ISSN: 2359-1048
Novembro 2022

Small-scale fishing as a common good: What is the contribution of the solidarity economy to achieving the objectives of SDG14 in the countries of Latin America and the Caribbean?

RAIMUNDO EDUARDO SILVEIRA FONTENELE

MARIA REGIANE ARAÚJO CAVALCANTE
UNIVERSIDADE FEDERAL DO CEARÁ - UFC

DIMITRI ALEXANDER LENINE BIVAR RIBEIRO
UNIVERSIDADE FEDERAL DO CEARÁ - UFC

RAISSA ALMEIDA SOUSA
UNIVERSIDADE FEDERAL DO CEARÁ - UFC

GUSTAVO DIORLANDO MOREIRA DE ALMEIDA
UNIVERSIDADE FEDERAL DO CEARÁ - UFC

Introdução
The United Nations 2030 Agenda (UN, 2015) brings in its Sustainable Development Goal (SDGs) 14 the conservation and sustainable use of marine ecosystems, including the human activities involved, such as small-scale fishing, which demonstrates the social, economic, and environmental importance of the oceans. To strengthen the use of common good, and to achieve the goals of SDG 14, authors show that the solidarity economy between small-scale fishermen has the potential to function as an essential tool for social and economic inclusion of the fishermen and their families.
Problema de Pesquisa e Objetivo
The problem that guides this research is described in the following questions: what is the importance of the solidarity economy for small-scale fishing? And how can SDG 14 of the 2030 Agenda guide the common good actions of small-scale fisheries in Latin American and Caribbean countries?To answer the research problems, this study aims to verify the importance of the solidarity economy for small-scale fishing and analyze how SDG 14 of the 2030 Agenda can guide the actions of the common good of this activity.
Fundamentação Teórica
This study investigated the relations between the following themes: artisanal fishing, the common good, solidarity economy, and 2030 Agenda. First, it was found in the literature review that the production processes of the solidarity economy contribute positively to the achievement of the SDGs goals in the countries, corroborating the results of several authors and organizations carried out for other countries. Given the characteristics experienced by artisanal fishermen, the research findings point to the importance of strengthening economic, social, and political processes.
Metodologia
This theoretical-empirical study can characterize the method, objectives, and procedures. The method consists of quantitative research for employing statistical data analysis. As for the objectives, descriptive research describes the relationship between common sound principles, artisanal fishing, and a solidarity economy. And as the procedure is documentary research using the Index and SDG Panels databases. To understand the importance of artisanal fishing in achieving the objectives of SDG 14, the SDG Panels were used.
Análise dos Resultados
From the point of view of connection with SDG 14, artisanal fishing activities have similarities with the mode of production of the social and solidarity economy in terms of connection with financial promotion (income and work), social (emancipation of vulnerable, participatory democratic governance) and environmental (the balanced use of terrestrial ecosystems and oceans, as well as the defense of biodiversity). Artisanal fishing is the central theme in this study due to its importance for sustainable development, food, and nutrition security, poverty eradication, and equitable development.
Conclusão
This study used the four goals of SDG 14 to reflect on the role of artisanal fishing and its effectiveness in achieving sustainably managed fisheries and the marine environments that support them. Understanding the current state of progress of Latin American and Caribbean countries highlights areas where the solidarity economy can boost their sustainable development. The study contributes by advancing the proposition that the solidarity economy is a model of organization and governance that can help the common good of fishing with the SDG of schedule 2030, highlighted in the study SDG 14.
Referências Bibliográficas
Food and Agriculture Organization of the United Nations. (2005). Increasing the contribution of small-scale fisheries to poverty alleviation and food security. https://www.fao.org/3/a0237e/a0237e00.htm Food and Agriculture Organization of the United Nations. (2020). The State of World Fisheries and Aquaculture 2020. Sustainability in action. https://doi.org/10.4060/ca9229en Hardin, G. (1968). The tragedy of the commons: the population problem has no technical solution; it requires a fundamental extension in morality. Science, 162(3859), 1243-1248. https://www.jstor.org/stable/1724745

Palavras Chave
Small-scale fishing, Common good , Solidarity economy

Agradecimento a orgão de fomento
This work was supported by the Fundação Cearense de Apoio ao Desenvolvimento Científico e Tecnológico (Funcap) - Ceará

Small-scale fishing as a common good: What is the contribution of the solidarity economy to achieving the objectives of SDG14 in the countries of Latin America and the Caribbean?

INTRODUCTION

The *Food and Agriculture Organization of the United Nations* (FAO, 2018) points out that small-scale fishing and aquaculture in Latin America and the Caribbean generate more than 2.8 million direct jobs and three times more indirect jobs. Almost 90% of which are indirect, are linked to small-scale fishing. In addition, this activity provides up to 85% of the fish consumed in some countries of the region, becoming the basis of food security for thousands of people, contributing to poverty reduction and sustainable use of natural resources.

According to FAO (2022), small-scale fishing is defined as traditional fishing that involves families of fishermen using few resources and energy, employing or not small boats, and making short trips, near the coast, mainly for local consumption. The Latin-Americo and Caribbean Parliament (PARLATINO, 2017) defines small-scale fishing as autonomous manual work from capturing to commercializing marine fishing resources or continental waters. It is carried out individually or in groups, with vessels with little autonomy and minimal arts and techniques, in which the dimension varies according to each country's definition.

The *United Nations* 2030 Agenda (UN, 2015) brings in its Sustainable Development Goal (SDGs) 14 the conservation and sustainable use of marine ecosystems, including the human activities involved, such as small-scale fishing, which demonstrates the social, economic, and environmental importance of the oceans.

During the *72nd Session of the General Assembly of the United Nations*, it was proclaimed that 2022 is the International Year of Artisanal Fishing and Aquaculture to raise awareness among countries about the contribution of small-scale fishing and small-scale aquaculture to the fulfillment of SDG 14. Thereby developing a dialogue and collaboration among the various *stakeholders*, strengthening associative, its ability to improve sustainability in activity, social development, and well-being (UN, 2021).

To strengthen the use of common good, as recommended by Ostrom (1990), and to achieve the goals of SDG 14, authors such as Maldonado and Santos (2006) and Campos et al. (2018) show that the solidarity economy between small-scale fishermen has the potential to function as an essential tool for social and economic inclusion of the fishermen and their families. It also influences the financial, social, political, technical, and managerial organizations.

Given the above, the problem that guides this research is described in the following questions: what is the importance of the solidarity economy for small-scale fishing? And how can SDG 14 of the 2030 Agenda guide the common good actions of small-scale fisheries in Latin American and Caribbean countries?

To answer the research problems, this study aims to verify the importance of the solidarity economy for small-scale fishing and analyze how SDG 14 of the 2030 Agenda can guide the actions of the common good of this activity. To achieve these objectives, the information was collected from the data provided by FAO, with an analysis period corresponding to 2017-2022.

The article includes five sections. The first section corresponds to this introduction, the second section addresses the theoretical framework, which explains the common good, artisanal fishing, solidarity economy, and 2030 Agenda, emphasizing SDG 14, and the third aims to present the methodological procedures used for the development of research, the fourth section presents the analysis and discussion of the results and, finally, the fifth brings the conclusions.

THEORETICAL REFERENCE

Common good

The common good is a resource whose use is shared by a group of people, such as streams, forests, and fisheries. The problem of the common good existed even before the Neolithic Revolution, where access to and free use of fishing and hunting areas, for example, led to conflicts for those who should enjoy these scarce resources. A historical example that symbolizes the *mismanagement of the commons* is Easter Island, a society that went bankrupt after constant conflicts over scarce ecological resources and wars between tribes (Ferreira, 2012).

The concept of the common good was popularized in *Hardin's the tragedy of the Commons* (1968), where it characterizes the problem of the common use of natural resources by a population. In the scenario, he described, each economic agent, motivated by selfishness and a competitive mindset, would use the resources of a common area to serve his interests so that it would result in scarcity and loss of collective well-being. The author gave this situation the name of the tragedy of the commons, and to prevent it, he concludes, it would be necessary to intervene in the state or the market in the economy.

Ostrom (1990) criticized the tragedy of the commons theory by noting cases of success in maintaining common goods without state or market regulation. She argues that a community can avoid the tragedy of the commons and scarcity by establishing criteria and rules for using resources and maintaining cooperation between agents. The author also notes that *common pool resources have two characteristics*: 1) limitation, when there is no way to prevent access to the resource; 2) rivalry when the use of the resource by one prevents the use by another.

In the view of Bollier and Helfrich (2019, p. 15-17), *commons* are "social systems where people solve their shared problems in a self-organized way." According to them, *commons* are present in various parts of the world, usually in communities that negotiate rules and monitor resources to avoid shortages, including fishing activities.

Within the context of artisanal fishing, it is worth noting that fishing, in general, is an activity very conducive to the tragedy of the commons, especially the possibility of overfishing. This can happen when fishing activity in a specific region exceeds the reproductive capacity of fish species due to the growing population demand for fish and technological advances (Lyndon & Donev, 2016). Fisheries' resources are naturally sustainable, with a stable population trend; its inadequate management, which breaks the ecological balance, can lead to a tragedy of the commons (Diniz & Arraes, 2001). Around the globe, this type of scenario replicates in fishing as follows: first, a region with plenty of fish for fishing is "discovery"; second, high profits attract more and more fishermen, each exploiting the resource; finally, there is scarcity due to overexploitation (Hsu, 2005).

Nevertheless, the propensity of fishing to the tragedy of the commons is not universal because, in many parts of the world, some types of fisheries have managed to prevent overfishing through community resource management in a decentralized, spontaneous, and informal manner. Certain principles, however, must be followed: clear demarcation of resources, local rules, and sanctions for those who violate them. In addition, solid community traditions and the absence of State intervention is also relevant.

Several success stories have been observed around the world, from salmon fishing in Alaska to mixed fishing in the brazilian city of Valença: the latter, it is worth highlighting, fell apart due to the government's actions, which did not take into account the regional context (Leal, 1998).

In Latin America, the management of artisanal fishing varies widely according to the region, but usually, a *top-down approach is observed*, where the state defines rules for processes. However, in several cases, community systems can also be monitored based on formal rules created according to the needs of the regions. Central America, for example, has a history of cooperatives with political independence through local processes developed within the context of their countries. If it does not consider traditional systems, state intervention in these places can lead to higher transaction costs and even at the end of fishing activity (Begossi, 2010, p. 10-15).

Small scale fishing

The term "small-scale fishing" is widely used in the literature and international discussions on fisheries; however, this classification is not clearly defined. This term depends on the context because a fishing boat considered small-scale in one location could be regarded as large-scale in another. In addition, technological developments, the variety of navigation and communication equipment, globalization, and market approximation have changed how many small fisheries operate (Johnson, 2006; Center, 2008). An FAO working group on small-scale fishing in 2003 concluded that it is impossible to formulate a universal definition of small-scale fishing given its diversity and dynamism (Center, 2008).

According to the glossary developed by FAO and compiled from various sources that define many technical terms related to fishing, artisanal fishing is defined as:

> Traditional fishing involves families of fishermen (as opposed to commercial enterprises), using a relatively small amount of capital and energy, relatively small fishing vessels (if any), and making small fishing trips near the coast, mainly for local consumption. In practice, the definition varies from country to country, for example, from line fishing or a single-man canoe in developing countries, up to more than 20 m trawlers, seiners, or longliners in developed countries. On the other hand, artisanal fishing, sometimes called small-scale fishing, can be subsistence or commercial fishing, allowing local consumption or export (FAO, 2022).

The Model Law on Artisanal or Small-Scale Fishing, developed by the Latin American and Caribbean Parliament (PARLATINO), developed with the support of the Mesoamerica Without Hunger program and conducted by FAO and the Mexican Agency for International Development Cooperation (AMEXCID), defines artisanal fishing as an activity practiced by individuals, family groups, community groups or organizations. They are settled in coastal or riverside communities, which mainly employ autonomous manual labor to capture, transform, distribute and market marine fishing resources or continental waters, using vessels whose dimensions vary according to their national laws (PARLATINO, 2017).

Artisanal or small-scale fishing is carried out by self-employed producers who spend most of their time fishing, do not have employment ties or fixed salaries, develop employment relationships based on partnership, and use selective and non-mechanized capture technologies, whose production is directed to local marketing. Fishing has relations of reciprocity and solidarity, in which the basic strategies in the productive process are due to the family workforce and partnership (Massamba, 2016). According to FAO (2018), artisanal fishing accounts for more than half of catches in developing countries, where about 90% of artisanal fishermen are found worldwide.

The fishermen's activity is limited to coastal areas, such as rivers, lakes, estuaries, coves, bays, and beaches, where these spaces are considered common goods. That is, they are properties of all (Massamba, 2016). Due to its low environmental impact, this activity has become a sustainable fishing alternative, presenting importance concerning social and food aspects and boosting the local economy through jobs generated (Costa, 2022).

In 2012, a report titled "*Hidden Harvest: The Global Contribution of Capture Fisheries*" was developed *by the World Bank's Global Program on Sustainable Fisheries* (PROFISH) in partnership *with the Food and Agriculture Organization of the United Nations* (FAO) and *the WorldFish Center* to present the contributions and importance of small-scale fishing activity from a global social and economic perspective (World Bank, 2012; Costa, 2022).

The *Illuminating Hidden Harvests* (IHH) team, formed by FAO, *Duke University, and WorldFish,* developed a methodology based on a multidisciplinary approach to collect and synthesize information about small-scale fishing involving environmental and dimensions, economic and nutritional contributions, gender in artisanal fishing, and governance. The IHH report, with 58 case studies from countries and territories, shows that the average global catches of marine and inland fisheries between 2013 and 2017 were approximately 92 million tonnes. Of this value, small-scale fishing represents 37 million tonnes (40%), and large-scale fishing represents 55 million tonnes (60%). Concerning the economic contribution, in 2016, more than 60 million people were employed part-time or full-time throughout the small-scale fishing chain, representing 90% of all people employed along catch fishing value chains. In addition, at least once a year, another 53 million people were involved in subsistence fishing and processing, reaching a total of 113 million people employed in small-scale fishing or subsistence activities. The report's results are essential in quantifying the contribution of small-scale fishing to the development of sustainability concerning livelihoods, food security, nutrition, and resource sustainability (FAO, Duke University, & Worldfish, 2022).

The wealth generated by the artisanal fishing production chain can contribute significantly to the local economy through income and employment multipliers. In addition, income effects can cause the growth of the national economy through contributions to gross domestic product (FAO, 2005; Costa, 2022).

Silva and Leitão (2012) address that artisanal fishing, in addition to a source of income, is a way of maintaining human and cultural ties. In addition to the product being for the immediate feeding of the fisherman's family, it also serves as an essential source of economic means for the entire community involved. This economic and social relationship of fishermen with the community bringing the idea of cooperativeness and freedom to manage the product itself is connected with the practice of a Solidarity Economy (Campos et al., 2018).

Solidarity Economy

The solidarity economy is presented as an alternative mode of production with two main pillars, collective or associated ownership of capital and the right to individual freedom. Otherwise, the Solidarity Economy is an association between equals in place of a contract between unequal ones that are present in the relations of the capitalist mode of production. Thus, forms of cooperative solidarity organizations would aim at the benefit of the group rather than just profit (Singer, 2002, p.9-10).

In addition to the services and products directly provided by a solidarity enterprise, its benefits expand through positive externalities: such as social cohesion, strengthening the economic and social fabric, strengthening democracy, social innovation, and local development (Pitacas,

2019).

In the artisanal fishing sector, the cooperative organization can reduce operating costs, improve the capacity of specialization through the division of labor and develop problem-solving skills (Maldonado & Santos, 2006). The relationship between artisanal fishing and the family economy regime is shown as a differential in the principles of self-management, democracy, and solidarity of the solidarity economy. To become present not only in technical and management aspects within the enterprise but also to take root in the communities in which cooperatives are present (Campos et al., 2018).

In Latin America, recent achievements such as the formulation of the general law of solidarity economy in Colombia and the first Cooperative Solidarity Law in Latin America were obtained by the *leading role of the Confederación Latinoamericana de Cooperativas y Mutuales de Trabajadores* (COLACOT), which served as an initiative for the formation of the ANCOSOL Network (National Association of Solidarity Credit Cooperatives) in Brazil (Santiago, 2014). In addition, it is worth mentioning the role played in this environment by the Catholic Church in Latin America, as through the Fraternity Campaigns, raising resources for experiences of Sustainable Development, or the Pastoral Council of Fishermen in Brazil.

Silva e Silva (2022) identify in Latin America numerous characteristics that are recurrent in public policies of solidarity economy, such as: fostering and strengthening popular, associative, and cooperative enterprises for job generation and income improvement; having intersectoral characteristics; strategies for economic dynamics of production chains and in local and territorial development processes; new forms of organization of associated and self-managed work and a new subject of rights, workers and workers of the solidarity economy, among others.

The *Inter-Agency Task Force on Social and Solidarity Economy* (UNTFSSE, 2019) held a conference in June 2019 on the implementation of the SDGs and the role of the Social and Solidarity Economy. During the conference, the research presented showed evidence of the role of solidarity enterprises in achieving multiple objectives and goals, emphasizing the papers presented in the sections on female empowerment and gender equality, food, agriculture, and eco-social approach. Furthermore, in May 2020, UNTFSSE launched *the SSE Knowledge Hub for the SDGs*. This platform aggregates research related to the contribution of the solidarity economy to the Achievement of the SDGs.

2030 Agenda and SDG 14

At the beginning of the millennium, in September 2000, the UN established eight objectives that should be achieved in up to 15 years, which became known as the Millennium Development Goals (MDGs). They represent values that the organization judged to be fundamental to international relations of the 21st century, such as freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility (UN, 2000).

Given the results that were being achieved with the MDGs, in 2012, the United Nations began working on the global development agenda framework after 2015 (UN, 2012).

Thus, in 2015, the United Nations announced the 2030 Agenda, containing a new set of 17 objectives and 169 goals for global development in the next 15 years. With areas considered of critical importance, such as people (end of poverty and hunger in all its dimensions, allowing human development with equality and dignity); planet (protecting the world from degradation through sustainable consumption and production, taking action against global warming); prosperity (allowing people to have a prosperous life and technological, social and economic progress in harmony with nature); peace (stimulating a peaceful, just and inclusive society, free from fear and

violence) and partnership (mobilizing the means of implementing the 2030 Agenda through a revitalization of the global partnership for sustainable development) (UN, 2015).

The 17 objectives of the 2030 Agenda are known as sustainable development goals (SDGs), with each objective having approximately 8 to 12 goals and each target containing 1 to 4 indicators used to measure progress (UN, 2017).

Among the SDGs, the SDG 14 focuses on life in water and the goal of sustainably conserving and using oceans, seas, and marine resources for sustainable development. Thus, SDG 14 has an apparent affinity with the issue of artisanal fishing. However, not all its goals and indicators directly relate to artisanal fishing. For this reason, the present work will address four indicators under FAO's responsibility. The indicators: 14.4.1 Proportion of the fish population within biologically sustainable levels; 14.6.1 Progress of countries on the degree of implementation of international instruments aimed at combating illegal, unregistered (declared), and unregulated fishing; 14.7.1 Sustainable fisheries as a proportion of gross domestic product (GDP) of small island developing states, least developed countries, and all nations; 14.b.1 Progress by governments on the degree of implementation of a legal/regulatory/political and institutional framework that recognizes and protects the access rights of small-scale fishermen.

METHODOLOGY

This theoretical-empirical study can characterize the method, objectives, and procedures. The method consists of quantitative research for employing statistical data analysis. As for the objectives, descriptive research describes the relationship between common sound principles, artisanal fishing, and a solidarity economy. And as the procedure is documentary research using the Index and SDG Panels databases.

First, there was a discussion about the similarities between the common sound principles and the solid area economy. Next, to understand the importance of artisanal fishing in achieving the objectives of SDG 14, the SDG Panels created by Bertelsmann Stiftung and the Sustainable Development Solutions Network (SDSN) were used (Sachs et al., 2016).

Detailed index and SDG Dashboard metadata and visualization tools for this information are available on line at https://www.fao.org/faostat/en/.

The reference year for each indicator varies according to the availability of data from each index, but preferably the ones available for the most recent years (between 2017 and 2022) were used.

To assess the progress of each country in Latin America and the Caribbean in a given indicator, five bands were considered: (i) one red (without progress) that describes cases where it is necessary to overcome significant challenges for a country to reach the SDGs, this range is bounded below by a threshold that indicates the worst performance of the sample; (ii) an orange (low) band indicating cases where a country has made little progress in implementing the target; (iii) a yellow intermediate band (reasonable); (iv) a light (good) green belt for cases where a country has made good progress on a given target; and (v) a dark (reached) green band is bounded by the maximum that can be reached by each variable and the threshold to be reached to consider the success of the SDGs. Finally, the gray color indicates that the country does not display data. For indicators 14.4.1, 14.6.1, and 14.b.1, the thresholds of the ranges are specified in absolute terms and described in Table 1. You can see national data in detail in country profiles and metadata available on the internet.

For indicator 14.7.1 - An added value of sustainable fisheries as a proportion of GDP, since the figures compared between countries do not necessarily show a better or worse performance, a

different system of ranges was used, ranging from a lighter green, for countries with a lower proportion, to a darker green, countries with the highest proportion.

Table 1 - Performance ranges for indicators 14.4.1, 14.6.1, and 14.b.1

Indicator	Red	Orange	Yellow	Light Green	The Dark Green
14.4.1 - Proportion of the fish stock population within biologically sustainable levels (0-100)	0	< 33	33 < valor <66	> 66	100
14.6.1 - Progress of countries on the degree of implementation of international instruments to combat illegal, unregistered (declared), and unregulated (IUU fishing) (1-5) fishing	1	2	3	4	5
14.b.1 - Degree of application of a legal/regulatory/political and institutional framework that recognizes and protects the access rights of small-scale fishermen	1	2	3	4	5

Yesterday: Authors, based on the SDG (UN).

RESULTS AND DISCUSSION

Common Good, Artisanal Fishing, and Solidarity Economy

Artisanal fishing is an activity of broad socioeconomic, environmental and cultural importance in Latin America and the Caribbean, providing sustenance for millions of people. The fishermen and families who perform this work are organized in various ways, according to the needs of their regions, in an autonomous and self-managed way, seeking the collective good of their communities.

This productive structure fits with the definition of the common good provided by Bollier and Helfrich (2019), which emphasizes the self-organized solution of shared problems. Moreover, these organizational principles are related to the Solidarity Economy, which, according to Singer (2002), is defined by a democratic relationship between participants of the economic system and the priority of group well-being. Thus, the solidarity economy helps achieve a common good: artisanal fishing, in this case, which can draw a parallel between the principles of the common good that Ostrom (1990) and the solidarity economy.

Comparing the principles of solidarity economy and the common good, some similarities are verified, as in principle 1 of both (Table 1). According to Singer (2002), the initiatives generated by the solidarity economy can potentially promote the democratization of access to means of production and the dissemination of values of social justice, solidarity, and cooperation. For Timothy (2019), democratic management is based on administration and management based on collective, shared decisions, respecting equal rights and responsibilities.

Table 1 - Comparison between common good principles and solidarity economy.

Principles of the Common Good	Principles of Solidarity Economy
1. Clearly defined limits of resource systems and user groups; 2. Clear rules on the management of the common good resource and consistent with local conditions and needs; 3. Arrangements of collective choice and the possibility of participation of users in the creation and modification of some rules; 4. Mechanisms for monitoring and evaluating the rules for the use of common good resources; 5. Penalties for those who violate and graduate rewards for those who follow the rules; 6. Conflict resolution mechanisms with quick and facilitated access; 7. Recognition of the rights of the organization; 8. Common good resource management with nested organizations and democratic participation.	1. Solidarity is based on equality, reciprocity, the need for the organization to produce and collective property; 2. Self-management presents a non-hierarchical internal organizational structure based on collective work and democratic participation of workers; 3. Cooperation in social interactions; 4. Democracy, with isonomic and egalitarian treatment.

Fonte: Authors, based in Ostrom, 1990; Leal and Rodrigues, 2018.

It is possible to perceive the similarity between principles 2 and 3 of the common good with "cooperation in social interactions" because the responsibility for appropriation, provision, monitoring, sanctions, and conflict resolutions in groups that share a common resource or objective are distributed (Ostrom, 1990). Timothy (2019) recalls that the rules need to be transparent and consensual so that the results achieved are legitimate and accepted by all involved. For Leal and Rodrigues (2018), in cooperation, the subjects work by forming a set from the sum of individual contributions in a coordinated way, directed to a common goal, and organizing themselves in the cooperative administrative structure through consensuality. As a result, the solidarity economy has been enhanced in multiple forms of associated work organization and cooperation in small production to provide productive activities, reduce subordination and exploitation in the market, as well as promote the conquest of social, economic, cultural, and environmental rights (Silva & Silva, 2022).

There is another similarity in principles 4 and 7 of the common good with principle 2 of the solidarity economy. Timothy (2019) notes that self-management is the basic principle of the solidarity economy, promoted by workers who are owners and managers of their activities, allowing decisions to be made collectively and with equal participation.

Fishing is practiced together, whether in the family or community aspect, and the environment in which the activity is carried out is commonly shared, requiring the social organization to develop through cooperative ties (Leal, 2020). Silva e Silva (2022) points out that associative and cooperative organizations seek community development through their autonomous organization, culminating in several solidarity financing initiatives and networks of production, commercialization, and fair and conscious consumption.

In the solidarity economy, conflict resolution is carried out through consensus, in favor of the collective and more vital interests, based on learning, reciprocity, and partnership relationships

between the various social actors, which direct them to a process of construction, legitimation, and recognition of shared powers, which are necessary for economic activity, political and social (Ostrom, 1990; Timothy, 2019).

In table 1, already presented, it is still possible to identify a similarity between principles 8 and 4 of common good and solidarity economy, respectively. In this respect, Pitacas (2019) states that the solidarity economy is based on democracy, social responsibility, participation of the parties involved, and the optimization of social utility, functioning efficiently and economically sustainable. For him, in this type of mode of production and consumption, people and the environment are respected, as it occurs in artisanal fishing, and the goals of SDG 14 desire that.

Artisanal Fishing and SDG14

The SDG 14 is directly related to fisheries management and conservation measures that ensure sustainable fishing, which makes it essential to recognize the state of achievement of fishing targets and ecosystem management. These are SDG 14.4, SDG 14.6, SDG 14.7, and SDG 14. b. Based on the indicators established by the UN under each target and the existing databases containing country data on these targets, an analysis of achievements by sovereign countries of Latin America and the Caribbean was carried out. For each indicator, the currently suggested methods for measuring performance were used and adapted to the available data. The evaluation of these four targets presents the opportunity to reflect on the role of artisanal fishing and the effectiveness of SDG 14 in achieving sustainably managed fisheries and the marine environments that support them. Furthermore, understanding the current state of progress of Latin American and Caribbean countries highlights areas where the solidarity economy can boost their sustainable development.

Indicator 14.4.1 presented the highest number of countries with no data; even among those that answered the survey, only two (Chile and Colombia) passed the second level of the quality test in the survey, both of which were at a low level of implementation of the indicator, with 28% and 17.4%, respectively (Table 2).

Table 2 - Indicator 14.4.1 (Proportion of fish stock population within biologically sustainable levels) by number and percentage of countries in Latin America and the Caribbean

Progress on the goal	No progress	Low progress	Average progress	Good progress	Achieved	NA
Number of countries	1	3	0	2	2	25
Percentage of countries	3%	9%	0%	6%	6%	76%

Fonte: Authors, based on FAO data

The lack of data by most countries undermines the possibility of accurately analyzing progress in achieving this goal, revealing the need for more excellent monitoring and reporting to allow further study.

Looking at the data for SDG 14.6, implementation of instruments aimed at combating *illegal, unregistered, and unregulated fishing (Illegal, Unreported and Unregulated fishing), there was a positive result in* the extent that no country is at level 1 of implementation of the target. Only five countries (Guatemala, Guyana, Jamaica, Suriname, and Trinidad and Tobago) are at level 2, with little progress. Almost half of the countries are at levels 4 and 5, representing 33% and 15%

of the countries at these levels, respectively (Table 3). According *to The Future of Marine Fisheries in the African Blue Economy* (African Natural Resources Centre, 2022), when assessing the achievement of a goal for an issue as complex as combating IUU fishing, it is unrealistic to be sure that a country has fully achieved its goal. However, when effective implementation is not followed, the binding instrument does not achieve the desired objective. This is a problem in cases where limited resources hinder the ability to implement these instruments. The SDG 14.6 also includes the impact of subsidies on fishing, highlighting the worsening of the issues related to overcapacity and overfishing. According to the UN (2022), the subsidies allow many fishing fleets to operate longer and farther at sea, to the detriment of marine life. In addition, they are often a source of inequality and unfair competition against small-scale fishermen. Subsidies reduce the cost of (predominantly combustible) intake and are, therefore, more likely to increase capacity. Capacity-building subsidies can cause damage by reducing fishing costs, increasing catch, increasing fishing revenues for the beneficiary, contributing to overfishing, compromising fish stock productivity, and applying more stress to stocks of endangered species. Experts estimate that 54% of deep-sea fishing areas would not be profitable if subsidies were eliminated (UN, 2022).

Table 3 - Indicator 14.6.1 (Progress of countries on the degree of implementation of international instruments aimed at combating illegal, unregistered (declared), and unregulated (IUU fishing)) by number and percentage of countries in Latin America and the Caribbean

Implementation Level	No progress	Low progress	Average progress	Good progress	Achieved	NA
Number of countries	0	5	5	11	5	7
Percentage of countries	0%	15%	15%	33%	15%	21%

Fonte: Authors, based on FAO data

Objective 14.7, the progress measured by indicator 14.7.1, is to increase the economic benefits for small island developing states and least developed countries by 2030 from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture, and tourism.

Considering indicator 14.7.1, Suriname was the only country in the last range, with an added value of 1.42% as a proportion of GDP. In the previous range are Antigua and Barbuda, Belize, Granada, and Guyana, while Nicaragua appears in the intermediate range. The number of countries that do not have GDP data from artisanal fishing is significant, especially Brazil (Table 4).

Table 4 - Indicator 14.7.1 (Added value of sustainable fisheries as a proportion of GDP) by number and percentage of countries in Latin America and the Caribbean

Progress on the goal	0% - 0,1%	0,1% - 0,25%	0,25% - 0,5%	0,5% - 1%	1% - 2,5%	ND
Number of countries	9	10	1	4	1	8
Percentage of countries	27%	30%	3%	12%	3%	24%

Fonte: Authors, based on FAO data

In the 2020 edition of the FAO report on the world state of fisheries and aquaculture and the UN Sustainable Development Goal 14, Brazil was explicitly mentioned for not making official

production data available since 2014. Therefore, in addition to the data provided by regional fisheries agencies, data for Brazil are estimates (FAO, 2020, p. 21).

According to Gillett (2016), to estimate the value added by artisanal fishing, it is necessary to obtain data on the importance of gross fishing production and intermediate costs – fuel, bait, provisions, and boat maintenance, among others. The author points out that, depending on the availability of data, it is possible to calculate the added value through production and sales revenue information. However, although the revenue brings more accurate information, usually, this information does not exist or is confidential. Thus, the only way to estimate the contribution of fisheries to GDP is through the production approach (Gillett, 2016). The contribution of a sector to GDP is seen as a critical macroeconomic indicator, which highlights the relevance of this sector to the national economy and the regional, state, or municipal economy, depending on the focus of the analysis. It is worth noting that it is pertinent to know information about the contribution that a natural resources sector brings to GDP, both as a way of sustainably managing such resources and for these resources to be noticed by decision-makers (Graaf & Garibalde, 2014). For Cai, Huang, and Leung (2019), one of the most used indicators in the fishing and aquaculture sector to measure economic performance, is the contribution of fisheries and aquaculture to GDP. In this regard, the *Illuminating Hidden Harvests* (IHH) world study, coordinated by FAO, *Duke University*, and *WorldFish*, developed a methodology that scales the economic contribution of fishing to national economies. By calculating sustainable fisheries for GDP, taking into account the direct and indirect added value of production, i.e., the entire chain is considered.

Indicator 14.b.1 measures the "access rights" dimension of target 14.b based on countries' efforts to implement the principles of the Voluntary Guidelines for Ensuring Small-Scale Sustainable Fisheries in the Context of Food Security and Poverty Eradication (FAO, 2017). Among the selected indicators, 14.b.1 showed the best progress among Latin American and Caribbean countries, with only two countries at implementation level 2 (Dominican Republic and Guyana) and only one country at level 3 (Bolivia), while 78% of countries are at implementation level 4 or 5 (Table 5).

Table 5 - Indicator 14.b.1 (Degree of application of a legal/regulatory/political and institutional structure (framework) that recognizes and protects the access rights of small-scale fishermen) by number and percentage of countries in Latin America and the Caribbean

Implementation Level	No progress	Low progress	Average progress	Good progress	Achieved	NA
Number of countries	0	2	1	11	15	4
Percentage of countries	0%	6%	3%	33%	45%	12%

Fonte: Authors, based on FAO data

According to the UN (2022), FAO and other agencies have been supporting countries in implementing the Guidelines as a global and participatory multi-stakeholder framework, complementing the Code of Conduct for Responsible Fisheries to support the development of small-scale fishing communities through a human rights-based approach. For FAO (2020), some essential tools for goal 14.b are training fishermen and fishing workers, including women, in post-harvest activities. Participatory decision-making; technical assistance; dissemination of information on requirements and market access; recognition of systems for the possession of small-scale fisheries and access rights; support for fisheries resource management; insurance; safety training at sea; and a legal, regulatory and small-scale fishing policy that facilitates and is

participatory.

CONCLUSION

This study investigated the relations between the following themes: artisanal fishing, the common good, solidarity economy, and 2030 Agenda. First, it was found in the literature review that the production processes of the solidarity economy contribute positively to the achievement of the SDGs goals in the countries, corroborating the results of several authors and organizations carried out for other countries (Clasen & Cruz, 2022; FAO, 2022; Nachtigall, Gonçalvez, & Oliveira, 2020).

The 2030 Agenda established actions to foster and articulate efforts to improve the population's living conditions. Thus, given the characteristics experienced by artisanal fishermen, the research findings point to the importance of strengthening economic, social, and political processes, mainly based on the guidelines of the solidarity economy. Moreover, as Alves and Salomão (2012) point out, the premises and precepts of the solidarity economy are perfectly compatible with the participatory organization of artisanal fishing based on development with sustainability and social inclusion.

From the point of view of connection with SDG 14, artisanal fishing activities have similarities with the mode of production of the social and solidarity economy in terms of connection with financial promotion (income and work), social (emancipation of vulnerable, participatory democratic governance) and environmental (the balanced use of terrestrial ecosystems and oceans, as well as the defense of biodiversity). These are the challenges present mainly in SDG 14 of the 2030 Agenda, which requires the adoption and assistance of different forms of organization in many cases.

Thus, the guide questions of this study were: What is the importance of the solidarity economy for artisanal fishing? And how can SDG 14 of the 2030 Agenda guide the common good actions of artisanal fisheries in Latin American and Caribbean countries? Artisanal fishing is the central theme in this study due to its importance for sustainable development, food, and nutrition security, poverty eradication, equitable development, responsible use of fishing resources, and income generation for local and national economies, as well as concerning female participation, which plays an essential role for this sector (FAO, 2017).

Fishing is practiced together, whether in the family or community aspect. The environment where the activity is carried out is commonly used and shared, requiring social organization so that it can develop through communal bonds. Silva e Silva (2022) points out that associative and cooperative organizations seek community development through their autonomous organization, culminating in several solidarity financing initiatives and networks of production, commercialization, and fair and conscious consumption. These findings help answer the first question of the research.

In the second research question, it was necessary to understand that artisanal fishing becomes a common good when it carries out social processes to deal with the maintenance of resources and common problems of a community (such as hunger, poverty, and production distribution, among others). In the specific case of SDG 14, which deals with sustainable development in oceans, seas, and marine resources, and has ten related targets, particularly some have relevant implications for fishing, such as targets 14.4, 14.6, 14.7, and 14.b.

Notably, achieving these SDGs positively impacts other agenda goals (FAO, 2020). FAO (2020) states that the fishing sector contributes to the four pillars of food security, in addition to

assisting in the eradication of hunger and malnutrition through efforts to increase fish availability and consumption, thereby supporting SDG 2; providing employment and income for a significant portion of the world's population, which ends up contributing to SDG 1 and SDG 8 and promotes women's empowerment, since they occupy most of the workforce in post-capture activities, thus contributing to SDS 5. It is also worth mentioning that artisanal fishing helps SDG 12 and SDG 13 since fishing, when compared to most agricultural food systems, is considered a sector that produces fewer greenhouse emissions, also using new technologies throughout the value chain as a way to reduce losses and waste (FAO, 2020).

Thus, this study used the four goals of SDG 14 to reflect on the role of artisanal fishing and its effectiveness in achieving sustainably managed fisheries and the marine environments that support them. Understanding the current state of progress of Latin American and Caribbean countries highlights areas where the solidarity economy can boost their sustainable development. The study contributes by advancing the proposition that the solidarity economy is a model of organization and governance that can help the common good of fishing with the SDG of schedule 2030, highlighted in the study SDG 14.

A limitation of this study was the non-availability of data to empirically address the relationships between artisanal fishing, the common good, solidarity economy, and SDG 14 of 2030 Agenda. Therefore, for future research, it is suggested to construct a broader model that addresses the other SDGs, allowing to expand the knowledge of the role of artisanal fishing, the common good, and solidarity economy to achieve the goals of the 2030 Agenda. Another possibility would be the extent of the research by comparing with other groups of countries and replicating this study longitudinally in different years.

REFERENCES

African Natural Resources Centre. (2022). *The Future of Marine Fisheries in the African Blue Economy*. African Development Bank. Abidjan, Côte d'Ivoire. https://www.afdb.org/en/documents/future-marine-fisheries-african-blue-economy#:~:text=With%20the%20African%20population%20expected,19%20million%20tonnes%20in%202050.

Alves, F., & Solomon, S. (2012). Solidarity economy and entrepreneurship: negative aspects or partners in the generation of work and income? *New job configurations and solidarity economy. São Paulo: Annablume*, 351-376.

Begossi, A. (2010). Small-scale fisheries in Latin America: management models and challenges. *Mast*, *9*(2), 7-31. https://fisheriesandfood.com/wp-content/uploads/2018/02/2010-Small-scale-fisheries-Begossi.pdf

Bollier, D., & Helfrich, S. (2019). *Free, fair, and alive: The insurgent power of the commons*. New Society Publishers.

Cai, J. N., Huang, H., and Leung, P. S. (2019). Understanding and Measuring the Contribution of Aquaculture and Fisheries to Gross Domestic Product (GDP). *FAO Fisheries and AquacultureTechnical Paper No. 606. (Rome: FAO)*, 80. https://www.researchgate.net/publication/335220091_Understanding_and_measuring_the_contribution_of_aquaculture_and_fisheries_to_gross_domestic_product_GDP

Clasen, V. G., & Cruz, A. C. M. (2020, Oct. The Sustainable Development Goals and the Social and Solidarity Economy: The motivations for constructing the United Nations interagency task force on Social and Solidarity Economy. In *Anais of Unesco's 11th Science and Technology Week*, Criciúma, SC. https://www.even3.com.br/anais/sct2020/285096-os-

objetivos-de-desenvolvimento-sustentavel-e-a-economia-social-e-solidaria--as-motivacoes-a-construcao-da-forca-/

Campos, M. M., Timothy, G. M., & Arruda, A. P. S. N. D. (2018). The dynamics of artisanal fishing in the Campos Basin: social organization and practices in solidarity among artisanal fishermen. *Critical Journal of Social Sciences*, (116), 71-102. https://doi.org/10.4000/rccs.7227

Center, W. (2008). *Small-scale capture fisheries: a global overview emphasizing developing countries: a preliminary report of the Big Numbers Project*. http://hdl.handle.net/10986/16752

Costa, G. M. (2022). *Evidencing an ancient art of Mucuripe beach: the contribution of the artisanal fishing production chain to sustainable development*. Dissertation (Master in Administration and Controllership), Federal University of Ceará, Fortaleza, CE, Brazil. http://www.repositorio.ufc.br/handle/riufc/65695

Diniz, M. B., & Arraes, R. D. A. (2001, Oct. Tragedy of the commons and the example of lobster: theoretical approaches. In *Anais of the 21st National Meeting of Production Engineering*, Salvador, BA. https://abepro.org.br/biblioteca/enegep2001_tr60_0114.pdf

Ferreira, S. (2012). The evolution and future of the knowledge commons are emerging opportunities and challenges for less developed societies. *Knowledge Management for Development Journal*, *8*(2-3), 141-168. https://www.km4djournal.org/index.php/km4dj/article/view/458/545

Food and Agriculture Organization of the United Nations. (2005). *Increasing the contribution of small-scale fisheries to poverty alleviation and food security*. https://www.fao.org/3/a0237e/a0237e00.htm

Food and Agriculture Organization of the United Nations. (2017). *Voluntary Guidelines to Ensure Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication Organization of the United Nations for Food and Agriculture*. https://www.fao.org/documents/card/es/c/741aa979-6b77-4540-8793-1f5d5d3ef59d/.

Food and Agriculture Organization of the United Nations. (2018). *The State of World Fisheries and Aquaculture - Meeting the sustainable development goals*. https://www.fao.org/3/i9540en/i9540en.pdf

Food and Agriculture Organization of the United Nations. (2020). *The State of World Fisheries and Aquaculture 2020. Sustainability in action.* https://doi.org/10.4060/ca9229en

Food and Agriculture Organization of the United Nations. (2022). *Artisanal fisheries. FAO Glossary*. https://www.fao.org/3/x2465e/x2465e0h.htm#TopOfPage

Food and Agriculture Organization of the United Nations, Duke University & WorldFish. (2022). *Small-scale fisheries and sustainable development: Key findings from the Illuminating Hidden Harvests report*. Rome, FAO; Durham, USA, Duke University; Penang, Malaysia, WorldFish. https://ssfhub.org/resource/small-scale-fisheries-and-sustainable-development

Gillett, R. D. (2016). *Fisheries in the Economies of Pacific Island Countries and Territories.* Noumea: Pacific Community (SPC). https://spccfpstore1.blob.core.windows.net/digitallibrary-docs/files/36/36088d93c3e52e27f48e43af2e6a8581.pdf?sv=2015-12-11&sr=b&sig=n59dE2tRkqM0kcpX0TxIioprYnc%2B3%2FnDGC%2FFKDQwt6g%3D&se=2023-01-07T18%3A59%3A40Z&sp=r&rscc=public%2C%20max-age%3D864000%2C%20max-

stale%3D86400&rsct=application%2Fpdf&rscd=inline%3B%20filename%3D%22Gillett_16_Benefish.pdf%22

Graaf, G., & Garibaldi, L. (2014). The value of African fisheries. *FAO fisheries and aquaculture circular*, (C1093), I. https://www.fao.org/3/i3917e/i3917e.pdf

Hardin, G. (1968). The tragedy of the commons: the population problem has no technical solution; it requires a fundamental extension in morality. *Science*, 162(3859), 1243-1248. https://www.jstor.org/stable/1724745

Hsu, S. L. (2005). What Is a Tragedy of the Commons-Overfishing and the Campaign Spending Problem? *Alb. L. Rev.*, 69, 75. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=668723

Inter-Agency Task Force on Social and Solidarity Economy. (2019). *Implementing the Sustainable Development Goals: What Role for Social and Solidarity Economy?* https://unsse.org/wp-content/uploads/2020/08/UNTFSSE-Conference-Summary-16_10_2019.pdf

Johnson, D. S. 2006. *Category, narrative, and value in the governance of small-scale fisheries*. Marine Policy 30 (2006): 747-756. https://doi.org/10.1016/j.marpol.2006.01.002

Leal, D. R. (1998). Community-run fisheries: Avoiding the "tragedy of the commons". *Population and Environment*, 19(3), 225-245. https://www.jstor.org/stable/27503580

Leal, K. S. (2020). *Solidarity Economy as an element of economic development: A case study of the Z26 Fishermen's Colony of the municipality of Praia Norte/TO*. Dissertation (Master in Management and Regional Development), University of Taubaté, Taubaté, SP, Brazil. http://repositorio.unitau.br/jspui/handle/20.500.11874/4539

Leal, K. S., & Rodrigues, M. S. (2018). Solidarity Economy: Guiding concept and principles. *Humanities and Innovation Magazine*, 5(11), 209-2019. https://revista.unitins.br/index.php/humanidadeseinovacao/article/view/844

Lyndon, G., & Donev, J. (2016). *The tragedy of the commons*. Energy Education. https://energyeducation.ca/encyclopedia/Tragedy_of_the_commons.

Maldonado, F., & dos Santos, A. C. (2006). Artisanal fishermen's cooperatives: an analysis from a theoretical perspective. *Rural & Agroindustrial Organizations*, *8*(3), 323-333. https://www.researchgate.net/publication/23945583_COOPERATIVAS_DE_PESCADORES_ARTESANAIS_UMA_ANALISE_SOB_A_PERSPECTIVA_TEARICA

Massamba, S. F. P. (2016). *Artisanal fishing and its contributions to local development: a comparative analysis of the districts of Icoaraci-Belém (PA)-Brazil and Vilankulo-Inhambane-Mozambique*. Dissertation (Master's degree in Natural Resources Management and Local Development in the Amazon), Federal University of Pará, Belém, PA, Brazil. http://repositorio.ufpa.br/jspui/bitstream/2011/9563/1/Dissertacao_PescaArtesanalContribuicoes.pdf.

Nachtigall, Y. D. L., Viola, M. da S., Gonçalvez, G. E., & Oliveira, S. V. de (2020). Strategies in promotion of sustainable development goals: Experiences with the reproduction of social technologies in Brazil. *Economics and development*, 32(8), 01-10. https://doi.org/10.5902/1414650941490

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge university press.

Latin American and Caribbean Parliament. (2017). *Model Artisanal or Small-Scale Fishing Act of the Latin American and Caribbean Parliament*. https://parlatino.org/pdf/leyes_marcos/leyes/ley-modelo-pesca-artesanal-pt.pdf

Pitacas, J. A. (2019). The Social and Solidarity Economy and the Sustainable Development Goals. *ESS Knowledge Platform for The SDDs*. https://knowledgehub.unsse.org/wp-content/uploads/2019/07/257_Pitacas_A-ESS-e-os-ODS_Pt.pdf

Sachs, J., Schmidt-Traub, G., Kroll, C., Durand-Delacre, D., & Teksoz, K. (2016). *SDG Index and Dashboards - Global Report. New York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN)*. https://www.bertelsmann-stiftung.de/en/publications/publication/did/sdg-index-dashboards

Santiago, E. G. (2014). Social movements of the solidarity economy in Latin America: symbolisms of a struggle against hegemonic capitalism. In: A. M. P. Carvalho & F. U. X. Holanda (Orgs.), *Brazil and Latin America: paths and dilemmas of integration* (pp. 353-370). Fortaleza: UFC Editions. http://www.repositorio.ufc.br/handle/riufc/21286

Silva, R. M. A., & Silva, R. B. (2022). Public Policies of Solidarity Economy in Latin America: Dilemmas and Perspectives. *Society and Territory*, 34(1), 52–70. https://doi.org/10.21680/2177-8396.2022v34n1ID27970

Silva, V., & Leitão, M. (2012, November). The legal regulation of artisanal fishing in Brazil and the problem of recognizing the professional work of fishermen. In *Anais of the 17th National Meeting of the Feminist Network and North and Northeast of Studies and Research on Women and Gender Relations*, João Pessoa, PB. http://www.ufpb.br/evento/index.php/17redor/17redor/paper/view/230/103

Singer, P. (2002). *Introduction to solidarity economy*. São Paulo: Editora Fundação Perseu Abramo.

Timothy, G. M. (2019). Solidarity Economy and Social Development. *Perspectives and challenges in the context of environmental education. Fields of the Goytacazes: EDUENF*.https://uenf.br/extensao/editora/wp-content/uploads/sites/2/2019/10/economia-solidari-and-social development.pdf

United Nations. (2000). Resolution adopted by the General Assembly: *United Nations Millennium Declaration* (A/RES/55/2). https://undocs.org/en/A/RES/55/2

United Nations. (2012). United Nations System Task Team on the Post-2015 UN Development Agenda. *Realizing the Future, We Want for All*. https://www.un.org/millenniumgoals/pdf/Post_2015_UNTTreport.pdf

United Nations. (2015). Resolution adopted by the General Assembly: *Transforming our world: The 2030 Agenda for Sustainable Development* (A/RES/70/1). https://undocs.org/en/A/RES/70/1

United Nations. (2017). Resolution adopted by the General Assembly: *Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development* (A/RES/71/313). https://undocs.org/en/A/RES/71/313

United Nations. (2021). *72nd Session of the General Assembly of the United Nations*. https://www.fao.org/americas/eventos/ver/pt/c/1450084/

United Nations. (2022). United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development. Lisbon, 27 June–1 July 2022. *Interactive dialogue 4: Making fisheries sustainable and providing access for small-scale artisanal fishers to marine resources and markets* https://sdgs.un.org/sites/default/files/2022-05/ID_4_Fisheries.pdf

World Bank. (2012). *Hidden harvest: the global contribution of capture fisheries*. Washington, DC: The World Bank. http://hdl.handle.net/10986/11873