



International
Science Council

Paper No: 17
Agenda item: 4.3.4
Person Responsible: Anton Van de Putte

XXXVII SCAR Delegates Meeting

India, September 2022

Southern Ocean United Nations Decade Task Force

United Nations Decade of Ocean Science for Sustainable Development

2020-22 Report

Summary

In 2017, the United Nations proclaimed a [Decade of Ocean Science for Sustainable Development](#) (hereafter referred to as the UN Ocean Decade) from 2021 until 2030 to support efforts to reverse the cycle of decline in ocean health. This initiative aims to gather ocean stakeholders worldwide to ensure ocean science that creates improved conditions for sustainable development of the world's oceans.

Since the Southern Ocean community of stakeholders is globally unique in its operation within the Antarctic Treaty System, which is based entirely on scientific understanding and environmental protection, it is imperative to strengthen international collaborations to increase scientific understanding of the Antarctic region. Underlying the UN Ocean Decade is the need for data management to be aligned with the FAIR (Findable, Accessible, Interoperable, Reusable) principles to achieve the ambitious data objectives of the UN Ocean Decade. The UN Ocean Decade Societal Outcomes align strongly with the remit of the Antarctic Treaty and its Committee for Environmental Protection. The Southern Ocean community therefore recognizes the need to develop and implement a coordinated, international plan.

In 2021-2022 The Southern Ocean Task force worked with various stakeholders to develop a Southern Ocean Decade Action Plan.

This include the organization of an engagement process including the organization of various online meetings. The Southern Ocean Decade Action Plan aims to mobilize the Southern Ocean community and inspire all stakeholders to seek engagement and leverage opportunities to deliver innovative solutions that maintain and foster the unique conditions of the Southern Ocean. Furthermore this plan will inform the UN Decade on the priorities from a Southern Ocean Perspective.

Report Author(s)

Annemie R. Janssen¹, Renuka Badhe², Nicole C. Bransome³, Phillippa Bricher⁴, Rachel Cavanagh^{5,6}, Taco de Bruin^{7,8}, Pjotr Elshout², Susie Grant^{6,9}, Eoghan Griffin⁹, Emily Grilly¹⁰, Sian F. Henley^{4,11}, Eileen E. Hofmann^{4,5}, Nadine M. Johnston⁵, Deneb Karentz⁹, Rhona Kent¹⁰, Amanda Lynnes¹², Torge Martin^{13,14}, Patricia Miloslavich¹⁵, Eugene Murphy⁵, Joseph E. Nolan², Elisabeth Sikes^{13,16}, Michael Sparrow¹⁷, Marten Tacoma⁸, Michael J.M. Williams⁴, Javier A. Arata¹⁸, Jeff Bowman¹⁹, Stuart Corney²⁰, Sally C.Y. Lau^{21,22}, Clara Manno⁶, Rahul Mohan²³, Hanne Nielsen²⁰, Maria A. van Leeuwe²⁴, Catherine Waller²⁵, José C. Xavier^{6,26}, Anton P. Van de Putte^{1,27}.

1. Royal Belgian Institute for Natural Sciences (RBINS), Brussels, Belgium
2. European Polar Board (EPB), The Hague, The Netherlands
3. The Pew Charitable Trusts, Washington, DC, USA
4. Southern Ocean Observing System (SOOS), Hobart, Australia
5. Integrated Climate and Ecosystem Dynamics of the Southern Ocean (ICED), Cambridge, United Kingdom
6. British Antarctic Survey (BAS), Natural Environment Research Council, Cambridge, United Kingdom
7. International Oceanographic Data and Information Exchange (IODE) of IOC/UNESCO, Ostend, Belgium
8. Royal Netherlands Institute for Sea Research (NIOZ), Texel, The Netherlands
9. Scientific Committee on Antarctic Research (SCAR), Cambridge, United Kingdom
10. World Wide Fund for Nature (WWF), Zurich, Switzerland
11. University of Edinburgh, School of GeoSciences, Edinburgh, United Kingdom
12. International Association of Antarctica Tour Operators (IAATO), South Kingstown, USA
13. CLIVAR/CliC/SCAR Southern Ocean Region Panel (SORP)
14. GEOMAR Helmholtz Centre for Ocean Research Kiel, Kiel, Germany
15. Scientific Committee for Oceanic Research (SCOR), Newark, DE, USA
16. Rutgers University, New Brunswick, NJ, USA
17. WMO/IOC-UNESCO/ISC World Climate Research Programme (WCRP), Geneva, Switzerland
18. Association of Responsible Krill harvesting companies (ARK), Margate, Australia
19. Scripps Institution of Oceanography, University of California San Diego (UCSD), San Diego, CA, USA
20. Institute for Marine and Antarctic Studies, University of Tasmania (IMAS), Battery Point, Australia
21. James Cook University (JCU), Centre for Sustainable Tropical Fisheries and Aquaculture and College of Science and Engineering, Townsville, Australia
22. James Cook University (JCU), Securing Antarctica's Environmental Future, Townsville, Australia
23. National Centre for Polar and Ocean Research (NCPOR), Ministry of Earth Sciences, Goa, India
24. University of Groningen (RUG), Groningen, The Netherlands
25. University of Hull (CoH), Hull, United Kingdom
26. University of Coimbra (UC), Marine and Environmental Sciences Centre (MARE), Department of Life Sciences, Coimbra, Portugal
27. Université Libre de Bruxelles (ULB), Brussels, Belgium

Budget

In kind support from Belgium (Belgian Science Policy), EPB, NIOZ and members of the Southern Ocean task force.

Progress and Plans

Outcomes/Activities Summary

As part of the global effort towards the United Nations Decade of Ocean Science for Sustainable Development, the Southern Ocean Task Force identified the needs of the Southern Ocean community to address the challenges related to the unique environmental characteristics and governance structure of the Southern Ocean. This project was funded by the Belgian Science policy office (Belspo) and the Royal Belgian Institute for Natural Sciences (RBINS) and RBINS hosted project manager A Janssen. Who lead the Southern Ocean Task force in collaboration with various stakeholders to develop a Southern Ocean Decade Action Plan. This included the organization of an iterative process that was fully online.

The European Polar Board (EPB), with the Royal Netherlands Institute for Sea Research (NIOZ) co-hosted the successful Southern Ocean Decade & Polar Data Forum Week 2021 online in September 2021- the first three days of the event were dedicated to the Second Southern Ocean Decade Workshop. The EPB also hosted all of the public engagement webinars throughout the process. Through this community-driven process, we identified synergies within the Southern Ocean community and beyond in order to elaborate an Action Plan that provides a framework for Southern Ocean stakeholders to formulate and develop tangible actions and deliverables that support the UN Ocean Decade vision.

The Southern Ocean contribution to the UN Ocean Decade culminated in the publication of the Southern Ocean Action Plan in April 2022. Through the publication of the Southern Ocean Action Plan, the Southern Ocean Task Force aims to mobilise the Southern Ocean community and inspire all stakeholders to seek engagement and leverage opportunities to deliver innovative solutions that maintain and foster the unique conditions of the Southern Ocean. This framework provides an initial roadmap to strengthen links between science, industry and policy, as well as to encourage internationally collaborative activities in order to address existing gaps in our knowledge and data coverage.

Future Plans

Engage with SCAR members state to help highlight the relevance of the Southern Ocean as part of the World's Ocean within the context of the UN Ocean decade. Ensure that the findings from the SO action plan are considered and addressed.

For this we envisage to work together with relevant Standing committees (e.g. SC-ATS, SCADM) Science Groups, Scientific Research Programmes and action groups.

Membership

Leadership

Role	First Name	Last Name	Affiliation	Country	Primary Language	Email	Date Started
	Anton	Van de Putte	SCAR	Belgium	Dutch	avandeputte@naturalsciences.be	
Project Manager	Annemie*	Janssen		Belgium	French		

(Please identify early-career researchers with * in first column)

Other members

First Name	Last Name	Affiliation	Country	Primary Language	Email
Eoghan	Griffin	SCAR	United Kingdom	English	eoghan@scar.org
Deneb	Karentz	SCAR	United States	English	karentzd@usfca.edu
Susie	Grant	SCAR	UK	English	suan@bas.ac.uk
Patricia	Miloslavich	Scientific Committee for Oceanic Research (SCOR)	United States	English	patricia.miloslavich@scor-int.org
Eugene	Murphy	Integrated Climate and Ecosystem Dynamics of the Southern Ocean (ICED)	United Kingdom	English	ejmu@bas.ac.uk
Rachel	Cavanagh	ICED	United Kingdom	English	rcav@bas.ac.uk
Nadine	Johnston	ICED	United Kingdom	English	nmj@bas.ac.uk
Mike	Williams	Southern Ocean Observing System (SOOS)		English	Mike.Williams@niwa.co.nz
Eileen	Hofmann	SOOS/ICED	United States	English	hofmann@ccpo.odu.edu
Sian	Henley	SOOS		English	S.F.Henley@ed.ac.uk
Elisabeth	Sikes	CLIVAR/CLIC/SCAR Southern Ocean Region Panel (SORP)	United States	English	sikes@marine.rutgers.edu
Torge	Martin	SORP	Germany	German	torge.martin@gmail.com
Mike	Sparrow	WMO/IOC-UNESCO/ISC World Climate Research Programme (WCRP)		English	msparrow@wmo.int

Renuka	Badhe	European Polar Board (EPB)	The Netherlands	English	r.badhe@nwo.nl
Joseph*	Nolan	EPB	The Netherlands	English	J.Nolan@nwo.nl
Pjotr*	Elshout	EPB	The Netherlands		p.elshout@nwo.nl
Amanda	Lynnes	International Association of Antarctica Tour Operators (IAATO)	United States	English	alynnes@iaato.org
Taco	de Bruin	Royal Netherlands Institute for Sea Research (NIOZ)/ International Oceanographic Data and Information Exchange (IODE) of IOC/UNESCO	The Netherlands	Dutch	Taco.de.Bruin@nioz.nl
Marten	Tacoma	NIOZ	The Netherlands	Dutch	Marten.Tacoma@nioz.nl
Pip	Bricher	Polar Data Discovery Enhancement Research (POLDER)		English	
Nicole	Bransome	Pew Charitable Trusts		English	nbransome@pewtrusts.org
Emily	Grilly	World Wildlife Fund (WWF)	Australia	English	EGrilly@wwf.org.au
Rhona	Kent	WWF	United Kingdom	English	rkent@wwf.org.uk

*(Please identify early-career researchers with * in first column)*

Additional information

Notable Papers

1. Janssen A.R., Badhe R., Bransome N.C., Bricher P., Cavanagh R., de Bruin T., Elshout P., Grant S., Griffin E., Grilly E., Henley S.F., Hofmann E.E., Johnston N.M., Karentz D., Kent R., Lynnes A., Martin T., Miloslavich P., Murphy E., Nolan J.E., Sikes E., Sparrow M., Tacoma M., Williams M.J.M., Arata J.A., Bowman J., Corney S., Lau S.C.Y., Manno C., Mohan R., Nielsen H., van Leeuwe M.A., Waller C., Xavier J.C., Van de Putte A.P. 2022. [Southern Ocean Action Plan \(2021-2030\) in support of the United Nations Decade of Ocean Science for Sustainable Development](#). 69pp. doi: 10.5281/zenodo.6412191

This document describes a strategy for addressing the key challenges of the UN Decade of Ocean Science in the context of the Southern Ocean. The Action Plan is based on community input through surveys, public virtual information sessions, in person and virtual workshops, and consultation with experts in science, industry and policy.

Direct support from outside organisations received for your activities

EPB (in-kind): hosted all of the public engagement webinars through the project, hosted the week long SO Decade and Polar Data week in Sept 2021. The EPB also organised the only side event at the UN Ocean Conference in Lisbon bringing together both the Arctic and SO Decadal activities.

NIOZ (in-kind): Hosted the website, and provided technical support for the week long SO Decade and Polar Data week in Sept 2021.

Major collaborations your group has with other SCAR groups and with organisations/groups beyond SCAR

(Numbered list of substantive collaborations)

Within SCAR

1. SCAR Antarctic Biodiversity Portal (Biodiversity.aq)
2. Standing Committee on the Antarctic Treaty
3. Integrated Climate and Ecosystem Dynamics of the Southern Ocean (ICED)
4. Southern Ocean Observing System (SOOS)
5. CLIVAR/CLIC/SCAR Southern Ocean Region Panel (SORP)

Outside SCAR

1. Belgian Science Policy Office (BELSPO)
2. Museum of Natural Sciences of Belgium
3. Scientific Committee for Oceanic Research (SCOR)
4. WMO/IOC-UNESCO/ISC World Climate Research Programme (WCRP)
5. European Polar Board (EPB)
6. International Association of Antarctica Tour Operators (IAATO)
7. Royal Netherlands Institute for Sea Research (NIOZ)
8. International Oceanographic Data and Information Exchange (IODE) of IOC/UNESCO
9. Polar Data Discovery Enhancement Research (POLDER)
10. Pew Charitable Trusts
11. World Wildlife Fund (WWF)
12. International Oceanographic Data and Information Exchange (IODE)
13. Climate and Ocean: Variability, Predictability and Change (CLIVAR)

Outreach, communication and capacity-building activities

1. 1st Southern Ocean Regional Workshop (Feb 2020)
2. Kick-Off Meeting for the Southern Ocean UN Decade (July 2021)
3. 2nd Southern Ocean Regional Workshop (Sept 2021)
4. Launch of the Southern Ocean Action Plan (April 2022)

Contributions to equality, diversity, and inclusion (EDI)

Capacity building, inclusion, and diversity were considered under the Cross-cutting Working Group, as these issues were relevant to all the Working Groups. Ensuring diversity of voices at the table, at all stages of planning, research, funding and data sharing was underlined as was improving technology for better access (open access to knowledge, data and science).