

Overview

On 11th October 2021, the Singapore and Australian Governments jointly announced the development of a Green Economy Agreement (GEA) to accelerate both countries transition towards a green and sustainable future. As part of the GEA process, the Australian Government requested interested stakeholders to provide written submission to assist in framing the agenda for the GEA negotiations.

The objective of this submission is to propose areas of focus for negotiation, guided by a consultation and feedback process run by the Australian Chamber of Commerce in Singapore (AustCham). This included external industry partners and international, Singaporean, and Australian companies with interests in both markets. We continue to seek industry feedback and welcome any additional information and supporting material.

Responses have been sought from a variety of sectors, including but not limited to banking and finance, construction, aviation, maritime, professional services, and research institutions.

The scope of the areas covered in this submission is very broad, reflecting the importance of the GEA across a number of sectors. We have limited the discussion to issues we believe best captured under an agreement such as this and have not gone into detail around broader sustainability and ESG issues.

The submission itself is a high-level discussion on the key themes as outlined below, with the view to providing some guidance on possible scope of the GEA as it is relevant to our membership and wider business community in Singapore with an interest in Australia. Similar to the Digital Economy Agreement recently ratified between Singapore and Australia, we envisage the negotiations to be an iterative process that provides:

- An agreed scope and topics for the initial GEA negotiations
- An initial agreement that defines a work programme for the next several years
- Considers whether other related agreements will fall under the GEA as an umbrella framework
- A defined set of follow-on stream and activities that will bring to fruition the identified focus areas

We understand there is a target to have an executable GEA by the end of 2022, with follow on areas of activity over the next two to three years. AustCham members have requested that the GEA also focus on prioritisation and execution steps as well as major agreement areas.

AustCham recognises that there is a large volume of expert material generated in both Singapore and Australia on green economy and the submission specifically is not aiming to provide that level of detail. Specific follow up on key topics can be addressed separately.

Consideration has also been given to Singapore's position as a hub for the ASEAN region and the role Singapore and Australia can play in extending the principles of this agreement to other bilateral and multilateral future agreements, particularly in the following areas:

- Security of green energy and food supply
- Singapore as a transport / logistics hub
- Skills for the future
- Regulations, reporting and standards across green financing, investments, carbon credit trading and ESG responsibilities
- Australian investment and participation in the above areas.

Australia has also recently announced a set of measures that support:

- Indo Pacific Climate Change Support
 - 6 current action plans are identified
- Climate Change Action Strategy
 - Through Australian Aid
- Indo Pacific Carbon Market Offsets Scheme
 - A 10 year commitment to development of an offsets scheme generation and trading
 - Consistent with the Paris Agreement

Many of the above initiatives can be seen as mutually reinforcing.

SUMMARY

There were 9 key topics identified through the initial AustCham consultation process and input from the group included:

1. Technology cooperation and transfer

- ✚ Carbon Capture, Utilisation and Storage
- ✚ Clean and affordable hydrogen
- ✚ Research development and potential for collaboration / joint programs.
- ✚ Explore repositioning of some Singapore high energy industries to Australia
- ✚ Sustainability of Singapore and Australia's energy supply and diversification of supply

2. Carbon credits

- ✚ Attribution and sharing of credits
- ✚ Mutual recognition and joint standards
- ✚ Linkage to investments
- ✚ Measurement, Reporting and Verification (MRV) benefits
- ✚ Nature based solutions – SGX approach – CIX position

3. Finance

- ✚ Availability – impediments and restrictions versus demand
- ✚ Tackling “greenwashing” through standards and transparent reporting
- ✚ Mutual accreditation and recognition of schemes

4. Cooperative Government funding initiatives

- ✚ Alignment of existing programs and potential for joint funding support
- ✚ Incentives for key projects and investment including protection of IP

5. Food security and sustainable supply chains

- ✚ Singapore 30 by 30 goal
- ✚ Extension of knowledge and creation of best practice in standards, policy, retail and consumer impact
- ✚ Food production and waste systems
- ✚ Cooperative research on new practices and technology
- ✚ Alignment of practices under existing agreements around agriculture, meat and livestock

6. People

- ✚ Retraining and upskilling, transferrable skills
- ✚ Mutual recognition of qualifications and experience for consultants / industry practitioners

7. Regulatory and legal framework

- ✚ Standardisation of regulations
- ✚ Reduction of red tape
- ✚ Incentivise areas of priority

8. Renewable energy supply

- ✚ Key Australian projects
- ✚ Logistics of transportation and supply of clean energy

9. Logistics, transport, and AI applications

- ✚ Application to the logistics industry – particularly aviation and maritime
- ✚ Areas of concurrent development

The following section will discuss each point in further detail, including key discussion points and questions, level of priority to the sector, feasibility (practical vs conceptual), timeframe and potential next steps.

Participants engaged in the discussion anonymously and not necessarily in the capacity of their respective organisations.

TOPIC 1: Technology cooperation

Overview

Innovation in technology is an enabler of the green economy across essentially all industries. From facilitation of reporting and standardisation of measurements, transportation of green energy and carbon capture, to information sharing and data storage.

Consideration should be given to how technology could be better utilised and where policies could be updated through this agreement to facilitate better cross border data flow to enable more efficient use of data storage and on premises cloud requirements.

We believe through the use of new technology and some small changes to existing policies there could be some substantial benefits for the Green Economy across a number of industries. There is potential for Singapore and Australia to set the standards and benchmarks through this agreement and then expand this across Southeast Asia and other markets.

Two areas that have not been developed in detail in this submission, but warrant further enquiry include:

- Manufacturing innovation
 - Lowering the cost of implantation of best practices to reduce carbon and waste issues
 - How to bring to market new industrial technology areas
- Built environment
 - Green components – steel, concrete, copper, etc.
 - Smart buildings and resource minimisation (heating, cooling, electricity)
 - IOT optimisation for landlord and tenants – cost optimisation through efficient use

Below are two key areas raised with us during our consultation as examples where technology can facilitate better harmonisation of systems and reporting practices as well as the movement of clean energy, use of green hydrogen or carbon capture and storage.

1.1 Platforms to streamline reporting and standardise benchmarking

On the digital technology front, there are opportunities to cooperate on developing streamlined and at scale digital ESG solutions – such as ESG FinTech and Climate Tech platforms focused on measurement, benchmarking, reporting and verification that would enable market participants to exchange ESG data reliably and securely between the two countries. Both in Singapore and Australia there are many emerging solutions providers that remain at small scale.

Outcomes & Next Steps:

A partnership between the two countries to fund pilot studies and report outcomes on the use of digital solutions to support sustainable finance would enable faster market adoption and remove barriers of adoption risk for financial institutions and other market players. Australia could look at the MAS' Project Greenprint working with industry to pilot digital platforms for better data to

support green finance and forge a partnership to incentivise and expand these types of solutions between the two countries.

Consideration should also be given to increasing commercialisation programs and building joint capability. Both Singapore and Australia have access to world leading specialists and research institutions and thought should also be given to commercial realities and how to not just get to market but how to be a successful business.

Other areas that could support improved and consistent reporting include streamlining such things as:

- Country of origin determination and application
- Compliance certificates
- Validation of time requirements (e.g., periods for use or disposal)

1.2 Technology cooperation and transfer

There is a clear need for CCUS and clean hydrogen. These technologies will likely facilitate the transition to net zero CO₂ emissions by tackling emissions from existing assets; providing a way to address emissions from some of the most challenging sectors; providing a cost-effective pathway to scale up low-carbon hydrogen production quickly; and allowing for CO₂ removal from the atmosphere through DACCS (Direct Air CCS) and BECCS (Bioenergy equipped with CCS).

We recognise the ongoing need for fossil fuels in the energy mix in the near term. In this context, investment in CCUS is an important requirement. But the bigger opportunity rests with a 100% renewable energy mix. Therefore, it is important to explore the role Australia can play in supporting this transition for Singapore. CCUS however, remains an important opportunity for hard to decarbonise sectors such as steel, cement, chemicals and other heavy industry – including supporting clean hydrogen.

Asia has the fastest and highest growth in demand for energy. Any transition needs to provide for the needs of developing and emerging economies and to continue the supply of low-cost energy to support continuing development and growth. CCUS and clean hydrogen could be an important pillar in helping Southeast Asia transition from its current energy mix to one that aligns to future climate goals.

Key questions raised and discussed:

Challenges/Roadblocks for CCUS

- Technology/Innovation – Significant leaps in clean energy innovation and substantially more widespread research and development is needed to meet the Net Zero Emissions by 2050 scenario.
- Storage locations – Geoscience Australia has completed significant work in characterising potential reservoirs around Australia. Similar exercises will be required across the Southeast Asian region exploring both saline aquifers and depleted oil and gas reservoirs – paying particular attention to plug and abandonment processes with depleted reservoirs to ensure they are able to be used for CO₂ subsequently.

- Time – The innovation and technology needs to be developed this decade, in order for it to be tested and fully operational for 2030 and beyond. Support for, and investment in the research and development of CCUS is critical.
- Continued use of fossil fuels – Fossil fuel use doesn't fall to zero under the Net Zero Emissions scenario. This could be a barrier to obtaining investment without clearly articulated and understood scenarios where the use of fossil fuels is still necessary e.g. Heavy industry, long-distance transport (air and sea)
- Infrastructure – clean technology will be useless without large-scale construction of supporting infrastructure. E.g., pipelines and/or liquefaction facilities to enable transport captured CO2 emissions; injection infrastructure; systems to move CO2 around and between ports and industrial zones.
- Legal and regulatory frameworks – Robust guidelines will need to be in place to consider and manage cross border fiscal issues and reservoirs. Also of importance is long-term legal and insurance coverage for injection locations after injection has stopped – particularly where there is a cross-border transfer of CO2 into a storage location. Could these be resolved through existing regional forums such as ASEAN, APEC etc?

Clean Hydrogen

- **Offtake;** Technology has developed, however, long term offtake agreements are required in order to make large scale projects bankable. It is difficult for companies to enter into these types of contracts when the projected cost of hydrogen is forecast to fall as the industry ramps up. As such there is a role for government though subsidisation in the early years.
- **Transportation;** How will Green Hydrogen be transported and in what form will it be transported (liquefied hydrogen, green ammonia, etc). The loss of efficiency through using different transport modes does need to be studied and is an area open to innovation.
- **Storage;** new infrastructure required for hydrogen to be stored, with common standards across supply chains to ensure safe operation of these facilities. Downstream of storage, there are opportunities for continued innovation in regasification and reconversion back to hydrogen from some intermediate medium.
- **Certification;** Having a common cross border certification scheme to classify hydrogen (level of carbon associated with each cargo) is important for the future industry.

Enablers for CCUS and Clean Hydrogen

- Clear fiscal and policy guidelines from Governments.
- Increased investment in the support of known and emerging technologies.
- Capital and entrepreneurship from both the public and private sectors.
- Supportive government policies and/or incentive to encourage investment or capital allocation into CCUS and Clean Hydrogen projects. Projects sponsored by fossil fuel companies are currently challenging for potential investors and financiers given the market shift away from financing fossil fuels.
- Carbon price – A price on Carbon would incentivise investment capital (equity and debt). Singapore has either established or has reference point to different forms of carbon pricing in both the public and private sectors.
- Oil & Gas companies have the capability to understand and develop CCS projects. These companies have the engineering, sub surface reservoir, geotechnical knowhow and the experience managing complex engineering projects.

TOPIC 2: Carbon credits

Overview

Australia has great potential to create carbon credits to be used by companies and governments to offset their emissions. The current Australian system is servicing a domestic market however we believe there is capacity for this to scale and serve an international market. Australia also needs to consider how to 'internationalise' the carbon credit position that can benefit other countries in the generation and allocation of carbon credits.

Singapore does not have the same capacity to create carbon credits however has created the Climate Impact X platform (CIX) as a global exchange for carbon credits on the voluntary market. There are several advantages for CIX in being a transparent, verifiable market exchange to set a price for carbon credits with a focus on nature-based solutions that compliments the REC's market. The ASX currently doesn't have such a system and could explore cooperation with CIX to broaden and deepen such an exchange approach. There is also an opportunity for Australia and Singapore through the CIX initiative to define what is meant by "high quality" nature based offsets.

With these two compatible capabilities, Singapore and Australia could work together and create a strong trading platform and supply which could be expanded to a regional or global program.

Key questions raised and discussed:

- Potential to standardise international trading of carbon credits using Singapore and Australia as a pilot that could then be expanded to other countries.
- Attract further investment in Australia's carbon credit generation industry focusing on natural carbon solutions.
- Alignment of methodologies, standards, reporting and regulatory requirements. The methodologies that exist under the Carbon Farming Initiative are well regarded and there is an opportunity to expand similar methodologies to Singapore and the South-East Asia region. Australia may need to review and ensure that all CFI methodologies meet any requirements set under Article 6.4 of the Paris Agreement.
- Consider including Singapore (or other SEA countries) into Australia's Indo-Pacific Carbon Offsets Scheme (currently only has Fiji and PNG).
- International movement of carbon credits discussed at CoP26, potential for GEA to provide a framework for pilot project to create a global platform. Article 6.2 under the Paris Agreement Rulebook and 'The Mechanism' under Article 6.4, as agreed at COP26, provides the legal framework to use as a basis for piloting trades of credits between Australia and Singapore. Deliberate inclusion of nature-based solutions as part of the overall approach to carbon mitigation strategies.
 - Nature based solutions can be implemented relatively quickly and don't require the same level of technology innovation as some other high-profile areas. For example, potential for monetizing carbon credits for re-forestation / mangrove swamp regeneration projects, either as direct monetary rewards or as offsets.
 - Currently Australian Carbon Credit Units are designed for domestic use and are not fungible with any other units outside Australia. Based on COP26 Article 6 agreement,

need to consider how to issue Corresponding Adjustment for ACCUs, otherwise there will be limited use outside of Australia.

Presently voluntary carbon offsetting by Singapore companies is deducted from that company's carbon footprint, but the national carbon accounts don't reflect the deduction. A consideration for Australia is to investigate a framework where carbon credits that are generated from projects and activities that are substantially export focused, the carbon credits could be distributed between both the host country (Australia) and the investing / off taking country (Singapore). Such an approach is feasible and would be a stimulant for accelerated investment by the private and public sectors. The process of corresponding adjustments, whilst well defined for compliance schemes under Article 6 of the Paris Agreement, has more flexibility in voluntary schemes. This is an area for Australia and Singapore to align and potentially set minimum standards for acceptance of voluntary units and the use of corresponding adjustments.

As an example, Japan instituted in 2013 a programme for the development of green projects in other countries that enables mitigation actions while promoting green initiatives and the UN's SDG's. A feature of this policy is that the carbon credits generated from these projects are shared between the host country and Japan, hence the Joint Crediting Mechanism (JCM). The JCM is implemented through bi-lateral agreements with an estimated 17 countries in Asia, Latin America, Africa and the Middle East. The JCM activity is generally undertaken by private sector enterprises, by registering through the JCM rules for application it is registered as a recognised JCM project. In a 2021 paper, the SDG Knowledge Hub, illustrates that a registered JCM project in an Asian country attributed 80% of carbon credits to Japan and 20% to the Asian country. There were additional benefits towards other SDG's as well.

Australia and Singapore should consider a similar JCM on a bilateral basis as at the moment as there is a material ability for Australia to produce and Singapore to consume such credits. On the basis of a successful framework, this could be rolled out to other ASEAN countries that both have the potential to supply (e.g. Laos - hydro; Philippines - geo-thermal), as well as consume such credits.

TOPIC 3: Finance

Overview

The term 'Finance' in the context of the Green Economy has a very broad scope and runs across many industries. The key issues regardless of industry are largely around reporting standards, transparency, access to projects and ability for investors to easily ascertain the credibility of projects and trust their accreditation.

Consideration should also be given to taxation, and opportunities to provide incentives for Green Economy projects and attract (or at the very least remove a disincentive for) investment. Singapore and Australia have existing tax treaties and we believe consideration could be given under this agreement to supplement those arrangements and create a favourable environment for investment, increasing the number of projects and creating more jobs.

The example we consider in greater detail below is regarding investment and how this agreement could provide a framework and structure to focus the capital that exists in the market towards bankable projects.

There is a lot of interest and opportunity around investment in this space and capital is not an issue. However, any lack of clarity, transparency and consistency in existing regulatory regimes and frameworks makes bankable transactions in short supply.

We believe this is high priority as funding is core to the success of GEA projects and could unlock potential in many of the other areas considered in this submission.

From a government perspective consideration could be given to removing some of the current restrictions on accessing this funding for projects captured under this agreement. For example Australian owned companies in Singapore unable to access a lot of government funding from either side because of location of office versus majority ownership. To remove this restriction for projects that meet specific criteria which could be specified under this agreement would unlock further significant commercialisation and research and development.

Identification of Key Benefits / Areas of Improvement

In order to encourage investment of the capital that funds, banks and pension funds are currently holding and looking to invest there needs to be a framework by which projects can be better considered, measured and assessed.

The framework and projects within this framework should be easily structured, have strong equity/sponsor participants, and most importantly, meet the requirements for green financing. In general on the latter, a green opinion from a qualified firm would appear to be adequate, but this will be usually certified on a case by case basis in discussions with financier(s).

This agreement has the potential to capture some of this underutilised funding pool and fill it with quality supply of projects and/or companies that require financing.

Singapore is and will remain a global financing hub to structure and execute transactions including those in Australia. This linkage – where Australia could be the destination for the funds and Singapore is the source – is a perfect combination given that there are very few “Singapore” projects but there is immense opportunity across Australia.

In terms of financing expertise on large scale, Australia has developed a strong track record in the public and private financing areas. The Australian Renewable Energy Agency (ARENA) has participated in a number of major projects from a government funded perspective. The Clean Energy Council (CEC) also highlights the role that bank financing for debt and superannuation involvement for equity is critical in the development of new projects.

Australia has an excellent, recent track record in new projects that covers wind, solar and more recently batteries. This expertise can be provided to Singapore and the ASEAN region.

Government support for this – even nominal – is very important so that financiers can take this initiative seriously and understand that we are tapping an underserved market and acting in their best interests while concurrently getting major GEA projects funded in a cost-effective manner.

Outcomes & Next Steps:

Consideration should be given to forming an industry working group with key players including major banks who are acting as lead financiers and/or looking for opportunities for debt financing. Consideration should also be given to inclusion of public institutions (e.g. GIC, ARENA, Australian super funds) to look at incentives for accelerating equity investments and potential for bilateral green funds or bonds.

As mentioned above, Singapore and Australia already have a well-developed double tax framework. This could be readily be utilised to provide incentives for green economy activity at two levels. The following are just examples and not specific proposals.

1. Within country
 - a. Accelerated write off of development costs for major green projects
 - b. Tax concessions for specific financing costs and ongoing reporting
 - c. Tax concessions for green R&D, that leads to specific projects and / or products
2. Cross border
 - a. Concessions on withholding tax for accredited projects
 - b. Concessions for cross – border accreditation schemes

This group(s) could make recommendations around an appropriate framework which would provide them with a flow of transactions to finance under a pre-determined construct and structure. Doing this will not only expedite the processes and funds flow but will also create an ecosystem that is self-sufficient and can tap into global funds in a more efficient manner.

TOPIC 4: Cooperative government funding initiatives and incentives for business

Overview

In a post COVID context there is an opportunity for cooperation on trade solutions that support a green recovery by focusing on economic activities that help the two countries recover in a way that is environmentally sustainable and consider environmental and climate change issues as part of their pandemic recovery planning.

With significant investment directed to recovery, that investment should consider long term environmental and climate change impacts by focusing on sustainable solutions. For example, trade in environmentally beneficial goods to benefit from lower tariffs while environmental harmful goods to be subjected to higher tariffs.

There is a unique opportunity to create a favourable environment that supports green initiatives with incentives, strong regulatory framework, and clear reporting standards.

Currently there are multiple grants available across Singapore and Australia. Many different Govt agencies involved and double up across funding streams. As noted above, the Green Economy is part of many different industries and policy areas, and this has led to a disparate system when seeking to access government funding and grants.

Given the range of opportunities outlined in this document, there appears to be fertile opportunity for the two Governments to establish a joint approach identifying, resourcing, and financing emerging projects. These would target areas that the private sector in itself wouldn't necessarily address. Such areas could include, but not limited to:

- Standards setting
- Technology development
- Stock exchange collaboration
- Nature based carbon initiatives
- Infrastructure development
- Green agriculture developments

This could leverage both Singapore and Australia's well established support programmes for industry development, financing, and incentives development.

A key reference point could be the ADB / Australian Government approach as outlined in the "Establishment of the Australian Climate Finance Partnership" at June 2021. This public document is comprehensive in addressing such areas as:

- Alignment of the Fund
- Consistency with other commitments such as the UN SDG's and the Paris Agreement
- Split applications between a Pacific Programme and Southeast Asia programme
- Technical assistance grants
- Safeguards and social protections

There appears to be common alignment on the principles and measures for such a programme and could be adapted to the GEA.

Key considerations:

- Potential to streamline grants and funding opportunities within existing structures and funding. Potential for collaborative funding initiatives for key project with joint SG / Aust govt funding
- Encouragement for green economy manufacturers to relocate through incentive schemes (e.g. tax breaks, subsidized land prices etc);
- Government support – whether through guarantees or first loss positions (e.g. infrastructure bonds use of proceeds) or back-stopping demand risk – could help to stimulate bank financing as it would help to de-risk the financing proposition;
- Government funding to support new technology / new energy solutions through the funding of research and development / academic and market papers to assess bankability of proposed options.
- MAS has been at the forefront of encouraging sustainable finance / infrastructure finance in Singapore through subsidizing due diligence costs for Green Social, Sustainability and Sustainability-linked Bond and Loan issuances, tax benefits for infrastructure investors etc.,

helping to channel capital towards broader adoption of sustainability practices – this is something that the Australian Government may want to consider to develop its home markets.

- An alternative would be for Singapore domiciled banks to get tax credits in Australia and Australian banks to get tax credits in Singapore for financing transactions in specific sectors e.g. green hydrogen / ammonia, renewable energy, bio-fuels, energy efficiency, electric vehicles etc.

TOPIC 5: Food security and sustainable supply chain

Overview

The issue of ensuring a safe, secure, and sustainable supply of food is of high importance to the Singapore Government. Their “30 by 30” plan (to increase domestic food production to 30% by 2030) has seen some investments in new technologies and ways of farming and producing food. Despite these advances, there is a long way to go representing a significant opportunity for Australia to assist in this area. Areas including supply chain and logistics, AgriFoodTech, circular economy and efficient use of waste, innovations in sustainable aquaculture and agriculture, alternative proteins, and novel foods as well as food safety and labelling standards are all potential focal points for collaboration.

There is also potential for Singapore to become a hub for agrifoodtech information, innovation, and new technology in food security for the region, and the GEA could provide framework for cooperation on many joint projects that could be expanded to other markets once established. These include planning for the Lim Chu Kang (LCK) Agricultural Zone and AgriFood Innovation Park in Sengei Kadut.

Our submission considers two aspects of this issue in more detail, one focusing on AgriFoodTech opportunities, alternative proteins and how food standards and labelling need to be developed and standardised in this area and the other looking at traditional sources of protein and Australian exports.

5.1 AgriFoodTech

The food system and supply chain are complex and inherently geared towards overproduction and waste. There are multiple opportunities to optimise food supply including;

1. Production efficiency: robotics, novel chemistry, good agricultural practice, genetics
2. Processing: valorisation/upcycling, new materials economy, protein processing innovation
3. Packaging: compostable, reduced volume and optimised, reporting and authentication
4. Supply chain: traceability, transshipping and digital certificates, centralised virtual warehousing with consolidated forecasting
5. Waste asset management (single use plastic replacement, on-site aerobic composting of unsegregated waste, circular fertiliser (food waste to fertiliser or aquaculture feed))

The opportunity for Australia and Singapore to collaborate in these areas is extensive with many projects already underway.

Through its Tropical Futures Institute, James Cook University Singapore is undertaking ground-breaking research in food security including sustainable aquaculture, healthy aging, psychology and through a business lens looking at the economics of circular economy, supply chains, AI and the hospitality and tourism industries. There is huge potential for collaboration, joint funded projects and to deliver training and capacity building across Singapore and Australia. As alternative proteins and novel foods become more mainstream consideration must also be given to the framework by which these products enter our food chain, including potential allergies, labelling and disclosure of manufacturing techniques.

Key issues:

- Scaled food production: Sustainable aquaculture and vegetable farming systems for an urban ecosystem. Focus on optimising kilojoule/energy on carbon emissions for imported and hyperlocal (urban) domestic food production and waste systems
- Food quality and safety: Creation and standardisation of labelling for alternative proteins and optimising nutrient density
- Functional foods: New markets for consumer products, healthcare and aged care sectors
- Circular economy: Turnkey export solutions in Singapore for circular economy solutions in other city-states across Asia
- Training and extension: Optimise, bridge and scale technology, innovation and knowhow in food systems between Australia and Singapore
- Green food supply chain

Outcomes and next steps:

Collaborative research projects with joint government investment and private sector engagement.

5.2 Traditional food exports

Existing agreements like SAFTA, AANZFTA, and other Free Trade Agreements have meant the access into Singapore for Australian produce has been relatively unrestricted, with minimal non-tariff barriers compared to some other SEA countries. For this agreement, our position would be that it should not introduce any new barriers, and that developments of any policies/standards should be done in concert with industry and businesses.

Key questions raised and discussed:

- Establishment of joint taskforce/consultative committee: this would ensure that there is intensive involvement of different sectors in the development of best practices, guidelines and standards
- Alignment with UN SDG goals and
- Australian government COP26 commitments, e.g. Net zero emissions by 2050, halving food waste in Australia by 2030.
- Voluntary recognition and alignment of existing regulatory standards, certifications, guidelines and/or frameworks

Possible outcomes

Development of robust standards for the industry so the consumer can make informed choices about the safety and carbon footprint of their purchases.

More efficient transshipping of goods from Australia through Singapore to neighbouring ASEAN countries

TOPIC 6: People

Overview

Green skills are going to be in growing demand over the foreseeable future and there are some strategies around training, recognition of qualifications and transferrable skillsets that both governments can jointly support.

People are going to be at the heart of the Green Economy, be it through developing new tech, upskilling and retraining for new roles or to perform existing roles in a different way and leading research and innovation; people are also consumers, an important part of the infrastructure of the Green Economy.

It is important that consideration be given under this agreement as to how people can be better supported to take advantage of opportunities of the Green Economy and also to adapt and innovate as the nature of jobs and consumer behaviour also changes. Government can play a key role in supporting their people through this and partnerships with industry will provide some tangible and practical ways to begin.

An additional area for consideration is the mutual recognition of individuals' accreditation validly issued in the respective countries of origin. As identified above, a key potential advantage of the GEA will be the leveraging of the skills that both countries have currently.

Given the current and increasing demand for skills, authorisations and technical standards, the ability for individuals to be co-accredited would be a major beneficiary of the GEA. Over time, to extend the GEA to regional areas, would also be an incentive for additional countries to join.

Key questions raised and discussed:

- Cooperation on developing sustainable finance human resources capability & expertise: considering the accelerated pace of growth in sustainable finance the demand for sustainable finance, specifically sustainability/ESG technical expertise, outstrips the supply.

Outcomes & Next Steps:

- The two countries could cooperate in supporting economic and educational activities and building and exchanging expertise in sustainable finance – leveraging both the depth of Australian lender experience, and MAS' rapid capacity building initiatives to accelerate green finance. This could elevate the standard of expertise not only within Australia and Singapore, but also export this capability to the broader ASEAN and APAC regions
- Formalize an Australia-Singapore partnership for excellence in sustainable finance in the form of a leadership centre that can encourage sharing of best practice, publishing research and thought leadership, and building capacity for ensuring credible transactions. With

sustainable finance still at an emerging stage but growing at an accelerated pace, there is significant opportunity to share knowledge and work together on product innovation and shaping the market practice and standards. Financial institutions can be involved to share best practice, learnings and pitfalls and to support financing sustainable solutions. This centre could act as an engagement body promoting dialogue and sharing of best practice with the broader ASEAN community to build capacity to grow the sustainable finance market in the region.

Please see LinkedIn case study appendix I

TOPIC 7: Regulatory and legal frameworks

Overview

7.1 Consistent, robust, and transparent standards around reporting, measurement and verification are needed across the sector, from annual reporting obligations to markets and shareholders to sustainable finance.

There is significant opportunity to streamline and combine existing domestic frameworks to create an interoperable system between Singapore and Australia which could then be expanded more broadly across the region or the world.

Reporting in a consistent manner enables a fair comparison between similar Sustainable Finance projects across multiple jurisdictions financed. Timely and consistent disclosures of ESG related information are important to ensure investors and other stakeholders are aware of the work borrowers are doing, how they are performing against their peers as well as over time.

Over time, industry can perform baseline analysis and develop sector-level glide paths using data collected.

7.2 Framework of Agreements

It would be very helpful to Singapore and Australian enterprises to get clarity on the structure of various initiatives between the Governments and how to assess the role of the different agreements. For example, and as highlighted in the Press Releases by the two, there are currently at least the following, but not limited to:

- Macro
 - Singapore Australia Free Trade Agreement
 - Singapore Australia Comprehensive Strategic Partnership
- Green Economy
 - 2020 Australia Singapore Low Emissions MOU
 - 2021 Australia Singapore Partnership on Hydrogen for Maritime Use

The Governments should clarify (i) if the GEA is intended to be an umbrella to the green economy agreement already signed and subsequent agreements / partnerships would also be seen in this context, and (ii) confirm that there will be no degradation in the Macro agreements.

Both Governments should also consider ‘pre-installing’ the ability of other countries / regions to join the GEA over time. This would reflect the respective positions to be able to address:

- The inclusion of individual ASEAN countries to such an accord (Singapore perspective)
- The Indo – Pacific areas (Australia perspective)
- The benefit of strengthening and deepening a number of the measures supported by the GEA (e.g. financing, NBS, carbon trading; technology application)

7.3 Foreign Investment Review Board (FIRB)

Australia has responsibly and transparently been updating their appropriate position on critical infrastructure and security through the Department of Treasury. For foreign investment, this is reflected in the FIRB legislation and guidelines.

For Singaporean investors, there is also a Help Desk applied below. It would be informative for the Australian Government to clarify if the various initiatives identified in this document would:

- Be considered consistent with the current FIRB / DoHS guidelines
- Would receive favourable consideration as part of the GEA
- Would receive accelerated consideration as part of the GEA

[Singapore helpdesk | Foreign Investment Review Board \(firb.gov.au\)](#)

Key questions raised and discussed:

Standardised reporting - One of the key outcomes of COP26 was the creation of the International Sustainability Standards Board, which will develop a new global disclosure standard for the reporting of the impact of climate change on listed entities. Currently, there is no agreed scorecard available to benchmark companies on sustainability and even with industry peers their goals, targets and reporting often varies substantially. It is not anything malicious, but rather a consequence of lacking agreed standards.

The new standards for sustainability metrics will make it easier to compare climate change impacts across listed entities, and hopefully lead to more stakeholder confidence in corporate transition efforts. Encouraging issuers and borrowers to adopt standardised reporting will be key.

More focus on private companies - While the public nature of listed companies has led to increased focus on these entities, private company interest in sustainable finance is also high. It can be said that private firms are facing increased pressure from a range of stakeholders, including customers and employees. Often, they find real value in enshrining their sustainability strategy in financial commitments because it tangibly demonstrates the organisation-wide focus on positive environmental and social outcomes.

For some private firms, linking financing to the sustainability strategy is another way to signal how serious they are about driving change and how key this is to their values. It can help them attract and retain talent or open them to a wider universe of funding, so there are tangible benefits too.

TOPIC 8: Renewable energy supply and transportation

Australia has world leading renewable energy projects and research underway on transportation of renewable fuels. With Singapore's position as a regional maritime hub there is potential for Australia to supply Singapore domestic power market and export through Singapore to the region.

Key issues and projects

Under the Sun Cable project which aims to bring green power to Singapore via a 4,200-kilometre cable from Darwin, the target is to operationalise in 2027 and commercialise operations in 2028. The project is targeted to supply up to 15% of Singapore's electricity.

Singapore may also serve as a destination or a transshipment hub for transport of renewable energy in physical form – i.e., through the shipment of green hydrogen/green ammonia or similar transport modes.

Technology transfer and experience in operating large scale electricity networks over a wide area may be an area of collaboration as Singapore seeks to import power from neighbouring countries (including Australia as detailed above), leveraging of work done by AEMO and others in the Australian context.

PSA Singapore as a major transshipment hub serves main east-west and north-south trade routes, including Australia/Oceania-Asia trade. Hence a couple of possible areas for inclusion:

- Port-to-port efficiency for high productivity and turnaround leading to strong assets (vessels/terminals) and resource utilisation, and end-to-end emissions abatement.
- Good use-case for technology and digital initiatives to be deployed beyond physical movement of cargoes, into digital info/data flow enabling seamless border clearance.
- Leveraging on position of SG as maritime hub for aggregating demand for new fuels/solutions and scaling of green technologies.

TOPIC 9: Logistics, Transport and AI applications

Key issues and projects

There may also be areas for collaboration within the context of supplying sustainable fuels – in particular, sustainable aviation and marine fuels. Australia has capacity to generate high quality biofuels and sustainable fuels from biomass or biogas – and Singapore's position as both a marine and air transportation hub provides a demand pull for such fuels

Consideration should also be given for a delineation between different forms of green energy.

- Green hydrogen / ammonia

- Different was to produce and transport, but the technology is known (and anticipated to improve) and can be actioned
- Some (but not complete) interface with LNG infrastructure
 - Different but not completely separate shipping
 - Storage would have to be separated
 - Can be integrated with general city / industrial power supply with blending
- Current generators can take a blended feedstock of hydrogen / LNG
- Is a general energy solution rather than specific use cases
- Logistics – definitely different
 - More appropriate use of bio-fuels
 - Aviation needs high grade bio-fuels for efficient use on current engines
 - This has been identified and is feasible
 - Major consideration is cost and quantity of supply
 - Engine design is very specific on operating specs
 - Maritime
 - Current engines use [bunkerage oil]
 - Less precise than aviation
 - Current engines can use lower grade bio-fuels, within their current operations, but can not directly use hydrogen
 - To blend bio-fuels with bunkerage oil, would require separate on board storage, but could be blended in engine use
 - For maritime to use hydrogen would require (most likely) both separate storage and a change in the engine
 - Has a material difference in the capital cost of both storage and engine use
- EV use
 - Definitely applicable for cars. Both countries rolling out national EV charging stations
 - Common standards and supply could theoretically reduce the cost of supply over a 3 – 5 year time frame
 - This would also apply to the smart software used for car usage; electricity supply and analytics for additional investment
 - Aviation
 - Increasing testing of using E capable planes for short haul services
 - France has recently banned use of traditional flights of less than [] minutes and insisted on using rail or other alternatives
 - Could apply to both countries for short haul services

Australia has world leading renewable energy projects and research underway on transportation of renewable fuels. With Singapore's position as a regional maritime hub there is potential for Australia to supply Singapore domestic power market and export through Singapore to the region.

Appendix I

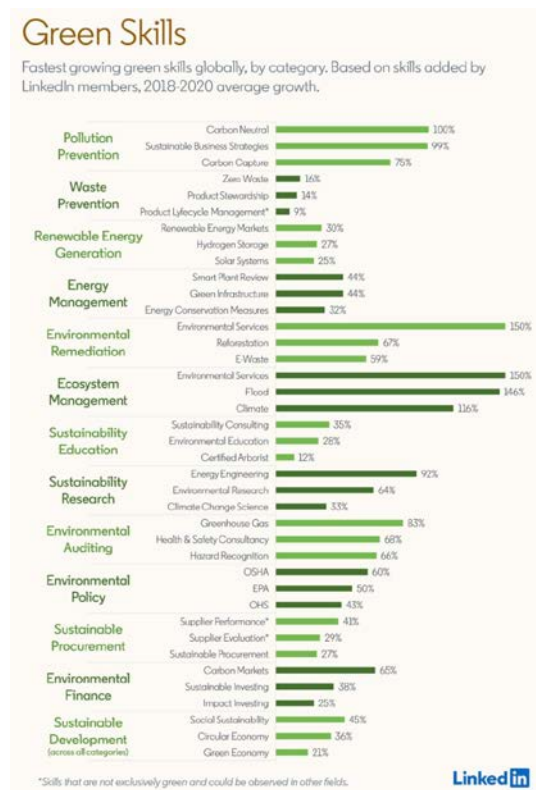
LinkedIn Case Study

Use data and insights from LinkedIn’s Economic Graph as base information – a near-real time data set that is updated 5 million times per minute - to identify trends, gaps and opportunities of technology cooperation and transfer, including: current state, what green industries are emerging/growing, where green skills and green talent/expertise are located in Singapore, Australia and the rest of the region.

Example: “Greening through Data” article for IMF

<https://www.imf.org/external/pubs/ft/fandd/2021/09/Greening-through-Data-Kimbrough.htm>

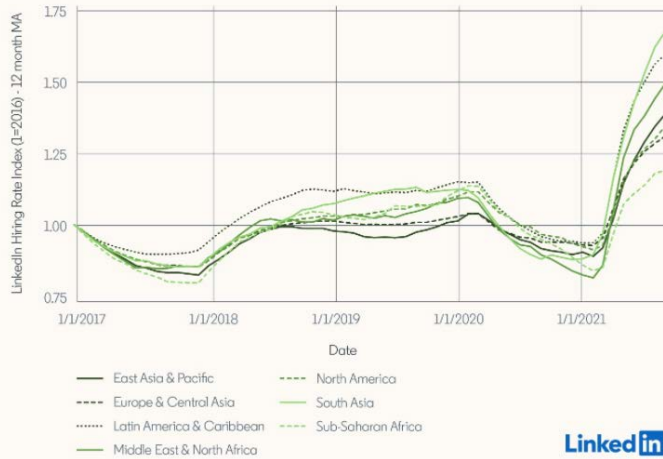
Our researchers have identified more than 800 green skills on LinkedIn, many of which have grown two- to threefold over the past three years. Using this information, partners can measure the rate of skill adoption over time and benchmark that rate by sector and country, enabling more fine-tuned investment in green skill development. In the first chart, we see triple-digit growth in most ecosystem management skills, such as mitigation and environmental services.



A second data set below provides a way to gauge the growth of the green economy across countries by measuring the rate at which professionals with green skills are hired. The Green LinkedIn Hiring Rate can also be compared with the overall LinkedIn Hiring Rate to show how green talent is faring in the labour market versus the overall talent pool. This can help partners gauge whether additional

efforts are required to match green-skilled professionals with jobs. The third chart shows that the shift to hiring for the green economy has been well underway worldwide since 2017.

Green Hiring Rate



- [Skills Path](#) initiative with Singapore Gov and SG-based companies can be replicated to bridge skills and talent gaps in specific sectors/verticals identified under the GEA.