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Into the blue – The blue economy model in Operation Phakisa 'Unlocking the Ocean Economy' Programme

Significance:

Economic and social benefits of ocean resource uses have motivated numerous nations, including South Africa, to turn to their Exclusive Economic Zones (EEZs) to advance economic development initiatives. Such initiatives result in increasing and spatially competitive pressures on ocean systems, compromising ecosystem services and market and non-market ocean benefits. It is critical to prioritise sustainable development in any ocean or blue economy advancement programmes (where the blue economy model most often parallels a terrestrial green economy, to incorporate sustainability and inclusivity pillars over and above the often GDP-centred ocean economy model). We explore multiple definitions of ocean and blue economies, discuss the importance of adopting blue economy models, and examine how the South African Operation Phakisa – Unlocking the Ocean Economy initiative presents numerous features aligned with ocean sustainable development, sustainability, and inclusivity, which strongly align it to a blue economy model.

Disentangling the ocean economy and the blue economy terminologies

Our ability to engage with peers, partners, collaborators, and stakeholders depends on our capacity to communicate. For that, adopting harmonised terms and definitions is key. However, ambiguity is identified when focusing on the concept of the blue economy. While an ocean economy is defined as the sum of market economic activities, sectors and industries supported by marine and coastal areas, their assets, goods and services¹, the term 'blue economy' has no agreed definition and has been used widely by different stakeholders in various contexts. Three main categories of use are identified: (1) as used in the lead-up to the Rio+20 UNCSO by coastal nations (particularly the Pacific Small Island Developing States) as a parallel term to 'green economy' and including sustainability and equity (or social inclusion) within the concept; (2) as used by Gunther Pauli in his book *The Blue Economy: 10 years – 100 innovations – 100 million jobs*² advocating innovative solutions to production efficiency and sustainability within sustainable development (and not restricted to the ocean realm); and (3) as a synonym for ocean economy, thus as any economic activity in the maritime sector, whether sustainable (and aligned with green economy principles) or not. Further confusion has resulted from the use of the terms blue and red ocean market strategies by Kim and Mauborgne³. Notably, beyond the three abovementioned categories, the term blue economy has been used in various contexts, including policy documents and academic publications. Such uses always refer to the advancement of ocean economies, but in many cases also include the pillars of sustainability and inclusivity (Table 1).

The broad manner in which the term 'blue economy' has been used can generate miscommunication, misunderstanding, misguided governance outcomes, and social injustice.^{4,5} Although the ocean economy and blue economy terms are not well delineated, we advocate for the use of the term blue economy when referring to models that include sustainability and inclusivity (i.e. social equity) as essential elements or pillars. This approach avoids the use of blue economy as a synonym for ocean economy, supporting its use as a parallel to green economy and ocean sustainable development to define the production and growth of established and emergent ocean sectors while sharing the benefits and opportunities equitably, thus promoting social well-being and preserving ocean wealth and the health of marine and coastal ecosystems and their ecological functioning, both now and in the long term.⁶ However, while there is no official definition, we suggest that authors clarify their definition a priori when using the term blue economy in papers, reports and documents, to avoid ambiguity.

Turning the tide toward blue economies

While the ocean provides humans with numerous utilities, the drivers (e.g. food security) of human activities (e.g. fisheries) result in pressures (unsustainable extraction of fisheries resources or pollution) on the ocean. Pressures are the mechanisms resulting in the change in the state of a system; in other words, they are the stressors that may harm life, health, property, or the environment.⁷ Depending on the vulnerability of the receiving system, the frequency and the severity of anthropogenic pressures trigger the risk of state changes in natural systems, leading to impacts on human welfare⁷ across environmental, social, and economic components. Accordingly, changes in natural capital assets may reduce (1) their opportunities for continued supply, (2) their use in production, (3) resultant volumes of produced goods and services, and (4) consequent distribution of economic benefits. Thus, there is a need to prioritise sustainable models for ocean economies, ensuring the optimisation of resource use in the present while protecting future ocean resource-use opportunities.

Globally, the importance of ocean economy development underpinned by sustainability and inclusivity is reinforced by numerous initiatives and commitments. For example, the 17 United Nations (UN) Agenda 2030 Sustainable Development Goals (SDGs) include goals and targets aimed at accelerating a nation's development while balancing social, economic, and environmental sustainability. A second example is the establishment of the UN's Decade of Ocean Science for Sustainable Development (2021–2030), which aims to motivate nations to implement activities and join efforts to generate the global ocean science needed to support and inform ocean sustainable development. Finally, it is essential to mention the constitution of the High Level Panel for a Sustainable Ocean Economy, representing 16 nations (Australia, Canada, Chile, Fiji, France, Ghana, Indonesia, Jamaica, Japan, Kenya, Mexico, Namibia, Norway, Palau, Portugal and the USA) that are committed to bridging ocean health and wealth

Table 1: Examples of the development and use of the term 'blue economy' in the policy and academic literature

Definition / use	Pillars	Reference
Policy		
'The Blue Economy conceptualises oceans as "Development Spaces" where spatial planning integrates conservation, sustainable use, oil and mineral wealth extraction, bioprospecting, sustainable energy production and marine transport' and 'will incorporate ocean values and services into economic modelling and decision-making processes'. 'At the core of the Blue Economy concept is the de-coupling of socioeconomic development from environmental degradation.'	Economic development and sustainability	UN Conference on Trade and Development ²¹ Building on the Rio+20 discussions
'A sustainable ocean economy [used as a synonym for blue economy] emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support this activity and remain resilient and healthy.'	Economic development and sustainability	Economist Intelligence Unit ²²
'The Blue Economy in Africa covers aquatic and marine spaces, including oceans, seas, coasts, lakes, rivers, and underground water' and 'includes recognition that the productivity of healthy freshwater and ocean ecosystems is a pathway for aquatic and maritime-based economies and can ensure that islands and other coastal countries, as well as land-locked States, benefit from their resources. It also requires an integrated, holistic and participatory approach that includes sustainable use and management of Blue Economy resources for societal progress in a diverse Africa.'	Economic development, sustainability and inclusivity	UN Economic Commission for Africa ⁹ Building on the Rio+20 discussions
Academic		
'The blue economy includes all industries that are dependent in some way for their development on ocean resources.'	Economic development	Laffoley et al. ²³
'...aims to tap into the estimated USD 24 trillion in potential goods and services (i.e., energy generation, mining, tourism, maritime transport, aquaculture, and capture fisheries), derived from the world's oceans, and to balance industrialization of oceans with environmental protection.'	Economic development and sustainability	Cohen et al. ²⁴
'...encompasses both the economic uses of the ocean and ocean resources, and the natural assets and ecosystem services that the ocean provides (sustainable ocean economy).'	Economic development and sustainability	Rayner et al. ²⁵

and supporting the transition to a sustainable ocean economy, among other initiatives aimed at advancing and prioritising ocean sustainable development models.

Africa has a large potential to advance blue economy models, as demonstrated by its strategic geographical position and numerous underexplored and underexploited resource-use activities that can support inclusive growth, which is critical to underpin Africa's socio-economic transformation.^{8,9} Notably, the prioritisation of blue economies in Africa is imperative on various scales (i.e. continental, regional and national), as demonstrated by the African Union's (AU) Agenda 2063, which supports inclusivity and sustainability initiatives; the AU's 2050 Africa's Integrated Maritime Strategy (2050 AIMS) that highlights the critical potential of the seas to contribute towards the continent's growth and development, identifying the blue economy as the 'new frontier of African Renaissance'¹⁰; the publication of the African Blue Economy Strategy⁸, and Implementation Plan 2021–2025¹¹. A second example of the importance of blue economies in Africa is the publication of *Africa's Blue Economy: A Policy Handbook*, in 2016, by the UN Nations Economic Commission for Africa, which guides African Nations to advance the blue economy model into their national development plans, strategies, and policies.⁹

On a regional scale, the Indian Ocean Rim Association endorsed the blue economies as a cross-cutting priority area in 2014, with an emphasis on growing the blue economy in a sustainable and inclusive manner.¹² A Working Group on the Blue Economy was established in 2019, composed of government departments responsible for ocean management or development, to advance the technical capacities of Member States for the sustainable development of the ocean.

On a national scale, various African nations developed blue economy initiatives such as Go Blue in Kenya, ProAzul in Mozambique, the development of the Somali Blue Economy Centre and the publication of the 'Seychelles Blue Economy Strategic Policy Framework and Roadmap' and the report 'Towards a Blue Economy – Harnessing Namibia's Coastal Resources Sustainably'. Accordingly, the African continent is moving

towards prioritising sustainable models to underpin its coastal nations' social and economic growth through ocean resource-use activities.

South Africa's Operation Phakisa

Like most coastal nations, South Africa relies on ocean resources to underpin economic development. In 2010, South Africa's ocean economy contributed approximately ZAR54 billion to the national gross domestic product (GDP) and accounted for about 316 000 jobs.¹³ Moreover, the estimated potential (albeit of unreferenced methodology) contribution is up to ZAR177 billion to the GDP and over one million jobs by 2033.^{14,15} South Africa has a vast ocean space, with a coastline of almost 2798 km and an Exclusive Economic Zone (EEZ) of nearly 1.5 million square kilometres, encompassing a range of oceanographic provinces and ecosystems from sub-Antarctic and cold temperate to subtropical systems.^{13,16} Therefore, it is not surprising that the country is promoting ocean economy expansion to drive economic development, food and energy security, and expediting delivery of the National Development Plan (NDP).

The NDP 2030 is the national socio-economic development blueprint for eliminating poverty and reducing inequality by creating employment opportunities and redistributing and balancing access opportunities by 2030. Expediting the delivery of the NDP 2030 motivated the launch, in 2014, of the South African Operation Phakisa programme (with Phakisa meaning 'to hurry' in Sesotho). The programme encompasses various national sectors, including those related to the ocean economy encapsulated in the 'Operation Phakisa: Unlocking the Economic Potential of South Africa's Oceans' (hereafter 'Ocean Phakisa') programme. Officially launched in 2014, Ocean Phakisa was based on the analyses of the potential of nine national marine and maritime industry sectors as key priorities for advancement. This process eventually resulted in the definition of six delivery areas, namely: (1) Marine Transport and Manufacturing; (2) Offshore Oil and Gas Exploration and Production; (3) Aquaculture; (4) Marine Protection Services and Ocean Governance; (5) Small Harbours Development; and (6) Coastal and Marine Tourism.¹⁵

The initial phase of the programme encompassed the creation of the Oceans Economy Laboratories or 'Labs' focused on each of the delivery areas. These Labs – consisting of workshops in which key stakeholders from various sectors and institutions (public and private sectors, academia, civil society, etc.) joined efforts to identify goals and challenges, define priorities, and set plans and initiatives – resulted in detailed reports and action plans to achieve the defined targets and priorities.¹³ As a result, several initiatives and key performance indicators were identified for each delivery area, together with two enabler areas: skills development and research.

Among the initiatives identified by the Labs are numerous aspects that highlight priorities aligned with a blue economy model underpinned by the pillars of economic development, sustainable exploitation and equitable share of resources and opportunities (Table 2).^{14,17} A good example is the rationale of the Marine Protection Services and Governance Delivery Area, which aims at implementing 'an overarching, integrated ocean governance framework for sustainable growth of the ocean economy' and proposes the establishment of 22 new Marine Protected Areas, and the development of marine spatial planning legislation in 2016. Marine spatial planning implementation is one of the key components of this delivery area.¹⁸ Further, under this delivery area, the South African National Oceans and Coastal Information Management System (OCIMS) platform was developed by the Department of Forestry, Fisheries & the Environment and the Department of Science & Innovation to provide information on existing ocean and coastal data services and support decision-making processes.¹⁹

The alignment between components of Ocean Phakisa and the blue economy model is also evidenced by the Small Harbours Development delivery area, which focuses on developing and expanding small harbours to drive economic growth through small-scale fisheries and other small coastal vessel activities, encouraging inclusive maritime development; as well as by the Aquaculture delivery area, which highlights the potential

for rural development of this sector, particularly for marginalised coastal communities.¹⁵ The inclusivity aspect of Ocean Phakisa is crucial in the context of the central pillars of the NDP so inclusive growth is one indicator metric selected to measure the programme's performance¹⁴, and the Aquaculture Lab targets this indicator as a priority to motivate transformation in the national aquaculture industry to reduce inequality²⁰. Furthermore, the implementation of Operation Phakisa is underpinned by the NDP 2030, which aims at poverty alleviation, employment generation and redistribution of access while prioritising strategies for an environmentally sustainable, climate-change resilient, low-carbon economy and just society.¹⁵ Thus, the sustainability and inclusivity aspects of the NDP 2030 are also embedded throughout Operation Phakisa.

Conclusions

The ocean's role in supporting human well-being is only starting to be realised and recognised. Unquestionably, marine and coastal environments are essential for maintaining life on earth and supporting human development and welfare. Sustainable and inclusive strategies for ocean economy development have been highlighted and supported by numerous international, regional, and national initiatives to ensure long-term and equitably distributed use of ocean opportunities and benefits. However, an essential step for achieving the collaborative effort of developing ocean economies through sustainable models is to guarantee that stakeholders use categories, terms, and definitions in a standard way to avoid misunderstandings.

In this arena, Ocean Phakisa has numerous aspects of such a sustainable and inclusive ocean (i.e. blue) economy model that are aligned with broader national socio-economic goals, as South Africa's constitution that requires the conservation and sustainable use of the marine environment, the National Strategy for Sustainable Development which includes priorities related to the implementation of programmes

Table 2: Key initiatives or goals of each delivery area of Operation Phakisa: Unlocking the Economic Potential of South Africa's Oceans that underpin blue economy models

Delivery area	Initiative / goal
Offshore Oil and Gas Exploration	Enhancement of environmental governance capacity of the oil and gas regulator
	Exploitation of the broader research opportunities presented by offshore oil and gas exploration
Marine Protection Services and Ocean Governance	Enhancement of legislation for the <i>Integrated Coastal and Oceans Management Act</i> or <i>Oceans Act</i>
	Enhanced and coordinated enforcement programme for ocean protection
	Reduction in illegal and unregulated activities in the ocean space
	Reduction of pollution risks to human health and environment
	Development of a national ocean and coastal information system and extension of earth observation capacity
	Implementation of a national ocean and coastal water quality monitoring programme
	Creation of a Marine Protected Area representative network
	Development of marine spatial planning process
	Identification and protection of sensitive and unique marine habitats and species
	Establishment of new small harbours and development of coastal properties
Small Harbour Development	Redevelopment and maintenance of proclaimed small harbours
	Prioritisation of socio-economic impact through job creation, skills development and enterprise development
	To grow a world-class and sustainable coastal and marine tourism
Coastal and Marine Tourism	Publication of responsible tourism guidelines
	Target the inclusive growth of the aquaculture industry
Aquaculture	
Across all areas	Research, capacity building and skills development

for the sustainable management of marine ecosystems and the NDP mentioned above.

Recognising the alignment of Ocean Phakisa with blue economy models could favour South Africa's positioning in terms of national commitments to the UN's SDGs, in particular, SDG 14 (Life Below Water), SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 8 (Decent Work and Economic Growth), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals). This strategy would also position Ocean Phakisa in alignment with the AU priorities mentioned above and with the Indian Ocean Rim Association's blue economy regional initiatives. Additionally, framing Ocean Phakisa as a blue economy initiative could support South Africa's inclusion in organisations such as the High Level Panel for a Sustainable Ocean Economy and attract investments (i.e. ocean economy financing) focused on the transition to sustainable models.

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Competing interests

We have no competing interests to declare.

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