

# Seafood Business for Ocean Stewardship: a brief history

*This Background Brief summarizes the history of the Seafood Business for Ocean Stewardship (SeaBOS) initiative from its inception in November 2016 at the Soneva Dialogue to the latest Dialogue in Phuket in September 2019. During these three years, SeaBOS has developed a series of high-level commitments and, underpinned by science, has started on the journey of delivering on those commitments. The cohort of companies are learning in partnership with each other, with the science team and also with partners in the wider landscape to become stewards of the ocean. In July 2019, SeaBOS entered a new stage, becoming a separate legal entity, and appointing a Managing Director.*

## **A partnership between science and business**

### *The scientific starting point*

The SeaBOS initiative started with scientific curiosity and the following questions: what is the nature of transnational corporations in the global seafood industry? Which companies are fishing/farming where, how much do they produce, and how do they operate through networks of subsidiaries?

A research team led by Prof. Henrik Österblom of the Stockholm Resilience Centre identified, through an analysis of seafood production volumes, a number of companies who could be collectively described as 'keystone actors'. The term 'keystone actor' is inspired by the 'keystone species' concept in ecology which describes how some species in ecological communities have a disproportionate effect on the structure and function of the system in which they operate.

Österblom and colleagues<sup>1</sup> found that a similar pattern could be seen in companies within the seafood industry. Specifically, their work identified that 13 keystone actors in the industry control 19-40% of some of the largest and most valuable stocks and 11-16 % of the global marine catch. These keystone actors: (1) dominate global production revenues and volumes within a particular sector; (2) control globally relevant segments of production; (3) connect ecosystems globally through subsidiaries and (4) influence global governance processes and

institutions. The process of conducting this research resulted in relationships developing between the researchers and keystone actors and from this, the idea of a dialogue between a sub-set of these companies developed.

### *From keystone actors to keystone dialogues*

The first meeting of keystone actors, researchers and advisers took place in November 2016. The outcome of this dialogue was three-fold. First, knowledge exchange between science and business resulted in an understanding of the most pressing problems associated with the ocean. Second, a learning partnership between the CEOs and researchers was developed: SeaBOS. A hallmark of the initiative is that possible remedies to ocean problems are co-designed and co-produced in dialogue between scientists and the keystone actors. Third, a series of high level commitments were made and these form the basis of the ongoing collaboration (see Table 1). At the second dialogue in Stockholm in May 2017, the ten companies who currently make up SeaBOS made a pledge for ocean stewardship and the programme of work to realise these ambitions commenced.

An important element from the outset has been the active participation in the process by HRH Crown Princess Victoria of Sweden who was the patron of the first dialogue in the Maldives (the Soneva Dialogue) and who has participated in the meetings in Stockholm (2017), Karuizawa (2018) and Bergen (2019), in her role

**Table 1: SeaBOS commitments (Joint Statement from the Soneva Dialogue, November 2016)**

This is an initiative between science and business, with an ambition to engage with governments and other stakeholders for positive change. It is not only about supplying sustainable seafood to consumers; it is about becoming stewards of the world's ocean and aquaculture environments.

**We will act on the following:**

- Improve transparency and traceability in our own operations, and work together to share information and best practice, building on existing industry partnerships and collaborations.
- Engage in concerted efforts to help reduce IUU fishing and seek to ensure that IUU products and endangered species are not present in our supply chains.
- Engage in science-based efforts to improve fisheries and aquaculture management and productivity, through collaboration with industry, regulators and civil society.
- Engage in concerted efforts to eliminate any form of modern slavery including forced, bonded and child labour in our supply chains.
- Work towards reducing the use of antibiotics in aquaculture.
- Reduce the use of plastics in seafood operations and encourage global efforts to reduce plastic pollution.
- Reduce our own greenhouse gas emissions.
- Secure new growth in aquaculture, by deploying best practices in preventive health management, including improved regulatory regimes.
- Collaborate and invest in the development and deployment of emerging approaches and technologies for sustainable fisheries and aquaculture.
- Support novel initiatives and innovations for ocean stewardship.

as a United Nations Sustainable Development Goal Advocate. The Crown Princess was also appointed by Ban Ki-moon as a United Nations Sustainable Development Goal Advocate.

The work of SeaBOS proceeds by way of annual CEO dialogues, complemented by annual working meetings of senior executives within the companies who are working to deliver the commitments. The work has been arranged around five task forces (see Table 2). Finally, the researchers provide user-focused summaries of their work in the form of Background Briefs (such as this one). Annex I provides details on the background briefs that have been prepared as well as the research updates presented at the working meetings.

*SeaBOS as a research programme*

The Keystone Dialogue approach is designed to test the scientific hypothesis that keystone actors have a disproportionate ability to influence change. In order to better understand the dialogue process, as well as its potential and risks, researchers have been documenting and describing the emergence of SeaBOS<sup>2</sup>. The ambition is that keystone actors, through the SeaBOS initiative, will stimulate scientific learning and change in the seafood industry, with the approach being replicable in other sectors. The research is guided by research collaboration protocols whereby ethical approvals are sought for the work from the relevant universities conducting the research. Where appropriate, confidentiality is maintained with regard to insights gained from the collaboration.

A funding consortium has underpinned the academic contribution to SeaBOS. The largest contributions have been received from the Walton Family Foundation, the David and Lucile Packard Foundation, and the Gordon and Betty Moore Foundation. Significant investment has also come from the Stockholm Resilience Centre (supported by core funding from Mistra), the Beijer Institute of Ecological Economics and the Royal Swedish Academy of Sciences. Other contributions have come from funded programmes of work as well as contributions in kind (in the form of staff time) from other science partners. Annex I summarises the researchers and funding programmes that have supported the research programme. Critically for academic integrity, the SeaBOS companies have not contributed funding to the research work.

Figure 1 summarises the key activities in the SeaBOS timeline over the last three years, as well as the underpinning science activities and SeaBOS external engagement.

**Defining characteristics of SeaBOS**

SeaBOS can be characterised along several dimensions<sup>3,4</sup> – each of which determines how it operates, what it can achieve and also its uniqueness.

- SeaBOS is a **science and business** partnership. This means that the researchers co-create an evidence base that can inform decision making. The Background Briefs and research updates are a

**Table 2: SeaBOS Task Forces**

**Task Force I: Reducing IUU fishing and eliminating ‘modern slavery’**

The task force focuses on ensuring that there are no IUU products or raw materials associated with forced labour slavery in SeaBOS members’ supply chains.

**Task Force II: Improving transparency and traceability in global seafood**

The task force aims to promote and illustrate leadership and best practices in terms of traceability and transparency, including through cooperation with the ongoing Global Dialogue on Seafood Traceability. The task force is engaged in advancing current approaches to transparency and is also piloting novel technologies to advance transparency and traceability.

**Task Force III: Working with governments to improve regulations**

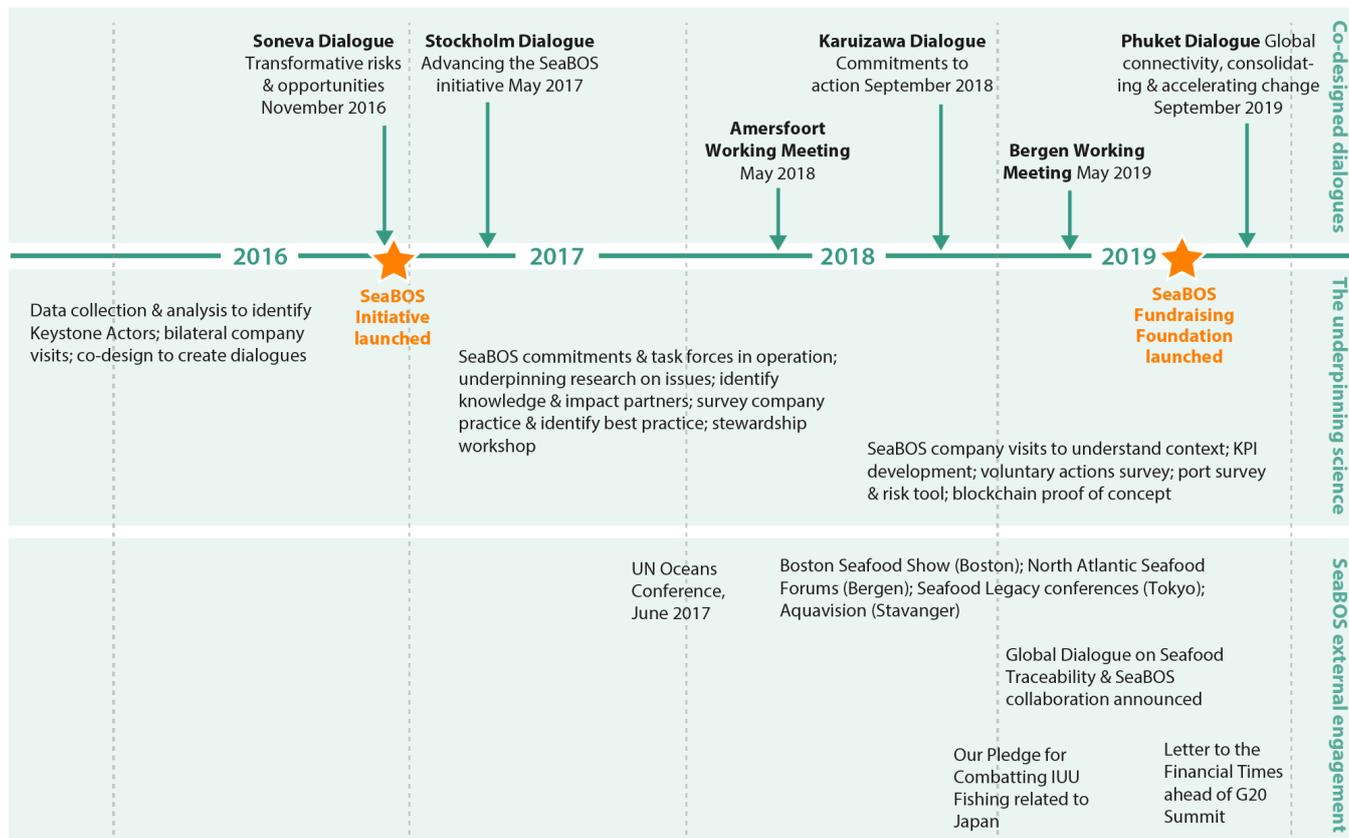
The task force aims to develop the ability of SeaBOS members to engage in fisheries, aquaculture and related policy processes, to ensure they actively contribute to ocean stewardship. Current priorities include engaging with UN agencies to support their work on antibiotic resistance in aquaculture and social sustainability in wild capture fisheries and aquaculture.

**Task Force IV: Vision, strategy, monitoring and governance of SeaBOS**

The task force will ensure that SeaBOS is an efficient organization that can make tangible progress towards ocean stewardship by clearly advancing the identified priorities.

**Task Force V: Reducing plastic in seafood supply chains**

The task force contributes to the development of a strategy, based on scientific knowledge, existing best practices and the frontiers of innovation for addressing plastics in the ocean.



**Figure 1: Key activities in the SeaBOS timeline over the last three years, as well as the underpinning science activities and SeaBOS external engagement.**

major way to do this (see Annex I) and consolidate extensive academic materials into a shorter form. In addition, the science team supports the task forces by (for example) undertaking surveys that will help SeaBOS achieve its aims. It is unusual for science to partner closely with business as it can be thought to undermine academic integrity: this is why the science input has been funded externally. At the same time, this partnership means that researchers have an unparalleled opportunity to directly support ocean transformation, learn from the SeaBOS work and then communicate how change is achieved by SeaBOS (providing a path for other researchers and companies to follow). The commitment to co-design of the SeaBOS ambitions and approach reflects the commitment to mutual learning.

- **CEO leadership and learning** is central to SeaBOS. Multi-stakeholder partnerships are often used to try to change social and environmental impacts, for example, the Roundtable on Sustainable Palm Oil is made up of corporate actors, NGO members and government representatives. The strength of multi-stakeholder partnerships is that insights from different groups create mutual learning with the credibility of these initiatives being based on taking all voices into consideration. Sometimes, however, a multi-stakeholder partnership will require compromises between different stakeholders that can lead to 'watered down' outcomes and slower progress towards goals. SeaBOS, therefore, has the potential to move more quickly than other kinds of partnerships and be more ambitious. At the same time, SeaBOS's credibility rests on achieving the transformational change it has committed to.
- Many voluntary initiatives for change focus on the consumer, often using certification as a mechanism to communicate the social and environmental

characteristics of products (for example via product certification). In contrast, SeaBOS is a **producer initiative** in that it is seeking to change the impacts in the companies who produce seafood. While certification might only apply to particular products, if SeaBOS is successful it will impact upon all the activities of member companies and also the entire industry through supply chain effects and changing the expectations of what ocean stewardship entails. Of course, consumer and producer focused initiatives become even more powerful when they support the same outcomes.

- **Stewardship** is at the heart of the SeaBOS initiative and encompasses both social and environmental stewardship. This implies that while SeaBOS companies transform their operational impacts they also support wider transformations, for example along their supply chains. One challenge of being a steward is that you may share responsibility for outcomes that are not in your direct control. This is why SeaBOS members contribute to wider processes of ocean governance (for example, through fisheries reform) as well as formally partnering with initiatives that are perceived to create a platform that could move the entire seafood industry forward (for example, the Global Dialogue on Seafood Traceability).

## Summary

This Background Brief has looked back to provide a historical perspective on the evolution of SeaBOS over the last three years to remind us of this shared history. This document has also sought to describe what makes SeaBOS unique in its form and function as well as in its ambition.

---

## References

1. Österblom, H., Jouffray, J.-B., Folke, C., Crona, B., Troell, M., Merrie, A. and Rockström, J. (2015), "Transnational Corporations as 'Keystone Actors' in Marine Ecosystems", *PLOS ONE*, Vol. 10 No. 5, pp. e0127533.
  2. Österblom, H., Jouffray, J.-B., Folke, C. and Rockström, J. (2017), "Emergence of a global science–business initiative for ocean stewardship", *Proceedings of the National Academy of Sciences*, Vol. 114 No. 34, pp. 9038-9043.
  3. Bair, J. (2017), Contextualising compliance: hybrid governance in global value chains, *New Political Economy*, Vol. 22 No. 2, pp. 169-185.
  4. Background Brief 2: *Voluntary Environmental Programs*. Presented at the Amersfoort meeting in May 2018.
-

## Annex I: Summary of the materials by dialogue/working meeting; contributors to the programme and funders of the work

Meeting	Background Brief or Research Update
Soneva (November 2016) First dialogue	<ol style="list-style-type: none"> <li>1. People and the Planet</li> <li>2. The Global Protein Challenge</li> <li>3. Wild Capture Fisheries</li> <li>4. Aquaculture</li> <li>5. Climate Change</li> <li>6. Governance and Regulations</li> <li>7. Innovations and Market Dynamics</li> <li>8. Corporate Sustainability Leadership</li> <li>9. Ocean Plastics</li> </ol>
Stockholm (May 2017) Second dialogue	<ol style="list-style-type: none"> <li>1. Trade, People and Ecosystems</li> <li>2. Seafood for Human and Planetary Health</li> </ol>
Amersfoort (May 2018) First working meeting	<ol style="list-style-type: none"> <li>1. Slavery in Marine Fisheries</li> <li>2. Voluntary Environmental Programs</li> </ol>
Karuizawa (September 2018) Third dialogue	<ol style="list-style-type: none"> <li>1. Supply Chain Questionnaire Survey: IUU Fishing and Modern Slavery*</li> <li>2. Sustainability Reporting by SeaBOS Members*</li> <li>3. What do members have to say about SeaBOS? An analysis of interviews conducted in 2018*</li> </ol>
Bergen (May 2019) Second working meeting	<ol style="list-style-type: none"> <li>1. An updated risk map*</li> <li>2. Task Force I deliverables update*</li> <li>3. Moving ahead with SeaBOS commitments: Insights from company visits*</li> <li>4. Ocean plastic pollution – trends, impacts, and action: Scientific background to support SeaBOS plastics strategy development*</li> <li>5. Monitoring industry impact of the SeaBOS Initiative: An update on the Seafood Stewardship Index (SSI)*</li> <li>6. Key performance indicators approach: Bergen to Thailand*</li> </ol>
Phuket (September 2019) Fourth dialogue	<ol style="list-style-type: none"> <li>1. Seafood Business for Ocean Stewardship: a brief history</li> <li>2. SeaBOS commitments and current alignment with material issues across SeaBOS members*</li> <li>3. Ocean plastic pollution</li> <li>4. Update on anti-microbial resistance</li> <li>5. Risk map results and principles for use*</li> <li>6. Task Force I: Progress update*</li> <li>7. Key Performance Indicators: Survey results and a way forward and propositions</li> </ol>

\*Indicates papers that are not in the public domain, as they are research updates

The researchers who contributed to this work are primarily based at the Stockholm Resilience Centre as well as including staff from the Beijer Institute of Ecological Economics and the Royal Swedish Academy of Sciences. This team has been led by Henrik Österblom and has included contributions from: Jan Bebbington; Robert Blasiak; Beatrice Crona; Alice Dauriach; Carl Folke; Radhika Gupta; Patrik Henriksson; Jean- Baptiste Jouffray; Andrew Merrie; Johan Rockström; Lisen Schultz; Jessica Spijkers; Max Troell and Patricia Villarubia-Gomez. The Soneva Dialogue included input from Joshua Basofin; Mary McCarthy; Jonathon Porritt & Sarah Tule from Forum for the Future.

Other background papers have been written by, received contributions from or been reviewed by colleagues at the Universities of: Birmingham; British Columbia; Burgos; Dalhousie; South Carolina; St Andrews; Stanford; Tokyo; the United Nations University; Washington and the Swedish Agency

for Marine and Water Management as well as the Food and Agriculture Organisation and independent consultants.

These contributions have been supported by a number of research funders, including long term/ programme support from Mistra (which provided a core grant to the Stockholm Resilience Centre); the Global Economic Dynamics and the Biosphere Program (funded by the Erling Persson Family Foundation); the Nereus – predicting the future oceans program (funded by the Nippon Foundation); the Baltic Ecosystem Adaptive Management Program; the Beijer Institute of the Royal Swedish Academy of Sciences and the GRAID program (funded by the Swedish International Development Agency). Specific funders for the dialogues and the task force work are the Walton Family Foundation, the David and Lucile Packard Foundation and the Gordon and Betty Moore Foundation.



**Stockholm Resilience Centre**  
Sustainability Science for Biosphere Stewardship



**GLOBAL ECONOMIC DYNAMICS  
AND THE BIOSPHERE**  
THE ROYAL SWEDISH ACADEMY OF SCIENCES



**Author:** Jan Bebbington

**Affiliation:** University of Birmingham

**Reviewers:** Jean-Baptiste Jouffray, Henrik Österblom, Robert Blasiak and Martin Exel

**Acknowledgements:** The authors acknowledge support from the Walton Family Foundation, the David and Lucile Packard Foundation, and the Gordon and Betty Moore Foundation.

**Graphics and layout:** Jerker Lokrantz/Azote

Printed on 100% recycled, FSC certified paper.