

可持续蓝色金融报告 2021¹

兴业银行股份有限公司

Sustainable Blue Finance Report 2021²

Industrial Bank Co., Ltd.



¹ **可持续蓝色金融报告 2021**（以下简称“报告”）由兴业银行股份有限公司（以下简称“兴业银行”）起草，旨在展示兴业银行在通过金融产品和服务支持海洋经济和海洋产业可持续发展方面做出的努力。本报告满足兴业银行于 2020 年 11 月签署的联合国环境规划署金融倡议（以下简称“UNEP FI”）《可持续蓝色经济金融倡议》（以下简称“倡议”或“SBEFI”）提出的信息披露要求。

Sustainable Blue Finance Report 2021 (the “Report”) is drafted by Industrial Bank Co., Ltd. (“IB” or “CIB”) to demonstrate its efforts on supporting marine economy and industries with financial products and services. The report fulfills the reporting requirement of Sustainable Blue Economy Finance Initiative (the “initiative” or SBEFI) managed by United Nations Environment Programme Finance Initiative (UNEP FI), which IB signed in November 2020.

² 本报告提供中英两种文本，如有冲突以中文为准，英文版本仅供参考。

The report is prepared in both Chinese and English. Should any inconsistency appear between two versions, the Chinese version shall prevail and the English version is for reference only.

兴业银行股份有限公司 绿色金融部

Green Finance Department
Industrial Bank Co., Ltd.

中国福建省福州市江滨中路 398 号

No.398 Jiangbinzhong Road
Fuzhou, Fujian Province
P.R.China

联系方式/Contact:

E: sfd@cib.com.cn

T: +86-10-59886666-103367

W: www.cib.com.cn

欢迎对本报告提出建议和反馈。

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We welcome your feedback and views on this report.
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Cooperation and Exchange in Marine Economy and Finance

兴业银行的绿色金融、蓝色金融实践

世界银行将“蓝色经济”定义为“以经济增长、改善民生、海洋生态系统健康为目的的海洋可持续资源利用³”。根据中国《海洋及相关产业分类》(GB/T20794-2006)，海洋经济是开发、利用和保护海洋的各类产业活动，以及与之相关联活动的总和，包括海洋渔业、油气业、船舶工业、交通运输业、滨海旅游业等 22 个海洋产业，以及海洋农、林业，装备制造业，涉海服务业等 6 个海洋相关产业。“蓝色金融”的定义则建立在“蓝色经济”之上，联合国相关报告将其定义为“参与或支持可持续蓝色经济发展的金融活动，包括投资、保险、银行及其他支持性金融中介⁴”。

作为绿色金融先行者，兴业银行 2013 年便在国内首家推出了涵盖海水淡化及海洋环境保护在内的水资源利用和保护综合解决方案，并将其作为重点支持领域，持续加大投入，提供多元化、全方位金融支持。目前，在兴业银行约 1.4 万亿绿色融资余额中该领域占比超过 25%。依托水资源利用保护领域的领先优势，兴业银行在支持蓝色经济发展方面也走在前列，先后落地我国首单蓝色债券，并在国际资本市场上成功发行中资股份行首单境外蓝色金融债券。



³ 详见：<https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>

⁴ 联合国环境署金融倡议 [UNEP FI] (2021). TURNING THE TIDE: HOW TO FINANCE A SUSTAINABLE OCEAN RECOVERY. Geneva. <https://www.unepfi.org/publications/turning-the-tide/>. 2021 年 3 月访问.

Industrial Bank's Practice in Green Finance and Blue Finance

The World Bank defines the "blue economy" as "sustainable use of marine resources for the purpose of economic growth, improving people's livelihoods and the health of marine ecosystems⁵". According to China's *Industrial classification for ocean industries and their related activities* (GB/T20794-2006), the marine economy is the sum of various industrial activities for the development, utilization and protection of the ocean, as well as related activities, including 22 marine industries such as marine fisheries, oil and gas industries, shipbuilding, transportation, coastal tourism, and 6 marine-related industries e.g. marine agriculture and forestry, equipment manufacturing, and ocean-related services industries. The concept of "blue finance" is based on the "blue economy", which is defined in the relevant United Nations reports as " financial activity (including investment, insurance, banking and supporting intermediary activities) in, or in support of, the development of a sustainable blue economy⁶".

As a pioneer in green finance, Industrial Bank was the first in China to launch a comprehensive solution for water resource utilization and protection since 2013, including seawater desalination and marine environmental protection. IB consider this as a key focus and continued to increase investment to provide diversified and comprehensive financial support. Currently, water resource utilization and protection financing consist over 25% of IB's 1.4 trillion RMB balance of finance in green financing. Leveraging its leading advantages in the field of water resources utilization and protection, IB is also at the forefront in supporting the blue economy development. IB issued the first blue bond in China, and the first overseas blue financial bond issued by a Chinese joint-stock bank in the international capital market.



⁵ <https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>

⁶ United Nations Environment Programme Finance Initiative [UNEP FI] (2021). TURNING THE TIDE: HOW TO FINANCE A SUSTAINABLE OCEAN RECOVERY. Geneva. <https://www.unepfi.org/publications/turning-the-tide/>. Accessed March 2021.

《可持续蓝色经济金融倡议》签署和落实情况

兴业银行于 2020 年 11 月正式签署联合国环境规划署金融倡议（UNEP FI）旗下《可持续蓝色经济金融倡议》（SBEFI），成为《倡议》的全球第 27 家签署机构和第 49 家会员单位，也是首家中资签署机构和会员单位，携手打造可持续的蓝色经济，支持联合国可持续发展目标（SDGs）的实现。

截至 2022 年 3 月，《倡议》在全球范围内已有 70 家签署机构和会员单位，旗下管理或持有的资产超过 11 万亿美元⁷。《倡议》由联合国环境规划署金融倡议（UNEP FI）作为管理机构，帮助和引导银行、保险和投资者推动《可持续蓝色经济金融原则》（以下简称“《原则》”）的采纳与落实。《原则》为可持续海洋经济融资提供了指导框架，主要内容包括支持可持续海洋经济发展的投资和项目，识别和重视相关合规情况和风险，对经济、环境、社会效应进行适当披露，积极分享支持可持续海洋经济发展的经验等。

现阶段，《倡议》主要聚焦渔业、港口、海洋交通、海洋可再生能源、沿海及海洋旅游业等行业，关注气候变化、水生生物保护和合理利用、海洋污染、海洋环境韧性等领域。兴业银行作为《倡议》签署机构，积极参与了《倡议》信息披露框架的制定工作，并作为工作组成员参与了多个《倡议》自愿性标准的撰写工作。

兴业银行绿色金融部负责人表示：“加入《倡议》既有利于银行自身在绿色金融产品创新、环境和社会风险管理、ESG 体系建设等方面的深化和提升，也可以通过金融服务推动‘海洋健康’，加速海洋资源可持续利用和转型，以蓝色经济推动绿色可持续发展。”



⁷ <https://www.unepfi.org/blue-finance/our-members/>

附表：可持续蓝色经济金融原则及兴业银行的相关实践

原则内容	兴业银行的相关实践
保护原则： 我们将支持那些采取一切可能措施来恢复、保护或维持海洋生态系统的多样性、生产力、复原力、核心功能、价值和整体健康，以及依赖海洋生态系统的生计和社区的投资或、活动和项目。	兴业银行通过建立和健全海洋经济金融服务组织架构，积极开发多元化的金融服务体系和产品，识别和推广具有创新性和环境社会价值的典型案例，满足海洋经济相关主体和项目的多元化融资需求。详见《可持续蓝色经济金融服务体系和产品及相关案例章节》。
合规原则： 我们将支持那些符合可持续发展和海洋健康相关的国际、区域、国家法律和其他相关框架的投资或、活动和项目。	兴业银行坚持秉持“合规至上”原则，不为违反所在国家和地区法律法规的项目提供融资支持。兴业银行依据“赤道原则”开展项目融资环境和社会风险评审，将项目对环境、安全、职业健康等方面的合规情况作为重点观察问题，详见本报告海洋项目融资的环境与社会风险管理及相关案例章节。
风险意识原则： 我们将努力以对经济、社会和环境价值、量化风险和系统影响的整体和长期评估为基础，做出投资决策；并将根据对与业务活动相关的潜在风险、累积影响和机遇的新认知调整我们的决策流程和活动。	兴业银行以赤道原则为基础，结合《倡议》所提供的行业分析指南等，将环境和社会风险评审嵌入海洋相关项目融资的投资决策流程，详见本报告海洋项目融资的环境与社会风险管理及相关案例章节。
系统性原则： 我们将努力识别我们的投资、活动和项目在整个价值链上的系统性影响和累积影响。	兴业银行以赤道原则为基础，结合《倡议》所提供的行业分析指南等，通过鼓励和引导项目业主建立并切实执行环境、健康、安全（EHS）等管理体系，间接影响价值链的上下游企业相应建立并遵守 EHS 体系，将环境和社会风险评审嵌入我行参与的海洋相关项目融资的投资决策流程，详见本报告海洋项目融资的环境与社会风险管理及相关案例章节。
包容原则： 我们将支持那些包含、支持和提高当地生计的投资或、活动和项目，并与利益相关方进行有效沟通，来识别、回应和减缓受影响方相关问题。	兴业银行以赤道原则为基础，结合《倡议》所提供的行业分析指南等，通过支持海上风电、海水淡化等海洋项目，促进当地投资增长。“利益相关者的参与”是兴业银行对融资项目开展环境和社会影响评审的重要参考要素之一，详见本报告海洋项目融资的环境与社会风险管理及相关案例章节。
合作原则： 我们将与其他金融机构和相关利益方合作，共同推动和实施这些原则，分享有关海洋的知识、可持续蓝色经济最佳实践、经验教训以及观点和想法。	兴业银行积极与政府机构、非政府组织、科研院校、行业龙头企业、金融同业等建立合作，深化海洋经济、环境相关的各类研讨交流，分享海洋经济、海洋金融的实践信息。作为《倡议》的签署机构，兴业银行积极参与《倡议》开展的各项工作，支持《倡议》的推广以及相关研究工作的开展。 详见本报告《可持续蓝色经济金融倡议》签署和落实情况、海洋经济与金融的合作与交流章节。
透明原则： 在不涉密的情况下，我们将披露投资及其对社会、环境和经济的（正面和负面）影响。我们将努力报告这些原则的落实进展情况。	兴业银行通过年度报告、年度可持续发展报告、绿色债券报告、专题报告等形式，在不违反我行保密原则、制度的情况下披露投资的环境和社会影响，积极与利益相关方展开交流。
目的性原则： 我们将努力引导资金投向直接有助于实现可持续发展目标（SDG）14（“保护和可持续利用海洋和海洋资源以促进可持续发展”）和其他可持续发展目标的项目和活动，尤其是有助于海洋治理的。	兴业银行通过细化蓝色金融界定标准，建立和健全海洋经济金融服务组织架构，积极开发多元化的金融服务体系和产品，识别和推广具有创新性和环境社会价值的典型案例，满足海洋经济相关主体和项目的多元化融资需求，推动 SDG14 及其他 SDGs 的实现。详见《可持续蓝色经济金融服务体系和产品及相关案例章节》。

影响力原则： 我们将支持那些不仅仅避免损害，更为当代和后代提供海洋所带来的社会、环境和经济效益的投资、项目和活动。	兴业银行通过评估海洋开发和海洋环境保护的技术现状，优先支持具有核心技术的客户，按照风险可控，环境可持续原则开展蓝色金融投融资活动。详见《可持续蓝色经济金融服务体系和产品及相关案例章节》。
预防原则： 我们将支持那些已根据可靠科学证据评估环境社会风险及影响的海洋相关投资、活动和项目。预防原则优先，特别是在缺乏科学数据的情况下。	兴业银行以赤道原则为基础，结合《倡议》所提供的行业分析指南等，将环境和社会风险评审嵌入我行参与的海洋相关项目融资的投资决策流程，并制定行动计划，详见本报告海洋项目融资的环境与社会风险管理及相关案例章节。
多元化原则： 中小企业在蓝色经济中发挥着重要作用，我们将努力开发多元化的投资工具，以覆盖更广泛的可持续发展项目，例如传统的和非传统的海洋行业、小型的和大型的项目。	兴业银行深入研究海洋产业和涉海企业的经营特征及融资需求，创设海域使用权抵押融资、知识产权质押、海洋碳汇质押融资等多种创新金融产品和服务。着力满足中小型涉海相关主体和项目的多元化融资需求。详见《可持续蓝色经济金融服务体系和产品及相关案例章节》。
解决方案导向原则： 我们将努力引导资金投向解决海洋问题（包括陆上和海上）的创新商业方案，为海洋生态系统和依赖海洋的生计带来积极影响。我们将努力识别和培育此类项目的商业案例，并鼓励推广由此形成的最佳实践。	兴业银行结合我国沿海省市海洋经济的战略规划以及重点培育的产业，研究提出兴业银行蓝色金融服务方案，深入研究国内外蓝色金融的最佳实践，梳理汇总形成蓝色金融典型案例集，在全行复制推广。详见《可持续蓝色经济金融服务体系和产品及相关案例章节》。
伙伴原则： 我们将与公共、私营和非政府部门机构合作，加快实现可持续蓝色经济，包括编制和落实沿海及海洋空间规划实施方案。	兴业银行与政府机构、非政府组织、科研院所、金融同业等建立合作机制，参与海洋经济、环境相关的各类研讨交流，分享关于海洋经济、海洋金融的相关信息。作为《倡议》的签署机构，兴业银行积极参与《倡议》开展的各项工作，支持《倡议》的推广以及相关研究工作的开展。 详见本报告《可持续蓝色经济金融倡议》签署和落实情况、海洋经济与金融的合作与交流章节。
科学引领原则： 我们将积极学习和蓝色经济投资相关的潜在风险和影响、开发相关数据，并鼓励蓝色经济中的可持续投资机会。更广泛地说，我们将努力分享海洋环境相关的科学信息与数据。	兴业银行参与政府机构、非政府组织、科研院所、金融同业等建立合作和交流机制，分享关于海洋经济、海洋金融的信息和实践进展。详见本报告海洋经济与金融的合作与交流章节。



Signing and Implementation of the *Sustainable Blue Economy Finance Initiative*

IB signed the *Sustainable Blue Economy Finance Initiative* (SBEFI) under the *United Nations Environment Programme Finance Initiative* (UNEP FI) in November, 2020, becoming the 27th signatory and 49th member of the Initiative, as well the first Chinese signatory and member. IB has and will continue to work together with other signatories and members, to build a sustainable blue economy and support the achievement of the United Nations Sustainable Development Goals (SDGs).

As of March 2022, the Initiative has 70 signatories and members worldwide, with over \$11 trillion assets under management or holdings⁸. The Initiative, governed by the UNEP FI, helps and guides banks, insurance companies and investors in the adoption and implementation of *The Sustainable Blue Economy Finance Principles* (the "Principles"). The principles provide a guiding framework for financing sustainable marine economy, including investments and projects that support sustainable ocean economic development, identification of relevant compliance situations and risks, as well as appropriate disclosure of economic, environmental and social impacts, and active experience sharing in supporting sustainable marine economy development.


At this stage, the Initiative mainly focuses on the fishery, ports, marine transportation, marine renewable energy, coastal and marine tourism and other industries, as well as climate change, conservation and rational utilization of aquatic organisms, marine pollution, marine environmental resilience and other fields. As a signatory of the Initiative, IB actively participated in the formulation of the information disclosure framework and in the drafting of several voluntarily standards of the Initiative as a member of working groups.

"Joining the Initiative will not only help IB to strengthen its own green financial product innovation, environmental and social risk management, and ESG standards formation, but also promote 'marine health' through financial services by accelerating the sustainable use and transformation of marine resources, as well as promoting green and sustainable development through blue economy." The head of the Green Finance Department of Industrial Bank said.



⁸ <https://www.unepfi.org/blue-finance/our-members/>

Table: *The Sustainable Blue Economy Finance Principles and Relevant Practice of Industrial Bank*

The Sustainable Blue Economy Finance Principles	Relevant practice of Industrial Bank
Protective: We will support investments, activities and projects that take all possible measures to restore, protect or maintain the diversity, productivity, resilience, core functions, value and the overall health of marine ecosystems, as well as the livelihoods and communities dependent upon them.	By establishing and improving the organizational structure of financial services for marine economy, IB actively develops diversified financial service systems and products, identifies and promotes innovative cases with environmental and social value, meeting the diversified financing needs of marine economy related entities and projects. Specifics to be found in Section <i>Sustainable Blue Economy Financial Services System and Products and Related Cases</i> .
Compliant: We will support investments, activities and projects that are compliant with international, regional, national legal and other relevant frameworks which underpin sustainable development and ocean health.	IB adheres to "compliance first" principle and does not provide financing support for projects that violate the local laws and regulations of the countries and regions. IB conducts environmental and social risk assessment to project financing in accordance with the "Equator Principles", focusing on compliant with environmental, health and safety (EHS) and other aspects of the project, as detailed in the <i>Environmental and Social Risk Management of Marine Project Financing and Related Cases</i> section in this report.
Risk-aware: We will endeavour to base our investment decisions on holistic and long-term assessments that account for economic, social and environmental values, quantified risks and systemic impacts and will adapt our decision-making processes and activities to reflect new knowledge of the potential risks, cumulative impacts and opportunities associated with our business activities.	Based on the Equator Principles and in conjunction with the industry analysis guide provided by the Initiative, IB embeds the environmental and social risk assessment into the investment decision-making process of ocean-related project financing, as detailed in the <i>Environmental and Social Risk Management of Marine Project Financing and related cases</i> section in this report.
Systemic: We will endeavour to identify the systemic and cumulative impacts of our investments, activities and projects across value chains. 	Based on the Equator Principles and in conjunction with the industry analysis guide provided by the Initiative, IB encourages and guides project owners to establish and effectively implement environmental, health, safety (EHS) and other management systems, to indirectly affects enterprises along the value chain to establish and comply with the EHS system accordingly. IB also embeds environmental and social risk assessment into the investment decision-making process of ocean-related project financing, as detailed in the <i>Environmental and Social Risk Management of Marine Project Financing and related cases</i> section in this report.
Inclusive: We will support investments, activities and projects that include, support and enhance local livelihoods, and engage effectively with relevant stakeholders, identifying, responding to, and mitigating any issues arising from affected parties.	Based on the Equator Principles and in conjunction with the industry analysis guide provided by the Initiative, IB promotes local investment growth by supporting marine projects e.g. offshore wind power and seawater desalination project. "Stakeholder engagement" is one of the important reference elements for IB to conduct environmental and social impact assessments of financing, as detailed in the <i>Environmental and Social Risk Management of Marine Project Financing and related cases</i> section in this report.
Cooperative: We will cooperate with other financial institutions and relevant stakeholders to promote and implement these principles through sharing of knowledge about the ocean, best practices for a sustainable Blue Economy, lessons learned, perspectives and ideas.	IB actively establishes cooperation with government agencies, non-governmental organizations, scientific research institutions, leading enterprises in the industry, financial institutions, etc.. and attends various seminars related to the marine environment and economy, and shares best practice on the marine economy, to deepen exchanges and and marine finance. As a signatory of the Initiative, IB actively participates in various work carried out by the Initiative, supports the promotion of the Initiative and the development of related research. Specifics to be found in Section <i>Signing and implementation of the Sustainable Blue Economy Finance Initiative and Cooperation and Exchange in Marine Economy and Finance</i> .
Transparent: We will make information available on our investments and their social, environmental and economic impacts (positive and negative), with due respect to confidentiality. We will endeavour to report on progress in terms of implementation of these Principles.	IB discloses the environmental and social impacts of investments (subject to IB's confidentiality principles and regulations) through annual reports, annual sustainability reports, green bond reports, themed reports, etc., and actively communicates with stakeholders.
Purposeful: We will endeavour to direct investment to projects and activities that contribute directly to the achievement of Sustainable Development Goal 14 ("Conserve and sustainably use the oceans, seas and marine resources for sustainable development") and other Sustainable Development Goals especially those which	By refining the definition criteria of blue finance, IB has established and improved the organizational structure of marine economy financial services, actively develops diversified financial service systems and products, identifies and promotes innovative cases with environmental and social benefits, and therefore meets the diversified financing needs of marine economy related entities and projects and helps the achieves of SDG 14 as well as other SDGs. Specifics to be found in Section <i>Sustainable Blue Economy Financial Services System and Products and Related Cases</i> .

contribute to good governance of the ocean.	
Impactful: We will support investments, projects and activities that go beyond the avoidance of harm to provide social, environmental and economic benefits from our ocean for both current and future generations.	IB assesses the technological status of marine development and marine environmental protection, gives supporting priority to bank clients with core technologies, and carries out blue financial investment and financing activities in accordance with the principles of risk control and environmental sustainability. Specifics to be found in Section <i>Sustainable Blue Economy Financial Services System and Products and Related Cases</i> .
Precautionary: We will support investments, activities and projects in our ocean that have assessed the environmental and social risks and impacts of their activities based on sound scientific evidence. The precautionary principle will prevail, especially when scientific data is not available.	Based on the Equator Principles and the industry analysis guidelines provided by the Initiative, IB embeds the environmental and social risk assessment into the investment decision-making process of ocean-related project financing, and formulates action plans, as detailed in the <i>Environmental and Social Risk Management of Marine Project Financing and Related Cases</i> section in this report.
Diversified: Recognising the importance of small to medium enterprises in the Blue Economy, we will endeavour to diversify our investment instruments to reach a wider range of sustainable development projects, for example in traditional and non-traditional maritime sectors, and in small and large-scale projects.	IB conducts comprehensive research regarding the operating characteristics and financing needs of the marine industry and ocean-related enterprises, and has created a variety of innovative financial products and services e.g. sea area utilization rights mortgage, intellectual property pledged loan, marine carbon pledge financing. IB dedicated efforts to meet the diversified financing needs of sea-related SMEs and projects. Specifics to be found in Section <i>Sustainable Blue Economy Financial Services System and Products and Related Cases</i> .
Solution-driven: We will endeavour to direct investments to innovative commercial solutions to maritime issues (both land- and ocean-based), that have a positive impact on marine ecosystems and ocean-dependent livelihoods. We will work to identify and to foster the business case for such projects, and to encourage the spread of best practice thus developed.	Considering the strategic planning of the marine economy of China's coastal provinces and cities and the key industries to be cultivated, IB has proposed the blue financial service scheme, conducted research on best practices of blue finance in China and abroad to form a collection of blue finance cases and promoted it throughout the bank. Specifics to be found in Section <i>Sustainable Blue Economy Financial Services System and Products and Related Cases</i> .
Partnering: We will partner with public, private and nongovernment sector entities to accelerate progress towards a sustainable Blue Economy, including in the establishment and implementation of coastal and maritime spatial planning approaches.	IB actively partners with government agencies, non-governmental organizations, scientific research institutions, financial institutions, etc. and attends various seminars related to the marine environment and economy, to deepen exchanges and share best practice on the marine economy and marine finance. As a signatory of the Initiative, IB actively participates in various work carried out by the Initiative, supports the promotion of the Initiative and the development of related research. Specifics to be found in Section <i>the Signing and Implementation of the Sustainable Blue Economy Finance Initiative, and Cooperation and Exchanges in Ocean Economy and Finance</i> .
Science-led: We will actively seek to develop knowledge and data on the potential risks and impacts associated with our investments, as well as encouraging sustainable investment opportunities in the Blue Economy. More broadly, we will endeavour to share scientific information and data on the marine environment.	IB establishes cooperation mechanisms with government agencies, non-governmental organizations, scientific research institutions, financial institutions, etc.. IB also actively share information regarding the progress on marine economy and marine finance. Specifics to be found in Section <i>Cooperation and Exchange in Marine Economics and Finance</i> .



可持续蓝色经济金融服务体系和产品及相关案例

案例：中国东部沿海某湿地碳汇贷款

海洋碳汇又叫“蓝碳”，指海岸带及海洋生态系统中的海洋生物通过光合作用等机制吸收和存储大气中二氧化碳的过程和活动。科学研究显示，海洋可帮助大气碳循环系统储存和循环地球上 83% 的二氧化碳，吸收全球人造二氧化碳的四分之一。

根据中国国务院《2030 年前碳达峰行动方案》，碳汇作为碳交易的重要组成部分将纳入全国碳排放权交易市场，海洋碳汇有望迎来快速发展。但目前可支持碳汇、尤其海洋碳汇项目开发金融产品仍然稀缺。在此背景下，兴业银行某东部沿海地区分行结合当地湿地资源，为其提供资金支持，通过此方式盘活资产价值，提高社会和经济效益。

2021 年 8 月，兴业银行以当地沿海湿地碳汇为质押发放贷款 1800 万元，专项用于企业购买增加高碳汇湿地植物等以保护海洋湿地，该笔业务是全国首单沿海湿地碳汇贷款。

该笔碳汇业务由专业第三方机构进行测评，以湿地内土壤碳库、水体碳库和植被碳库的固碳能力为基础，通过对上述碳库的监测分析，综合评定其固碳能力。计入期内（2000 年至 2020 年）累计固碳量约 5.5 万吨，累计减少二氧化碳排放量 20 万吨，其中土壤的固碳量和二氧化碳减排量约占总量的 97.6%。

在碳汇资产定价方面，兴业银行以全国碳排放权交易市场碳排放配额（CEA）交易价格为依据，以其减碳量的远期收益权为质押。贷款该资金专项用于购买高碳汇湿地作物等以保护海洋湿地。



Sustainable Blue Economy Financial Services System and Products and Related Cases

Case: Carbon sink loan for a wetland on the east coast of China

Marine carbon sink, also known as "blue carbon", refers to the processes and activities of marine organisms in coastal zones and marine ecosystems to absorb and store carbon dioxide in the atmosphere through mechanisms such as photosynthesis. Scientific studies show that the oceans help store and circulate 83% of the earth's carbon dioxide in the atmospheric carbon cycle systems, while absorbing 25% of the world's man-made carbon dioxide.

According to the China State Council's *Carbon Peak Action Plan before 2030*, carbon sink, as an important part of carbon trading, will be included in the national carbon emission trading market. Thus marine carbon sink industry is expected to see rapid development. However, financial products that can support the development of carbon sink, especially marine carbon sink projects, are still scarce. In this context, a branch of IB in the eastern coastal area provided financial support by leveraging local wetland resources, to revitalize value of carbon sink assets and improve social and economic benefits.

In August 2021, IB issued a loan of 18 million yuan with the local coastal wetland carbon sink as a pledge, which was specifically used for enterprises to purchase wetland plants with high-carbon sink potential to protect marine wetlands. This was the first coastal wetland carbon sink loan in China.

This carbon sink loan is evaluated by a professional third-party institution. Based on the carbon sequestration capacity of the soil, water body, and plant carbon reservoir in the wetland, the institution comprehensively assessed the carbon sequestration capacity of the wetland through the monitoring of carbon reservoirs mentioned above. During the accounting period (2000-2020), the cumulative carbon sequestration reached about 55,000 tons, while the cumulative reduction of carbon dioxide emissions reached 200,000 tons. 97.6% of the total amount of carbon sequestration and carbon dioxide emission reduction come from soil.

In terms of the pricing of carbon sink assets, IB uses the trading price of carbon emission allowance (CEA) on national carbon emission trading exchange as reference. In the meantime, IB takes the forward income right of carbon emission reduction as the pledge. The use of proceeds is to purchase wetland plants with high-carbon sink potential to protect marine wetlands.

海洋项目融资的环境与社会风险管理及相关案例

兴业银行长期重视投融资项目的环境和社会风险管理工作。2008 年以来，兴业银行依据“赤道原则”开展项目融资的环境和社会风险审查工作，将环境和社会风险评审嵌入投资决策流程，将项目在环境、职业健康、利益相关方、生态保护等作为重点关注问题，通过行内尽职调查、第三方尽职调查、制定《行动计划》并监督业主方落实等方式全流程管理项目的环境和社会风险。

在涉及海洋环境、海洋经济的拟融资项目上，兴业银行在使用《国际金融公司社会和环境可持续性绩效标准》（IFC's Performance Standards on Social and Environmental Sustainability）和《环境、健康与安全指南》（Environmental, Health and Safety Guidelines）的基础上，主动参考《原则》及《倡议》发布的行业指引、分析指南和案例集，细化了与海洋环境、生态保护等相关的风险点识别和行动计划。2021 年，兴业银行共判定 16 笔涉及海洋环境和海洋经济的拟融资项目需要开展环境与社会风险审查（适用赤道原则），其中海上风力发电场建设项目八个、沿海地区污水处理厂项目两个、电缆隧道工程项目一个、沿海地区地下管廊建设项目一个、海水养殖项目一个、水产品加工处理和仓储项目一个、海洋经济产业园项目一个、沿海地区天然气输送管带项目一个；对六笔涉及海洋环境的融资项目开展第三方环境与社会风险审查，其中海上风力发电场建设项目三个、沿海地区污水处理厂项目一个、电缆隧道工程项目一个、沿海地区地下管廊建设项目一个。



案例：中国东部沿海某海上风力发电项目

该海上风力发电项目位于中国东部沿海，项目建设内容分为海上工程（两座海上风电场和 1 座海上升压变电站）、陆上工程（1 座陆上集控中心）和海底电缆工程三部分。海上风电场设计安装 32 台装机容量 6.45MW 风力发电机组（每座风电场 16 台），装机总容量为 206.4MW，年平均上网电量预估值超过 6 亿 kWh。项目业主方拟为该项目建设申请融资支持，业务品种为项目贷款。

根据赤道原则的相关要求，兴业银行聘请专业第三方机构对该项目开展环境和社会风险尽职调查，与项目业主方拟定了《行动计划》，明确了需要在项目建设、运营期间关注的环境和社会问题。其中，重点关注的海洋相关领域的主要包括以下方面（具体内容视项目保密性有所删减）：

绩效标准	主要发现	行动计划
环境和社会风险与影响的评估和管理	<p>监督和审查：</p> <p>在项目施工和运营期间，需根据监测计划委托有资质的第三方检测机构进行以下污染源监测及环境质量监测，具体包括：水下噪声及背景噪声、电磁环境、海水水质、海洋沉积物、水生生物、渔业环境、鸟情及其栖息地、流场和局部冲刷。</p>	<p>项目业主应敦促施工单位根据环评报告书要求持续开展环境监测工作，确保施工期间对生态环境的影响程度控制在可接受范围内。</p> <p>项目投入运营后，项目业主应根据环境监测计划，委托有资质的监测单位进行环境监测并向社会公开监测结果。</p>
	<p>利益相关者的参与：</p> <p>本项目环评报告书在环评信息公开平台进行了公示，公示阶段未收到任何形式的负面反馈意见。</p> <p>项目业主介绍目前未收到来自项目建设区域周边企业或群众、渔民、船只的投诉。</p> <p>项目业主尚未建立正式的社区沟通机制，没有为周边居民或企业的投诉（如有）设立书面或电子投诉渠道等。</p> <p>项目业主未能提供书面的供应商管理程序或相关的供应商环境和社会责任审查记录。</p>	<p>项目业主应建立正式的社区沟通机制，以指导项目人员妥善维护与周边社区的关系，建立一套规范的流程来受理社区问询或投诉，进行必要的反馈及处理，并保留书面记录。</p> <p>项目业主应及时向兴业银行提供其供应商管理程序，确保其包括环境和社会责任方面管理要求，并确保业主保留对供应商的审查记录。</p>
资源效率和污染防治	<p>污染防治：</p> <p>陆上工程和海上工程在建设和运营期应该采取的主要预防和减少污染的措施主要集中在以下方面：大气污染物排放防治、废水排放防治、噪声排放防治、固体废弃物排放防治、电磁环境保护、生态保护措施</p>	<p>项目业主与施工单位在建设期和运营期应按本项目的环评报告书要求采取相应污染防治措施。</p>
土地征用和非自愿迁移	<p>陆上工程尚未取得建设用地不动产权证。根据项目业主代表介绍，该不动产权证正在办理中。</p> <p>项目业主与属地规划土地事务中心签订的土地前期开发补偿协议，并根据协议缴纳了土地补偿金。</p> <p>本项目征用土地和海域使用相关方的迁移工作已完成，不存在权属争议。</p>	<p>项目业主应按计划获取陆上工程建设用地不动产权证，以确保项目不因土地权属问题而延搁。</p>
生物多样性保护和生物自然资源的可持续管理	<p>海上工程的附近海域包含多种浮游植物、浮游动物、底栖生物、潮间带生物、鱼卵、仔稚鱼、鱼虾蟹等渔获物以及鸟类，生态多样性分布具季节性。</p> <p>本工程紧邻或位于多种海洋生物的索饵场、产卵场、产卵洄游路线或索饵洄游路线中。此外，本工程生态影响评价区处于多种鸟类迁徙路线中。但工程海域并非迁徙期鸟类迁徙经过的所经过的最主要路线。</p> <p>海上工程在施工期和运营期针对海洋生态环境以及生物多样性保护需采取一系列生态影响减缓和修复措施，具体包括施工期施工方案优化、限制施工范围、调整施工进度安排、开展生态环境监测和水生生物监测、制定应急预案；运营期制定增殖放流计划、开展生态环境监测和水生生物监测、落实鸟类保护等。</p>	<p>项目业主与施工单位应在建设期和运营期应按本项目的环评报告书要求采取相应海洋生态影响减缓和修复措施。</p>

Environmental and Social Risk Management of Marine Project Financing and Related Cases

IB has long attached great importance to the environmental and social risk management of project investment and financing. Since 2008, IB has carried out environmental and social risk assessment of project financing in accordance with the "Equator Principles" by embedded it into the investment decision-making process. IB focuses on environment, occupational health, stakeholders, ecological protection issues of projects, and managed the environmental and social risks of the project through the whole process of in-house due diligence, third-party due diligence, formulation and implementation of *the Action Plans*.

Regarding proposed financing projects involving the marine environment and marine economy, IB uses *IFC's Performance Standards on Social and Environmental Sustainability* and *Environmental, Health and Safety Guidelines* as the basis, and proactively refers to industry guidelines, analysis guidelines and case studies issued by the *Principles* and the *Initiative*, to detail risk identification and action plans related to marine environment, ecological protection and other related issues. In 2021, IB determined that a total of 16 proposed financing projects involving the marine environment and marine economy need to carry out environmental and social risk assessment (applying the Equator Principles). These 16 projects include eight offshore wind farm construction projects, two coastal sewage treatment plant projects, one cable tunnel project, one underground pipe corridor construction project in coastal areas, one marine aquaculture project, one aquatic products processing and storage project, one marine economic industrial park project, and one natural gas pipeline belt project in coastal areas. In addition, IB conducted third-party environmental and social risk assessments of six financing projects involving the marine environment, including three offshore wind farm construction projects, one coastal sewage treatment plant project, one cable tunnel project, and one underground pipe corridor construction project in coastal areas.



Case: An offshore wind power project off the eastern coast of China

Located on the eastern coast of China, the offshore wind power project includes offshore section (two offshore wind farms and 1 offshore rising substation), onshore section (1 onshore centralized control center) and submarine cable section. The offshore wind farm is designed to install 32 wind turbines with a single installed capacity of 6.45MW (16 turbine per wind farm). The total installed capacity is 206.4MW. The average annual electricity output is expected to reach over 600GWh. The owner of the project intends to apply for project financing support for the project construction in the form of project loan.

In accordance with the relevant requirements of the Equator Principles, IB engaged a professional third-party organization to conduct environmental and social risk due diligence on the project and drafted an *Action Plan* with the project owner, which clarified the environmental and social issues that need to be paid attention to during the construction and operation of the project. Among them, the focus on ocean-related areas mainly includes the following aspects (some deletions have been made in response to the confidentiality of the project):

Performance Standards	Key Findings	Action Plan
Assessment and Management of Environmental and Social Risks and Impacts	Monitoring and review: During the construction and operation of the project, it is necessary to entrust qualified third-party testing agencies to monitor pollution sources and environmental quality monitoring according to the monitoring plan, including: underwater noise and background noise, electromagnetic environment, seawater quality, marine sediment, aquatic organisms, fishery environment, bird conditions and their habitats, flow fields and local erosion	Project owners should urge the construction unit to continue to carry out environmental monitoring work in accordance with the requirements of the EIA report to ensure that the impact on the ecological environment during construction is controlled within an acceptable range. After the project is put into operation, the project owner shall entrust a qualified monitoring unit to carry out environmental monitoring and disclose the monitoring results to the public according to the environmental monitoring plan.
	Stakeholder Engagement: The EIA report of this project was published on the EIA information disclosure platform, and no negative feedback of any kind was received during the publicity stage. According to the project owner, no complaints have been received from enterprises or individuals, fishermen and boats around the project construction area. The project owner has not yet established a formal community communication mechanism, and has not established a written or electronic complaint channel for complaints (if any) from surrounding residents or enterprises. The project owner has not provided any supplier management procedures or relevant supplier environmental and social responsibility review records in written format.	Project owners should establish a formal community communication mechanism to guide project personnel to properly maintain relationships with the surrounding communities, establish a standardized process to accept community inquiries or complaints, make necessary feedback and processing, and keep written records. Project owner shall promptly provide IB with its supplier management procedures to ensure that it includes management requirements in environmental and social responsibility aspects, and the project owner shall keep a record of the supplier's review.
Resource Efficiency and Pollution Prevention	Pollution Prevention: The main measures to prevent and reduce pollution that should be taken during the construction and operation period of onshore and offshore projects are mainly concentrated in the following aspects: prevention and control of air pollutant discharge, prevention and control of wastewater discharge, prevention and control of noise discharge, prevention and control of solid waste discharge, protection of electromagnetic environment, and ecological protection measures	Project owner and the construction unit shall take corresponding pollution prevention and control measures in accordance with the requirements of the project's EIA report during the construction period and operation period.
Land	Land section of the project has not yet obtained real	The relocation of parties involved in the

Acquisition and Involuntary Resettlement	<p>estate title certificates for construction land. According to a representative of the project owner, the application of real estate title certificate is in process. The project owner signed a compensation agreement for pre-development of the land with local Territorial Planning and Land Affairs Center, and paid land compensation according to the agreement.</p> <p>The relocation of parties involved in the acquisition of land and sea area of this project has been completed, and there is no dispute over ownership.</p>	<p>acquisition of land and sea area of this project has been completed, and there is no dispute over ownership;</p> <p>Project owner should obtain the real estate title certificate for land construction as planned to ensure that the project is not delayed due to land ownership issues.</p>
Biodiversity Conservation and Sustainable Management of Living Natural Resources	<p>The adjacent waters of the offshore section of this project contain a variety of phytoplankton, zooplankton, benthic organisms, intertidal organisms, fish eggs, larval fish, shrimp and crabs and other catches and birds, and the distribution of ecological diversity is seasonal.</p> <p>The project is located close to or located in feeding ground, spawning grounds, spawning route or feeding migration route for a variety of marine life. In addition, the ecological impact assessment area of this project locates within the migration route of a variety of birds. However, the engineering sea area is not the most important route that birds travel through during the migration period.</p> <p>During the construction period and operation period, a series of ecological impact mitigation and restoration measures need to be taken for the marine ecological environment and biodiversity conservation, including optimization of construction plan during the construction period, restriction of the scope of construction, adjustment of construction schedule, implementation of ecological environment monitoring and aquatic organism monitoring, designation of emergency response plans, formulation of breeding and stocking plans during operation period, implementation of ecological environment monitoring and aquatic organism monitoring, and implementation of bird protection.</p>	<p>Project owner and construction unit shall take corresponding marine ecological impact mitigation and restoration measures in accordance with requirements of the EIA report of the project during construction period and operation period.</p>



海洋经济与金融的合作与交流

兴业银行积极与政府机构、非政府组织、科研院校、金融同业等开展合作和交流，分享关于海洋经济、海洋金融的相关信息。

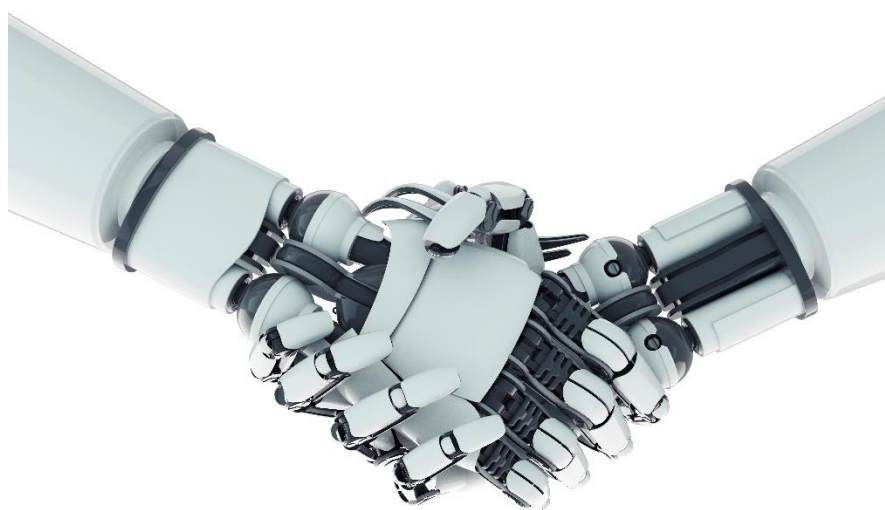
案例：“蓝碳基金”引导企业践行碳减排

2021 年，兴业银行厦门分行设立全国首个“蓝碳基金”，资金专项用于委托厦门产权交易中心（厦门市碳和排污权交易中心）采购碳汇来抵消指定的碳排放，助力碳中和。首笔海洋碳汇交易于 2021 年 9 月 12 日完成，购入的碳汇用以抵消兴业银行与厦门航空共同推出的首批“碳中和机票”旅客旅程的碳排放，碳汇对价用于红树林生态修复项目。

后续，蓝碳基金将持续关注蓝色生态领域，并积极与海洋重点实验室等智库合作，旨在引导更多的企业与客户共同践行碳减排，以资金、智库、行动等形成合力，将更多的社会资源和资本投入到红树林、盐沼湿地和海草床等碳汇生态系统修复项目。

案例：积极参与蓝色金融知识分享和能力建设

2021 年 12 月，《经济学人》杂志旗下经济学人影响力（Economist Impact）举办 2021 年度世界海洋亚太峰会（World Ocean Summit Asia Pacific），邀请包括亚太各国政府机构、非政府组织、企业、金融机构在内的 100 余家机构代表参与论坛，主题涉及海洋环境保护、海洋资源利用、海洋与气候变化、海洋经济和金融等多个主题。兴业银行作为金融机构代表，受邀参加了“蓝色债券如何重构海洋项目融资（How are blue bonds reframing marine project finance？）”主题讨论，并分享了兴业银行在蓝色债券发行和承销方面的成功经验。



Cooperation and Exchange in Marine Economy and Finance

IB actively cooperates and exchanges with government agencies, non-governmental organizations, scientific research institutions, financial institutions, etc., and shares relevant knowledge on the marine economy and marine finance.

Case: "Blue Carbon Fund" guides enterprises to practice carbon emission reduction

In 2021, IB Xiamen Branch set up China's first "Blue Carbon Fund", which was specially used to purchase carbon sink by entrusting the Xiamen Property Rights Trading Center (Xiamen Carbon and Pollution Rights Trading Center) to offset designated carbon emissions and promote carbon neutrality. The first marine carbon sink transaction was completed on September 12th, 2021, and the purchased carbon sink was used to offset the carbon emissions of the first batch of "carbon neutral airway tickets" jointly launched by Industrial Bank and Xiamen Airlines, and the carbon sink revenue was used for the mangrove ecological restoration project.

In the future, the Blue Carbon Fund will continue to focus on blue ecosystem, and actively cooperate with think tanks such as the Key Laboratory of Oceanography. The Blue Carbon Fund aims to guide more enterprises and customers to practice carbon emission reduction together, form a synergy with funds, think tanks and actions, and invest more social resources and capital into carbon sink ecosystem restoration projects e.g. mangroves, salt marsh wetlands and seagrass beds.

Case: Actively participate in blue finance knowledge sharing and capacity building

In December 2021, *Economist Impact of The Economist* held the 2021 World Ocean Summit Asia Pacific, inviting representatives of more than 100 institutions, including Asia-Pacific government agencies, non-governmental organizations, enterprises and financial institutions, to participate in the forum, with topics regarding marine environmental protection, marine resource utilization, oceans and climate change, marine economics and finance, etc.. IB was invited as a representative of financial institutions to participate in the discussion on the theme of "How are blue bonds reframing marine project finance?" and shared IB's successful experience in the issuance and effectiveness of blue bonds.