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Institute

# Indian Ocean Futures

Prospects for shared regional success



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## Foreword

The Australian Government is strongly committed to engage with our Indian Ocean Region (IOR) partners to forge trade and investment links in resources and agreements across the region, resulting in a significant growth in the Australian economy.

Australia is the world's 12<sup>th</sup> largest economy with a GDP of approximately AUD 2.2 trillion, which accounts for 1.7% of the global economy generated by 0.3% of the world's population. There is a golden opportunity to capitalise on the economic, social, trade and cultural opportunities in the IOR through strategic alliances with Asia, Africa and the Arabian Gulf countries.

Given the importance of the IOR, Western Australia is conspicuous in the Indian Ocean and serves as a gateway for Australia to a region that is economically significant. The Department of Foreign Affairs and Trade outlines the region's importance for Australia:

**An estimated 40% of the world's offshore oil production comes from the Indian Ocean.**

**It is a crucial conduit for global trade, accounting for half the world's container traffic, and is home to some of the world's fastest growing economies.**

**The Indian Ocean region includes five of Australia's top 15 trading partners: India, Indonesia, Malaysia, Singapore and Thailand.**

The Indian Ocean Rim Association (IORA) is an established organisation Professor Anil Sooklal aptly describes as a "complex region of the world in human terms which includes a wide variety of different races, cultures and religions".

The IOR provides Australia with a golden opportunity for economic enhancement, the prospect to value-add to trade and investment relationships, strengthening competition to benefit innovation and productivity growth.

The IORA enables a mechanism to establish closer and enduring connections to Africa, the Arabian Gulf and Asia, enabling the joint pursuit of the economic drivers of trade and investment, innovation and digitisation, development of human capital and investment to secure sustainable and economic growth for the region.

Australia acts on regional economic and strategic issues by engaging in regional dialogue, cooperation and utilising established bilateral relationships.

The authors who have contributed to this report focus on the key challenges for the Indian Ocean Rim, as well as providing an insight into opportunities for greater engagement and reciprocity by Australia to collectively develop economies of the countries of the IOR which ultimately improves the living standards for all.



**Hon. Ken Wyatt AM**  
Chair, UWA Public Policy  
Institute International  
Advisory Board



## Introduction

# The coming of an Indian Ocean Golden Age?

Half a millennia ago, the Indian Ocean was a vibrant venue for exchange, trade and connectivity that stood out by global standards. It was hallmarked by the constant movement of people, goods and ideas. While the Indian Ocean has been eclipsed by others, today, thanks to its own dynamics and proximity to global economic and security interests, its potential to experience a new Golden Age is a serious proposition worthy of a serious answer.

For this to happen during the mid-21<sup>st</sup> century, it will require more than growing trade within the region. It will entail *inter alia* developing a range of complementary open economies able to support sustainable development pathways for countries that currently perceive limited common interests; opening new and equally weighted channels for the articulation of visions for the region; adopting new science-led policy approaches to food and environmental security, underpinned by responsible and responsive governance and accountability mechanisms; embracing innovation in improving and deploying national and regional human capital; and re-imagining the role of diasporic populations in transnational, regional connectivity.

In other words, we require a better, shared understanding. Thus, talk of a Golden Age is credible insofar as these issues are examined and explored with rigour, to inform and shape policy agendas. *Indian Ocean Futures: Prospects for shared regional success* presents policymakers with timely, curated expertise to do so.

*Indian Ocean Futures* casts an eye across the current and medium-term dynamics of the Indian Ocean Region (IOR), exploring the proposition

that there is real scope to develop collective prosperity, sustainability and connectivity among its littoral states. Its contributions are designed to inform readers about particular countries, sectors, relationships, opportunities and dilemmas across the region, and the most pressing policy challenges in need of well-informed responses.

**This report is thus a prospectus for a concentration of minds, stimulating fresh debate about the extent, limits and nature of greater regional cohesion.**

It is not a finished story since so many of the challenges and opportunities it outlines are works in progress, and nor should it be confused with ill-defined boosterism. A thinness of reasoning or evidence is not an option if the region is to find a sustainable equilibrium for a shared future. The ideas and options outlined on these pages thus draw deliberately on academic expertise, ensuring that a rigour is extended to weighing up the prospects.

### Harnessing expertise, informing policy thinking

The Indian Ocean has been a place of significant exchange of trade, people, ideas and influences for a long period. The Ocean was the site of many pre-European colonial networks and, as Alexander Davis and Jonathan Balls point out,<sup>1</sup> low sea levels as long ago as the last ice age enabled non-trivial movements of people around the region. The Ocean's name came from India's ancient connectivity from its west to the Middle East and Africa, and from its east to South-East Asia.

<sup>1</sup> Alexander Davis and Jonathan Balls, *The Indian Ocean Region in the 21st Century: geopolitical, economic, and environmental ties* (Australia India Institute, University of Melbourne, 2019), <https://aii.unimelb.edu.au/wp-content/uploads/2022/03/indian-ocean-report.pdf>.

The Indian Ocean, they note, “was globalised long before the Atlantic was”—from the 1500s onwards. This observation has a bearing on how in the modern world we think of transoceanic connectivity (the theme of this report) and comparisons with the Atlantic (in the final part of this chapter).

So, what is the IOR? The Ocean’s littoral states comprise 23 sovereign nations which, as of April 2023, are also members of the Indian Ocean Rim Association (IORA),<sup>2</sup> stretching across Eastern and Southern Africa, the southern parts of West Asia, South Asia, South-East Asia and Australasia, and has a combined population of more than 2.7 billion. The Ocean’s sea lanes link the Middle East, Europe and the Americas to the region, and its human, environmental and cultural interactions point to a dynamic, though uncrystallised, set of shared influences and interests. And in recent times, Australia’s own Indo-Pacific tilt has involved a fresh and emboldened approach to the IOR that reaches beyond the giants of India and Indonesia.

The report’s genesis stems from a need to inform Australia’s changing place in the world, as seen from its West Coast and Indian Ocean capital.

This change has been churning and crystallising in segments over 20 years, shaping Australia’s position within the IOR. The pragmatic focal point of this edition rests on the public policy challenges key players in the region share with one another, especially pressing issues related to climate change, development, education, food security and cultural connectivity, among others. A shared understanding of those challenges is an endeavour of critical importance as the prospects and fortunes of IOR countries are intrinsically interconnected, even while relationships among them become more nuanced amid geopolitical shifts in this part of the world. To that extent, the report’s value lies in creating insights into how Australia can better navigate this space, and to help accelerate and embed the most promising opportunities for integration that arise.

2 Indian Ocean Rim Association, <https://www.iora.int/en/about/member-states>.

The report addresses the factors and trends that stand out in connecting countries in the region and its sub-regions. It provides expert insights into the question of what it means to be IOR-centric and how this regional consciousness, and shared policy ideas and common frameworks, may help provide a concerted response to the abundant challenges facing IOR countries.

Against this backdrop, the rationale of *Indian Ocean Futures* is to:

- Stimulate national and international discussion that straddles the main environmental, economic and cultural questions underpinning regional connectivity and cohesion;
- Give weight to how regional challenges are understood and can be tackled beyond a single country; and
- Create a foundation on which further regionally-focused collaborations can be built.

### A changing, dynamic region

The IOR is of growing importance to global economic development and geopolitical relationships. Significant political, economic, security, strategic, diplomatic, cultural and environmental factors permeate the contemporary region, and its complex trends and patterns are gaining traction in the minds of national and international policymakers. This backdrop is shaping Australia’s increasingly prominent identity as an Indian Ocean state.

Moreover, the sensitive strategic interests of global powers and emerging powers now intersect in the IOR. Proximity and access to important global trade routes across the region stand out, as do the geo-strategic assets and zones of influence of the world’s superpowers, the US and China. Washington DC’s long-standing tendency to overlook Indonesia—as the world’s largest invisible country—is no longer true today.

Australia, traditionally thought of as distant from and aloof to global strategic tensions, is today

experiencing—close-up—the interplay of historic and geographic factors that are influencing *inter alia* global trade, energy, environment, food and migration trends. Successful engagement with these factors will shape Australia’s place in the world in the mid-21<sup>st</sup> century.

Environmentally, the region is highly susceptible to the impacts of climate change, with the Indian Ocean warming at a higher rate than other oceans around the world.<sup>3</sup> Warming levels in the Indian Ocean are estimated to be three times higher than in the Pacific,<sup>4</sup> leaving coastal areas across the IOR especially vulnerable to rises in sea levels. Such projections bring substantial weight and urgency to issues that include climate migration, refugee flows, food security, environmental degradation and coastal erosion.

Such environmental considerations exist alongside emerging economic forces. Key players in the IOR are among the fastest growing economies globally, with implications for how other countries in the region frame their policies and position themselves towards these partners.

The economic impetus of rapidly-industrialising countries is one that must be balanced carefully with their environmental impact that will inform the longer-term wellbeing of the region.

To date, many of these changes have been viewed in isolation by IOR countries, but today there is growing appreciation that there are substantial policy challenges that connect the interests of IOR countries. Building greater understanding of these common features, cultivating shared know-how and overlapping responsibilities, and building strategic policy capacity are necessary measures.

### Key highlights and policy agendas

The IOR is home to several of the world’s fastest growing economies and includes some notable

countries—India, Indonesia, Bangladesh, Kenya, for example—that are seeking to gain a demographic and development dividend. It is also a region in which widespread poverty is found alongside high levels of economic inactivity and limited opportunities for social and human development.

These new engines of growth and development are both dispersed across the region, but also increasingly acting as sub-regional hubs. Kenya, South Africa and Mauritius are big drivers at the sub-regional level in the western IOR; the large populace countries of South Asia act as another key sub-region; and South-East Asian countries have increasingly acted together formally as a major, recognised sub-region.

Australia, long thought of as an ‘odd-one-out’, is today having to consider and engage with each of these sub-regional aspects.

Not surprisingly, these hubs are beginning to feature more centrally in policy thinking among trading economies across the world, many of which are seeking to align their respective comparative advantages to meet rising affluence and consumer demand across the region.

To this end, **Verena Tandrayen-Ragoobur** (University of Mauritius) makes the point in her piece that the longer-term drivers of economic advancement are already in place in the region. She reminds us that the IOR has been the locus of significant historic trade routes and relationships, but that trade within the region remains modest by size and scale in comparison with world flows. There are efforts in play to streamline intra-regional trade through reducing tariffs, customs barriers and financial red tape which are designed to reduce friction in the trading economy of the IOR.

This prompts **Peter Robertson** (The University of Western Australia) to examine how, during the recent rapid era of globalisation, the region

3 Intergovernmental Panel on Climate Change, “IPCC Sixth Assessment Report”, [https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC\\_AR6\\_WGI\\_Regional\\_Fact\\_Sheet\\_Ocean.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Ocean.pdf).

4 Arjun Gargeyas, “Climate Change Is the Biggest Threat to Indian Ocean Security”, *The Diplomat* (31 August, 2021), <https://thediplomat.com/2021/08/climate-change-is-the-biggest-threat-to-indian-ocean-security/>.

has been characterised by trade that has moved *through* the Indian Ocean rather than *between* its constituent economies. He disaggregates the region's economies, with some struggling to move beyond middle-income economies (e.g. Malaysia, Mauritius), while many others face the task of entering that bracket. If the region's giants, India and Indonesia, make progress, the economic prospects for the IOR start to take on a different hue. For this to take place, it would entail not just different trading relationships within the region, but would also require countries with large populations (such as India, Bangladesh or Indonesia) to become major producers of goods and services other IOR and non-IOR countries seek. A potential golden scenario might follow as these economies start filling up shipping lanes, air corridors and cyber highways among themselves.

On India's future economy, **Supriyo De's** (Reserve Bank of India) essay highlights the technology sector as a key ingredient of growth that has the potential to transform the country's future regional and global presence. India's growing skilled population, timely reform of market structures and investment finance, and the country's substantial diaspora linkages across the IOR make it well placed to lubricate new trading opportunities.

A particularly eye-catching finding De highlights is that parental education levels no longer necessarily shape outcomes for offspring, as has traditionally been the case.

The factors behind this change are uncertain, but the role of innovation in education provision and consumption has been, and continues to be, a key enabler.

While traditional security challenges command attention in debates on regional affairs, the region also faces several non-traditional security challenges to which IOR countries are collectively susceptible. These include *inter alia* environmental management, climate change preparedness and food security. Furthermore, most countries also face substantial problems of poverty that blight

individual life chance as well as their prospects for sustainable development.

Contributions by three renowned UWA experts and another from Cape Town, in the report's second section, shed light on these issues. **Anu Rammohan's** (The University of Western Australia) piece delves into Indonesia's distinctive policy agenda to tackle poverty and food insecurity. The country stands in the middle of the Global Hunger Index, with food security affecting many tens of millions of people, and where nutritional deficiencies persist at scale. The indirect approach taken by the national government has given autonomy to 75,000 rural villages in selecting interventions that are best suited to local needs, alongside measures to direct funds to the poorest households. These have been accompanied by food-based policy interventions, many of which have been hampered by weak distribution systems, poor targeting of recipient households and corruption.

The essay by **Kadambot Siddique** (The University of Western Australia) and **Xuan Li** (University of Technology Sydney) highlights the considerable nutritional insecurity facing South Asia, leading to enduring levels of hunger, malnutrition and poor dietary diversity. This description points to weak food systems which barely meet immediate energy needs and are difficult to alter structurally. The policy responses are sometimes food-based (through supplementing existing food types and supplies), but can also be agriculture-based (by changing what is grown to meet local needs and constraints). He concludes that the latter is a more credible and sustainable way forward, pointing to the significant boosts in yield and nourishment attached to crops such as quinoa, and the potential to expand reliance on neglected and under-utilised crops into future food systems.

**Erika Techera's** (The University of Western Australia) work is concerned with regional governance issues that stand in the way of prospects for a blue economy, spanning areas such as shipping, fisheries, aquaculture, ocean-derived energy and tourism, and

much more. Operating at the regional level is needed to identify the appropriate tools to coordinate processes and instruments, and to minimise the veto of national interests. Expansion of the IOR's marine governance is certainly in Australia's interest given its exposure to the Indian Ocean and the weight placed by successive recent governments on regional trading relationships. Strengthening the capacity of regional institutions is the preferred path, one that builds on Australia's past support for the Association of Southeast Asian Nations (ASEAN) and Pacific Island regional governance.

The Indian Ocean's susceptibility to climate change is the subject of the article by **Juliet Hermes** (South African Environmental Observation Network), **Roxy Koll** (Indian Institute of Tropical Meteorology) and **Janet Sprintall** (Scripps Institution of Oceanography). In common with Techera, their work is concerned with the Indian Ocean itself, and how its marine environment and associated climate patterns impact on all countries of the IOR. Standing out is the discovery that the Ocean stores a quarter of the total increase in global oceanic heat, despite representing just 13% of the world's surface. The vehicle to monitor the Ocean's dynamics in ever greater detail and predictive capability in an integrated fashion is the Indian Ocean Observing System, which has far-reaching relevance for the emergent risks faced by specific countries across the IOR.

The final section of *Indian Ocean Futures* turns to look at familiar and unfamiliar ways in which the people of the IOR are connected. The region contains one-third of the world's population, with a wide and rich array of diverse cultures, languages and religions. The movement of people, ideas, cultures and identities underpins bilateral relationships as well as intercultural dynamics. Examination of these patterns allows new policy questions to be framed.

The former is illustrated by **Dewi Fortuna Anwar's** (Nanyang Technological University) discussion of relations between near-neighbours Australia and Indonesia over the last quarter-century. Their relationship has been stunted by a limited

understanding of one another, cultural and religious differences, dissimilar political systems, uneven demographic profiles and unequal economic development. Despite this legacy, the trend is that they have become less stranger-like, and able to compartmentalise the most vulnerable aspects of their relationship. This bilateral story circles back to the issue of whether, or how far, Australia is still seen as the 'odd-one-out' in the IOR, leading to Anwar's conclusion that while the relationship has frequently been slow to build and quick to crash, greater stability and continuity has hallmarked the past decade.

The African diaspora in Australia is the focus of the contribution from **Farida Fozdar and David Mickler** (Curtin University). They point to the broad and diverse African origins of this population and the very distinctive migratory patterns and periods that lie behind arrival and settlement. Their first key finding points to elements of a pan-African-diaspora collective consciousness in contemporary Australia, a new development and one linked to some of the significant challenges of settlement and acceptance. The second finding develops an insight counter to the first, in arguing that there is a tendency to reach for simple over-generalisations about African-origin groups, ones discordant with their own self-perceptions and outlooks. This is a common finding among many other diaspora groups in Australia and beyond.

The authors propose the establishment of a national Australia-Africa Council, whose role would be to identify and take forward some of the larger strategic opportunities, and thus help to ensure Africa, Africans and the Australian-African diaspora feature more centrally in Australia's geopolitical strategic priorities.

Tertiary education and innovative and flexible provision by universities is the focus of the piece by **Romeela Mohee, Anjusha Durbarry, Humaira Khan and Ourvashee Roopchand** (Higher Education Commission, Mauritius). They examine the part played by micro-credentials in the development of higher education in Mauritius.

Clearly these programs address the need for upskilling and the flexible delivery of knowledge in the island state, with its distinctive recent upward economic trajectory. The positive local outcomes reinforce the question of wider applicability across the region. They also segue to the larger picture of how higher education providers in the region are adapting to meet and shape student demand.

Certain IOR countries, meanwhile, are heavily investing in raising the human capital of their populations, using this type of supply-side reform to drive wider uplift in their respective economies. This, in turn, is altering the role played by international education as a distinct and mature sector in the IOR. The implications for IOR connectivity will be seen in emerging knowledge networks and cultural exchange constellations.

Finally, **Anil Sooklal** (Department of International Relations and Cooperation, South Africa) provides readers with an African perspective on the IOR, a vital addition to the report given so many voices on the region hail from Asian, North American and European sources. With the IOR increasingly an arena for Great Power rivalry, he notes that African countries have been comparatively silent to date in expressing themselves on the Indo-Pacific as a whole, although the pressure to do so is felt more keenly among Eastern and Southern Africa and small island states.

The fleshing out of the African perspective amounts to a late, but not lost, opportunity.

The goal, he notes, lies in intra-African discussions and agreement on inclusive and sustainable growth that makes better use of the Indian Ocean, drawing on the African Union's 'Agenda 2063' vision that promotes regional economic development and integration. Existing policy positions towards the Indian Ocean can be harnessed, he argues, alongside the IORA playing a better-defined role.

### Transoceanic integration

If the IOR is to become the epicentre of sustainable global growth and connectivity, it is worth asking where else we have seen historic towering levels of inter-continental economic and cultural integration. In the last century, the answer is found in the North Atlantic. Today, the governments, economies and peoples on both sides of that Ocean enjoy a degree of broad-based continuity and certainty about their shared prosperity and well-oiled avenues of cultural diplomacy.

Of course, much of the North Atlantic platform stems from Europe's westward colonial expansion to, and appropriation of, the New World. However, rather than a one-dimensional relationship among a homogenous people, both Europe and North America are today at the frontline of substantial migration-led demographic change and a reshaping of identity.<sup>5</sup>

The world's most congested shipping lanes, air traffic corridors and cyber-age highways span the North Atlantic. We even have a word—Atlanticism—for this level of integration. And in the past decade, a catchy name—Nylons—was coined to encapsulate the shared lives of the people of the region's most dynamic cities, New York and London.

In the mid-21<sup>st</sup> century, what might we call the IOR's equivalent? Can members of the region, individually and collectively, deliver on their economic and strategic promise while meeting urgent environmental and developmental challenges? The answers would have to be grounded in the spirit of interconnectivity and aligned interests, underpinned by tangible interdependence in an economically successful, dynamic and peaceful IOR.

To be sure, debate about prospects for a coming Golden Age pre-supposes that a template for a better, common understanding of national and regional challenges exists—one that governments and others see as important for investing their energies.

Modern history suggests that great cities are in the vanguard of regional and global shifts. The IOR is likely to be no exception. The shining nodes of the IOR today are *inter alia* Singapore, Mumbai, Jakarta, Dubai, Nairobi and Perth, and they are being joined by a long list of emerging, pivotal cities such as Cape Town, Port Louis, Chennai and Kuala Lumpur.

How long before creative, entrepreneurial individuals—in businesses, governments, NGOs and beyond—start merging the names of some of these places for attention and recognition? As they do, we should take this as a sign of a coming Golden Age for the Indian Ocean.



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<sup>5</sup> Pew Research Center, "Views about national identity becoming more inclusive in US, Western Europe", <https://www.pewresearch.org/global/2021/05/05/views-about-national-identity-becoming-more-inclusive-in-us-western-europe/>.

*Part 1:*

# **Economic Change and Development**

# The future economic dynamics of the Indian Ocean Region



**Associate Professor Verena  
Tandrayen-Ragoobur**  
University of Mauritius

The Indian Ocean is one of the world's fastest growing regions. Being home to over three billion people and the centre of economic activity for centuries due to its strategic location between Africa, Asia and the Middle East, it is seen as a new global growth pole. Its GDP is projected to make up over 20% of global GDP by 2025 and expected to double to around USD 6,150 per capita.<sup>1</sup> Despite its significant recent economic performance, development across countries has been uneven with some facing challenges that affect their development pathways in different ways. Climate change, poverty, political instability, dearth of investment, infrastructural deficits and lack of access to technology are common challenges for the region.

## Intra-Indian Ocean trade

A key driver of economic development in the Indian Ocean Region (IOR) is international trade. The region has been linked by commerce for centuries and is at the centre of global trade and investment flows. It is one of the world's busiest trading zones and

home to major ports and sea routes connecting the Middle East, Africa and East Asia with Europe and the Americas. It hosts 23 of the world's busiest ports and half of the world's container ships, while two-thirds of the world's oil shipments pass through the Indian Ocean.<sup>2</sup>

The region is an important contributor to global trade and home to several important trading nations such as India, China, Indonesia, South Africa and Australia. For instance, in 2022, China's total merchandise trade was valued at USD six trillion, followed by India's at USD 947 billion and Australia's at USD 694 billion.<sup>3</sup> Other important trading nations in the region include South Africa, Indonesia, Malaysia, Saudi Arabia and the United Arab Emirates.

Intra-regional trade has grown significantly in recent years with countries like Indonesia, India and Malaysia increasing trade with other countries. Rising economic integration and regional agreements have facilitated the trade growth in the IOR.

Small and remote islands like Mauritius, Seychelles, Maldives and Comoros are vulnerable to external economic and trade shocks, and consequently rely heavily on regional agreements to enhance their trade position.

Regional bodies have signed trade agreements to boost regional trade and investment, such as the Association of Southeast Asian Nations (ASEAN), the South Asian Free Trade Area (SAFTA), and the Indian Ocean Rim Association (IORA). However, although intra-Indian Ocean trade appears to have expanded, the increase seems to be modest from 24.7% of the region's total trade in 2000 to 27.2% in 2017.<sup>4</sup> This is attributed to persistent challenges, such as barriers to trade and investment, poor port and customs quality, development gaps and nascent regional economic governance. High trade costs, burdensome logistics and regulatory restrictions, limited transport connectivity, low levels of foreign direct investment, relative asymmetry in the size of member countries and historical political tensions are important factors that hinder regional trade.<sup>5</sup>

Though import tariffs in the region have fallen significantly since the 1990s, non-tariff measures (NTMs) have trended upward, with the number of NTMs initiated and notified by Indian Ocean economies to the World Trade Organisation increasing from 128 in 2000 to 686 in 2017. The bulk of the NTMs were technical barriers to trade (around 60%) and sanitary and phytosanitary measures (around 32%).<sup>6</sup>

To enhance intra-Indian Ocean trade, it is imperative to remove these impediments and promote the flow of goods, services, investment and technology as trade represents a major engine for growth and balanced development across Indian Ocean economies.

The geographical dispersion of countries in the region, gaps in port infrastructure and burdensome customs procedures pose important barriers to

trade and regional connectivity. They increase the cost of moving products across borders. Landlocked countries, in particular, are more likely to face higher trade costs than littoral states due to higher costs of transporting goods to seaports, weak logistics systems and difficulties in border transit. Indian Ocean economies, therefore, need to invest in port development and customs modernisation.

The emerging mega-regional infrastructure initiatives—such as China's Belt and Road Initiative, the EU Investment Plan, the Africa-Asia Growth Corridor, ASEAN's Master Plan for Connectivity, as well as Japan's Partnership for Quality Infrastructure—may expedite investment in port and trade facilitation.

Development disparities and capacity gaps remain between and within IOR countries, with many of the least developed economies failing to engage fully in trade-led growth. The establishment of an Indian Ocean Development Fund can help address these gaps.

Furthermore, linking the various sub-regional and bilateral free trade agreements in the region to a mega-regional trade agreement with common rules and standards will reduce trade barriers, increase market access, strengthen regional economic governance and facilitate regulatory coherence. Greater dialogue on common trade challenges can help boost intra-Indian Ocean trade.

## The Indian Ocean Region: The pursuit of the blue economy

Achieving economic and sustainable development has been particularly challenging for many Indian Ocean economies, especially the still-developing littoral states. These countries rely extensively on marine resources for livelihoods and food security. In addition to trade being a major channel of growth for the region, countries have increasingly moved

1 Wignaraja, Ganeshan, Adam Collins and Pabasara Kannangara, "Opportunities and Challenges for Regional Economic Integration in the Indian Ocean," *Journal of Asian Economic Integration* 1, no. 1 (2019): 129–51. <https://doi.org/10.1177/2631684619829958>.

2 "Enhancing Sustainable Port Services and Management in the Indian Ocean Region for improved maritime connectivity, ISDP-II," Indian Ocean Rim Association, <https://www.iora.int/en/events-media-news/events/priorities-focus-areas/blue-economy/2017/enhancing-sustainable-port-services-and-management-in-the-indian-ocean-region-for-improved-maritime-connectivity-isdp-ii#:~:text=The%20Indian%20Ocean%20retains%20huge,shipments%20converge%20in%20the%20region.>

3 UNCTAD, "Handbook of Statistics 2022," December 12, 2022. [https://unctad.org/system/files/official-document/tdstat47\\_en.pdf](https://unctad.org/system/files/official-document/tdstat47_en.pdf).

4 Ibid.

5 Bibek Chand, "Assessing Modi's Neighborhood First Policy: The China Factor in Indo-Nepalese Relations," International Studies Association International Conference – China 2017. <http://web.isanet.org/Web/Conferences/HKU2017-s/Archive/1936df02-5d5f-4a4a-986a-e0afaf0b8d74.pdf>

6 Office of the Prime Minister, Sri Lanka. *Navigating Challenges and Prospects in the Indian Ocean: Towards a Shared Understanding*. 2019. <https://iki.lk/wp-content/uploads/2019/05/Navigating-Challenges-and-Prospects-in-the-Indian-Ocean-Towards-a-shared-understanding.pdf>.



towards the exploration of marine resources as a means to promote development.

As the IOR's population increases significantly in coming decades, its impact on food security and marine resources will also rise. Moreover, the region faces multi-dimensional challenges ranging from climate change impacts, such as sea-level rises, extreme weather events, ocean acidification and changes in the distribution of aquatic species, to decreased economic productivity and migration.

The Indian Ocean has enormous potential to provide sustainable livelihood and economic development. The use of marine resources for economic development, while at the same time reducing environmental risks and environmental scarcities, has been termed the 'blue economy', providing an ocean-based development model for the IOR. It offers significant potential for economic growth through enhanced productive activities and job creation in fisheries, aquaculture, tourism, renewable ocean energy and maritime transport, marine biotechnology, research and development to name a few. The ocean also contributes to food security and poverty alleviation by providing a critical food source and livelihoods for millions of people in the region.

The blue economy further provides an opportunity to conserve marine biodiversity and the ecosystem. For instance, Seychelles has demonstrated a shift towards the blue economy with its Strategic Policy Framework and Roadmap: Charting the Future (2018-2030), which focuses on economic diversification and resilience, shared prosperity, food security, wellbeing, and integrity of habitats and ecosystem services, sustainable use and climate resilience.

With a vast Exclusive Economic Zone (EEZ) of 1.37 million km<sup>2</sup>, the development and livelihoods of Seychelles' inhabitants are linked to marine and coastal resources where tourism and fisheries are the main economic pillars. The Government has

invested heavily in adaptive measures to transit from business as usual to a more sustainable use of marine resources within the Seychelles EEZ.

Seychelles launched the world's first sovereign blue bond that raised USD 15 million in 2018 to support sustainable fisheries, marine conservation and renewable energy projects.<sup>7</sup> In addition, a Marine Spatial Plan was set to balance economic development with environmental preservation, whereby 30% of its waters were designated as protected areas.

Seychelles has further implemented initiatives on sustainable tourism, including a program to certify hotels and resorts that adhere to sustainable tourism standards. It has also invested in green energy, with a goal of achieving 100% renewable energy by 2030.<sup>8</sup>

Similarly, Mauritius, surrounded by a vast EEZ of 2.3 million km<sup>2</sup>, has increasingly transitioned towards blue economy activities. Mauritius set out the National Ocean Policy in 2017 to promote the sustainable development of the country's ocean resources, while ensuring the conservation and protection of the marine environment. Similar to Seychelles, the Mauritian Government developed a Marine Spatial Plan to guide the sustainable development of its marine resources.

Mauritius also raised USD 15 million via the blue bond initiative to fund marine conservation projects, support the development of sustainable fisheries, and promote the growth of the country's nascent ocean technology sector. The country has set a goal of achieving 35% of its electricity generation from renewable energy sources by 2025, while also investing in renewable energy technologies that include wind, solar and wave energy.

The Government has launched initiatives to support aquaculture by establishing a regulatory framework, a national aquaculture research and

development centre, and providing financial support to entrepreneurs in the sector. By safeguarding and enhancing marine and coastal health, countries will be in a better position to take full advantage of future blue economy opportunities, which range from sustainable blue energy to aquaculture to blue carbon.

The World Bank is pioneering the Blue Economy for Resilient Africa Program, announced at the United Nations Framework Convention on Climate Change's annual Conference of the Parties (COP27), whereby Africa's coastal countries are to leverage the opportunities and manage the risks inherent in growing their blue economies.

### Challenges to the blue economy

However, challenges remain. Climate change poses a major threat to the Indian Ocean ecosystem and economies that depend on it. Rising sea levels, and increased frequency and intensity of extreme weather events have significant effects on the blue economy, so governments must prioritise climate change adaptation and mitigation strategies. For instance, the

protection and restoration of blue carbon ecosystems (i.e. mangroves, seagrasses and tidal marshes) can enhance livelihoods, reduce risks from natural disasters and mitigate climate change impacts.

In 2019, for example, communities in Madagascar launched the world's largest mangrove carbon conservation project—The Tahiry Honko project—to tackle climate breakdown and build community resilience. This project promotes locally led conservation, reforestation and sustainable use of over 1,200 hectares of mangroves, together with other initiatives such as sea cucumber, seaweed farming and mangrove beekeeping.<sup>9</sup>

In Mauritius, the Coastal Protection and Adaptation Project has been restoring six Environmentally Sensitive Areas (ESA) with seagrass, algal beds, coastal wetlands, sand beaches and dunes and mangroves, among others, covering 41,000 hectares of which 60% lies in Rodrigues and 40% in Mauritius. The management of these ESAs has been mainstreamed into the policies of the physical development and tourism sectors.<sup>10</sup>



7 "Seychelles launches World's First Sovereign Blue Bond," The World Bank, <https://www.worldbank.org/en/news/press-release/2018/10/29/seychelles-launches-worlds-first-sovereign-blue-bond>.

8 Ibid.

9 "Communities in Madagascar launch the world's largest mangrove carbon conservation project," Blue Ventures, <https://blueventures.org/communities-in-madagascar-launch-the-worlds-largest-mangrove-carbon-conservation-project-2/>.

10 "Mainstreaming biodiversity into the management of the coastal zone in the Republic of Mauritius," UNDP, Republic of Mauritius, <https://www.undp.org/mauritius-seychelles/projects/mainstreaming-biodiversity-management-coastal-zone-republic-mauritius>.

Another challenge resides in the complex issue of ocean resource governance, with the IOR's many overlapping jurisdictions and stakeholders. Littoral states, for example, lack the capacity to harness their blue economy potential, which could lead to risk of external exploitation leaving them victims to the 'resource curse'. Hence, governments must work together to establish regulations and policies to promote sustainable development.

Many Indian Ocean economies have limited resources and lack capacity to invest in the infrastructure and technology required to support the sector. Furthermore, the blue economy concept and sustainable development may not be well understood or prioritised in some economies. Education and awareness-raising are necessary to promote the benefits of sustainable development within this paradigm, and these need to be backed up by concerted efforts from governments, the private sector and broader communities.

There should be an increased policy focus by those Indian Ocean littoral states towards the blue economy to harness the economic potential of shared marine resources and their capacity to achieve broader imperatives like food security, poverty alleviation and enhanced livelihoods.

Australia, for instance, has advanced its biotechnology in the production of marine-based medicines and cosmetics, and implemented sustainable aquaculture practices through the use of closed-loop systems and feed made from sustainable sources.

It has also developed marine renewable energy, including offshore wind and wave power projects. Countries in the Indian Ocean can learn from such best practices and adapt these initiatives to their own context.

## Conclusion


IOR trade and blue economy are important engines of development. The opportunities offered by both trade and the blue economy vary among Indian

Ocean countries, depending on their geographic location and level of development. The region is rich in natural resources such as oil, minerals and gas, which represent important potential for trade and economic growth.

In addition, the region comprises growing economies such as India, Indonesia and South Africa, which have the potential to provide consumer markets for smaller IOR countries. There are significant investment and trading opportunities in the manufacturing and services sector. The strategic location of countries within the region helps to position them as important trade and investment hubs, which are connected to several major trade routes between Asia, Europe, Africa and the Middle East.

However, the region faces important risks. The IOR has a long history of piracy, which poses substantial risks to trade flows and imposes higher costs for insurance and shipping, as well as disruptions in supply chains. The IORA can serve as a platform for all Indian Ocean states to raise security concerns and help counterbalance aspiring hegemonic regional powers.

Many countries, including China, India, Indonesia and East African nations are investing massively in infrastructure to support economic growth, including the development of ports, highways, railways and airports and the expansion of digital infrastructure. For instance, the 2013 establishment of China's Belt and Road Initiative saw a rapid increase in funding for Chinese maritime infrastructure projects across the region.

Infrastructural development is likely to boost trade and investment, not only within the region but also with other parts of the world. With respect to the blue economy, IOR countries share a common recognition that the ocean acts as a driver of national and regional sustainable development, where ocean health, sustainability, equity and resilience remain the fundamental objectives. 

# The Indian Ocean Region: traps and opportunities



**Professor Peter Robertson**

The University of  
Western Australia

Visitors to Western Australia are regularly reminded by their hosts that the beaches they visit are the shores of the Indian Ocean, not the Pacific. The point resonates with visitors from South Asia, with their abundance of Indian Ocean coastlines and historic relationships, and highlights the different perspective to Australia's Eastern States about the country's future. The challenge, domestically, has been to grasp that the Indo-Pacific is more than the Pacific Ocean and, depending on this, to frame how the country might become more Indian Ocean-centric.

But, before that, what exactly is the global political and economic significance of the Indian Ocean? There are two contrasting views. The more familiar one, highlighted by a map of maritime shipping routes in the Indian Ocean below, shows the importance of the Indian Ocean from a geopolitical and security perspective. Forty per cent of global energy trade goes through the Indian Ocean and is squeezed through critical choke points at the Cape of Good Hope, Cape Comorin, the Persian Gulf and Red Sea, and the Malacca Straits. This geography is responsible

**Figure 1:** Shipping routes in the Indian Ocean Region



Source: Carnegie Endowment for International Peace<sup>1</sup>

<sup>1</sup> Carnegie Endowment for International Peace, <https://carnegieendowment.org/publications/interactive/indian-ocean-map>.

for much political behaviour from Chinese and Indian naval expansions, and Chinese foreign investments in Colombo, Myanmar and Djibouti.

The less familiar picture, however, looks at the map from an economic perspective. Maritime transport in the Indian Ocean shows two superhighways—one from Arabia, and another from the Atlantic. Both maritime highways head straight to the Malacca Straits and on to China.

Thus, from an economic standpoint, Indian Ocean Region countries are neither a source nor destination for global trade. Rather, the Indian Ocean is a highway to China. India and all the other IOR countries are, metaphorically speaking, on the back-country roads.

The maritime trade map thus emphasises both the IOR's geopolitical significance and its economic insignificance. This insignificance does not stem from a lack of population. With 2.6 billion people the region accounts for 35% percent of the world's population. This population, however, only produces 10% of the world's economic activity, as measured by GDP.

Moreover, if we exclude the Arabian oil-exporting countries and the Asia-Pacific-facing countries that happen to have IOR borders (Malaysia, Thailand and Australia), the rest of the IOR region still accounts for 28% of the world's population, but only 5.7% of world GDP and less than 4% of world exports.

In fact, just four IOR countries—India, Pakistan, Bangladesh and Indonesia—alone account for 26% of the world's population. But the GDP per capita of these four massive countries remains well below the world average of around \$11,000 per capita (measured in constant 2015 USD—see Figure 2 below). Apart from Australia, and a handful of oil exporters, most countries in the IOR have per capita incomes well below the world average.

Figure 2 shows the impact of this reality for the region's overall economic mass and growth prospects. The horizontal axis shows the GDP per capita in 2021, and the vertical axis shows the average growth rate over the period 2000-2021. Fast-growing poor countries like Myanmar are thus on the upper left, while slower-growing richer countries are on the bottom right. Each country

is represented by a circle, where the circle area is proportional to its GDP, which shows its economic importance for the whole region.

Overall, the IOR is dominated by India and Indonesia, which have large GDPs on account of their populations. India and Indonesia are all well below the world average per capita GDP of USD 11,000, but are growing at a rate above the world average of 1.6% (note: Australia and Qatar are not shown as the per capita GDP is around USD 60,000). Nevertheless, these large IOR countries are not growing as quickly as other countries, such as China managed at similar levels of per capita income, or Myanmar recorded before its most recent coup. Still, India and Indonesia are performing well compared with Pakistan, Iran, Iraq, Kenya and South Africa where economic growth has effectively failed.

Unlike Malaysia, where the challenge is to escape the middle-income trap, the task for most of the IOR is to get into this bracket. If the IOR countries that are below the world's average per capita income (i.e., to the left of Malaysia), they could generate growth to get themselves to the USD 10,000 per person threshold (approximately equal to Malaysia or the world average). If this were to be the case, it would result in the IOR countries jointly making up over 30% of world GDP (from 10% today). This would constitute a game-changer for the global economy.

The hope then is that the large medium-growth countries—Indonesia, India, Bangladesh and Sri Lanka—are able to reach middle-income status. The movement of these countries into the middle-income band would create an economic zone with far more global economic significance than it currently has. India, alone, would constitute 16% of world GDP.

### Navigating regional traps

Thus, the region has enormous, but unrealised, potential. But it also faces many traps. While India and Indonesia are not growing as quickly as China has previously accomplished, they are still growing rapidly by international historical standards. The Modi

Government, in particular, appears to be prioritising the key areas of education and infrastructure investment, which, along with political stability, peace and free markets, are key to economic success.

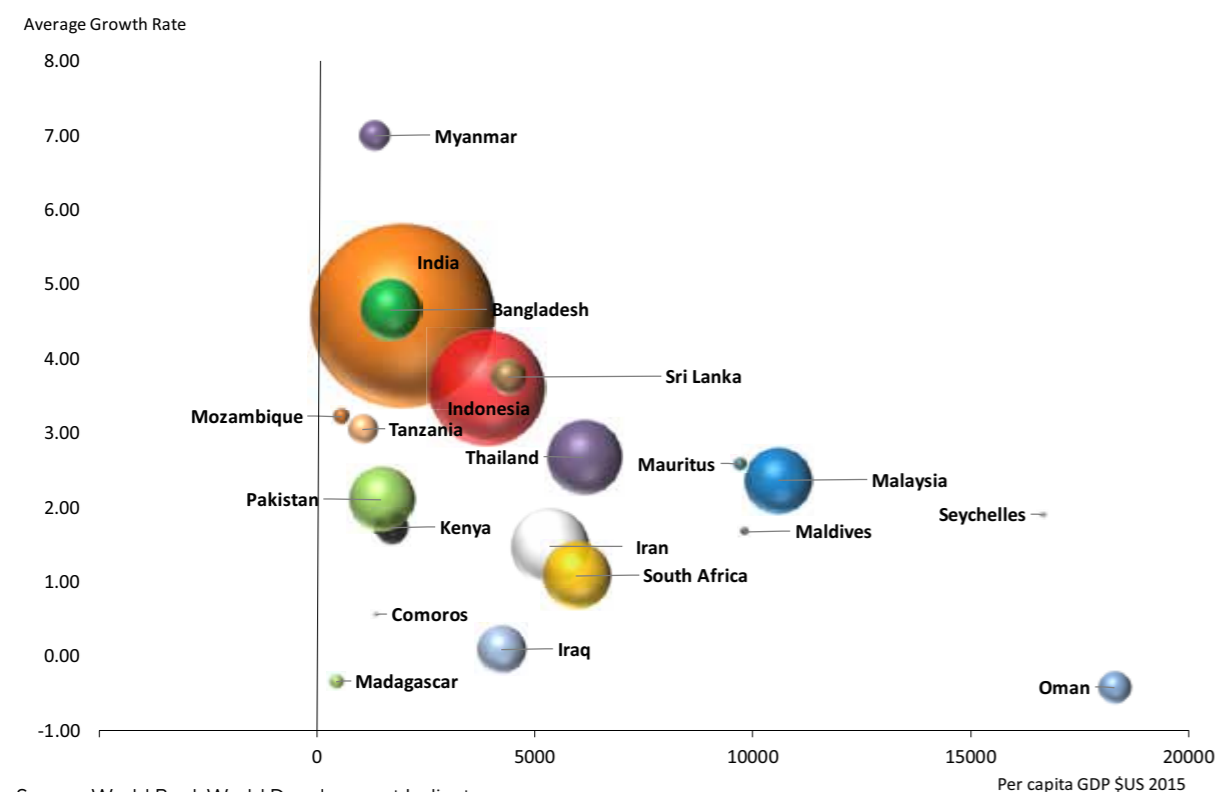
India's economy has also shown resilience post-COVID, especially when compared to China. It has a rapidly growing IT sector, and the Federal Government has taken steps to encourage manufacturing while also significantly ramping up infrastructure spending on roads and transport.

Similarly, Indonesia, India and Bangladesh, where the bulk of the region's population resides, are all stable democracies. They do not have to overcome some of the hurdles China still faces in trying to align capitalist enterprise with political authoritarianism.

The key to future prosperity, therefore, is to stay on track. This isn't easy. Myanmar, Sri Lanka and Thailand are all recent examples of countries that seem to have lost their way. In Myanmar, the economic success of its democratic government was disrupted by a military coup. Thailand grew rapidly into the middle-income band, but never regained that growth after the Asian financial crisis. Sri Lanka was growing strongly but became embroiled in crippling debt, and its booming tourism succumbed to terrorist threats. With growth comes changes in power and the redistribution of winners and losers—including unearned contrived incomes—that will always find opposition.

Ironically, a significant risk to IOR economic success is its geopolitical significance. This can inhibit opportunities, especially as international trade deals become increasingly tied to geopolitical alliances. It can also be distracting. For instance, persistent rivalry in the Indian Ocean or in the Himalayan border disputes, or political and financial instability in Sri Lanka following Chinese investments, can lead democratic governments to focus on these issues for political gain, rather than to prioritise domestic growth. Nationalist governments are particularly vulnerable to such military adventurism, especially if the domestic economy is performing badly. Maintaining growth, while avoiding these internal

**Figure 2:** Indian Ocean Rim - Per capita GDP growth and levels



Source: World Bank World Development Indicators

traps and external geopolitical distractions, will require enormous statesmanship and focus—and more than a little bit of good luck.

The choices for Australia’s engagement with the region are actually quite easy to identify, because there are no real choices. From a purely economic perspective, it makes sense to allocate scarce political capital towards the large democracies such as India, Bangladesh and Indonesia. While these countries face many economic hurdles, their economies will nevertheless most likely define Australia’s future. Their huge markets, even if growing slowly, will become increasingly important to Australia, and if political stability can be maintained, their priorities will shape the region as a whole.

As evidenced by China’s interests in the Pacific islands, such as Samoa, Australia can ill-afford to ignore the smaller countries either. The Indian

Ocean’s geography means smaller countries from Sri Lanka through to the Seychelles will be critical to strategic interests.

It is therefore very much in Australia’s interest to engage with the region in a way that keeps in sight the interests of smaller nations, and to foster a sense of regional cohesion which adheres to the rules-based international order, and is based on shared democratic values and economic interests.

Thus, Australia must navigate the path ahead carefully and respectfully, because the potential outcomes thrown up by the traps and opportunities unique to the IOR are enormous in equal measure. 🌐



# India: tech-shop of the world? Implications for the Indian Ocean Region

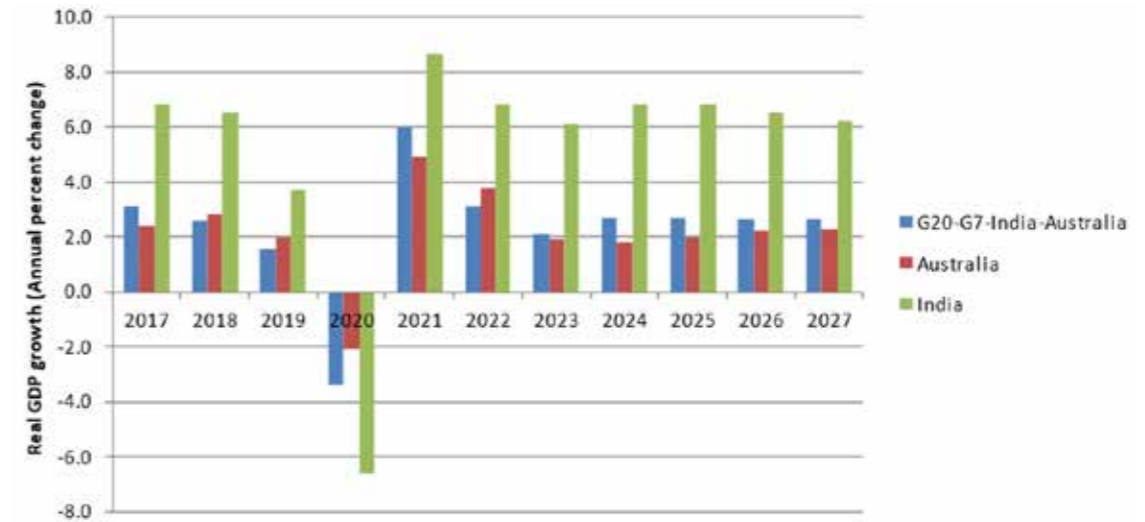


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India occupies the fifth position among the largest economies in the world. According to a 2022 report by the World Bank, India is expected to be the fastest growing economy of the seven largest emerging-market and developing economies (EMDEs), though its economic growth is projected to slow to 6.9% in 2022-23 and 6.6% in 2023-24 from 8.7% in 2021-22.<sup>2</sup> India is slated to become the world’s most populous nation by mid-2023. This catapults India into a dynamic and evolving role in the Indian Ocean Region (IOR).

India is projected in the next few years to have the highest growth rate compared to Australia and the emerging G20 nations (Figure 1). Recent International Monetary Fund estimates show the Indian economy overtaking Germany’s to become the world’s fourth largest economy by GDP within the next five years. The symbolism of surpassing Europe’s biggest economy in this coming period should not be under-estimated, especially in the wake of India’s eclipse of the UK economy in the pivotal 2012-22 decade.

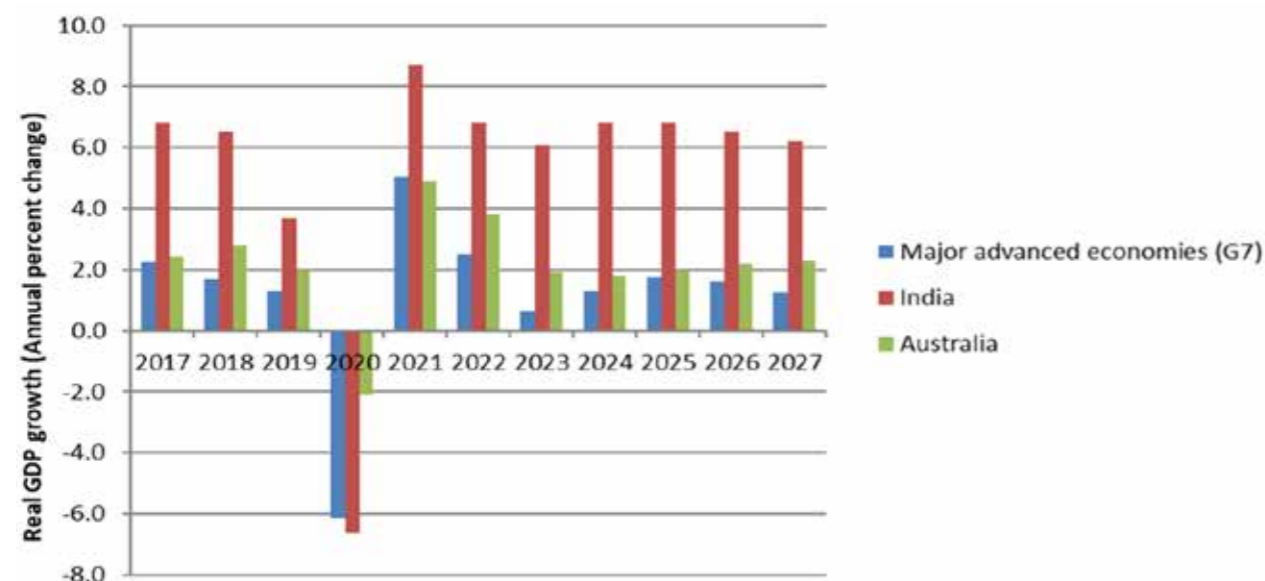
**Figure 1:** Real GDP growth of India, Australia and emerging G20 economies, between 2017-2027



Source: IMF World Economic Outlook data (NB: Emerging G20 are those that are not G7)

<sup>1</sup> Thanks to Aalokitaa Basu, Adam Hussain, Neeti Gupta, Prachi Jain, and Mayurakshi Mitra for research assistance.  
<sup>2</sup> World Bank, *India Development Update: Navigating the Storm* (Washington, D.C.: World Bank Group, 2022).

**Figure 2:** Comparison of real and projected GDP growth of India, Australia and major advanced G7 economies, between 2017-2027



Source: IMF World Economic Outlook data

Similarly, if a comparison is made between India, Australia and G7 economies, India is projected to grow the fastest (Figure 2).

Given this scenario, with deepening trade, security and cultural ties, India's relations with countries in the IOR will be underpinned by the four Ds: democratisation, demographics, diaspora and defence.

### Democratisation

In the 75<sup>th</sup> year since its Independence, India stands as a bulwark of democracy for the region. Deepening democratisation achieved across many decades and governing parties has cumulatively delivered several positive outcomes, from respect for human rights and economic prosperity to inclusive growth and security.

Concomitant to India's constitutional commitment to equality of opportunity, education is no longer the preserve of a select few and elite schools. There has been a rapid democratisation of markets, education, finance, information and opportunity. According to a 2018 World Bank report, India made progress on educational intergenerational mobility.

The impact of parental education on children's education for those born in the 1980s was much less than those born in the 1940s.<sup>3</sup> It indicates a virtuous cycle of higher aspirations, which has led to greater efforts and achievements, and to a greater correlation between the aspirations of young people and their education outcomes.

Given the country's historic challenges in building educational institutions and choices to support its economic ambitions, the advancement achieved by this cohort is both significant and under-appreciated. It also bodes well with regards to future educational reform. It is important for policymakers and researchers to link this with other engines of social mobility, such as labour market dynamics, access to housing and improvements in healthcare.

Apart from government initiatives, the private sector has been incentivised towards investment and production. India has recently witnessed a boom in start-ups and unicorns.<sup>4</sup> Through a separate lens, the liberalisation of markets and finance in India, coupled with a democratisation and pluralism of participants, can be demonstrated through the strong surge of youthful first-time investors. India witnessed its

first unicorn in 2011, and its 100th unicorn in 2022. The combined valuation of India's unicorns was over USD 333 billion, as of May 2022.<sup>5</sup> The year 2020-21 saw a surge of young investors entering the stock market. This marked change in investor demographics is largely attributed to the resilience and growth prospects of the Indian economy.

The Indian start-up sector had a strong performance in 2022. Despite the 'funding winter', it has become the third-largest ecosystem for start-ups.<sup>6</sup> The start-up ecosystem is comparable to the US and China. India ranks high among the global index of countries producing the largest number of unicorns.

The country is also home to a lucrative venture capital scene, both domestic and foreign, with investments increasing 13 times in the past decade—from USD 3.1 billion in 2012 to USD 38.5 billion in 2021—a substantial portion of which comprises approximately 92 USD 100-million deals and at least seven USD 500-million deals, spread across a

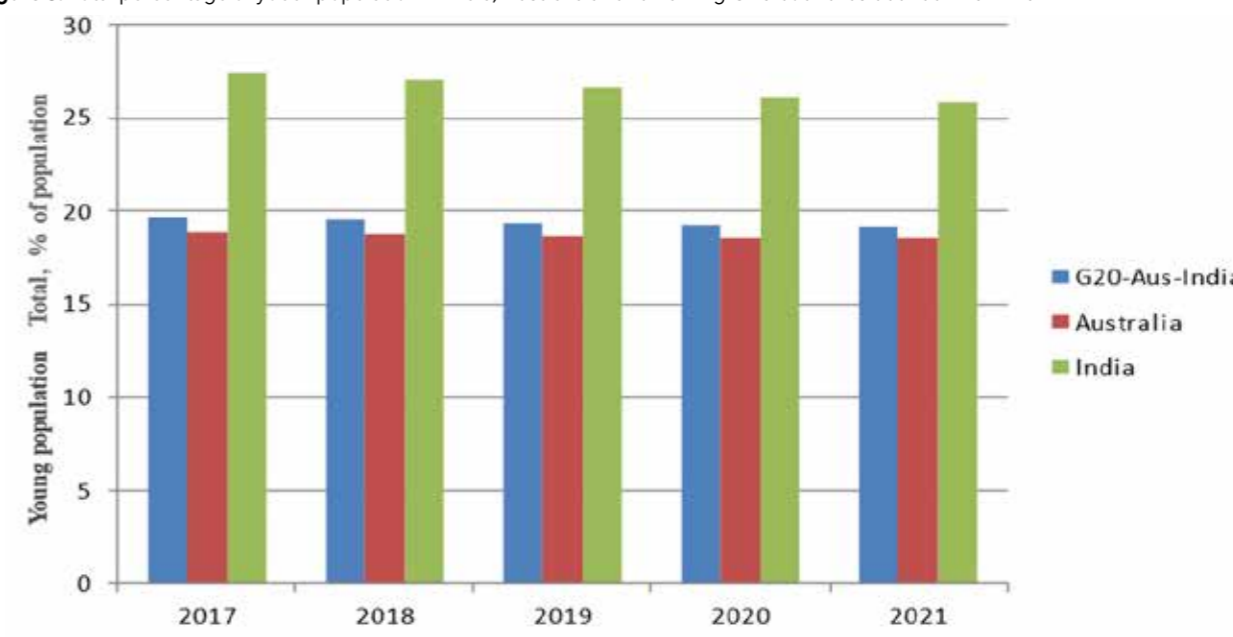
diverse investment portfolio. There is tremendous potential for cooperation in venture capital among the countries in the IOR.

### Demographics

India enjoys a demographic dividend with a mostly youthful population. The National Youth Policy 2014 designates the age group of 15-29 years as 'youth', whereby 27.3% of the population falls under this category.<sup>7</sup> One can expect a surge in production and consumption with such a large population of young people. There is a critical need to provide education and skills to improve the stock of human capital and enhance growth prospects.

The positive aspects of a demographic dividend can turn into a risk if there is a failure to meet aspirations. Inability to provide appropriate education and employment is economically and socially detrimental. To assuage these serious concerns, it is imperative that access to education and higher skills is expanded.

**Figure 3:** Total percentage of youth population in India, Australia and remaining G20 countries between 2017-2021



Source: Organisation for Economic Co-operation and Development

<sup>3</sup> "Fair Progress? Economic Mobility Across Generations Around the World," The World Bank, <https://www.worldbank.org/en/topic/poverty/publication/fair-progress-economic-mobility-across-generations-around-the-world>.

<sup>4</sup> A unicorn is a privately held startup company with a current valuation of US\$1 billion or more, across technology centres throughout the world.

<sup>5</sup> Anik Banerjee and Arbaz Sayed, "List of 108 Unicorn Startups in India and Counting," *Startup Talky* (September 29, 2022): <https://startuptalky.com/top-unicorn-startups-india/>.

<sup>6</sup> Eetika Kapoor, "New Indian unicorns get rarer in 2022 as funding winter sets in," *Business Insider* (December 15, 2022): <https://www.businessinsider.in/business/startups/news/how-many-startups-turned-unicorns-in-2022-in-india-check-out-the-list/articleshow/96248261.cms#:~:text=While%2046%20companies%20turned%20unicorns,fell%20to%2022%20in%202022.>

<sup>7</sup> Ministry of Statistics and Programme Implementation, Government of India, *Youth in India*. June 28, 2022. <https://mospi.gov.in/web/mospi/reports-publications/-/reports/view/templateFive/29601?q=RPCAT>.

To address these issues, India's New Education Policy 2022 focuses on five pillars: Access, Equity, Quality, Affordability and Accountability. It emphasises the development of skills for the 21<sup>st</sup> century, such as creativity, critical thinking and problem-solving. The policy also proposed the establishment of new institutions, such as digital universities, as well as the use of technology to support students in learning.

Furthermore, it aims to enhance the Gross Enrolment Ratio in higher education from around 26% in 2019 to 50% by 2035. The scope for collaboration among universities and technical education institutes in the IOR is substantial. India's significant proportion of young people (aged 15-29), relative to Australia and other G20 countries (Figure 3), attests to this potential for knowledge exchange and collaboration among education institutions.

Depictions of the Age Dependency Ratios of India, Australia and the remaining G20 countries, between 2017-2021 (Figure 4), shows that India has the least age dependency among the older population in the labour force.

Literacy rates have an upward trend standing at 73% in 2011. The gender gap in literacy has narrowed (from 24.8% in 1991 to 16.2% in 2011). Secondary education levels have improved between 2011 to 2021 across rural and urban areas, with the gross enrolment ratio for males increasing from 68% in 2011

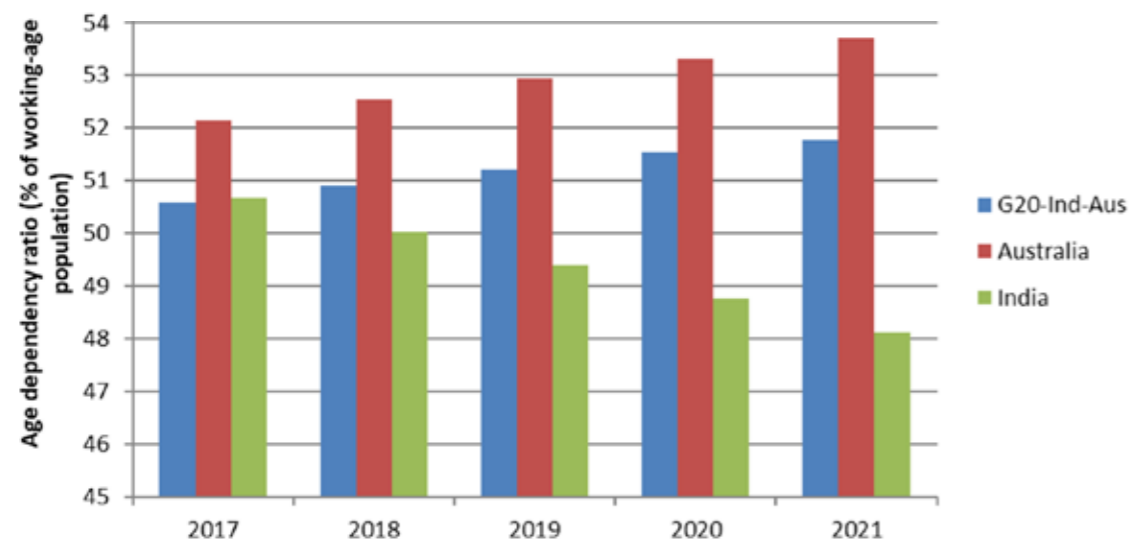
to 79% in 2021, and for females from 65% in 2011 to 77% in 2012. The youth unemployment rate of the country was at a perturbing 17.8% in 2017-18, but it has since dropped to 12.9% by 2020-21.

There is a pressing need for vocational education, although the 50% rate recorded for basic education is commendable. The rate of vocational training at 14% reflects the significant challenges to enabling a holistic development of the growing population. As such, identifying the requisite vocational skills for the population that serves the goal of sustenance is essential.

The rapid way in which educational barriers are being tackled may be a harbinger of future reform in other areas, particularly those that affect the supply side of India's economy.

Several reform agendas stand out that currently have an inhibiting effect on the country's investment potential: a National Logistics Policy, a National Infrastructure Pipeline, a National Monetisation Plan and a Bad Bank and National Asset Reconstruction Plan. Each of these is in the purview of the current Federal Government and are accompanied by a substantial consensus across business and government that recognises the degree of political capital needed for India to continue to move up the international economic league table. That said, many of these reform agendas are difficult for a

Figure 4: Age dependency ratios of India, Australia and remaining G20 countries, between 2017-2021



Source : World Bank

single administration to pursue concurrently as they are associated by decades-old inefficiencies and restrictive practices that have benefitted existing market participants.

### Diaspora

The migration of Indian workers has created a large diaspora around the world (Figure 5). The future of technological progress in the IOR is inextricably linked to Indian tech-entrepreneurs as they possess several attributes that make them attractive to the rapidly growing technology needs of the region: a) established global track-record of extensive domain knowledge and skills; b) ability to provide frugal innovation; c) low-cost and high-productivity human capital; d) access to funds from several parts of the world including India, the US, UK, and the Middle East due to diaspora networks; and e) strong English language skills.<sup>8</sup>

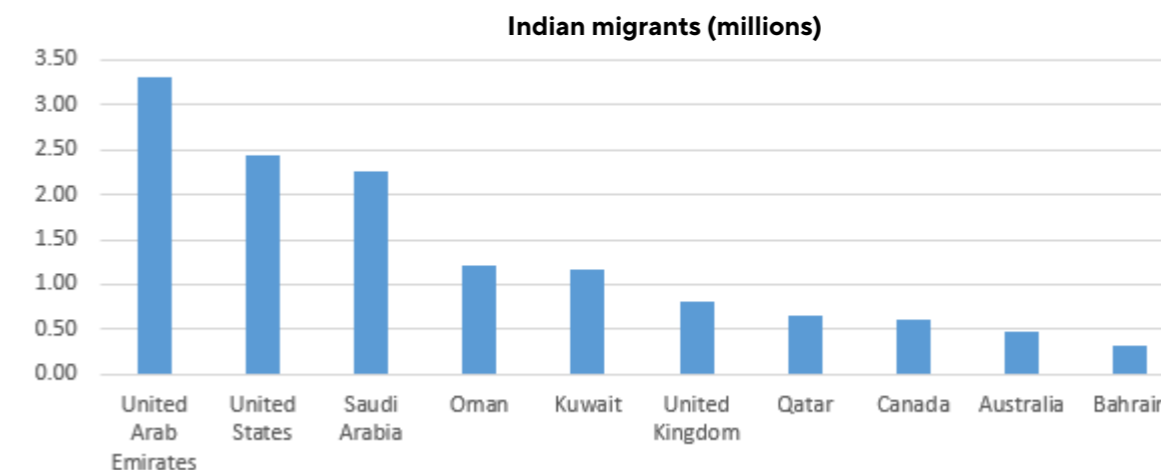
An important question is: "How can the region as a whole attract and benefit from them?" Current immigration regimes have a large gap between those admitted as skilled workers and those admitted as business entrepreneurs, leading to greater

immigration red-tape for tech-entrepreneurs who usually require lower start-up capital. For example, in New South Wales, Australia, there are several complex criteria for the Business Innovation and Investment Visa.<sup>9</sup> The complexity of bureaucratic requirements may put off many tech-entrepreneurs who now have other immigration options, such as Canada with its proximity to the large US market, which has a much simpler start-up visa scheme.<sup>10</sup>

Education is undoubtedly a major pull factor for migration with nearly 589,000 Indians having studied abroad as of 2019, according to the Ministry of External Affairs. Additionally, India also has the highest number of migrants qualified with a post-secondary degree.

Moreover, less privileged Indian migrants have benefitted disproportionately from access to existing egalitarian-minded educational systems and penetrated higher salaried occupations in the US, UK and Australia. Thus, migration provides an opportunity for social and economic upliftment in the country of destination, with the potential to also have positive spill-overs into the country of origin through remittances.<sup>11</sup>

Figure 5: Most popular destination countries for Indian migrants



Source: World Bank Bilateral Migration Matrix 2017

8 Ajay Sharma, "The boom in Tech Immigration – The link between migration and technology," *The Economic Times* (27 July, 2022), <https://hospitality.economicstimes.indiatimes.com/news/speaking-heads/the-boom-in-tech-immigration-the-link-between-migration-and-technology/93156351>.

9 "Business Innovation and Investment (Provisional) visa (subclass 188A) – Business Innovation stream," NSW Government, <https://www.nsw.gov.au/visas-and-migration/business-and-investor-visas/subclass-188a>.

10 "Immigrate with a start-up visa: Who can apply," Government of Canada (January 16, 2019), <https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/start-visa/eligibility.html>.

11 See Anthony F. Heath and Roger Jeffery, Eds., *Diversity and Change in Modern India: Economic, Social and Political Approaches* (Oxford: Oxford University Press, 2010); Social Mobility Commission, United Kingdom Government, *State of the Nation 2022: A fresh approach to social mobility*. June 2022. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1084566/State\\_of\\_the\\_Nation\\_2022\\_A\\_fresh\\_approach\\_to\\_social\\_mobility.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1084566/State_of_the_Nation_2022_A_fresh_approach_to_social_mobility.pdf).

An important indicator of global integration of Indian financial markets is the net flow of funds to India. In 2021, India received USD 47.3 billion investments in private equity. India receives the largest remittances from around the world, with a staggering USD 87 billion recorded in 2021. It constituted almost 15% of such transfers on the global scale (Figure 6).

Furthermore, in the 1990s many Indian workers in Silicon Valley eventually returned to India, reinforcing the country's formidable IT sector. The Overseas Citizen of India (OCI) card allows former Indian citizens, their spouses and descendants visa-free entry. This is a significant provision, given the 13.1 million Persons of Indian Origin (PIO) across the world. Endeavours such as *Prasavi Bharatiya Divas*, launched in 2003 and focused around the country's links to overseas Indians, serve to foster strong links between the overseas community and their homeland.

**Defence: India-Australia shared security**

Defence has always been a sturdy and recurring point of collaboration between India and Australia. The AUSINDEX, started in 2015, and Exercise Pitch Black (2018) are among the contemporary manifestations of this partnership. The Indo-Pacific Endeavor (IPE), launched by the Australian Defence Force in 2017, aims to enable and protect the Indo-Pacific region, primarily through efforts such as

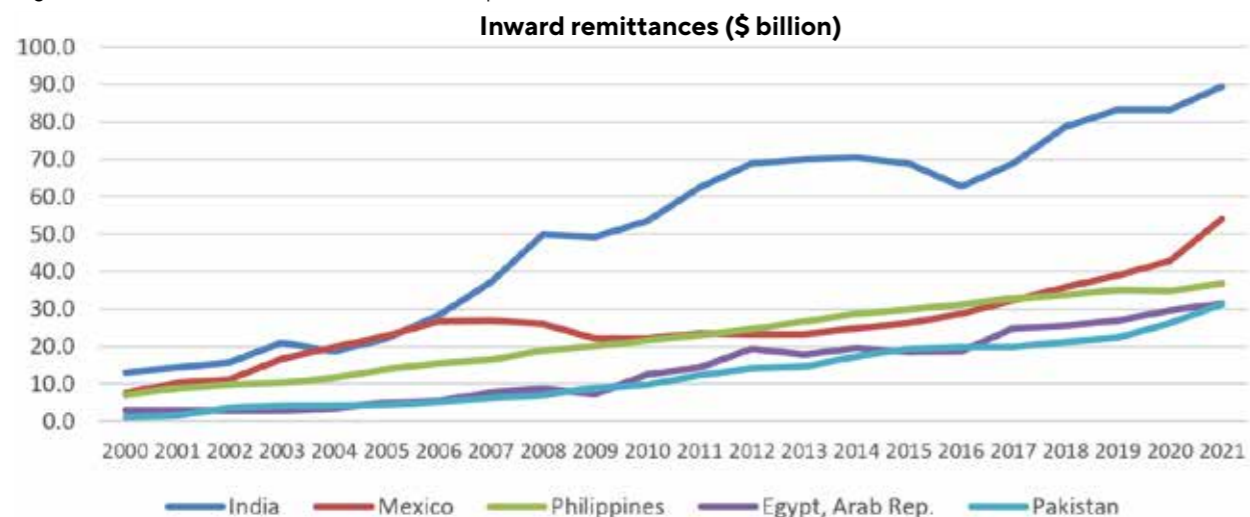
bilateral and multilateral engagement, training and capacity building.<sup>12</sup> The Information Fusion Centre-Indian Ocean Region (IFC-IOR), founded in 2018, aims at exchange of information regarding ships in the IOR. The Defence Science and Technology Implementing Arrangement (DSTIA) enables interaction across the respective defence research organisations.

In the future, joint defence production and collaboration is likely to be explored. India is trying to balance its long-standing stance of non-alignment with new global realities in a diplomatic tightrope walk. In doing so, it has taken a nuanced stance on issues such as the Ukraine-Russia conflict, while engaging with various nations to provide a bulwark of peace and stability in the IOR.

**Conclusion**

As India's growth story unfolds, it has shown resilience against changing tides in the global markets. It is a dynamic player in the IOR, particularly in the tech sector. With its expansive and growing pool of high-skilled talent and large capital inflows in investment, it is the emerging tech-shop of the world. India's prowess in technological and human capital can be harnessed by the IOR to build a collective vision of economic growth, technological advancement and strategic security. Cooperation

Figure 6: Inward remittance flows – India and comparator economies

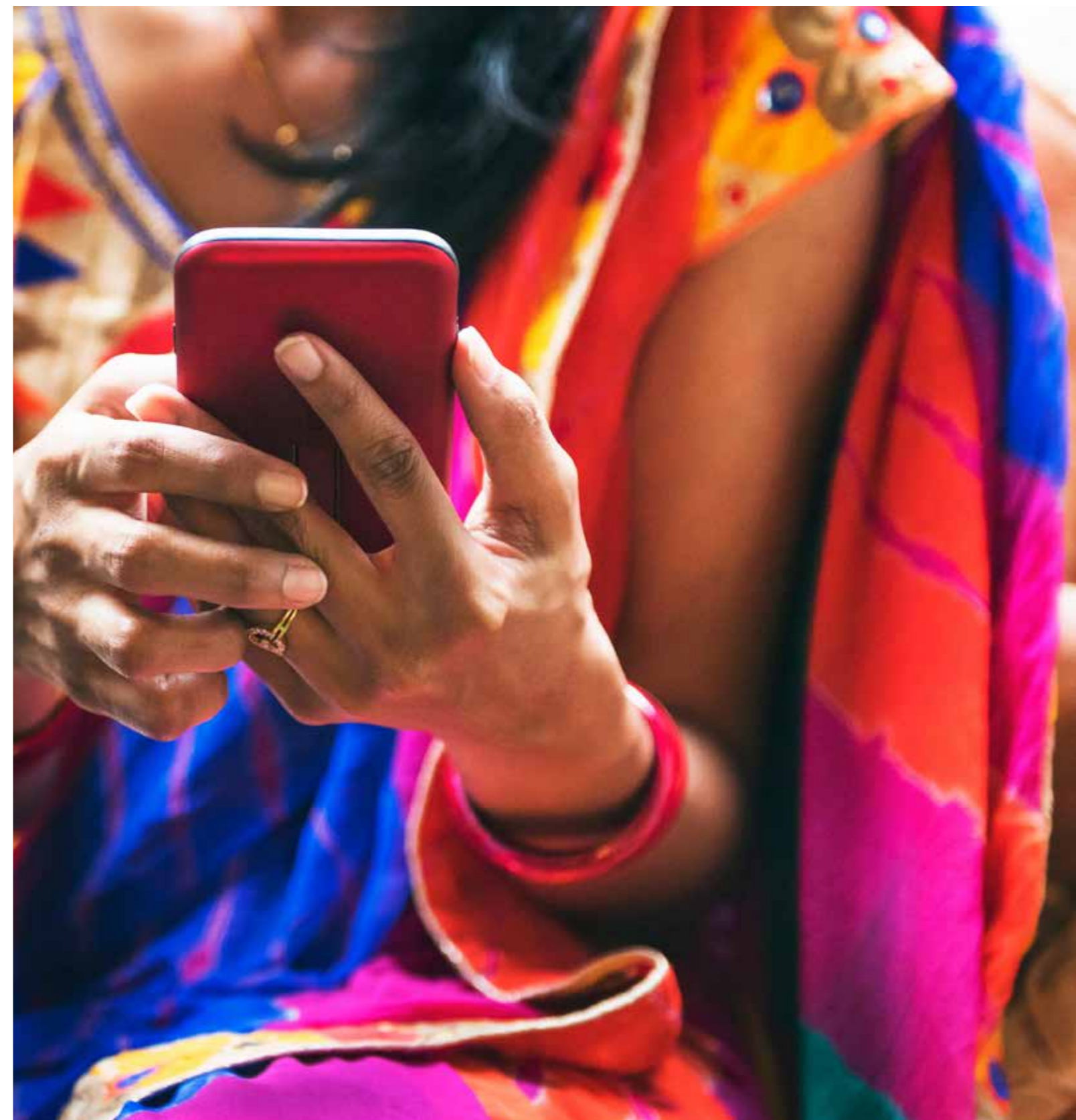


Source: World Bank World Development Indicators

12 "Australia India Defence Relationship," Australian High Commission, <https://india.highcommission.gov.au/ndli/defencerelationship27012021.html>.

between friendly IOR countries would enhance education, create employment, open trade and investment opportunities and lower defence expenditures. For India's vast and growing

population, particularly its youth, this would open up new opportunities. For corporates, educational institutions and non-profits across the region, this could result in new markets and partnerships. 🌐



The background of the entire page is an abstract, marbled pattern. It features swirling, organic shapes in various shades of teal, from light mint to deep forest green, and dark navy blue. Interspersed throughout these colors are intricate, vein-like patterns of gold and light beige, creating a complex, textured appearance. The overall effect is reminiscent of natural stone or liquid paint that has been manipulated to create a fluid, organic form.

*Part 2:*  
**Environmental  
and Food Security**



# Addressing climate change in the Indian Ocean Region: knowledge, capabilities and networks



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At the time of writing in February 2023, two back-to-back cyclones—Cyclone Freddy and Cyclone Gabrielle—formed off the coast of Australia. Both had wind speeds exceeding 150 km per hour that resulted in wind and flood damage in Mauritius, Madagascar, Australia and New Zealand.

In the northern Indian Ocean, more than 80% of global fatalities from tropical cyclones occur mostly due to coastal flooding, particularly in India, Bangladesh and Myanmar, despite accounting for only 6% of global cyclone occurrences.<sup>1</sup> Fortunately, cyclone forecasts have improved in the Indian Ocean due to better monitoring of ocean-atmospheric conditions that help to provide more accurate forecasts of cyclone tracks and landfall, reducing the fatalities in the recent period.<sup>2</sup>

However, ocean warming is resulting in new challenges such as rapid intensification of cyclones, which is difficult to forecast, and there has been a detectable increase in the frequency and duration of these cyclones.

In May 2021, Cyclone Amphan rapidly intensified into an extremely powerful cyclone, exceeding 270 km per hour wind speed. The storm surges and rains from the cyclone, combined with a rising sea level and high tide, resulted in severe flooding along the east coast of India and Bangladesh, damaging infrastructure and agriculture.

Such unpredictable climate patterns call for enhancing our existing monitoring marine networks to improve our ability to address emerging challenges in the Indian Ocean Region (IOR).

Sovereign states that either border on or are in the Indian Ocean are home to one-third of the world's population. The security of food, water and energy in the region's countries and islands are intrinsically tied to its climate, with marine environmental goods and services, as well as trade within the Indian Ocean basin, underpinning their economies. Many people in these countries are dependent on fisheries and rain-fed agriculture that are vulnerable to climate variability and extremes.

<sup>1</sup> Vineet Kumar Singh and M.K. Roxy, "A Review of Ocean-atmosphere Interactions during Tropical Cyclones in the North Indian Ocean," *Earth-Science Reviews* 226 (2022). <https://doi.org/10.1016/j.earscirev.2022.103967>

<sup>2</sup> Kamaljit Ray et al, "An Assessment of Long-term Changes in Mortalities due to Extreme Weather Events in India: A study of 50 years' Data, 1970–2019," *Weather and Climate Extremes* 32 (2021).

Hence, monitoring and understanding the state of the Indian Ocean and its influence on climate is of critical importance to the populous nations that line its rim, as well as being of strategic importance for maintaining stability in the regional and global economy.

## Impacts of climate change

The Indian Ocean appears particularly vulnerable to accelerating climate change with greater intensity of tropical cyclones, marine heatwaves and sea level rises, that all have negative impacts on the economies of the densely populated bordering countries. Recent studies suggest the Indian Ocean has stored a quarter of the global oceanic heat uptake from the atmosphere over the last two decades, despite only covering around 13% of the Earth.<sup>3</sup> The western

tropical Indian Ocean has been warming for more than a century, at a rate faster than any other region of the tropical oceans. This warming has had far-reaching global impacts, causing droughts in the West Sahel, the Mediterranean and South Africa, and increased occurrence of tropical cyclones in the northern Indian Ocean. Indian Ocean warming has also been linked to strengthened winds south of Greenland and cooled the subpolar North Atlantic, increasing droughts in South Asia and Eastern Africa that are predicted to increase the number of undernourished people by 50% by 2030.<sup>4</sup>

What further compounds the effects of this warming are short-term extreme warming events known as marine heat waves, which consist of periods of extremely high temperatures that persist from

**Figure 1:** Artist's illustration of the Indian Ocean Observing System and its societal applications



Source: JAMSTEC<sup>3</sup>

<sup>3</sup> L.M. Beal et al, "A Roadmap to INdOOS-2: Better Observations of the Rapidly Warming Indian Ocean," *Bulletin of the American Meteorological Society* 101, no. 11 (2020). <https://doi.org/10.1175/BAMS-D-19-0209.1>

<sup>4</sup> Chris Funk et al, "Warming of the Indian Ocean threatens eastern and southern African food security but could be mitigated by agricultural development," *Proceedings of the National Academy of Sciences* 105, no. 32 (2008): 11081-11086.

days to months and can extend up to thousands of kilometres over an oceanic region and penetrate hundreds of metres into the ocean.

Marine heat waves have an enormous impact on marine life, their habitats and ecosystems, including: mass mortality of fish, mammal and bird species; toxic algal blooms; loss of kelp forest and coastal vegetation; ocean biodiversity reduction; low ocean productivity; and coral reef decay. Over the past two decades, such heat waves have become stronger, more widespread over larger regions and have occurred more often.

A better understanding of what is driving the warming Indian Ocean and the occurrence of marine heat waves will have great value for aquaculture and fisheries forecasts and management, marine habitat conservation and restoration, and improve the resilience of regional Indian Ocean countries.

Other examples of the climate risks are changing monsoon patterns, reflected in the droughts and heavy rains that threaten the food and water security of IOR countries. Such temperamental patterns also increase the occurrence of floods that result in the loss of human lives, animals and property. They have also led to sea level rises, culminating in the inundation of small islands in the Indian Ocean and the loss of the first mammalian species, the Bramble Cay melomys.<sup>5</sup> Clearly, there is societal and scientific impetus for establishing observation systems that can accurately detect and attribute changes in the climate system to improve scientific understanding and support reliable decision-making among policymakers.

### Indian Ocean circulation

The whole Indian Ocean basin is intimately linked through coupled atmosphere/ocean processes and through many distinct inter-basin oceanic connections that provide an important conduit for the exchange of heat, salt and other biogeochemical

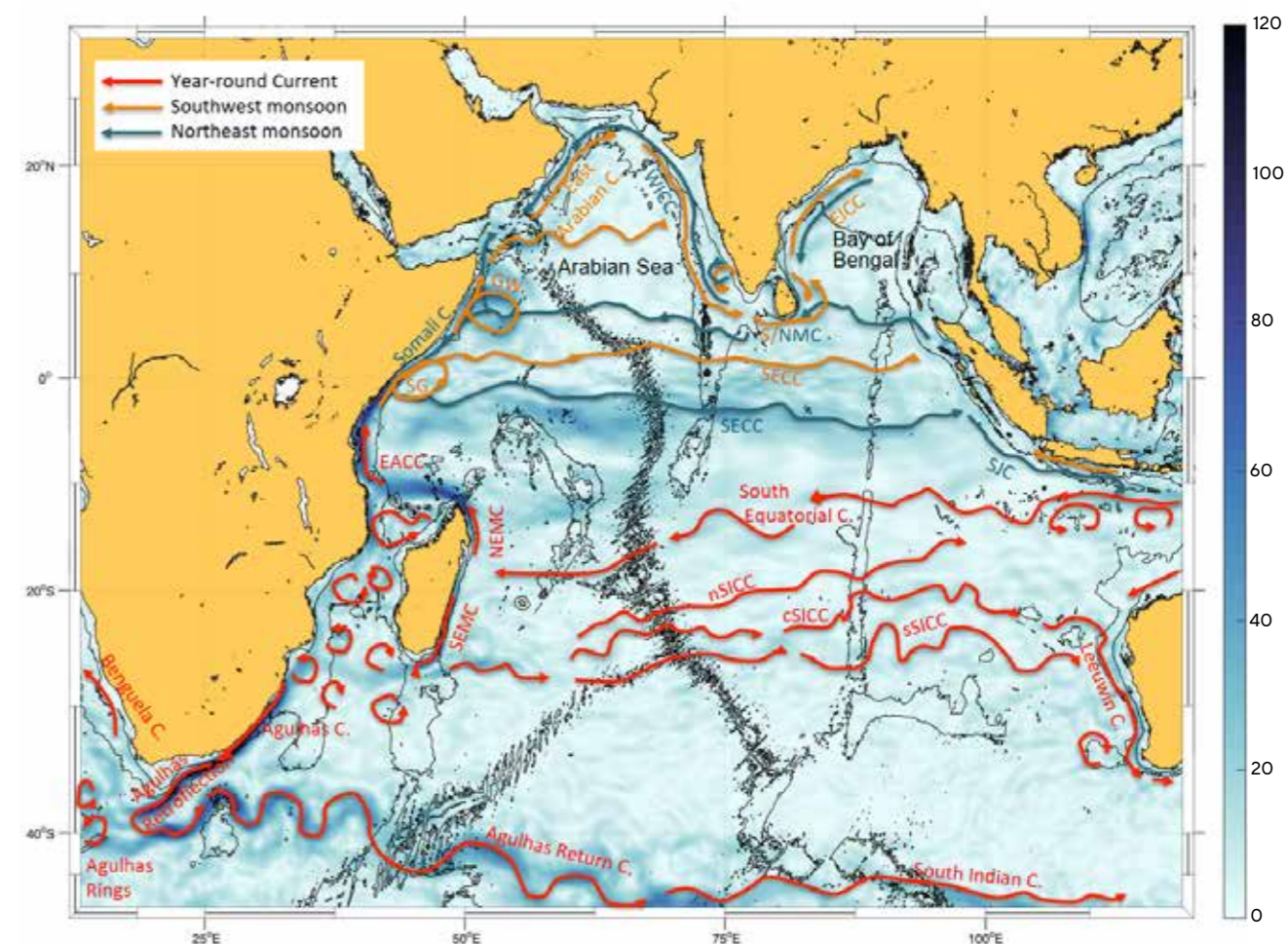
properties. Unlike other major ocean basins, the Indian Ocean is restricted to the north by the Asian landmass, with high mountainous terrain that sets up a surface temperature gradient between the land and the ocean. This drives the endless rhythm of the seasonally-reversing monsoon winds and associated rainfall.

In addition, the Indian subcontinent effectively creates two sub-basins where differences in evaporation, precipitation and river runoff account for pronounced differences in the oceanic properties between the Arabian Sea and Bay of Bengal. Monsoonal changes dominate the northern Indian Ocean.

In the tropical eastern Indian Ocean, the gappy Indonesian archipelago permits the only low latitude exchange between two major ocean basins with tropical water flowing from the Pacific into the Indian Ocean. The vast amount of rainfall and strong ocean mixing within the Indonesian seas results in a freshwater stream that exits into the Indian Ocean, with parts flowing southward off the coast of Western Australia in the Leeuwin Current—the only poleward-flowing eastern boundary current in the world—and the remainder visibly streaking across the whole Indian Ocean basin to the northern tip of Madagascar. From there, the flow passes to the north of Madagascar, with some of it inputting into the East African Coastal Current and feeding into the north Indian Ocean's monsoonal circulation, and the rest heading through the Mozambique Channel.

The flow to the south of Madagascar joins the Mozambique Channel waters to form the Agulhas Current, the strongest western boundary current in the Southern Hemisphere, flowing poleward along the east coast of the southern African continent. Most of the Agulhas retroflects sharply eastward back into the Indian Ocean, but some eddies are shed at the tip of Africa and find their way into the Atlantic Ocean. This process introduces heat and salt into the basin, which in turn moderates Earth's climate. Thus, boundary currents like the Agulhas and the Leeuwin play an important role in heat

**Figure 2:** Schematic of major surface Indian Ocean Currents overlaid on the mean current speed  
**Note:** Thin black lines show bathymetry at 200, 3000m.



Source: Dr Laura Braby

distribution in ocean basins: they dominate the poleward transport of warm water and are major drivers of climate variability, extreme weather events and marine heatwaves that influence weather and regional ecosystems. Communication between the coast and open ocean is regulated by these boundary currents that flow along the continental slopes, and affects ecosystems, sea level, flood levels, erosion and commercial activity.

### Indian Ocean observations and partnerships

The complexity of the Indian Ocean circulation calls for an integrated and basin-wide approach for a marine observing system that will provide the needed climate data to make accurate predictions of sea level, tropical cyclones, monsoon rains and marine heat waves. To address this need, a partnership of many IOR countries

was formulated to support the Indian Ocean Observing System (IndOOS)<sup>3</sup>, a sustained observing system that monitors basin-scale ocean-atmosphere conditions and permits a flexible framework for more regional and coastal monitoring.

As prioritised by IndOOS, backbone oceanographic measurements of velocity, temperature and salinity—provided by various platforms such as profiling floats, surface drifters and moored arrays along with satellite measurements (including sea surface height and wind)—are needed basin-wide. In the dynamic regions of the boundary currents, dense, daily-to-monthly observations of velocity, temperature and salinity are required to detect smaller time and length scales.

More innovative strategies of integrated observing systems are called for (e.g. combining current meter arrays, gliders, and acoustic measurements

<sup>5</sup> N.L. Waller et al, "The Bramble Cay melomys *Melomys rubicola* (Rodentia: Muridae): a first mammalian extinction caused by human-induced climate change?," *Wildlife Research* 44, no. 1 (2017): 9, 21.

with periodic full-depth hydrographic sections for important climate variables such as carbon, nutrients, and oxygen). It is important that data information is returned in real time in order to feed directly into weather and climate forecast models.

Promoting partnerships and continuing to grow the capacity of developing states of the region is critical to the continued success and maintenance of IndOOS, both on international and regional levels. Building and maintaining ocean observing systems can be expensive, so it is essential that the international community supports the regional efforts undertaken by the various IOR governments, which will arguably see the most value because of the direct impact of extreme weather on their coastlines.

Along with IOR countries that include Australia, India, Indonesia and South Africa, international investment in IndOOS also comes from the US, China, Europe, Japan and Korea.<sup>6</sup> Such partnerships are crucial as millions of dollars are needed to sustain such observing systems, from the original cost of the infrastructure to the costs associated with the ships' operations in deploying instruments.

In addition, intergovernmental bodies such as the World Meteorological Organisation (WMO) and the International Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organisation (UNESCO), as well as international scientific bodies such as Climate and Ocean: Variability, Predictability and Change (CLIVAR) and the Scientific Commission for Oceanographic Research (SCOR) can be used to help facilitate this. These programs also serve a vital role with regards to performing observations and accessing data held within countries' exclusive economic zones (EEZs).

The utility of IndOOS ultimately depends on the identification of, and engagement with, end-users and decision-makers, and on the practical accessibility and transparency of data for a range of products and for decision-making. A key factor affecting investment in

scientific research is the level of national appreciation for the importance of the marine sector to the country's economy and resources. The Global Ocean Observing System (GOOS) and associated regional alliances are in a unique position to be able to make the case to national governments and stakeholders through the UNESCO IOC. Moving forward, it will be essential to improve evaluation mechanisms for what has been achieved to date, and to enact long-term thinking around maintaining existing, and pursuing new, funding mechanisms.

As with any observing system, it is important the IndOOS continues to evolve. With emerging new technologies and improving capabilities, there is little doubt global ocean observing systems will look different 10 years from now and any future vision needs to be flexible.<sup>7</sup>

Sensor developments will lead to a much greater range of physical and biogeochemical variables and allow for more autonomous measurement. Voluntary observing ships with more automated equipment will enhance the system and feedback into real-time observations and provide data for assimilation into models for operational oceanography. Data dissemination for operational applications should form a key part of any vision, as should end-user engagement. Without a systematic approach to secure and disseminate in situ observations, stakeholder communities will not fully realise the benefits of in situ observing investments.

### Empowering communities and people

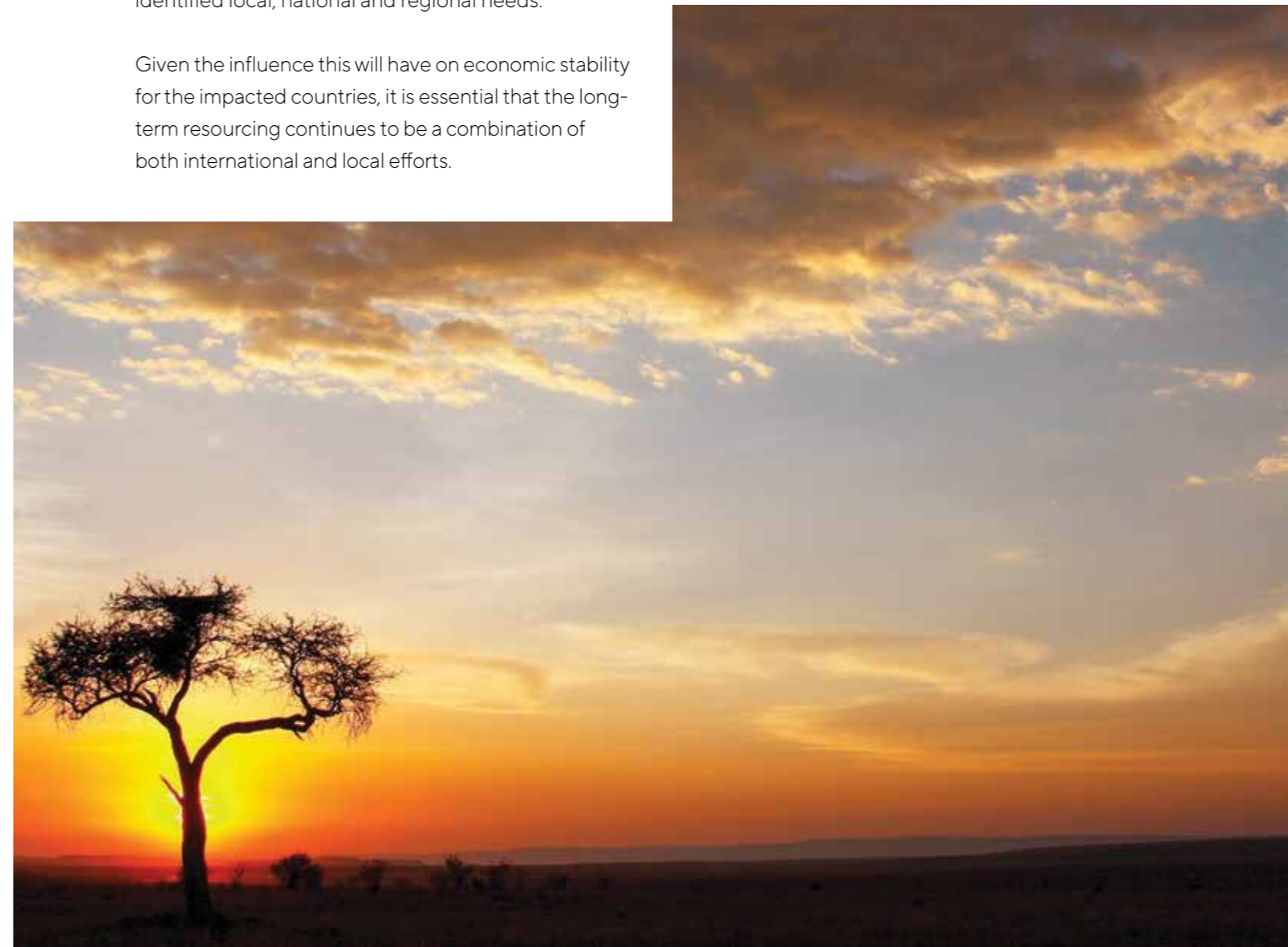
Ocean observing does not just concern technology. It also involves people, and a community of many cultures and capabilities. Effective communication between scientists from different parts of the world, enhancing collaborations, as well as sharing knowledge and data, technology and equipment should not be something for the distant future.

Communication within and to the ocean and coastal communities is also essential to avoid vandalism to the isolated and vulnerable components of the observing system. Increasing the literacy of these communities of the benefit of the observing system to their daily life is essential. Capacity development necessarily involves a meaningful engagement that contributes to the global ocean observing system while aiding developing countries to manage their own resources. We need to strengthen and broaden leadership and communities for sustained observations, and provide the tools for that community to cross-collaborate. This includes documented best practices, training and an open, collaborative environment. Building capacity through monitoring will build scientific literacy, which in turn will enable all countries to engage purposefully in the global dialogue. Sustained observing requires a coordinated, collaborative and culturally appropriate process, incorporating Indigenous and local knowledge, with long-term resourcing, that meets identified local, national and regional needs.

Given the influence this will have on economic stability for the impacted countries, it is essential that the long-term resourcing continues to be a combination of both international and local efforts.

### Conclusion

Knowledge of the Indian Ocean climate and ecosystems, and the ability to predict its future, depends on a wide range of socio-economic and environmental data, a significant part of which is provided by IndOOS. Although we can monitor and track cyclonic systems due to the buoys and instruments in the oceans, satellites in the sky and weather models running on high-performance computers, improving IndOOS and incorporating the global warming signals in the weather models can help us tackle the challenges of intense cyclones in the future. What happens in the Indian Ocean goes beyond Indian Ocean countries. The Indian Ocean can be seen as a 'canary in a coalmine' for what the other ocean basins are going to see. Hence it is critical for IOR countries and those further afield to monitor these oceanic changes if we want to build better resilience for other ocean basins tomorrow. 🌊



<sup>6</sup> Juliet Hermes et al, "IndOOS, the Indian Ocean Regional Panel and OceanObs19," *CLIVAR Exchanges* 78 (2020): 59, 63.

<sup>7</sup> D.M. Legler et al, "The current status of the real-time in situ Global Ocean Observing System for operational oceanography," *Journal of Operational Oceanography* 8 (2015): 189, 200. <https://doi.org/10.1080/1755876X.2015.1049883>.

# Food security and nutritional challenges in South Asia: revitalising neglected and underutilised crops



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South Asian countries face enduring food and nutritional security challenges, hampering efforts to develop national and regional economies and the social wellbeing of many millions of individuals. There have been many policy responses to this over several decades, but comparatively few that address the character and components of underlying food systems. In this article we put forward a vision that this could be done strategically with the astute integration of neglected and underutilised crops into food systems.

## Status of hunger and malnutrition in South Asia

The second United Nations Sustainable Development Goal (SDG2) calls for eradicating hunger and all types of malnutrition worldwide. Hunger and malnutrition are common in South Asia. In 2020, the Asia-Pacific region had 8.7% of people undernourished; however, the South Asia sub-region had the second-highest prevalence of undernourishment (15.8%) of all Asia-Pacific sub-regions. South Asia also experienced the greatest recent increase in the prevalence of

undernourishment, rising from 13.3% in 2019 to 15.8% in 2020.<sup>2</sup>

In addition, stunting (low height-for-age) and wasting (low weight-for-height) are common in South Asia. Stunting, which has detrimental impacts on children's health and development, reflects the effects of chronic malnutrition on growth. About 23% of children in the Asia-Pacific region were stunted in 2020. South Asia had the greatest rate (30.7% of children stunted), with 54.3 million children impacted by its effects.

According to WHO standards, stunting has a 'very high' prevalence in five South Asian countries: Afghanistan, Bangladesh, India, Nepal, and Pakistan (>30%).<sup>3</sup> Meanwhile, wasting impacted 25 million or 14.1% of young people in South Asia in 2020, the largest percentage in the Asia-Pacific region. Using the same WHO benchmark shows that India and Sri Lanka have a 'very high' prevalence of child wasting (≥15%), and Nepal has a 'high' prevalence (10–15%).<sup>4</sup>

Furthermore, micronutrient deficiencies, sometimes known as 'hidden hunger', are common in South Asia,

particularly for vitamin A, iodine and iron. According to the Hidden Hunger Index, countries in the region with severe micronutrient deficits (with an Index of >25) include Nepal, India, Bangladesh, Bhutan and Lao PDR. The South Asia sub-region has the highest prevalence of anaemia, affecting nearly all females aged between 15 and 49. As a reference, the prevalence of anaemia among reproductive-aged women in the Asia-Pacific region was 32.9% in 2019, while the global average was 29.9%.<sup>5</sup>

## The main challenges for agri-food systems in South Asia

Malnutrition, a lack of nutritional variety and low production diversity are all closely related. Malnutrition is primarily driven by inadequate diet, lacking the nutrients, minerals and vitamins necessary for body growth and maintaining a healthy body in terms of quantity and quality. Persistent malnutrition results from poor dietary diversification. Diets high in red meat, processed meat, sugar-sweetened beverages, trans fats and sodium are unhealthy, as are diets low in fruits, vegetables, whole grains, nuts and seeds, milk, fibre, calcium, and seafood and fish high in omega-3 fatty acids and polyunsaturated fatty acids. An unhealthy diet is a significant risk factor for non-communicable diseases such as diabetes and heart disease. Low production diversity, which shapes nutrition, frequently reflects low dietary diversity.

The coexistence of various forms of malnutrition in South Asia tells us that the current food systems do not provide enough nutrition to meet the population's basic nutritional needs, while minimising environmental harm and adapting to climate change.<sup>6</sup> The low dietary and production diversity in Asian countries results from the reliance on a small number

of staple crops, mainly rice, leading to imbalanced diets and malnutrition. Most of the staple crops have reached their maximum yield potential (80%), reducing the room for growth in total outputs to meet the needs of expanding populations.<sup>7</sup>

There is another risk looming just over the horizon, namely the effects of climate change on the forecast outputs for staple crops. For example, climate change is predicted to decrease rice production in South Asia by 14% (compared to a no-climate-change scenario).<sup>8</sup> The current food systems are creating two crucial gaps for achieving Zero Hunger: a nutrition gap accompanied by a production gap.

## Responding by restructuring food systems

Diversification of people's diets is the most effective strategy for combating malnutrition, including hidden hunger and obesity. Other food-based strategies include supplementation, fortifying commercial foods and biofortification. Agricultural diversification with sustainable intensification is a practical and economical means to ending hunger, requiring food systems to change structurally whereby local food production is diversified for local consumption within the existing resource constraints.

The goal should be to deliver sufficient, varied, nutritious, safe and inexpensive food that satisfies dietary needs, maximises human and environmental resources and sustains social and cultural traditions.<sup>9</sup> This offers a credible path to closing existing significant nutrition and production disparities.

How does agricultural diversification contribute to achieving Zero Hunger and preparing for climate change? Crops can be divided into two

1. The views expressed in this publication are those of the author(s) and do not necessarily reflect the views or policies of the Food and Agriculture Organisation of the United Nations.

2. FAO and UNICEF, *Asia and the Pacific – Regional Overview of Food Security and Nutrition 2021: Statistics and trends* (Bangkok: FAO, 2021), <https://doi.org/10.4060/cb7494en>.

3. FAO and UNICEF, *Asia and the Pacific – Regional Overview of Food Security and Nutrition 2021: Statistics and trends* (Bangkok: FAO, 2021), <https://www.fao.org/3/cb7494en/online/src/html/chapter-02-1.html>.

4. *Asia and the Pacific – Regional Overview of Food Security and Nutrition* (2021).

5. *Asia and the Pacific – Regional Overview of Food Security and Nutrition* (2021).

6. Xuan Li and K.H.M. Siddique, "Future Smart Food: Harnessing the potential of neglected and underutilized species for Zero Hunger," *Maternal & Child Nutrition* 16, no. S3 (2020): e13008. <https://doi.org/10.1111/mcn.13008>.

7. Xuan Li and K.H.M. Siddique, "Executive Summary," *Future Smart Food: Rediscovering hidden treasures of neglected and underutilized species for Zero Hunger in Asia* (Bangkok: FAO, 2018), <https://www.fao.org/documents/card/en/c/18907EN/>.

8. Gerald Nelson et al., "Climate change: Impact on agriculture and costs of adaptation," *International Food Policy Research Institute Food Policy Reports* 21 (2009): <https://www.proquest.com/working-papers/climate-change-impact-on-agriculture-costs/docview/1698097875/se-2>

9. See *Future Smart Food: Rediscovering hidden treasures of neglected and underutilized species for Zero Hunger in Asia* (2018); B. Burlingame and S. Dernini eds., "Sustainable diets and biodiversity: Directions and solutions for policy, research and action," in *International Scientific Symposium: Biodiversity and Sustainable Diets United Against Hunger* (Rome: FAO Headquarters, 2010), [https://cgspace.cgiar.org/bitstream/handle/10568/104606/Sustainable\\_diets\\_and\\_biodiversity.pdf?sequence=3&isAllowed=y](https://cgspace.cgiar.org/bitstream/handle/10568/104606/Sustainable_diets_and_biodiversity.pdf?sequence=3&isAllowed=y); U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2015–2020 *Dietary Guidelines for Americans*, 8<sup>th</sup> Edition (December 2015), <https://health.gov/our-work/food-nutrition/previous-dietary-guidelines/2015>.

broad categories: staple and non-staple crops. So it is worrying that most traditional crops, such as amaranth, quinoa, millet and lentils, have been marginalised as non-staple foods or ‘neglected and underutilised species’ (NUS), playing a marginal role in current agri-food systems.

For these reasons, the United Nations General Assembly declared 2013 as the International Year of Quinoa. Quinoa is exceptionally nutritious and climate-resilient. It has twice as much protein as rice, five times more dietary fibre, four times more iron and 23 times more folate. The amino acid composition in the proteins has a good balance of the essential amino acids, including lysine, which is low in wheat flour. The seeds are rich in minerals and vitamins, and contain the vital omega-3 fatty acids.

Quinoa is exceptionally robust and can even withstand extreme conditions of drought and salinity, which represents a right fit for saline land or other marginal land that would otherwise be barren. Quinoa is native to all countries in the Andean region, from Colombia in the north to Chile in the south. Indeed, quinoa cultivation has transcended continental boundaries from Europe, Africa and Asia. It has been identified and prioritised as Future Smart Food by Bhutan.<sup>10</sup> More recently, the Government of Bhutan nominated quinoa as a priority product under the flagship initiative by the Food and Agriculture Organisation of the United Nations (FAO) on One Country One Priority Product.

The implication is that finding and incorporating nutrient-dense and climate-resilient NUS into food systems is the first key step facing governments and international agencies for food system transformation.

Asia is home to a wide variety of plant species, many of which have been domesticated and used as food sources for countless generations. Many NUS have superior nutritional qualities (rich in micronutrients, minerals, protein and fibre), fit into marginal lands and tolerate environmental stresses. NUS are key elements of the agrobiodiversity needed for sustainable agriculture. These edible plants once numbered over 30,000 species. However, many have been replaced by a handful of staple crops.

The priority is to identify suitable NUS for sustainable food system integration and improved nutrition, closing production and nutrition gaps. Notably, not all NUS are nutrient-dense or resilient to climate change. This is why the FAO has initiated the Future Smart Food initiative, aimed at identifying NUS that met certain criteria under its Regional Initiative on Zero Hunger.

**Integrating neglected and underutilised crops into food systems**

The Zero Hunger/SDG2 goal requires a strategic transformation of agri-food systems, suitably restructuring the food system to bridge nutrition and production gaps at the macro- and micro-levels.

Figure 1: United States Department of Agriculture data per 100g edible portion on a fresh weight basis

	Energy (kcal)	Protein (g)	Dietary Fibre (g)	Iron (mg)	Folate ( DFE mcg)
<b>Quinoa*</b> raw	354	14.1	7.0	4.6	184
<b>Rice*</b> white, polished, raw	365	7.1	1.3	1.2	8
	x 1	x 2	x 5	x 4	x 23

Source: Food and Agriculture Organisation of the United Nations

10. See *Future Smart Food: Rediscovering hidden treasures of neglected and underutilized species for Zero Hunger in Asia* (2018).

Planning towards this change necessarily involves evidence-based analyses of nutrient, prioritisation of priority food item, food system mapping and related product value chain development.

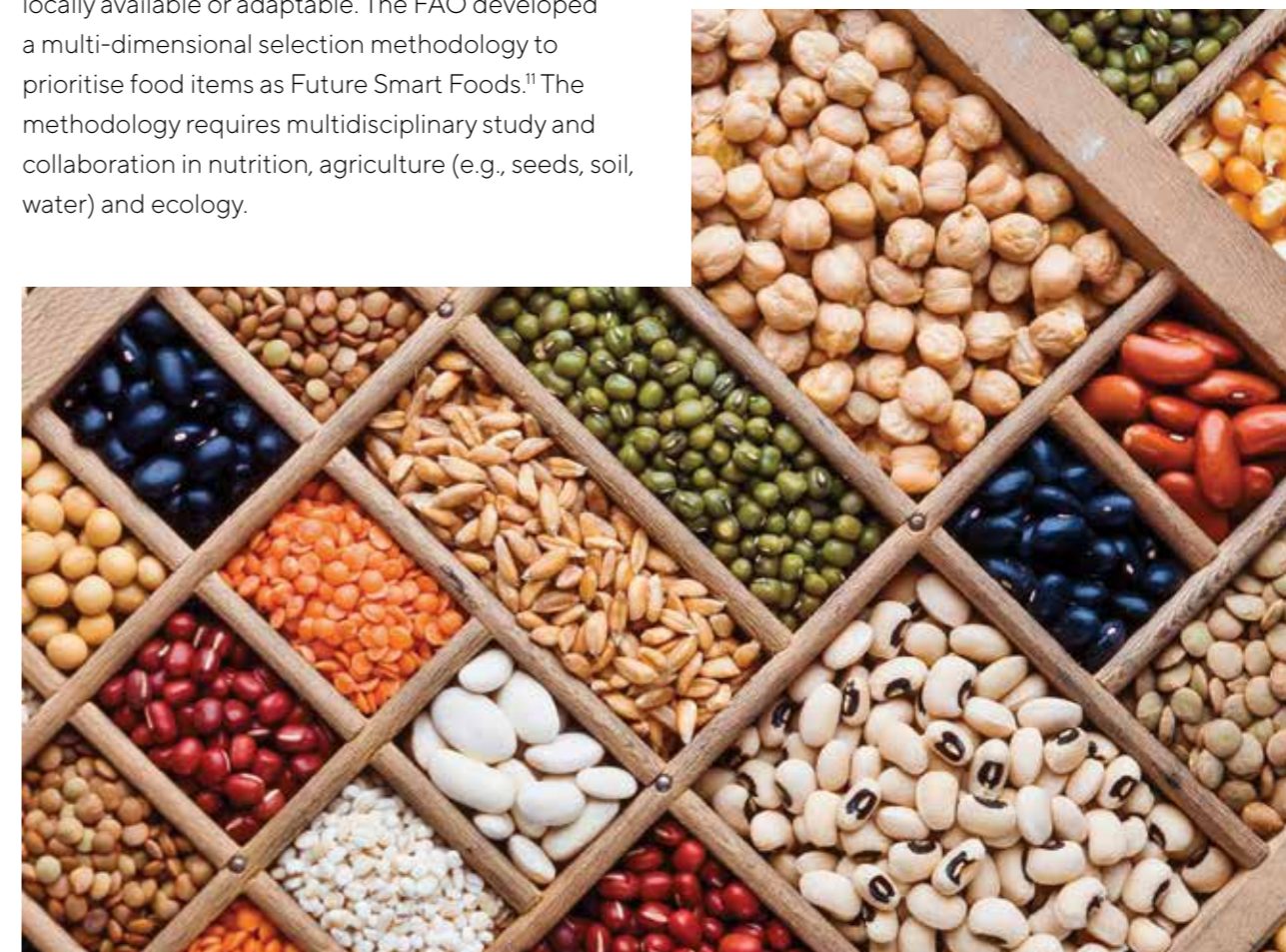
Since it is governments that mostly determine the direction and strategy for transforming the national agri-food systems, from a policy perspective, a four-step action plan is proposed:

**Step 1:** Determine what should be produced on a macro-level by analysing the national nutrition and production gaps. Evaluate major macro- and micronutrient deficits and surpluses, including energy, by determining the current nutrient demand and supply.

**Step 2:** Prioritise NUS based on closing nutrition and production gaps using four criteria—nutritional density, climate resilience, economic viability, and locally available or adaptable. The FAO developed a multi-dimensional selection methodology to prioritise food items as Future Smart Foods.<sup>11</sup> The methodology requires multidisciplinary study and collaboration in nutrition, agriculture (e.g., seeds, soil, water) and ecology.

**Step 3:** Identify where these foods should be produced and incorporate them into farming systems to maximise the efficiency of scarce resources. Geospatial information systems (GIS) and ground measurements should be used to conduct a mapping study of these priority crops in diverse agroecological zones, providing evidence-based estimates on where to produce particular crops for decision-making and incorporating attributes of specific crops, agroecological zoning, climate, water, soil, seasons and markets.

**Step 4:** Formulate an integrated strategy to produce, process, market, and consume these food items along the entire value chain. In the process of transformation agri-food systems, the government should take the lead in fostering an atmosphere that encourages agricultural diversity and sustainable intensification.



11. See *Future Smart Food: Rediscovering hidden treasures of neglected and underutilized species for Zero Hunger in Asia* (2018); Li and Siddique, “Future Smart Food: Harnessing the potential of neglected and underutilized species for Zero Hunger”.

## Conclusion

South Asian countries are all more-or-less facing similar challenges of skewed food systems that can be rebalanced to address the dual challenges of achieving Zero Hunger and adapting to climate change. With the four-step transformation plan in mind, it is worth noting where some of the heavy lifting is taking place among governments within the region. For instance, the Bhutanese Government has taken concrete action to map farming systems to integrate targeted NUS such as quinoa.

Furthermore, there are some clear implications for Australian policymakers in the fields of foreign affairs, development and trade. The most pressing one is to ensure Australian universities, non-profits and commercial firms are fully apprised on the systemic challenges involved and the opportunities that arise for much greater agricultural diversity. Government is well placed to promote this kind of understanding.

In addition, the evidence and analysis presented here highlights an approach to broadening food systems, and how this can be taken forward with potential relevance to food and nutritional security goals elsewhere in the IOR. It therefore presents an important area of focus for the Indian Ocean Rim Association and others to develop new agendas for research and policy connectivity across the region. 🌍



# Alleviating poverty and food insecurity via social welfare programs in Indonesia



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The University of  
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With a population of approximately 270 million, Indonesia is South-East Asia's largest country. Although Indonesia has made significant progress in poverty alleviation and in reducing food insecurity, stunting, and wasting, several challenges remain. In 2019, rural poverty rates (13%) in Indonesia were nearly double those in urban areas (7%), and the gap between the poorer eastern provinces and the rest of the country remains high.<sup>1</sup>

The critical role of a diverse diet for preventing malnutrition, improving the nutrient adequacy of diets and transforming food systems to support affordable healthy diets is embedded in United Nations Sustainable Development Goal (SDG) Targets 2.1 and 2.2, specifying an end to all forms of malnutrition by 2030.

Based on the 2021 Global Hunger Index, Indonesia is ranked 73rd out of 116 countries. Stunting prevalence remains relatively high (27.7 percent in 2019), with large regional disparities. Around one-third of the Indonesian population was employed in agriculture

in 2019, with women accounting for 26.3% of all workers in the agricultural sector, which amounts to approximately 34.54 million people.<sup>2</sup>

Despite the presence of a national food-based social assistance program, Indonesia faces a triple burden of malnutrition (child undernutrition, adult overweight or obesity, and micronutrient deficiencies), which is attributed to low dietary diversity and inadequate intake of essential micronutrients.<sup>3</sup> Currently, rice provides 70% of the dietary energy needs of Indonesians. Therefore, although rice meets the calorie needs of the population, an estimated 69.1% (189 million) of Indonesians could not afford a nutrient-adequate diet in 2020.<sup>4</sup>

Any major changes in dietary practices would require households to purchase higher cost nutritious food. Meanwhile, research from India (and presented elsewhere in this report) shows that for rural households, over-dependency on a few staple crops and poor access to markets is a leading cause of low

<sup>1</sup> Badan Pusat Statistik, *Indikator Kesejahteraan Rakyat (or People Welfare Indicators)* (Badan Pusat Statistik: Jakarta, 2021).

<sup>2</sup> International Labour Organisation, *ILOSTAT Database Country Profile*. 2019. <https://ilostat.ilo.org/data/country-profiles/>.

<sup>3</sup> FAO, *Agricultural Trade and Decent Rural Employment, Rural Transformations - Information Note #7* (Rome: FAO, 2018), <https://www.fao.org/3/i5425e/i5425e.pdf>.

<sup>4</sup> FAO, IFAD, UNICEF, WFP and WHO, *The State of Food Security and Nutrition in the World 2022: Repurposing food and agricultural policies to make healthy diets more affordable* (Rome: FAO, 2022), <https://doi.org/10.4060/cc0639en>.

dietary diversity and persistent malnutrition in rural Asia.<sup>5</sup> Nutritious food is relatively costlier than many cheaper calorie-dense substitutes, and low-income households are at a greater risk of consuming poor-quality diets.

A vital global priority for policymakers is to mitigate these human costs and their potential for triggering economic and social dislocation.<sup>6</sup> Undernourishment has implications for other forms of deprivation, with dramatic implications for school performance and later-life earning capacity.<sup>7</sup> Furthermore, matters have been made worse by the 2020 global COVID-19 pandemic and conflict-related economic shocks that have reduced the ability of vulnerable households to purchase food. Vulnerability to hunger and deteriorating dietary quality have resulted.

### Government's indirect food interventions

The Government of Indonesia (Gol) has implemented several programs to accelerate the reduction of poverty, especially in rural areas. The Gol's *Dana Desa* program, introduced in 2014, was an ambitious, national-level, village governance scheme which transferred administrative responsibility and financial resources to more than 79,000 rural Indonesian villages, providing them with the autonomy to invest in rural infrastructure, human capital and job creation programs.

The program is among the most extensive village-level programs in the world.

Through this initiative, the Gol sought to improve village-level governance by providing approximately 75,000 local rural village leaders with greater autonomy and fiscal capacity to select and invest in their development priorities. These reforms were

premised on the idea that service delivery is best provided at the local level because of: (i) the need to address systematically failing basic services, such as health, education, water and sanitation (which are generally the responsibility of the state); and (ii) the focus on better local service delivery as locally consumed services.

Additionally, Indonesia has an extensive means-tested social welfare program targeted at vulnerable households, where the poorest households receive a range of programs, including food-based transfers. The three main social welfare programs that are targeted at the poorest households include the: (i) *Jamkesmas* program (*Jaminan Kesehatan Masyarakat*—meaning health insurance for the poor); (ii) *Rastra* (*Beras Sejahtera*—meaning 'prosperous rice'), which provides rice for the poorest households; and (iii) the BLT/BLSM (*Bantuan Langsung Sementara Masyarakat*—meaning unconditional cash transfers), which provide IDR 150,000/household/month (approximately AUD 15). While the *Jamkesmas* is targeted at the poorest 40% of households, the *Rastra* and BLT/BLSM are targeted at the poorest 25% of households.

The issue of how to identify vulnerable households is a critical challenge in delivering targeted poverty alleviation programs. This is because a significant proportion of the population is employed in the informal sector, making it difficult to get an accurate measure of income for means testing. To address this, the Gol has experimented with several targeting methods to reach the poor, such as geographical targeting, community-based targeting, and proxy-means testing (PMT).<sup>8</sup>

The Gol has previously experimented with several methods to improve the targeting performance of

its social protection programs.<sup>9</sup> In 2005, community leaders were asked to identify poor households, and all potential beneficiaries were surveyed using PSE05 (*Pendataan Sosial Ekonomi Penduduk 2005*) based on 14 indicators. However, there were concerns of favouritism and elite capture, and in 2008 the BPS created the PMT score using asset indicators found in secondary datasets to identify poor households.

This was further refined in 2011 when the Gol used the PMT from the 2011 Poverty census and created a United Database (UDB) where the eligibility of households was based on their score in the PMT, which was measured using 471 district-specific models. In the first quarter of 2013, the Gol also issued the eligible 25% of the most vulnerable households (comprising approximately 15.5 million people) with a Social Security Card—*Kartu Perlindungan Sosial* (KPS). The KPS card was the first attempt by the Gol to confirm the eligibility status of households. Accompanying the KPS card was additional information on how to use the card for accessing the benefits of poverty programs, and the card also provided an indication of the size of benefits of each program.

### Food-based social welfare program

To improve the affordability of nutritious food and to address household food security among the poorest households, policymakers in many developing countries have implemented food-oriented social assistance (FOSA) programs. These programs may take the form of: (i) in-kind transfers through the provision of food commodities; (ii) vouchers or food stamps; or (iii) cash transfers. Globally, in-kind food subsidies and food vouchers account for 20.4% of all social assistance programs, benefitting 1.5 billion people.<sup>10</sup>

Indonesia's rice for the poor program, *Raskin* (re-named as *Rastra* in 2018) has been operational since July 1998. Previous research has identified several program-specific deficiencies. For *Raskin* these include: (i) rice not reaching eligible households due to leakage during the delivery process; (ii) evidence of frequent *Raskin* purchases by poor and non-poor households alike,<sup>11</sup> and (iii) local governments failing to judiciously allocate the *Raskin* budget, requiring poor households to pay higher prices for rice in addition to delays in rice distribution.<sup>12</sup> Moreover, in recent years there has been growing criticism of in-kind food subsidies, particularly the focus on staple cereals that do not address dietary diversity. Criticism of in-kind food transfers centres on their expense and paternalistic orientation with the potential for targeting failures linked to corruption and the shortfalls of the Public Distribution System in moving food grains around the country, thereby mismanaging resources and distorting incentives.

With regards to the *Rastra* program specifically, implementation has suffered from elite capture and targeting problems, where benefits accrue for non-eligible households (inclusion errors), or where eligible households miss out on benefits (exclusion errors).<sup>13</sup>

Surprisingly, mixed and patchy impact has not prompted the Gol to explore a transition away from in-kind food subsidies to set up a food voucher-based program in 2017, *Bantuan Pangan Non Tunai* (BPNT), which means a 'Non-Cash Food Program'. Under the new BPNT program, former *Rastra* beneficiaries (the poorest quartile of households) no longer received rice, and instead received an 'electronic voucher' worth IDR 110,000 per month (around USD 8), allowing them to acquire staple foods and vegetables in participating

5 Bill Pritchard et al., *Feeding India: Livelihoods, Entitlements and Capabilities* (London: Routledge, 2013); Derek Headey and William Masters, "Affordability of the EAT-Lancet reference diet: a global analysis," *The Lancet Global Health* 8, no.1 (2020): 59–66; Ravi Nandi, Nedumaran Swamikannu, and Padmaja Ravula, "The interplay between food market access and farm household dietary diversity in low and middle-income countries: A systematic review of literature," *Global Food Security* 28 (2021).

6 World Food Programme, *WFP Global Update on COVID-19: November 2020* (Rome: WFP, 2020), <https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000121038.pdf>.

7 Reynaldo Martorell, Bernardo Horta, Linda Adair et al., "Weight gain in the first two years of life is an important predictor of school outcomes," *Journal of Nutrition* 140, no.2 (2010): 348–54.

8 The World Bank, *Protecting Poor and Vulnerable Households in Indonesia* (Jakarta: World Bank, 2012), <http://hdl.handle.net/10986/13810>.

9 Achmad Tohari et al., "Targeting poverty under complementarities: Evidence from Indonesia's unified targeting system," *Journal of Development Economics* 140 (2019):127–144.

10 Harold Alderman, Ugo Gentilini and Ruslan Yemtsov, *The 1.5 Billion People Question: Food, Vouchers, or Cash Transfers?* (Washington: The World Bank, 2018), <https://www.worldbank.org/en/topic/safetynets/publication/food-vouchers-or-cash-transfers>.

11 Abhijit Banerjee et al., "Tangible information and citizen empowerment: Identification cards and food subsidy programs in Indonesia," *Journal of Political Economy* 126, no.2 (2018): 451–491.

12 Hastuti, Bambang Sulaksono, and Sulton Mawardi, *Tinjauan Efektivitas Pelaksanaan Raskin dalam Mencapai Enam Tepat*, 2012, <http://www.smeru.or.id/sites/default/files/publication/raskinmencapaienamtepat.pdf>.

13 Benjamin A. Olken, "Corruption and the costs of redistribution: Micro evidence from Indonesia," *Journal of Public Economics* 90, no.4–5 (2006): 853–870; Vivi Alatas et al., "Targeting the poor: evidence from a field experiment in Indonesia," *American Economic Review* 102, no.4 (2012): 1206–1240; Vivi Alatas et al., "Does elite capture matter? Local elites and targeted welfare programs in Indonesia," *AEA Papers and Proceedings* 109 (2019): 334–39; Banerjee, et al., "Tangible information and citizen empowerment: Identification cards and food subsidy programs in Indonesia," *Journal of Political Economy* 126, no.2 (2018): 451–491.

shops (*e-Warong*). However, the BPNT has been implemented in the municipalities and districts with relatively better infrastructure.<sup>14</sup> The implementation of the BPNT program has reduced the likelihood of a poor household not receiving the program by approximately 36 percentage points, compared to the *Rastra* program. Furthermore, the implementation of the BPNT has improved consumption of essential nutrients by poor households, with the exception of the daily intake of fat.

## Conclusion

Indonesia is the first country to have begun the transition from an in-kind food subsidy program to a food voucher program. The implementation of a voucher-based food transfer program has improved the targeting performance of social protection programs in the districts in which they were implemented.

The evidence-based policy inferences are strong as they draw on nationally representative data. They provide strong justification for governments in other developing countries to consider reforms of FOSA to transition towards a voucher-based system in order to improve the dietary diversity of poor people, as well as improving targeting efficiency.

From a policy perspective, Indonesia's measures to alleviate poverty via food transfer programs provide a compelling case study for neighbouring countries in the region that face food insecurity. Specifically, (i) the establishment of a unified database and the provision of information on a card to eligible households is an important step in improving transparency and the targeting performance of means-tested social welfare programs; (ii) the early success of the voucher-based food welfare program in both reducing poverty, improving nutrient intake and dietary diversity shows that they can be implemented in other IOR countries.

This is particularly relevant to India. Although India's means-tested Targeted Public Distribution System (TPDS) provides staple cereals to 800 million people and is the largest in-kind food subsidy program in the world, it is expensive, cumbersome to implement, has targeting challenges and does not address nutrition needs, as it is focused on staple cereal provision. By comparison, Indonesia's model offers a reference point for a more targeted, nutrient-effective and less cumbersome means of alleviating food insecurity for the attention of other IOR countries. 🌐



<sup>14</sup> Indonesia is divided into five different administrative jurisdictions: central government; provinces; districts; subdistricts; and villages. Currently, there are 514 municipalities/regencies (*Kabupaten*) and districts/cities (*Kota*) under 34 provinces in Indonesia.

# Overcoming governance challenges to achieve Indian Ocean blue economy goals



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Indian Ocean states are dependent on the marine environment economically and socio-culturally, and commercial activities in the region contribute significantly to global fisheries, trade and transport. More recently, Indian Ocean states have shared a common focus on increased 'blue growth', which has led to the rapid adoption of strategies focused on the blue economy.<sup>2</sup>

The concept of the blue economy involves the achievement of economic growth and development based on ocean activities, together with enhanced social and environmental outcomes.<sup>3</sup> Shipping and transport, fisheries and aquaculture, seabed mining, energy from the oceans and marine-based tourism are all areas for 'blue growth'. The multiple benefits from expanding these activities are important in combatting poverty, providing food and livelihood security and ensuring regional stability.

Australia and its regional neighbours have identified the critical need for rapid economic recovery post-COVID-19, and therefore these goals oriented

towards the blue economy are likely to be aggressively pursued. Undeniably, there is potential to derive increased wealth from the Indian Ocean in sustainable ways. However, there is a risk that intensified activities will result in unsustainable impacts on the marine environment and ocean resources, resulting in irreparable environmental damage, which in turn would stymie growth and raise broader human security issues. For example, every state cannot expand its fisheries sector without a negative impact on fish stocks. Marine traffic across the Indian Ocean is already significant.<sup>4</sup> Increased shipping to and from Indian Ocean ports risks greater environmental damage through pollution. Sound and sustainable economic development can only be achieved if strong governance regimes and legal frameworks are in place to identify and manage these risks.<sup>5</sup>

## The reach of the regional frame

While efforts to enhance governance have been, and can be, made at the domestic level, regional approaches are vitally important. Regional

<sup>1</sup> Former Australian National Focal Point for the Indian Ocean Rim Association Academic Group (2019-2022).

<sup>2</sup> For example, see: Government of Seychelles, *Seychelles' Blue Economy Strategic Policy Framework and Roadmap: Charting the Future (2018-2030)*, 2017. <https://seymsp.com/wp-content/uploads/2018/05/CommonwealthSecretariat-12pp-RoadMap-Brochure.pdf> (Accessed 1 July 2019); IORA, *Blue Economy*, 2017. <http://www.iora.int/en/priorities-focus-areas/blue-economy> (Accessed 1 July 2019).

<sup>3</sup> Michelle A. Voyer et al, "Maritime security and the Blue Economy: Intersections and interdependencies in the Indian Ocean," *Journal of the Indian Ocean Region* 14, no. 1 (2018): 28-48.

<sup>4</sup> Alexander E. Davis and Jonathan N. Balls, *The Indian Ocean Region in the 21st Century: Geopolitical, economic, and environmental ties* (Australia India Institute, 2019).

<sup>5</sup> Lyndon E. Llewellyn et al, "A roadmap to a sustainable Indian Ocean blue economy," *Journal of the Indian Ocean Region* 12, no. 1 (2016): 52-66.



governance is necessary in the Indian Ocean's context because it can help integrate marine activities across sectors and jurisdictions involving a range of stakeholders.

Regional governance can also be a tool for development by coordinating transformative processes and instruments, including those needed to achieve blue economy goals.<sup>6</sup> Although interest in the blue economy is common across the region, definitions and specific goals are diverse and driven by national interests adding weight to the need for regional approaches.<sup>7</sup> Regional institutions can also facilitate the sharing of resources and expertise, as well as ideas and knowledge.

Without a cohesive regional approach, individual Indian Ocean nations with similar goals are likely to place increasing pressure on the same marine resources and areas. This can lead to a race to the bottom as nations scramble to secure their share of resources, and/or disincentivise more conservation-minded states. Tensions emerged over a decade ago in South Asia, for example, where Indian fishers sought to access the waters of neighbouring nations when their own fish stocks became depleted, leading to clashes with Bangladeshi, Pakistani and Sri Lankan counterparts.<sup>8</sup> Furthermore, illegal foreign fishing in Somali waters, which has led to the loss of local livelihoods, is at least in part the reason former fishers

turned to maritime piracy. As blue economy goals are pursued, these security challenges may well increase.

In addition, the ecological costs of the pursuit of blue economy goals may become unsustainable, given the cumulative nature of the impacts and interconnectedness of ocean areas, which in turn could exacerbate tensions. A pan-regional approach is one way to protect against these risks. Based upon common interests in enhancing ocean development, a region-wide cohesive approach to the blue economy could establish agreed principles, provide a forum for discussion, and build greater transnational cooperation to share knowledge and address mutual problems (such as piracy). From a legal perspective, regional agreements could build consensus, embed standards, rights and obligations to which all states commit, and also assist with harmonising domestic laws, as far as possible, to reduce fragmentation.

Nevertheless, there are barriers to be overcome including the considerable cultural, economic and geographic diversity across the region. Furthermore, overlapping plans and competition for natural resource utilisation have resulted in a focus on national interests over regional coherence. The key to dismantling these barriers to a coordinated region-wide approach will be to build consensus around the idea that the successful achievement of all nations' blue economy goals is a shared problem rather

than a cause for competition. The level of regional cooperation achieved in the attempts to address maritime piracy as a common concern may serve as a useful exemplar.

### Why regional marine governance is critical for Australia

Advancing regional marine environmental governance in the Indian Ocean is a critical issue for Australia for several reasons. Firstly, the Indian Ocean includes 40% of Australia's top trading partners who are committed to blue growth, and it is economically growing faster than other regions of the world.<sup>9</sup> Secondly, any damage done to the marine environment of the Indian Ocean will impact on Australia given the interconnectedness of the ocean and the movement of species and waters within it. Furthermore, Australia has already provided leadership in the pan-regional Indian Ocean Rim Association (IORA), a body that is set to grow in influence in the coming decade.

Finally, Australia has articulated a focus on the 'Indo-Pacific' as a geopolitical construct within its 2017 Foreign Policy White Paper. It underlines support for a rules-based order and the need "to strengthen regional architecture in the Indian Ocean—including the Indian Ocean Rim Association (IORA)" and, more pertinently, "to strengthen the focus on maritime issues within regional forums, including [...] IORA, and enhance [...] protection of the marine environment and international law".<sup>10</sup> By contributing to efforts to strengthen regional oversight of marine environmental issues, it would allow Australia to pursue these goals collaboratively, demonstrate leadership and share its expertise on marine environmental governance.

Although arguments for Indian Ocean governance are clear, advances have been hampered, in part, by the Middle East, Africa and Asia divisions, which

has led to different regional collaborations and continental cooperative arrangements. Adding to the complexity, there is considerable diversity among the Indian Ocean states in terms of size, developmental status, legal systems, socio-cultural and geo-political contexts, which has hindered coordinated approaches.

IORA was established in 1997 as an inter-governmental organisation and its membership comprises 23 Indian Ocean states and 11 dialogue partners.<sup>11</sup> It is the only body with membership that spans the Asian and African, island and continental, countries of the region. Australia is an IORA member and has already served as the IORA Chair (2013-2015) and led the adoption of the Perth Communique and Perth Principles in 2013. In addition, given the commitments made in the 2017 Foreign Policy White Paper, IORA remains the most suitable institution to advance regional coordination to achieve blue economy goals in sustainable ways.

### IORA's capacity and potential

IORA members have endorsed the need for greater regional cooperation in relation to ocean matters by establishing regional centres, such as the IORA Fisheries Support Unit and the IORA Blue Carbon Hub. Significantly, IORA has specifically recognised the importance of the blue economy and included it as a priority focus area. It has established a Blue Economy Working Group and set its own agenda with a work plan and objectives, *inter alia*, to combat illegal fishing, promote sustainable fisheries management, address marine pollution, promote renewable ocean energy, promote sustainable seabed exploration and protect and conserve biodiversity through sustainable tourism. Furthermore, IORA has an Academic Group (IORAG) that supports member states and promotes intellectual dialogue and coordinated research.<sup>12</sup>



6 Yasmine Willi, Marco Pütz and Martin Müller, "Towards a versatile and multidimensional framework to analyse regional governance," *Environment and Planning C: Politics and Space* 36, no. 5 (2018): 775-795.

7 Timothy Doyle, "Blue Economy and the Indian Ocean Rim," *Journal of the Indian Ocean Region* 14, no. 1 (2018): 1-6.

8 US Office of the Director of National Intelligence, *The Future of Indian Ocean and South China Sea Fisheries: Implications for the United States* (National Intelligence Council Report, 2013).

9 "Australia and the Indian Ocean region," Department of Foreign Affairs and Trade, <https://dfat.gov.au/international-relations/regional-architecture/indian-ocean/Pages/indian-ocean-region.aspx>.

10 Australian Government, *Foreign Policy White Paper*. 2017. <https://www.fpwhitepaper.gov.au/foreign-policy-white-paper>.

11 "Indian Ocean Rim Association," <http://www.iora.int/>.

12 "Indian Ocean Rim Academic Group" <https://www.iora.int/en/structures-mechanisms/mechanisms/indian-ocean-rim-academic-group-iorage>.

IORA has also identified the necessity for coordination among existing bodies relevant to the Ocean's governance and for the development of effective policies, laws and institutional frameworks at the regional level.<sup>13</sup> More specifically, IORA has also acknowledged the pressing need to “set-up or revise existing regional regulatory frameworks and governance with regard to development of the Blue Economy”.<sup>14</sup> These commitments demonstrate the political will of member states to work collectively to achieve common goals.

IORA has the potential to bring greater coherence to marine environmental governance across the region and can play a leading role in facilitating blue economy objectives, yet the way forward is not clear.

Regional governance requires strong and effective institutions, and also the development of new legal frameworks to fill regulatory gaps and address identified challenges. Yet unlike many other regional organisations, IORA has not adopted any binding treaties or regional agreements to date, and the development of legal options to advance its agenda is uncharted territory.



Because of this it will be important to draw on lessons learnt from other places, such as the Pacific Island states where regional governance is more advanced, with long-standing and stronger organisations, and where some regional treaties on maritime surveillance, as well as action plans and model laws on marine environmental law, have already been adopted.<sup>15</sup>

Similarly, in Asia, the Association of South East Asian Nations (ASEAN) has adopted programs to work with member states, including a focus on implementing key existing global marine pollution and environmental protection treaties.<sup>16</sup> These two regions may provide valuable insights into the different vehicles and tools, their utilisation and criteria for success, to inform the development of legal options to fill regulatory gaps and reduce fragmentation across the Indian Ocean.

Australia, it should be remembered, has historically provided significant leadership through its role as a founding member of the ASEAN Regional Forum and as a member of the East Asia Summit. It is therefore well-placed to continue and enhance its leadership role in the Indian Ocean.

## Two proposals:

1. Given IORA's blue economy focus, as well as Australia's commitments in the 2017 Foreign Policy White Paper, finding ways to enhance ocean health in the Indian Ocean is imperative. One way to do this is through facilitating the sharing of data and research. Many Indian Ocean states have limited resources to conduct research themselves, and limited means of accessing and sharing data. IORAG could collate and provide an accessible portal of all data and published research relevant to the blue economy and the Indian Ocean marine environment. Australia has the experience of establishing and maintaining data portals—for example, the Australian Ocean Data Network (AODN) Portal<sup>17</sup>—and could share expertise and champion a similar approach across the region through its membership of IORA and IORAG.
2. IORA has not yet adopted any regional agreements that could establish common standards, principles, rights and responsibilities, to secure ocean health and avoid natural resource conflicts as blue economy goals are pursued. Australia has the experience of participating in regions to its north (through ASEAN and the East Asia Summit) and east (including through the Pacific Community) where regional instruments have been adopted and/or collaborative programs implemented to increase the uptake of global treaties.

Australia could take a leadership role within IORA by identifying gaps in current governance where laws do not exist (e.g. a framework for marine-based tourism) or where there is a lack of ratification of global instruments (e.g. piecemeal uptake of international treaties that have only recently come into force), and thereafter facilitate a dialogue and the development of an action plan to address the challenges. 🌊

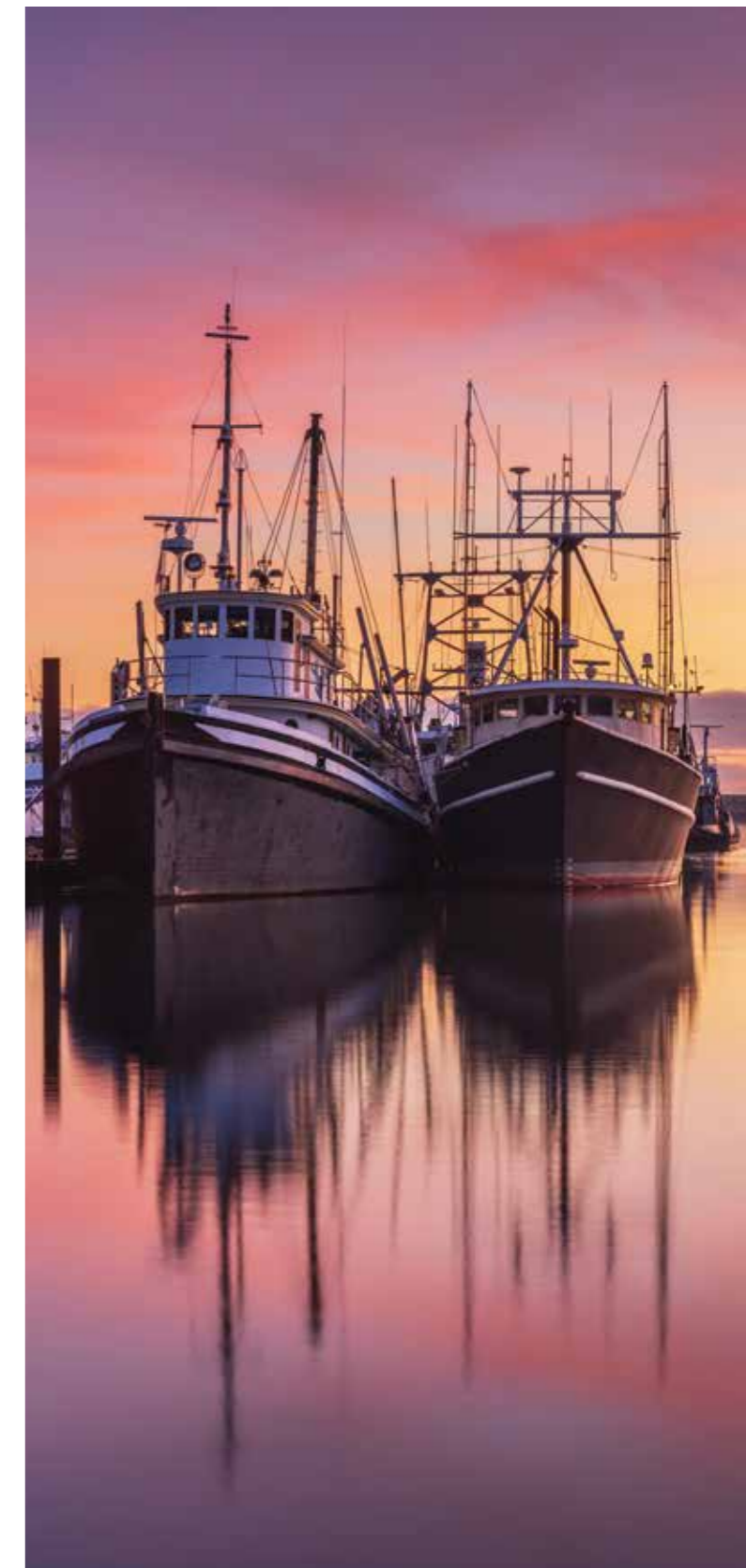
<sup>13</sup> IORA, *Declaration of the Indian Ocean Rim Association on the Blue Economy in the Indian Ocean Region*. 2017. <http://www.iora.int/media/8218/jakarta-declaration-on-blue-economy-final.pdf>; and IORA, *Jakarta Concord*. 2017. <https://www.dfat.gov.au/about-us/publications/Pages/iora-jakarta-concord>.

<sup>14</sup> IORA, *Declaration of the IORA on enhancing Blue Economy Cooperation for Sustainable Development in the Indian Ocean Region*. 2015. <https://www.iora.int/media/8216/iora-mauritius-declaration-on-blue-economy.pdf>.

<sup>15</sup> Erika Techera, “Endangered and Invasive Species: Pacific Island Legal Responses to Complex Environmental Challenges,” in *Environmental Law and Governance in the Pacific*, ed. M. Werwerinke-Singh and E. Hamman (London; New York: Routledge, 2020).

<sup>16</sup> “Marine Environment Protection of the South-East Asian Seas (MEPSEAS),” International Maritime Organisation, <https://www.imo.org/en/OurWork/PartnershipsProjects/Pages/MEPSEAS.aspx>.

<sup>17</sup> “Australian Ocean Data Network (AODN) Portal,” <https://portal.aodn.org.au/>.



*Part 3:*

**People,  
Knowledge and  
Interconnectedness**

# Near-neighbours: Australia-Indonesia relations 25 years on from Suharto



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Bilateral relations between Australia and Indonesia have often been likened to a roller coaster ride characterised by a slow ascent to the top, a brief cruise at the crest followed by a rapid descent, and then the whole process would begin all over again.

In 1991 Desmond Ball and Helen Wilson published an edited volume titled *Strange Neighbours: The Australia-Indonesia Relationship*.<sup>1</sup> As the title suggests, the book underlined the fact that although Indonesia and Australia are geographically close, they are in many respects strangers to each other. While they share common interests, including the objectives of a secure and stable region and economic prosperity, they are also beset by many differences that include: their respective cultural heritage, religious beliefs and practices, political structures, demographic bases, levels of economic development, as well as their military forces and defence policies.

As the book explained, the state of the Australia-Indonesia relationship at any given time reflects the interplay of these mutual interests and different perspectives, so that at times the bilateral relationship has been positive and at other times it has been quite hostile.

## Closer bilateral ties since Suharto

While most of the arguments and analyses put forward in 1991 still stand, there have also been fundamental changes in Indonesia since the fall of President Suharto in May 1998 and the collapse of the military-dominated New Order regime, which paved the way for Indonesia's transition to democracy marked by the emergence of a vibrant civil society and free media.

Notwithstanding the many inherent differences between Australia and Indonesia, the two countries have become less strange to each other, particularly in their respective political systems. Cooperation between Australia and Indonesia has both widened and deepened at all levels—bilateral, regional and multilateral—while people-to-people interaction has also intensified.

Exchange of visits between top government leaders and officials have become more frequent, while regular two-plus-two meetings between the two countries' foreign and defence ministers have improved communication and mutual understanding.

Despite this, problems have still occurred and incidents that were often beyond the control

of the two governments have derailed bilateral relations. Nevertheless, it is also important to note that while the relationship from time to time has hit roadblocks, exemplified by the recall of the respective ambassadors as the highest expression of diplomatic displeasure, both countries have continued to emphasise the importance of their bilateral relations and taken further measures to strengthen bilateral cooperation and understanding.

## The East Timor crisis and the nadir of Australia-Indonesia relations

The immediate post-Suharto period marked the nadir of Australia-Indonesia bilateral relations, precipitated by the crisis in East Timor in the aftermath of the 1999 plebiscite in which the majority of East Timorese voted for independence from Indonesia. Indonesians perceived Australia as being supportive of East Timor's independence struggle, and the prominent role played by Australian troops in the United Nations Mission in East Timor (UNAMET), sent to restore peace after the outbreak of violence carried out by pro-integration forces, triggered Indonesian nationalistic backlash against Australia.

Jakarta unilaterally revoked the first agreement on maintaining security between the two countries signed by the Keating and Suharto governments in 1995, and anti-Australia sentiment ran high in Indonesia.

This included calls to boycott Australian products, while the first Indonesian Defence White Paper released in early 2000 specifically cited Australia as a threat to Indonesia's sovereignty and territorial integrity. After the loss of East Timor, Indonesia has become more concerned with threats of separatist movements in Papua, which has the potential to receive wider international support, particularly from Australia and other Pacific countries.

## Improved relations and cooperation

Tragedies, both man-made and natural disasters, brought the two countries closer together. The terrorist attacks against nightclubs in Bali in 2002

carried out by Jamaah Islamiyah, an Indonesian affiliate of al-Qaeda, which killed 203 people and injured 209, the majority of whom were Australians, and a subsequent 2004 bombing in front of the Australian Embassy in Jakarta, led to close cooperation in counter-terrorism between Indonesia and Australia. One of the most visible products of this cooperation was the establishment of the Jakarta Centre for Law Enforcement Cooperation (JCLEC) in Semarang, Central Java, an international training centre for law enforcement partners to enhance their capacity to combat terrorism and transnational crimes.

The tsunami and earthquakes that devastated Aceh and the western part of Sumatera in late 2004 and early 2005 also restored Indonesians' goodwill towards Australia. Australian rescue workers were among the first to arrive in Aceh after the 2004 Boxing Day tsunami and nine Australian military personnel were killed in April 2005 when their helicopter crashed while carrying out rescue missions after another devastating earthquake in Nias, an island off the coast of West Sumatera. President Susilo Bambang Yudhoyono's visit to Canberra in April 2005, one day after the helicopter crash, was an expression of appreciation of Australian support and sacrifice in helping Indonesia recover from natural disasters and marked a new high point in bilateral relations.

## The Lombok Treaty: Closer security cooperation

The roller coaster characteristic of the Indonesia-Australian relationship, however, was evident during the Yudhoyono presidency (2004-2014), a decade which saw five different Prime Ministers in Australia from both the Liberal and Labor parties. Less than a year after Yudhoyono's visit to Australia, Indonesia recalled home its ambassador in Canberra, Teuku Mohammad Hamzah Thayeb, in March 2006 as a protest over the Australian Government's decision to give temporary visas to 42 Papuan asylum seekers. Ambassador Thayeb only returned to his post having spent 11 weeks cooling his heels in Jakarta.

Nevertheless, the asylum seekers' incident led to a positive development with the signing of a new

<sup>1</sup> Desmond Ball and Helen Wilson, eds., *Strange Neighbours: The Australia-Indonesia Relationship* (Sydney: Allen & Unwin, 1991).

Framework for Security Cooperation, better known as the Lombok Treaty, on 13 November, 2006. The Treaty provides a basis for closer cooperation on both traditional and non-traditional threats between the two countries.

For Indonesia one of the most important provisions in the Treaty is that both parties respect each other's sovereignty and territorial integrity, and that they do not provide support or allow their respective territories to be used in support of separatist movements against the other party. The significance of this landmark treaty cannot be overstated: it has both significantly allayed Indonesia's concerns about Australia's support for the Papuan separatist movement and it is, to date, the only treaty on security cooperation that Indonesia, a staunchly non-aligned country, has signed with any country.

### The ups and downs of people-to-people relations

The often-volatile nature of Australia-Indonesia relations has made both countries stress the importance of deepening bilateral cooperation in ever wider-ranging areas, which can act as a ballast against turbulence in the bilateral relationship. Despite all of these efforts, however, unexpected shocks still occurred from time to time. Ironically, the close people-to-people interactions have caused serious irritations in bilateral relations.

One prominent source of such turbulence have been the instances of Australian tourists being convicted and imprisoned, and sentenced to death in several cases, for drug trafficking while visiting Bali.

The arrest and imprisonment of the so-called Bali Nine, a group of nine Australians convicted of attempting to smuggle 8.3kg of heroin out of Indonesia in April 2005, caused considerable outcry in Australia as two of the men were sentenced to death by the Indonesian court.

Shortly after, in May 2005, a female Australian tourist, Schapelle Corby, was arrested for bringing in 4.2kg

of cannabis into Bali. Corby was sentenced to 20 years of imprisonment and later released in February 2014 after serving nine years in prison, and her case served to damage public opinion in Australia against Indonesia. The arrest of traditional Indonesian fishermen in Australian waters have also raised protests from Indonesia, particularly the detention of underage Indonesian fishermen in adult facilities.

The up-and-down nature of the bilateral relationship became even more pronounced in the later years of the Yudhoyono presidency. President Yudhoyono made a state visit to Australia in March 2010 and gave a historic address to the joint session of the Federal Government, signalling another high point in the two countries' relations. While visiting the Australian Parliament building in November 2013, Vice President Boediono joined Prime Minister Tony Abbott in officially opening the Australia-Indonesia Centre, established at Monash University in Melbourne, and attended a major Australia-Indonesia business forum in Melbourne before returning to Jakarta.

Yet only a few days later bilateral relations turned sour again. Media reports of the highly-classified information from the US National Security Agency leaked by Edward Snowden, which revealed that Australia's electronic intelligence agency had tracked the mobile phone activities of President Yudhoyono and his inner circle for 15 days in 2009, angered Indonesia. Indonesia's Ambassador in Canberra, Nadjib Riphath Kesoema, was recalled home in November 2013 and only returned to his post six months later.

### Steadier ground since 2014

Since 2014, bilateral relations appeared to have become much more stable. Prime Ministers Tony Abbott and Scott Morrison attended Joko Widodo's inauguration as Indonesia's President in October 2014 and 2019 respectively, while a warm personal friendship seemed to have developed between Widodo and Prime Minister Malcolm Turnbull (2015-2018). Prime Minister Anthony Albanese made Indonesia his first destination for a bilateral visit soon after taking office in early 2022.

A slight dip in bilateral relations occurred after Indonesia carried out the execution of Andrew Chan and Myuran Sukumaran, two of the Bali Nine convicted drug traffickers, on 29 April, 2015, resulting in the recall of Australian ambassador in Jakarta, Paul Grigson, for five weeks as a mark of protest by the Australian Government. Nevertheless, the incident did not mar the relations for long and both sides have continued to elevate their engagement to a higher level.

In 2018, the two countries signed a Comprehensive Strategic Partnership Agreement on five broad pillars of cooperation: enhanced economic and development partnership; connecting people; securing our and the region's shared interests; maritime cooperation; and contributing to Indo-Pacific security and prosperity. To cap this trend, the Indonesia-Australia Comprehensive Economic Partnership Agreement (IA-CEPA) was finally signed in January 2020 after 10 years of negotiations.

### Faster ascents and longer cruises: Future relations

Despite the increasingly close relationship, different strategic perspectives and policy choices have from time to time put Indonesia and Australia at odds with each other. The influx of boats carrying refugees escaping violence from the Middle East, Afghanistan and Myanmar, to other countries, has often caused friction between Indonesia and Australia, as the latter tried to push the boats back into Indonesian waters. Prime Minister Scott Morrison's announcement in 2018 that Australia, following the US under President Donald Trump, would also move its embassy in Israel from Tel Aviv to Jerusalem angered Indonesia, the world's largest Muslim-majority country and a staunch supporter of Palestine.

More significantly, the announcement of a new trilateral security pact AUKUS between Australia, the UK and the US in September 2021 invited open criticism from Jakarta due to the provision that

enabled Australia, a non-nuclear weapon state, to acquire nuclear-powered submarines from the other two countries, and its concomitant risks of undermining the integrity of the Nuclear Non-Proliferation Treaty.

I once wrote an article entitled "Mixed messages in the Indonesia-Australia relationship"<sup>2</sup>, which highlighted the challenges in bilateral relations. As close, and yet, still strange neighbours, Australia and Indonesia will undoubtedly have disagreements from time to time, but in recent years the roller coaster characteristic of the relationship has become less dramatic, with fewer and shallower dips, faster ascents and longer cruising periods on higher plateaus.

### Conclusion

With its predominantly white population and European heritage, in the not-too-distant past Australia saw itself as distinct from its Asian neighbours, and was also seen as an outlier by the surrounding countries, including Indonesia. In the past three decades, however, Australia appears to have made great efforts to integrate itself into the Asia-Pacific and now the Indo-Pacific region. The Australian population has also become much more mixed, with a sizeable proportion originating from Asia.

Nevertheless, there is a perception in the region that Australia tends to be more oriented towards its near-neighbours in Asia under a Labor Government, while a Liberal administration tends to put a greater emphasis on Australia's alliance with the US.

In the past, some countries, such as Malaysia, had proposed the establishment of an exclusive Asian-countries-only East Asian regional architecture that would exclude Australia. Indonesia, however, has always opposed the creation of an exclusively Asian regional framework. President Suharto opposed Malaysian Prime Minister Mahathir bin Mohamad's proposal of an Asian-only East Asian

<sup>2</sup> Dewi Fortuna Anwar, "Mixed messages in the Indonesia-Australia relationship," *East Asia Forum: Economics, Politics and Public Policy in East Asia and the Pacific* (24 September 2012), <https://www.eastasiaforum.org/2012/09/24/mixed-messages-in-the-indonesia-australia-relationship>.

Economic Group (EAEG) in 1990 and supported the establishment of the more inclusive Asia-Pacific Economic Cooperation (APEC) that was initiated by Australia in 1989.

The East Asia Summit (EAS), formed in 2005, was initially envisaged to comprise ASEAN and the Plus Three countries (10 ASEAN countries plus China, Japan and South Korea). Under the Yudhoyono Government, Indonesia played a key role in widening the membership of the EAS to include Australia, India and New Zealand to ensure a dynamic equilibrium among the external powers, which in 2011 also included the US and Russia.

While there are talks about the Asian Century with elements of Asian triumphalism, Indonesia is a strong supporter of an inclusive Indo-Pacific in which all of the countries located in this wide region belong, and Australia is an integral constituent of the Indo-Pacific.

Although Indonesia and Australia have elevated their bilateral relationship to a Comprehensive Strategic Partnership and cooperated closely in the region, particularly within ASEAN-driven regional mechanisms, there are still some issues that demand attention. Two-way investment and two-way trade are still modest, though the coming into effect of the IA-CEPA would hopefully address these problems.

A decade on from my 2012 article, mentioned above, concerns about the decline in Indonesian language being taught in schools in Australia have remained unabated. At that time, I counselled that Australia's road to embracing Indonesia culturally had stalled and would likely impede its wider acceptance into, and sense of its own identity within, the region.

I would like to lift some thoughts from this earlier article to underline the opportunities ahead for Australia to deepen its cultural knowledge of Indonesia, with a view to a more integrated role in the region:

The decline of Indonesian language study in Australian schools and universities has been raised during the visits of Indonesian leaders, along with the unequal people-to-people exchange. With more Indonesians studying in Australia than vice-versa, over time there will develop greater first-hand knowledge of Australia among younger educated Indonesians than is the case with knowledge about Indonesia among Australia's elite.

This asymmetry in knowledge is not a good trend. Australia is not doing itself any favours by neglecting its knowledge bank on Indonesian culture and language, and its economic and social dynamics. As ASEAN becomes more integrated, with Indonesia a key component—Jakarta will pull its weight more and more, not just in the regional arena, but internationally.

Australia should have some comparative advantage in capturing Indonesia's potentials. Historically, it has put a lot of time and energy into developing the world's best corps of deep intellectual expertise about Indonesia. It should be able to leverage that expertise, not just for strategic security considerations but its own economic benefits. The drop in interest in Indonesia, just at a time when Indonesia is rising up, is mystifying.<sup>3</sup>

Since 2022, the state of bilateral relations has been cruising at a high level, with no incidents to mar the harmony. The Albanese Government has rescinded the decision to move the Australian embassy from Tel Aviv to Jerusalem. Australia also gave strong support to ensure the success of Indonesia's G20 presidency throughout 2022, which faced great challenges after Russia's invasion of Ukraine. Australia has also pledged to provide financial assistance to Indonesia's "Just Energy Transition" initiative.

Nevertheless, experience has shown that unexpected shocks can occur from time to time, and it is incumbent on the diplomats from both countries never to leave the relationship on automatic pilot. 🌐

## Unlocking the potential of the African diaspora in Australia



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A sense of Indian Ocean regionalism provides one means to connect Australia and Africa in a context in which international relations between the continents have otherwise remained episodic and shallow, rather than strategic and sustained. The foreign policy establishment in Canberra has tended to discount the economic, diplomatic and geostrategic importance of Africa to Australia, in favour of developing closer ties with Asia while maintaining its Western alliances! This is no more evident than in the recent adoption and promotion of the Indo-Pacific strategic concept which simultaneously brings India into Australia's geopolitical zone of strategic priority, while continuing to exclude the African continent.

Yet, as Western Australian perspectives on Australia's place in the world are often keen to emphasise, Australia also shares the dynamic Indian Ocean region with a range of Eastern and Southern African countries.

Indeed, in the principal regional organisation, the Indian Ocean Rim Association (IORA), of which Australia is a founding member, nine of the 23 member states are African. This means Indian Ocean regionalism provides an advantageous forum for Australia to cooperate directly with neighbouring African countries on issues of global, regional and bilateral importance, even if this platform has been relatively under-used by Canberra to date.

Despite an inconsistent commitment to Australian foreign policy 'looking West',<sup>2</sup> one of the most vibrant aspects of transnational relations in practice over the past three decades has been the increasing migration of African peoples across the Indian Ocean to Australia, extending the global African diaspora eastwards, creating a range of reciprocal 'people-to-people' links, and further diversifying multicultural Australian society away from its modern Eurocentric and 'White Australia'

3 Ibid.

1 David Mickler and Nikola Pijovic, "Engaging an Elephant in the Room: Locating Africa in Australian Foreign Policy," *Australian Journal of Politics and History* 61, no. 1 (2015): 100-120.

2 Kevin Rudd, "Australian foreign policy looking West," *Journal of the Indian Ocean Region* 7, no. 1 (2011): 131-137.

foundations. Indeed, Africa's collective population growth rate is the fastest in the world, and the continent's population is expected to double to 2.5 billion by 2050,<sup>3</sup> resulting in substantially increased pressures to obtain resources, security and other opportunities via international migration. As a consequence, non-African destination countries need to develop robust evidence-based and ethically-informed policy infrastructure to successfully manage the integration of migrants and their families for the benefit of local economies, societies, foreign relations and the migrants themselves.

In this article, we first outline some key features of this contemporary African diaspora in Australia, before providing recommendations for the creation of new research, education and policy infrastructure to support their flourishing within the Australian polity, while capitalising on the local and international opportunities provided by this growing African diaspora.

### The African diaspora in Australia

African migration to Australia has increased in both volume and diversity over the last 30 years. Around 2.6% of the Australian population were either born in, or have at least one parent born in, Africa. In the 2016 Census, 387,288 people identified an African country of birth, and a further 215,758 people were born in Australia of at least one African-born parent.<sup>4</sup> This population is mainly from South Africa, Egypt and Zimbabwe (61.2%), although many other African countries are represented.

There is some evidence of a pan-African diaspora consciousness growing in Australia, such as in the many active African-Australian community organisations, despite significant diversity and divisions, as well as ongoing transnational cultural, political and economic interactions.<sup>5</sup>

There is also frequent negative publicity about this population, with a focus on settlement issues of a small minority, and the interpersonal and structural racism they face in Australia.<sup>6</sup>

Being a relatively new population (although there were Africans on the First Fleet), little is known about the developing relations between African migrants and their region of origin. We recently conducted a small-scale study to identify the types of transnational relationships engaged in, particularly political, economic and socio-cultural dimensions.<sup>7</sup>

Participants emphasised that the African diaspora is highly diverse, in terms of visa category (i.e. skilled, humanitarian, international student); country of origin; historical experience; race and ethnicity; generation; age; religion; culture; language; socio-economic status; and reason for migration. A major difference is discernible between voluntary and involuntary migrants in terms of their social connections, ongoing relations with home and connections to the wider Australian population. These migrants come to pursue education, work, family reunion, or for humanitarian reasons.

This diversity affects transnational relationships and settlement and the sense of being part of a diaspora, and assumptions should not be made about this population as a whole. There is no single voice representing the African diaspora to government in Australia, and some tensions and competition exists between community organisations.

The range of organisations that do exist facilitate various transnational social, cultural, political and economic engagements and support the diaspora in Australia. Such community organisations are key to transnational engagements and local support and development.

While there have been some noises from the Australian Government, there has been no clear strategy for engaging collectively with the African diaspora in Australia or on diaspora issues with relevant African governments. Knowledge and value transfers in both directions have significant potential, with the diaspora as key agents of transformation.

Participants in the above study expressed concern about the 'brain drain' generated by migration from Africa, but others viewed the economic, social and political benefits of an overseas diaspora to outweigh perceived costs. Remittances were seen as an important source of economic support to home countries, with both positive and negative effects. Reverse remittances were also identified as vital for some migrants who were unable to support themselves in Australia.

The African diaspora engages in political activity in a range of ways and to varying degrees. This includes advocacy and activism (fundraising, running for office, forming organisations, undertaking charity work) both in the interests of the diaspora in Australia and home countries. Some country-of-origin governments engage directly and supportively with migrants through diaspora offices and officials; some origin-country political parties have branches in Australia; and support for development projects by the origin-country governments is promoted. However, there is significant scope for much greater engagement.

### Opportunities and constraints for the African diaspora in Australia

A key issue identified in the study is the need for dual citizenship and voting rights. This was seen as necessary to facilitate ongoing engagement and maintain commitment to countries of origin. Another concern was the ways in which migration policy was perceived to influence who is able to migrate and their ability to return, as well as the impact of this policy on re-integration, employment and family reunion prospects. Australia's migration policies are seen as restrictive, limiting potential for greater transnational engagement, with participants recommending that Australia adopts more open migration policies.

In terms of ongoing relationships, returnees are seen as a potential benefit to origin countries, bringing with them a range of material and social capital. The diaspora was identified as very entrepreneurial, developing business opportunities that generate employment opportunities and cultural exchange in both home and host countries. To facilitate and encourage these exchanges and more formal ties, trade and economic agreements between Australia and African countries of origin were recommended.

Participants believed that Africans in Australia are an important source of multicultural diversity, and positive social interactions have the potential to promote identity, wellbeing and transnational connections. However, they also recognised racism and exclusion remain problems for African migrants in Australia.

Valuing the potential of the African diaspora is key to productive political, economic and socio-cultural engagements. To this end, participants felt that diaspora and mainstream Australian society should be encouraged to develop closer relationships to learn about, and develop respect for, cultural differences, as well as a range of other opportunities.

Participants made a number of recommendations for consideration by the Australian Government: to develop and implement a comprehensive African diaspora engagement strategy; to develop a dedicated mechanism to track demographic data of the African diaspora in Australia, including migration patterns, settlement outcomes, remittance flows and contribution to Australian society; to deepen Australia-Africa international relationships, (including with the African Union and non-traditional African trading partners) to support transnational social, cultural and economic engagement; to promote and support major African cultural events in Australia; to develop policies and guidance on the impacts of political interference and activism on home and host communities; and to relax some visa restrictions to allow more regular family and cultural exchanges.

3 United Nations Department of Economic and Social Affairs, Population Division, *World Population Prospects 2022: Summary of Results*. 2022. [https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022\\_summary\\_of\\_results.pdf](https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf)

4 Australian Bureau of Statistics, "Census—counting persons, place of usual residence." 2016.

5 Farida Fozdar, Sarah Prout Quicke and David Mickler, "Are Africans in Australia a Diaspora?," *Diaspora Studies* 15, no. 1 (2022): 87-117.

6 Farida Fozdar, "Belonging in the Land Down Under: Black Africans in Australia," *International Migration* 61, no. 1 (2023): 23-38.

7 Farida Fozdar, David Mickler, Sarah Prout Quicke, Mary B. Setrana, Muhammad Dan Suleiman and Dominic N. Dagbanja, "Transnational Economic Engagements: The Africa-Australia Nexus," in M. Phillips and L. Olliff (eds.), *Understanding Diaspora Development: Lessons from Australia and the Pacific* (Cham, Switzerland: Palgrave Macmillan, 2022), pp. 61-85.

They also made suggestions to reduce prejudice towards and stereotyping of Africans in Australia, through: 1) the design and implementation of systematic anti-racism education programs for mainstream Australians; and 2) closer monitoring of media representations of Africans to cultivate better representation of the diversity of the diaspora.

Participants also had suggestions for African home governments, including to develop engagement strategies to facilitate social, cultural, political and economic contributions from the diaspora. This may include: reducing red tape, creating incentives and building trust; creating a Migration/Diaspora Office, utilising diplomatic posts, promoting senior government visits to Australia to meet with diaspora communities; enhancing education, support and mentorship for the diaspora; promoting major national celebrations such as independence days; and upscaling cultural programs to attract second- and third-generation diaspora members.

They also believed more needed to be done to improve the remittance infrastructure, and to better support the reintegration of individuals who return to their home countries. The need for a peak, representative voice for the African diaspora in Australia was articulated, to help marshal a political voting bloc on pertinent issues.



Finally, they suggested that industry has a place in positive settlement and relations, particularly to consider the specific issues faced by Africans in Australia when providing staff education and training on the value of diversity in the workplace. They also supported the role of industry in promoting greater education on, investment in and collaboration between, African and Australian arts and cultural industries, and suggested that the Vocational Education and Training sector should explore opportunities to establish centres for training and credentialing youth.

### Our recommendations

Drawing on this research as well as our direct and ongoing engagement with relevant policymakers and African communities in Australia, we argue that both the government and education sectors have much more to do in building deeper relationships with both the African continent and diaspora. To this end, we recommend three major initiatives to develop the research, education and policy infrastructure needed to advance this agenda.

First, we recommend the creation of a national Australia-Africa Council, reporting jointly to the Department of Foreign Affairs and Trade and the Department of Home Affairs. This Council would be a standing policy engagement mechanism for



structuring ongoing interactions between the Australian Government and three key stakeholders with interests in the relationships between Australia and Africa: the African diaspora community sector, the Australian research and education sector, and the Australian business sector. The Council would provide opportunities for: regular knowledge sharing; policy advice, advocacy, and coordination; sectoral representation and leadership; and more efficient channelling of resources to support productive activities.

Second, we recommend that the Australian Government supports the creation of a National Centre for Australia-Africa Relations. This academic engagement Centre, interacting with the Council, would be a key hub and repository for developing and disseminating nationally important research on the African continent from an Australian perspective; developing teaching programs on Africa to enhance 'Australia-Africa literacy'; and building targeted education, training,

entrepreneurialism and community leadership programs with and for the growing African diaspora in Australia.

Third, we recommend the creation of a standing Indian Ocean University Network under the umbrella of IORA to directly link students, educators, researchers and academic institutions around this dynamic region to deepen the process of building collective knowledge of each other. Among other key regional themes, this would include gaining a better understanding of the challenges and opportunities of transnational migration across the region, such as between Africa and Australia. Together, the building of these necessary pieces of national and regional research, education and policy infrastructure would not only support unlocking the potential of migrant populations, but contribute to the building of necessary Indian Ocean region-ness as one of the guards against ignorance, fear and hostility towards others. 🌍



# An African perspective on the Indo-Pacific



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The dawn of the 21<sup>st</sup> century has heralded a period of geo-political competition, contestation and flux. The Indo-Pacific has emerged as the main theatre of major power competition. The rapid rise of China over the past four decades and its emergence as a major power has resulted in heightened competition between major powers on the global stage. This is most evident in the increasing rivalry between the US and China and the drive by both to create spheres of influence, including in the Indo-Pacific. This was largely driven by the emergence of China becoming the second-largest economy in the world, which resulted in increased strategic competition with the US for global influence. The US dramatically changed its policy towards China by declaring it a 'strategic rival' and 'competitor'.<sup>1</sup>

The Indian Ocean Region (IOR) is normally defined as including the Arabian Gulf, East Africa, South Africa, South Asia, East Asia to the Straits of Malacca, the Southern Ocean, Asia and Australia. It is a complex region of the world in human terms, which includes a wide variety of different races, cultures and religions.<sup>2</sup>

The Indo-Pacific, on the other hand, is an expanded region that encompasses both the Pacific Ocean and the Indian Ocean. Increasingly it is being viewed as a single geopolitical construct stretching from the eastern shores of Africa to the western shores of the Americas. However, this inclusive view of the Indo-Pacific is not shared by all.<sup>3</sup> Over the past decade, it has been thrust into the forefront of global geo-politics and geo-economics. This is most evident in the proliferation of position papers and strategy documents on the Indo-Pacific by countries of the region, as well as those from outside the region.

Most major powers and countries of the Global South have articulated positions on the Indo-Pacific. These include the US, France, the UK, Germany, Italy, Japan, Australia, India and Indonesia, among others. In addition, three regional bodies have also voiced positions on the Indo-Pacific, which include the Association of Southeast Asian Nations (ASEAN), the European Union (EU) and the Indian Ocean Rim Association (IORA).

1 Baija Zhang, "Understanding changes in Sino-U.S. relations from a historical perspective," *China International Strategy Review* 2 (2020): 1-13, <https://doi.org/10.1007/s42533-020-00048-6>.

2 Anthony H. Cordesman and Abdullah Toukan, *The Indian Ocean Region: A Strategic Net Assessment* (Centre for Strategic and International Studies, 2014), [https://cis-website-prod.s3.amazonaws.com/s3fs-public/legacy\\_files/files/publication/140725\\_Indian\\_Ocean\\_Region.pdf](https://cis-website-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/140725_Indian_Ocean_Region.pdf).

3 Anil Sooklal, "The Indo-Pacific, an emerging paradigm for peace, cooperation, sustainable development and mutual prosperity," *Journal of the Indian Ocean Region* (2023): 1-9, <https://doi.org/10.1080/19480881.2023.2172814>.

To date, no African country has articulated a view on the Indo-Pacific, nor has the African Union (AU) posited a position on the Indo-Pacific. There are increasing calls from African countries of Southern and Eastern Africa bordering the Indian Ocean, as well as from the Small Island Developing States (SIDS) of the Indian Ocean to articulate a position on the Indo-Pacific. This is necessitated by the fact that most of the policy papers and strategies on the region include the littoral states of the Indian Ocean as an integral part of the Indo-Pacific.

Furthermore, these nine littoral states are also member states of IORA and are party to the IORA Outlook on the Indo-Pacific. While Africa has yet to articulate a view on the Indo-Pacific, it has recognised and acknowledged the critical importance of its seas and oceans in its development. The nine African members of IORA have been critical in IORA positioning itself as the apex body of the IOR. This is evident by the fact that to date three African countries, namely Mauritius, Mozambique and South Africa, have chaired and provided leadership to the organisation since its founding in 1997.

This paper will seek to articulate an African view on the Indo-Pacific, as well as provide an African perspective towards the IOR which constitutes an integral part of this region.

**The Indo-Pacific can be an important catalyst in advancing the African Union's economic regeneration and its development agenda as articulated in 'Agenda 2063: The Africa We Want'. It is Africa's blueprint and master plan for transforming Africa into a global powerhouse of the future.**<sup>4</sup>

4 "Linking Agenda 2063 and the SDGs," African Union, <https://au.int/agenda2063/sdgs>.

5 "AU launches Decade of African Seas and Oceans, 2015," International Institute for Sustainable Development, <http://sdg.iisd.org/news/au-launches-decade-of-african-seas-and-oceans/>.

6 "The African Day of Seas and Oceans," Republic of South Africa: Department of Forestry, Fisheries and the Environment, <https://www.dffe.gov.za/event/international/africandayofseasandoceans>.

7 African Union, *2050 Africa's Integrated Maritime Strategy (2050 AIM STRATEGY)*, 2015. [https://wedocs.unep.org/bitstream/handle/20.500.11822/11151/2050\\_aims\\_strategy.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/11151/2050_aims_strategy.pdf); African Union, *African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter)*, 2016. [https://au.int/sites/default/files/treaties/37286-treaty-african\\_charter\\_on\\_maritime\\_security.pdf](https://au.int/sites/default/files/treaties/37286-treaty-african_charter_on_maritime_security.pdf).

## Africa and the Indo-Pacific

Over 16,000 kilometres of the Indian Ocean coastline is made up of African countries. Of these, over eight million square kilometres are comprised of Exclusive Economic Zones (EEZs). A further substantial area comprises millions of square kilometres which form the continental shelves and territorial seas of the littoral states of Africa. There are nine Eastern and Southern African sovereign countries, of which five are continental and four are island states that are part of the IOR. These are Comoros, Mauritius, Madagascar, Seychelles, Kenya, Somalia, Mozambique, South Africa and Tanzania.

At its summit in Ethiopia in 2015, the AU declared the period 2015-2025 as the Decade of the Seas and Oceans.<sup>5</sup> Furthermore, the AU declared 25<sup>th</sup> July as Africa's Day of the Seas and Oceans which is observed annually.<sup>6</sup> Africa's recognition of the seas and oceans as an integral part of its development agenda is also reflected in the AU's '2050 Africa's Integrated Maritime Strategy' (2050 AIMS).<sup>7</sup> The 2050 AIMS seeks to encourage African States to utilise fully the seas and oceans to address its development agenda and focus on developing coordinated and sustainable maritime industries.

Furthermore, the Strategy addresses issues of maritime security as being integral in ensuring a stable and secure maritime environment. It also addresses the potential development benefits for countries to fully harness the economic benefits of the oceans by developing sustainable blue economies. The creation of blue economies seeks to foster wealth and development through coordinated and sustainable maritime industries. Africa has recognised that achieving a balance between ocean health and development is necessary, and should be

an integral part of its achievement of the 2030 Sustainable Development Goals (SDGs).<sup>8</sup>

The AU's 'Agenda 2063: The Africa We Want', seeks to develop a prosperous and stable Africa based on inclusive growth and sustainable development by harnessing the opportunities of its seas and oceans. Agenda 2063 recognises that Africa's oceans, which are three times the size of its land mass, must be a major contributor to continental transformation and growth.

Despite the AU and African States not having a position on the Indo-Pacific to date, the key pillars which should inform Africa's view on the Indo-Pacific are already in place. This includes the AU's Agenda 2063, the 2050 AIMS, Africa's Decade of the Seas and Oceans 2015-25, as well as the African Continental Free Trade Agreement (AfCFTA).<sup>9</sup> These important policy positions clearly provide the key ingredients that should shape Africa's Indo-Pacific vision, addressing key security, economic, developmental and environmental positions. The IORA Outlook on the Indo-Pacific is another policy paper that could guide Africa in articulating its vision on the Indo-Pacific, given that nine African countries are party to the IORA Outlook.

Africa's view must be shaped by the key pillars of Agenda 2063, which includes advancing regional economic integration, maritime safety and security, climate change and development cooperation. It is important that Africa views the Indo-Pacific as a template which ensures peace, security, stability, democracy and human rights, women's empowerment, sustainable development, connectivity and protection of the environment as key elements of the Indo-Pacific. For Africa, the Indo-Pacific must be an enabler to address the triple challenges of poverty, under-development and inequality.

It is further important that Africa maintains neutrality in its engagement with the major powers of the Indo-Pacific, ensuring that it guards against falling into the major powers' spheres of influence within the region. Africa must work towards ensuring that the Indo-Pacific is not about contestation, competition, containment and conflict. African countries like South Africa, Mauritius, Seychelles and Kenya that have strong fraternal bonds with key countries of the Indian Ocean, from Asia to Australasia, must partner together as champions of democracy with other like-minded countries within the region, and act as catalysts to mobilise support for the Indo-Pacific to be free, open, inclusive and responsive to the needs of the developing world.<sup>10</sup>

The African continent, like other parts of the world, is not immune to major and emerging power influences.

**The ongoing colonial influences and legacies are still a factor in Africa today with both the French and British continuing to exercise influences on Francophone and Anglophone Africa.**

In addition, the US has been a major factor in African geopolitics, and more recently we have seen robust engagements from China as well as other developed and developing countries, including India, Russia, Japan and the EU, among others. This has resulted in a crowded scramble for influence in the continent.

Africa is not a homogeneous political entity. As developing countries that are eager for partnerships and access to finances to address their development needs, African countries are vulnerable to these contesting influences. However, given the large number of countries vying for their attention, it provides African countries with greater choices and the opportunity to enter into multiple partnerships

and alliances without falling into one specific camp of influence to their advantage. In recent times we have seen greater maturity among African countries in entering into partnerships and alliances with countries from outside the continent to advance their national interests without compromising their sovereignty and independence.

Thus, for Africa, the Indo-Pacific must be an opportunity to work with all the global partners in a spirit of mutual cooperation for the creation of a region underpinned by partnership and development. Africa is often described as the last frontier of development, and is increasingly being courted by both major and developing powers seeking to gain spheres of influence with countries of the continent. It is important that African countries maintain their strategic autonomy through bilateral and multilateral partnerships that address their development agenda through mutually beneficial partnerships. African nations should avoid becoming pawns in geo-political contestations.

The numerous partnerships which Africa has with countries from both the Global North and South has thus far served to advance the continent's economic advancement as well as addressing its development needs. It is important that the continent continues to champion a rules-based global order underpinned by international law and the purposes and principles of the United Nations Charter.

Therefore, agreements like the United Nations Convention on the Law of the Seas (UNCLOS) and the adoption of the United Nations General Assembly (UNGA) Resolution 2382 of 1971, which declared the Indian Ocean as a Zone of Peace (ZoP) with 168 state parties and 61 Member States voting in favour of the latter instrument respectively, must serve as legislative pillars for the countries in both the developed world and the Global South who style themselves as defenders of an international rules-based order and multilateralism.<sup>11</sup>

<sup>11</sup> Ibid.

It should be noted that Africa was key to the adoption of the United Nations General Assembly (UNGA) Resolution 2832 of 1971, which declared the Indian Ocean as a ZoP. It was Sri Lanka and Tanzania who led the process of adopting Resolution 2832 at the UNGA. Resolution 2832 sought to ensure global peace, cooperation and development, as well as safety and security against traditional and non-traditional threats. The Indian Ocean as a ZoP was formulated to align the major powers and the newly emerging powers of the Global South to consult with the littoral states of the Indian Ocean and to halt further escalation of the military presence therein, and to eliminate from the area all bases and other weapons of mass destruction.

However, to date, the noble ideals of Resolution 2832 have not been met. On the contrary, we have seen an escalation of the militarisation of the Indo-Pacific. It is important Africa continues to champion the ideals of Resolution 2832, not only in the Indian Ocean but also in the Pacific Ocean.

**Africa must be a catalyst in championing the Indo-Pacific as a ZoP for cooperation and development. For Africa, it is imperative that the region is inclusive and viewed as a region fostering peace, security, cooperation and socio-economic development. It must be a people-centred, people-driven region that seeks to harness the vast economic and development opportunities for all.**

## Conclusion

Africa may be late in articulating a position and outlook on the Indo-Pacific. However, it can be guided, firstly, by its own policy positions on the oceans and seas in formulating its vision. Secondly, it can draw and build on the strategies that have been articulated by countries from the Indo-Pacific and those outside the region which view Africa as an integral part of, and a valued partner in, the Indo-Pacific. It can align its policy positions with those that view the Indo-Pacific as a region underpinned by

<sup>8</sup> United Nations, *Transforming our World: The 2030 Agenda for Sustainable Development*. 2015. <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.

<sup>9</sup> African Union, *Agreement Establishing the African Continental Free Trade Area*. 2018. [https://au.int/sites/default/files/treaties/36437-treaty-consolidated\\_text\\_on\\_cfta\\_-\\_en.pdf](https://au.int/sites/default/files/treaties/36437-treaty-consolidated_text_on_cfta_-_en.pdf).

<sup>10</sup> Ibid.

peace, security, stability, cooperation and sustainable development. It should forge partnerships to harness the vast opportunities for the mutual benefit of all in the region. The various partnerships that Africa already has with the EU, the US, China and India, among others, should be expanded to incorporate partnerships and programs in the region that address Africa's security, economic, environmental and development needs.

The Indo-Pacific must also be an enabler for Africa's regeneration and development as articulated in Agenda 2063 and the AfCFTA. The nine African member states of IORA who were integral in negotiating and finalising the IORA Outlook on the Indo-Pacific must lead in the process of developing an Africa Indo-Pacific vision. This process has already commenced under the banner of IORA where the nine African littoral states of the Indian Ocean have agreed to convene a consultative meeting in May 2023 in Mauritius to exchange initial views on the Indo-Pacific, as a first step towards articulating an African view. IORA, as the regional body of the Indian

Ocean, is an important platform that Africa must use in advancing and articulating a position on the Indo-Pacific.

**IORA brings together all of the key role players from the global community who are active and have a vested interest in the Indo-Pacific.**

This includes all five permanent members of the United Nations Security Council of which France is a permanent member of IORA, while the others are Dialogue Partners. IORA also brings together Africa, Western Asia, South Asia, Southeast Asia and Australia into one cooperative platform.

This provides an important melting pot for Africa to interact with and advance its views among all of the key regions of the Indo-Pacific. It therefore provides a unique and much-needed platform in working towards an African vision that is underpinned by partnership, peace and security, cooperation and sustainable development for the mutual benefit of all. 🌐



## Higher education knowledge networks: micro-credentials for lifelong learning



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Higher education in the Indian Ocean Rim (IOR) is a diverse and vibrant ecosystem with countries at varying stages of development in terms of their higher education. As such, the IOR is in an interesting space to support higher education knowledge networks and to encourage communities of practice and sharing of best practices within the region.

One key element to consider is to ensure lifelong learning and up-skilling of citizens to promote their livelihood within the region. Micro-credentials have appeared as a prospective solution to the swift up-skilling desirable for economic recovery as institutions adapt to the 'new normal'. The dramatic changes sparked by the COVID-19 pandemic calls for the urgent integration of micro-credentials in the traditional learning systems, and to ensure its quality as well as its recognition in the higher education context.

In this perspective, and with the view to strengthen collaboration in an economically critical and fast-changing region, universities from seven Indian Ocean Rim Association (IORA) Member States<sup>1</sup>

came together to design and deliver a short course which explores the international relations of the IOR, including key historical, political, economic, security, strategic, diplomatic, cultural and environmental factors that shape the contemporary region.<sup>2</sup> In the same vein, the Mauritian higher education sector is on the cusp of integrating micro-credentials within its traditional higher education systems, and the Higher Education Commission—the apex regulatory body in Mauritius—has been spearheading national efforts to integrate micro-credentials in the higher education landscape.

This article presents an overview of the state of micro-credentials in Mauritius and its role in lifelong learning and higher education.

### The rationale for lifelong learning in the IOR's higher education

The geopolitical centre of the world is moving to the Indo-Pacific<sup>3</sup>, but the Indian Ocean has historically been one of the world's most important contact routes. Under the Jakarta Concord's Action Plan

<sup>1</sup> The University of Western Australia (Australia), Paramadina University (Indonesia), University of Pretoria (South Africa), Jawaharlal Nehru University (India), University of Dhaka (Bangladesh), University of Mauritius (Mauritius) and Emirates Diplomatic Academy (UAE).

<sup>2</sup> "IORA and UWA lead education collaboration on Indian Ocean Regional Diplomacy," Indian Ocean Rim Association, <https://www.iora.int/en/events-media-news/news-updates-folder/iora-and-uwa-lead-education-collaboration-on-indian-ocean-regional-diplomacy>.

<sup>3</sup> David Scott, "Australia's embrace of the 'Indo-Pacific': New term, new region, new strategy?", *International Relations of the Asia-Pacific* 13, no. 3 (2013): 425-48.

(2017-2021), IORA seeks to further strengthen the Indian Ocean Rim Academic Group (IORAG) through the sharing of information and knowledge by fostering a more dynamic link between policy and projects in IORA work programs.

The prominence of Indian Ocean neighbours is mounting as the region amasses some of the world's swiftest rising economies. The University of Western Australia is cementing its place at the helm of a new approach to knowledge sharing, by presenting its high-level research and proficiency among other academic institutions, government, public and businesses in the IOR to help shape the collective future of our society of states. Higher education institutions function as dynamic knowledge agents, encouraging organisations to advance their assemblies and networks in a way that upsurges innovation and long-term associations in national as well as global networks.<sup>4</sup>

Industry 4.0 aims to create a unique lifelong education system that ensures a future-ready workforce.

Various reports show between 75 and 375 million people worldwide have the potential to change job categories by 2030 due to the new job market scenario. Furthermore, around 8% to 9% of 2.66 billion workers are expected to have new jobs by 2030.<sup>5</sup>

Measured by Gross Enrolment Ratio (GER), global participation in tertiary education doubled from 19% to 40% between 2000 and 2020.<sup>6</sup> This calls for a need to revisit and redesign the higher education landscape globally to stimulate the creation of a skilled workforce and a lifelong learning system.

One of the latest innovations in education that responds to this need for lifelong learning is the introduction of micro-credentials alongside traditional qualifications. Sometimes referred to as nano degrees, digital badges, mini degrees, open badges and web badges<sup>7</sup>, micro-credentials offer a swifter route to lifelong learning with multiple benefits for the student, all the way up to the region.

### Micro-credentials: Its role in the human right to higher education and lifelong learning

The right to higher education is enshrined in Article 26 of the Universal Declaration of Human Rights which states that "Higher education shall be equally accessible to all on the basis of merit".<sup>8</sup>

With swift advances in digitisation, the labour-market necessitates graduates and professionals be well-acquainted with state-of-the-art knowledge, and to hold proficiencies required to make complete usage of technological and non-technological knowledge. Historically, the core aim of higher education achievement has been the attainment of a degree. There has, however, been a recent decline in traditional three-to-four-year degree programs and the emergence of smaller units of learning.<sup>9</sup> Institutions in Australia, New Zealand and some European countries are increasingly offering micro-credentials, and the attention is on academic credit involving micro-credentials. One of the major drivers behind the expansion of micro-credentials, as indicated in the article published in University World News, was the lack of access of education, especially among marginalised populations, high drop-out rates and high leave rates due to the pandemic.

With the world locked down, students seeking higher education beyond or even within borders were significantly impacted by the crisis. Without a steady stream of graduates entering the workforce, this then stunted each country's economic progression.

These challenges motivated institutions to develop alternative programs to ensure learners could complete their degree, including the introduction of micro-credentials which continue to rise in a post-COVID world.

With a population of 1.3 million people, Mauritius has made significant strides in the field of higher education since its accession to independence in 1968. Higher education has always primed the Government's agenda for the small island state, and tertiary education was subsidised for full-time students between 1965 and 2000 at the national university after which it became fee-paying. However, in 2019 the Government announced free tertiary education for all public institutions in Mauritius to ensure 'no one is left behind'. The UNESCO report<sup>10</sup>, published in January 2021, highlights that Mauritius has increased its access to higher education more than any other country in Sub-Saharan Africa. The Gross Tertiary Enrolment Ratio (GTER) has varied between 47% to 50% over the last 10 years, peaking at 50.7% in 2012, and hovering around 47% thereafter.

The COVID-19 pandemic also fast-tracked the digitisation of education across the globe—including Mauritius—as a sustainable solution to the disruption of conventional teaching methods.

Micro-credentials are official, stand-alone rewards that acknowledge the accomplishment of precise talents, abilities, skills and knowledge. Lifelong learning has been acknowledged as critical to the accomplishment of sustainable development and quality education in the 2030 Agenda for

Sustainable Development. This approach includes several and flexible learning pathways, entry and re-entry at all ages, linking formal and non-formal structures, comprising formal accreditation of the knowledge, proficiencies and competencies acquired through informal education.<sup>11</sup>

Micro-credentials are a means of crafting professional lifelong learning opportunities, creating proficiencies that are visible and portable, irrespective of how they are earned. The development and expansion of micro-credentials is an important evolution in light of projections that 50% of employees worldwide will require reskilling by 2025 due to growing digitalisation.<sup>12</sup>

### Micro-credentials permeate Mauritius' higher education landscape

In the midst of 2019 lockdown, the Higher Education Commission (HEC) in collaboration with the Ministry of Education, Tertiary Education, Science and Technology partnered with the Commonwealth of Learning to make 3,000 scholarships available under the Skills For Work program, for the period spanning 2021-2023. This novel experience for Mauritian learners gave them access to a digitalised platform offering more than 8,000 courses.

Within a year, more than 2,500 Mauritian learners accessed the short courses on the Coursera, Udemy and Grow With Google platforms. The objective of this digital transformation project was to ease the impact of the COVID-19 pandemic on learners, whether they were students from the higher education system or employed in the labour market.

A survey of 1,500 learners was conducted to gauge the benefits accrued through the scheme in terms of unlocking their potential to face changes in their workplace, building employability skills and personal development. The study revealed these short

4 Riikka Kangas and Timo Aarrevaara, "Higher education institutions as knowledge brokers in smart specialisation," *Sustainability* 12, no. 7 (2020): 3044. <https://doi.org/10.3390/su12073044>.

5 Joseane Pontes et al., "Relationship between trends, job profiles, skills and training programs in the factory of the future," *2021 22<sup>nd</sup> IEEE International Conference on Industrial Technology (ICIT)* (2021). <https://doi.org/10.1109/icit46573.2021.9453584>.

6 UNESCO Institute for Statistics, UIS (2022).

7 Larry E. Ellis, Sandra Nunn and John T. Avella, "Digital Badges and micro-credentials: Historical overview, motivational aspects, issues, and challenges," in *Foundation of Digital Badges and Micro-Credentials: Demonstrating and Recognizing Knowledge and Competencies*, eds. Dirk Ifenthaler, Nicole Bellin and Dana-Kristin Mah (Cham: Springer, 2016), pp. 3-21.

8 "Universal Declaration of Human Rights - Article 26," United Nations, <https://www.un.org/en/about-us/universal-declaration-of-human-rights#:~:text=Article%2026,on%20the%20basis%20of%20merit>.

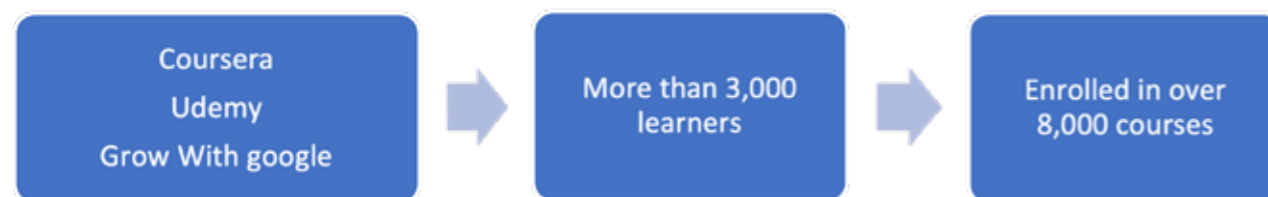
9 "Micro-credentials: A new category of education is rising," University World News (05 July 2022), <https://www.universityworldnews.com/post.php?story=20220705223949571>.

10 UNESCO, *Continental Overview: Bridging continental strategy for Africa and Sustainable Development Goal 4 in Africa* (Montreal: UNESCO Institute for Statistics, 2021). [https://uis.unesco.org/sites/default/files/documents/bridging\\_cesa\\_and\\_sdg4\\_in\\_africa-final.pdf](https://uis.unesco.org/sites/default/files/documents/bridging_cesa_and_sdg4_in_africa-final.pdf).

11 T.L. Owens, "Higher education in the Sustainable Development Goals framework," *European Journal of Education* 52, no. 4 (2017): 414-20. <https://doi.org/10.1111/ejed.12237>.

12 "Micro-credentials: A new category of education is rising," University World News (05 July 2022).

**Figure 1:** Number of Mauritian learners who had access to online platform for short courses in 2021/22



Source: COL Skills for Work database for Mauritius

courses helped create strategic directions towards lifelong learning in Mauritius and gave invaluable insights into how education can be tailored to create a talent economy, assisting higher education institutions to reinvent their knowledge delivery to meet the 'new normal'.

### Skill acquisition and employability data

The vast majority of survey respondents reported their enrolment in Coursera, Udemy and Grow With Google equipped them with the necessary skills to respond adequately to market demands.

Learning through Grow With Google, for example, where learners can follow multiple courses, revealed 42% of learners completed the course on Google Data Analytics Capstone: Complete a Case Study; 44% completed Data Analysis with R Programming and 40% of learners completed the short course on Share Data Through the Art of Visualisation. As this data suggests, institutions and individuals have adapted to the 'new normal' by resorting to short courses as a swifter means of upskilling.

### Integrating micro-credentials into the National Credit Value and Transfer System (NCVTS)

While micro-credentials have existed in vocational education for several years, they have now stirred from vocational education to the core of higher education policy.<sup>13</sup> In June 2020, the Australian Government stated its objective to establish a

Micro-credentials Marketplace, a one-stop-shop for micro-credentials to assist learners to recognise educational prospects (National Micro-credentials Framework, Australian Government). The Common Micro-credential Framework proposes that micro-credentials be grounded on a notional workload of 100 to 150 hours, which comprises revision for, and completion of, the summative assessment.

Institutions that award micro-credentials are accountable for mounting proficiency/competence criteria, and have an obligation to ensure the evaluation of an individual's learning attainments meets these criterions. The New Zealand Qualifications Authority accepts that micro-credentials support movement between industries as they offer external validation.<sup>14</sup> The Australian Government introduced an entirely new type of qualification studied over six months called an 'undergraduate higher education certificate'.<sup>15</sup>

Since the recognition and use of micro-credentials is still in its inception in Mauritius and is unregulated, it is imperative to develop a comprehensive framework for the use of micro-credentials in the higher education sector. The island state's Higher Education Commission is developing a national system for credit transfer and key elements of a national policy to enable credit in Mauritius, thereby ensuring effective credit accumulation and transfer in the Mauritian higher education system. Surveys and national consultations with public and private higher education institutions have been held to inform the structure of the new framework.

This will help build higher education knowledge networks for continuous and seamless lifelong learning systems and allow upskilling through micro-credentials while meeting dynamic industry needs.

### Conclusion

Micro-credentials enable learners to fast-track their curriculum to build skills and competences that align with industry expectations.

Moreover, they help IOR learners realise their universal right to higher education. However, the success of this new way of learning requires the alignment of higher education leaders and government heads throughout the region to support learners to attain the micro-credentials that will qualify them as job-ready.

In order to strengthen higher education in the IOR, a special focus must be placed on equipping learners with the professional skills and competences needed to meet the challenges of the rapidly evolving digital economy, as well as ensuring their qualifications

are recognised beyond borders. One of the salient elements to consider is having a robust Higher Education Knowledge Network that includes setting standards in terms of accreditation and quality assurance of micro-credentials.

Although micro-credentials stimulate flexibility in learning, it is critical to have appropriate instructional policy to confirm learners can acquire the requisite skills and proficiencies via different modes of delivery. As a new meta-framework, more work needs to be done on the National Qualifications Framework and a comprehensive credit transfer system to better digitise its strategy and become more responsive in distinguishing all forms of learning.

The present standing of conceptualisation and policy development of micro-credentials should be determined, comparative analyses need to be steered, and stakeholder consultations need to be shifted to an advanced level—in each individual country and regionally—with respect to further policy development and strategies for its application. 🌐



<sup>13</sup> Leesa Wheelahan and Gavin Moodie, "Analysing micro-credentials in Higher Education: A Bernsteinian analysis," *Journal of Curriculum Studies* 53, no. 2 (2021): 212–28. <https://doi.org/10.1080/00220272.2021.1887358>.

<sup>14</sup> New Zealand Qualifications Authority, *Improving relevance and responsiveness: Aotearoa New Zealand's rationale for micro-credentials*, <https://www.nzqa.govt.nz/assets/About-us/Publications/Insights/rationale-for-micro-credentials/Aotearoa-New-Zealands-rationale-for-micro-credentials.pdf>.

<sup>15</sup> Commonwealth of Australia, 2020.

# Author biographies

(In order of appearance)

## Associate Professor Verena Tandrayen-Ragoobur

Verena Tandrayen-Ragoobur is Associate Professor in Economics in the Department of Economics and Statistics at the University of Mauritius. Her research areas are international trade, labour markets, climate change, gender and development. She has been published in the Review of Development Economics, Journal of African Business, Journal of Chinese Economic and Foreign Trade Issues, Equality, Diversity and Inclusion: An International Journal and Journal of Economic Research, among others. She has been involved in a number of research projects and consultancies funded by international and regional institutions like the United Nations Development Program, Centre for Environmental Economics and Policy in Africa, African Economic Research Consortium, Botswana Institute for Development Policy Analysis, Trade and Industrial Policy Strategies, United Nations Conference on Trade and Development, International Labour Organisation and the World Bank, among others.

## Professor Peter Robertson

Peter Robertson is a Professor of Economics at The University of Western Australia (UWA) and the Dean of the UWA Business School. He was educated at the University of Otago, the University of New England and Simon Fraser University. He has been a visiting Scholar at the University of Otago, The University of British Columbia, Rutgers University and The University of Oxford. Peter serves as an expert consultant to the Productivity Commission and to the Department of Innovation, Industry, Science and Research, and is a member of the Australian Research Council College of Experts. He is currently serving on the editorial board

of The Indian Growth and Development Review and Economic Papers. Peter's research focuses on the interactions between economic growth, economic development and international trade, with a particular focus on East Asia, China and India.

## Professor Supriyo De

Supriyo De holds the Reserve Bank of India Chair at the National Institute of Public Finance and Policy and was a Senior Economist in the World Bank's Migration and Remittances team. Prior to this, he was Officer on Special Duty to the Chief Economic Adviser of India. He has worked in policy and operational roles in the Ministry of Finance, India since 1995. He has a PhD in Economics from the University of Sydney and was a recipient of the Endeavour International Postgraduate Research Scholarship. He also completed his Master of Economics from Yokohama National University as a part of the Joint-Japan World Bank Scholarship Program. His research interests include analysis of sovereign credit ratings, macroeconomic impacts of remittances, fiscal policy in developing economies, endogenous growth theory, technology policy and intangible capital.

## Dr Juliet Hermes

Juliet Hermes leads a team that focuses on long-term observations, modelling and research of the marine offshore environment around southern Africa as part of the Government-funded South African Environmental Observation Network. She is the interim manager of the South African Polar Research Infrastructure and also works with the University of Cape Town and the Nelson Mandela University. She has significant experience with developing,

coordinating and managing national, regional and international multidisciplinary ocean observations and numerical modelling programs. Her passion lies in fostering regional and international collaborations, as well as capacity development across regions, cultures and varying skillsets. She continues to promote South African and African oceanography within the international arena.

## Dr Roxy Koll

Roxy Koll is a Climate Scientist at the Indian Institute of Tropical Meteorology. He completed his PhD in Ocean and Atmospheric Dynamics at Hokkaido University, Japan. Dr Koll has made breakthrough contributions to observing and predicting the Indo-Pacific climate, facilitating the food, water and economic security of the region. He led the redesign of the Indian Ocean Observation System and the development of the first climate model from South Asia, contributing to the science, monitoring, forecasts, and climate projections of the Indian Ocean rim countries. He is currently leading research on climate change and its impacts on monsoons, cyclones, heatwaves and marine ecosystems. Dr Koll is a lead author of the IPCC Reports and the former Chair of the Indian Ocean Region Panel. He actively collaborates with citizen science networks, local governments and media to bring science to society. Dr Koll was awarded the American Geophysical Union (AGU) Devendra Lal Medal for outstanding research in Earth and Space Sciences in 2022.

## Dr Janet Sprintall

Janet Sprintall is a Research Oceanographer at the Scripps Institution of Oceanography, University of California, San Diego. Her research is primarily interested in the mean and variability of large-scale circulation of the ocean. As a sea-going oceanographer, she has worked in the Indonesian seas, the Philippine Seas and the Southern Ocean. Her tropical work has mainly consisted of mooring deployments in the narrow passages of the Indonesian and Philippine archipelagos. Her work on the Southern

Ocean includes a long-term high resolution XBT transect across the Antarctic Circumpolar Current in Drake Passage, analysis of remotely-sensed sea surface height and SST measurements and their relationship to annual and climate modes of variability. She completed her PhD in Physical Oceanography at the University of Sydney.

## Professor Kadambot H.M. Siddique

Kadambot H.M. Siddique AM is a Hackett Professor of Agriculture at The University of Western Australia (UWA), and is the Chair and Director of The UWA Institute of Agriculture.

After completing his PhD at UWA in 1985, Professor Siddique joined the Department of Agriculture and Food, Western Australia (DAFWA) as a cereal crop physiologist and worked his way up to principal scientist and leader of DAFWA's Pulse Program. He became the Director of the Centre for Legumes in Mediterranean Agriculture (CLIMA) at UWA in 2001 and remained in this position until 2006, when he was appointed to establish and lead The UWA Institute of Agriculture. Professor Siddique is recognised internationally as a leader in crop science and agriculture.

## Dr Xuan Li

Xuan Li is a Postdoctoral Research Fellow at the Centre for Technology in Water and Wastewater at the University of Technology Sydney. She obtained her PhD from the University of Queensland in the field of Environmental Engineering in 2020. Dr Li's research focuses on energy recovery, microalgae, biofuel, wastewater treatment, sewer concrete corrosion and wastewater-based epidemiology. She has managed several projects from the Australian Research Council, Australian and international industries, and the Australian Academy of Science. Her academic work has attracted the WH Gladstones Population and Environment Award from the Australian Academy of Science and several awards from other associations.

### Professor Anu Rammohan

Anu Rammohan is Professor of Economics at The University of Western Australia (UWA), and Director of International Relations at the UWA Business School. She is a Senior Fellow at UWA's Australia Indonesia Centre, and the academic lead at UWA's Australia India Institute. Anu currently serves as a member of the Australian Research Council's College of Experts, and is on the Editorial Board of the Economic Record. Her research focuses on understanding household-level poverty, vulnerability and socio-economic factors that influence maternal and child health outcomes, gender and food security issues in South and South East Asia, particularly in India, Indonesia and Myanmar. Her research has been funded by grants from the Australian Research Council, Australia's Department of Foreign Affairs and Trade, the Australian Council of International Agriculture Research and the Australia India Institute.

### Professor Erika Techera

Erika Techera is a Professor of Law at The University of Western Australia and an environmental law specialist, with particular emphasis on marine governance. Her research explores Indo-Pacific maritime issues: marine environmental law, marine-protected area law and policy, migratory and invasive species, marine pollution, and maritime history and heritage. Her most recent projects include the intersection of climate change and fisheries law; non-traditional security threats (climate change, pollution and illegal, unreported and unregulated fishing); marine environmental law for the blue economy in Indian Ocean states; and safeguarding marine and maritime heritage.

### Professor Dewi Fortuna Anwar

Dewi Fortuna Anwar is a Research Professor at the Research Centre for Politics, National Research and Innovation Agency (BRIN), which has incorporated the Indonesian Institute of Sciences (LIPI). A

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### Associate Professor David Mickler

David Mickler is an Associate Professor of International Relations and the Dean Global, Africa at Curtin University. David is also the Australian Representative to the Indian Ocean Rim Association Academic Group (IORAG), a Board Member of the Australia Africa Universities Network (AAUN), a Senior Fellow of the Higher Education Academy, and an External Member of the Strategic Planning Committee of the Organisation of African Communities in WA (OACWA). He was previously the Founding Director of the Africa Research and Engagement Centre (AfREC) and a Senior Lecturer in International Relations at The University of Western Australia.

### Professor Farida Fozdar

Farida Fozdar is a sociologist and Professor of Anthropology and Sociology at Curtin University, with a research focus on migration, race and ethnicity, refugee settlement, racism, nationalism, global citizenship and cosmopolitanism. Prior to this, Farida worked at Murdoch University, and subsequently, at The University of Western Australia (UWA) as an Australian Research Council Future

Fellow and a teaching and research academic. Farida is a co-convenor of the annual Migration Update, and coordinates the Migration, Mobilities and Belonging group.

### Professor Anil Sooklal

Anil Sooklal is the Deputy Director-General responsible for Asia and the Middle East at the Department of International Relations and Cooperation, South Africa. In addition to his duties as Deputy Director-General, he is also South Africa's BRICS Sherpa, G20 Sherpa and IBSA (India-Brazil-South Africa) Sherpa and Focal Point for IORA (Indian Ocean Rim Association for Regional Cooperation). Dr Sooklal served as South Africa's Ambassador to the European Union, Belgium and Luxembourg, from 2006 to 2012. His previous foreign postings include having been Counsellor (Political) at the South African Permanent Mission to the United Nations in Geneva and at the South African High Commission in New Delhi respectively. Before joining government in 1995, he held academic positions at the University of KwaZulu-Natal and the University of South Africa.

### Professor Romeela Mohee

Romeela Mohee is the Higher Education Commissioner of Mauritius, responsible for regulating all its public and private universities. She is also a Professor in Chemical and Environmental Engineering and former Vice-Chancellor of the University of Mauritius. Professor Mohee is an experienced education specialist with a history of expertise in the development of higher education models and policies. She has worked at the Commonwealth of Learning from 2017 to 2020 as an education specialist and has assisted many Commonwealth member states in their development of higher education policies and strategies.

### Dr Anjusha Durbarry

Anjusha Durbarry is a Research Officer at the Higher Education Commission, Mauritius. A Fulbright Fellow, under the Hubert Humphrey program, Dr Durbarry has more than 20 years of experience in the field of higher education. She is an alumna of the College of Education at The Pennsylvania State University. Her current interests are, among others, promoting research for impact, advocating for women in science and strategic planning in higher education.

### Humaira Khan

With more than 10 years of experience in education, Humaira Khan is passionate about education and research. She holds a Bachelor's degree in Education and has gone on to pursue a Master's degree in the same field. In her current role as a Research Assistant at the Higher Education Commission, Mauritius, Humaira is working on different projects related to teaching and learning practices. She hopes to bring her contribution to the education sector by promoting innovative and effective teaching practices.

### Ourvashee Roopchand

With more than 12 years of experience in both the private and public sector in Mauritius, Ourvashee Roopchand is a Research Officer at the Higher Education Commission. She coordinates projects at the level of the Commissioner's Office. Her interests include research, policy making, training and capacity building. Her prior experience at the Decentralised Cooperation Program (EU) included training and capacity building, where she worked on training programs for non-state actors in Mauritius. Mrs Roopchand also holds previous experience at the Ministry of Finance and Economic Development.

## About the UWA Public Policy Institute

The UWA Public Policy Institute (UWA PPI) is a bridge between academic research and government, public and business needs. Together with our academic Fellows and collaborators across the sectors, we hold public events, private roundtables, publish reports and media pieces, participate in government projects, and provide expert commentary on issues of the day—all with the goal of contributing valuable expertise to policy-makers.

Drawing on UWA's distinct geographical advantage as Australia's Indian Ocean capital city, and by championing an evidence-based approach to policy-making, we also create fresh opportunities for UWA to collaborate with countries across the region.

### The team



**Professor Shamit Saggar**

Director

Shamit Saggar is the Director of the UWA Public Policy Institute and Professor of Public Policy at The University of Western Australia. He is also Visiting Professor at the Policy Institute, King's College, London.



**Dr Christopher Lin**

Executive Officer

Christopher Lin provides strategic planning, research, and project management for the Institute and helps connect University research with collaborators in government, industry, non-profits and Parliament. He is an ongoing contributor to PEN International and the Centre for Stories, and has facilitated public events on literature, the arts, and diaspora communities from the Asia-Pacific region.



**Miriam Fisher**

Communications and Engagement Coordinator

Miriam Fisher manages the Institute's communications strategy to bridge the gap between academic research and policymakers in the Indian Ocean Region. Miriam has worked in newsrooms, I/NGOs and United Nations agencies in Australia, India and Nepal. She holds a Master of International Relations from Griffith University and a Bachelor of Arts (English and Psychology) from The University of Western Australia.

## Contact

Get in touch for policy expertise, collaboration opportunities, or project advice:

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