

The inevitability, progress and challenges of blue economic development in the Caribbean

——Take Grenada as an example

Bu Shaohua

Summary: Blue economy is a marine economy that is infused with the concept of sustainable development. It aims to promote economic growth, improve people's lives, and protect the marine ecological environment through the sustainable development and utilization of marine resources. Blue economy It has become the mainstream paradigm leading the development of the global marine economy. Caribbean countries are rich in marine resources. Under the current global changes, in the face of intensified climate change, degradation of the marine ecological environment and highlighted economic and social vulnerabilities, Caribbean countries are developing blue economy and realizing "Green recovery" is urgent. In recent years, with the close cooperation and in-depth participation of countries in the region, regional organizations and the international community, the blue economic agenda has taken root in the Caribbean, showing a trend of multi-agent and multi-agenda progressing in parallel and intertwined development. , and have achieved a series of initiative or institutional results. At the same time, Caribbean countries are facing multiple challenges, such as the intensification of climate change that damages marine ecology, the special attributes of small island countries that limit development potential, and insufficient national ocean governance capabilities. In the Caribbean, In the region, Grenada is the only country that has elevated the development of the blue economy to a national strategy. After years of development, it has become a benchmark for the development of the blue economy in the region. In the post-epidemic era, the blue economy will surely become the only way for Caribbean countries to achieve green recovery. ÿ and occupy an increasingly important position in the regional governance system.

Keywords: Caribbean Blue Economy, Marine Ecology, Environment, Climate Change, Grenada

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After the blue economy concept was first proposed at the "Blue Economy and St. Lawrence Development" forum in Canada in 1999, it was quickly accepted by the international community and was eventually adopted by the 2012 United Nations Rio Conference on Sustainable Development (Rio + 20). As confirmed by official documents, the "United Nations 2030 Agenda for Sustainable Development" announced in 2015 even set out special target clauses for the ocean. At this point, the blue economy has officially become a new important concept and development in the field of international sustainable development. Trendy

The blue economy was born out of the ocean economy, but the two are not exactly the same. The traditional ocean economy refers to "the sum of various industries and related economic activities that develop and utilize the ocean." Although the blue economy also focuses on the ocean, it places more emphasis on a sustainable ocean economy and clearly regards the ocean as a "development space", requiring that while achieving economic growth based on ocean resources, the health of the marine ecological environment should be maintained to the maximum extent. The United Nations Environment Program (UNEP) regards blue as The economy is regarded as a "green economy in a blue world". In China, the blue economy is regarded as "environmentally friendly industries and economies that rely on or are related to the ocean". It can be seen that the blue economy is actually the ocean economy and The cross-combination of green economy is a marine economy infused with the concept of sustainable development. However, the blue economy is obviously different from the green economy. Its sublation of the latter is that the blue economy pays more attention to sustainability issues, not just pure nature protection.

Once the blue economy was proposed, it quickly became the mainstream paradigm leading the development of the global ocean economy. The United Nations, important international organizations and major countries such as China, the United States, and the European Union have successively proposed and continuously improved their own blue economy development strategies. It should be noted that as a global As the "natural guardians" of the ocean, Small Island Developing Countries (SIDS) have played the most important role as advocates and practitioners in the rise of the blue economy. Among them, Caribbean countries account for about half of the world's small island countries. It has played an indispensable role and has embarked on a blue economic development path with Caribbean characteristics.

The necessity of developing blue economy in the Caribbean

The Caribbean is extremely rich in marine ecological resources. As the Atlantic Ocean has the richest marine biological resources

That is Goal 14: "Protect and sustainably utilize the ocean and marine resources to promote sustainable development." «Notice of the State Council on Issuing the Outline of the National Marine Economic Development Plan», China Government Website, August 13, 2005, http://www.gov.com/zwgk/2005-08/13/content_22246.html [2021-09-08]

"Toward a Blue Economy: A Promise for Sustainable Growth in the Caribbean" September 2019 <http://openknowledge.worldbank.org/handle/10986/25061> [2021-09-07] «China promotes blue economy», Sohu.com, 2017 June 9, 2019 https://www.sohu.com/a/1473383952_05 [2021-08-27] [Belgium] Written by Gunter Pauli, translated by Xue Lin and Hu Xilin: «Blue Economy 20: The latest update for the Club of Rome Report » Shanghai: Xuelin Publishing House, 2016, Page 5

One of the regions, although the Caribbean only accounts for 1% of the global ocean area, it is home to nearly 10% of the world's coral reefs, 1,400 species of fish and marine mammals, and rich mangroves and other coastal vegetation resources. The Caribbean also has the world's top beaches and underwater tourism resources can attract about 23 million global tourists every year, and even account for half of the global cruise market share.

The ocean occupies the most important position in the governance system of Caribbean countries. This is first of all due to the extremely disparate ratio of sea to land area in the countries in the region. For example, the ocean area of St. Vincent and the Grenadines is more than 90 times its land area. Most cities in the region are located within one mile of the coast. In this context, "living by the sea and eating from the sea" has undoubtedly become the norm in Caribbean people's lives. The marine economy supports the sustainable development of the national economic systems of Caribbean countries. According to statistics, The scale of the Caribbean's marine economy reached US\$407 billion in 2012, accounting for 14% to 27% of the global marine economy and 18% of the total GDP of the entire Caribbean region. Its industrial potential can even reach US\$25 trillion. In Jamaica, more than 80% of GDP even comes from its coastal areas. Among them, marine tourism is particularly important and constitutes the absolute pillar industry of many Caribbean countries. For example, in Eastern Caribbean countries, tourism has accounted for the entire 75% of GDP. In the British Turks and Caicos Islands, this figure is even as high as an astonishing 91%. At the employment level, about 6 million people in the entire Caribbean rely on tourism for employment. Tourism is also a major source of foreign exchange for various countries. The main source of income. In 2017 alone, the foreign exchange earnings of regional countries from tourism exceeded US\$27 billion. Fisheries is also one of the most important sectors of the Caribbean maritime economy. It not only ensures food security for about 16.5% of the regional people. Animal protein intake, its

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The upstream and downstream industrial chain has provided employment for about 1.3 million people in the greater Caribbean region, and is related to the livelihood of 4.5 million people.

Marine ecosystems also play a unique and important role in disaster prevention and reduction and climate change response in Caribbean countries. On the one hand, they help countries cope with disasters such as hurricanes. For example, a strong hurricane can often destroy a small island country within a few hours. The loss is equivalent to twice its GDP, and Belize has the second largest barrier reef group in the world, which can help it slow down 75% of the destructive power of hurricanes. On the other hand, offshore shallow water vegetation such as coral reefs and mangroves have extremely high carbon sequestration capabilities. Strong, it is an extremely precious blue carbon resource for Caribbean countries to mitigate the negative impact of climate change in the future.

However, in recent years, the Caribbean marine ecological degradation has begun to intensify. Among them, human over-exploitation and poor management are the main culprits. In this region, more than 90% of the population lives within 10 kilometers of the coast, which has caused serious damage to the Caribbean, especially the coastal ecosystem. There has been tremendous pressure, and 75% of the coral reefs in the area are in danger due to human coastal development and other activities. According to statistics from the Food and Agriculture Organization of the United Nations (FAO), up to 20% to 30% of fishing activities in Caribbean waters are illegal, leading to this. Up to 55% of the region's fishery resources are at risk of overfishing. 4. The degree of pollution in the Caribbean is second only to the Mediterranean. 5. 85% of sewage is completely discharged into the sea without treatment. 6. Only in the northeastern Caribbean, every square kilometer of sea area can accumulate up to 200,000 pieces of plastic waste. In addition, global climate change is also a factor that cannot be underestimated in the deterioration of marine ecology in this region. Research shows that the continuous increase in greenhouse gas levels in the atmosphere has led to increasingly serious global ocean acidification. In the past 20 years, the pH of the Caribbean Sea has been declining, which has begun to cause serious problems such as the death of coral reefs and the dissolution of shellfish.

In addition to the degradation of the marine resources on which they depend, the national governance of Caribbean countries is also facing various challenges.

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A variety of different external challenges. Among them, the downward trend of the world economy in recent years has had the most serious impact on the region. Caribbean countries have small economies, single economic structures, and are highly open to the international market. In 2008, the international financial crisis, the economies of Caribbean countries recovered slowly due to the continued decline in international commodity prices and intensified competition from similar tourist destinations in other regions. From 2009 to 2017, the average annual growth rate of Caribbean Development Bank borrowers was only 0.8 % at global level, far lower

The negative impact of intensified climate change on the economies and people's livelihood of various countries cannot be underestimated. The frequency and losses suffered by Caribbean countries from natural disasters are relatively higher than the average of other countries - even higher than other small island countries. According to statistics, since 2000 Since the 1990s, extreme weather such as wind disasters caused by climate change has been on the rise in the North Atlantic. Affected by this, the overall average annual wind disaster losses in Caribbean countries have accounted for 17% of the regional GDP. The 2017 Irma and Hurricane Maria even caused losses of more than twice the GDP of the British Virgin Islands and Dominica respectively. Some reports point out that if no measures are taken and climate change is allowed to develop, the Caribbean will be affected by climate change before 2025. Annual losses from climate disasters are as high as US\$10.7 billion.

Against this background, achieving a green recovery and building a more diversified, inclusive and resilient national economy has become an urgent task for Caribbean countries. According to statistics, if Caribbean countries cannot better strengthen resilience and adapt to climate change, in the next 10 years, Within this year, regional GDP may shrink by as much as 5%. In view of the high dependence of national economies on the ocean, finding a more sustainable ocean economic development path has become a "compulsory course". It aims to decouple development from environmental costs. The blue economy has naturally become the only choice for Caribbean countries to achieve economic "paradigm transformation". The World Bank believes that for Caribbean countries,

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For the economic growth of the Caribbean region, the blue economy plays a fundamental and core role. Even if it cannot fundamentally reverse the trend of climate change, it can still help regional countries strengthen their resilience to external shocks and achieve sustainable development. For example, the blue economy The concept of a blue economy advocates the participation of more women and children in economic activities and government decision-making. This will not only help increase employment, but also further enhance social inclusion in Caribbean countries. Developing a blue economy can also help Caribbean countries reduce their overdependence on fossil energy. Create a more sustainable energy consumption structure. The natural marine resource endowment of Caribbean countries also gives them great potential to develop the blue economy. The Organization for Economic Cooperation and Development (OECD) pointed out, "All indicators show that in the next few decades, The growth rate of the Caribbean's marine economy will most likely be faster than the overall economic growth of the region." Developing the blue economy has become an inevitable choice for Caribbean countries.

2. Progress in developing blue economy in the Caribbean

The blue economic transformation in the Caribbean is extremely open. International organizations, countries and institutions outside the region, regional organizations and regional countries within the region are extensively and deeply involved in this process. It presents a multi-subject and multi-agenda development process that goes hand in hand and is intertwined. Features

Extraterritorial international organizations, countries and institutions have always played a vital role in the practice of blue economy in the Caribbean. In addition to the United Nations Convention on the Law of the Sea and the United Nations Convention on the Conservation of Biological Diversity and other international legal documents, they have provided Caribbean countries with the blue economy. In addition to laying the legal foundation for the blue economy, as early as the 1980s, the Caribbean Environment Project (CEP) managed by the United Nations Environment Program adopted two initiatives: the Caribbean Action Plan and the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region. To strengthen the sustainable protection and utilization of the region's marine and coastal environments. In 2009, the "Caribbean Large Marine Ecosystem" project (CLME) funded by the Global Environment Facility (GEF) and implemented by the United Nations Development Program (UNDP) was implemented. Committed to better assessing regional ecosystems and natural capital. In 2012, the blue economy concept was officially confirmed by the United Nations Conference on Sustainable Development in Rio.

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The "Caribbean Regional Fisheries Mechanism" (CRFM), the intergovernmental mechanism for the Community's common fisheries policy, together with the Food and Agriculture Organization of the United Nations and the Development Bank of Latin America, has been deeply involved in the "Blue Economy-Caribbean Large Marine Ecosystems+" funded by the Global Environment Facility in 2020. (BE-CLME+) project aims to promote the development of regional blue economy by strengthening marine spatial planning and the construction of marine protected areas. CARICOM also attaches great importance to blue economic cooperation with countries and organizations outside the region. It held a meeting not long ago At the first CARICOM-Africa Summit, leaders from both sides unanimously confirmed the importance of "developing the blue economy and promoting economic growth and development." As the most important intergovernmental organization in the region, the Association of Caribbean States (ACS) has long-term Promote the sustainable development and protection of the Caribbean within the United Nations system, and established the "Caribbean Commission" in 2006 to manage and supervise the above activities. At the sub- regional level, the Organization of Eastern Caribbean States has an eye-catching performance. It formulated the "Caribbean Commission" in 2013 The Eastern Caribbean Regional Ocean Policy (ECROP) and the supporting "3-year Strategic Action Plan" provide a policy framework to guide the planning and development of marine activities in this region and promote the region's transition to a blue economy. In addition, the Caribbean Development Bank, The University of the West Indies and others have cooperated with the United Nations Development Program to conduct research on the blue economy from the perspectives of financing and oceanographic discipline construction. Well-known civil society organizations in the region such as the Caribbean Natural Resources Institute (CANARI) have also convened seminars and other methods. Promote regional blue economy

Caribbean countries have also shown a strong initiative in promoting the transformation of their own blue economies. In 2013, nine Caribbean governments jointly signed the Caribbean Challenge Initiative (CCI), committing to accelerate and expand the development of regional marine and coastal environments. Protect, promote the sustainable use of natural resources, and propose the "20 x 20" plan, which is to protect 20% of the Caribbean Sea by 2020. In 2014, the third meeting on small island developing States held under the framework of the United Nations At the international conference, Caribbean countries, together with other small island countries, specifically emphasized the importance of "sustainable ocean economy" to small island developing countries in the outcome document of the conference, demonstrating their determination to cooperate in developing the blue economy. Antigua Countries such as Barbuda and Barbados have set up blue economy ministries in their governments to promote the development of the country's blue economy from the top design level. Among them, as the country with the largest exclusive economic zone in the Eastern Caribbean, Antigua and Barbuda not only cooperates with American institutions to propose the "Blue Halo Barbuda" initiative to control the use of offshore resources, but also supports the establishment of the "Oceanography and Blue Economy Center" at the University of the West Indies to strengthen the focus on marine science. and academic research in the field of blue economy. Grenada has launched a national strategy and established

“www.acs-aec.org/index.php?q=csc [2021-09-26] «Quick Action Modalities for Small Island Developing States (Samoa Pathway)» Search for United Nations Conventions and Declarations System

“Caribbean Sea Commission”. <http://www.acs-aec.org/index.php?q=csc> [2021-09-26] «Quick Action Modalities for Small Island Developing States (Samoa Pathway)» Search for United Nations Conventions and Declarations System

It has established relevant research institutions and wants to build itself into a blue economy country. Jamaica not only vigorously develops the aquaculture industry, but is also committed to achieving sustainable development based on marine solutions. Belize places the blue economy in the overall response to climate change. It has been reviewed in the framework and regarded as an important means of climate adaptation, and initiatives such as the "National Integrated Coastal Management Plan" have also been proposed and implemented. In addition, the Bahamas, Saint Kitts and Nevis, Saint Vincent and the Grenadines, and the United Kingdom The Virgin Islands, Montserrat, Curacao, etc. have also developed their own blue economy frameworks or government coordination mechanisms.

Three Challenges of Developing the Blue Economy in the Caribbean

Despite their natural geographical advantages and proactive spiritual strength, the transformation and development of Caribbean countries to the blue economy is difficult to say smooth, and they face considerable internal and external challenges.

(1) The accelerated evolution of climate

change. Climate change is the biggest systemic threat to the creation of a blue economy in Caribbean countries and even the world.

Although the purpose of developing the blue economy in Caribbean countries is to mitigate and adapt to climate change, in recent years, global climate change has become drastic. The degree has obviously exceeded the development speed of the blue economy in the region and has had a fundamental adverse impact on it. As shown in the latest report "Climate Change 2021: Natural Science Basis" recently released by the United Nations Intergovernmental Panel on Climate Change (IPCC) Human activities have led to warming of the atmosphere, oceans and land. The atmosphere, oceans, cryosphere and biosphere are undergoing extensive and rapid changes, which are unprecedented in the past few centuries or even thousands of years.

In the Caribbean, climate change mainly affects the development of the blue economy through the following aspects.

First, sea level rise. The "Climate State of Latin America and the Caribbean in 2020" report recently released by the World Meteorological Organization pointed out that the sea level rise rate in the Caribbean has Reached an annual average of 36 mm, exceeding the global average of 33 mm. 4 For small Caribbean island countries such as Trinidad and Tobago and the Bahamas, where up to 80% of the land area is below sea level, sea level The rise has constituted the present

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It poses a real threat to the blue economy of various countries by inundating or destroying coastal tourism and even port infrastructure, affecting the distribution and survival of marine and coastal organisms (such as corals, mangroves, etc.), invading groundwater systems, etc.

The second is ocean warming and acidification. In the past 20 years, ocean warming and seawater acidification caused by climate change have caused serious degradation of the global ocean and offshore environment. Global ocean acidity has even risen to a new high in 2020. Against this background, the ecological natural capital of the Caribbean is gradually being depleted. It is estimated that by the middle of the 21st century, coral reefs in the Caribbean will experience large-scale bleaching, and many fish populations that rely on reef systems for survival and reproduction will further shrink, thus severely affecting the tourism industry of various countries. The third is extreme weather.

According to statistics from the World Meteorological Organization, a record 30 tropical storms occurred over the Atlantic Ocean in 2020, exceeding the previous record of 28 in 2005. In the 21st century, the frequency of Category 4 to 5 super hurricanes will increase by 80%. Increasingly intensive tropical storms have led to a significant increase in the probability of coastal storm surges and coastal floods in Caribbean countries. Not only has the offshore tourism and fishing industries in various countries increased, what is even more frightening is that between the occurrence of two meteorological disasters, the affected countries do not even have enough time to repair damaged infrastructure. (2) The special attributes

of small island countries limit their development potential as

representatives of micro-developing countries. The small Caribbean island countries have small economies and limited national resources.

Fundamentally limiting its ability to develop the blue economy.

First of all, it is impossible to form scale effects. The blue economy of major countries such as the European Union and China has begun to take shape. In contrast, although Caribbean countries have a certain say in the development of the global blue economy, they have always been difficult to form industrialization, etc. The trend is still in the "piecemeal" stage. For example, 95% of the fishery composition of CARICOM countries is small-scale artisanal fishing. The fisheries of Eastern Caribbean countries have a great impact on regional products.

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The contribution rate of the added value of the industry is less than 1% . In the long run, the lack of scale effect will be detrimental to attracting foreign investors, especially private investment.

Secondly, like all small island countries and other small developing countries, Caribbean countries have high debt ratios and limited fiscal capacity. The development of the blue economy is highly dependent on international financing and is easily "stuck". According to the statistics of the International Monetary Fund, the average Caribbean countries have As early as 2018, the level of public debt has reached a level far exceeding 508% of that of developing countries. The high debt ratios of various countries are not only due to frequent expenditures caused by natural disasters. The difficulty in obtaining international financing is also an important reason. Current international development Aid standards are mainly based on per capita GDP measurement. Among Caribbean countries, except for Haiti and Guyana, which can enjoy free loans and preferential loans respectively, other countries can only borrow loans with stringent conditions in the international financing market because they are all middle-income countries. Commercial loans. International official development assistance to the Caribbean has generally shown a downward trend in the past 20 years. This situation has been further amplified during the current COVID-19 epidemic. Caribbean countries are generally in a tight liquidity situation. In this regard, the Secretary-General of the United Nations said Guterres called, "Small island countries should not be excluded from international assistance, and international multilateral assistance needs to be extended to middle-income countries." Many Caribbean country leaders have begun to call for reform of the international development assistance system structure, in order to "vulnerability" Index" to replace "per capita GDP index"

Not only that, the small island status of Caribbean countries also determines their marginalized status in international climate change assistance. Since there are no international financing sources specifically targeted at the blue economy, climate change assistance has therefore become a blueprint for the development of Caribbean countries. It is an important channel for the color economy to obtain funds. According to the "Paris Agreement" adopted at the Paris Climate Change Conference, developed countries promised to assist developing countries, including small island countries, with US\$100 billion before 2020. However, the promise has never been fulfilled. And currently The direction of international climate change financing is more towards climate mitigation than climate adaptation. This is not complete to a certain extent.

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It fully meets the needs of Caribbean countries, because for these small island countries, what is more needed to build a blue economy and enhance national resilience is to adapt to climate change.

Against this background, Caribbean countries face high constraints in realizing the transition to a blue economy. As Prime Minister Brown of Antigua and Barbuda said, "If we have to force us to borrow heavily, we will not be able to achieve the United Nations 2030 Agenda. "Sustainable Development Goals" (3) National ocean governance

capabilities need to be improved. The development of blue economy is a systematic project, involving many fields such as trade, tourism, fishery, transportation, sustainable development, etc. It is an ultimate test of the country's comprehensive governance capabilities. A big test. Faced with the increasing accumulation, coordination, and overlapping of human ocean activities in the region, the shortcomings of Caribbean countries' ocean governance have gradually emerged.

First, the continued efforts to promote paradigm transformation are insufficient. The development of the blue economy is slow to achieve results and has a long cycle. Although it has been practiced for nearly 10 years, experts still question how many environmental and social benefits the blue economic transformation in the Caribbean has reaped. Even It is considered to be just a discourse trap. There are two reasons for this weak transformation: on the one hand, it is the lack of political will of the government. Except for Grenada and other Eastern Caribbean countries, other countries in the region do not seem to pay much attention to it. On the other hand, This is because the endogenous power of society is insufficient. For a long time, the influence of civil society in Caribbean countries has declined significantly. In addition, the development of the blue economy in various countries has not yet brought many real economic opportunities and benefits to poor and vulnerable coastal communities. As a result, the blue economic practices of various countries have still largely remained at the level of top-down

policy declarations. Second, the whole-government approach needs to be strengthened. The existing ocean governance frameworks of most Caribbean countries are still mainly based on The traditional specific department responsibility system (Sector-Specific Approach) has not yet formed a synergy among government departments, showing a high degree of "Balkanization" characteristics, and cannot build a comprehensive cross-departmental ocean. Planning provides sufficient policy space .

Third, legislation and enforcement need to be strengthened. First, legal loopholes need to be filled. Although most countries have

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Most of Grenada's exclusive economic zone consists of deep sea areas. The shallow water continental shelf occupies a relatively small area. Therefore, its deep sea fish resources are relatively abundant, among which tuna accounts for 75% of its catch. Grenada also has the world's first underwater sculpture park. Diving and sightseeing resources are extremely rich.

Despite the natural advantages of marine resources, agriculture has actually always been the pillar industry of Grenada's national economy. Grenada is the second largest producer of nutmeg in the world, accounting for 20% of the global nutmeg supply. Grenada's economy has long been highly dependent on nutmeg exports. However, in recent years, Grenada's agricultural employees have declined. The focus of the economy has begun to shift to marine-related industries. Tourism accounted for 11% of its national employment. The proportion of agricultural output in the country's GDP has increased. From 13.4% in 1990 to 7.1% in 2014, fishery has surpassed nutmeg to become Grenada's largest source of export revenue. Among them, offshore fishing has become an important driving force of Grenada's national economy. Unlike other Eastern Caribbean countries, Grenada's high value-added seafood export industry has developed very rapidly and has created considerable foreign exchange earnings for the country in recent years. In addition, the importance of offshore tourism has also increased. Its share of Grenada's GDP and national employment has increased from 15% in 2005 to 23.3% in 2015.

Grenada has the fragile attributes common to small island countries, namely a small population, a small land area, a fragile macroeconomic structure, and vulnerability to natural disasters. Since most of Grenada's infrastructure is located in coastal areas, its economy is extremely vulnerable to sea level changes. The adverse effects of rising, floods, land erosion, storm surges and other factors. According to statistics, between 1994 and 2013, Grenada suffered losses of approximately US\$1.1 billion due to hydrometeorological disasters and earthquakes. The 2004 Hurricane "Ivan" even caused its direct and indirect economic losses amounted to US\$88.9 billion, 90% of the buildings were damaged, and 85% of nutmeg exports were affected. The related losses were equivalent to twice the total GDP of Grenada at the time. The hurricanes that followed in 2005 "Emily" has dealt another serious blow to its post-disaster reconstruction plans. In addition, Grenada is also affected by widespread plastic pollution. Coastal development and marine pollution have threatened 85% and 25% of its coral reefs.

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Faced with the huge impact of climate change on Grenada's economy, the Grenada government is committed to transforming the ocean economy from unsustainable to sustainable through the development of the blue economy, thereby better achieving the goals of climate mitigation and adaptation.

(2) The practice and development of Grenada's blue economy

The Grenada government has long been committed to protecting the country's natural resources. At the 8th Conference of the Parties to the United Nations Convention on Biological Diversity in 2006, Grenada announced that it would protect the country's natural resources by 2020. Effectively protect at least 25% of marine space and terrestrial areas, and make its own contribution to the world's biodiversity conservation. In 2013, Grenada joined 8 other Caribbean countries in the "Caribbean Conservation Initiative" initiated by The Nature Conservancy (TNC). Challenge Initiative". The initiative proposes to protect at least 20% of the Caribbean coastal ecological environment by 2020 and expand the area of marine protected areas in the region by more than three times.

In the process of implementing the concept of sustainable development, the Grenada government has gradually realized the unique value of the blue economy to the country. As Grenada Prime Minister Keith Mitchell attended the "Global Ocean Action Summit" in 2014, As stated, "We must transcend limited reliance on the green economy, because our blue ocean space far exceeds green space or land area." 2014 is the "first year" of Grenada's blue economy development. In this year, the Grenada Government It was officially announced that it would implement a series of initiatives to protect "blue space" and develop the blue economy. The Grenada government first established the National Ocean Governance Council as a cross-departmental coordinating body to oversee the government-wide development of blue economy initiatives. In the same year, Grenada and the Netherlands Cooperated to establish the "Blue Growth and Ocean Governance Institute". The institute was established to include the world's top ocean research centers, optimize and integrate marine resources in the Caribbean, and help Grenada become a global example of a maritime country that promotes blue economic growth.

In order to cope with the impact of climate change on the coastal environment, Grenada formulated a "Comprehensive Coastal Area Management Policy" in 2015, which is committed to protecting, enhancing, and strengthening the resilience of coastal ecosystems while promoting Grenada's economic and social development. In 2016, Grenada has formulated the "Blue Growth Coastal Master Plan", which marks that Grenada has officially become the first country in the world to introduce a blue economic growth master plan at the national level. The plan not only summarizes the goals and tasks of Grenada's blue economic development.

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Grenada also identified some specific coastal blue economic development pilot zones for reference by foreign investors. It also advocated the establishment of the Grenada Blue Innovation Research Institute and the Coral Conservation Research Institute. The above two documents were proposed to develop Grenada into a global leader. The blue economy ocean countries have outlined a clear "road map" ¹⁸

Grenada also attaches great importance to promoting the blue economy through international cooperation. In order to echo the United Nations 2030 Agenda for Sustainable Development and the Paris Agreement on climate change reached in 2015, Grenada organized the "Blue Week" international conference in 2016 ¹⁹. The conference focused on the deep integration of ocean health and wealth, aiming to promote blue economic growth and foreign investment in small island countries and least developed countries. The conference also established a "Blue Growth Network" and is building a global blue economy partnership network. ²⁰, an important step has been taken in promoting the awareness of the blue economic community. Against this background, Grenada, Dominica, and the Marshall Islands jointly launched the "We Are the Ocean" initiative. By recruiting well-known singers to sing, the knowledge of sustainable development of the ocean was promoted into the classroom, and other measures to spread the concept of marine protection. In addition, at the regional level, Grenada has also joined other Eastern Caribbean countries to focus on making up for its own in areas such as marine spatial planning through the "Eastern Caribbean Regional Marine Policy" and its "Three-Year Strategic Plan" ²¹. Insufficient ability

Solving the financing problem is the key to developing the blue economy. In recent years, the World Bank has played an important role in the development of Grenada's blue economy. The World Bank has not only provided financial support to Grenada, including Grenada, through the "Caribbean Seascape Project" in 2017, but Multi-country financing in the Eastern Caribbean supports regional blue economic transformation ²². The World Bank also provided a total of US\$50 million in preferential loans to Grenada for two consecutive years in 2018 and 2019 to help Grenada build a more resilient blue economy. The World Bank has strictly implemented loans through Grenada is urged to carry out fiscal reforms in compliance with the sustainable development requirements of the blue economy and to implement strict fiscal discipline, such as integrating environmental sustainability requirements into public procurement and banning the purchase of foam plastic tableware and disposable plastic bags. In addition, Grenada is also actively exploring the use of New financial instruments such as "Debt-for-Nature Swap" have not only been included in its "Blue Growth Coastal Master Plan", but they have also established the Grenada Sustainable Development Trust Fund, in partnership with The Nature Conservancy and Germany. Cooperate with development banks and other institutions ²³ to attract external funds for Grenada's marine protection. Grenada Blue

¹⁸ "The Blue Economy: A Vision for Growth and Prosperity in the 21st Century". World Economic Forum, 2016. // www.weforum.org/reports/the-blue-economy-a-vision-for-growth-and-prosperity-in-the-21st-century

¹⁹ "Blue Week 2016: A Global Gathering for Ocean Sustainability". Grenada Blue Economy, 2016. // www.grenada.gov.gd/blue-week

²⁰ "Blue Growth Network: A Global Partnership for Ocean Sustainability". Grenada Blue Economy, 2017. // www.grenada.gov.gd/blue-growth-network

²¹ "We Are the Ocean: A Global Initiative for Ocean Sustainability". Grenada Blue Economy, 2018. // www.grenada.gov.gd/we-are-the-ocean

²² "World Bank Support for Blue Economy Development in the Eastern Caribbean". World Bank, 2019. // www.worldbank.org/en/region/caribbean/publications/world-bank-support-for-blue-economy-development-in-the-eastern-caribbean

Institutions such as the Innovation Research Institute are also actively researching new financing solutions such as blue bonds and blue insurance.

After years of hard work, Grenada's blue economy development has achieved certain results and has had a driving effect on its overall national economy. During 2013-2020, Grenada's unemployment rate dropped from 40% to 15.2%, and the debt ratio dropped from 108 % dropped to less than 60%. The number of Grenada's marine protected areas jumped from 3 in 2016 to 20 in 2019. At the same time, Grenada also achieved zero imports of foam tableware, disposable plastic bags and tableware.

The main reason why Grenada has become a "benchmark" for the development of blue economy in the Caribbean and even Latin America is the strong political will shown by its government. Faced with the inherent vulnerability of small island countries, the Grenada government did not Rather than seeing itself as a victim, Grenada sees itself as a conqueror. Compared with other CARICOM member states, Grenada has shown stronger political will in developing the blue economy and has shown a strong interest in implementing climate resilience initiatives. This is an important reason why the Grenada government can persist in promoting the development of the blue economy for many years, and why the international community can provide long-term financing assistance to Grenada's blue economy projects. In addition, the unremitting improvement of marine spatial planning capabilities is also an important factor in the development of Grenada's blue economy. One of the important experiences is that marine spatial planning is a fundamental tool for the development of the blue economy. Grenada focuses on bridging the capacity gap through cooperation with the Organization of Eastern Caribbean States, thereby helping it better understand the increasingly diversified marine and economic activities and improve governance. Reform the framework

For small island developing countries such as the Caribbean, which occupy a unique position in the global development architecture, developing the blue economy is not only the only way for countries to achieve green recovery in the post-epidemic era, but is also in line with the current green transformation of the global economy and the joint efforts towards the United Nations 2030 Sustainable Development Goals. It is an inevitable requirement for progress towards development goals. Although the challenges are daunting, the realization of blue economic growth will undoubtedly occupy an increasingly important position in the governance systems of Caribbean countries, and its blue economic development path has broad prospects.

(Editor Gao Han)

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