

28 March 2018

Foreign Affairs, Defence and Trade Committee  
Department of the Senate  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600

Dear Committee Secretary,

UNSW LAW SOCIETY SUBMISSION REGARDING THE INQUIRY INTO THE  
UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

The University of New South Wales Law Society welcomes the opportunity to provide a submission to the Foreign Affairs, Defence and Trade Committee Inquiry into the United Nations Sustainable Development Goals (SDGs).

The UNSW Law Society is the representative body for all students in the UNSW Faculty of Law.

Nationally, we are one of the most respected student-run law organisations, attracting sponsorship from prominent national and international firms. Our primary objective is to develop UNSW Law students academically, professionally and personally.

These enclosed submission reflects the opinions of the contributors, with the UNSW Law Society proud to facilitate these submissions. An overview of our findings and recommendations can be found on page three.

We thank you for considering our submission. Please do not hesitate to contact us should you require any further assistance.

Yours sincerely,

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## I INTRODUCTION AND OVERVIEW OF RECOMMENDATIONS

1. This submission recommends that performance benchmarks for Official Development Aid Program ('ODA') be reviewed to require more specificity for the transparency and comprehensiveness of reporting aid progress, to improve the ODA context sensitivity and future project design and policies. It will provide analysis on United Nations Sustainable Development Goals ('SDGs') 4, 5 and 10, using Australian ODA strategies in Papua New Guinea ('PNG') and Cambodia as a case-study for this recommendation.
2. Secondly, this submission also recommends prioritising ODA initiatives for promoting institutional development in recipient nations in relation to SDGs 8, 9 and 16. It shall seek to prove why strong institutions are necessary to create growth, and then provide methods on how these can be achieved through Australia's ODA.
3. Finally, this submission explores the implications for mineral sands and aggregate extraction trades in the Indo-Pacific and East Asia upon SDGs 14 and 15, using Singaporean development programmes as a case study informing a recommendation for review of performance benchmarks and civil engagement with ODA recipients.

## II AUSTRALIAN OFFICIAL DEVELOPMENT AID AND THE SUSTAINABLE DEVELOPMENT GOALS

### *A Context*

The Australian Government strives to provide humanitarian assistance and aid which encourages the implementation of the United Nations ('UN') Sustainable Development Goals ('SDGs') to our neighbouring countries in the Indo-Pacific. Achieved through Australia's Official Development Aid Program ('ODA'), 'six investment priorities include infrastructure and trade; agriculture fisheries and water; effective governance; education and health; building resilience and gender.'<sup>1</sup> These priorities summarily respond to a significant number of the UN's SDGs.

In giving aid and encouraging the implementation of the UN SDGs, it is vastly important to have strong monitoring and reporting mechanisms to account for how Australia's aid budget is distributed, used and its overall effectiveness. Currently, the ODA's model requires an Aid Program Performance Report to be produced every year on each beneficiary country which

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<sup>1</sup> Commonwealth of Australia, DFAT, *Australian Aid Budget Summary 2017–18*, 1.

outline the year's aid objectives alongside a table of "performance benchmarks" indicating whether certain progresses have been made.

In the 2015–16 period Australia devoted \$921,193,000 of its Official Development Assistance to East Asia, representing a sum far eclipsing contribution to any other discrete region save for PNG.<sup>2</sup> Consisting of the most economically and politically influential neighbours to Australia, East Asia represents a mixed bag of policies with regards to development, sustainable or otherwise.

Outside of climate change (SDG 13), which has at least received lip service and multilateral instruments in the form of the Asia-Pacific Partnership on Clean Development and Climate<sup>3</sup> and the Paris Climate Accord, East Asia has not been held to the same standards as countries like Australia have been – during the first-round negotiations of the Kyoto Protocol, Asian countries submitted the argument that the West had developed with the benefit of unfettered economic action, and thus the less developed countries ought to be offered the same opportunity.<sup>4</sup> Consequently, in the ratification phase of the Protocol, all countries in the sphere of East Asia were assigned to the non-Annex B category with no binding targets on emissions control.<sup>5</sup>

### III AUSTRALIAN COMPARATIVE ADVANTAGE IN FOSTERING INSTITUTIONAL DEVELOPMENT THROUGH OFFICIAL DEVELOPMENT AID

#### *A Overview*

As a developed economy, Australia is unique in its ability to countries achieve SDGs 8, 9 and 16. With uninterrupted economic growth since 1991 and ranking 13<sup>th</sup> internationally on the Global Corruption Perception Index,<sup>6</sup> Australia can serve as a model for other nations to emulate. However, asking other countries to exactly emulate Australia's model of governance is paternalist and bound to fail. Acemoglu and Robinson summarise this line of thinking under the 'ignorance theory': that simply informing world leaders of the correct policies to

<sup>2</sup> Department of Foreign Affairs and Trade, 'Australian Official Development Assistance, Region of Benefit by Investment Priorities' (Standard Time Series, Table 3, 2016), table 3.

<sup>3</sup> *Charter for the Asia-Pacific Partnership on Clean Development and Climate*, opened for signature 12 January 2006, (entered into force 13 January 2006).

<sup>4</sup> *Paris Agreement*, opened for signature 12 December 2015, 27 UNTS 7 (entered into force 4 November 2016).

<sup>5</sup> *A Kyoto Protocol to the United Nations Framework Convention on Climate Change*, opened for signature 11 December 1997, 2303 UNTS 162 (entered into force 16 February 2005).

<sup>6</sup> World Bank, *Databank | World Development Indicators*, (2018) World Bank <<http://databank.worldbank.org/data/reports.aspx?source=2&series=NY.GDP.MKTP.KD.ZG&country=>>; Transparency International, *Corruptions Perceptions Index 2017* (2018), Transparency International <[https://www.transparency.org/news/feature/corruption\\_perceptions\\_index\\_2017#table](https://www.transparency.org/news/feature/corruption_perceptions_index_2017#table)>.

implement would solve all developmental problems.<sup>7</sup> In sharing experiences in institutional development in a context-sensitive manner, Australia should seek to consolidate its focus on SDG 16, and thereby engender SDGs 8 and 9.

SDGs 8 and 9 are both grounded in the notion of economic growth and development. SDG 8 seeks to '[p]romote inclusive and sustainable economic growth, employment and decent work for all.'<sup>8</sup> It is important to note that the growth is 'inclusive' and 'sustainable' – that 'all must share in the progress,'<sup>9</sup> and that this growth does not adversely impact the environment as the developing nation industrialises.<sup>10</sup> This goal does not strive to achieve economic growth by any means necessary, but to foster sustainable growth where the benefits are not disproportionately received by a small section of society. SDG 9 is somewhat similar in this regard, being to 'build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.'<sup>11</sup> The term 'inclusive' is used here again to stress the necessity of seeing the benefits accrued by all of society.

Indeed, this theme is returned to in SDG 16: 'Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.'<sup>12</sup> Acemoglu and Robinson define an 'inclusive institution' as an economic or political institution with pluralistic elements that preserves the rule of law, property rights and other rights.<sup>13</sup> It is the finding of this submission that the quality of a nation's institutions that determine their quality of life today and their long-term economic growth rate and the argument of this submission that achieving SDG 16 will lead to goals 8, 9 and the rest thereafter.

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<sup>7</sup> Daron Acemoglu and James E Robinson, *Why Nations Fail*, (Profile Books, revised ed, 2013) 63–7.

<sup>8</sup> United Nations, *Decent Work and Economic Growth: Why It Matters*, United Nations <[http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/8\\_Why-it-Matters\\_Goal-8\\_EconomicGrowth\\_2p.pdf](http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/8_Why-it-Matters_Goal-8_EconomicGrowth_2p.pdf)>

<sup>9</sup> *Ibid*, 2.

<sup>10</sup> Syed Shahbaz Hussain and Pirzada Sami Ullah Sabri, 'National Environmental Policy Development for Sustainable Growth in Developing Countries | A Case Study of Pakistan' (2014) 4(1) *International Journal of Social Quality* 78, 78.

<sup>11</sup> United Nations, *Industry, Innovation and Infrastructure: Why It Matters*, United Nations <[http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/9\\_Why-it-Matters\\_Goal-9\\_Industry\\_1p.pdf](http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/9_Why-it-Matters_Goal-9_Industry_1p.pdf)>.

<sup>12</sup> United Nations, *Peace, Justice and Strong Institutions: Why it Matters*, United Nations <[http://www.un.org/sustainabledevelopment/wp-content/uploads/2017/01/16-00055p\\_Why\\_it\\_Matters\\_Goal16\\_Peace\\_new\\_text\\_Oct26.pdf](http://www.un.org/sustainabledevelopment/wp-content/uploads/2017/01/16-00055p_Why_it_Matters_Goal16_Peace_new_text_Oct26.pdf)>.

<sup>13</sup> Acemoglu and Robinson, above n 8, 74–5.

## ***B Institutions and Growth***

Goals 8 and 9, at their core, revolve around development economics, attempting to remedy the problem of why certain nations are richer than others.<sup>14</sup> This has seen many theories proposed attempting to answer this question, including geographical determinism, cultural differences and ignorance of the correct policies to implement. However, these all fail to explain economic development in most cases. Acemoglu and Robinson convey examples where all three theories failed. Geographical determinism does not explain the divergence between North and South Korea, which were a unified polity prior to 1945 with similar geography.<sup>15</sup> The cultural argument, that work ethic, beliefs and values drive diverging economic development, is also disproven with reference to the Korean Peninsula and the failure of the ‘Protestant work ethic’ to explain the economic success of Catholic France and non-Christian Asia.<sup>16</sup> The ignorance theory, explained above, fails to explain the lack of development in less developed countries despite advice from Western economists, using Ghana as an example.<sup>17</sup>

However, the most convincing theory is that of institutions. These can be defined as set of rules and incentives that govern behaviour and can be both political and economic.<sup>18</sup> If institutions are sufficiently ‘inclusive’, they protect property rights and foster innovation, inducing economic growth.<sup>19</sup> Moreover, the fruits of growth are shared by a large proportion of the population, and this further gives incentive to make institutions more inclusive to ensure this growth remains, fostering a virtuous cycle.<sup>20</sup> Contrastingly, ‘extractive institutions’, or those that see the rewards of economic growth and political power distributed to a small fraction of society, disincentivises investment and growth.<sup>21</sup> Tylecote affirms this and gives the consensus in institutional economics: that institutions do promote economic growth, and cyclically sustainable economic growth requires making these institutions more pluralistic.<sup>22</sup>

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<sup>14</sup> Cosmin Marinescu, ‘Why Institutions Matter: From Economic Development to Development Economics,’ (2014) 3(1) *European Review* 469, 470.

<sup>15</sup> Acemoglu and Robinson, above n 8, 49–56.

<sup>16</sup> *Ibid* 57–60.

<sup>17</sup> *Ibid* 63–7

<sup>18</sup> Marinescu, above n 15, 477

<sup>19</sup> *Ibid* 484.

<sup>20</sup> Acemoglu and Robinson, above n 8, 308.

<sup>21</sup> *Ibid*, 81.

<sup>22</sup> Andrew Tylecote, ‘Institutions Matter: But Which institutions? And How and Why Do They Change?’ (2016) 12(3) *Journal of Institutional Economics* 721, 721.

A country's institutions are not mutually-exclusive between the two categories, and neither is growth in the short-term. Economic growth can occur under extractive institutions – Acemoglu and Robinson further notes on institutional economics that the practice focuses on the long-term growth and prosperity of a country, utilising an interdisciplinary approach of politics and economics.<sup>23</sup> To ensure the long-term prosperity of the nation's receiving ODA, Australia must ensure that the economic and political institutions are made more inclusive.

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<sup>23</sup> Marinescu, above n 15, 475.  
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## C Implementation

Australia's foreign aid is a key instrument of our foreign policy, and one of the main aims is to ensure the stability of our neighbours.<sup>24</sup> The Australian government is also aware of how institutional reform is essential to development,<sup>25</sup> and accordingly spent AU\$823.7 million on effective governance measures.<sup>26</sup> This is an encouraging response, but significantly more can be done to ensure that our ODA partners can utilise these funds effectively.

### 1 Corruption

Central among these aims are the efforts to reduce corruption in these societies. Corruption has a tangible, negative effect on economic growth,<sup>27</sup> and any efforts to help remove it should be encouraged. Perhaps the greatest reason to encourage all anti-corruption efforts is that corruption hinders the effectiveness of foreign aid by preventing resources from reaching the most productive sectors of the economy.<sup>28</sup> This includes supporting the achievement of the UN Convention Against Corruption and aiding overseas anti-corruption commissions.

Heilbrunn defines four main forms of anti-corruption commissions.<sup>29</sup> Two models are responsible to the executive: the universal model with investigative, preventative and communicative functions, and the investigative model with investigative powers only. The parliamentary model is independent from both the judiciary and executive and is typically a preventative model. Finally, the multi-agency model unifies a variety of agencies to fight corruption under a broad umbrella. Similarly, Heilbrunn identifies three attributes of these commissions that are necessary for their success: independence from other limbs of government, a clear reporting hierarchy, as well as the political will to implement difficult reforms.<sup>30</sup>

Australia does not have the capability to force nations to establish these commissions, but it can provide funding and support through the ODA. Countries that receive ODA from Australia have established these commissions and seen marked success. Indonesia is the greatest example of this. The establishment of the Corruption Eradication Commission (KPK)

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<sup>24</sup> Department of Foreign Affairs and Trade, *Australian Aid Budget Summary 2017-18*, Report (2017) 1.

<sup>25</sup> *Ibid*, 3.

<sup>26</sup> *Ibid*, 64

<sup>27</sup> Luminjta Ionescu, 'The Influence of Corruption on Economic Growth,' (2011) 6(1) 453.

<sup>28</sup> Tamer Rady, 'Corruption, Business and Economic Development,' (2016) 20(1) *Journal of Organizational Culture, Communications and Conflict* 45, 53.

<sup>29</sup> John R Heilbrunn, 'Anti-Corruption Commissions | Panacea or Real Medicine to Fight Corruption?' (Research Paper, World Bank Institute 2004), 3.

<sup>30</sup> *Ibid*, 14-16.



in 2003 saw its Corruption Perception Index decline significantly and move from the 122<sup>nd</sup> most corrupt country to the 96<sup>th</sup> most corrupt.<sup>31</sup> Likewise, such a move has aided the country recover from the Asian Financial Crisis.<sup>32</sup> Anti-corruption endeavours, therefore, should receive strong support from Australia.

## 2 Governmental and Administrative Reform

To aid developing nations achieve the SDGs, it is integral that they reform the operation of the government to be more efficient, open and transparent – in short, they should progress towards an ‘inclusive’ model of governance. However, Ugoani notes that the efficacy of these reforms depends on the political will of the leadership.<sup>33</sup> Australia’s ODA program likely cannot engender political will amongst the leadership, but it can provide monetary and administrative support. Support for the Solomon Islands Governance Program, the Australia-Indonesia Partnership for Economic Governance and the Governance for Development Program in Timor-Leste are encouraging developments,<sup>34</sup> but significantly more needs to occur to ensure that ‘virtuous cycle’ of inclusive institutions are formed.

One possibility is foreign aid tied to governmental reform. However, there is no empirical consensus on the efficacy of aid in the longer-term.<sup>35</sup> Indeed, research has found that high foreign aid inflows can disincentivise the rulers of a country to initiate institutional reforms.<sup>36</sup> There have even been suggestions that foreign aid can be considered a neo-colonial push by the Western world to impose Western ideals on developing countries.<sup>37</sup> Perhaps the worst impact of tied aid is of cursory implementations of the required reforms. Enacting reforms that satisfy international bodies but fail to institute any real change are the worst outcome: it sees the tied aid used and ultimately wasted. In extreme circumstances, such reforms could be used to suppress dissent and political opponents.<sup>38</sup>

<sup>31</sup> Transparency International, *Corruptions Perceptions Index 2003* (2003), Transparency International, <[https://www.transparency.org/research/cpi/cpi\\_2003/0](https://www.transparency.org/research/cpi/cpi_2003/0)>; *Corruption Perception Index 2017*, above n 7.

<sup>32</sup> World Bank, *Economy & Growth*, World Bank (2018) <<https://data.worldbank.org/topic/economy-and-growth?locations=ID&start=2002>>

<sup>33</sup> John N N Ugoani, ‘Political Will for Effective Reform Management and Sustainable Development Goals Achievement in Nigeria,’ (2017) 8(3) *Independent Journal of Management & Production* 918, 919.

<sup>34</sup> Department of Foreign Affairs, above n 27, 65.

<sup>35</sup> Davron Ishnazarov, ‘Aid Effectiveness in OIC Member Countries,’ (2016) 37(4) *Journal of Economic Cooperation and Development* 149, 150.

<sup>36</sup> Karim Khan, ‘Endogenous Institutional Change and Privileged Groups,’ (2015) 54(3) *The Pakistan Development Review* 171, 189.

<sup>37</sup> Pratyush, ‘Role of China and India as Development Partners in Africa: A Critique of Neo-Colonialism,’ (2013) 3(3/4) *Review of Management* 23, 25.

<sup>38</sup> Heilbrunn, above n 32, 1.

This is not to say that foreign aid has been entirely ineffective – it has been found improve health outcomes,<sup>39</sup> and can improve economic growth under strong macroeconomic conditions and a higher level of human capital.<sup>40</sup> This submission is not advocating to end all foreign aid until governments institute reform because, as previously shown, aid does benefit the receiving country, but tied aid for institutional reform does not appear to an effective strategy.

A more successful approach, however, may be to set aside a certain portion of ODA funds for this purpose. Foreign leaders could signal their wish to access these funds, and following a rigorous examination of their intended reforms, could receive funds to aid this and advice from Australian professionals. This has significant benefits over a tied-aid package: it is less susceptible to suggestions of neo-colonialism as it is initiated by the aid-receiving country and enables the receiving country to develop responses to its own institutional problems. This accepts the notion that all developing countries are not monolithic in issues and structure,<sup>41</sup> and does not attempt to force policies upon a country. This submission endorses such an approach.

## **D Conclusions**

Australia's ODA should be consolidated to focus on SDG 8, 9 and 16, with a focus on the latter. Doing so will reform the institutions of ODA-receiving countries, enabling greater long-term growth and fostering improved economic development. Continually funding aid to these nations will not work unless the institutions that use them reform and become more inclusive. Australia has the financial capability and the expertise to aid this through the ODA program.

### **IV ALIGNING THE AUSTRALIAN OFFICIAL DEVELOPMENT AID PROGRAMME WITH DEVELOPMENT PRIORITIES IN THE INDO-PACIFIC**

#### ***A Sustainable Development Goals 4, 5 and 10***

In proposing Australian ODA flows require more specificity for the transparency and comprehensiveness of reporting aid progress, this submission supports the notion that clearer proposals and implementation plans for successful aid recipients will improve future ODA context sensitivity and future project design and policies. Using the Papua New Guinea Aid

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<sup>39</sup> Ishnazarov, above n 38, 170.

<sup>40</sup> Perekunah B. Eregha and Tope Rufus Oziegba, 'Official Development Assistance, Volatility and per Capital Real GDP Growth in Sub-Saharan African Countries: A Comparative Regional Analysis,' (2016) 50(4) *Journal of Developing Areas* 364, 379.

<sup>41</sup> Pratyush, above n 40, 25.

Program Performance Report as an example, a listed development objective was “for there to be improved access to primary education at all levels.”<sup>42</sup> The main indicator or report was based of success was based off increased enrolment rates. However, multi-dimensional monitoring and research should be conducted of drop-out rates, gender parity, rural and urban differences in enrolments as well as vulnerable groups like ethnic minority and people with disability enrolment rates for more contextually sensitive and authentic progress reporting. This holistic examination should include contextual reasons behind enrolment rates and dropout rates of different groups, thus acquiring informative data to be used to improve Australia’s ODA, to particularly further SDGs 4, 5 & 10. This may also assist the future project goals and implementation of other development organisation's objectives.

Another example refers to the Cambodian Aid Investment Plan 2015-2018 in which an objective of the ODA was to increase access to essential infrastructures. Performance indicators include ‘additional households and businesses connected to electricity each year’<sup>43</sup> and ‘additional households and businesses connected to piped, treated water each year.’<sup>44</sup> This submission argues that it is important to augment these tangible indicators that focus on quantitative data to highlight progress, to moreover consider the quality of access to electricity or treated water, and the safe maintenance of the electricity or water sources. These are important for measuring the sustainability of such “improved access,” or “improved infrastructure” which is often undermined by the prevalent focus of numerical results in building *additional* infrastructure or access routes.<sup>45</sup>

Ultimately, the examples given above argue for a revision of performance benchmarks and indicators in yearly monitoring aid reports. This submission prompts the Australian government to complement numerical results indicating progress in beneficiary countries with qualitative data considering the context and sustainability behind such results.<sup>46</sup> The comprehensiveness of such information will contribute to more sustainable development program design in future - a priority ODA should incorporate as it strives to encourage the implementation of SDGs in countries from the Indo-Pacific.

### ***B Sustainable Development Goals 14 and 15***

Similarly, the Indo-Pacific and East Asian region interacts frequently with SDGs relating to ecological conservation and environmentally sustainable development. As a region with differing degrees of economic development and industrialisation, SDG 14, relating to marine

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<sup>42</sup> Commonwealth of Australia, DFAT, *Aid Program Performance Report 2014-2015 Papua New Guinea*, 28.

<sup>43</sup> Commonwealth of Australia, DFAT, *Aid Investment Plan Cambodia*, 2015-2018, 9.

<sup>44</sup> *Ibid.*

<sup>45</sup> Stephen E. Gent et al, ‘The reputation trap of NGO accountability,’ (2013) 7(3) *Cambridge University Press International Theory* 447-449.

<sup>46</sup> *Ibid.*

conservation, and SDG 15, related to terrestrial ecological sustainability, are commensurate concerns with regard to infrastructure and agricultural development. To this end, this submission applies its initial recommendation of improving reporting mechanisms for ODA to experiences in the Asian and Indo-Pacific regions relating to sustainable development in the sand minerals trade.

### *C Case Study: An Overview of the Sand Trade*

Sand is the second most used resource in the world, after fresh water. With over 47 billion tonnes of raw materials extracted every year, aggregates – gravel and sand – comprise possibly 85% of that total amount. The applications of sand are myriad as they are indispensable. It's used in the creation of concrete; a vital component in the manufacture of glass; asphalt roads are seeded with sand to maintain their integrity; sand is also used for more obtuse purposes, such as dredging artificial islands or to maintain landfill in oceans. Sand, and the many aggregates that fall within that category of fine particulate, is therefore synonymous with development. Without it, the industrialised world would find its progress and growth severely arrested. Naturally, it's a resource that is running out.

Part of the reason why environmental degradation emerging from the harvesting of aggregates has been so marked in Asia has been the level of demand for the resource from all sectors of economies around the world – heavy industry, consumer products, infrastructural projects as well as notably the military-industrial complexes of certain countries in East Asia all rely on easy and sustained access to sand. All this has led to unprecedented growth in the industry, with trade volumes increasing almost sixfold in the last 25 years.<sup>47</sup>

#### *1 Construction and Consumer Products*

Mainstream world demand for sand can be traced back to the patenting of the now ubiquitous Portland cement back in the early 19<sup>th</sup> century.<sup>48</sup> Following the post-WWII economic building boom in East Asia, demand for aggregate as a binding for cement has never abated. Cement and the concrete it procures is now an inescapable facet of modern construction, and present-day demand has reached unsustainable levels. In Vietnam, domestic demand for extracted sand as a construction resource now exceeds domestic supply; between 2016 and 2020, the domestic demand for construction sand is estimated to be around 2.1-2.3 billion m<sup>3</sup>, while the country's total sand reserves sit at just over two billion cubic metres.<sup>49</sup> At the same

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<sup>47</sup> See UN Comtrade Database under Commodity Code 2505.

<sup>48</sup> A.J. Francis, *The Cement Industry 1796-1914* (David & Charles, 1977) ch 5.

<sup>49</sup> 'Vietnam Forecast to Run out of Construction Sand by 2020', *Tuoi Tre News* (online), 3 August 2017 <<https://tuoitrenews.vn/news/society/20170803/vietnam-forecast-to-run-out-of-construction-sand-by-2020/40865.html>>.

time, however, exports of construction sand from Asia to the rest of the world is increasing;<sup>50</sup> 11 billion tonnes was mined in 2010 solely for construction.<sup>51</sup> Asphalt used in road construction has also been extremely resource intensive; with East Asia continuing to take on long term infrastructure investment, the demand for aggregates in this sector can only continue to increase. According to contemporary reports, there are over fifty major public road-building projects underway in the Asia-Pacific, with at least 181,493 km of roadworks in the pipeline.<sup>52</sup>

Demand for sand in consumer products dovetails into two distinct areas; glass and related materials manufacturing, and electronic componentry. Glass has remained an established staple of global development, and it is indicative that newly developing countries in the Gulf are acting as the primary drivers of large scale glass consumption.<sup>53</sup> Electronics, however, have only recently emerged as a new customer for aggregates. Sand, especially high-quality quartz-based sand, has an extremely high quantity of silicon required for the manufacture of semiconductors, an essential staple of the computing and consumer electronics industry. With the economies of scale inherent to the electronics industry, East Asia is an attractive source of massive quantities of sand which can then be quarried and refined into vital silicon.

The chronic underreporting and inability to enforce sanctions against illegal extraction operations, particularly in the Asia-Pacific further suggest an overall understatement of the true extent of resource depletion.

## 2 Commodity Extraction

The role of Asian states in the area of aggregate extraction has been far less scrutinised than other ecological elements, despite the practice directly impinging on no less than two SDGs (14 and 15) directly as well as indirectly impacting the achievement of other goals from the intersection of environmental impact and economic trends. As a consequence of the sweeping types of demand for aggregates in the Asia-Pacific, many countries in the region have turned to sand mining, from both onshore (extraction from coastal beaches) and offshore (dredging of water) sources. The trend has been a shift from the former to the latter, especially as inland resources have declined exponentially.<sup>54</sup> In addition to formal mining for construction and

<sup>50</sup> 'Sand Export Permits Issued to India: KL', *The Straits Times* (online), 2 November 2017  
<<http://www.straitstimes.com/asia/sand-export-permits-issued-to-india-kl>>.

<sup>51</sup> World Economic Forum, 'The World is Running Out of Sand' (Media Release, 9, 27 September 2017).

<sup>52</sup> Construction Intelligence Center, *Project Insight - Road Construction Projects: Asia-Pacific* (October 2017).

<sup>53</sup> 'Flat Glass Industry to Grow at Rate of 7.3% CAGR Over the Period of 2016-2023', *Markets Insider* (online), 2 August 2017

<<http://markets.businessinsider.com/news/stocks/flat-glass-industry-to-grow-at-a-rate-of-7-3-cagr-over-the-period-of-2016-2023-global-market-insights-inc-1002225966>>.

<sup>54</sup> Pascal Peduzzi, 'Sand, Rarer Than One Thinks', *UNEP Global Environmental Alert Service* (March 2014).

export, sand mining has also been co-opted by the hydrocarbons industry, as shale mining – both for oil and for kerogen production - has become more economically viable. PetroVietnam, CNPC, Petronas and Banpu have all unilaterally pursued in recent years the exploitation of shale reserves in sands both offshore and inland, often with devastating environmental results.<sup>55</sup>

It is estimated that the total amount of aggregates mined each year is double the totality of all sediment carried along in the world's river systems. The impact of this is clear in the complete loss of integrity in Cambodia's sedimentary coasts and the collapse of the Vietnamese Mekong River Delta due to excessive extraction. Such dredging in the region has even contributed to exacerbating hurricane damage.<sup>56</sup> Furthermore, the environmental impact can be readily observed in the South China Sea, as the People's Republic of China continues to engage in deep sea floor dredging to further its territorial interests at the expense of international law and of the environment.<sup>57</sup> Certainly, no part of such activity can be regarded as sustainable development, despite China's endorsement of the SDGs.

#### V BEST PRACTICE IN THE OFFICIAL DEVELOPMENT AID PROGRAMMES: SINGAPORE AND LAND RECLAMATION

Australia ceased ODA contributions to Singapore in 2005, an indication of Singapore's highly developed status; certainly, Singapore stands out in Australia's past ODA contribution schedules as being one of the only sovereign states alongside the Republic of Korea and Brunei to have ceased receiving such donations in the last decade.<sup>58</sup> While it may be possible to suggest that Singapore has achieved sustainable development in light of this, an examination of Singapore's position vis a vis land reclamation belies this notion, and in fact is alternately suggestive of a situation where Singapore's development comes at the direct expense of major Australian ODA recipients such as Cambodia, Malaysia, Vietnam and Indonesia.

Singapore's land reclamation projects have been of great controversy both to environmental observers globally and to Asian economies pursuing SDGs 14 and 15. As the world's largest sand importer, Singapore has expanded its territory by more than 20% since 1965 on the back

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<sup>55</sup> Chanathip Pharino and Pongsak Hoontrakul, 'Asia's Energy Innovation After Shale Gas Revolution' in Pongsak Hoontrakul, Christopher Balding and Reena Marwah (eds), *The Global Rise of Asian Transformation* (Palgrave MacMillan, 2014) 189.

<sup>56</sup> Asian Development Bank, *The Economics of Climate Change in Southeast Asia: A Regional Review* (1 April 2009) 10.

<sup>57</sup> *United Nations Convention on the Law of the Sea*, opened for signature 10 December 1982, 1833 UNTS 3 (entered into force 16 November 1994) art 60.

<sup>58</sup> Department of Foreign Affairs and Trade, 'Australian Official Development Assistance, Partner Countries' (Standard Time Series, Table 4, 2016) table 4.

of landfill.<sup>59</sup> This policy has been singularly the main source of acrimony between the trade negotiators of Singapore and its neighbours; at present, Indonesia, Vietnam and Malaysia have either entirely or partially banned exports of sand to the city state, primarily citing its aggravating factor on organised crime and the environmental impact.<sup>60</sup> Cambodia remains the primary exporter to Singapore, but even the Cambodian government has ordered a moratorium on exports to assess damage to fisheries.<sup>61</sup>

It is unfortunate that there is little the current ODA regime can do to further sustainable development in this area. SDGs 14 and 15 are clearly relevant to East Asia in how it marshals its marine resources and terrestrial ecosystems, and yet the sand issue is an intractable one. Much of any foreign aid despatched to partner countries will be earmarked for infrastructural construction and civil building which only intensifies demand for aggregates – the same can also be said, if not more so, for conditional aid sent to states such as PNG and Vietnam independent of the ODA programme. Noting that all the countries involved in this case – Malaysia, Indonesia, Vietnam and Cambodia are all recipients of ODA, being allocated \$570,775,000 as of 2016,<sup>62</sup> more constructive policies than merely delivering fiscal assistance must be adopted by Australia.

Building upon Singapore's experiences, there is scope for Australia to expand its existing current civil law enforcement partnerships with neighbours such as Indonesia to better police and surveil the peripheral island archipelagos where the bulk of illegal sand mining is occurring, and further support anti-corruption protocols and open financial reporting measures to combat private and public collusion to circumvent export bans. The export bans in question by East Asian neighbours demonstrate their prioritising of SDGs 14 and 15, yet also demonstrate their failure to achieve the indicia of development without external support, as exemplified in the corruption issue.

Australia's ODA must therefore be further conditionalised to better achieve sustainable development outcomes. A base measure to implement would be requiring all aid used in civil construction and infrastructural projects must be utilised with regards to resource conservation targets for aggregates with recycling of materials, and furthermore, encourage alternatives to natural sand aggregates, such as incinerator ash.<sup>63</sup>

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<sup>59</sup> Simon Roughneen, 'Race to the Bottom for Region's Sand Miners', *Nikkei Asian Review* (online), 19 July 2017

<<https://asia.nikkei.com/Politics-Economy/Economy/Race-to-the-bottom-for-region-s-sand-miners?page=2>>.

<sup>60</sup> Luke Hunt, 'Sand and Singapore' [2011] *The Diplomat*.

<sup>61</sup> *Ibid.*

<sup>62</sup> Department of Foreign Affairs and Trade, above n 61.

<sup>63</sup> Akshay C. Sankh et al, 'Recent Trends in Replacement of Natural Sand with Different Alternatives' (2014) 1 *IOSR Journal of Mechanical and Civil Engineering* 59.

Australia's own aggregate exports continue to grow as a consequence of its well established mineral sands industry.<sup>64</sup> In light of this, the focus on SDGs 14 and 15 by the country's neighbouring ODA recipients ought to foster a dialogue concerning the long-term objectives of Australia's foreign aid programme in not only allowing states to develop, but also ensuring that their sustainability is supported curbing indiscriminate use of scarce resources.

## VI CONCLUSIONS

Ultimately, the examples given above argue for a revision of performance benchmarks and indicators in yearly monitoring aid reports. This submission prompts the Australian government to complement numerical results indicating progress in beneficiary countries with qualitative data considering the context and sustainability behind such results.<sup>65</sup> The comprehensiveness of such information will contribute to more sustainable development program design in future - a priority ODA should incorporate as it strives to encourage the implementation of SDGs in countries from the Indo-Pacific.

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<sup>64</sup> Nicolette Burke, 'Aussies Sell Sand to Saudis', *The Daily Telegraph* (Sydney), 12 June 2007.

<sup>65</sup> *Ibid.*