

January 10, 2022

COMMUNICATION ON ENGAGEMENT (COE)
Period covered by this Communication on Engagement
From: 31 May 2020 To: 31 May 2022

[10 January 2022]

I am pleased to confirm that the Stockholm Resilience Centre at Stockholm University reaffirms its support to the United Nations Global Compact and its Ten Principles in the areas of Human Rights, Labour, Environment and Anti-Corruption. This is our Communication on Engagement with the United Nations Global Compact. We welcome feedback on its contents.

Although the Stockholm Resilience Centre engages in a broad spectrum of research and collaborations that are aligned with the Principles set forth by the United Nations Global Compact, and which help to build a scientific basis for understanding humanity's relationship with the biosphere, this Communication of Engagement focuses on five specific areas:

1. Our engagement with the United Nations Global Compact Action Platform for Sustainable Ocean Business / Ocean Stewardship Coalition;
2. The keystone dialogues and Seafood Business for Ocean Stewardship (SeaBOS), and Ocean 100 Dialogues;
3. Rethink Talks Podcast
4. Our executive programme in resilience thinking;
5. Selected research outcomes of particular relevance for understanding the potential of the private sector to play a constructive role in biosphere stewardship

In addition, I am pleased to make our 2021 annual report available to provide further information about the range and depth of activities being undertaken by the Stockholm Resilience Centre at Stockholm University.

Sincerely yours,



Line Gordon,
Professor, Director

Part II. Description of Actions

The vision of the Stockholm Resilience Centre (SRC) is a thriving and resilient biosphere that enables well-being for all. Our three-part mission is to: (1) advance the scientific understanding of the complex, dynamic interactions of people and nature in the biosphere; (2) train the next generation of sustainability researchers and leaders; (3) engage in collaborations with change agents. We collectively seek to ensure a work culture and practices that guide our work, based around principles that people and nature are deeply intertwined, co-evolve, and behave as complex adaptive systems; that many patterns, processes and dynamics of the Anthropocene are novel and must be better understood; and that biosphere stewardship can enable transformation towards resilient, sustainable, and just futures. Our organizational values are to ensure scientific rigor and integrity underpin all our work; a collaborative, trust-based and creative working culture enables us to achieve impact; learning, experimentation and reflection are promoted in all our activities; and diversity, inclusion, and care are principles championed across the organization.

While more comprehensive information about the activities of the SRC is available in its annual report (see most recent as well as archived reports here: <https://www.stockholmresilience.org/about-us/annual-reports.html>), the following provides an overview of several key activities of relevance to the UNGC.

(1) Engagement with the United Nations Global Compact Action Platform for Sustainable Ocean Business / Ocean Stewardship Coalition

The United Nations Global Compact launched its Action Platform for Sustainable Ocean Business at the United Nations in September 2018, with the Stockholm Resilience Centre as one of its founding members, alongside Global Compact companies, international organizations, civil society organizations, and other academic institutions. More recently, the Platform transitioned into its new identity as the Ocean Stewardship Coalition.

The Stockholm Resilience Centre actively contributed to the Ocean Stewardship Coalition's activities and outputs, including co-leading its sustainable seafood sprint, co-authoring the [Accelerating Sustainable Seafood](#) report, being panelists/moderators for various online events organized by the UNGC Ocean Stewardship Coalition, and contributing to its guidance document on applying the Sustainable Ocean Principles to ports and its "Blueprint for a Climate-Smart Ocean to Meet 1.5°C".

At the Second UN Ocean Conference in Lisbon, Portugal (June 2022), SRC contributed as mentors and advisors to the Youth and Innovation Forum co-organized by the UNGC Ocean Stewardship Coalition.

(2) The keystone dialogues and Seafood Business for Ocean Stewardship (SeaBOS), and Ocean 100 Dialogues;

The concept of keystone actors was inspired by the ‘keystone species’ term in ecology, developed by Prof Robert T. Paine to describe species that play a disproportionate role in the functioning of an ecosystem. In a 2015 publication, a research team led by Prof Henrik Österblom of the Stockholm Resilience Centre used the concept to explain how the largest companies in a given industry can operate similarly to keystone species in ecological communities: they can have a disproportionate effect on the structure and function of the system in which they operate.

Keystone actors in the seafood industry were identified by Österblom et al. (2015) (<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127533>) as having the following four characteristics: (1) they dominate global production revenues and volumes within a particular sector; (2) they control globally relevant segments of production; (3) they connect ecosystems globally through subsidiaries; (4) they influence global governance processes and institutions.

SeaBOS is the result of this science-based identification of “keystone actors” in global seafood. This science-industry collaboration currently consists of ten of the largest seafood producers in the world, engaged in wild capture fisheries, aquaculture and feeds, with companies based in Europe, North America and Asia. The Stockholm Resilience Centre leads a team of scientific partners based, among others, at the Royal Swedish Academy of Sciences, Stanford Center for Ocean Solutions, Lancaster University and University of British Columbia. The initiative’s secretariat and operations are funded by the members, while all the scientific inputs are externally funded, primarily with support from the Walton Family Foundation and the David & Lucile Packard Foundation. More information about SeaBOS is available at <https://seabos.org>

Inspired by the SeaBOS initiative and a scientific study by Virdin et al. (2021) (<https://www.science.org/doi/10.1126/sciadv.abc8041>), the Ocean 100 dialogues were initiated in 2022 with the aim of bringing together the largest companies across ocean industries in a series of dialogues to take voluntary and science-based initiatives towards ocean stewardship; create transformative ocean-wide impact; and advance ocean-based solutions towards the twin planetary crises of climate change and biodiversity loss. The SRC is one of three scientific partners to the Ocean 100 dialogues, along with Duke University and Lancaster University. More information about the Ocean 100 dialogues is available here: <https://www.weforum.org/ocean-100-dialogues>

(3) Rethink Talks Podcast

The SRC is committed to bringing key issues of sustainability and resilience to a broader audience, and exploring the intersection with issues like human rights, labor, and the environment, in line with the UNGC principles. In 2021, the SRC launched Rethink Talks, a multimedia podcast series on resilience thinking and global change. It spotlights conversations between experts on a range of topics that highlight how resilience thinking and biosphere stewardship add value to current debates on for instance COVID-19. The podcast, which is freely available for all to access and view (see past episodes here: <https://www.stockholmresilience.org/news--events/rethink-talks-podcast-series.html>) One episode, on “Building business resilience: what has Covid-19 taught us?” featured Sturla Henriksen, Special Advisor to the UNGC ([Link](#))

(4) Our executive programme in resilience thinking

Initiated in 2018, the Executive Programme in Resilience Thinking is a commissioned education programme that aims to create transformative business leadership. It connects CEOs and board members of large companies with experts in sustainability science and resilience thinking. Since the first programme in 2018/2019, there have been a total of 75 alumni, and the 2022/2023 programme includes 16 participants. Three important characteristics of the programme are that it is (1) science-based, and built on interactions between participants and leading sustainability scientists and resilience thinkers; (2) future-oriented, intentionally making an effort to explore how emerging technologies, global change and innovation are intersecting; (3) business-driven, aiming to identify new business opportunities, while accelerating action towards transformational change. (For more details, see: <https://executive.stockholmresilience.org>)

(5) Selected research outcomes of particular relevance for understanding the potential of the private sector to play a constructive role in biosphere stewardship

Under the broad umbrella of its mission to advance research for governance and management of social-ecological systems to secure ecosystem services for human well-being and resilience for long-term sustainability, the Stockholm Resilience Centre is working to apply and further develop this research through practice, policy and academic training.

In 2021, over 220 academic publications were produced by SRC researchers in over 100 different peer-reviewed journals. SRC publications were cited over 23,000 times in 2021 alone, and the total number of citations of SRC publications over time has risen beyond 100,000. and appeared in leading publications such as The Lancet, Nature and Nature-related journals, Proceedings of the National Academy of Sciences, USA (PNAS), Science, and Science Advances.

A full list of publications can be found in the Annual Reports of the Stockholm Resilience Centre at: <https://stockholmresilience.org/about-us/annual-reports.html>

A small selection of recent publications of particular relevance to the United Nations Global Compact include:

Blasiak, R., Dauriach, A., Jouffray, J.B., Folke, C., Österblom, H., Bebbington, J., Bengtsson, F., Causevic, A., Geerts, B., Grønbrekk, W. and Henriksson, P.J., 2021. Evolving perspectives of stewardship in the seafood industry. *Frontiers in Marine Science*, 8, p.671837.

Blasiak, R., Leander, E., Jouffray, J.B. and Virdin, J., 2021. Corporations and plastic pollution: Trends in reporting. *Sustainable Futures*, 3, p.100061.

Chambers, J.M., Wyborn, C., Klenk, N.L., Ryan, M., Serban, A., Bennett, N.J., Brennan, R., Charli-Joseph, L., Fernández-Giménez, M.E., Galvin, K.A. and Goldstein, B.E., 2022. Co-productive agility and four collaborative pathways to sustainability transformations. *Global environmental change*, 72, p.102422.

Chambers, J.M., Wyborn, C., Ryan, M.E., Reid, R.S., Riechers, M., Serban, A., Bennett, N.J., Cvitanovic, C., Fernández-Giménez, M.E., Galvin, K.A. and Goldstein, B.E., 2021. Six modes of co-production for sustainability. *Nature Sustainability*, 4(11), pp.983-996.

Crona, B., Wassénus, E., Liljepold, K., Watson, R.A., Selig, E.R., Hicks, C., Österblom, H., Folke, C., Jouffray, J.B. and Blasiak, R., 2021. Sharing the seas: a review and analysis of ocean sector interactions. *Environmental Research Letters*, 16(6), p.063005.

Folke, C., Polasky, S., Rockström, J., Galaz, V., Westley, F., Lamont, M., Scheffer, M., Österblom, H., Carpenter, S.R., Chapin, F.S. and Seto, K.C., 2021. Our future in the Anthropocene biosphere. *Ambio*, 50(4), pp.834-869.

Meacham, M., Norström, A.V., Peterson, G.D., Andersson, E., Bennett, E.M., Biggs, R., Crouzat, E., Cord, A.F., Enfors, E., Felipe-Lucia, M.R. and Fischer, J., 2022. Advancing research on ecosystem service bundles for comparative assessments and synthesis. *Ecosystems and People*, 18(1), pp.99-111.

Österblom, H., Bebbington, J., Blasiak, R., Sobkowiak, M. and Folke, C., 2022. Transnational corporations, biosphere stewardship, and sustainable futures. *Annual Review of Environment and Resources*, 47.

Österblom, H., Folke, C., Rocha, J., Bebbington, J., Blasiak, R., Jouffray, J.B., Selig, E.R., Wabnitz, C.C., Bengtsson, F., Crona, B. and Gupta, R., 2022. Scientific mobilization of keystone actors for biosphere stewardship. *Scientific reports*, 12(1), pp.1-17.

Pereira, L., Kuiper, J.J., Selomane, O., Aguiar, A.P.D., Asrar, G.R., Bennett, E.M., Biggs, R., Calvin, K., Hedden, S., Hsu, A. and Jabbour, J., 2021. Advancing a toolkit of diverse futures approaches for global environmental assessments. *Ecosystems and People*, 17(1), pp.191-204.

Selig, E.R., Nakayama, S., Wabnitz, C.C., Österblom, H., Spijkers, J., Miller, N.A., Bebbington, J. and Decker Sparks, J.L., 2022. Revealing global risks of labor abuse and illegal, unreported, and unregulated fishing. *Nature communications*, 13(1), pp.1-11.

Short, R.E., Gelcich, S., Little, D.C., Micheli, F., Allison, E.H., Basurto, X., Belton, B., Brugere, C., Bush, S.R., Cao, L. and Crona, B., 2021. Harnessing the diversity of small-scale actors is key to the future of aquatic food systems. *Nature Food*, 2(9), pp.733-741.

Sumaila, U.R., Walsh, M., Hoareau, K., Cox, A., Teh, L., Abdallah, P., Akpalu, W., Anna, Z., Benzaken, D., Crona, B. and Fitzgerald, T., 2021. Financing a sustainable ocean economy. *Nature communications*, 12(1), pp.1-11.

Viridin, J., Vegh, T., Jouffray, J.B., Blasiak, R., Mason, S., Österblom, H., Vermeer, D., Wachtmeister, H. and Werner, N., 2021. The Ocean 100: Transnational corporations in the ocean economy. *Science advances*, 7(3), p.eabc8041.

Wassénus, E. and Crona, B.I., 2022. Adapting risk assessments for a complex future. *One Earth*, 5(1), pp.35-43.

Part III. Measurement of Outcomes

(1) Engagement with the United Nations Global Compact Action Platform for Sustainable Ocean Business / Ocean Stewardship Coalition

The engagement with the Ocean Stewardship Coalition has resulted in contributions to multiple reports and events over the past years that have brought industry perspectives and ambitions for transformative change into high-level venues, with a strong foundation in the latest science and thinking on ocean stewardship and resilience thinking. Key examples include contributions to the guidance on operationalizing UNGC's Sustainable Ocean Principles for port operators and the "Blueprint for a Climate-Smart Ocean to Meet 1.5°C" and Accelerating Sustainable Seafood report with sector-specific guidance for setting science-based targets. At the Second UN Ocean Conference in Lisbon, Portugal (June 2022), SRC contributed as mentors and advisors to the Youth and Innovation Forum co-organized by the UNGC Ocean Stewardship Coalition, an event attended by over 100 youth delegates from more than 80 countries.

(2) The keystone dialogues and Seafood Business for Ocean Stewardship (SeaBOS), and Ocean 100 Dialogues;

The Seafood Business for Ocean Stewardship (SeaBOS) initiative has taken significant steps forward in formalizing its collaborative linkages and workflows, and publicly communicating its ambitions and the results of the collaboration. A key milestone for the initiative was the publication in June 2022 of the Progress Report 2017-2022, which detailed why the initiative was established, how it functions, its commitments and time-bound goals, and the extent to which it has delivered on these goals to date. In October 2022, the CEOs of the 10 member companies agreed to furthermore develop a dedicated monitoring and reporting framework that could be used to track progress in alignment with relevant GRI indicators and World Benchmarking Alliance reporting. In parallel, the science team has continued to produce peer-reviewed interdisciplinary publications that contextualize and explain the process that has resulted in the initiative and analyze evidence for the broader hypothesis that keystone actors have the potential through collective science-based action to shift the trajectory of entire sectors towards more responsible operations, and towards stewardship of the biosphere.

The Ocean 100 resulted in a series of dialogues with a cohort of 10-15 early-movers among the world's largest companies operating in the ocean, to drive collective stewardship across industries, and generate global impact for more sustainable and equitable ocean use. Key challenges are addressed in the form of topical 6-month "sprints" organized into three overarching "marathons" on climate change, marine biodiversity loss, and equity of ocean access and benefits, with the first two months focused on a science-based diagnostic, the following two focused on scoping cross-industry commitments at the highest level of companies, and the last two months assessing and putting in place mechanisms to evaluate progress towards commitments that have been agreed on. A first prototype sprint on "Blue

Carbon” was conducted to help scaling up restoration and conservation of the world’s coastal vegetated ecosystems (salt marshes, seagrasses and mangroves). A first set of outcomes and commitments from the sprint are expected to be announced early 2023, together with a plan for implementation, while the next sprint focused on mapping ocean biodiversity is set in motion.

(3) Rethink Talks Podcast

Since launching in 2021, a total of 26 episodes of the podcast have been produced on a broad range of topics, comprising over 10 hours of freely available content. Rethink podcast episodes are available on the [SRC website](#) as well as on [Apple Podcasts](#).

(4) Our executive programme in resilience thinking;

The executive programme in resilience thinking was launched in 2018, and has received 16 participants every year since then (more than 75 CEOs and Chair persons have participated until now). Taken together, the alumni companies represent a turnover equivalent to half of Sweden’s GDP and their total emissions are several times larger than those of Sweden. They reach millions of customers and employees. Many of them have set science-based targets and shifted their investments inspired by the program, and a study is underway to capture the results systematically. Lessons from the program have also been presented in a book published in Swedish, 2021 (Kursen – 10 lektioner för ett hållbart näringsliv, written by Lisen Schultz and Erica Treijs for Natur & Kultur).

(5) Selected research outcomes of particular relevance for understanding the potential of the private sector to play a constructive role in biosphere stewardship

In 2021, Stockholm Resilience Centre researchers published over 220 academic publications in over 100 different peer-reviewed journals. Over 60% of the articles were published in journals with an impact factor of four or higher. SRC publications were cited over 23,000 times in 2021 alone, and the total number of citations of SRC publications over time has risen beyond 100,000. Of the publications in 2021, four were classified as “highly cited papers” (i.e. receiving enough citations to be among the top 1% of papers published in their academic field). SRC publications have appeared in journals such as The Lancet, Nature and Nature-related journals, Proceedings of the National Academy of Sciences, USA (PNAS), Science, and Science Advances. Further information on the metrics of SRC publications, their impact, and the recognition they have received can be found in the SRC Annual Reports at: <https://stockholmresilience.org/about-us/annual-reports.html>