Mobilising talent for the clean economy workforce:

a shared challenge, a regional response

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Kristen Bondietti

Australia and Southeast Asia must work together to create a regional clean economy workforce of the future by developing a regional agenda of green skills, exploring specialist 'green project passports' and forging partnerships between businesses and education providers. Now is the time to collaborate on a regional response to a shared challenge.

A regional challenge

The transition to a clean economy is a common goal for both Australia and Southeast Asia. It is vital for securing growth and competitiveness as a region. The shift will require 30 million new jobs in Southeast Asia by 2030.[1] It offers huge opportunities.

However, it also presents a huge challenge - mobilising a skilled workforce to power it. Green jobs are expanding at twice the rate of the workforce available with the necessary skills.[2] Skills gaps and shortages for green occupations persist in most countries.[3]

The workforce requirements to meet this challenge are distributed both within economies and across the region. The development of a skilled, mobile, and regional talent pool is urgently needed. It demands the attention of government policy makers, businesses and education institutions. This paper explains how Australia and Southeast Asia can cooperate to do this.

1   Aus4ASEAN, Digital Transformation Future Skills Initiative, Promotion of Business Engagement Models for Upskilling and Reskilling the ASEAN Workforce, ASEAN Secretariat, June 2025 June 2025, Promotion of Business Engagement Models for Upskilling and Reskilling the ASEAN Workforce

2   Ibid.

3   Ibid.

The changing landscape

Technological innovation, digitalisation, regulatory policy, and[8] increasingly borderless models of work delivery are impacting on how we think about and plan for a clean economy workforce of the future. They will drive and shape the talent that is needed.

Digitalisation is allowing remote delivery of work - location matters less. Work is now more interconnected between local and global firms and is delivered through a mix of remote and physical activity as part of wider value chains. A business can maintain a physical presence in one market but connect to others throughout the region to support client needs. This increasingly involves services, and the mobility of talent – both people and expertise - across borders.

So too for the clean economy. Think of the engineering, legal advisory, architectural, and trades services that are used for the design and construction of energy-efficient vehicles, buildings, ports, and infrastructure. Or consider the scientific and technical services used in precision agriculture, or data analytics and finance needed for monitoring in waste treatment.

Adoption of clean technologies is also upending traditional roles and occupations. New green jobs are emerging and existing jobs are changing in both professions and technical trades. For example, engineers, architects and accountants will increasingly take on 'green' tasks as part of their jobs to support the design, construction and financing of new energy systems. More electric vehicle mechanic and solar and battery electricians will be needed to service new technologies. Many, if not all sectors of the economy, across the region, will be impacted from power generation and utilities, agriculture, renewable and low emissions manufacturing to urban development.

At the same time, work is becoming increasingly task-oriented, with occupations shifting toward competency-based outcomes. Increasingly digital work is aided by using technology, data, and artificial intelligence (AI). For example, AI platforms are being used for scalability and real-time monitoring and forecasting of emissions and resource usage.[4]

These changing occupations and skills requirements are creating a greater role for trusted standards, and their interoperability across borders, in underpinning the quality and standard of work (such as to verify qualifications and credentials).

All of this is occurring at a time of unprecedented changes in geopolitics generating much turmoil and uncertainty in trade[5] and supply chains, shifting investments and clean economy activity. Responses are impacting on workforce needs, business models and investments, and government policy settings in new and unpredictable ways.

Clean economy talent for the future

We are not yet ready to mobilise the talent this new landscape demands. Regulatory settings, standards frameworks, and education pathways are not prepared for a regional clean economy workforce.

Mobility of talent is crucial to enable the flexible, scalable, and agile ways of working along value chains which underpins clean economy activity. However, regulatory settings are yet to adapt sufficiently to this new and uncertain paradigm. Occupational entry requirements, lack of streamlined qualifications, and fragmented visa and immigration rules, both in Australia and Southeast Asia, make it hard for people and expertise to move to where they are needed. For example, electricians and plumbers from Southeast Asia face unnecessarily lengthy skills testing, training, and provisional licensing if they want to work in Australia. Foreign professionals such as engineers and architects across the region must undertake additional unnecessarily burdensome assessments before applying for registration, particularly in professions where mutual recognition agreements are not in place.[6]

Those in skilled occupations and professionals of all kinds will need to upskill and keep adapting their competencies to adjust to the changing landscape and ways of working. Similarly, qualifications, credentials and training systems need to take account of the new skills and competencies that are required for the clean economy. Yet there are no common frameworks or definitions governing the range of green skills and credentials employers and individuals need, nationally or regionally. For example, in Australia, there is no single skills framework or taxonomy, though work on a National Skills Taxonomy (NST) is currently underway.[7]

Malaysia and Singapore have national skills taxonomies, but there is no ASEAN-wide framework.[8] This makes it hard for students or workers to match qualifications with jobs and for employers to match skills needs with supply, within and across labour markets in the region.

Where talent is increasingly being deployed across borders, aligned standards, nationally and internationally, become more important for efficient facilitation of this. However, diverging qualification and practice standards in Australia and across Southeast Asia (both for professions and technical trades or skilled occupations) inhibit talent mobility and contribute to skills gaps. This is exacerbated by overly restrictive regulation of services sectors in some economies. In Southeast Asia, education qualifications are not yet aligned across ASEAN Member States. Diversity in educational systems, policies, and developmental levels mean there are considerable differences among the members in standards for curriculum content, teaching methodologies, assessment practices, and quality assurance mechanisms.[9] There are varying national regulations and accreditation requirements for occupations.[10] This is combined with regulatory barriers to foreign services providers, including in, but not limited to legal, health, environmental, education, and accounting professions.[11]

Mobilisation of a skilled workforce requires the participation of governments, educational institutions, and business. These stakeholders do not always work together, nor fully understand where their goals and objectives align to make this possible. Fragmented responses to skills and qualifications architecture as well as education and training pathways impede the mobility, upskilling and investment needed for the green transition.

4   See AASC & AusPECC, Mobilising Asia Pacific Talent, Southeast Asia Clean Economy Workforce Action Plan, Discussion Paper, November 20205. See Annex 1.

5   Global rules-based trade frameworks are being upended by unilateral actions of some countries. Restrictive border controls are being imposed on labour and student mobility amid concerns about immigration and employment. For example, the United States has recently tightened its visa system for foreign students and workers. See WorldVisa, "Major Immigration Policy Changes Coming into Effect from October 1, 2025" September 29, 2025 at Major Immigration Policy Changes Coming into Effect from October 1, 2025

6   See Pathway to Australia, 'How to work as an electrician in Australia' https://pathwaytoaus.com/blog/how-to-work-as-an-electrician-in-australia/ and 'How to work as a plumber in Australia' https://pathwaytoaus.com/blog/how-to-work-as-a-plumber-in-australia/; Engineers Australia, Barriers to employment for migrant engineers, 2021, Barriers to employment for migrant engineers | Engineers Australia and Enhancing Australia's migration program: Engineers Australia submission to the Department of Home Affairs, 2022, Engineers_Australia.pdf; ACPECC, 'Requirement for Professional Services, Engineering Services Vietnam, https://acpecc.org/dl/10-licensing-_-registration-rules--engineering--vietnam--ccs-43-C7tezcP-.pdf; Australian Architects Accreditation Council, 'Pathways to Registration as an Architect in Australia,' Pathways to Registration as an Architect in Australia | Architects Accreditation Council Of Australia; Australian Productivity Commission, Building a Skilled and Adaptable Workforce, Interim Report, August 2025 https://www.pc.gov.au/inquiries-and-research/adaptable-workforce/

7   Jobs and Skills Australia, National Skills Taxonomy Discussion Paper, October 2025. See https://www.jobsandskills.gov.au/consultations/have-your-say-building-system-puts-people-and-skills-first

8   Malaysia Ministry of Economy and Ministry of Human Resources (MOHR) and TalentCopr, 'What is MyNSR?' About Us – TalentCorp MyNSR.

9   Carvajal, Pangilinan and Sanchez, Professional Regulation Commission, Philippines, University of Makati, Philippines, ETCOR Educational Research Center, A Roadmap on Harmonizing Education in the ASEAN Region: Challenges and Strategies, October 2024 https://etcor.org/storage/iJOINED/Vol.%20III(4).%20215-228.pdf

10 Asian Association of Open Universities (AAOU), 'Transforming ASEAN's Skills and Education Future through Cross-Border Learning and Harmonised Education', April 2025. https://www.aaou.org/2025/05/21/transforming-aseans-skills-and-education-future-through-cross-border-learning-and-harmonised-education/

11 OECD, STRI Country Note for Indonesia, February 2025. OECD Services Trade Restrictiveness Index: Indonesia | OECD , OECD STRI Country Note for Thailand, February 2025, OECD Services Trade Restrictiveness Index: Thailand | OECD

Mobilising clean economy talent

There is a pressing need for coordinated and collaborative approaches between Australia and Southeast Asia to mobilise the clean economy workforce. What can be done?

This question was explored in the RMIT "Southeast Asia Clean Economy Workforce Action Plan" Roundtable in November 2025 which brought key stakeholders across government, education, and business together to RMIT's City North Social Innovation Precinct to begin a conversation on this challenge. Several ideas were presented <link to discussion paper when on website> and explored. Discussions pointed to some priority actions:

1st Developing national skills taxonomies for green skills, and aligning these systems at the regional level, and with international best practice.

Standards systems need to be updated to account for the new skills and competencies demanded by the clean economy. A taxonomy of green skills and competencies is a necessary first step in identifying common definitions that could be used by educational institutions, students, and employers to make more informed workforce decisions in a changing landscape – what to teach, what skills to seek, and what talent to match the task? Applied in qualifications frameworks, it would better link credentials and licensing requirements with competencies that are needed, thereby also helping to alleviate shortages.

National systems are essential for consistency. Australia should incorporate green skills into development of its National Skills Taxonomy (NST).[12] ASEAN can focus on working towards an aligned system, building on the experience of national taxonomies of Malaysia and Singapore. The **Malaysia National Skills Registry** for example, has a standardised skills taxonomy and classification that acts as a national reference for skills definition, including new and emerging skills.[13]

Systems should also be interoperable at the regional level to allow workers and employers to match green skills and credentials across borders as part of a regional talent pool. Australia and ASEAN can collaborate to improve alignment of their national systems, and work toward a regional taxonomy of green skills.

2nd Exploring opportunities to enhance regional mobility across borders through 'Green skills project passports.'

Clean economy activity will need people and multidisciplinary expertise that can move across borders, both physically and remotely. "Green skills project passports" could provide temporary and much needed economic access for foreign professionals and workers along value chains involved in clean economy projects by establishing a trusted system for 'automatic' recognition of qualifications and competencies and streamlining visa and licensing controls. This concept has been explored in **AusPECC**. Scope for mutual recognition of professional services on a temporary, or project basis, is already provided for in some free trade agreements of Australia and ASEAN.

Australia should explore developing a pilot bilateral green skills passport program with willing Southeast Asian partners. This could operate as a blueprint for further agreements with other partners over time. Programs could be targeted at areas of clean economy activity where there are skills gaps and labour shortages. Arrangements could be flexible and project based – allowing business and workers to mobilise across borders when and where expertise is needed. A common green skills taxonomy would help in crafting a suitable framework.

Mutual benefits would be derived from more efficient access to talent and from shared knowledge, expertise and interconnected ways of working.

3rd Third, enhancing engagement between education institutions, governments, and business.

This is vital to improve transitions of students and graduates from education to work and help meet the shifting workforce needs in areas of industry demand.[14] The urgency with which this needs to occur to operationalise the clean economy is not always appreciated.

Australia and Southeast Asia can forge a coordinated approach across the "whole of value chain" to develop a shared understanding of the challenge and how to address it – including actions outlined above - through partnerships for collaborative action among state and national governments, professional bodies, business, higher education, and VET providers.

In addition to these three priority actions, other pathways toward a regional clean economy workforce should also be pursued, including:

- aligning national qualifications frameworks as they develop and are updated;
- experimenting with pilot programs for use of digital credentialling and tools involving key professions and partners;
- easing domestic regulatory barriers to professionals and services providers, including education and training providers;
- undertaking advocacy and capacity building initiatives to further understanding of the challenge, support above initiatives, and share experiences, information and lessons learned.

These approaches are outlined in the discussion paper https://bit.ly/497BE0X.

Collaboration for clean economy talent

More discussions are needed to inform future initiatives for coordinated, data-driven approaches to mobilising a regional clean economy workforce that meet both national and regional needs. Australia and Southeast Asia can work together to do this and mobilise the talent for a regional clean economy workforce. Now is the time to do so.

The AASC, AusPECC and RMIT look forward to progressing the conversation with policy makers, business, and academia as part of a continuing body of collaborative work.

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12 Jobs and Skills Australia, National Skills Taxonomy Discussion Paper, October 2024.

13 See MYNSR, Ministry of Economy and Ministry of Human Resources (MOHR) and TalentCorp. Open access skills taxonomies also already exist in other countries including the US, EU and the UK. See Department of Education, Skills and Employment Australia, University-Industry Collaboration in Teaching and Learning Review, December 2021 University-Industry Collaboration in Teaching and Learning Review - Department of Education, Australian Government. The World Economic Forum (WEF) has also developed a global skills taxonomy.

14 Department of Education, Skills and Employment Australia, University-Industry Collaboration in Teaching and Learning Review, December 2021.