



The Commonwealth
Blue Charter

Ocean of Opportunity

Ocean Action Interim Report

An Ocean of Opportunity

Progress Report



The Commonwealth
Blue Charter

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About the Commonwealth Secretariat

The Commonwealth is a voluntary association of 54 independent and equal sovereign states, all but seven of which are coastal and with 25 classified as small island developing states. It is home to 2.4 billion people. The Commonwealth Secretariat is an independent organisation working with the member countries, which assists them to promote prosperity, democracy and peace, amplify the voice of small states, and protect the environment.

The Commonwealth Secretariat provides technical assistance and supports member countries in the development of policies, laws, design of fiscal regimes and strengthening national institutions. The Secretariat's Trade, Ocean and Natural Resources Directorate assists its member countries to sustainably manage their natural resources, in the ocean and on land, for the benefit of present and future generations. The Oceans and Natural Resources Section of the Secretariat manages the Commonwealth Blue Charter Programme.

This report was prepared for the Commonwealth Secretariat by Thuso Ltd, with revisions by the Secretariat.

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Acronyms and Abbreviations

ACU	Association of Commonwealth Universities
CBD	United Nations Convention on Biological Diversity
CCOA	Commonwealth Clean Ocean Alliance (Marine Plastics Action Group)
CHOGM	Commonwealth Heads of Government Meeting
CLEAR	Civic Laboratory for Environmental Action Research
DRS	deposit return scheme
EEZ	exclusive economic zone
EPRS	extended producer responsibility scheme
GCRMN	Global Coral Reef Monitoring Network
GIS	geographic information system (mapping)
GOA-ON	Global Ocean Acidification – Observing Network
GPAP	Global Plastic Action Partnership
ICRI	International Coral Reef Initiative
IUCN	International Union for Conservation of Nature
MELAG	Mangroves and Livelihoods Action Group
MPA	marine protected area
MRE	marine renewable energy
MSP	marine spatial planning / plan
NAPA	National Adaptation Plan of Action
NDC	Nationally Determined Contribution (under UNFCCC)
NGO	non-governmental organisation
NPOA	National Plan of Action
PO	producer organisation
PoA	Plan of Action
PSMA	Port State Measures Agreement
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SBEC	Sustainable Blue Economy Conference
SDG	Sustainable Development Goal
SeyCCAT	Seychelles Conservation and Climate Change Adaptation Trust
SIDS	small island developing state
SPC	The Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme

TOR	terms of reference
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	UN Environment Programme
UNFCCC	UN Framework Convention on Climate Change
WDPA	World Database on Protected Areas
WTO	World Trade Organisation

Executive Summary

The Commonwealth Blue Charter is an agreement by Commonwealth countries to actively co-operate in addressing the myriad of ocean-related issues and commitments that they face. Commonwealth Blue Charter Action Groups are member driven, led by Commonwealth Blue Charter 'Champion' countries.

This report serves as a compilation of action under the ten Action Groups, in the context of wider Commonwealth ocean action, with the aim of highlighting the impact of the Commonwealth Blue Charter.

The last three years have been a remarkable beginning to a shared journey. **Forty-six (46) countries**, led by **16 Co-Champions**, have embarked on a shared mission to co-operate to solve ocean-related problems and meet commitments for sustainable ocean development.

The Commonwealth Secretariat has amplified national ocean action and is working to support Action Groups to scale action by building partnerships, closing the funding gap, training ocean leaders and empowering collective solutions.



5 Partnerships



More than 30,000 visitors welcomed to the website



11 promotional videos created



257 officials registered on the Commonwealth Blue Charter Knowledge Hub



9 knowledge exchange webinars, averaging 120 participants each



10 Thematic Toolkits developed



215 external training opportunities compiled in a searchable database



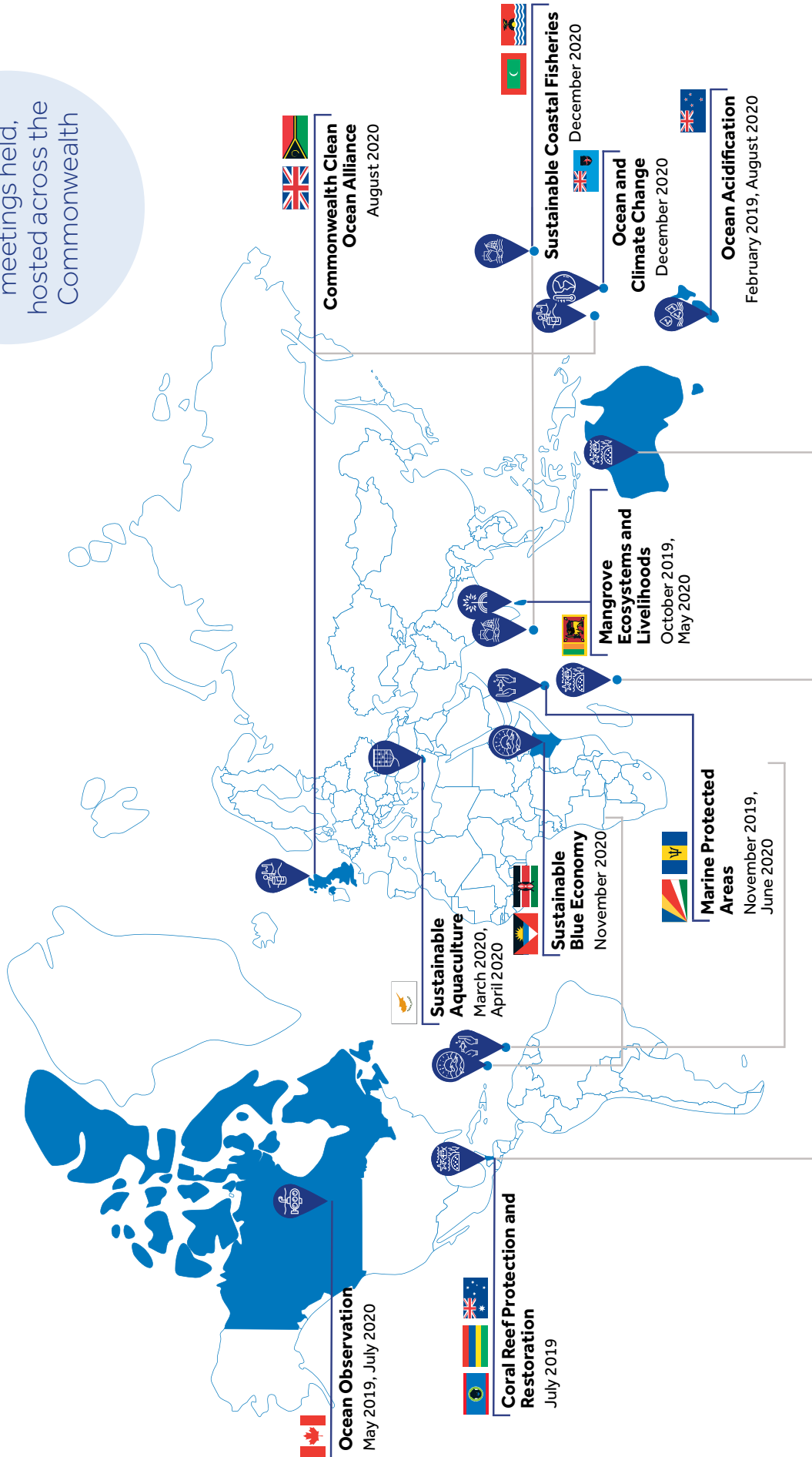
8 bespoke online training courses held or scheduled



115 online funder profiles compiled, providing access to opportunities worth £126,250,360

15

Action Group
meetings held,
hosted across the
Commonwealth



3

'All Champions' meetings were held: 1 in-person and 2 virtual



Commonwealth Blue Charter All Champions Meeting, 18–21 June 2019, London

Charting the course **going forward**, the Commonwealth Blue Charter will need to focus on:

- Building **capacity** to implement ambitious plans
- Closing the **resourcing** gap
- Quantifying **progress** at the national and pan-Commonwealth scales
- Locking in **ocean sustainability** through a 'blue recovery' from COVID-19
- Harnessing the **collective power** of the Commonwealth Blue Charter's members

62

Case Studies were developed to demonstrate impact and inform action



Clean Ocean Alliance



50 countries have taken some form of action to address marine plastic pollution

41 countries have taken steps to reduce avoidable single-use plastic waste

27 countries have instituted a ban on single-use plastic carrier bags

Coral Reef Protection and Restoration



33 countries or territories have protected some coral reef

8 countries or territories have protected over 40% of their coral reefs

Coral reef restoration activities are underway in **16** countries with coral reefs

Mangrove Ecosystems



38 Commonwealth countries are restoring their mangroves

13 countries have protected at least half of their mangrove stands

30 countries have Ramsar sites that include mangroves

Marine Protected Areas



Commonwealth countries are responsible for nearly **30%** of all MPAs

33 countries with MPAs have undertaken assessments of management effectiveness

13 countries have made SDG14 voluntary commitments relating to MPAs

13 countries are now committed to the 'Thirty by Thirty target' of protecting 30% by 2030

Ocean Acidification



29 countries represented on the Global Ocean Acidification Observing Network

17 countries were represented at the 2019 Ocean Acidification Action Group Technical Workshop

Acidification Handbook launched to empower policymakers to act on ocean acidification

Ocean and Climate Change



28 countries have referenced Blue Carbon in their NDCs

7 countries / territories are signatories to the Because the Ocean and/or Ocean Pathway Declarations

32 countries mention the ocean in their NDCs

Ocean Observation



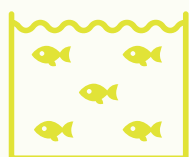
18 countries participated in a webinar on Argo floats

Argo floats and Biogeochemical Argo floats have been purchased

1 publicly available open-source Argo floats package released

'GOA-ON in a Box' kits have been assembled for use in SIDS and with Indigenous Communities in Canada

Sustainable Aquaculture

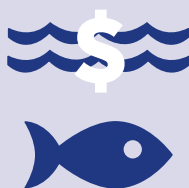


Strategic Roadmap on the Sustainable Development of Aquaculture is under development

Commonwealth countries produced **10.5 million** tonnes of farmed seafood in 2017

More than **80%** of Commonwealth aquaculture production is of fish

Sustainable Blue Economy



24 coastal countries have implemented or are preparing MSP initiatives

20 coastal countries have some form of Blue Economy initiative underway

7 countries are committed to sustainably managing 100% of their marine waters by 2025

Sustainable Coastal Fisheries



22 coastal countries have NPOAs for sharks, sea birds, or turtles

26 countries are Parties to the Port State Measures Agreement

8 countries have made SDG14 voluntary commitments relating to fisheries

All coastal Commonwealth countries have reported on implementing the FAO Code of Conduct for Responsible Fishing

Gender and Ocean Science

A Study on Gender Equity in Ocean Science highlights **15** immediate Actions and **6** recommendations

Youth in Ocean Science

14 countries have distributed the Message in a Bottle, a children's book on marine litter

Over **330,000** young people have participated in the Tide Turners Plastic Challenge

48 Talented Young Researchers supported by Blue Charter Fellowships

Introduction

The Commonwealth Blue Charter is an agreement by Commonwealth countries to actively co-operate in addressing the myriad of ocean-related issues and commitments that they face. The world's ocean is essential to life on our planet. Billions of people depend on it for their livelihoods, yet human activity is increasingly putting the health of this crucial natural resource in peril. These are not challenges that any single country can solve alone. Covering over a third (35.5%) of the global ocean under national jurisdiction, the Commonwealth community is uniquely well-positioned to tackle urgent ocean challenges.

In April 2018, the Commonwealth Blue Charter was adopted by member countries to guide co-operative action on ocean issues, contributing to Sustainable Development Goal (SDG) 14 'Life Below Water' to 'Conserve and sustainably use the oceans, seas and marine resources for sustainable development'. The UN Secretary-General's Special Envoy for Oceans commended the 'wave of ocean action' initiated by the Commonwealth Blue Charter, which reflects the six strategies underpinning the roadmap for using the UN Decade of Ocean Science for Sustainable Development.¹

In the words of the Commonwealth Secretary-General, the Rt Hon. Patricia Scotland QC,

'The Commonwealth Blue Charter will undoubtedly change the pace of global efforts on ocean conservation, unlocking the power of 54 nations on what is clearly one of the most pressing causes of our time.'

Commonwealth Blue Charter Action Groups are member driven, led by Commonwealth Blue Charter 'Champion' countries. Through working together, Action Groups seek to unlock the experiences and knowledge of their member countries and partners.

This interim report serves as a snapshot compilation of activities under the ten Action Groups, in the context of wider ocean action within the Commonwealth, with the aim of highlighting the impact of the Commonwealth Blue Charter over the past three years. This report summarises activities and achievements since the genesis of the Commonwealth Blue Charter, early indicators of success, progress to date, what has been learnt and priorities moving forward. An expanded and updated version of this report will be presented to the next Commonwealth Heads of Government Meeting (CHOGM).



Blue Charter Action Groups



Commonwealth
Clean Ocean
Alliance



Coral Reef
Protection and
Restoration



Mangrove
Ecosystems and
Livelihoods



Marine Protected
Areas



Ocean
Acidification



Ocean and Climate
Change



Ocean
Observation



Sustainable
Aquaculture



Sustainable Blue
Economy



Sustainable Coastal
Fisheries

Methodology

This report primarily draws on two sources of data and information, complemented through further literature review:

- Progress reports submitted by Champion countries of each of the ten Action Groups
- Desktop-based research conducted on the ocean action by Commonwealth countries

In addition, a self-reporting questionnaire on ocean action will be launched by the Secretariat, allowing Commonwealth countries to further inform and contextualise the findings presented in this interim report in time for an updated final report to CHOGM



Sea Change Harnessing the Momentum behind the Blue Charter

The Commonwealth Heads of Government have called for ambitious, co-ordinated pan-Commonwealth action to address ocean issues. The Commonwealth Blue Charter fills a particular gap in current global efforts, providing a practical means by which states can work together to meet their shared ambitions, transforming high-level commitments into actual 'on-the-water' realities.

The Action Group Status Updates summarised here demonstrate that the Commonwealth is collectively working towards a more equitable, and sustainable, approach to ocean protection and economic development. The Action Groups, and the Commonwealth community more broadly, have achieved a range of tangible successes on which future efforts will build.

Action Group achievements

Development of the Commonwealth Blue Charter has created an effective and dynamic network for knowledge exchange and capacity building across the Commonwealth. Champions have demonstrated the potential for the Commonwealth Blue Charter to effect tangible progress in relation to these plans. All ten Action Groups met at least once (five Action Groups held a second meeting in 2020), in person or virtually, to discuss how best to achieve their thematic goals.

41 countries have taken steps to reduce avoidable single-use plastic waste

Commonwealth Clean Ocean Alliance



Fifty (50) countries have taken some form of action to address marine plastic pollution. The Commonwealth Intelligence Litter Programme has already supported several member states to develop Marine Litter Action Plans.² Building on the momentum cultivated by the Commonwealth Clean Ocean Alliance (CCOA), the Commonwealth community is positioned to take bold steps to 'design out' plastic waste (focusing on packaging) and improve collection and management of residual waste.



Case Study: Litter Intelligence Programme, New Zealand
November 2020
© Sustainable coastlines
Source: The Commonwealth Blue Charter

8 countries have protected over **40%** of their coral reefs

Coral Reef Protection and Restoration Action Group



Thirty-three (33) countries have protected coral reef habitats; coral reef restoration activities are underway in 16 of the 37 Commonwealth countries with coral reefs; and 31 countries are actively contributing data to the Global Coral Reef Monitoring Network, which will help to steer coral reef protection and restoration in the future. Commonwealth Blue Charter efforts to 'map the Commonwealth one reef at time'³ contribute to this goal. Co-Champions are leading the way: Belize is sowing 'fragments of hope' through a community-led coral reef restoration project in Laughing Bird Caye National Park, while Australia's Master Reef Guides are raising awareness of the importance and beauty of coral reefs.⁴ Mauritius is training community members to restore and protect corals, experimenting with the use of thermally resistant 'super corals'.



Case Study: Master Reef Guides Programme, Great Barrier Reef, Australia
July 2020



Case Study: Fragments Of Hope – Community-Led Coral Reef Restoration, Laughing Bird Caye National Park, Belize, November 2020

Mangrove Ecosystems and Livelihood Action Group



Mangrove restoration activities are underway in 38 of the 42 Commonwealth countries or territories that hold mangrove stands. Thirty (30) countries or territories have protected 'Ramsar'¹⁵ sites that include mangroves. Several members have formalised their commitments in national policies or plans, creating a framework for action that can inspire others. Champion country Sri Lanka has strictly protected more than 14,000 hectares (ha) of mangroves, while Trinidad and Tobago is pursuing a 'no net loss' of wetlands policy, which underpins the success of its mangrove restoration project in Point Lisas.⁶

13 countries
have protected at
least half of their
mangrove stands



Case Study: Lessons From The
Restoration Of A Mangrove
System In Point Lisas, Trinidad
And Tobago
June 2020

Marine Protected Areas Action Group



All but one of the 47 Commonwealth countries with a coastline have designated Marine Protected Areas (MPAs). In total, around 6,613,385 square kilometres (km²) of ocean has been protected by Commonwealth countries, relative to a global total of 22,846,219km². That means that Commonwealth countries are responsible for nearly 30 per cent of all MPAs, globally, including nearly 300,000km² in fully or highly protected areas. Thirty-three (33) countries with MPAs have undertaken assessments of management effectiveness and 13 countries have made SDG14 voluntary commitments relating to MPAs. Seychelles, as Champion country, has already met its 30 per cent MPA target, implemented through marine spatial planning (MSP)⁷, while The Bahamas is assigning International Union for Conservation of Nature (IUCN) management categories,⁸ and Malaysia has identified two MPA candidates for the IUCN Green List.⁹

6,613,385
km² of ocean has
been protected by
Commonwealth
countries



Case Study:
Seychelles –
using marine
spatial planning
to meet the 30
per cent marine
protected areas
target
February 2021



Case Study:
Assigning IUCN
protected area
management
categories –
the Bahamas
Experience
April 2021



Case Study:
Malaysia – two
MPA candidates
for the Green List
March 2021

30 countries
represented on
GOA-ON

Ocean Acidification Action Group



Thirty (30) coastal countries are represented on the Global Ocean Acidification Observing Network (GOA-ON). The 2021 launch of the *Ocean Acidification Handbook*¹⁰ equips Commonwealth policy-makers to develop strategies to address the impacts of ocean acidification, while the Champion has demonstrated that citizen science can help to expand the scope of national monitoring to inform evidence-based action. The recent event 'Path to Action – Addressing the Impacts of Ocean Acidification' highlights a way forward.¹¹



Case Study: A Policymakers' Handbook For Addressing The Impacts Of Ocean Acidification 2021



Case Study: Path To Action – Addressing The Impacts Of Ocean Acidification April 2021

28 countries
reference Blue
Carbon in their
NDCs

Ocean and Climate Change Action Group



All Commonwealth countries are signatories of the Paris Agreement, and member states are discharging their responsibilities to mitigate climate change with a growing focus on ocean-related climate action. Twenty-eight (28) countries have referenced 'blue carbon' in their Nationally Determined Contributions (NDCs). Seven (7) countries/territories are signatories to the 'Because the Ocean' and/or Ocean Pathway Declarations. As the action plan is developed, there is scope to initiate a wave of climate action across the Blue Charter. Fiji and Australia have implemented partnership models for measuring climate risk,¹² while Kenya's Gazi Bay mangroves demonstrate the potential of blue carbon.¹³



Case Study: Climate Vulnerability Assessments In Fiji And South Australia: Two Partnership Models For Measuring Climate Risk September 2020



Case Study: Community-Led Mangrove Restoration And Conservation In Gazi Bay, Kenya: Lessons From Early Blue Carbon Projects July 2020

Ocean Observations Action Group



Ocean observational technology, such as the 'Global Ocean Acidification – Observing Network (GOA-ON) in a box' kits, is being assembled for use in small island developing states (SIDS) and with indigenous communities in Canada. The Blue Charter is pushing frontiers in marine science, including by potentially setting out a global fleet of robotic floats.¹⁴ The recently completed 'Hack the Planet' Competition is an example of the Commonwealth's participatory approach to bring together ideas from diverse communities living on the frontlines of the impacts of ocean challenges, while a new study calls for gender equity in ocean science.¹⁵

'GOA-ON in a Box'
kits ready to deploy
in SIDS



'Gender Equity In Ocean Science'
Report Cover
Author: Carolanne Black,
Produced For: Dfo Canada, 2020

Sustainable Aquaculture Action Group



The Commonwealth community is beginning to leverage the benefits of aquaculture. Countries are developing proposals to secure funding and build external partnerships to realise this Blue Economy opportunity. Champion country Cyprus has practised aquaculture for nearly half a century and is sharing lessons learned and best practices.¹⁶ A recent webinar revealed the 'keys to aquaculture success',¹⁷ while an event on the development of sustainable aquaculture development strategies highlighted a way forward.¹⁸ Other member states, like Seychelles¹⁹ and Mozambique²⁰, are working to establish their own aquaculture industries.



Case Study:
Addressing And
Assessing The
Environmental
Performance Of
Marine Offshore
Aquaculture In
Cyprus
August 2020



Case Study:
Development Of
An Aquaculture
Industry In
Seychelles
September 2020



Case Study:
Development Of
Chicoa Fish Farm
In Mozambique
January 2021

Sustainable Blue Economy Action Group



Seven (7) Commonwealth countries are on the High-level Panel for the Sustainable Ocean Economy, committing to sustainably managing 100 per cent of their marine waters by 2025. Twenty (20) coastal countries have some form of 'Blue Economy' initiative underway and 24 coastal countries have implemented or are preparing MSP initiatives. Together, the Government of Antigua and Barbuda, with support from the Commonwealth Secretariat and world experts, is establishing a Centre of Excellence on Oceanography and the Blue Economy. Seychelles is piloting innovative new financing mechanisms.²¹ The Action Group's webinar on 'The Blue View: Opportunities and Challenges for the Blue Economy' sets the stage for action to be accelerated.²²



Case Study: Innovative Financing – Debt for Conservation Swap, Seychelles' Conservation and Climate Adaptation Trust and The Blue Bonds Plan, Seychelles
November 2020

26 countries
are Parties to the
PSMA

Sustainable Coastal Fisheries Action Group



The Commonwealth is well-positioned to take bold steps to promote transparent and sustainable coastal fisheries, with potentially far-reaching impacts for both national and global fishing stocks. Kiribati's new fisheries regulations came into effect in February 2020, giving a legal basis to community-based fisheries management, and enforceable management measures for vulnerable species.²³ Maldives recognises that 'fisheries are an integral part of Maldivian identity' and is pursuing fisheries reforms to secure its coastal marine resources.²⁴ Twenty-two (22) coastal countries have a National Plan of Action (NPOA) for sharks, sea birds or turtles, and 26 countries are parties to the Port State Measures Agreement (PSMA). Eight (8) countries have made SDG14 voluntary commitments relating to fisheries.



Case Study: MFMRD staff doing inspection at the market - Tarawa, Kiribati. (Image: Jeff Dunlop, Ministry of Primary Industries, New Zealand)
Source: The Pacific Community (SPC)

Gender

Gender is a cross-cutting theme across all ten Action Groups.

Champion country Canada spearheaded a study on gender equity in ocean science, calling for better opportunities for women, as well as other minority groups. The study outlines six key recommendations and five immediate actions to support gender equity.²⁵

The Civic Laboratory for Environmental Action Research (CLEAR) at Memorial University, Canada, is putting gender equity into practice in marine plastic monitoring.²⁶

In South Africa, meanwhile, the Advancing Womxn Initiative partnered with the University of Cape Town to create a prestigious fellowship for black women to undertake postgraduate and postdoctoral studies in oceanography.²⁷

The Commonwealth Blue Charter is promoting Gender Equity in Ocean Science



Case Study: Lear: Putting Equity Into Ocean Plastics Research
March 2021



Case Study: Ocean Womxn: Supporting Black Women to Earn Postgraduate Degrees in Oceanography at the University of Cape Town, South Africa, February 2021

Future generations are at the heart of the Commonwealth. Recognising this, Action Groups are engaging and involving children and youth in their activities, including by:

- Citizen-science in New Zealand: the Litter Intelligence Programme includes marine litter monitoring by schools, coupled with an integrated education programme.²⁸
- Distributing the Message in a Bottle²⁹ children's book to educate children between the ages of four and six about marine litter and its impact on the marine environment. Fourteen (14) Commonwealth countries have requested its national distribution to date.
- Association of Commonwealth Universities (ACU) Blue Charter Fellowships, which support young researchers to explore innovative ways to tackle marine plastic pollution.³⁰



Commonwealth Secretariat's support

The Secretariat has provided a wide range of ocean-related support to Commonwealth member countries. For example:

By **assisting Ocean Champions** with membership outreach, meeting preparation, and by the creation of terms of reference (TOR) and Plans of Action (PoA), and **convening Action Groups, including through:**

- One (1) in-person (2019) and three virtual 'All-Champions' meetings (2020, 2021).
- Nine (9) knowledge exchange webinars, each attended by an average audience of 120 participants, with recordings summarised into short videos and shared across the Commonwealth Blue Charter.

Building partnerships for the ocean: The Secretariat has formally established four Blue Charter Partnerships through signing four memoranda of understanding (MOUs) – see below. In addition, the Commonwealth Blue Charter Team, on behalf of the Secretariat, is an official nominator for the Royal Foundation's Earth Shot prize, under the *Revive Our Oceans* theme.

			
<p>Bloomberg Philanthropies offers a powerful range of data analytics, as well as support from the Vibrant Oceans initiative.</p>	<p>Nekton is a scientific research and discovery organisation that has worked closely with Commonwealth governments to link science with policy through expeditions, and that offers in-country training to young scientists.</p>	<p>Vulcan is developing and offering its Allen Coral Atlas for use by the Blue Charter Action Groups. The Atlas provides high resolution, up-to-date satellite imagery of the world's coral reefs.</p>	<p>eXXpedition is a not-for-profit organisation that runs all-female sailing research expeditions to investigate the causes of and solutions to ocean plastic pollution.</p>

A Partnerships Day at the 2019 All-Champions week, co-hosted by Bloomberg Philanthropies, was devoted to introducing Champions to interested partnering organisations. Twenty-one (21) partner organisations made five-minute 'pitches' to the Champion countries on how they could support them.



Blue Charter Fellowships: The ACU established a Blue Charter Fellowship programme to tackle marine pollution. The UK's Department for Business, Energy & Industrial Strategy and supermarket chain Waitrose & Partners funded the awards, while the Secretariat gave support. Since their inception, the Blue Charter Fellowships have supported **48 talented young researchers** from across the Commonwealth.

Amplifying a Sea of Voices: The Secretariat has provided various platforms to amplify the voices of people across the Commonwealth:

- A public website, which has welcomed more than 30,000 visitors, with an average monthly viewing of 2,000 visitors per month.
- News media: 59 opinion articles ('op-eds'), news stories and press releases on the Commonwealth Blue Charter, in addition to regular features and case studies.
- Eleven (11) videos, including 2 Commonwealth Blue Charter promotional videos highlighting benefits to member countries and progress made to date; 6 Action Group videos; and 8 case study videos, documenting highlights from 62 written case studies, and starring country representatives.
- An open platform – Sea of Voices – where Commonwealth citizens can send short videos to celebrate their special relationships with the ocean, currently featuring more than 25 people from across the Commonwealth.
- Side-events at a wide range of international fora.

- Quarterly newsletters, to keep interested parties abreast of action under the Blue Charter.

Scaling action: A thriving Commonwealth Blue Charter Knowledge Hub provides a collaborative platform to allow for communication across Action Groups and among their members. Some 257 officials are registered on this password-protected forum. Good and best practices are documented through case studies, published weekly on the Commonwealth Blue Charter website, to inform and inspire replication and scaling. Ten (10) thematic toolkits were developed to reflect the current state of knowledge on each Action Group area, highlight recommended training opportunities, and identify knowledge gaps. In addition, five cross-cutting toolkits were developed, covering Maritime Security, Ship Registries, Social Sciences, Gender, and the development of robust Indicators. The Funding Opportunities Database and Training Database each provide Action Groups with the tangible tools and resources to implement their Action Plans.



Commonwealth Blue Economy Series

Closing the finance gap: The Secretariat launched an online database (May 2021) and an associated handbook, to help member countries be aware of and access more than US\$170 million of international funding available for ocean-related projects. On average, there are 56 funds per action area, covering 11 different types of funding. Designed specifically to support the work of the Commonwealth Blue Charter, this compilation of funding opportunities, currently worth £126,250,360, has the potential to generate a critical shift in the financing seascape.



Training ocean leaders: The Secretariat delivered five bespoke online training courses in 2020, on:

- Project Proposal Development
- Stakeholder Engagement



- Bridging the Science-Policy Divide
- Remote Sensing of Mangroves (for Managers)
- GIS Mapping of Mangroves (for Technicians)

These courses are currently being converted into self-paced learning modules. Courses in 2021 included:

- Policy Considerations when developing a Sustainable Blue Economy
- Coral Reef Mapping for Managers
- Coral Reef Mapping for Technicians

In addition, the **Training Database** (to be launched in November 2021) provides a 'one-stop-shop' for capacity building and training opportunities for each Action Group.

Empowering collective solutions: The Commonwealth Secretariat teamed up with Satellite Applications Catapult, Maxar, Planet and Amazon Web Services (AWS) to deliver the first virtual 'Hack the Planet' competition. The competition stimulates discussion around the development of new concepts relating to the sustainability of the ocean, incorporating satellite data and technologies. Solutions are aligned to the ten action areas of the Commonwealth Blue Charter, and winners are **working with ocean and satellite experts to make their ideas become reality.**

Striving for excellence: The Secretariat is working with the University of the West Indies, the Association of Commonwealth Universities (ACU), and the Government of Antigua and Barbuda, Co-Champion of the Sustainable Blue Economy Action Group, to set up a Centre of Excellence on Oceanography and Blue Economy, which will serve as a regional hub for world-class research and institutional capacity building.

Champion countries



United Kingdom,



Vanuatu

Commonwealth Clean Ocean Alliance



'I am proud of the ambitious and collaborative action taken by 34 Commonwealth countries to reduce marine litter through the Commonwealth Clean Ocean Alliance. By working together, the Alliance has showcased global leadership in tackling the scourge of marine plastic pollution, alongside nine other Blue Charter action groups all working to protect our ocean.'

Lord Zac Goldsmith,
Minister for the Pacific and
Environment, United Kingdom

Summary of achievements

The Commonwealth Clean Ocean Alliance (CCOA) has grown to become a community of 34 of the Commonwealth's 54 countries. Collaborative working relationships have been established with key regional organisations to support delivery, and various initiatives have been successfully working to meet CCOA objectives, including:

The Commonwealth Litter Programme (CLiP):



CLiP has so far supported several Commonwealth countries to develop Marine Litter Action Plans and a pilot study in India on water quality.

Global Plastic Action Partnership (GPAP):



Under the World Economic Forum, initially co-funded by Canada and the UK, along with private sector partners, the GPAP has established National Plastic Action Partnerships globally.

The Tide Turners Plastic Challenge Badge (TT):



since 2018, more than 330,000 young people have participated in the challenge.

Across the Commonwealth, 41 countries have taken steps to reduce avoidable single-use plastic waste, most commonly through regulatory instruments. For example, Malaysia has developed a comprehensive '**Roadmap Towards Zero Single-Use Plastics**' 2018–2030, while Singapore has set the goal of becoming a '**Zero Waste Nation**'.³¹ The UK has developed a new **plastic packaging tax**, to be introduced in 2022.

To date, 28 Commonwealth countries have instituted a **ban on single-use plastic carrier bags**, either at point of production/import (for example, Bangladesh, Rwanda, Samoa), point of sale or both (for example, Kenya). In addition, eight Commonwealth countries have endorsed the Ocean Plastics Charter, an initiative spearheaded by Canada since 2018, to demonstrate their commitment to take concrete and ambitious action to reduce plastic pollution and waste through a resource-efficient and sustainable approach to the management of plastics across its entire lifecycle. Small island states (which make up





most Commonwealth countries) have been disproportionately more likely to enact bans on single-use plastics – 27 per cent of national bans globally have come from these countries.³² Subnational jurisdictions within a number of Commonwealth countries, such as states in Australia and provinces in Canada, have also instituted bans on single-use plastics. However, the efficacy of bans in terms of reducing plastic pollution remains uncertain,³³ in part because many bans have only recently been implemented and since enforcement is a substantial challenge, particularly where alternatives are not readily available, accessible and cost-effective.

Some Commonwealth countries, such as Barbados, Belize, and Trinidad and Tobago, have made positive progress towards instituting **deposit return schemes (DRS)**, which provide an economic incentive for the consumer to return plastic waste. Others, like Zambia and Singapore, have opted for **extended producer responsibility schemes (EPRS)**, which create an economic incentive for industry to recover plastic waste. India has partnered with the informal waste sector to collect, sort and repurpose plastic waste. Commonwealth countries also participated in 'clean up'



27% of national bans on single-use plastic carrier bags globally have come from Small Island States

It is estimated that as much as **90%** of plastic waste globally is currently not managed.

79% of all plastics are neither recycled nor reused



'Despite COVID-19, we engaged with our Action Group through two informal CCOA virtual coffee mornings in the summer of 2020, followed by a webinar in November – "Breaking the Plastic Wave Across the Commonwealth" – where we explored two studies on the global plastics system and reflected as a group on how these can inform our collective work on tackling ocean plastic pollution.'

CCOA Blue Charter Progress Report

efforts, such as the **Ocean Conservancy's International Coastal Clean-up**. Belize developed a **National Marine Litter Action Plan** – the first in the wider Caribbean region. About 5.7 per cent of all fishing nets, 8.6 per cent of all traps and 29 per cent of all commercial fishing lines are lost each year, comprising ~10 per cent of global marine plastic pollution.³⁴ Seven countries and one UK Overseas Territory (UKOT) are members of the **Global Ghost Gear Initiative (GGGI)**, and several are implementing policies to address maritime sources of plastic. Twenty-three (23) countries are **UN Clean Seas Countries** and 24 are party to the **London Protocol**. Five countries have signed up to the **New Plastics Economy Global Commitment**.

Challenges

The scarcity of effective waste collection and management systems at the national level constrains efforts to curb plastic waste flows into the ocean; it is estimated that as much as 90 per cent of plastic waste globally is currently not managed.³⁵ Ineffective waste collection allows 'plastic leakage'. Even when collected, open dumps remain a substantial source of marine plastic, as well as causing public health concerns.

Bans can play an important role but must be considered as just one element of integrated national waste management strategies. If poorly implemented, plastic bans are met with opposition from both consumers and the manufacturing industry.³⁶ Similarly, product bans, particularly of single-use plastic food packaging, must be weighed up against the potential risks to food and water security (ibid.). Such impacts need to be considered from a full lifecycle perspective. Subsequently, the effective enforcement of even well-designed bans and levies remains challenging. There is a trend of short-term compliance, followed by a rebound in the use of plastic bags, for example,³⁷ particularly where there are no easily accessible and affordable alternatives. In some countries, the ban also resulted in a black market for plastic bags.³⁸ As such, market incentives, rather than bans coupled with punitive measures, may prove to be more effective at reducing the flow of plastic from source to sea.

In addition to the technical challenges above, COVID-19 created a barrier to convening member states, although innovative approaches have allowed CCOA to continue collaborating through online platforms.

Priorities, opportunities and next steps for the coming year

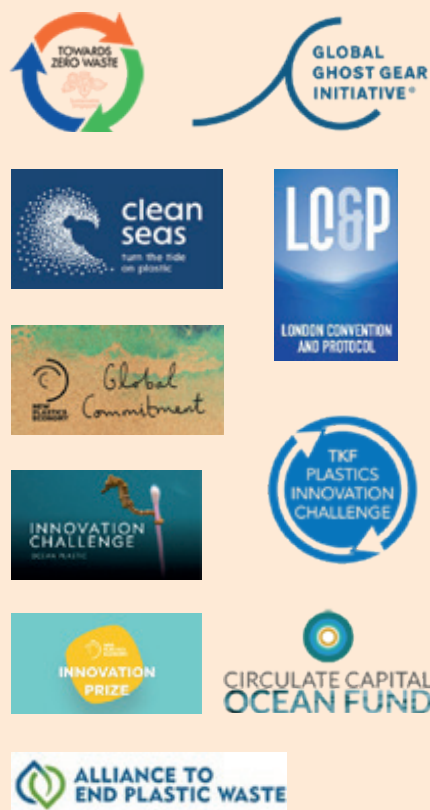
There is a real opportunity for tackling plastic waste at source, particularly through market incentives to minimise plastic by design and by promoting circular economy solutions where plastic use cannot be phased out. Such initiatives should form an integral element of national waste management

strategies. The **Plastics Innovation Challenge**,³⁹ the **New Plastics Economy Innovation Prize**,⁴⁰ and the **Ocean Plastic Innovation Challenge**⁴¹ provide opportunities in this regard. In order to incentivise innovation to reduce unnecessary plastics, Commonwealth countries might consider implementing market incentives. More specifically, a value-added tax/ goods and services tax (VAT/GST) (or equivalent) exemption for (non-essential) products that minimise unnecessary plastic along the entire supply chain could serve as a powerful market incentive, encouraging industry innovation and shifting consumer behaviour, without imposing additional costs to the consumer.⁴² Conversely, there should be no VAT exemptions for products containing unnecessary plastics (for example, microbeads, single-use, superfluous plastic packaging), or where there is no system in place to manage waste.

In light of the limitations of current waste management systems, the new investment firm **Circulate Capital**⁴³ and the industry-led **Alliance to End Plastic Waste**⁴⁴ are both directing funding from corporate partners to develop better waste infrastructure in Asia, where an estimated 81 per cent of ocean plastics are emitted.⁴⁵ Opportunities for investment may include waste-to-energy options, coupled with **carbon capture and storage (CCS) technology** to ensure that other environmental impacts are mitigated. Integrated DRS and EPRS⁴⁶ may also be scaled across the Commonwealth, as they provide economic incentives to ensure waste capture and collection. At present, only five countries have achieved a 30 per cent plastics recycling rate.

Small island developing states may be particularly well-placed to phase out single-use plastics, as exemplified by Maldives' pioneering **National Single Use Plastic Phase Out Strategy**.⁴⁷ CCOA is well-positioned to support with this, including through continued advocacy to temper consumer demand for single-use plastics, and to identify, pilot and promote alternative reusable products or reuse systems. Recent research suggests that more than 1000 rivers account for 80 per cent of global annual emissions, which range between 0.8 million and 2.7 million metric tons per year, with small urban rivers among the most polluting,⁴⁸ including several in Commonwealth countries.⁴⁹ River clean ups and booms therefore provide a secondary opportunity to stem the flow of plastic into the ocean, buying time to implement more holistic plastic waste mitigation strategies.^{50, 51} It should be noted that the majority of microplastics in the marine environment are from secondary sources,⁵² so addressing the flow of microplastics from source to sea directly contributes to the reduction of microplastics. For plastic pollution from fisheries, track and trace systems for fishing gear, coupled with the implementation of flat fees (or no fees) for disposal of worn out or retrieved gear, could be considered.

Spotlight



33 Commonwealth countries participated in 'clean up' efforts

It is estimated that **81%** of ocean plastics are emitted in Asia.

Champion countries



Australia



Belize



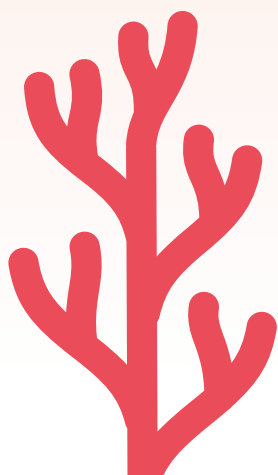
Mauritius

Coral Reef Restoration and Protection



'Coral reefs are the engine room of our oceans, supporting 25 per cent of marine life and delivering benefits to hundreds of millions of people, but they are under pressure. Australia welcomes the opportunity to partner with Belize, Mauritius and other Commonwealth nations, to share our collective knowledge to build the resilience of our precious coral reefs.'

**Jamie Isbister, Australia's
Ambassador for the Environment**



Summary of achievements

Thirty-seven (37) Commonwealth countries are reef-bearing, and 33 of these countries or territories have protected some coral reefs (8 have protected over 40%). Coral reef restoration activities are underway in 16 Commonwealth countries or territories. Thirty-one (31) reef-bearing countries have submitted monitoring data for the 2020 Global Report on the Status of Coral Reefs. Seventeen (17) countries are members of **the International Coral Reef Initiative (ICRI)**. Action Group members contributed to an ICRI Resolution on Coral Reef Restoration and Rehabilitation.

Forty (40) per cent of **Belize's** coral reefs are covered by marine protected areas (MPAs); community-led coral reef restoration in Laughing Bird Cave National Park achieved coral cover increases of 10–20 per cent, and there are now 23 in-situ coral nurseries throughout Belize.⁵³ The **Republic of Mauritius**, where 4 per cent of reef area lies within a MPA, has successfully restored 275m² of degraded reef in the Blue Bay Marine Park and at Trou au Biches. In addition, Mauritius implemented a '**Community-based Coral Culture Project**' in 2018–19 to promote coral farming by fishers and small and medium-sized enterprises (SMEs), which consisted of 5 pilot coral farms staffed by 110 trained community members. The Republic of Mauritius is currently also collaborating with the Adaptation Fund Board to reduce climate change impacts in Mauritius, Rodrigues and Seychelles by implementing coral reef restoration with thermal tolerant 'super corals'. A Coral Reef Network has been set up at the level of the ministry to co-ordinate activities aiming at enhancing the adaptive capacity of vulnerable marine ecosystems. In **Australia**, 85 per cent of reef area is covered by MPAs, including the Great Barrier Reef, where 82 Master Reef Guides have been trained to inform and inspire the public.⁵⁴

Work under the Action Group was presented at the **ICRI General Meeting** in December 2019, highlighting the need to monitor progress, share information and work with the right partners. Leveraging synergies across Action Groups, the efforts of member countries to monitor and map coral reefs were also highlighted on **World Oceans Day 2020**.



'As one of the four countries which share the Mesoamerican Reef System, Belize recognises its responsibility as stewards and custodians of this iconic reef system given its central role to our

culture, economic development, and as a common heritage to the global citizenry. As the Minister of the new and innovative Ministry of the Blue Economy and Civil Aviation, I am humbled and honoured to be at the helm of the responsible development and conservation of this Reef System. My Ministry intends to build on existing efforts focused on the protection, health and resilience of our reef system, such as the expansion and improved management of the MPA network, the full protection of grazers, and the restoration of corals. As a champion for the Blue Charter's Action Group on Coral Reef Protection and Restoration, Belize joins Australia and Mauritius in mobilizing interested countries in the Commonwealth in sharing our experiences, knowledge, management actions and lessons learnt.'

The Honourable Andre Perez, Minister of the Blue Economy and Civil Aviation, Belize



Coral reef restoration activities are underway in **16** Commonwealth countries.



Work by Champion countries has received international recognition, including through the following awards:



Secretariat for Climate Change Lighthouse Activity Award 2017



Global Environment Fund SGP Women as Agents of Change 2018

Challenges

The most fundamental challenge to coral reefs is climate change, and associated impacts such as bleaching and ocean acidification. Successful protection and restoration therefore remain contingent upon meaningful and effective action to mitigate climate change, in parallel with action to reduce local and regional pressures on coral reefs. Global co-operation, collaboration and knowledge sharing continues to be crucial to ensure efficient and effective use of resources.

Coral reefs continue to decline globally, despite the fact that there are more than **230 international policy**



'Mother Nature has gifted the Republic of Mauritius with a well-developed system of coral reefs. It is our prime duty to conserve and protect this reef system as it plays a fundamental role in our economic development, food security, and coastline protection and as a common heritage to humanity. Being the Senior Chief Executive responsible for the subject of development of the Mauritian Blue Economy, sustainable utilisation and management of the marine and fisheries resources, and protection and conservation of the biodiversity, I am committed and dedicated to protecting and conserving this valuable ecosystem for the benefit of the present and the coming generations. My Ministry is determined to reinforce the preservation of the reefs through the creation of new MPAs and active restoration of degraded reef areas. As a Co-Champion for the Commonwealth Blue Charter's Action Group on Coral Reef Protection and Restoration along with Australia and Belize, the Republic of Mauritius is ready to share its experiences, knowledge, best practices and lessons learnt globally.'

Virendra Kumarsingh Daby, Senior Chief Executive of the Ministry of Blue Economy, Marine Resources, Fisheries and Shipping, Republic of Mauritius



instruments, 73 binding global and regional instruments, and 591 commitments, directly or indirectly supporting the conservation and sustainable management of coral reef ecosystems and/or addressing anthropogenic drivers of change in these ecosystems.⁵⁵ Implementation of protection and restoration measures, at scale, remains a challenge. Monitoring is a key foundation to inform management action. Design of local monitoring programmes should respond to local needs, but by ensuring that monitoring is globally consistent it means data can be integrated into global reports, such as those produced by ICRI's Global Coral Reef Monitoring Program which recently released its sixth **Status of Coral Reefs of the World 2020 Report**.

Consistent, long-term funding remains a barrier to sustainable coral reef restoration and protection. The 'coral funding gap' will need to be closed if reef restoration and protection is to be scaled. Quantifying restoration results is commonly as costly as restoration. There is often a lack of in-country coral reef monitoring capacity, which can depend on outsourcing of expertise to assess the condition and type of coral reef coverage. Progress with image-based, technological tools, which can be 'trained' using artificial intelligence to make these assessments, could fill some of these monitoring gaps. The impacts associated with climate change, including ocean acidification, coral bleaching and disease, as well as unsustainable fishing practices, will pose growing challenges, although the establishment of 'no-take zones' was found to improve outcomes.

'Barriers to effective management can include: inadequate capability and capacity, inadequate funding, inadequate compliance and enforcement (especially for countries with large Exclusive Economic Zones and/or where territorial disputes persist), weak governance structures, inadequate knowledge of the human dimensions of coral reefs, and lack of long-term government commitment.'

**Joint statement, Belize and Australia
Champion country representatives**

Coral Restoration Techniques include:

- Selective breeding of 'super corals'
- Microbiome manipulation
- Coral gardening and micro-fragmentation
- Larval restoration
- Coral refugia
- Active intervention (e.g., removal of crown of thorns starfish, removal of fleshy algae)

Technological Innovation:

- Underwater drones:
- Machine Learning
- Big Data

The priorities of member states have necessarily shifted during the COVID-19 pandemic, with some coral reef-dependent industries, including tourism and fishing, being severely impacted. The Action Group will review the position and priorities of its Champions, members and other Commonwealth coral reef nations in the second half of 2021. Mauritius also had to divert resources to manage the impacts of the 2021 grounding of the MV Wakashio on the reef of Pointe d'Esny.

Priorities, opportunities and next steps for the coming year

'More specifically, the Action Group contributed to the **Reef Restoration and Adaptation Program (RRAP)** restoration database, developed by Australia. Members also completed the ICRI questionnaire on reef restoration. The Action Group will pursue synergies with the **Global Coral Reef Monitoring Network (GCRMN)** and **International Coral Reef Initiative (ICRI)**. [Design: formatting for marginal boxes/ images needs to be fixed]

The Republic of Mauritius hopes to integrate community capacity building on coral farming, nursery management and reef restoration, and the development of new nurseries, into its Economic Recovery Programme. This approach should be considered across all reef-bearing Commonwealth countries, in synergy with the Blue Economy Action Group. The Commonwealth Secretariat Database of Funding Opportunities provides an overview of funding sources to continue and scale the achievements of the Action Group to date, while the forthcoming Training Database includes courses on coral reef restoration for practitioners.

Effective, locally relevant and appropriately resourced policies for coral reef protection are required. A robust policy gap analysis to understand how local, regional, national and international policies pertaining to coral reef restoration and protection intersect would serve as a valuable first step, building on the work completed by the UN Environment Programme (UNEP) and ICRI to analyse global and regional policy instruments and mechanisms. Drawing on best practices and lessons learned from, for example, the Mauritius' Coral Reef Network, the Action Group may also consider harnessing synergies with similar initiatives, such as UNEP's Global Fund for Coral Reefs, to make more effective use of resources. The revitalisation of the **Global Coral Reef Monitoring Network (GCRMN)** should be a continued priority, while technology such as the **Allen Coral Atlas** may provide a novel opportunity to overcome monitoring gaps.

Learning and Collaboration Opportunities



'...focus on the protection and restoration of coral reefs within and among Commonwealth Countries. Primarily, actions will aim to reduce stressors and the adverse impact of climate change on local communities and coral reef-dependent economic activities. It will do this by promoting policies and techniques that confer reef resilience, and by developing and implementing coral reef restoration methods that can be applied at-scale and engage community participation.'

Joint statement, Belize and Australia Champion country representatives

Coral restoration is not a replacement for reducing local, regional and global stressors acting on reefs, particularly climate change, marine pollution and overfishing. The protection and effective management of intact reefs are prerequisites to successful risk-informed restoration. It therefore remains vital to leverage and strengthen existing synergies with other Action Groups, particularly those on MPAs, Ocean and Climate Change, CCOA, Mangrove Ecosystems and Livelihoods, and Ocean Acidification, as well as other initiatives to protect coral reefs and address stressors. The concept of 'nature-based solutions' may be used as a framework for action, particularly in the context of climate change.

Champion countries



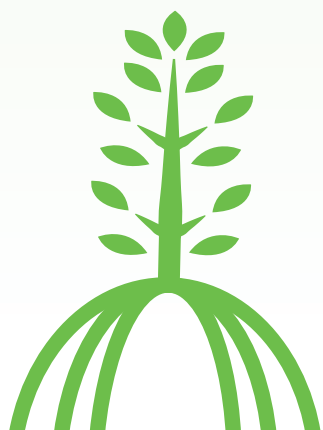
Sri Lanka

Mangrove Ecosystems and Livelihoods



'The COVID-19 pandemic has shown how fast nature can heal from some of the environmental damage caused by humans. Sri Lanka is indeed happy to champion Mangrove Ecosystems and Livelihoods Action Group under the Commonwealth Blue Charter. Leadership is not about leading others, but also continuing to learn and share our experiences with the Commonwealth family and beyond.'

The Honourable Prof G L Peiris MP,
Foreign Minister of Sri Lanka



Summary of achievements

Mangrove restoration activities are underway in 38 of the 42 Commonwealth countries where mangroves occur. Thirty-eight (38) countries have provided some protection, with 13 having protected at least half of their mangrove stands. Commonwealth member states have collectively made 44 national commitments to protect or restore mangroves, and 15 project proposals were developed under the Action Group. Five countries are members of **Mangroves for the Future**. Several member countries have formalised their commitments in national policies or plans, such as Belize's 2018 Protection of Mangroves Regulations, India's NDC and the 'Green India Mission', Kenya's National Mangrove Ecosystem Management Plan 2017–2027, and Mozambique's Strategy and Action Plan for Mangroves. These can serve to inspire policy and generate learnings for other Commonwealth countries.

Sri Lanka, home to nearly 16,000ha of mangroves, with 21 true mangrove species and several mangrove associate flora and fauna, had strictly protected over 18,000ha of mangroves as of August 2021.

In January 2020, the Government of Sri Lanka adopted the National Policy on Conservation and Sustainable Utilization of Mangrove Ecosystems in Sri Lanka, with a vision of 'A healthy mangrove ecosystem with rich biodiversity supporting the nation with direct and indirect services'. In order to maintain the sustainability of the policy, an action plan focusing on 'conservation, research, land-use conversions and sustainable resource extraction and restoration parameters' has been drafted. Further, National Guidelines for Restoration of Mangrove Ecosystems and Propagation of Mangroves have also been drafted to assist in achieving the set goals of the said policy and the strategies therein.





Mangrove restoration activities are underway in **38** Commonwealth countries

Many relevant institutions, including government, private and non-governmental organisations in Sri Lanka, have been working to ensure the conservation and restoration of mangrove ecosystems in the country by publishing awareness-raising materials, granting funds for research on mangrove conservation and restoration, conducting awareness programmes, hands-on training workshops and island-wide scientific restoration programmes. Several case studies were developed, including on **mangrove restoration in Point Lisas, Trinidad and Tobago**,⁵⁶ which was undertaken through an evidence-based approach to restore the topography of the area. Here, mangrove recolonisation, once hydrologic restoration was complete, was largely natural, and little replanting was required. Another case study described the **Tahiry Honko mangrove carbon project in the Velondriake locally managed marine area of Mozambique**, which highlighted the potential of mangroves for nature-based solutions to climate change.⁵⁷

Challenges

The primary stressors on mangroves are habitat destruction and conversion for aquaculture, agriculture, urban and coastal development, and overexploitation. For example, 38 per cent of mangrove loss between 2000 to 2012 was



Other Commonwealth success stories



Mangrove restoration in the Matang Reserve in Malaysia



Mangrove restoration in the Sundarban Reserve in Bangladesh



attributed to the development of palm oil plantations and rice paddy crops. Despite the demonstrable value of protected areas and Ramsar sites in mitigating mangrove losses (levels of degradation within protected areas are less than half those recorded from outside of protected areas),⁵⁸ approximately 75 per cent of mangrove forests globally remain unprotected and overexploited,⁵⁹ suggesting that Commonwealth countries with mangrove stands could increase the protection of mangroves within their protected area programmes and initiatives. There is no legally binding global framework for the conservation of mangrove (and other) ecosystems;⁶⁰ instead, policy frameworks comprise a plethora of international, regional, national and non-binding tools and standards.

Moreover, funding constraints and information gaps continue to hamper effective progress. Restoration projects that are implemented without an underlying science-based approach have generally proved unsuccessful. Successful mangrove regeneration has generally only been achieved by planting monocultures of fast-growing species (such as, *Rhizophora* sp., *Avicenna* sp.), generating mangrove forests with low biodiversity and potentially limited ecosystem functioning, and potentially limited blue carbon values. (At present, saltmarshes and seagrasses, also noted for their potential for blue carbon, are not specifically included under this Action Group.)

Priorities, opportunities and next steps for the coming year

The goals outlined in the Plan of Action centre around sharing knowledge on the importance of mangroves and how to protect and manage these critical ecosystems. One avenue is through land-use reforms and the holistic integration of environmental considerations into coastal development. Where restoration is required, hydrologic restoration appears to provide most value for money. Effort should be focused on

countries with high total mangrove biomass, countries where mangroves make up a large proportion of total forest area (for example, SIDS) and countries with high restoration potential scores. Continued research on mangrove biology, ecology and function under different management conditions, coupled with the active promotion of their importance and functional worth at the community level, and the establishment of effective protection measures, will be essential in the maintenance of healthy, productive and protective mangrove forests.

Training and capacity building (technical mangrove restoration and protection, as well as general project management, monitoring and evaluation) are a continued priority, which can be guided by the Commonwealth Secretariat's Training Database. In the short term, member countries intend to continue exchanging knowledge on legislation and regulations relating to mangrove protection and management, in an effort to understand the most appropriate regulatory regimes for member countries and their mangroves. The Action Group is also eager to facilitate pilot projects for mangrove restoration across Commonwealth member countries, but this has not proved possible in the absence of committed funding for activities. The Action Group is therefore committed to ensuring the availability of funding sources for activities under the Action Plan. The Commonwealth Secretariat's new Database of Funding Opportunities can help to guide this commitment. Mangroves are the 'poster child' for ecosystem goods and services valuation, providing a potential pathway to incentivise funding. In order to effectively address the stressors that impact on mangrove ecosystems, and leverage their economic potential, this Action Group could strengthen synergies with the other Action Groups, especially those on MPAs, Ocean and Climate Change, Sustainable Aquaculture, and Sustainable Blue Economy.

Learning and collaboration opportunities



GLOBAL
MANGROVE
ALLIANCE



The Nature
Conservancy



UNIVERSITY OF
CAMBRIDGE

Mangrove Restoration Mapping Tool



Global Resilience Project – Sri Lanka
Mangrove Restoration Project



Wetlands
INTERNATIONAL

Mangrove Capital Africa



GLOBAL
MANGROVE
WATCH



Mangroves for the Future
INVESTING IN COASTAL ECOSYSTEMS

Champion countries



Seychelles



Barbados

Marine Protected Areas (MPAs)



'Seychelles is a small and determined nation that has protected more than triple the area of ocean that global targets of the CBD and UN SDGs demand. By protecting and sustainably using these areas, we are not only safeguarding our marine environment but balancing economic growth through the management of the resources that the sea provides. We are proud of this accomplishment and hope that other nations will follow suit.'

His Excellency, Wavel Ramkalawan,
President, Republic of Seychelles



Summary of achievements

All but one Commonwealth countries with a coastline have designated MPAs. Seven countries have met the Convention on Biological Diversity (CBD) Aichi Target of 10 per cent of coastal and marine areas to be conserved by 2020, and four countries have protected 30 per cent or more of their exclusive economic zones (EEZs) in MPAs. Thirteen (13) countries are now committed to the 'Thirty by Thirty target' of protecting 30 per cent by 2030. (Although it should be noted that seven of the countries that have made these commitments are also those that have made the least progress on MPA establishment, highlighting a gap in the implementation of commitments). Six countries host MPAs that have been awarded 'Blue Park'⁶¹ status and 33 countries have undertaken a minimal assessment of management effectiveness. Several countries have committed to ambitious targets under regional and national frameworks, such as the **Caribbean Challenge** (20% by 2020), or unilateral pledges, such as the **Maldives' Blue Prosperity Programme**, **Bermuda's Ocean Prosperity Programme** (20% by 2024 and 2022, respectively), and the **Micronesian Challenge** (30% of near-shore marine resources conserved).

The Action Group has created a vibrant network of Commonwealth countries that are focused on MPAs, as exemplified by the inaugural Action Group meeting, as well as contributing to the online capacity-building programme on the **IUCN MPA Categories** and the development of guidelines on **Other Effective Area-based Conservation Measures (OECMS)**, organised in conjunction with the Pew Charitable Trust and IUCN. The **Marine Protected Area Strategic Management Framework** has been redesigned to better co-ordinate MPA management in terms of scope, strategic objectives, institutional responsibilities and activities, and the various actions needed to achieve the framework's objectives. The findings from the **2019 Nekton Deep Sea Expedition** are expected to guide the designation of further MPAs.

Seychelles has been making significant progress at the national and regional levels in establishing and managing its own MPAs. Through a marine spatial planning (MSP) exercise,



'As Barbados prepares to designate two new marine management areas we appreciate the enormity of our actions, particularly as it impacts on the development of a sustainable ocean-based economy. This is not just about the preservation of our coastlines but also the future of all industries under the blue economy purview. Although we will continue to involve all of our stakeholders, we appreciate that the international community is equally important as the goals and achievements of the collective will impact each of us. In this respect our Government fully supports the 30 by 30 target of the Global Ocean Alliance and encourage other countries to join in this venture as well.'

Honourable Kirk Humphrey, Minister of Maritime Affairs and the Blue Economy, Barbados

the country has designated 30 per cent of its marine waters as protected areas.⁶² Seychelles has also passed legislation to designate, classify and manage its MPAs, and is in the process of redesigning its Coral Reef Policy. A workshop on the Evaluation of Ecosystem Services and Goods was held in 2020. In addition, the country will conduct mangrove and

7 countries have met the CBD Aichi Target of **10%** of coastal and marine areas to be conserved by 2020.





Only **4** Commonwealth countries have appreciable areas of 'no take' in their MPAs.

seagrass assessments of the Mahé Plateau and outer islands, which are intended to inform the Nationally Determined Contribution (NDC) under the UN Framework Convention on Climate Change (UNFCCC).

Barbados will be designating two new marine management areas along its west and south coasts, respectively. These locations build on the former established Folkestone Marine Reserve and informal Carlisle Bay Marine Park on the respective coasts. The new West Coast Marine Management

'Seychelles is a champion in Marine protection and has come a long way since 2012, when the Seychelles Government set a goal for protected area expansion. The Journey has not been easy but through use of best practices, scientific data, local expert knowledge and stakeholder input, the country has finally achieved its goal, 10 years ahead of international targets. The successful management of these areas will contribute significantly towards the conservation of Seychelles species, especially those that are vulnerable, as well as provide better management of critical ecosystems and species habitats. In addition, it will enable communities to draw benefits from biodiversity (spill over effects) in the form of food supply, clean water, reduced beach erosion, soil and sand formation, and protection from storm surge. To achieve this, an integrated approach will be adopted to ensure sustainable management of the MPAs as well as the entire EEZ. By undertaking such bold actions and backing it up with implementation, Seychelles aims to inspire the global community to follow suit through the Commonwealth Blue Charter Action Group.'

Area extends approximately 8.2km in length and has an area extent of 8.3km². The new South Coast Marine Management Area extends approx. 5.2km in length and has an area extent of 5.5km². This will provide a total of almost 14km of protected coastline for the island, representing 14 per cent of the coastline being protected.

The work now must start in the need for protection of larger areas of coastal and marine space, as the boundaries only extend 1km offshore. Through the development of a Marine Spatial Plan (MSP), commenced in 2020, it is intended that greater emphasis will be placed on the protection of offshore resources and areas. The MSP will take about five years to complete and will be comprehensive in its integration of new information for the offshore areas, as it is intended to extend to the 200 nautical miles exclusive economic zone boundary.

As with any new initiative, there will be extensive consultations with stakeholders and fisher folk, which will help shape how we use the space. The successful management of these areas will contribute significantly towards the conservation of existing and potentially new exploitable species, especially those that are vulnerable, as well as provide better management of critical ecosystems and species habitats, as Barbados looks to develop a sustainable ocean-based economy.

Spotlight



Challenges

Despite existing and emerging commitments, just 2.2 per cent of the world's ocean is covered by strongly protected 'no take' marine reserves; just four Commonwealth countries have appreciable areas of 'no take' in their MPAs (UK, Kiribati, Australia and Belize). Moreover, the 10 per cent CBD and SDG target represents a political target dating back to 1983, prior to the identification and amplification of most ocean threats. While some countries have met this initial

90% of all countries present at the Conference of the Parties to CBD voted for the Motion to protect at least **30%** of the ocean in highly protected, no take zones.



Convention on
Biological Diversity

target, qualitative MPA targets (pertaining to adequacy, representativeness, resilience and connectivity) will require significant additional effort and resources. Just four countries have signed up to the IUCN Green List, which provides the global standard for protected area management. As such, Commonwealth MPA initiatives and pledges represent a promising first step, but the full benefits presented by MPAs have not yet been realised and pledges need to be followed up with appropriate

management measures, including adequate resources and effective surveillance and reporting to evaluate impact.

Transparency on reporting requirements continues to be a challenge, despite the existence of the **World Database on Protected Areas (WDPA)**. (The WDPA does not yet characterise the stage of establishment and maintenance of MPAs, or the level of protection provided.) The requisite legal and governance frameworks associated with MPAs may also need further strengthening, on a country-to-country basis, to allow for effective enforcement and accountability. Finally, there is often a gap in terms of training enforcement officers and the judiciary on the specifics of maritime law, enforcement and successful prosecutions.

Funding gaps constrain effective implementation of the Action Plan, and the economic impact of COVID-19 will further exacerbate this challenge. Trainings under the Action Group had to be moved online during the COVID-19 pandemic, and it has been challenging to secure the engagement of all members.

Priorities, opportunities and next steps for the coming year

Barbados and Seychelles are fully committed to promoting MPAs and supporting member states to implement their existing commitments, including by developing indicators to measure progress under the Action Group. Many of the opportunities will require active collaboration with the other Action Groups, including Coral Reef Restoration and Protection, Mangrove Ecosystems and Livelihoods, Sustainable Coastal Fisheries, and Ocean Observation.

Following progress in **the Convention on Biological Diversity (CBD)**, where countries are seriously considering protecting at least 30 per cent of the ocean in highly protected, 'no take' zones, there is an unprecedented opportunity and urgent imperative to leverage the potential of Commonwealth MPAs. The Action Group is uniquely well placed to:



- explore innovative rapid assessment techniques to identify gaps and priorities in marine protection;
- promote approaches to community engagement in the selection of MPAs and their management;
- pilot cost-effective monitoring and surveillance mechanisms (including remote sensing, data sharing and crowd sourcing), and explore their potential for enforcement and compliance, as well as developing proven templates for clear laws that allow for the protection of the marine environment; and
- continue improving the adaptive management of existing MPAs in the field (including through IUCN's MPA Standards and Green List process).

The Bahamas experience of assigning IUCN Protected Area Management Categories⁶³ and Malaysia's two candidates for the Green List⁶⁴ provide useful case studies in this respect.

Across the Commonwealth, there is a clear need to identify and leverage new funding sources for MPAs, including through the Commonwealth Secretariat's Funding Opportunities Database, prioritising countries with limited domestic resources.

Champion countries



New Zealand

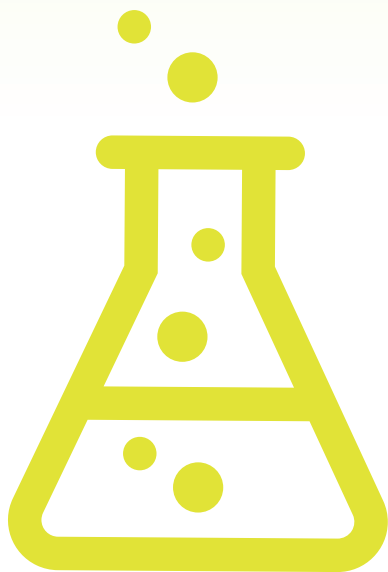
Ocean Acidification



'Toitū te marae a Tāne-Mahuta,
Toitū marae a Tangaroa, Toitū
te tangata.'

'If the land is well and the sea is
well, the people will thrive.'

Nanaia Mahuta, Minister of Foreign
Affairs and Trade, New Zealand

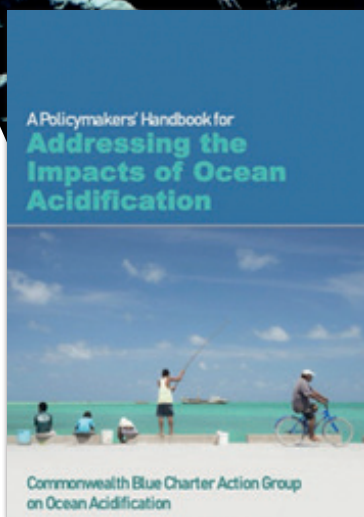


Summary of achievements

New Zealand hosted an Ocean Acidification Action Group technical workshop in 2019, attended by ocean acidification experts, as well as 23 government officials from 17 countries across the Commonwealth. Workshop participants identified multiple challenges, highlighting gaps in monitoring, science and funding. Actions to address these challenges included improving the accessibility of information of ocean acidification, impacts and potential mitigation measures, and leveraging existing networks and tools. New Zealand commissioned the development of an *Ocean Acidification Handbook*⁶⁵ to guide Commonwealth policy-makers to develop strategies to address the impacts of ocean acidification, launched at two webinars in April 2021. Globally, 30 Commonwealth countries are represented on the **Global Ocean Acidification Observing Network** and 4 are members of the **Ocean Acidification Alliance**. In New Zealand, a citizen science programme contributes to and expands the scope of national ocean acidification monitoring. In Fiji, scientists from the University of the South Pacific collaborated with The Ocean Foundation to restore a bed of mangroves and study the effects on local-carbon chemistry.

Challenges

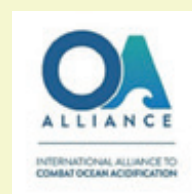
Efforts have primarily focused on understanding the threat, rather than addressing it. Most small island states have no monitoring or research programmes, and ocean acidification in coastal zones remains poorly understood, largely due to the high procurement and maintenance costs of monitoring systems. Ocean acidification monitoring requires substantial human capacity investment, yet the regions that are most vulnerable to the impacts of ocean acidification also face the greatest limitations in human capacity. This constraint was noted by the Champion country but is common to all Commonwealth SIDS.



Most measures to mitigate or adapt to ocean acidification remain untested or prohibitively expensive to implement in resource-limited contexts. Moreover, ocean acidification is generally not included in global financing instruments. For example, if the potential value of ocean acidification mitigation was better internalised, this might provide additional impetus for the financing of blue carbon activities. Although the 2008 Monaco Declaration represents a landmark international statement of concern, the governance framework to address ocean acidification remains largely ad hoc and voluntary (although national legislative frameworks are emerging in some countries, including Fiji). Where (sub)national plans are concerned, non-point source pollution is commonly not considered, despite its contribution to local acidification.

Most measures to mitigate or adapt to ocean acidification remain untested or prohibitively expensive to implement in resource-limited contexts. Moreover, ocean acidification is generally not included in global

Spotlight



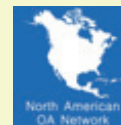


29 countries are represented on the Global Ocean Acidification Observing Network

Priorities, opportunities and next steps for the coming year

An Action Plan for the Action Group will be produced. This will benefit from other Plans of Action that have been developed by members, as well as from the *Ocean Acidification Handbook* and the International Alliance to Combat Ocean Acidification's Action Plan Toolkit.⁶⁶ The Action Group is well placed to encourage a diverse set of stakeholders to engage with and strengthen existing mechanisms for co-operation, such as the Global Ocean Acidification Observing Network [GOA-ON] and its regional monitoring hubs. The Action Group can also play a role as a platform for sharing information on new developments in ocean acidification science techniques for research (drawing on the UN International Oceanographic Commission's methodology and data template for the collection and submission of pH data, the International Atomic Energy Agency's Ocean Acidification International Coordination Centre's existing database, and The Ocean Foundation's monitoring kit).⁶⁷ There is need for regular scientific training, and the Commonwealth is uniquely positioned to offer this training by drawing on the range of capacities that exist across members, including some of the countries with the most advanced systems (for example, New Zealand, Australia). The Action Group could foster stronger cross-regional co-ordination between SIDS in the Caribbean and the Pacific.

GOA-ON Regional Monitoring Hubs



Mediterranean Ocean Acidification Hub

North American Ocean Acidification Network



North East Atlantic Hub of GOA-ON



Ocean Acidification Africa Network (OA-Africa)



Pacific Islands and Territories Ocean Acidification Network (PI-TOA Network)

The communication and implementation of the Handbook and Toolkit can support accelerated action on ocean acidification, and the Action Group could be used to further discuss promising adaptation and mitigation strategies, as well as for exploring ways to minimise the cost of proven strategies. Work under the Action Group should be designed to complement work under the other Action Groups, such as Ocean and Climate Change, Mangrove Ecosystems and Livelihoods, and Ocean Observation and Sustainable Aquaculture.

Champion countries



Fiji

Ocean and Climate Change



'Now more than ever our ocean desperately needs the voices of its champions. As generational custodians of a "Blue Pacific", Fijians are proud to lead the campaign for ocean climate action within the Commonwealth Blue Charter. Fiji is leading by innovating with big blue ideas. We are protecting our 1.2 million square kilometres of ocean, replanting coral, preserving fisheries, restoring mangroves and fields of seagrass and shifting to carbon neutral shipping. We call on the world to do the same.'

Aiyaz Saiyed-Khaiyum, Hon. Minister of Economy and Minister responsible for Climate Change, Fiji

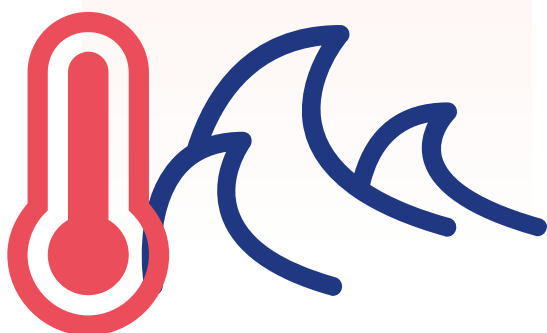
Summary of achievements

A joint meeting was held with the Mangrove Ecosystems and Livelihoods Action Group to identify collaboration opportunities, with the focus on blue carbon and nature-based solutions. A Concept Note is being developed to inform a project proposal on these topics. A case study documenting lessons from early blue carbon projects, such as the **community-led mangrove restoration and conservation in Gazi Bay, Kenya**, was developed.⁶⁸ The Action Group also developed a briefing note on the options available to small- and medium-sized ports to **reduce carbon emissions of global shipping**,⁶⁹ contributing to the International Maritime Organization (IMO)'s global target of a 50 per cent reduction by 2050. Seven Commonwealth countries form the Pacific Blue Shipping Partnership, where these options could be implemented. Fiji has worked closely with the **Secretariat of the Pacific Regional Environment Programme (SPREP)** to inform its work, providing a model for other members to work with regional or national institutions. Fiji also worked with Australia to identify two potential partnership models to support **Climate Vulnerability Assessments**,⁷⁰ which can help identify climate-related risks and vulnerabilities, to inform potential mitigation strategies.



Challenges

Climate change challenges all Action Groups and all Commonwealth countries. The draft Plan of Action for this Group is creating an opportunity for cross-cutting action






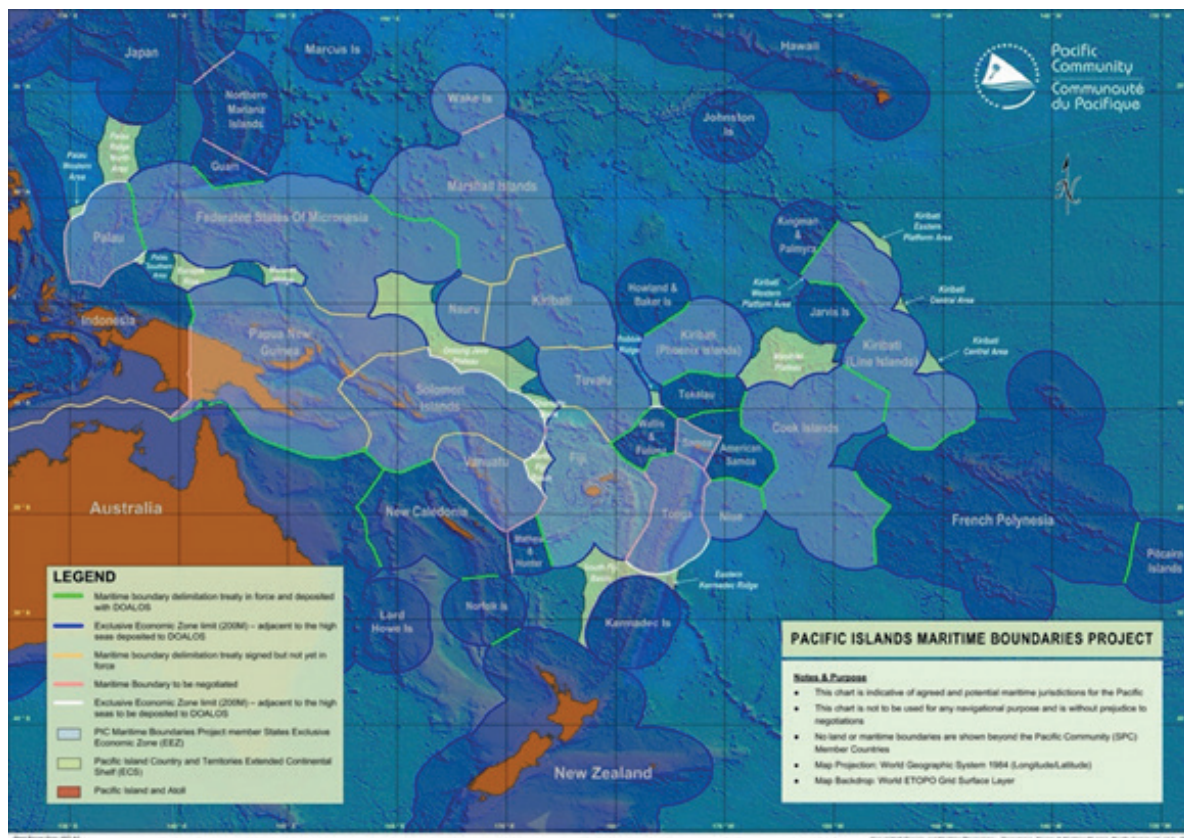
across the Commonwealth Blue Charter. The plan is anticipated to focus on blue carbon. However, in order to receive carbon credits for coastal restoration, a certified methodology must usually be followed. The cost of conducting required evaluations is still high and not feasible for small projects. Therefore, the Action Group may benefit from looking at the streamlining and combining of blue carbon projects to save costs. The group will consider accelerated global emissions reductions (as well as sequestration) to secure positive climate outcomes across all Commonwealth countries. At the national level, action can be ratcheted up through NDCs, including by leveraging renewables and supporting technologies, zero-emission fuels and the promotion of energy-efficient design in shipping, ports and elsewhere.

Priorities, opportunities and next steps for the coming year

In the lead up to the **26th UN Climate Change Conference of the Parties (COP26)**, the Action Group is planning to convene its members to create an Plan of Action to contribute to the integration of oceans within the UNFCCC process, and to accelerate emissions reductions to safeguard ocean action. The most urgent priority globally is to address the root causes of warming and acidification, through redoubled efforts to reduce greenhouse gas emissions. The Commonwealth and its Blue Charter Action Groups have considerable convening power, with the potential to co-ordinate, support or lobby with other blocks, such as the **Alliance**



'The most urgent priority globally is to address the root causes of warming and acidification through redoubled efforts to reduce greenhouse gas emissions.'



The Status of Pacific Regional Maritime Boundaries as of July 2020
Source: SPC Geoscience, Energy and Maritime Division⁷¹

Spotlight



of Small Island States (AOSIS). Efforts to scale the use of marine renewables and improve energy efficiency in both the marine and terrestrial sector, should be seen as priority 'no regrets' options.

There are opportunities to leverage 'triple wins' by promoting and scaling actions that are already being undertaken to address other critical threats facing the ocean, which also have mitigation or adaptation co-benefits. These are likely to represent a good use of climate funding. Examples include restoration, conservation and protection for blue carbon and coastal resilience, the elimination of marine resource overexploitation, and the reduction of marine pollution. At least 40 coastal countries have blue carbon ecosystems; blue carbon sinks can sequester up to five times as much carbon as tropical forest, yet they are being lost at a rate five-to-ten times faster than rainforests. Their conservation and restoration contribute to both climate change mitigation and adaptation and should be an urgent priority. Existing processes such as the Ocean Pathway and 'Because the Ocean', as well as the SAMOA Pathway, can be used to advance ocean-related climate action, as well as integrating oceans-related climate action into the development and implementation of countries' NDCs, national adaptation plans, and other national climate and development policies, plans and processes. Regional frameworks such as the Organisation for Eastern Caribbean

States (OECS) Ocean Policy Framework and the 'Blue Pacific Framework' provide further entry points to mainstream climate considerations into ocean action.

The UNFCCC's financial mechanisms, operated by the Global Environment Facility, include the Special Climate Change Fund and the Least Developed Countries Fund. Other relevant mechanisms include the Green Climate Fund and the Adaptation Fund. Efforts to improve transparency and monitoring of these funds present an opportunity to mainstream ocean issues into the climate change regime.

Where Commonwealth countries face losing their marine jurisdiction, baselines and established boundaries need to be submitted at the earliest opportunity. The Action Group provides a potentially powerful forum for advocacy on the issue of shrinking maritime boundaries in the face of sea-level rise, and the promotion of urgent action to address the root causes of sea-level rise. The ongoing process towards an internationally legally binding instrument on **Biodiversity Beyond National Jurisdictions** may provide an entry point for these discussions. The Pacific island nations have been particularly active in regional policy processes and frameworks for action: strengthened cross-regional linkages with the **Caribbean SIDS** could maximise collective influence on the global stage.

'The Pacific Community has been working on mapping and registering marine boundaries for a number of Pacific countries, as part of the **Pacific Islands Regional Maritime Boundaries Project**'

At least **57%** of the Commonwealth countries with coasts have referenced blue carbon in their NDCs.

Champion countries



Canada

Ocean Observation



'Strong ocean leadership is sharing information with others to increase our collective understanding of the oceans. It is also making sure everyone has an opportunity to participate in ocean science. As an ocean nation, Canada is pleased to lead the collaborative work of the Commonwealth Blue Charter Action Group on Ocean Observation to improve access to science-based ocean monitoring solutions and bring attention to the importance of gender equity in ocean science. We look forward to continuing to work with the Commonwealth Secretariat and member countries on ocean-related issues and meeting our commitments towards sustainable ocean development and the blue economy.'

**Timothy Sargent, Deputy Minister,
Fisheries and Oceans Canada**



Summary of achievements

Key achievements so far include:

- advancement of innovation, development and deployment of ocean observational technologies, with an emphasis on underrepresented areas;
- promotion of the accessibility of ocean observational data, knowledge and best practices;
- advancement of political co-operation to better integrate ocean observational data, information and knowledge into decisions, products and services within the Commonwealth; and
- progression of gender, youth and indigenous issues within the context of ocean science.

The Action Group has recognised the uneven global representation of observational technologies, which has led to gaps in observations, especially surrounding SIDS and coastal states that are most vulnerable to ocean changes. The Action Group aims to address this gap by providing existing affordable and ease-of-use observational technology, such as '**Global Ocean Acidification – Observing Network (GOA-ON) in a box**', 'Argo' and 'Biogeochemical Argo' floats, and focusing on developing draw-down technologies to create low-cost, low-maintenance technology for areas with limited resources and difficulty to access.

The Action Group additionally recognises that existing ocean observational data is not fully utilised due to siloed data, as well as lack of training and tools to fully find and utilise existing ocean observational data. To promote accessibility of ocean observational data, knowledge and best practices, the Action Group initially focused on the ease of access to Argo Floats. The Action Group has held virtual meetings on Argo floats, which reached participants from 18 countries, and subsequently released a publicly available open-source analysis package, which provides tools for downloading and analysing collections of oceanographic Argo float datasets.



The Action Group is working on political co-operation to better integrate ocean observational data, information and knowledge into decisions, products and services within the Commonwealth.

By providing funding to our member countries to attend knowledge mobilisation and training sessions, the Action Group can advance the utilisation of existing ocean observations into decision-making today.

The Action Group has worked to advance inclusivity issues in ocean science, with an initial focus on gender issues. In December 2020, the Action Group released an issue paper on gender issues in ocean science, which included actions and recommendations to advance gender equality in this area. The paper was presented at the All-Champions Virtual Meeting in December 2020 and as part of an event for International Women's Day 2021 entitled '**Sea the She: Recognising women's contributions to ocean science**'.



Spotlight



Challenges

Through our Action Group meetings with member countries, several challenges within ocean observations have been identified:

- accessibility of ocean observation data;
- capacity restraints related to transforming data into information and knowledge;
- communication of ocean observations to non-scientists and decision-makers; and
- cost of ocean observation equipment, especially regarding sustaining long-term ocean monitoring.

Existing ocean observation data are not easily accessible or findable. Additionally, data are not always shared between countries or programmes. The Action Group is working to bring awareness to existing data resources and is encouraging the sharing of data and information across nations and programmes.

Some programmes, like Argo, have data freely available to everyone and without restrictions; however, interpretation of that data remains challenging. Our member countries have expressed capacity restraints related to transforming available data into useable information and knowledge. We are working to develop training sessions to advance available ocean observation data into useable products.

We have also received interest in bridging the gap between ocean observation and non-scientists, policy advisers and decision-makers. We acknowledge this as another challenge area and will work to communicate ocean observations in a meaningful way to enable evidence-based decision-making.

Finally, our member countries have expressed difficulty of sustaining long-term ocean monitoring programmes due to cost. Often, grants or funding is available for short-term observational programmes; however, observations over longer timescales are often what is most useful to our members. We are working on creating low-cost, easily maintainable technology for long-term ocean monitoring projects.

Priorities, opportunities and next steps for the coming year

At the start of the **UN Decade of Ocean Science for Sustainable Development (2021–2030)**, the Ocean Observation Action Group plans to improve ocean observations on multiple scales and advance SDG14 through information and knowledge sharing. The Action Group plans to increase the innovation, development and deployment of ocean observational technologies, by developing and sharing modular/portable fit-for-purpose observation platforms



and investigating draw-down technologies that allow for simpler, cheaper and easier to use ocean observations, such as eutrophication monitoring kits. Furthermore, the Action Group aims to improve accessibility of ocean observational data, knowledge and best practices among Commonwealth countries through the development and training of open-source tools for accessing, analysing and visualising existing data, including orphaned data. The sharing of technologies, expertise and analytical capacity will further improve accessibility of ocean observational data. Additionally, the Action Group plans to engage political co-operation to better integrate ocean observational data, information and knowledge into decisions, products and services within the Commonwealth, by interacting with other Action Groups to identify cross-cutting issues and opportunities to collaborate. Finally, the Action Group wishes to further examine gender, youth and indigenous issues within the context of ocean science, by promoting gender equity in ocean sciences, by advancing the recommendations from the gender equity issue paper, and by exploring opportunities to promote the inclusion of indigenous peoples, youth and early-career scientists in ocean sciences.

'GOA-ON in a Box' kits have been assembled for use in SIDS and with indigenous communities in Canada

Champion countries



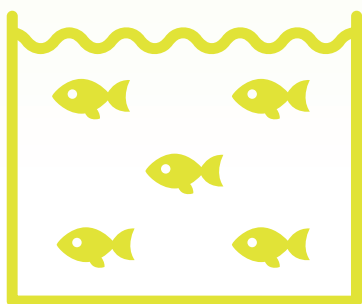
Cyprus

Sustainable Aquaculture



'We are faced with one of the greatest challenges of our century, namely how to provide food for the ever-increasing population of our planet. Aquaculture is one of the fastest growing food production industries globally and it is considered a major pillar of Blue Growth. Aquaculture is vital in contributing to food security, but also in creating employment opportunities and improving the wellbeing of local communities. In order to secure the future of aquaculture, it is our obligation as political leaders to set a strong and solid foundation based on environmental, social, and financial sustainability.'

Prof Costas Kadis, Minister of Agriculture, Rural Development and the Environment, Cyprus



Summary of achievements

Aquaculture in many Commonwealth countries, including India, Bangladesh, Australia and Sri Lanka, can be described as mature or modernising. Three countries have **prioritised aquaculture** as part of their National Adaptation Plan of Action (NAPA), namely:

- Gambia: increasing fish production and preservation of fish
- Bangladesh: adaptation to new climate-induced environments, including increased salinity
- Zambia: spatial planning of land use practices

Various tactics are being applied to help countries rationally develop their aquaculture sector to meet their needs, including (but not limited to) the promotion of farming of species that feed low in the aquatic food web, integrated multi-trophic aquaculture, sustainable intensification, certification and ecological aquaculture. A case study was developed on aquaculture in Seychelles,⁷² with a focus on the 2018 Blue Economy Strategic Framework and Roadmap. The environmental performance of marine offshore aquaculture in Cyprus was assessed,⁷³ including attention to the policy and legislative developments required to support growth in private sector aquaculture. The Action Group also documented Best Management Practice Training for Egyptian Fish Farmers⁷⁴ and Chicoa Fish Farming in Mozambique.⁷⁵

Challenges

It has proved difficult to achieve economies of scale. Low population densities in rural areas, compounded by a poor enabling environment – inadequate infrastructure and the distances between small, fragmented markets, the lack of affordable credit, the absence of sound practical information – are among the most common sources of poor sector development. These conspire to constrain fish farming to a subsistence role.

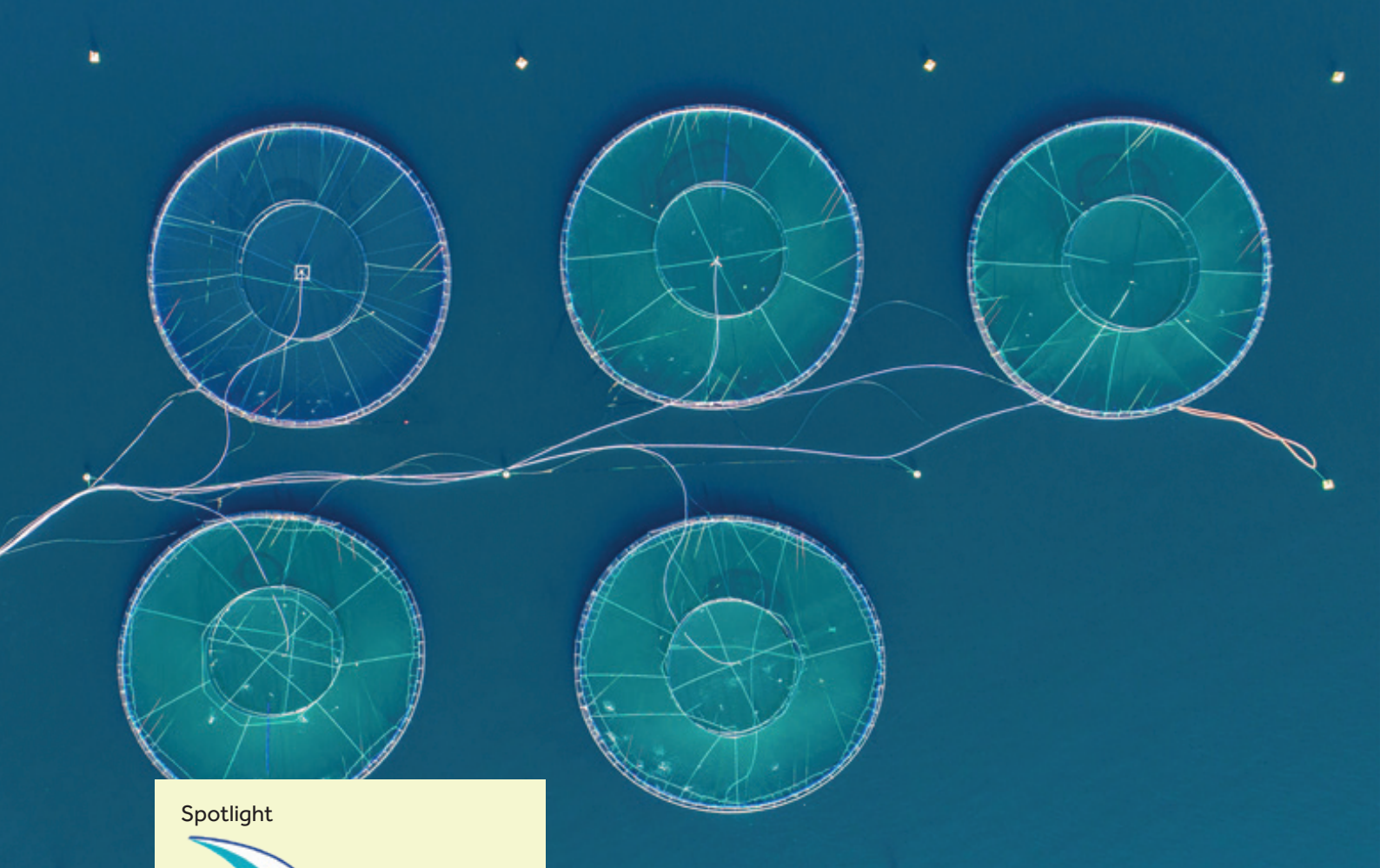


Aquaculture may impose negative impacts on the environment. Certification schemes have been introduced as a means of improving sustainability and

consumer confidence. However, there is a plethora of such schemes, and it may not be feasible for small-scale farmers to achieve compliance. There is also sometimes a lack of clarity on the regulations for aquaculture operations. There may be trade-offs with other Blue Economy activities, meanwhile, and any proposed aquaculture project is best considered in the broader context of a sustainable Blue Economy strategy and/or a national ocean policy.

A range of endemic, exotic and emerging infectious diseases continue to affect farmed aquatic species. The misuse of antibiotics in aquaculture has also been linked to the promotion of antimicrobial resistance. Addressing biosecurity requires significant resources, political will and concerted international action: without careful planning, a country's aquaculture sector remains vulnerable to new and emerging diseases. Climate change poses an emerging serious threat to the sector.





Spotlight



SPC fisheries, aquaculture and marine ecosystems division (FAME) provides the 22 SPC's member countries and territories with the information they need to make informed decisions on the management and development of their aquatic resources, and help to provide the tools and strengthen the capacity needed to implement these decisions.

Priorities, opportunities and next steps for the coming year

The current key priorities of the Action Group are the formulation of an outline and drafting of the Strategic Roadmap for Sustainable Aquaculture. Action Group members will also be developing project proposals to secure funding and develop partnerships with external organisations. Furthermore, the Action Group will explore the possibilities of co-operation with other Blue Charter Action Groups to become involved in projects of common interest.

The Action Group, through the proposed Strategic Roadmap, is well positioned to play a key role in advising policy-makers, stakeholders and civil society to determine the role of aquaculture in meeting: (i) national economic, social and environmental targets; (ii) national food security and nutrition

Guiding Principles: Ecosystem Approach to Aquaculture (EEA)

1. Aquaculture should take account of the full range of ecosystem functions and services; ensure that their sustained delivery to society is not threatened
2. Aquaculture should improve human wellbeing and equity for all relevant stakeholders
3. Aquaculture should be developed in the context of other sectors, policies and goals, as appropriate.

objectives, and implementing the policies, regulations and legal frameworks needed to secure this; and (iii) NDCs and NAPAs. The formation of producer organisations (POs) may help to establish the economies of scale needed to purchase essential inputs at affordable prices and develop and serve larger markets and realise best prices. POs also have the advantage of facilitating the rapid dissemination of good and profitable farming practices. The work of the **Pacific Community (SPC)** can provide some good examples for the Pacific context.⁷⁶ In order to access global markets, aquaculture production must meet sanitary and phytosanitary standards, as set out by the World Trade Organization (WTO) and Codex Alimentarius.

In the context of climate change and other environmental impacts, the conversion of coastal mangroves and seagrass areas, which are both important carbon sinks (and high in biodiversity), into aquaculture should be prohibited and not eligible for financing. Meanwhile, farms already established in mangrove areas should be encouraged to offset harm by reforesting local areas,⁷⁷ and/or encouraged to review options to relocate to other suitable areas.

Geographic information system (GIS)-based mapping presents new opportunities for aquaculture site selection. Risk-based zoning and siting, and the development of integrated environmental monitoring (for example, water temperatures, harmful algal blooms, toxin levels in shellfish) and low-cost early warning systems (for example, producer networks linked via inexpensive mobile communication technologies – smart phones and weather apps) can help the sector to adapt to climate change and locate in lower-risk areas. Improved provision of credit and insurance can also aid in the prevention and reduction of – and coping with – climate change-induced risks. Many of the better management practices promoted through the Ecosystem Approach to Aquaculture have positive effects on climate change adaptation, using innovative technologies, such as recycling aquaculture systems (RAS) and aquaponics.

'The Plan of Action was finalised and approved. The key objective is to prepare a strategic roadmap to guide Commonwealth countries in the sustainable development of aquaculture, outlining different factors, challenges and sector-wide policies that can drive or inhibit the development and expansion of sustainable aquaculture.'

Commonwealth countries produced
10.5 million tonnes of farmed seafood
in 2017

Champion countries



Kenya



Antigua and Barbuda

Sustainable Blue Economy



'Member nations should support ongoing efforts that promote sustainable Blue Economy initiatives, improves GDP, communities' livelihoods and mankind well-being while reducing negative impacts on ecosystem and biodiversity to reverse the cycle of decline in ocean health. Collaborative approaches, strategies to harness opportunities and tackle barriers to growing Blue Economy, facilitation of knowledge exchange and development of innovative solutions should be prioritised.'

Honourable Peter Munya, MGH,
Cabinet Secretary, Ministry of
Agriculture, Livestock, Fisheries and
Cooperatives, Kenya



Summary of achievements

The terms of reference (TOR) and Plan of Action (PoA) were presented and discussed by all members. The Action Group organised a webinar in August 2020, titled '**The Blue View: Opportunities and Challenges for the Blue Economy**', hosting panellists from the State Department of Fisheries, Aquaculture and Blue Economy of the Government of Kenya, Seychelles Conservation and Climate Adaptation Trust (SeyCCAT), the Nelson Mandela University, Seascope Consultants, and the Commonwealth Secretariat Department of Oceans and Natural Resources. Kenya, Canada and Japan co-hosted the **Sustainable Blue Economy Conference (SBEC)** in Nairobi in November 2018. More than 16,000 participants, including 7 Heads of States, 84 ministers, development partners, civil society, governors and mayors, among others, attended. One of the major outcomes of SBEC 2018 is that it has triggered a diverse range of national, continental and even global-level initiatives aimed at harnessing the dividends of the Blue Economy. The Action Group also produced a video showcasing the productivity and sustainability pillars of the Blue Economy. Several case studies were developed, including on Seychelles' **Innovative 'Debt for Conservation Swap', Conservation and Climate Adaptation Trust, and Blue Bonds Plan**.⁷⁸

Seven Commonwealth countries are on the **High-level Panel for the Sustainable Ocean Economy** and have committed to sustainably managing 100 per cent of their marine waters by 2025.⁷⁹ Twenty (20) coastal countries have some form of 'Blue Economy' initiative underway. Twelve (12) Commonwealth countries are signatories to the **Jakarta Declaration on Blue Economy**. Further, while just 5 Commonwealth countries have dedicated ministries or departments for the Blue Economy, 18 have current or planned **national strategies for Blue Economy development**, while **marine spatial plan (MSP) programmes** are planned or underway in 24 countries.



Challenges

Capacity constraints and the limited availability of technical staff has delayed research, implementation and engagement with international organisations. Current domestic financial resources may prove insufficient to implement activities as planned: the Action Group is considering leveraging support from development partners, although developing the business case for investment may present a more sustainable outlook. COVID-19 has prevented physical meetings, but the Action Group has responded successfully and flexibly, and is currently considering holding a second virtual meeting before the end of 2021.



Broader challenges pertain to the absence of a comprehensive and transparent policy framework for regulating Blue Economy activities, and the difficulties of implementing marine spatial planning at scale, across jurisdictions, while managing trade-offs between incompatible activities and interests. Development of the national Blue Economy will be controlled by national governance frameworks. However, the marine environment extends beyond national boundaries, and Blue

7 Commonwealth countries have committed to sustainably managing **100%** of their marine waters by 2025.





Commonwealth Blue Economy Series

Economy activities in one nation could impact neighbouring nations. Many ocean resources, such as migratory fish stocks or marine genetic resources (MGR), can move between jurisdictions. For example, of the 54 Commonwealth countries, 20 are not party to the UN Convention on the Law of the Sea (UNCLOS) implementation agreement for migratory fisheries stocks,⁸⁰ which may hinder these nations' ability to benefit from fishery resources that migrate beyond national jurisdiction.

Understanding and managing within a region shared environmental impacts from Blue Economy activities requires regional environmental baseline information, which would necessitate sharing of environmental information between nations. For the Blue Economy to be sustainable at a regional scale, there will need to be a collaborative approach between neighbouring nations, and competent bodies that manage such activities.

Integrated marine (spatial) planning and environmental assessments are time consuming and resource intensive. Collaboration and mutual learning within the Action Group could help ease planning difficulties and expedite sustainable results.

Priorities, opportunities and next steps for the coming year

At the second Sustainable Blue Economy Action Group Meeting, the members finalised the terms of reference and Plan of Action. The Action Group will identify viable projects that are eligible for funding from, and partnerships with, development partners, civil society organisations and the Commonwealth Secretariat. Commonwealth countries that already have frameworks to manage individual sectors or the Blue Economy as a whole, can share their expertise to help other nations develop, or review and improve, their frameworks as appropriate. The **Commonwealth Blue Economy Series**, including the **Blue Economy and Small States**,⁸¹ as well as the Commonwealth Blue Charter Blue Economy toolkit shared with Action Group members.

Spotlight



20 Commonwealth countries are **not** parties to the UNCLOS implementation agreement for migratory fisheries stocks.

Specific sectors of (continued) growth include sustainable tourism, transport and communication (shipping, cables and pipelines), marine bioeconomy (fisheries, aquaculture and biotechnology), marine renewable energy (MRE) to meet the growing demand for energy, and payments for ecosystem services (PES), which includes payment for the conservation and restoration of blue carbon sinks through a 'carbon-market' approach. However, quantifying the value of blue carbon is complicated; blue carbon is not yet fully included in emissions accounting, and standards for blue carbon markets are still in their infancy.⁸² In addition to blue carbon, MRE may be of particular interest to the Commonwealth, both for developed nations and SIDS, where considerations of energy access and security, water security (desalination), and climate change coalesce. However, the Blue Economy has very real implications for how access to and control over ocean space is distributed, and who is included in these processes and politics.⁸³ Therefore, a careful, transparent, inclusive and equitable approach is required.

Planning for the exploitation of non-renewable resources (for example, offshore petroleum and deep-sea mining) should be approached with caution and foresight, as these may present attractive short-term opportunities, but are unlikely to be long-term blue economic solutions. Lessons from terrestrial mining⁸⁴ suggest there can also be risks in the sea.⁸⁵ Questions have been raised about the equitable exploitation and use of deep-sea resources and the risk of imbalanced investment arrangements with small states.⁸⁶



'While actions to support economic growth, livelihoods and jobs are important, our foremost aim must be to address the ill effects of the misuse of our blue resources. Echoing the sentiments of Honorable Peter Munya, a collaborative approach is key to a successful Sustainable Blue Economy, as the ocean is every nation's responsibility.'

Honourable Minister Dean Jonas,
Ministry of Social Transformation,
Human Resources Development,
and the Blue Economy, Antigua
and Barbuda

Champion countries



Kiribati



Maldives

Sustainable Coastal Fisheries



'To go fast we go alone but to go far we go together'. This would earnestly call on our Commonwealth countries, partners, stakeholders and institutions at the national and international scale to support us thrive forward in achieving sustainable coastal fisheries for a better and healthy future generation.'

Honourable Ribanataake Awira,
Minister of Fisheries and Marine
Resources Development, Republic
of Kiribati



Summary of achievements

Formed in December 2019, the Action Group is in its initial phase, but some key achievements so far include the establishment of a **Kiribati National Taskforce** to facilitate activities under the Action Group, which has held an initial workshop, generating lessons to be shared with other member countries. The first Action Group meeting was held, and Maldives was confirmed as Co-Champion. The key thematic areas have been approved, ready to be implemented in the next CHOGM cycle. A joint meeting with the Ocean and Climate Change Action Group was planned, but had to be delayed due to COVID-19. The Action Group has developed case studies on the **Lyme Bay Fisheries and Conservation Reserve in the UK**,⁸⁷ as well as on **Individual Transferable Quotas for Cod Fisheries in Iceland**.⁸⁸ All Commonwealth countries with a coast have reported at least once on progress implementing the FAO Code of Conduct for Responsible Fishing (but few have reported regularly).

Challenges

Twenty-five (25) per cent of fish consumed globally is caught illegally. In some countries (e.g., Sierra Leone, The Gambia) up to 60 per cent of all infractions constituted illegal incursions of large offshore vessels into coastal areas. The most common offence in the Commonwealth is fishing without a valid licence, closely followed by fishing in a prohibited zone or during a closed season. Some offences, such as the use of illegal gear, or relating to bycatch and illegal discarding practices, were less prevalent. Under-reporting of quotas and smuggling were further challenges, as were human rights and labour abuses, but these were less common. The Action Group seeks to address these issues, but funding and capacity constraints in developing project proposals may require further support.

Climate change compounds existing issues of mismanagement and overexploitation, as well as being projected to reduce the productivity and distribution of fisheries and aquaculture, with many commercially important species' distributions shifting outside of the jurisdictions where they are currently managed. The impacts are expected



'Maldives, along with the union of Commonwealth countries, the Action Groups and our partners, is committed to working towards the sustainable management of coastal fisheries resources in countries such as the Maldives that rely heavily on coastal fisheries resources for our livelihoods. This cooperation among members is crucial for the sustenance of economically viable coastal fisheries.'

Honourable DR. Hussain Rasheed Hassan, Minister of Fisheries, Marine Resources and Agriculture, Republic of Maldives

to be greatest for small-scale coastal fisheries. Many Commonwealth countries rank as those whose economies are most vulnerable to climate change impacts on fisheries.^{89, 90} Without regional co-operation and planning, these countries are likely to experience severe impacts, such as declining fish stocks, leading to major economic and social impacts.





Priorities, opportunities and next steps for the coming year

The Action Group looks forward to creating a Plan of Action to drive forward concrete progress. The Secretariat is developing a virtual training for the effective enforcement of coastal fisheries. The Champions are particularly eager to pursue research projects that advance fisheries science, as well as monitoring, control and surveillance (MCS). The Action Group will consider promoting good practices for coastal fisheries, such as the reporting of both catch and effort using available technology and local capacity. It will also prioritise capacity building for developing countries to:

- improve fisheries management through science-based management plans;
- revise fisheries laws and policies;
- enhance data collection and transparency to better manage stocks and to understand the contribution of fisheries to the economy and food security;
- adapt MCS to local contexts;
- support collaborative approaches to enforcement actions to ensure that illegal 'pirate' fishing operators cannot escape sanction and continue their illegal activities elsewhere; and
- support initiatives to end harmful fisheries subsidies, encouraging beneficial fisheries subsidies within Commonwealth countries.

A lack of effective management and fisheries governance results in wastage, overexploitation and degradation of fisheries resources and marine environments. Commonwealth Heads of Government have previously agreed that urgent action was needed to strengthen fisheries and marine management in member states' waters, particularly in the case of the more vulnerable member states.⁹¹ There is a strong correlation between a lack of governance and illegal, unreported and unregulated (IUU) fishing, with developing countries most at risk.

'The most common offence in the Commonwealth is fishing without a valid licence, closely followed by fishing in a prohibited zone, or during a closed season'

As fish stocks decline, fishers traditionally respond by increasing fishing effort and capacity, sometimes shifting to illegal fishing practices and increasing the spatial fishing range (their 'footprint') into neighbouring areas. Overcapacity (which means having too many vessels or excessive harvesting power) tends to lead to redundant fishing inputs and overfishing of valued fish stocks. For example, the number of motorised vessels has tripled in some countries since 1995. Harmful subsidies for overcapacity and overfishing should be eliminated as a matter of priority (as set out in SDG 14.6). The WTO is expected to halt capacity-building subsidies for

International treaties and agreements of relevance to coastal fisheries

- Port State Measures Agreement
- WTO Subsidy Negotiations
- FAO Code of Conduct for Responsible Fisheries (CCRF)
- International Plan of Action for the Management of Fishing Capacity
- UNCLOS
- Fisheries Transparency Initiative
- The Abidjan Convention
- The Nauru Agreement

unsustainable fisheries, although these efforts have been curtailed by COVID-19. Harmful fuel subsidies may also be addressed.

Fishmeal production can be a good use of waste or by-products but should not be the primary use of food-grade catches. (Reduction fisheries, where the catch is reduced into oil or fishmeal, account for 16 per cent of all fishery production globally.) Both by-catch and post-harvest losses must be addressed as a matter of urgency. Twenty-two (22) countries already have National Plans of Action (NPOAs) addressing the by-catch of at least one of the following: sharks, seabirds and turtles. Countries may consider integrating additional vulnerable species into these plans, as appropriate, and prioritising their enforcement. Post-harvest losses can be addressed through improved cold chain and market access; this includes through the diversion of capacity-enhancing subsidies to improve road access and enhance storage capacity.

While each country must be viewed in its own context, many share characteristics, which include a limited resource base, environmental vulnerability and a heavy reliance on fisheries, as in the Pacific island states. These similarities have helped unite the islands to combat unsustainable fishing practices, which are a significant threat to food security in the region. The Nauru Agreement, which was established to protect the Pacific region's tuna stocks, contributes an estimated 25 per cent of the world tuna supply and has become a critical source of revenue in the region. It is an example of the potential benefits of co-operative regional fisheries management by coastal states.

All Commonwealth countries have reported at least once on progress with implementing the FAO Code of Conduct for Responsible Fishing



Discussion

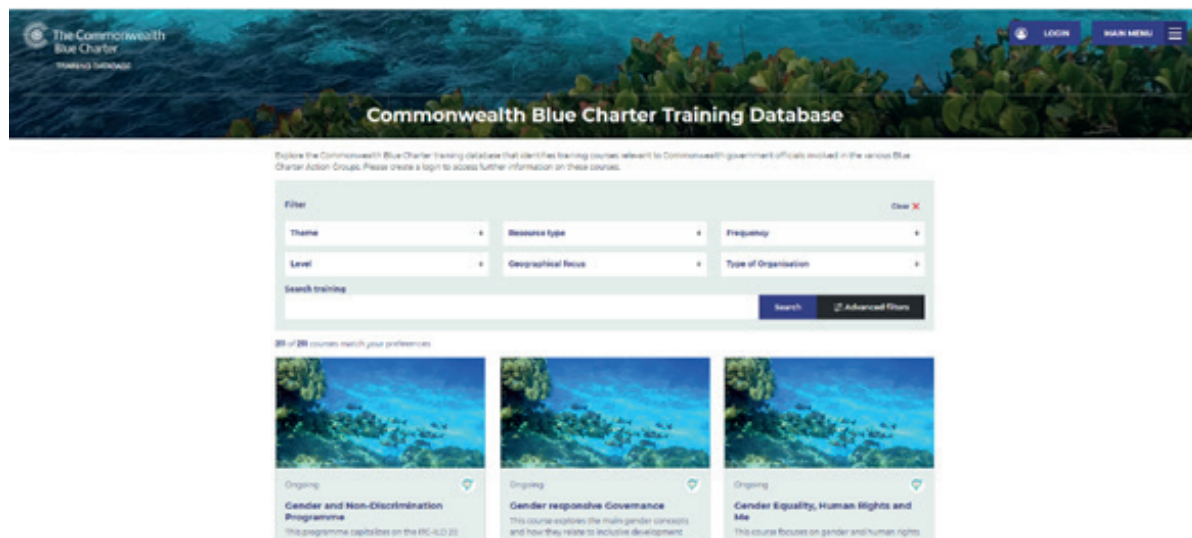
Taking Stock and Charting the Course

The last three years have been a remarkable beginning to a shared journey. Forty-six **(46) countries** led by **16 Co-Champions** have embarked on a shared mission to co-operate to solve ocean-related problems and meet commitments for sustainable ocean development. As detailed in the preceding sections, there is growing evidence of ocean action across the Commonwealth, which has been accompanied by positive international attention. However, there is still so much more that can be done. The Commonwealth Blue Charter is building momentum by implementing pilots, sharing lessons learned and engaging local communities. The following section draws out some of cross-cutting considerations for the next wave of action.

Building capacity to implement ambitious plans

The Action Groups have taken tangible steps to build capacity across their members and countries. Champions also reiterated their commitment to continued capacity building, particularly for member focal points, including on 'technical aspects ..., project formulation, monitoring and evaluation, [and] advancing IT skills' (Mangroves and Livelihoods Action Group [MELAG] Champion report).

Although training and capacity building remain a priority across all Action Groups, Champion country representatives from numerous Action Groups noted that 'inadequate capability and capacity' remained a challenge, with a 'shortage of technical staff ... for implementation of planned activities'. This is exacerbated by the fact that Action Group Champions and members commonly (with some exceptions) do not have a dedicated internal team to guide and implement Action Group commitments and activities. As a result, the Commonwealth Blue Charter activities are but one of multiple competing responsibilities borne by the assigned contact points. Action Group members may consider following Kiribati's lead in establishing a dedicated national task force, which may help to formalise responsibilities for Blue Charter implementation.



Source: training-bluecharter.thecommonwealth.org/

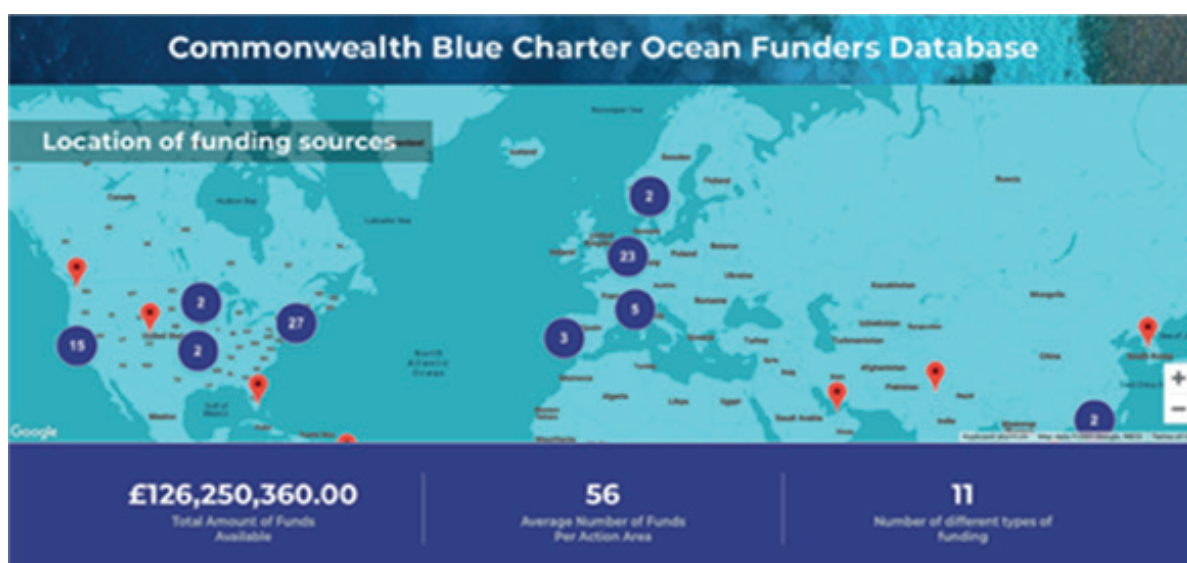
In addition to dedicated Blue Charter training courses, as well as the Commonwealth Secretariat's Training Database, Action Groups are also working to independently identify capacity-building opportunities; for example, the MPA Action Group intends to 'continue working closely with [an NGO partner] to explore what additional capacity-building programmes can be organised'. Similarly, Fiji noted the benefits of its partnership with SPREP, and recommended 'other members to ... identify similar institutions within their region' and create a matrix of the types and providers of support available'.

Commonwealth countries, under the framework of the Commonwealth Blue Charter, may wish to consider the following **avenues for further action:**

- Establish or strengthen a **national ocean task force** to support the implementation of the **Action Group PoAs**. Building on existing national structures, they can include representatives from relevant ministries, NGOs and businesses.
- Leverage the opportunities presented by bespoke courses developed by the Commonwealth Secretariat and in the Training Database, to **build capacity** in priority areas.
- Undertake a **national capacity assessment** to highlight capacity gaps and outstanding training needs.

Closing the resourcing gap

Financially resourcing the Commonwealth Blue Charter and its Action Groups is an identified need that has been growing in urgency, as noted by one Action Group representative: 'The biggest challenge ... is access to funds to organise activities with member countries across the globe.' In June 2019, at the Commonwealth Blue Charter All Champions Meeting, the Champion countries identified mobilising financial support for the Action Groups and their future projects as an issue of overarching concern, which was reiterated across all ten recent Action Group reports.



Source: oceanfund-bluecharter.thecommonwealth.org

To date, just 3 of the 15 Champion country governments have managed to secure internal multiyear funding specifically for their Action Groups. For example, the MELAG Champion representative noted that 'MELAG is eager to facilitate pilot projects for mangrove restoration across Commonwealth member countries, but this has not proved possible in the absence of committed funding for activities'.

There may be scope to better leverage the different strengths and capacities of the different Commonwealth countries to address some of these barriers. For example, Canada's commitment to provide funding to support other members to attend international training programmes.

The Blue Charter Funders Database profiles current funding opportunities relevant to each Action Groups. Across all Action Groups, a total of £126,250,360 in funds has been identified, though these are under intense competition from global NGOs and other governments. In 2020, the Secretariat provided 3 two-day trainings on proposal development, covering 52 representatives from 17 countries. More training is planned for 2021-2022. Work to develop a long-term bespoke funding mechanism – the Blue Charter Action Fund – is ongoing, but will likely take one to three years to become established. In the meantime, the Secretariat is establishing a Blue Charter Project Incubator during this financial year, which will be able to leverage modest financial support and training for multilateral Action Group pilot projects.

Funding for ocean-related projects is limited and highly competitive. However, the number of innovative financial instruments has grown rapidly in recent years, creating an exciting new financing landscape to be further explored by those Action Groups (with the support of the Secretariat) that have projects mature enough to qualify. This includes instruments such as:

Ocean impact investment / technology funds

New specialist funds can attract private impact investors, who look beyond the strictly financial returns to societal benefits which are subject to sustainability criteria, including payments for ecosystems services.

Debt finance

This may include blended finance solutions, including debt-for-nature swaps such as in Seychelles and the resultant SeyCCAT. Such measures are most effective in context with sound supporting legislation.

Bonds and other capital market products

Listed bonds and other capital market products dedicated or inclusive of ocean solutions can provide opportunities for additional funding. The recently launched Seychelles Blue Bond or Fiji's sovereign Green Bond are recent examples.

Risk alleviation measures

Restoration of wetlands to offset negative environmental impacts is already a US\$3 billion industry and 'Blue Carbon' is receiving much attention. Ocean insurance concepts could cover the potential damage caused by measurable ocean phenomena (warming, currents, hurricanes and tropical storms, etc.).⁹²

Financial technology

Better forms of observation, inspections and transparent data access have been proposed (via so-called 'blockchain' technology) to reduce the possibility of fraud and corruption in, say, carbon credits, sustainable fisheries or vessel registrations.

Blended ocean financing concepts

Infrastructure projects can include contributions to better governance, blue carbon, ocean observations or protection; for example, tourist fees (collected in airports) or ocean user fees, such as the People's Republic of China's 2002 Law on the Management of Sea Use.⁹³

Ocean sustainability bank

Building on the blueprint for integrated ocean planning put forward by the 14 nations supporting the High Level Panel for a Sustainable Ocean Economy, a dedicated Ocean Sustainability Bank may help to provide a financial mechanism to support ocean action.

Trusts and sovereign wealth funds

Trusts or sovereign wealth funds can act as a supplementary funding mechanism and could receive portions of income from user fees, or blue carbon trades, for instance. This could tie into the Secretariat's ongoing technical assistance provided on these matters.

Commonwealth countries, under the framework of the Commonwealth Blue Charter, may wish to consider the following avenues for further action:

- Each Action Group may explore and bring forward recommendations for the **sustainable funding** of their activities and priority projects.
- Secretariat to consider establishing a **Blue Charter Financing Task Force**, with representatives drawn from existing Action Groups, to consolidate recommendations and agree on next steps.

Quantifying progress at national and pan-Commonwealth scales

When human and financial resources are in place, the Commonwealth Blue Charter will be uniquely positioned to address shared challenges multilaterally. To ensure that activities continue to be evidence based and targeted at priorities, it is necessary to monitor implementation. To date, quantifying progress of the Blue Charter and its Action Groups has been challenging, not least because data and/or formal reporting mechanisms are often lacking or incomplete, with many countries facing resource and capacity constraints. Globally, there is a plethora of overlapping target-setting and commitment-setting initiatives, with disparate and incomplete reporting and tracking mechanisms. The Commonwealth Blue Charter, through the Secretariat and participating members, could help to encourage a more harmonised and streamlined approach to data collection and target reporting. Efforts should continue to focus on, first, consolidating and applying existing reporting/data frameworks, then identifying remaining gaps.

To gather additional information on progress under the Commonwealth Blue Charter, the Commonwealth Secretariat will be undertaking in 2021 a **questionnaire**, which will focus on:

- countries' engagement with the Action Groups;
- countries' ocean-related priority areas over the last three years;
- actions taken by the countries to support the Commonwealth Blue Charter, including details of specific projects and their current status;
- the value of the Commonwealth Blue Charter and its Action Groups in terms of progressing the countries' ocean-related policies or laws, or capacity to tackle ocean issues and establish relevant partnerships; and
- documenting countries' progress towards Action Group targets.

Evidence-based decision-making

Despite huge advances in ocean science, our understanding of the ocean continues to be limited, and historical data gaps can have implications for conservation and management.⁹⁴ Physical data, for example on currents or climate, tends to be better established than ecological or biological components, such as on coral reef health or fishing stocks.

'The availability of data from remote sensing, data sharing and crowdsourcing presents an opportunity to pilot cost-effective monitoring and surveillance mechanisms, with an associated potential for enhanced

'The [Ocean Observation] Action Group plans to increase the innovation, development and deployment of ocean observational technologies by developing and sharing modular/portable fit-for-purpose observation platforms and investigating draw down technologies that allow for simpler, cheaper and easier to use ocean observations such as eutrophication monitoring kits. Furthermore, the Action Group aims to improve accessibility of ocean observational data, knowledge and best practices among Commonwealth countries by the development and training of open-source tools for accessing, analysing and visualizing existing data, including orphaned data.'

enforcement and compliance. This is of particular relevance to the Action Groups that are interested in managing human activities such as fishing, blue economic development or marine protection.

Where information is available, it is not consistently managed, based on FAIR data principles ('findable, accessible, interoperable, reusable').⁹⁵ In the absence of a systematic approach to data management, it is difficult to make informed decisions or measure change. Insights from the literature indicate that an improved data infrastructure backbone is urgently needed, particularly to accommodate Big Data.⁹⁶ The progression of policies and laws, as well as changes in national capacity to tackle ocean issues, consistent with the Commonwealth Blue Charter, remain difficult to monitor without consistent bespoke data.

The development of individual country profiles, documenting progress under each Action Group theme, may be a useful next step to help address these questions, and begin to inform more robust and consistent legal and regulatory frameworks across the Commonwealth. For example, the Action Group on Mangrove Restoration and Livelihoods intends to exchange knowledge on 'legislation and regulations relating to mangrove protection and management, in an effort to understand the most appropriate regulatory regimes for member countries and their mangroves'. The Commonwealth community may consider strengthening agreements and systems for improved information sharing, particularly where the capacity for monitoring and surveillance is highly divergent. For the Blue Economy to be sustainable, there will need to be a collaborative approach among neighbouring nations, and competent bodies that manage activities within and indeed beyond national jurisdictions.

Commonwealth countries, under the framework of the Commonwealth Blue Charter, may wish to consider the following **avenues for further action**:

- Develop a consistent and **streamlined approach** to data collection and target reporting relating to the Blue Charter.
- Develop **individual country profiles**, documenting progress under each Action Group theme, to inform reporting and facilitate more robust and consistent legal and regulatory frameworks across the Commonwealth.

Towards a 'Blue Recovery' from COVID-19

The ongoing COVID-19 pandemic has forced many Action Groups to put their priorities 'on hold, as resources are dedicated to immediate health and economic responses'. While the COVID-19 pandemic has posed substantial challenges to the work of the Action Groups, with countries having to pivot to mitigate pandemic impacts, there is also an opportunity to integrate the commitments of the Action Groups into sustainable economic recovery;⁹⁷ that is, to 'build back better':

The Commonwealth Secretary-General has said that post-COVID recovery should 'lock in ocean sustainability',⁹⁸ and the Secretariat has recognised the importance of a 'Blue Reset' to build resilient and equitable ocean-based economies post-COVID, as reflected by the virtual event hosted on World Ocean Day 2021. Discussions at the event focused on how the Commonwealth Blue Charter can support post-COVID recovery. This may provide an opportunity to fast-track existing efforts, and embed them into national plans and policies, while setting the stage for the development of resilient sustainable Blue Economies across the Commonwealth.

Commonwealth countries, under the framework of the Commonwealth Blue Charter, may wish to consider the following **avenues for further action**:

- Integrate the activities of the Action Group PoAs into their **economic recovery plans**, to contribute towards a 'Blue Recovery'.

'Under the Economic Recovery Programme (ERP), we (Mauritius) would like to build capacity by training around 1000 fishers in coral farming, nursery management and reef restoration. We would also like to set up two coral nurseries at two other locations under the ERP.'



Epilogue: Into the Blue

In just three years, the Commonwealth Blue Charter has created a broad and dynamic network for knowledge exchange and capacity building across the Commonwealth. Champions have demonstrated the potential for the Blue Charter to effect tangible progress in relation to their Action Plans, and Action Groups are already discussing synergies between their target areas. The ability to encourage and facilitate regional collaboration is a strength of the Commonwealth Blue Charter. Potential new partnerships to implement the Action Plans and explore new areas for collaboration are being established by member countries and the Secretariat.

The stage is set for the Commonwealth Blue Charter to harness its collective power to deliver a common future. As one Champion put it:

'Together we can create the wave of momentum we need to save our ocean, the life it sustains, and the economies it upholds.'

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