

DECEMBER 2024

Supporting information to the SeaBOS Code of Conduct and Roadmap

SeaBOS Code of Conduct

Antibiotics and antibiotic stewardship

Antibiotics are essential for many medical treatments of both humans and animals. Only a limited number of effective antibiotics exist, and inappropriate use increases the risk for development of bacterial resistance. The global health community realises the urgency for curbing antibiotic use and so does SeaBOS. It is also recognised that use of antibiotics needs to be seen from a larger One Health perspective* where animal farming can be highly interlinked to the human healthcare system and the wider environment. By applying the Code of Conduct, SeaBOS aims to improve the stewardship of antibiotics through responsible and reduced use. Many SeaBOS members will be influenced by the code as both aquaculture and feed production are included.

Critically Important Antibiotics

Primary focus of the code of conduct is on Critically Important Antimicrobials (CIA) and within this group the Highest Priority Critically Important Antimicrobials (HPCIA). These have been defined by the World Health Organisation.** At a later stage focus should also involve antimicrobials classified as important.**

Circumstances for occasional use of CIA

Antibiotics are essential tools in health management for humans and animal farming. The response of a disease to antibiotics can be very specific and certain compounds may be the only option to treat a disease at the time. SeaBOS recognises that with environmental changes following global warming the risk of more frequent disease outbreaks will increase - including also emergence of new diseases. But from an animal welfare perspective, those diseases have to be treated and if CIA are the only treatments that are effective, they should be allowed to be used under a limited time while alternative treatment solutions are developed. This should only be if applied under strict supervision by veterinarians or similar qualified health professionals. Their use should be clearly documented and reported, simultaneously as companies actively work on solutions to limit future use (e.g. developing vaccines, changing mode of operation or moving sites). The monitoring of use together with environmental characteristics enable evaluation of suitability for continuation of farming a specific species in a specific area. Phasing out the Highest Priority Critically Important Antimicrobial is an absolute priority and companies using such antimicrobials need to follow a plan for actively finding suitable alternative solutions. SeaBOS ambition is to remove Highest Priority Critically Important Antimicrobial from within their treatment portfolios after 2025.

* <https://www.woah.org/en/what-we-do/global-initiatives/one-health/>

** <https://cdn.who.int/media/docs/default-source/gcp/who-mia-list-2024-lv.pdf>

Scope

The scope of the Code of Conduct is for antibiotic use within:

- SeaBOS own direct aquaculture and feed production business operations
- SeaBOS subsidiaries;
- SeaBOS suppliers (across multiple tiers);
- Joint ventures and companies where SeaBOS members have sufficient large ownership to influence sustainability performance

Reporting

Reporting on detailed antibiotic use by SeaBOS members is the most critical part of monitoring our progress against our Code of Conduct, and also vital for showing responsible stewardship. The reporting within SeaBOS is going beyond what has been identified within GRI guidance* (GRI 13). SeaBOS members will commit to annually collect data on the use of antibiotics through the activities relevant to them as defined by the Scope. The type of antibiotics used, the WHO category they belong to, and the amount used (by product and active compound) will be reported. It will also include the total production (seafood or feed) per species/type, specifying the volumes treated and volumes free from antibiotics. Members should strive toward reporting on use details for regions and species. Data will be reported to Taskforce III Science team annually for analysis and reporting to the CEOs and externally. Any communication externally will be evaluated and agreed upon by the SeaBOS members.

Transparency

A core responsibility of SeaBOS is to be able to publicly demonstrate position, performance, and progress on key sustainability domains, including antibiotic use. SeaBOS will aggregate member performance and report that publicly through the SeaBOS website. Ongoing initiatives for reducing dependency and use of antibiotics will also be communicated through the website. Any communication externally will be evaluated and agreed upon by the SeaBOS members, but the ambition is that SeaBOS takes a leading position in becoming transparent in their performance. Individual members will supply information/data that the secretarial will make available on the SeaBOS webpage.

External reporting (through the website) by SeaBOS will include: members' total use of antibiotics and total use of HPCIA and CIAs; production in total and volumes in total free from antibiotics by geography and species; performance against the roadmap.

Timeline

The overall ambition is that SeaBOS members become transparent with use and efforts for reducing and phasing out antibiotics. This creates trust and will allow for keeping treatment with CIA as an option during certain occasional disease events. The specific ambition is, however, still to reduce and move away from CIA and specifically phase out HPCIA. The HPCIA should not be an option in SeaBOS's future portfolios and is therefore a priority for companies with such use to find alternative solutions.

For being able to show upon real commitment and acting as leaders for a global transformation towards responsible use of antibiotics in aquaculture, SeaBOS should have the ambition to map details of antibiotic use not only on own farms but also on farms owned by subsidiaries. The SeaBOS companies should set bold timelines for achieving such broader understanding and also for phasing out HPCIA.

* <https://www.globalreporting.org/standards/standards-development/sector-standard-for-agriculture-aquaculture-and-fishing/>

SeaBOS Roadmap specifications

SeaBOS has prepared a roadmap consisting of activities which will build responsible antibiotic stewardship. The roadmap considers the specificity of the SeaBOS members i.e. with respect to if they are involved in farming, buying farmed seafood or if they are feed producers. As with other businesses also, seafood actors are going through vertical integration resulting in a company which may have different kinds of production/activities within their business portfolio. The roadmap is therefore different for different activities - this even though the core aims to reduce antibiotic use is the same. This becomes obvious from having different aims and ambitions (time lines) for different activities.

Level	Description of preferable status
L1: Basic-level for health monitoring and health management	Complete data on stock health and health management in place for each farm site. Antibiotics are carefully managed and only used for treatment of diseases (not prophylactic).
L2: Improved Diagnostic and Treatment Capacity	Capacity for rapid diagnosis of diseases exist on farms or are readily available within a company, enabling prompt recommendations for appropriate treatments. Correct treatments are ensured through knowledge and access to appropriate and good quality antibiotics.
L3: Veterinary prescription service and farm veterinary health plan	A professional health care system is in place, ensuring that all medical treatments are prescribed by trained practitioners. Annual health plan is in place for each farm, established in consultation with the responsible veterinarian.
L 4: Appropriate area management and high-level biosecurity measures	Health plans across neighbouring farms is in place and has been established through collaboration between companies/farms. Area management considering farm connectivity is in place and this is being complemented by also considering risks from environmental quality changes.

Reporting on progress against the Roadmap

SeaBOS has proposed a reporting structure against the roadmap, which easily allows members to communicate annually - both internally and externally - on progress against the goals of the roadmap levels.

Supporting Research and Development

The roadmap and the supporting reporting structure provide tools to improve antibiotic stewardship and also broader consideration of animal welfare. Specific solutions will have to be developed and implemented according to the needs of the farmed species, the specific disease, the environment characteristics and the regulatory framework in place in any particular country. SeaBOS members will work urgently with researchers and governments (regulators) to identify, develop and implement solutions that prioritise the elimination of HPCIA, other CIA, and ultimately support overall reduction of antibiotic use, whilst maintaining high performance on animal welfare and human health.

Collaborating in research

More knowledge is required to understand the emergence and presence of antimicrobial resistant genes in aquaculture and its surrounding environment. The aim is that SeaBOS members will collaborate with the science team to regularly collect samples of material from feed, farm sites, and processed seafood to screen for AMR genes, in order to develop a better understanding of the links between antibiotic use and AMR.

Sharing best practices implemented and challenges faced

SeaBOS members, health experts, NGOs, regulators, and academics have developed experience of solutions to improve health and antibiotic stewardship, but there is a big challenge to share those learnings. SeaBOS will work to create a common resource pool of solutions to antibiotic challenges, working also with external stakeholders. The aim will be to develop and share best practices with a priority to farmers and regulators, but also across relevant stakeholders who can help further promotion and implementation. A first attempt will involve sharing through the SeaBOS website.

Stockholm Resilience Centre
Sustainability Science for Biosphere Stewardship



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



Stanford Center for
Ocean Solutions

