Paper, the decline is unlikely to be reversed, unless systematic, long-term priority is attached to the issues listed above. 6 universities closed their Indonesian language programmes between 2004 and 2013, leaving only 15 that retained the language; the programme at La Trobe was only saved after concerted action in both countries (Jakarta Post, 2013). Nor is it likely that, without significant institutional and governmental incentives, the numbers of Australian students studying the language in Indonesia will rise much, despite efforts by organisations such as the Asia Education Foundation, and relevant university departments around the country (AITSL 2013).

The incoming coalition Federal government's much-touted *Colombo Plan*, announced in 2012, was a tangible recognition of the global 'Shift to the East'. While a welcome initiative, predicated on a more two-way approach to mobility, it was acknowledged as limited - only supporting perhaps 300 students to study in the region (Liberal Party 2013). Of these, only a minority would study within ASEAN universities. Further information released in late 2013 indicated that, in a pilot programme beginning in 2014, 10 students would be selected on merit from each of four priority nations (Indonesia, Singapore, Hong Kong [China] and Japan) to study for two semesters at an Australian university. $4 million was also devoted to support 700 Australian students to study for one or two semesters in the selected countries, and additional students for short-term placements (Australian 2013f and g). Overall funding for the *New Colombo Plan* was set at $100 million over 5 years (Australian 2013g). Emphases were gaining work experience while studying; boosting Australian productivity and innovation; and enhancing regional integration. The Foreign Minister's stated overall goal, a mix of cultural and economic rationales, largely focused on the benefits to Australia:

> *My goal is to see study in the Indo-Pacific region become a rite of passage. Through living in the region, learning languages, forging friendships and exchanging ideas, young Australians will return home with the skills and perspectives to support our growth in a changing world (Australian, 2013g).*

Educational Aid

Aid in education has been another enduring element (AusAID 2004). The announcement in 1972 of a review of Australia's aid, the Joint Committee on Foreign Affairs' *Report on Australia's Foreign Aid*, was the first such review since the establishment of the Colombo Plan in 1950. It marked a significant change from the preceding Cold War mentality, which had viewed Australian aid in large part as a bulwark against Communism. In a year that saw Australia establish diplomatic relations with the People's Republic of China, and withdraw its troops from Viet Nam, the charter for the later review was set by an incoming, reformist Prime Minister: "to ensure that (Australian aid) has a more direct bearing on improving the quality of life of …fellow human beings" (Cleverley and Jones 1976, p. 22). In practice, despite changing federal governments, aid, including in education, continued to be seen as an extension of foreign affairs policy.

Isolating specific education components among the overall Australian aid envelope has never been simple, particularly when programmes previously deemed education are, as a result of shifting government priorities, sometimes simply re-badged as good governance or transparency training. Nonetheless, it was estimated that education comprised around 17 per cent of bi-lateral aid in the mid-1970s (Cleverley and Jones 1976, p. 26).

Indonesia again presents a good case study of evolving relations. Australian aid to Indonesia, which began in the 1950s, totalled $574 million in 2012-13. Currently the largest recipient of Australian aid, the sectoral breakdown of total ODA to Indonesia in 2005-6 revealed that 47 per cent of the ongoing Indonesia program (thus excluding the *Australia Indonesia Partnership for Reconstruction and Development (AIPRD*) was devoted to education, largely comprising support for Madrasahs (the *Learning Assistance Program for Islamic Schools* [LAPIS]), and Australian Development Scholarships [ADS] (Australian Government 2005-6, ABC 2008, Jakarta Post 2013). Of Indonesia's 68,000 Madrasahs, Australia has supported 1,500, to the tune of $47 million (Australian 2013a). Selecting only those that teach the agreed national curriculum, four AusAID programmes enhanced the capacity of Madrasahs to meet national accreditation standards: enhanced teacher training, increased learning and teaching mechanisms, meeting the national curriculum standard, and improved infrastructure and facilities.

The aftermath of the 2004 Tsunami, saw Australia initiate a $1 billion aid package, comprising $500 million in grant assistance and a further $500 million under a highly concessional loan programme. The AIPRD programme contained significant educational components, including 600 scholarships, a doubling of the previous number.

> *…AusAID funding provided for … Indonesian students, as well as other scholarships and education assistance, such as for postgraduates studying in Australia. This includes … international students studying in Australia (Jakarta Post 2013).*

It also included a component, the *Indonesia–Australia Specialised Training Program*, to deliver over 325 short courses over the years 2004 to 2008. The programme focussed on capacity building for mid-career professionals in areas such as economic management, governance, and improving delivery of basic services in health and education. (Australian Government 2005-6). The subsequent re-integration of AusAID into the Department of Foreign Affairs and Trade (DFAT) in September 2013, was paralleled by a cut of some 12 per cent to Australia's aid budget (from $5.66 billion to $5.004 billion), and a 'more

Jakarta, less Geneva' affirmation of regionalism, which was likely to see Australia's regional aid to its neighbours preserved, over existing programmes in places further afield, such as Afghanistan and Africa (Australian, 2013b, c, and d).

International Student Mobility

International student policy is the arena that has attracted the greatest media and popular attention, both nationally and internationally. By the mid-1970s, international students already comprised a mix of private and sponsored students, although a degree of policy uncertainty attended the former, a decade or so before the twin official reviews of international education eventuated in a major policy re-orientation (ACE 1989, Megarrity 2005, 2008). In 1974-5, of 2780 awardees under the Colombo Plan, Indonesia was awarded 428 Australian scholarships, Malaysia 455, Singapore 224, Thailand 331, and South Viet Nam 422 – a sub-total of 1,860, or 67 per cent of the scheme's total. This pattern paralleled the changing mix of Australian migration, at a time just after the final abandonment of its historically discriminatory, 'White Australia' policy. The reasons advanced to account for this trend underlined the growth of Australia's regional relations in education:

> *First, more attention is being focused on Asian and South Pacific countries. Of ... importance has been Australia's admittance to the South East Asia Ministers of Education Organization (SEAMEO) in 1973, and to the Asian Regional Group of UNESCO in 1974…, accompanied by significant increases in regional activity (Cleverley and Jones 1976: 27, see also UNSW n.d.)*

A singular exception to regionalism, at least temporarily, stemmed from the ending of the Vietnam War, which abruptly halted sponsorship of students from that country. But overall, this trend of a disproportionate number of international students in the Australian system stemming from the region, was early evidence of what would prove to be an enduring pattern, although in the last decade or more, China has grown to be by far the largest source country, while most recently numbers from India have risen rapidly.

The number of private students also grew, encouraged *inter alia*, by the federal government's recent abolition of fees for university study (1974), although a cap of 10,000 private overseas students had been introduced in 1973 (Meadows 2011, p. 61, UNSW n.d.). In addition, the federal government's decision to allow 'successful' private students who wished to remain in Australia, and who met normal migration criteria, to remain, induced some students to stay. The decision was not without controversy however: Singapore protested that it promoted brain drain, and attempted to restrict its students to the sponsored category (Cleverley and Jones 1976: 29, see also Meadows 2011, p. 61). The cap was later removed, and an overseas student charge (OSC) introduced, with the level depending on the course. International student policy continued to frame Australia's foreign policy objectives that were stated by the architect of one of the two reviews to be:

> *… the advancement of Australia's interests in countries of particular importance to Australia (especially ASEAN…) by improving communication, understanding of and sympathy for Australia's policies, and to promote cultural exchange (Goldring 1984, p. 29).*

Table 2. *ASEAN Private Overseas Students, Post-Secondary & Higher Education, 1976-1984.*

Country	1976	1977	1978	1979	1980	1981	1982	1983	1984
Indonesia	490	538	514	488	423	365	371	593	943
Malaysia	3,139	3,094	3,123	3,580	4,001	4,619	5,353	6,016	7,341
Philippines	28	28	27	23	17	18	17	26	30
Thailand	258	270	257	241	214	191	170	151	152
Viet Nam	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other Asia	396	361	345	394	366	419	428	449	559
TOTAL	5,486	5,852	6,004	6,745	7,383	8,103	9,125	10,656	13,047

Adapted from Jones 1986, Pp. 75-6.

Note: 'Post-Secondary' includes TAFE qualifications.

The transition to international (higher) education becoming an industry was precipitated by the outcomes of the dual Goldring, and Jackson, reports of 1984 (Goldring 1984, Jackson 1984, Meadows 2011). The two reports came to opposite conclusions. Goldring recommended maintaining the cap on international students (due to the limited capacity of the Australian education system) and subsidies - a public affirmation of Australia's contribution to international education development (Goldring 1984, p. 55). At the time, this cap proposed at 5 to 10 per cent of undergraduate enrolments, with no more than 25 per cent in any single course. By contrast, Jackson argued that Australian international education was both cumbersome and staid, and called for the existing Overseas Student Charge (OSC) to be steadily increased, so that by the mid-1990s, overseas students would be levied the full costs of their education (Jackson 1984, p. 95).

The subsequent inter-departmental committee, established to reconcile the two divergent sets of recommendations, supported a modified version of the Goldring report. Policy developments, however, veered very much in the other direction - towards crafting international education into an industry, that is now Australia's largest single service sector export, and one of the country's most substantial industries overall (Meadows 2011, Welch 2012a). Throughout the 1990s and beyond, international student numbers continued to mushroom, with totals rising from 84,000 in 1993, to almost 160,000 in 1999. Of this total, higher education occupied 53.4 per cent, including a growing proportion of offshore enrolments. By 1999, offshore enrolments comprised 16.9 per cent of overall enrolments (onshore added a further 36.5 per cent) (AEI 1999). The rise of online education and the establishment of branch campuses, including Monash Malaysia and RMIT Viet Nam, accelerated the growing proportion of offshore enrolments (Welch 2007, 2011a, 2012b). By 2011, enrolments in higher education totalled 242,351 (AEI 2011), of which China accounted for over a quarter. Australian outbound students totalled a mere 11,000 in 2009, among which no ASEAN member state was among the top five destinations, while Malaysia was the only ASEAN member state among the top 5 source countries, by visa application granted (ABS 2011). 2013 data revealed that, of the 228, 263 international students enrolled in Australian higher education, China accounted for 40.2 per cent of the total, although Viet Nam and Malaysia were among the top 5 source countries overall (Austrade 2013). ASEAN member states formed a significant share of total higher education student visas granted in 2013, as the following table indicates.

Table 3. *Higher Education (573) Visas Granted, Australia 2013, by Country*

Country	Visas Granted	%

Indonesia	3,793	3.0
Malaysia	6,027	4.7
Philippines	1,500 (?)	1.2
Thailand	3,416	2.7
Viet Nam	7,849	6.2
China	44,809	35.2

Source: *Dept. of Immigration 2013*

Note: Numbers comprise both onshore and offshore. Singapore visas granted numbered 3,148.

The data in Table 3 show that the 5 ASEAN member states together total about half of the Chinese total (17.8 per cent of the total international enrolment, compared to China's 35.2 per cent).

A REGIONAL KNOWLEDGE NETWORK?

By 2011, the longstanding disparities of Australia-ASEAN student flows were painfully apparent. Indonesia again forms a useful example. Almost 18,000 Indonesian students were enrolled in Australia, mostly in higher education. The reverse flow was barely a fraction of that total, estimated at no more than 200, most of whom were undertaking short language courses, rather than degree programmes. Australian students enrolled in degree programmes at Indonesian universities totalled no more than 50, and although the incoming federal government's announcement of the *New Colombo Plan* promised to boost this number (see above), it would do little to reduce the gap (Politifact 2013).

But the ongoing development of universities and R&D in ASEAN countries, motivated by a ubiquitous regional desire to boost knowledge and innovation, together with the thousands of well-trained graduates from Australian universities, who have returned home and now occupy senior posts within universities, business and government, have created a platform for building a regional knowledge network, which remains as yet, underdeveloped. Singapore's major investment in research and development (R & D), and forging leading universities, has led to both its National University of Singapore (NUS) and the Nanyang Technological University (NTU) being ranked strongly in the reputable and robust Shanghai Jiaotong Academic Ranking of World Universities (ARWU) list. Malaysia's University of Malaya, which has benefited from being one of 5 Malaysian university to be designated a research university, and the only university to be selected for the High Impact Research initiative, is also listed. Both systems have made major progress in becoming Eduhubs, attracting talent from throughout the region, and beyond.[2]

But for this regional knowledge network to operate effectively, two things would be needed. The first is Australia's long-term, bi-partisan national policy commitment to the goal of building such a regional network, which would survive being overturned by the next change of government. The second is a much more serious commitment by Australian universities to the long-term cultivation of their graduates who return to ASEAN countries, but who are often interested in maintaining and deepening knowledge partnerships with Australia, and who are often in senior posts, in government, universities or industry. Currently, Australian universities seem more interested in the potential of

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[2] Malaysia in particular, has set out, with considerable success, to recruit students from other Muslim countries and cultures, both from the Middle East, Central Asia and Africa.

alumni for fund raising, than making a long-term commitment to maintaining close contacts, and sustaining trans-national knowledge communities.

Prospects for fostering a regional knowledge network also bear on the quality and research output of regional higher education systems. What contribution does higher education make to research and development in ASEAN member states, and how does this compare with the developed world in general, and Australia in particular? What are the outputs in terms of publications, citations, and patents? And what evidence is there of existing bi-lateral research collaboration between Australia and ASEAN members? The following tables provide much of the data that enables answers to these questions.

Table 4. *Contribution to R&D Performance by Sector*

Country / Region	Business	Government	Higher Education
SE Asia	51.3	22.1	15.7
Indonesia	14.3	81.1	4.6.
Malaysia	65.3	20.3	14.4
Philippines	--	--	--
Thailand	43.9	22.5	31.0
Viet Nam	--	--	--
China	62.4	27.1	10.5
Developed Country Average	62.9	13.3	27.0

Sources: ADB 2008:122, ADB 2012; India estimates from UNESCO 2010b: 488.

Note: Singapore data: Business 63.8, Government 10.9, Higher Education 25.4

Table 4 reveals that for South East Asia in general and for the 5 ASEAN member states in particular, higher education contributes no more than about half of the developed world average, to total research and development (R&D) performance. A significant outlier, Singapore, treated in the note to Table 4, reveals a profile much more like the developed world average.

Table 5. *R&D Expenditure Levels and as Percentage of GDP, 2002 and 2009*

	R & D spending, 2002		R&D as percent of GDP	
Country	$ Billions (PPP)	Percent of World	1992	2009
Indonesia	0.3	0.0	0.1	0.05
Malaysia	1.5	0.2	0.4	0.64
Philippines	0.4	0.0	0.2	0.12
Thailand	1.1	0.1	0.2	0.25
Viet Nam	Na	Na	Na	0.19
China	72.0	8.7	0.8	1.2
Australia	--	--	--	2.06

UNESCO 2010: 438. World Bank 2006

− = data unavailable, GDP = gross domestic product, PPP = purchasing power parity, PRC = People's Republic of China, R&D = research and development.
Singapore's rate of R&D as % of GDP in 2002 was 2.2, and in 2009 2.52.

Table 5 reveals that none of the 5 ASEAN member states either spend more than 0.64 of a percent of GDP on research and development, compared to Australia's 2.06, itself no more than average in OECD terms. Again, Singapore is the ASEAN outlier, as the notes to Table 5 reveal, while China's rapidly rising investment now outstrips that of all 5 ASEAN states, but not Singapore.

Table 6. *Knowledge Economy Index, and related indices, 2012, Selected Countries, 2012*

Country	Overall World Rank	Knowledge Economy	Knowledge Index	Innovation	Education
Australia	9	8.88	8.98	8.92	9.71
Indonesia	108	3.11	2.99	3.24	3.20
Malaysia	48	6.1	6.25	6.91	5.22
Philippines	92	3.94	3.81	3.77	4.64
Thailand	66	5.21	5.25	5.95	4.23
Viet Nam	104	3.40	3.60	2.75	2.99
China	84	4.37	4.57	5.99	3.93

Source: World Bank KEI and KI index, 2012

Note: Singapore's overall world rank is 23, with a KEI rating of 8.26

The knowledge economy profile of the 5 ASEAN states in Tables 4, 5 and 6 above reveal significant, albeit differential disparities between Australia and the five selected ASEAN member states, on current knowledge indices. But the gaps are narrowing. Over the decade 1998-2008, for example, the number of articles published by Australian researchers rose from 16,432, to 28,313, a growth rate of 72.3 per cent. By contrast, Indonesia's rate of growth over the same period, (off a much lower base, to be sure) was 113 per cent, Malaysia's was 312 per cent, Philippines' 137 per cent, Thailand's 383 and Viet Nam's 341, although the same is not true for numbers of USPTO registered patents (UNESCO 2010: 441 and 444, see also Welch 2010b and c). Data on China, whose recent dramatic scientific rise is transforming the global knowledge network, is included for reasons outlined below (Royal Society 2011, UNESCO 2010, OECD 2008, Yang and Welch 2012). A long-term view, therefore would suggest that extending regional collaboration networks is worthwhile.

And there is already a base to build on. Table 7 below, reveals significant existing academic collaboration between Australia and the 5 ASEAN member states, when measured over the first decade of the 21st century. China, too, is now a major knowledge partner for Australia (Chief Scientist 2013). In an era of Network Science, where the proportion of publications by authors from more than one country rose from 25 per cent to 35 per cent over the past two decades, it further underlines the tangible benefits beyond the actual research produced. The data in Table 7 reveal that several bi-literal collaborations (Thailand, Philippines, Viet Nam and China) produce a moderate lift in citation rates, something pointed to by other studies of international collaboration (Royal Society 2011, Australian 2012). While Singapore, something of an ASEAN outlier on many levels, is not included in the table, the data reveals that extending existing research collaboration between Australia and Singapore would tend to produce similar effects.

Table 7. *Australia's Collaborative Publications and Citations 2000-2011, by Country*

Country	Total Publications 2000-2011	Total Citations 2000-2011	Citations per publication
Australia	512,042	5,801,020	11.4
- with China	18,465	256,584	13.9
- with Indonesia	1,356	14,287	10.5
- with Malaysia	1,560	16,399	10.5
- with Philippines	670	12,613	18.8
- with Thailand	2,387	36,354	15.2
- with Viet Nam	684	8,249	12.1

Source: Thomson, InCites 2012

Note: Singapore data 2000-2011 is 4,718 publications, and 73,414 citations (15.6 citations per publication). Citation rates for Indonesia are 7.67, Malaysia 4.40, Philippines 8.25, Thailand 7.02, Viet Nam 6.98. [Singapore's citation rate is 8.49.] (UNESCO 2010: 444).

For ASEAN, too, China is an important knowledge partner. Substantial student flows between China, Malaysia and Singapore are paralleled by significant Chinese diasporas in both (Welch 2011a and b). China's southern borderland provinces and autonomous regions have long-established relations with neighbouring ASEAN member states such as Viet Nam and Myanmar, including developed knowledge relations (Welch 2012b, c and d, 2015). China is Malaysia's largest international collaborator, while for the Philippines, China is the third-largest knowledge partner (UNESCO 2010: 443). For both Indonesia and Singapore, Australia is their third-largest international collaborator. Clearly, there is more potential here to develop these existing collaborations into a more fully-fledged regional knowledge network[3].

CONCLUSION

Regrettably, when the Australian gaze is directed at SE Asian higher education systems, it is still largely as a source of international students. An index of Australia's overly entrepreneurial approach to international higher education, especially compared to western Europe, for example, such an approach is at best myopic, and at worst a vestige of colonialism (Altbach and Welch 2010, Welch 2012a).

This is all the more so in an era of network science, when, for example, as a recent Royal Society investigation underlined, "today, less than 26% of papers are the product of one institution alone, and over a third have multiple nationalities sharing authorship", and when over the period 1986-2008, the proportion of the world's published papers with more than one international author rose from just over 25 per cent to over 35 per cent (Royal Society 2011: 46). Other benefits reveal that " For each international author on an article, there is a corresponding increase in the impact of that paper, up to a tipping point of around 10" (Royal Society 2011: 59, including figure 2.7). Moreover, growing regionalism is cementing research relations between states within ASEAN (Royal Society 2011: 54-55),

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[3] The term knowledge network is preferred throughout, to the more common knowledge economy, for reasons indicated in the initial quote from Lee, Kuan Yew.

and enhancing prospects for greater collaboration with neighbours such as China and Australia (Welch 2012c, Royal Society 2011: 55). As well, initiatives such as the International Science, Technology and Innovation Centre for South–South Co-operation (ISTIC) established in 2008 with support from UNESCO and the Malaysian Government, and based in Kuala Lumpur, have a significant regional dimension (Royal Society 2011: 54).

Despite this, the potential to deepen and extend ASEAN-Australia relations in (higher) education, while great, remains largely unexplored, as a recent article by a well-known analyst of ASEAN regionalism highlighted (Jayasuriya 2013). The narrow Australian focus on promotion of ASEAN/Asia literacy, while important, fails to embrace a wider range of options. In particular, given the common ASEAN member-state strategy of developing at least a top tier of world-class universities, it is now increasingly possible to envisage much more comprehensive regional research collaboration, with ASEAN and Australia researchers combining to produce a result greater than the sum of the parts. The data above show both that significant collaboration already exists, and that significant potential exists to extend this. Singapore already has world-class research teams, while other ASEAN states have, to varying degrees, centres of excellence and valuable local knowledge. Such trans-national collaboration would produce substantial public-good results, with challenges such as climate change, non-communicable disease, and migration, being common challenges. With some effort, academic mobility could be enhanced (beyond the existing modest *University Mobility in Asia and the Pacific* [UMAP] scheme), to promote greater regional researcher mobility. Expanding parity of treatment by leading regional researchers in relation to Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC) Grants, could also help build capacity in selected ASEAN universities. Lastly, Jayasuriya proposes '…a more comprehensive and region-wide framework for research cooperation and funding' something which again could help address common research programme needs, while at the same time building 'regional public goods' (Jayasuriya 2013).

The question of just what is encompassed by region is significant here; all the more so, since China is now Australia's leading knowledge partner, especially in fields such as Engineering, Mathematics and Chemistry. Of some 885 agreements between Australian and Chinese universities, 89 per cent included academic or research collaboration (DSIIRTE 2011, Yang 2008, Chief Scientist 2013), while ASEAN, too, has well-developed academic links with China (Welch 2007, 2011b, 2012c). Indeed the understanding of ASEAN as a region has been problematised recently, with recent work raising the prospect of an ASEAN-China academic region (Jayasuriya 2004, Welch 2012d). The prospect of even greater research synergies between ASEAN, Australia and China, could confer even greater rewards, particularly given the substantial number of Australian alumni now in key posts throughout the region.

This is not to underestimate, nor ignore, the impact on international relations of complex, ongoing international tensions between ASEAN and China, including maritime disputes over the South China Sea (Sutter 2012, Welch 2012c, Lee 2015, Dewar n.d.). Nor the sharp deterioration in relations between Australia and Indonesia in late 2013, precipitated by revelations that that agents of the former had spied on senior government officials of the latter. Nor Australia's delicate task of navigating between China and the USA, and the impact of this on its deepening relations with China (Australian 2013c and d, White 2010).

At the same time, however, international relations are not uni-dimensional, and there is no reason that cultural and academic relations should not mature, despite such obstacles (Australian 2013e). Harvesting such results remains unlikely, however, until Australia develops and sustains a mature and sophisticated, long-term, bi-partisan regional integration strategy. The increasingly negative, partisan, and short-term horizon of Australian politics and policy-making militates against the development and implementation of long-term regional integration policy, underpinned by sustained programme resources. The waxing and waning of related programmes and policies, including the recent politicisation of migration and refugee policy, only inhibits the development of effective long term strategies, in collaboration with ASEAN and possibly other neighbours, to fully exploit the potential of education and research cooperation.

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