1. Record Nr. UNINA9910566456803321

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Titolo	Transitioning to Sustainable Life below Water
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022 Basel : , : MDPI AG, , 2022 ©2022
Edizione	[1st ed.]
Descrizione fisica	1 electronic resource (160 p.)
Collana	Transitioning to Sustainability Series
Altri autori (Persone)	HornidgeAnna-Katharina StrehseJennifer BünningTobias MaserEdmund BavinckMaarten BotelerBen DurusselCarole UngerSebastian ThieleTorsten
Soggetti	Life sciences: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Binder1 -- Introduction -- Climate Regulator, Biodiversity Hub and Resource Provider -- Ocean Governance for a Sustainable Future -- Overview of the Book -- Sustainable Development Goal 14-United Nations 2015 -- References -- 14-273 -- Microplastics in the Marine Environment -- Introduction-How Plastics Enter the Environment -- Primary and Secondary Microplastics -- The Impact of Microplastics on Marine Biota -- Microplastics as Vectors for Hydrophobic Organic Compounds, Metals and Microbiota -- Microplastics and Climate Change -- Outlook -- Persistent Organic Pollutants (POPs) -- Introduction -- POPs in the Baltic Sea -- Climate Change Might Cause Re-Emission of Legacy POPs -- Outlook -- Metals as Pollutants in Marine Environments -- Introduction -- Impact of Climate Change on Marine Mercury Release -- Metal Pollution in the Baltic Sea --

Munitions as a Source of Mercury and Arsenic in the Baltic Sea -- Outlook -- Munitions in Seas -- Introduction -- Explosives and Chemical Warfare Agents in the Marine Environment -- Munition-Related Chemicals in Seafood -- Toxicological Aspects -- Latest Research Activities -- Outlook -- Pharmaceuticals in the Marine Environment -- Introduction -- Pathways into the Environment -- Occurrence and Effects of Active Ingredients in the Environment-Examples -- Prevention of Entries -- Outlook -- General Conclusions -- References -- 14-298 -- Introduction -- Background -- The Condition of Small-Scale Fisheries -- Looking Ahead -- Conclusions -- References -- Introduction: Marine Biodiversity, Ecological Connectivity, and Global Processes for Conservation -- Understanding Global Processes for Marine Conservation -- Understanding the Scope and Nature of the BBNJ Negotiations, the Targets of the Post-2020 Global Biodiversity Framework, and the SDGs.
Ensuring Coherence across Global Processes for Marine Conservation -- Improving Ocean Governance to Support Global Processes and Marine Conservation Goals -- Coordinating Efforts and Taking Joint Action -- Capacity Building and Information Exchange as a Cornerstone for Ocean Action -- Long-Term and Consistent Financing Is an Enabler for Action -- Lessons Learned from Past and Ongoing Marine Initiatives Should Be Leveraged for the Future -- Conclusions -- References -- 14-338 -- Introduction -- The Ocean as a Heat and CO2 Buffer -- Ocean Currents Regulate Global Climate -- Climate Change Induces Challenges for the Future Ocean -- Conclusions -- References -- 14-354 -- Introduction -- Types of Marine Mineral Deposits -- Deep-Sea Mining in Areas within and Beyond the Limits of National Jurisdiction -- Environmental Considerations -- Environmental Impacts of Deep-Sea Mining -- Biological Impacts -- Geochemical Impacts -- Particle Plumes -- Noise and Light Pollution -- Greenhouse Gas Emissions and Air Pollution -- Ecosystem Services -- The Mitigation Hierarchy -- Environmental Regulation -- National Jurisdiction -- The Area -- Economic Considerations -- National Jurisdiction -- The Area -- Social Considerations -- Synthesis -- Implications for Sustainable Development -- Good Governance -- References -- Blank Page -- Blank Page -- Blank Page -- Blank Page -- Introduction -- Climate Regulator, Biodiversity Hub and Resource Provider -- Ocean Governance for a Sustainable Future -- Overview of the Book -- Sustainable Development Goal 14-United Nations 2015 -- References -- backmatter -- Introduction: Marine Biodiversity, Ecological Connectivity, and Global Processes for Conservation -- Understanding Global Processes for Marine Conservation.
Understanding the Scope and Nature of the BBNJ Negotiations, the Targets of the Post-2020 Global Biodiversity Framework, and the SDGs -- Ensuring Coherence across Global Processes for Marine Conservation -- Improving Ocean Governance to Support Global Processes and Marine Conservation Goals -- Coordinating Efforts and Taking Joint Action -- Capacity Building and Information Exchange as a Cornerstone for Ocean Action -- Long-Term and Consistent Financing Is an Enabler for Action -- Lessons Learned from Past and Ongoing Marine Initiatives Should Be Leveraged for the Future -- Conclusions -- References -- Blank Page -- Blank Page -- Blank Page.

Sommario/riassunto

The ocean plays a central role in the life and development of human kind. Besides space for navigation and trade (roughly 10 billion tons of commodities are transported across the oceans each year), the provision of biological and non-living resources is the most important service of the marine ecosystems. Yet, these ecosystems are increasingly impeded by human activities and interventions. Human

and naturally induced changes in climate are buffered by the ocean, but its capacity to compensate the increase of CO2 in the atmosphere is at its limit. The increase of global temperatures and the decrease of oxygen concentration and pH are severe stressors for aquatic species and thus for the whole ecosystem. Urbanisation and population growth at the coast, along with severe levels of pollution, are stressing coastal environments and hampering or interrupting life cycles of species as well as the well established and naturally balanced internal interconnections within and between ecosystems. Mining for oil and gas is interfering with fisheries, competing for space with other sectors and increasing the risks for large scale pollution. The result is a decline in ecosystem services and a negative feedback into the socio-economic systems. The recent reports by IPBES and IPCC underline the degrading conditions in which the ecosystems are situated today. The IPBES report evaluates a number of direct and indirect drivers. Population increase, technical development, malfunctioning of governance and spreading of conflicts affect direct drivers such as sea use change, direct exploitation, climate change, pollution, invasive species and others. read less Following a series of summits and conventions that prompted the United Nations in recent decades, Rio de Janeiro in 1992, Johannesburg in 2002 and Rio+20 in 2012, all of which were rather land-based, the Sustainable Development Goals 2015 set a new landmark in which the ocean, too, was finally acknowledged as significant to global development. The Ocean Conference in New York in June 2017 led the international community to formulate clear goals for the development of the ocean. The volume Transitioning to Sustainable Life below Water will address critical issues in ocean use and reflect against goals and targets of SDG 14 and other relevant SDGs. Transitioning to Sustainable Life below Water is part of MDPI's new Open Access book series Transitioning to Sustainability. With this series, MDPI pursues environmentally and socially relevant research which contributes to efforts toward a sustainable world. Transitioning to Sustainability aims to add to the conversation about regional and global sustainable development according to the 17 SDGs. Set to be published in 2020/2021, the book series is intended to reach beyond disciplinary, even academic boundaries.