ONE OCEAN FOUNDATION

Ocean Disclosure Initiative

AGRICULTURE AND FOOD INDUSTRY REVIEW

SDA Bocconi SCHOOL OF MANAGEMENT
SUSTAINABILITY LAB

McKinsey & Company

CSIC
Consejo Superior de Investigaciones Científicas

Table of contents

About One Ocean Foundation

This research is an initiative of the One Ocean Foundation as part of its commitment to the diffusion of ocean literacy.

The mission of the Foundation is to accelerate solutions to Ocean issues by inspiring international leaders, institutions, companies, and people, promoting a sustainable blue economy and enhancing ocean knowledge through ocean literacy.

Thanks to an international network of contacts (companies, institutions, entrepreneurs, athletes, yacht clubs, influencers, etc.), the One Ocean Foundation intends to develop a leading platform, bringing together and strengthening the voices speaking out on behalf of the ocean around the world, from a collaborative, not competitive, perspective.

The distinctive feature of the One Ocean Foundation is its scientific scope and, at the same time, its solid educational drive to increase awareness and establish constructive relationships between all stakeholders engaged in marine preservation at different levels.

For information please contact
the One Ocean Foundation at:
secretariat@1ocean.org
Tel: +39 02796145
Via Gesù 10, Milan — Italy
To see the latest One Ocean Foundation
contents please visit:
www.1ocean.org

About the Ocean Disclosure Initiative

The Ocean Disclosure Initiative project is part of the multi-year research “Business for Ocean Sustainability” promoted by the One Ocean Foundation (OOF) in collaboration with SDA Bocconi School of Management Sustainability Lab, McKinsey & Company and CSIC (Consejo Superior de Investigaciones Científicas) and aimed at building knowledge about the relationship between the business and the ocean.

The project started in 2019 with the goal of investigating the role of companies in addressing ocean challenges, focusing on the pressures on marine ecosystems, the level of awareness within the business community and the main (technological and organisational) responses implemented.

The Ocean Disclosure Initiative is the first science-based framework and methodology aimed at supporting businesses from all industries in taking action on ocean-related issues, promoting prevention and/or mitigation responses and favouring disclosure and reporting.

To know more please visit www.oceandisclosureinitiative.org

Introduction to the Agriculture and Food Industry

The agri-food industry comprises all activities surrounding agriculture, farming, and food processing that are vital for human survival and economic development. Agriculture is broadly defined as all farming activities that include the cultivation of crops and animal husbandry to provide food and other products[1]. Meanwhile, the food industry comprises all elements and activities related to producing and consuming food and the successive effects, including economic, health and environmental outcomes[2].

Agricultural development is fundamental to fulfilling most of the UN 2030 Agenda goals: from eradicating poverty and hunger to achieving good health and education for all, from community resilience to the responsible management of natural resources and climate change challenges[3]. It is also vital for economic growth as it accounts for 4% of the global gross domestic product (GDP), and in some less developed countries, it can account for more than 25% of the internal GDP[4].

The sector plays a significant role in current social and environmental challenges. For instance, the agriculture and food industry is responsible for a large share of all greenhouse gases, mainly caused by losses in the supply chains or food wasted by consumers[5].

Due to its toll on the environment and, consequently, on marine environment ecosystems, it has been selected as one of the principal sectors analysed in the framework of the Ocean Disclosure Initiative. This document has been elaborated by analysing relevant scientific materials and sectoral publications related to the environmental pressures of the agri-food sector.

1. FAO (N.D) "Definitions" [online]. Available at: https://www.fao.org/3/x6941e/x6941e04.htm (Accessed: 22 March 2023)
2. OECD (N.D) "Making Better Policies for Food Systems" [online]. Available at: https://www.oecd.org/food-systems/ (Accessed: 22 March 2023)
3. FAO (2019) "Transforming the world through food and agriculture" [online]. Available at: https://www.fao.org/3/ca5299en/CA5299EN.pdf (Accessed: 04 August 2023)
4. The World Bank. (2022) "Agriculture and Food" [online]. Available at: https://www.worldbank.org/en/topic/agriculture/overview (Accessed: 04 August 2023)
5. Ritchie, H. (2020) "Food waste is responsible for 6% of global greenhouse gas emissions" [online]. Available at: https://ourworldindata.org/food-waste-emissions (Accessed: 04 August 2023)

The core objective of the analysis is to understand the sector's impact on marine ecosystems and to create the basis for the industry-specific edition of the ODI tool.

CURRENT AGRICULTURAL PRACTICES ARE CHARACTERISED BY LAND LAND EXPANSIONS AND INTENSIFICATION OF THE PRODUCTION, WITH ARE ASSOCIATED WITH HARMFUL CONSEQUENCES FOR THE MARINE ECOSYSTEMS

Population growth, diet changes and easier access to diversified meals for a part of the world's population are risking the capacity to produce nutritious and safe food for everyone. The Food and Agriculture Organisation (FAO) has predicted that by 2050, the global population will reach 9.7 billion[6], which means that increased demand and intensification of the agriculture sector are inevitable. As the industry faces rising challenges, production increases have been mainly achieved through land expansions and intensification[7], which have unavoidably come with environmental drawbacks, several of which are connected to the ocean.

One of the industry's major environmental pressures is the heavy reliance on water, which uses approximately 70% of all freshwater consumption and nearly half of the Earth's ice-free land surface[8]. Moreover, other environmental impacts of this practice are the contamination of water sources, land degradation, salinisation of irrigated areas, and biodiversity loss[9]. Deforestation, being one of the most significant issues, affects the environment deeply as forest loss contributes to larger quantities of GHG and nitrate pollutants in the air that end up in the ocean by filtration or rain deposition.

Soil erosion plays a significant role in exacerbating agriculture's pressure on the ocean. Every year, 24 billion tons of valuable soil are lost due to erosion[10]. While this problem already impacts agriculture, improper land use and management practices only exacerbate the situation[11]. Soil erosion contributes to water contamination by agrochemicals and manure, as eroded soil particles transport attached nutrients and accumulate as sediment in water resources, as explained in the following paragraphs[12].

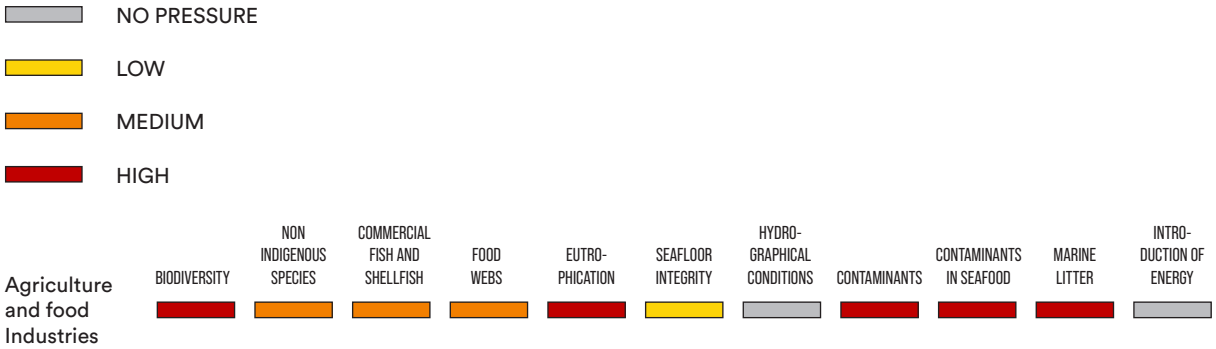
6. European Environmental Agency (2023) "Rethinking Agriculture" [online]. Available at: https://www.eea.europa.eu/publications/rethinking-agriculture (Accessed: 04 August 2023)
7. FAO (2019) "Agriculture and the environment: changing pressures, solutions and trade-offs" [online]. Available at: https://www.fao.org/3/y4252e/y4252e12.pdf (Accessed: 04 August 2023)
8. Schubel & Thompson (2019) "Farming the sea: the only way to meet humanity's future food needs" [online]. Available at: https://doi.org/10.1029/2019GH000204 (Accessed: 04 August 2023)
9. FAO (2017) "The future of food and agriculture- Trend and challenges" [online]. Available at: https://www.fao.org/3/i6583e/i6583e.pdf (Accessed: 04 August 2023)
10. FAO(N.D) "Desertification and land degradation" [online]. Available at: https://www.fao.org/in-action/action-against-desertification/overview/desertification-and-land-degradation/en/ (Accessed: 04 August 2023)
11. Eurostat. (2020) "Agri-environmental indicator- soil erosion" [online]. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Agri-environmental_indicator_-_soil_erosion#Introduction. (Accessed: 04 August 2023)
12. Ibidem

Furthermore, the current climate crisis may intensify soil erosion and water availability and create more challenges for this industry. Changes in atmospheric temperature and the intensification of plagues affecting crops will likely increase the use of fertilisers and pesticides. FAO has predicted that by 2050, there will be an increase of 58% in total fertilisers compared to 2002[13]. Although fertilisers help crops-nutrient value, excessive application and improper management contribute to environmental impacts, such as loss of nutrients to surface waters, decreased water quality, promotion of eutrophication, soil and ocean acidification, and alterations in biodiversity[14].

As part of the research led by One Ocean Foundation on the connection between business and the ocean, the scientific committee has identified the major environmental pressures exerted by the agri-food industry, which are:

— Loss or reduction of biodiversity
— Eutrophication of seawater through the introduction of nutrients
— Marine water contamination and deterioration of chemical conditions
— Introduction of marine litter

FIGURE 1: Review the negative direct and indirect pressures of the agri-food sector*



Source: Elaboration of the Authors from Ocean Disclosure Initiative, One Ocean Foundation, 2021

*Pressures exerted on the eleven Good Environmental Status descriptors (GES) of EU marine waters, listed in the figure as identified in the Marine Strategy Framework Directive of the European Union.

https://ec.europa.eu/environment/marine/good-environmental-status/index_en.htm

13 FAO. (2018) "More people, more food, less water? A global review of water pollution from agriculture" [online]. Available at: https://www.fao.org/3/ca0146en/CA0146EN.pdf (Accessed: 04 August 2023)
14. Mancuso, G. et al. (2021) "A Diffuse Water Pollution from Agriculture: A Review of Nature-Based Solutions for Nitrogen Removal and Recovery" [online]. Available at: https://doi.org/10.3390/w13141893 (Accessed: 04 August 2023)

The main pressures exerted by the agri-food industry

To meet the growing demand for food, the agri-food industry has increased its production through both agricultural land expansion and production intensification. Unfortunately, this has resulted in negative environmental impacts, some of which are relevant to the ocean. Some of the practices used in the agri-food sector can cause significant harm to the marine ecosystem and its biodiversity.

Overall, the main pressures identified for the agri-food industry include:

1. GHG emissions

The agri-food industry significantly strains ocean ecosystems, as greenhouse gas emissions have increased globally in recent years, largely due to agricultural activities. In 2020, FAO reported that the total emissions of CO_2 for agriculture-related activities were 16 million tonnes, an increase of 9% since 2000[15]. These emissions are mainly caused by land clearance activities, which consist of burning rangeland, bushes, forest, and fallow fields to promote growth or to dispose of crop residuals.

FOOD WASTE AND TRANSPORTATION REPRESENT THE MAIN CONTRIBUTORS OF AGRICULTURE'S GHG EMISSIONS, WHICH IS BROADLY RESPONSIBLE FOR ABOUT 25% OF GHG EMISSIONS PRESENT IN THE ATMOSPHERE

Post-production activities, including transportation, packaging, and retail, also contribute to pollution, requiring high inputs of energy and resources. The World Economic Forum has estimated that agriculture is responsible for about 25% of the greenhouse gas emissions present in the atmosphere[16]. Although it is commonly believed that transportation is the main source of GHG emissions from post-production activities, the truth is that food waste emissions represent a major issue, as one-quarter of emissions from food production are due to supply chain losses or consumer disposal.

15. FAO (2022) "Greenhouse gas emissions from agrifood systems. Global, regional and country trends, 2000-2022" [online]. Available at: https://www.fao.org/3/cc2672en/cc2672en.pdf (Accessed: 04 August 2023)
16. World Economic Forum (2021) "Net Zero Challenge. The Supply Chain Opportunity" [online]. Available at: http://www3.weforum.org/-docs/WEF_Net_Zero_Challenge_The_Supply_Chain_Opportunity_2021.pdf (Accessed: 04 August 2023)

Thus, these activities exert enormous pressures on the atmosphere as GHG emissions levels increase, contributing to rising global temperatures. As the biggest carbon sink, the ocean absorbs all this excess heat and helps balance the temperatures. Nevertheless, the excessive heat has caused the ocean to become warmer and gradually more acidic, leading to several cascading effects, including deoxygenation and a high mortality level for aquatic species, loss of habitats and biodiversity, and coral bleaching[17].

Best practices. GHG emissions could be reduced in agriculture by shifting to practices that increase food production in less GHG-intensive ways. Carbon sequestration through nutrient management planning, reduced tillage, and agroforestry systems can substantially help reduce the output of CO_2 into the environment[18]. Introducing new technologies to the production line and using renewable energies in agricultural equipment can also diminish some of the impacts of GHG emissions[19].

In particular, using renewable energies in farm-management activities, such as wind and solar, to produce heating and electricity could efficiently diminish emissions, allowing farmers to be more self-sufficient and cut expenses. In this framework, finally, some farmers are heading towards crops such as sunflower or canola to produce biofuel for vehicles, thus avoiding using land available for other types of cultivation.

17. UN (N.D) "How is Climate Change impacting the world's oceans" [online]. Available at: https://www.un-.org/en/climatechange/science/climate-issues/ocean-impacts (Accessed: 04 August 2023)
18 British Columbia (N.D) "Reducing agricultural greenhouse gases" [online]. Available at: https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/climate-action/reducing-agricultural-ghgs (Accessed: 04 August 2023)
19. European Environmental Agency (2021) "Agriculture and Climate Change" [online]. Available at: https://www.eea.europa.eu/signals/signals-2015/articles/agriculture-and-climate-change (Accessed: 04 August 2023)

2. Eutrophication

Farmers have started using fertilisers more frequently to keep up with the growing demand for food on limited land. According to FAO, the overall fertilizer use has increased by 49% since 2000 (40% higher for nitrogen, 49% higher for phosphorus and 81% higher for potassium) and was equal to 66 million tonnes in 2020[20]. These fertilisers consist of nitrogen and phosphorus, which are naturally present in the environment[21]. However, the quantity of natural nitrogen that plants produce is inadequate to meet the current food-growing needs, leading to the need for more nutrient-based fertilisers.

THE EXTENSIVE USE OF FERTILISERS IN THE AGRICULTURE INDUSTRY LARGELY CONTRIBUTES TO FRESHWATER AND MARINE EUTROPHICATION

Although the use of fertilisers has resulted in higher food production, it has also caused an increase in nitrogen and phosphorus levels in the ocean. This and other contaminant-based solutions have had negative consequences on the environment, including a decline in water quality and eutrophication[22], which has affected 78% of the world's freshwater and ocean ecosystems[23].

Eutrophication is a major issue when water bodies become over-enriched with nutrients, causing the growth of algal blooms. This excess of algae due to high nitrogen and phosphorous levels can negatively impact the aquatic environment by blocking sunlight, reducing oxygen levels, and creating dead zones – also known as hypoxia[24] – that cannot support marine life[25]. Additionally, it can have toxic and harmful effects on biodiversity.

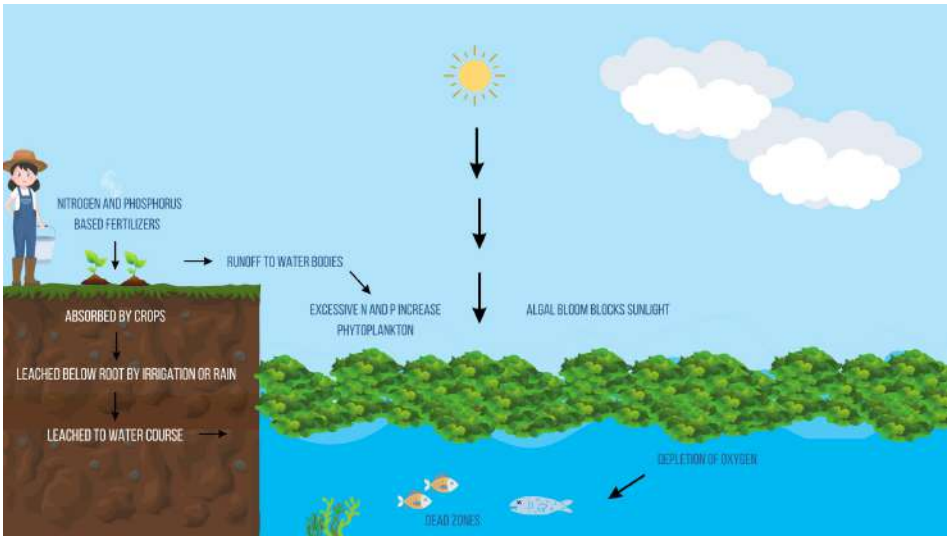
Farming activities can create additional sources of contamination through organic matter such as manure, crop residuals, and soil sediments. These materials can enter water sources and harm marine ecosystems.

20. FAO (2022) "Statistics Yearbook World Food and Agriculture 2022" [online]. Available at: https://www.fao.org/documents/card/en/c/cc2211en (Accessed: 09 October 2023)
21. European Commission (N.D) "Our Oceans, Seas and Coasts" [online]. Available at: https://ec.europa.eu/environment/marine/good-environmental-status/descriptor-5/index_en.htm (Accessed: 04 August 2023)
22. Mancuso, G. et al. (2021) "A Diffuse Water Pollution from Agriculture: A Review of Nature-Based Solutions for Nitrogen Removal and Recovery" [online]. Available at: https://doi.org/10.3390/w13141893 (Accessed: 04 August 2023)
23. Poore, J., & Nemecek, T. (2018) "Reducing food's environmental impacts through producers and consumers" [online]. Available at: https://www.science.org/doi/10.1126/science.aaq0216 (Accessed: 04 August 2023)
24. FAO. (2018) "More people, more food, less water? A global review of water pollution from agriculture" [online]. Available at: https://www.fao.org/3/ca0146en/CA0146EN.pdf (Accessed: 04 August 2023)
25. FAO. (2018) "More people, more food, less water? A global review of water pollution from agriculture" [online]. Available at: https://www.fao.org/3/ca0146en/CA0146EN.pdf (Accessed: 04 August 2023)

Although the global use of manure as fertiliser has decreased, it remains the primary nutrient input in some developing countries[26]. Improper management practices can cause manure to accidentally enter water bodies, especially if they are located close to wells. When manure enters waterways, it can lead to eutrophication and water toxicity. This is due to ammonia's release and pathogenic organisms' introduction into the water[27]. At the same time, soil, crops, and manure sediment can cause water turbidity, altering ocean conditions.

Figure 2 below illustrates how fertilisers can negatively affect the marine environment through eutrophication. Additionally, soil erosion can exacerbate the loss of fertilisers on land, increasing the possibility that these substances enter the water cycle and end up in the ocean.

FIGURE 2: Impact of the use of fertilisers and pesticides on the environment



Source: Author's elaboration

26. Ibidem.
27. North Dakota University (2017) "Environmental Implications of Excess Fertilizers and Manure on Water Quality" [online]. Available at: https://www.ndsu.edu/agriculture/sites/default/files/2022-08/nm1281_0.pdf (Accessed: 08 August 2023)

Best practices. Reducing the use of fertilisers containing nitrogen and phosphorus is critical to minimising eutrophication in water bodies. Thanks to raising awareness work by institutions such as the UN and EU and, according to FAO, farmers are becoming more aware of the negative impacts of the excessive use of fertilisers.

As such, they have started transitioning to a more holistic approach based on ecosystem management by re-introducing biological complexity by increasing plant diversity, perennial cover and tree-planting[28]. Another option to decrease the use of fertilisers involves planting vegetation near water streams to create buffer zones that act as natural fillers for sediments, organic materials, and their attached nutrients[29]. Lastly, using technologies, such as sensor technologies that can monitor fertiliser nitrate in the plant roots[30], can be a great way to control when and where to release such chemicals and control environmental exposure.

3. Introduction of contaminants

The intensification of production in agriculture requires more use of agrochemicals such as pesticides, salts, and veterinary medicines. However, overusing these chemicals can lead to the contamination of waterways through runoff, which can eventually result in the pollution of marine environments[31]. In recent years, the global use of pesticides has increased by 36%, equivalent to 4.2 million tonnes[32]. This is mainly because these products are necessary to maintain high agricultural production levels by protecting plants against pests and diseases and boosting plant development[33].

28. FAO (2017) "The future of food and agriculture- Trend and challenges" [online]. Available at: https://www.fao.org/3/i6583e/i6583e.pdf (Accessed: 04 August 2023)
29. Centner, TJ. et al. (1999) "The adoption of best management practices to reduce agricultural water contamination" [online]. Available at: https://doi.org/10.1016/S0075-9511(99)80029-2 (Accessed: 04 August 2023)
30. Houlton, B. et al. (2019) "A world of cobenefits: solving the global nitrogen challenge" [online]. Available at: https://doi.org/10.1029/2019EF001222 (Accessed: 04 August 2023)
31. FAO. (2018) "More people, more food, less water? A global review of water pollution from agriculture" [online]. Available at: https://www.fao.org/3/ca0146en/CA0146EN.pdf (Accessed: 04 August 2023)
32. FAO (2022) "Statistics Yearbook World Food and Agriculture 2020" [online]. Available at: https://www.fao.org/documents/card/en/c/cc2211en (Accessed: 04 August 2023)
33. European Chemicals Agency (N.D) "Chemicals in Agriculture" [online]. Available at: https://chemicalsinourlife.echa.europa.eu/chemicals-in-agriculture (Accessed: 04 August 2023)

Unfortunately, climate change will likely increase favourable conditions for pests and crop diseases in areas with higher temperatures and humidity. This means that farmers must use more pesticides to control these issues. Just like fertilisers, pesticides can reach water bodies through runoff and rain deposition, contributing to water pollution. Moreover, the erosion of soil can make this process worse. Pesticides can also negatively impact marine biodiversity, affecting the entire food chain. They may bioaccumulate in the tissues of aquatic organisms throughout their life, resulting in a higher concentration of contaminants in older individuals. When an organism accumulates contaminants, it can lead to biomagnification, where substances transfer and accumulate from lower to higher trophic levels within a food web. This can result in elevated chemicals in apex predators and marine mammals, potentially reaching humans who consume seafood[34].

POTENTIALLY HARMFUL CHEMICALS USED IN AGRICULTURAL ACTIVITIES, INCLUDING PESTICIDES, MAY REACH THE MARINE ENVIRONMENT THROUGH WATER RUNOFF AND RAIN DEPOSITION

Best practices. Technology and innovation are essential to diminish the use of pesticides and other contaminants. Farmers can adopt pest management programs that allow them to apply pesticides only in particular areas using different practices such as field scouting, data collection and analysis[35], and reduce the number of pesticides released into the air. Implementing a crop rotation system[36] could also be a great way to improve soil health, optimise nutrients and control pests, diseases, and weeds without pesticides.

Moving towards organic farming could greatly benefit the environmental impact as fertilisers, pesticides, and antibiotics would be restricted to this type of agriculture[37]. This would lead farmers to choose local plants resilient to local climate conditions and avoid crop diseases.

34. Ali, S. et al. (2021) "Environmental and Health Effects of Pesticide Residues" [online]. Available at: https://doi.org/10.1007/978-3-030-54719-6_8 (Accessed: 04 August 2023)
35. Centner, TJ. et al. (1999) "The adoption of best management practices to reduce agricultural water contamination" [online]. Available at: https://doi.org/10.1016/S0075-9511(99)80029-2 (Accessed: 04 August 2023)
36. Ibidem.
37. FAO. (2018) "More people, more food, less water? A global review of water pollution from agriculture" [online]. Available at: https://www.fao.org/3/ca0146en/CA0146EN.pdf (Accessed: 04 August 2023)

4. Introduction of marine litter

In terms of ocean pollution, the food industry significantly contributes to marine litter, especially in the areas of packaging and retail. Plastic products like single-use bags, bottles, and food containers are extensively used in this sector to transport, package, and serve food.

PLASTICS ARE THE MAIN MATERIAL USED FOR PACKAGING AND RETAILING AGRICULTURAL GOODS. OF THE 36% OF PLASTIC PRODUCED FOR FOOD AND BEVERAGE CONTAINERS, 85% ENDS UP IN LANDFILLS AND MAY EVENTUALLY ENTER THE OCEAN THROUGH LEACHATES

Unfortunately, of the 36% of plastic produced for food and beverage containers, 85% ends up in landfills[38] and can eventually make its way into the ocean via leachates. This severely impacts marine ecosystems as plastic is non-degradable and can persist for a long time in the form of micro and nano-plastics. The presence of plastic debris can harm marine species through entanglement, entrapment, or encirclement, especially animals like turtles, seals, whales, and seabirds[39]. It can also affect marine life through ingestion, directly consuming plastic or prey species that have already ingested plastic, resulting in accumulation along the food chain[40].

Best practices. Although in recent years there has been an increase in legislation controlling plastic contamination and single-use plastics, there is still a long way to go to diminish the amount of plastic packaging used in the food industry, starting with the implementation of adequate waste management plans. The use of biodegradable or bio-based plastics can be a great solution to replace plastic food packaging[41]. Supermarkets can also opt out of using plastic films, packaging, and wrapping from vegetables when it is not considered necessary to diminish the use of single-use plastic[42]. This, together with changes in consumer behaviour, such as using reusable bags and recycling at home, can significantly contribute to decreasing the use of these products and reducing the impact on the marine environment. Ultimately, there is a need to create comprehensive structures that help to recycle and reuse plastic products to prevent them from entering the ocean.

38. UN Environmental Programme. (2021) "From Pollution to Solution- A global assessment of marine litter and plastic pollution" [online]. Available at: https://www.unep.org/interactives/pollution-to-solution/?lang=EN (Accessed: 04 August 2023)
39. Ritchie, H & Roser, M. (2022) "Plastic Pollution" [online]. Available at: https://ourworldindata.org/plastic-pollution (Accessed: 04 August 2023)
40. Ibidem.
41. UN Environmental Programme. (2021) "From Pollution to Solution- A global assessment of marine litter and plastic pollution" [online]. Available at: https://malaysia.un.org/en/171922-pollution-solution-global-assessment-marine-litter-and-plastic-pollution (Accessed: 04 August 2023)
42. World Economic Forum (2020) "7 Ways packaging is changing to reduce plastic waste" [online]. Available at: https://www.weforum.org/agenda/2020/12/sustainable-packaging-reduce-plastic-waste/ (Accessed: 04 August 2023)

The importance of disclosing the business pressures on the ocean

The industry-specific edition of the Ocean Disclosure Initiative tool dedicated to the agri-food sector, developed by One Ocean Foundation in collaboration with its partners, reflects the main pressures exerted by this sector to support companies in becoming aware of their impacts on marine ecosystems, assessing the related risks, and disclosing critical information and strategic responses on the significant issues related to the activities of the fashion and textile industry. As identified in our research and reflected in the industry-specific tool, these pressures include i) the emissions of GHGs, ii) the contribution to eutrophication due to nutrient losses and/or manure runoff, iii) the use of potentially harmful agrochemicals, iv) the introduction of marine litter.

The importance of the Ocean Disclosure Initiative is related to the fact that, for the first time, companies, scientific and financial communities, and civil society can rely on a common language to measure, address, and mitigate the most relevant pressures that humanity exerts on the marine environment, sector by sector, with significant advantages for the health of the ocean.

ONE OCEAN
FOUNDATION

secretariat@1ocean.org
1ocean.org