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GENDER IN FISHERY AND AQUACULTURE: A REGIONAL SYNTHESIS

Executive Summary:

This document presents the key findings and recommendations of a Gender and Fisheries Regional Synthesis Report. The report was based on case studies from Armenia, Azerbaijan, the Kyrgyz Republic, Tajikistan and Turkiye. All five countries have promulgated legislative frameworks that address international standards for the protection of women's rights, and have established institutional mechanisms to promote gender equality. Within the CACFish competence area, this report represents the first attempt to technically address gender dimensions in the fisheries and aquaculture production sectors. Serving as an advocacy tool, the report is designed to raise awareness, understanding, and outline the implications for gender equality in fisheries and aquaculture. Preliminary findings of the report indicate that while women form a large proportion of those working in agriculture, their presence in the fisheries and aquaculture sectors is largely invisible. Overall, women play a crucial role throughout the fish value chains, but they are often engaged on an informal basis in poorly paid or unpaid work, which makes their roles the most unstable and invisible in these production sectors. This suggests that women's roles are marginalized, and that they do not have access to the full range of economic opportunities and benefits that the accrue to working in these sectors.

Suggested action by the Committee:

- review the outline of the draft regional synthesis report and provide advice and recommendations for suggested actions;
- provide approval to enable the Secretariat to proceed with the publication and dissemination of the outline;
- provide feedback on the proposed next steps to ensure that the key findings and recommendations of the regional synthesis report are disseminated at national and regional levels.

INTRODUCTION

- 1) This document presents the key findings and recommendations of a Gender and Fisheries Regional Synthesis Report (Annex 1). The synthesis report was based on case studies from CACFish Members, namely Armenia, Azerbaijan, the Kyrgyz Republic, Tajikistan and Turkiye.
- 2) The fisheries and aquaculture sectors play a significant and growing role in providing food, supporting rural livelihoods, and generating employment opportunities. From a gender perspective, these sectors are often seen as being entirely male dominated. This perception is due to persistent stereotype that fishing and fish farming are activities that are undertaken exclusively by men. However, FAO generated significant international evidence that points to women as important contributors to the productivity of the sectors, where they work as fishers, fish farmers, processors, and traders. FAO's flagship report on "The State of World Fisheries and Aquaculture (2022)" estimates that women account for approximately 21 percent (or one fifth) of the 58.5 million workers employed in the global fisheries and aquaculture sectors and engaged on a full-time, part-time or occasional basis. Globally, 61 percent of women are reported to be engaged in the sectors as either unspecified workers (34 percent), or as part-time (27 percent) workers. Only 15 percent of the full-time workers are female, further reinforcing the contention that women tend to have more unstable positions within the aquaculture and fisheries value chains. However, when considering the available data for the processing sector, women comprise over 50 percent of full-time employment, and 71 percent of part-time engagement.
- 3) To further explore gender dimensions in the fisheries and aquaculture sectors in the region, two years ago, FAO Regional Office for Europe and Central Asia and CACFish Secretariat collaborated to commission a regional study. The objective of this document is to present the key findings and recommendations of the study - the Gender and Fisheries Regional Synthesis Report. The report is based on five country case studies prepared by national experts. The studies were based on literature reviews and data collected from Armenia, Azerbaijan, the Kyrgyz Republic, Tajikistan and Turkiye.
- 4) With respect to gender equality objectives, all five countries have developed legislative frameworks that integrate international standards for the protection of women's rights, and have established institutional mechanisms to promote gender equality. However, in practice, economic development strategies and norms are almost universally gender neutral (or gender blind). In all five countries, specific strategies and measures that aim to increase rural women's economic participation through employment and entrepreneurship usually target areas that are considered to be "appropriate" for women's involvement. Notably, the aquaculture and fisheries sectors do not fall into these "appropriate" categories. and little or no information is available on measures to address the needs of women employed in the informal economy, including artisanal fishing, shoreside employment and micro-entrepreneurship in aquaculture production, processing or sales.
- 5) Regionally, FAO has contributed to the study of gender inequalities in agricultural and rural livelihoods through country gender assessments¹. The main conclusions from these studies shows that despite relatively high educational levels and high economic activity rates of rural women in the region, they are overrepresented as manual labours in informal, unpaid positions, or as family workers. They are rarely registered and rarely identify themselves as owners, managers or co-managers of agricultural holdings and farms. In some of the countries in which FAO country gender assessments have been conducted, it is estimated that 60 to 87 percent of women working in agriculture are

¹ The following publications produced by FAO Regional Office for Europe and Central Asia: [Gender, agriculture and rural development in Armenia. Country gender assessment series](#) (2017) (also available in [Armenian](#)); [National Gender Profile of Agricultural and Rural Livelihoods: Kyrgyzstan. Country gender assessment series](#) (2016)(available also in [Russian](#)); [National Gender Profile of Agricultural and Rural Livelihoods: Republic of Tajikistan. Country gender assessment series](#) (2016) (also available in [Russian](#)); and [National Gender Profile of Agricultural and Rural Livelihoods: Turkey. Country gender assessment series](#) (2016) (also available in [Turkish](#))

informal or family workers, and only between 6.5 and 31 percent of agricultural holdings are managed by women. While data are scarce, some available indicators demonstrate that rural women's access to resources and assets such as land, water, pastures, livestock, credit, subsidies, rural advisory services and decision-making is very limited. For example, the share of women who are the beneficiaries of rural advisory services can be as low as 10 percent of all clients, and the share of women who own agricultural machinery can be as low as 5 percent of all owners.

6) Concomitant with global experiences, rural women in the region have less access to information and innovative agricultural practices. This further contributes to the gender pay gap, with women earning between 60 to 85 percent of men's salaries, and having reduced access to decent jobs and off-farm employment; this increases their risks of falling into poverty, especially in the older age groups. Gender equality issues become even more critical for rural women, and especially for young rural women in the context of current regional challenges and trends, such as climate change, natural disasters and migration, and access to resources, including decision-making, economic opportunities, and access to decent jobs. Investing in rural women should be viewed as investing in the critical agents of change for ending poverty and reaching food security for all, and thus for achieving the Sustainable Development Goals.

7) The Voluntary Guidelines for the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security² (FAO, 2012) include a principle on gender equality aimed at ensuring equal tenure rights and access to fisheries resources. The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication³ (FAO, 2015), provides a guide for governments and other actors on the enhancement of sustainability in small-scale fisheries, and adopts specific measures to address discrimination against women, and in particular for women fish workers and their organizations. FAO handbook "Towards gender-equitable small-scale fisheries governance and development"⁴ provides additional guidance for the implementation of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (FAO, 2015). Addressing gender inequalities and their underlying causes in fisheries and aquaculture positively affects the livelihoods of women, but also benefits food and nutrition security and incomes of families and communities, ensuring development which is both sustainable and socially equitable.

8) The preliminary findings of the report point to women forming a large proportion of those working in agriculture, but in the fisheries and aquaculture sectors, their presence remains largely invisible. Overall, women play a crucial role throughout these value chains, but they are often informally engaged in poorly paid or unpaid work, which makes their roles unstable and invisible in the sectors. As a result, women are largely marginalized, and do not have access to the economic opportunities and the benefits that the sector could afford them.

9) Rural women face structural barriers to gaining profitable jobs and higher incomes in the fisheries and aquaculture sectors. Often women have limited access to land and water resources, they cannot access large and longer-term loans and credits, and cannot purchase equipment that would allow them to enhance their production. Therefore, they are doomed to remain invisible, often working informally, and falling into a trap of working on unproductive and low-return activities.

10) Women face barriers in accessing professions and pursuing economic opportunities in fisheries and aquaculture. In the majority of the study countries, access to technical knowledge is limited. For example, young girls are discouraged to pursue professional specializations due to the distance of higher or certification-granting institutions from their homes, associated financial barriers, and societal attitudes regarding the employment prospects of women in the professional sector. Policies and practices need to recognize such gender disparities and address the gaps, otherwise such failures may result in significant losses to the sector in terms of production, productivity and income, as well as impacting household food security and nutrition, particularly for the poor.

² <https://www.fao.org/documents/card/en/c/I8986HI>

³ <https://www.fao.org/documents/card/en/c/I4356EN>

⁴ <https://www.fao.org/documents/card/es/c/fee037d6-944f-4d65-89ba-b438c7d41834/>

OBJECTIVES

11) In Europe and Central Asia, gender issues and their dimensions are poorly understood in the fisheries and aquaculture sectors. FAO Regional Office for Europe and Central Asia commissioned a regional study to improve our knowledge and understanding of the issues. The overall objective of the regional synthesis report has been to identify key gender issues in the fisheries and aquaculture sectors, with particular relevance to the FAO programme countries in Europe and Central Asia, and make recommendations to policy-makers and other concerned parties on how best to address gender inequalities in the two production sectors.

12) The goal is to reduce inequalities between women and men, and to provide equal and just access to the opportunities that the fisheries and aquaculture sectors afford, including income generation, employment and entrepreneurship, as well as access to decision-making and management positions.

SCOPE

13) The study covered five CACFish Member States: Armenia, Azerbaijan, the Kyrgyz Republic, Tajikistan and Turkiye. The regional synthesis report is based on a review of country specific studies that were launched in 2021. The country reviews were prepared by national experts, and based on literature reviews and field data. The synthesis report is the first attempt in the region to bring gender dimensions of fisheries and aquaculture to the technical domain.

14) The full and equal participation, engagement and benefit of women and men – in other words, gender equality – in the fisheries and aquaculture sector is fundamental for the achievement of sustainability and inclusiveness (FAO, 2020)

APPROACH

15) The study was based on data collected in five countries (Armenia, Azerbaijan, the Kyrgyz Republic, Tajikistan and Turkiye). National experts were engaged to collect both quantitative and qualitative data on gender, and also based their reviews of relevant publications and in-depth interviews with local stakeholders. While working as a team, the methodologies for the data collection were adjusted to the national contexts of fisheries and aquaculture production. The findings were summarized in the national reports, which served as the basis for the regional synthesis report.

16) Serving as an advocacy tool, the report is designed help to raise awareness and support actions to improve knowledge and understanding on gendered dimensions of the fisheries and aquaculture sectors among decision-makers and development practitioners.

17) To close the identified gaps and to increase competitiveness and sustainable production in the sector, the synthesis report proposes recommendations for the key stakeholders and interested parties, including regional and national governance actors.

THE WAY FORWARD

18) Addressing gender inequalities and their underlying causes in the aquaculture and fisheries sectors positively affects the livelihoods of women, but also benefits food and nutrition security and the incomes of families and communities, and promotes development that is sustainable and socially just. An overall lack of attention to gender dimensions at policy and management levels and in day-to-day practices, leads to missed opportunities to increase productivity and effectiveness as a means to improve the livelihoods and well-being of communities, and reduces the contributions that aquaculture and fisheries could make to the households' food security and nutrition.

19) Based on the findings of the syntheses report, it is proposed to hold a formal launch of the outline of the report, followed by a series of capacity development events at national and sub-regional levels to equip decision-makers, policy formulators and practitioners with the required skills to formulate, implement and monitor their interventions from a gender responsive perspective. All events

can be organized in a hybrid format. Additionally, the FAOREU Gender Programme will also continue its efforts in identifying the best and most promising practices in the region that facilitate women's access to economic opportunities in the sector, and provide visibility to successful roles models. The outline of the synthesis report will be widely disseminated in the region by the CACFish Secretariat. The recommendations of the report are expected to contribute to the advocacy efforts at regional and national levels.

SUGGESTED ACTION BY THE COMMITTEE

20) In view of all of the above, the Committee is invited to: (1) review the outline of the draft regional synthesis report and provide advice and recommendations for suggested actions; (2) provide approval to enable the Secretariat to proceed with the publication and dissemination of the outline; (3) provide feedback on the proposed next steps to ensure that the key findings and recommendations of the regional synthesis report are disseminated at national and regional levels.

REGIONAL ANALYSIS: GENDER IN FISHERY AND AQUACULTURE (DRAFT)

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INTRODUCTION

The fisheries and aquaculture sectors have been increasingly recognized for their significant contribution to global food security and nutrition. In 2020, fish and aquaculture consumption reached 20.2 kg / capita / annum, more than double compared to the 1960s average of 9.9 kg¹. In addition to contributing to food security, the sector is an important source for employment and income generation. According to statistics, in 2020, 58.5 million people globally have been directly involved, part-time or full-time, in the primary (productive) fisheries sector compared to 45 million in 2008². About 600 million people are employed in the secondary sector, including processing, transport and marketing, with their families depending at least partially on fisheries and aquaculture (compared with 135 million in 2008). Of the 58.5 million people employed in the primary fisheries and aquaculture sectors in 2020, women represent 21% (28% in aquaculture and 18% in capture fisheries), and in all aquaculture value chains (including those in pre- and post-harvest processing), women represent 50%³.

The efforts by states, civil society and international organizations over the past five decades have ensured worldwide recognition of the movement for gender equality and women's empowerment⁴. Determining the role and contribution of women in global fisheries development is challenging: for the first time in 2016, the Food and Agriculture Organization of the United Nations (FAO) published a set of sex-disaggregated statistics on employment in the fisheries and aquaculture sectors. Only 27% of the UN member states report sex-disaggregated employment data in the fisheries sector and 33% in the aquaculture sector⁵. According to FAO, the share of women in the secondary sector, such as processing, is up to 90%⁶.

However, gender inequalities and barriers remain prevalent across all aspects of life⁷. Gender inequalities and injustice are also common in fisheries and agrifood systems worldwide. Global research indicates⁸ that women are less likely to own and control productive assets and resources (land, ponds, fish, and technologies), and they bear the disproportionate share of unpaid work. The involvement of women in preparatory work in the sector, such as cleaning, preparing food for workers, and washing clothes, is sometimes overlooked because such activities are generally unpaid⁹. Women usually perform low-income jobs in less profitable value chains, receive an unequal share of benefits, and have unequal access to decision-making in fisheries' management.

The Member Countries of CACFish reviewed in this study have diverse capacities and cultures in terms of fish production and consumption. For example, fish farming in Türkiye, bathed by four seas (the Mediterranean, Black Sea, Aegean Sea, and Marmara Sea), is a traditional activity to a great

¹ The State of World Fisheries and Aquaculture 2022 <https://reliefweb.int/report/world/state-world-fisheries-and-aquaculture-2022-enarruzh>

² ФАО, 2015. Сельские женщины в Восточной Европе и Центральной Азии. Гендерный разрыв в сельском хозяйстве.

³ The State of World Fisheries and Aquaculture 2022 <https://reliefweb.int/report/world/state-world-fisheries-and-aquaculture-2022-enarruzh>

⁴ Всемирная конференция женщин в Мехико и Первый глобальный «год женщин» датируются 1975 годом. Конференция

⁵ J. Gee, K. Bacher Engendering Statistics for Fisheries and Aquaculture <https://www.asianfisheriessociety.org/publication/downloadfile.php?id=1176&file=Y0dSbUx6QXdOVGd5Tnpjd01ERTFPVFEzT0RjeU1qa3VjR1Jt>

⁶ FAO. 2012. *The state of world fisheries and aquaculture*. Rome. <https://www.fao.org/3/i2727e/i2727e.pdf>

⁷ United Nations. 2022. *Food Systems Summit action guide 5: Gender equity*. <https://www.unccd.int/resources/manuals-and-guides/food-systems-summit-action-guide-5-gender-equity>

⁸ Adam R, McDougall C, Beveridge MCM and Marwaha N. 2021. *Advancing gender equality and women's empowerment in fish agri-food systems: Four pathways*. Penang, Malaysia: CGIAR Research Program on Fish Agri-Food Systems. Program Brief: FISH-2021-10

<https://digitalarchive.worldfishcenter.org/handle/20.500.12348/4875>

⁹ FAO. 2023. *The status of women in agrifood systems*. Rome <https://www.fao.org/3/cc5343en/cc5343en.pdf>

extent, and the country's aquaculture industry represents a real boom in production growth¹⁰. The Black Sea region is known for its marine fisheries, whereas aquaculture cultivation is common in the Aegean Sea region. The government has set its sights on becoming the largest fishery in the EU under its Vision 2023 economic development plan. Likewise Azerbaijan, has access to the Caspian Sea, and marine fisheries are among the country's traditional fisheries - although it is currently in decline when compared to past decades. The other three nations - Armenia, Kyrgyzstan, and Tajikistan - are landlocked, but even in the Soviet era, inland waters and lake fish production were important, and the number of people working in the field was dozens of times higher than today. The present situation in the aquaculture sector in the latter three countries differs considerably: Armenia produces 17,000-18,000 tons of marketable fish, most of which are rainbow trout¹¹. In Kyrgyzstan and Tajikistan, the sector is developing dynamically, but Tajikistan, unlike Kyrgyzstan, exports almost no fish.

Gender-disaggregated statistics in employment in the fisheries and aquaculture sectors are problematic due to the limited availability of data, an inadequate reflection in existing statistics of how many men, women, and households receive income or livelihoods in fisheries, what their contribution is at different stages and levels in the sector. Globally, many efforts have been made to improve gender-disaggregated statistics and to examine gender issues in the sector. Despite the progress made, existing data do not yet allow for a profound analysis of gender dimensions of the fisheries and aquaculture sectors from a sustainable livelihoods perspective.

Objectives and methodology

This report is based on the studies of gender issues in fisheries and aquaculture conducted in the five member countries of the Commission: Armenia, Azerbaijan, Kyrgyzstan, Tajikistan, and Türkiye. The studies and the regional synthesis report were initiated by the FAO Regional Office for Europe and Central Asia in collaboration with the CACFish Secretariat. This synthesis report aims to achieve the following objectives:

1. Identify region-specific challenges concerning women's and men's access to and control over productive resources and services in fisheries and aquaculture;
2. Identify specific examples of good practices in achieving gender equality in fisheries and aquaculture;
3. Evaluate and make recommendations to policymakers and other stakeholders to address gender inequalities in the fisheries and aquaculture sectors.

The following methodology were used for the studies:

1. Literature review, including a review of available statistical data and gender analysis of legislation;
2. A quantitative survey to examine the working and living conditions of women and men in the fisheries and aquaculture sectors and the gender barriers in accessing resources;
3. In-depth interviews with key informants, including representatives of government agencies and the private sector, including smallholder farmers and civil society organizations, such as fisheries and aquaculture associations.

The methodological approach is defined by gender mainstreaming and women's empowerment approaches, that focus on access to and control over resources. The study involved 95 in-depth interviews, six focus group discussions and a quantitative survey of 113 men and 44 women involved in the fisheries and aquaculture sectors in five countries between 2021 and 2022.

¹⁰<https://eurofish.dk/turkish-aquaculture-records-another-year-of-growth/>; <https://thefishsite.com/articles/lessons-from-the-young-turks-how-turkey-became-an-aquaculture-powerhouse> OECD. 2021. *Fisheries and aquaculture in Turkey*. https://www.oecd.org/agriculture/topics/fisheries-and-aquaculture/documents/report_cn_fish_tur.pdf

¹¹Ministry of Economy of the Republic of Armenia. 2023. *Fish farming*. <https://www.mineconomy.am/en/page/1332>

Limitations

- The study was conducted in different countries at different time intervals: the field study in Azerbaijan was conducted in June 2021, while the data collection in Armenia was conducted in October-November 2021 and the field data in Tajikistan was not collected until June-July 2022.
- Due to the differences in the timing of the data collection, researchers in some countries (e.g., Kyrgyzstan) were constrained by the security measures during the COVID-19 pandemic, and thus conducted the field research online, while in other countries (e.g., Armenia), the researcher was able to organize focus group discussions in person.
- Forced security measures during the COVID-19 pandemic meant that in most countries, qualitative information was collected through in-depth interviews. Focus group discussions (FGDs) were conducted only in Armenia.
- The involvement of women employed directly or indirectly in fisheries and aquaculture has been complicated by the invisibility of their work and invisibility of their contribution to the sector's economy.
- A significant obstacle to analyzing the gender dimensions of the sector is the lack or limited availability of disaggregated data. For example, Kyrgyz and Turkish statistical services provide data on the fisheries sector aggregated with data on agriculture, while statistics from Tajikistan do not mention the fisheries and aquaculture sector at all, even as a component of agricultural statistics¹².
- Given the limitations of the project and the lack of disaggregated data regarding the labour force involved in the fisheries and related sectors, the sample of respondents in each country cannot be considered representative.

The above limitations do not negate the data and conclusions regarding the analysis of gender issues in the fishery and aquaculture sectors, but rather provide a reflection of the key gender gaps and needs. In some countries (Armenia, Azerbaijan and Tajikistan) these studies are the first of their kind to explore gender dimensions in the fisheries and aquaculture sectors.

¹² Ref. "Women and Men of the Republic of Tajikistan" in 2019. Agency on Statistics under the President of the Republic of Tajikistan - UN Women; "Tajikistan: 30 Years of State Independence Statistical Collection" Agency on Statistics under the President of the Republic of Tajikistan, 2021.

CHAPTER 1. THE CAUCASUS AND CENTRAL ASIA: REVIEW OF FISHERY AND AQUACULTURE SECTORS THROUGH A GENDER LENS

A gender analysis of the legal frameworks of five countries showed that all countries share the universal principles of gender equality and justice, and have ratified the key international conventions and agreements protecting the rights of women and girls: the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and its Optional Protocol, International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Covenant on Civil and Political Rights (ICCPR). Similarly, the ILO Convention on Discrimination (Employment and Occupation) is in force in all five countries, and all five are committed to the implementation of the Agenda 2030 for Sustainable Development Goals (SDGs). Ratified international instruments are part of national legal systems. As signatories under these agreements, the participating countries periodically report on their progress made to implement the agreements.

Also, a number of countries are participants in global programs and agreements, such as the ILO Decent Work Program, which includes Armenia, Azerbaijan, Kyrgyzstan and Tajikistan, according to which economic growth and development policies should be accompanied by the growth in quality jobs, ensuring complete and productive employment for all women and men and equal pay for work of equal value¹³.

The country's constitutions guarantee equal rights and opportunities. Four out of five countries have specific national laws aimed at safeguarding gender equality and promoting non-discrimination. In addition, there are national strategies for achieving gender equality and action plans that provide roadmaps for mainstreaming gender equality across policy platforms.

Despite the progress, the national gender equality policy frameworks of five countries are often restricted in their focus to the spheres of education, health or violence against women, but, as a rule, they pay less attention to improving women's economic opportunities. For example, state subsidies and support measures in the agriculture, fisheries and forestry sectors are often gender neutral. Similarly, local economic development policies rarely consider mechanisms for promoting women's involvement in decision-making.

With rare exceptions, strategies and programs for the economic development of agriculture, fisheries and forestry do not integrate the gender dimension. Notably, "The Strategy Paper and Action Plan on Women's Empowerment (2018-2023) of Türkiye, adopted by the Ministry of Family, Labour and Social Services (authorized body for gender policy), recognizes the need for enhancing the status of women in rural areas. The Strategy prioritizes rural women's empowerment, promotes women's entrepreneurship and cooperation in agriculture, develops vocational training programs for seasonal female agricultural workers, and suggests legislative amendments to facilitate social protection coverage in the agricultural sector. It also includes activities to raise awareness, develop skills, and strengthen women's cooperatives¹⁴. In this regard, it is important to note the Turkish Law on Agriculture No.5488, which presents interesting practices for the introduction of special affirmative measures for women entrepreneurs in agriculture (Article 15).

The review of sectoral strategic documents of Azerbaijan, Armenia, Kyrgyzstan and Tajikistan indicates little integration of women's and men's needs and priorities. In all five countries over the past few years, measures for supporting women's entrepreneurship in the broad areas of agriculture, fisheries and forestry have been discussed at the state level, and driven by the demonstration of promising practices in initiatives supported by donor organizations.

¹³ https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-moscow/documents/publication/wcms_306408.pdf

¹⁴ [Turkey: the activities regarding empowerment of women in rural areas. Submission. 2019. https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2019/A-74-224-Submission-Turkey-en.pdf](https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2019/A-74-224-Submission-Turkey-en.pdf)

An analysis of the policies and practices to increase women's access to employment and develop entrepreneurship allows us to conclude that in all five countries, the measures focus on women's contribution to family income in traditional areas, which can be seen as part of their "household chores". The range of opportunities under these "active measures" is usually limited: women can receive short-term training to develop vocational skills, to be involved in temporary public work (paid cash or in-kind), and / or home-based work. Such 'measures' rarely lead to sustainable production growth, have a modest impact on decent jobs, and do not radically change women's status. Rather these measures only help to cope with practical women's everyday economic needs, while reinforcing the existing status-quo¹⁵.

The economic situation of women in countries is determined not only by the absence of promotive measures for achieving equal opportunities for women, but also by the existence of discriminatory practices. Thus, the labour market for women in all five countries turns out to be limited due to the normative acts prohibiting certain professional occupations for women, deemed unsafe or inappropriate.

In the spirit of patriarchal traditions, legislation interprets restrictions for women in the labour market as a concern for their health and safety. Nevertheless, in all the countries reviewed, there is a growing discourse about the importance of women's contribution to national economies, and the need to move to a legal regime of real equality of rights and opportunities for both women and men.

Women's participation in entrepreneurship is likewise low in all five countries. Women's participation in economic activities in the fisheries and aquaculture sectors in the countries studied can be characterized as:

- Women make up a large proportion of those working in agriculture, but there are almost no women working in fisheries and aquaculture. For example, in the Kyrgyz Republic in 2007, the largest share of women employed in the sector was concentrated in the field of marketing and sales of fish products (72% of all employed in this area), in the field of the lake and pond fish production and fishing, the share of women was 14%, and in commercial aquaculture, women were not registered as employees.
- The legacy of gender division of labour leads to occupational segregation, with women 'choosing' occupations that are flexible to family obligations - teaching, medical, social work, sewing, culinary arts, or catering. Women are less likely to enter technical occupations due to gender stereotypes and social conceptions of what are deemed "suitable" professions and employment for women.
- Access (both physically and financially) to the fisheries and aquaculture professions are difficult for women, even if, contrary to societal stereotypes, women and girls would like to choose such professions. As a result, not all countries in the region have access to professional skills in high demand in the industry. Since 2015, Kyrgyzstan's Agrarian University has provided secondary vocational training for fish farm technicians as well as a bachelor's degree in fish farming and aquaculture management; Tajikistan's Agrarian University has provided a bachelor's degree in fish farming since 2008; Azerbaijan's Agrarian University has provided all levels of training in fish farming, fisheries, and ichthyology since 2009; and Armenia has professional training programs in fish farming and aquaculture management. Several educational institutions in Türkiye train professionals from various backgrounds to work in the sector. Furthermore, it is more difficult for girls in certain countries to finish their studies if educational facilities are located far from home. Furthermore, when given the option, rural families often prefer to pay for their sons' education.

¹⁵ The criticism of this conservative state approach to women's labour market participation and women's entrepreneurship has a solid basis. See Cigdem Gedikli Occupational Gender Segregation in Turkey: The Vertical and Horizontal Dimensions. *Journal of Family and Economic Issues* (2020) 41:121-139 <https://doi.org/10.1007/s10834-019-09656-w> Gender mode is a term coined by R. Connell as defining the state of gender relations in every institution - family, workplace, school, etc.

- Rural women are frequently engaged on family farms; in Türkiye, for example, 25% of women work on family farms. The workload of women employed in family enterprises, including fish farms, is particularly high with respect to unpaid work.
- Women are prevented from claiming income-generating activities outside the home due to the high level of household work that they are expected to perform.
- Women’s relative invisibility in the economy of the fisheries sector, is not only due to the fact that they are often unrecorded family workers, but also because they often work for hire without any form of labour agreement. Experts believe that approximately 64% of hired farm workers in Kyrgyzstan are undocumented. Armenia's informal employment rate, including the agricultural sector, was 32.2% in 2020. In Türkiye, the informal economy was expected to be 31.2% in 2021, with 88% of workers in the agricultural sector working without documentation in 2012.
- Women already employed in the fisheries and aquaculture sectors have limited access to information, knowledge, and training, as reported, for example, by Women in the Fishing Community in Türkiye.
- Women do not own the property and capital needed to run a fishing business (in the marine fishing industry in Türkiye or Azerbaijan, women rarely own boats or other professional equipment).
- Key assets (e.g., land, water) for the development of a fish farm are frequently registered as the property of the men in the family, and in cases where a woman technically owns these kinds of assets, it is *de facto* difficult for her to enforce her rights to dispose of the property.
- Given the unequal access to property, the gender gap in terms of financial inclusion (men and women's access to financial services) is a pervasive practice and a reality for women in agriculture. For example, experts in Tajikistan note that the actual gender gap exceeds 9%.

All of these challenges result in rural women in the study countries having a lower social status than their male counterparts, and facing persistent gender discrimination that affects all aspects of their lives - participation in the economy, education, health status and political participation.

CHAPTER 2. BARRIERS TO ECONOMIC OPPORTUNITIES FOR WOMEN IN THE FISHERIES AND AQUACULTURE SECTORS

The attitudes and norms regarding men's and women's social roles shape people's behavior and practices in all aspects of life. In traditional societies, gender roles and responsibilities are strictly segregated: domestic work and caring for children, the elderly and sick family members are seen as the responsibility of women, while men are presented as the breadwinners, decision makers and controllers of the family's financial resources. The problem is that 'women's' work is time-consuming, underpaid or unpaid, and poorly valued. Ultimately, women find themselves vulnerable, deprived of equal economic opportunities and access to critical productive resources, information, and knowledge¹.

Gendered division of labour and social practices have changed considerably in recent decades, and increasingly women act as the families' 'breadwinners' and 'earners' in addition to their traditional roles. Numerous studies indicate that:

- The proportion of unpaid work undertaken by women, especially rural women, continues to be significantly higher than that of urban women and men in urban and rural areas.
- Gender bias in recruitment gives preference to men, just as they do in career advancement.
- Married women are more likely to leave employment or accept lower-status or part-time jobs, while working environments are rarely favourable to an optimal balance of professional and personal life and a more equitable allocation of family obligations. This eventually leads to labour force segregation and vertical hierarchies, with women concentrating in lower-paid and men prevailing in higher-paid jobs and management roles.
- Due to visible and invisible barriers to professional engagement, women's high levels of education do not always translate into equal pay. Vertical segregation is observed even in the areas of employment traditionally considered to be female, and in each of the countries studied, men significantly outnumber women in managerial positions.

In addition to vertical segregation, there is pronounced horizontal segregation in all of the countries studied, with the highest paid and most prestigious areas of work being dominated by men (Figure 1). For example, construction and industry are disproportionately dominated by men, while women are concentrated in low-paid occupations².

¹ For more information on women's role in unpaid work see FAO.2022. Gender, agriculture and rural development in Europe and Central Asia. URL: <https://www.fao.org/3/cc2763en/cc2763en.pdf>

² It is important to note that this table aggregates data for a range of sub-sectors or sectors across countries, in line with the Men's and Women's Compendium. For example, if the category 'Industry' represented extractive industries from light industry and food processing, the presence of women in this sector would be many times smaller. Also, the 'Trade' category is combined with the Transport and Logistics and HoReCa clusters, resulting in flattened ratios of male and female workers. Also, merging the public administration sectors with the feminised Education and Health sectors leads to a "mitigation" of gender imbalances.

Figure 1. Proportions of men and women employed in different sectors (Armenia, Azerbaijan, Kyrgyzstan - 2020 data; Tajikistan and Türkiye - 2019 data)

		agriculture, forestry and fish farming	production sector	construction	Trade and maintenance and storage, accommodation and food services	information and communication	financial and insurance activities	realty	scientific activities and administration	National administration, education, medicine and social work	Other services
Armenia	women	48	33	1	39	44	60	42	45	62	59
	men	52	67	99	61	56	40	58	55	38	41
Azerbaijan	women	23	21	7.2	23.1	28.8	35.3	30.7	43.7	59	34.4
	men	76	79	92.8	76.9	71.2	64.7	69.3	56.3	41	65.6
Kyrgyzstan	women	43.4	20.1	1.4	30.9	40.8	38.1	95.8	34.4	64.4	51.4
	men	56.6	79.9	98.6	69.1	59.2	68.9	4.2	65.6	35.6	48.6
Tajikistan	women	46.3	23.7	12.2	27.1	31.6	31.9	24.6	28.6	59.4	33
	men	53.7	76.3	87.8	72.8	68.4	68.1	75.4	71.4	40.6	77
Turkey	women	44	24.2	4.3	22.4	21.4	45	16.4	39.1	45.7	35.9
	men	66	75.8	95.7	77.6	78.6	55	83.6	60.9	54.3	64.1

Sources:

Turkey in Statistics, 2019, p.62;

https://ec.europa.eu/eurostat/documents/13019146/13268550/Turkey_in_Statistics_2019.pdf/4410e741-905e-dd3f-13d9-bbe062e1f0aa?t=1594737442000; Women and Men in the Kyrgyz Republic: 2016-2020. Bishkek:2021;

Women and Men in the Republic of Tajikistan, Agency on Statistics under the President of the Republic of

Tajikistan, 2020; Women and Men in Azerbaijan. Statistical publication,2021. www.stat.gov.az ; Women and Men in Armenia. Statistical Handbook. Yerevan, 2021. www.armstat.am

One of the critical gender issues is the prevalence of women in unpaid work in family farms and enterprises. Due to the lack of a unified methodology, it is not appropriate to compare between countries, but available data show that in Armenia, for example, the share of unpaid family workers in agriculture is 52 percent for women and 43 percent for men³, while in Türkiye women are more than three times as likely as men to be unpaid family workers in the agriculture and fisheries sectors.

The high proportion of women in the informal sector, part-time employment, forced interruptions in employment due to reproductive roles (maternity leave, care for children, the elderly and sick members of family, etc.), and a lower proportion of women in high-paying management positions, results in a gender wage gap⁴. The existing gender wage gap differs significantly across countries: in Azerbaijan, it was 42% in 2018⁵, in Armenia - 35% in 2019⁶, in Kyrgyzstan 23% in 2019⁷, in Tajikistan (available data only 2011) the gap is a record 51%⁸ (in 2013 the wage gap in the agricultural sector was 57.5%⁹), and in Türkiye the gap was 15.6% according to Turkstat in 2018¹⁰.

Participation in the labour market is a first step towards economic empowerment, however, access to opportunities, including in the fisheries and aquaculture sectors, is needed for its full achievement. For this, women in all five countries lack access to and control over key productive resources such as land,

³ UN Women. 2018. Women's economic inactivity and engagement in the informal sector in Armenia. URL: <https://georgia.unwomen.org/sites/default/files/Field%20Office%20Georgia/Attachments/Publications/2018/Women%20Economic%20Inactivity%20and%20Informal%20Employment%20in%20Armenia.pdf>

⁴ Researcher S. Maharamli argues that besides "objective" factors in the form of differences in working hours, education levels and job positions, there is an unexplained part of the gender wage gap. This part accounts for as much as 70 per cent of the gap and cannot be explained other than as gender discrimination in the labour market. See Shahin Maharramliu THE Gender Wage Gap in Azerbaijan Labour Market: Are Females Discriminated Against? <https://www.ajses.az/> Volume1, Number 1, (2018) Pages 22-44

⁵ <https://w3.unece.org/CountriesInFigures/en/Home/Index?countryCode=031>

⁶ <https://w3.unece.org/CountriesInFigures/en/Home/Index?countryCode=051> National statistics give the same figure for 2020 in Women and Men in Armenia. 2021.

⁷ <https://w3.unece.org/CountriesInFigures/en/Home/Index?countryCode=417>

⁸ <https://w3.unece.org/CountriesInFigures/en/Home/Index?countryCode=762>

⁹ <https://www.adb.org/sites/default/files/institutional-document/212096/tajikistan-cga-ru.pdf>

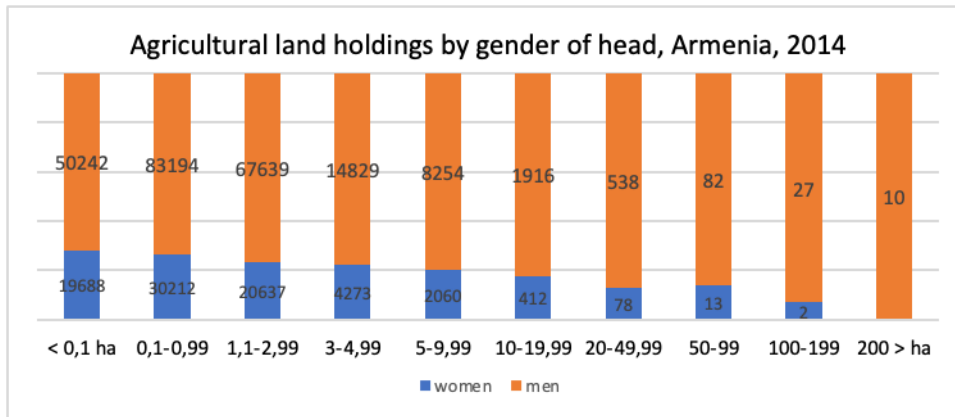
¹⁰ https://www.ilo.org/ankara/news/WCMS_757055/lang--en/index.htm#:~:text=to%20the%20...-

,Gender%20Wage%20Gap%20is%2015.6%25%20in%20Turkey%2C%20according%20to%20the%20...-and%20educational%20level%20decreases. The Turkish figure is the most debated, in the same 2018 ILO counted a 21.1% gap and Unece indicates a -8% wage gap.

<https://w3.unece.org/CountriesInFigures/en/Home/Index?countryCode=792>

water, finance, and others. In Armenia, for example, national statistics demonstrate a gender disparity in access to land: even small plots are owned by men at more than 2.5 times the rate of women, and the larger the land parcel, the fewer the number of women who are registered as owners (Figure 2). In Tajikistan, women own 15.6% of all houses, 21.3% of flats, and 2.4% and 2.3% of cars and trucks, respectively¹¹. Only 16.5% of urban women and 33.7% of rural women possess some sort of land¹². Female-headed households with land have smaller plots than male-headed households.

Figure 2. Agricultural land holdings (gender disparity).



For rural producers, access to irrigation water can pose a significant challenge. At the same time, water consumption in fish farming and aquaculture is a key component of success. Access to water represents an additional barrier to women's involvement in the aquaculture sector, as everywhere in the Caucasus and Central Asia, women have little involvement in water resource management. For example, according to national statistics in Armenia, fish farming is the largest water consumption after irrigation operations. Although water consumption statistics are not disaggregated by gender, as the national report "Gender and Fisheries and Aquaculture in Armenia" indicates, water consumption for economic agricultural activities is linked to land tenure and to membership of water user associations. On the major trout and sturgeon farms, dozens of artesian wells are drilled to provide water resources. It is obvious that such economic activities are beyond the reach of small-scale commercial fish farms, although the state offers special preferential leasing programmes for the purchase of equipment and even interest-free loans of up to 30 thousand US dollars¹³. Without ownership of land or with small plots and limited access to water resources, rural women are unable to access significant long-term credit, cannot purchase equipment and intensify production, and are therefore condemned to be small-scale producers trapped in a cycle of low-productivity and low-incomes¹⁴.

To conclude, in the fisheries and aquaculture sector of all five countries, women are mainly concentrated in small-scale and family-based production, and are mostly engaged in processing fish products at the micro and small enterprise levels.

SELECTED COUNTRY CASES

Armenia

In Armenia, the overwhelming majority of male respondents (82%) believe that fishing is a man's job; in addition, 10% do not agree that a woman can work as a fish farmer as effectively as a man. The

¹¹ Second Alternative Report of Tajikistan NGOs on the Implementation of the Convention on the Elimination of All Forms of Discrimination against Women. p. 51

¹² Tajikistan Demographic and Health Survey 2012, p. 220.

¹³ Government of the Republic of Armenia. 2018. Resolution on Approval of the Programme to Facilitate Leasing of Agro-Food Equipment. <https://www.arlis.am/DocumentView.aspx?DocID=173404>

¹⁴ FAO, IFAD, ILO. 2010. *Gender dimensions of agricultural and rural employment: differentiated pathways out of poverty*. Rome. URL: https://www.ifad.org/documents/38714170/40187194/GRE_WEB.pdf/9fb80e6a-0463-4571-b6df-234635454aab

proportion of female respondents who hold gender stereotypes about the male nature of fish farming is smaller - a majority (85%) believe that women can work just as well in this field as men.

The working conditions in the sector impacts the answers of the respondents. Men emphasised that the work of fish farmers is hard and “dirty”, yet for most men, these conditions seemed acceptable. Obviously, such assessments are due to entrenched gender perceptions of masculinity as a quality that not only enables but also implies stoic patience with hardship, the need for harsh trials to temper masculinity, and a condescending attitude towards women.

However, respondents’ assessments of fishing as hard work requiring physical strength and skills are coupled with devaluing attitudes towards other types of work along the value chain: netting, sorting, fish processing, etc., although anyone with experience in fish cleaning knows that this is a routine but physically tedious job. Taking into account that this labour is poorly paid or performed as part of unpaid domestic work and carries health risks for those engaged in it, it becomes clear that "double standards" exist: if a man works on a particular task, this work is more valuable, based on the "specific abilities" of men who perform it, and is "visible"; but if a woman performs certain tasks, it is invisible work, with low recognition, unskilled, and is considered "suitable for women" based on their "natural" roles - taking into account their domestic and family tasks and responsibilities.

Women in fisheries usually participate at the processing stage of the production cycle, so they are usually referred to as ‘fish processors’. As for men, their status and position are often specified as "manager", "owner", or "worker". Some of the primary explanations provided by the respondents to the question of why women cannot be successful in fisheries and aquaculture, are their lack of competence, technical knowledge and a lack of necessary skills. However, when respondents were asked about their level of education, it turned out that while 80% had secondary or vocational education, and 20% - higher education, none had education in the relevant field. Large numbers of female respondents had low self-esteem and confidence in their own abilities and strengths, based on their critical assessment of their lack of knowledge in the field. Interestingly, male respondents noted a lower level of education while occupying higher positions, while women believe that the lack of higher education in the relevant field prevents them from achieving higher positions. The practice of explaining the underrepresentation of women in a particular field of work by a lack of knowledge is perhaps the most common. However, data from other countries (see, for example, the Kyrgyzstan section in this chapter) indicate that even profound professional education and knowledge that women may have do not increase her self-esteem and confidence in her abilities. This is also evidenced by research data from Armenia.

In addition, the study confirmed that women not only lack professional education in the field, but also have fewer opportunities to increase their knowledge in the fields of fishing or fish farm management, even when already involved in these activities.

The nature of the rejection of women as managers or even just workers in the fisheries, fishing and aquaculture sectors can be understood to some extent from men's responses to several statements about the importance of increasing women's presence in the labour market. For example, 40% of male respondents believe that when women get a job, they take it away from men, and over 40% believe that respecting women's rights means denying men's rights. Furthermore, over 50% of men believe that a woman's primary role is to care for the home and take care of the family. In other words, men in fish farming and aquaculture perceive women as competitors, and the stereotype of gender ideals in the profession hides a fear of losing their positions.

The study conducted within this project showed that women in the fisheries and aquaculture sectors in Armenia, where the proportion of women's participation is high according to expert assessments, are limited in access to all types of economic resources necessary for the production of goods and services. The overwhelming majority (90% of respondents) indicated that all property and means of production are usually registered as male ownership. In those rare cases where farms are registered in the name of a woman, control and management often remain in the hands of the husband.

The results of the fishery survey revealed that the gender division of labour and increased authority in the fishery's day-to-day activities change with the worker's age. For example, decision-making on strategic issues (purchasing inputs, hiring workers, paying salaries, negotiating with buyers) belongs to the adult male. Young men may be involved in the routine operations of sorting and processing fish, transporting them, casting, and hauling nets, etc. Young women are involved in cleaning ponds, feeding fish, cleaning, and sorting fish, preparing gear; but they may also be involved in activities that require certain skills and knowledge, such as bookkeeping, tax documentation, and treatment of sick fish. Adult women in family households are involved in the marketing of fish products and may also be involved in legal documentation, accounting, and taxation.

Azerbaijan

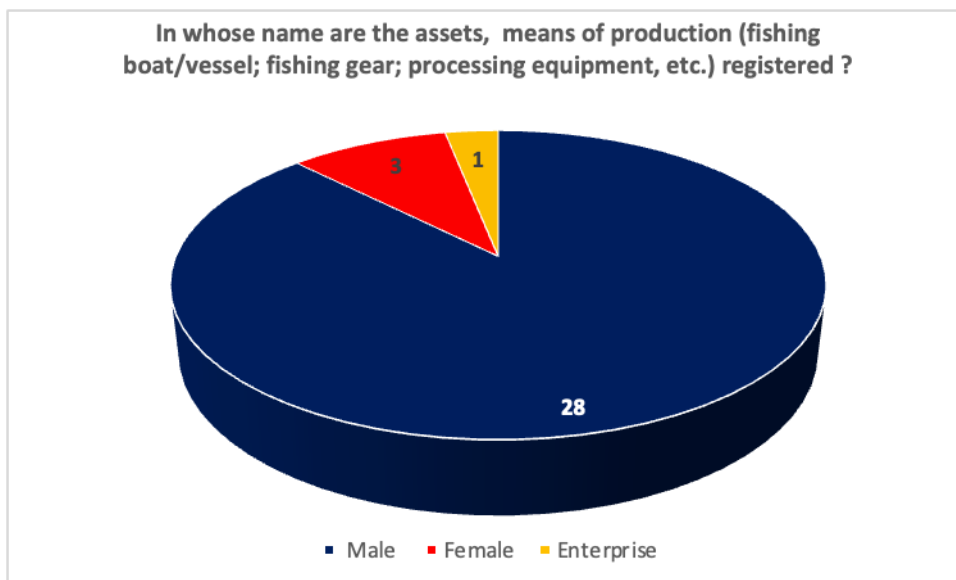
In Azerbaijan, fish farming and aquaculture are considered by the majority as a “male labor” area, and women are predominantly involved in the processes of cleaning and processing fish, as well as marketing of fish products.

The practice of labor division in households shows the traditional alignment – men are considered the main family earners and breadwinners of the family, and everything related to control over resources and decision-making becomes the responsibility of men, as well as maintaining social ties with the entourage and relatives, interaction with the community. Women are ‘assigned’ the functions of cooking, teaching and caring for the health of family members.

The perception that fisheries is not an appropriate occupation for women was shared by the vast majority of survey respondents, and in in-depth interviews, a few female fishers reported that such gender stereotypes among fishers often lead to practices of discrimination.

Among the interviewed fish farm owners, the property rights are mainly belong to men, women are very rarely represented in the sector as workers and owners.

Figure 3.

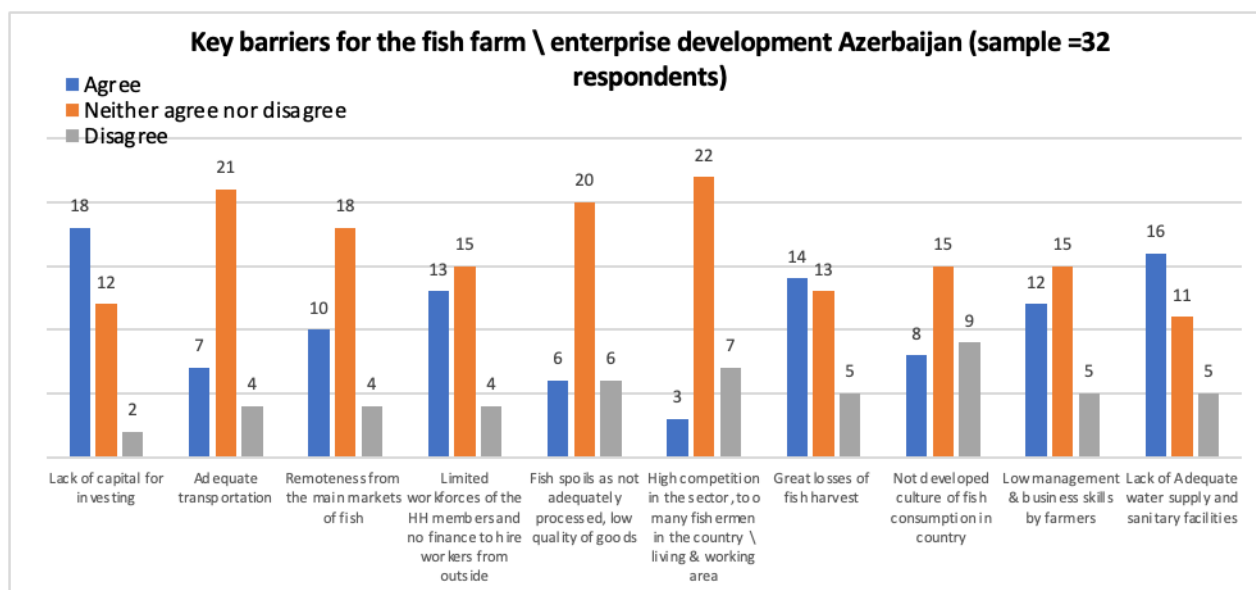


When asked about the division of labor, respondents note that guarding and cleaning ponds, feeding fish, catching fish with nets, sales negotiations, purchasing equipment and feeds, and all other daily operations are the responsibility of men workers. According to respondents, women are involved in such types of work as fish sorting and cleaning, fish processing (for example, salting, drying), as well as bookkeeping in fish farming and payment of salaries. Legal documents are usually the responsibility of men.

The survey involved mainly workers of small-scale fish farms. The payback of the farms is low – only 1% of farmers assessed their financial situation and income from fisheries as sufficient to meet any needs of their families. Not surprisingly, an income generation strategy for small-scale fish farms is to use family members as unpaid workers. Only 25% of farm owners could afford to hire qualified contract workers, while the majority of farmers provided temporary, unprotected jobs without requiring skills and knowledge. The low share of skilled workers in the labor force composition on fish farms is justified from the point of view of the farmers themselves by the fact that almost half of them were engaged in aquaculture only as an additional source of income.

According to the survey results, among the key barriers to the development of fish farms were (1) lack of financial resources for investment in strengthening, expansion of production; (2) high losses of fish catch; (3) poor development of adequate water supply and sanitation systems, and (4) insufficient development of business management skills among farmers.

Figure 4.



Kyrgyzstan

As in the other four countries, the majority of respondents are convinced that work in the fisheries sector is difficult and “dirty”, which is not suitable for women. At the same time, women are better at fish handling and processing, and can also successfully run a fish business as men can. One of the main barriers is an access to knowledge and skills, which was emphasized by many farmers, referring to the technological knowledge in the field of aquaculture, or the legal knowledge that allows to operate farms in accordance with the law. However, it must be taken into account that women, unlike men, in addition to general difficulties, face gender-specific barriers.

Since 2015, FAO within the frame of the project “Towards sustainable development of aquaculture and fisheries in the Kyrgyz Republic” in partnership with the FishEDU project “Capacity Building for Fisheries and Aquaculture in Kyrgyzstan”, has provided support to the Kyrgyz National Agrarian University named after K.I. Scriabin (KNAU) in the development of training programs in fisheries and aquaculture. Under the developed undergraduate program, specialists are trained in qualifications of technicians and managers in fisheries and aquaculture. The majority (60-80%) of the faculty students are girls; moreover, the project offer women to study a postgraduate degree (master’s and PhD) in fisheries and aquaculture. However, according to the results of the study, a significant part of female graduates do not work in the field after graduation, and the career of those who lose a work stream against their former male classmates.

According to key informants' opinion, obtained during in-depth interviews, due to the traditional gender division of labor at the family and household level, young women are limited in employment and professional growth opportunities, does not receive decent pay for the knowledge and skills that they can share and monetize in the rapidly growing fisheries sector, while the contribution of women professionals is often underestimated. One of the prime problems of women graduates (and not only in the field of ichthyology) is their "invisibility", only limited circles are aware of their expertise, and weak self-confidence does not allow them to more actively promote their services in the labor market.

Understanding the importance of obtaining knowledge in the field of fish farming and aquaculture, projects of international organizations, in particular FAO, in the country, offer a variety of training formats for men and women employed in the sector – from workshops/seminars and trainings at place of their residence and work to study tours to fish enterprises in the country and abroad.

Traditionally, in rural areas of Kyrgyzstan, men are more likely to participate in associations and public meetings on the management of land and other resources. Women are rarely involved in decision-making about sale and purchase of land, selection of fish species for farming, and other types of economic resources redistribution. Survey on the experience of participating in various activities to increase the capacity and visibility of women and men involved in fish farming:

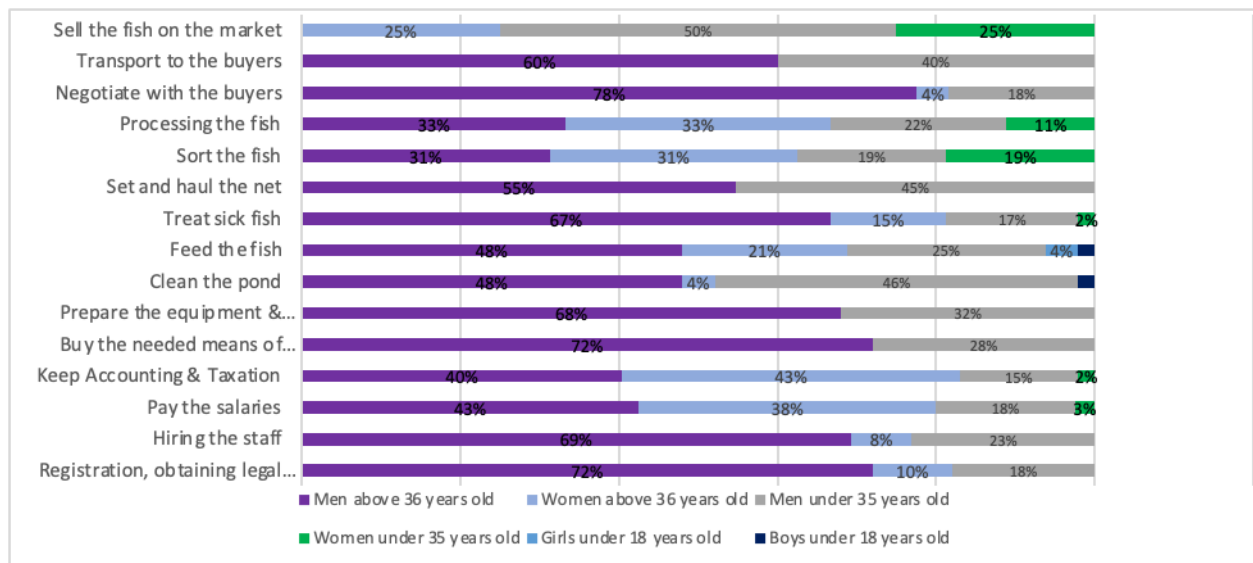
Figure 5.



As a rule, small fish farms do not have hired managers. Fish production and trade is the only income-generating activity for these farms. Only a few farms combined fishing with other agricultural activities. Exactly half of the respondents (females and males) answer that they currently had income, which they indicated as necessary and sufficient. Ownership of the means of production was mainly registered in the name of a man. In some cases, the property is registered in the name of a woman, but the control of resources and production in general is carried out by men.

As in Azerbaijan, small fish farms in Kyrgyzstan use household and family members as labor force. The results of the field study showed that the division of labor in fisheries corresponded to the traditional division of labor in the households: management of all legal documents, negotiation with buyers, acquisition of capital goods, work with equipment, hiring workers and transporting products to buyers remain the prerogative of men. Mainly adult men are responsible for fish treatment, and along with young men and boys they were involved in cleaning the ponds. Adult women, on a par with adult men, can do the bookkeeping and pay salaries to workers, and also partly participate in the selling of fish. Otherwise, the duties of adult women and especially young females included sorting and cleaning the fish, feeding the fish, processing the fish. Young women, especially daughters-in-law, hardly could participate in discussions and have no self-dependence in decision-making. Further, the involvement of underage boys and girls is very limited, probably it is related to the fact that they are typically family members – children, so parents who run the business trying not to involve their children in hard work.

Figure 6. Respondents' answers to the question "Who does the following types of work in your daily practice?" Kyrgyzstan, December 2021



When asked about barriers to the development of fisheries production, most respondents agree regarding two problems as key ones. The first and actually urgent for all is the lack of capital for investment. Respondents associate other problems with limited financing, and its consequences: the problem of adequate transportation of products, limited opportunities for hiring qualified workers. It is important to note that in the vast majority of studies and projects supporting women's business, limited access to financing is perceived as an evidently key structural barrier.

The second most frequently identified problem was the losses of fish, probably due to a lack of knowledge and skills, limited access to quality feed and other resources.

Table 1. Key barriers for development of an enterprise/fish farm as seen by survey respondents. Kyrgyzstan.

Evaluate which of the following components are key barriers for your enterprise/fish farm development:	Agree	Neutral	Disagree
Lack of capital for investing	78%	4%	18%
Adequate transportation	38%	32%	30%
Remoteness from the main markets of fish	0%	8%	92%
Limited workforces of the HH members and no finance to hire workers from outside	12%	2%	86%
High competition in the sector	0%	8%	92%
Fish harvest loss	16%	50%	34%
Low culture of fish consumption in the country	0%	6%	94%
Low management & business skills by farmers	0%	20%	80%
Lack of adequate water supply and sanitary facilities	2%	6%	92%

Female fish farms owners and managers especially note the lack of skills and knowledge and limited access to technology.

Türkiye

Türkiye

It is important to note that the study covered only three regions of the country, moreover, the focus was made only on marine fisheries, in contrast to aquaculture, for the development of which it is very important to have access to financing, land, water, and technology.

At the same time, unlike aquaculture, marine fisheries are especially presented as a male activity. Therefore, the views of the majority of survey respondents follow traditional values and patriarchal gender relations.

Half of the survey respondents (men) consider that capture fisheries is for men, while the most important role of a woman is care of the family and cooking. More than half of the men do not consider women capable of running the fishing business as effectively as men; and the vast majority are sure that decision-making in fish farming is the prerogative of men, while women can only participate in fish cleaning and processing.

Despite the modernization of the country and the emancipation of women, single-career families are still the most popular in Turkey, where the man is the breadwinner and earner. More than half of unemployed women are housewives, who are completely dependent on their husband's income. Rural women working as unpaid family workers do not have social security or health insurance¹⁵.

The authors of the country survey, after interviewing the female fishers of the southern Aegean sea coast about their future plans, found that each of the respondents dream of receiving financial support to modernize their equipment and boat, and a significant part dreamt of converting their boat into a cafe or restaurant and joining the tourism industry. The desire to leave the marine industry has been a growing trend among female fishers, owing to the growing problems associated with the marine fisheries. With fluctuating prices for fuel and other resources, this activity became more risky and unprofitable. Many female fishers do not possess the means of production and cannot participate in decision-making mechanisms. Lack of insurance is a great problem for female fishers. Moreover, according to one of the respondents, it is not safe to be a female fisher: the construction of ports does not consider the needs of women and there are high risks associated with crime (for example, smuggling) in fisheries. That is, it turns out that the sector of fish farming and aquaculture today does not seem to be an attractive and promising occupation for either women or men.

Fisheries are not considered as the most profitable business either. The stories of women, told by the civil organization "Women in Fishing Communities"¹⁶, indicated that fishers were not always able to raise even sufficient funds for subsistence. And case studies of female fishers in Gokova Bay (the study was conducted in 2006-2008)¹⁷ as well testified to the difficult material life of the families and community involved in fishing.

Three topics dominate the public discourse on marine fishery:

- discourse on environmental issues at sea and issues of sustainable communities¹⁸ ;
- discourse on the importance of promoting the idea of consuming more fish and seafood;
- discourse on social injustice and social stratification.

In the perception of respondents, none of the above topics was directly related to gender inequality. Neither the problems of women in the sector, nor the challenges of their involvement in the sector

¹⁵ <https://www.researchgate.net/publication/339728354> The Status Of Women In Working Life In Turkey. January 2020 Social Sciences Studies Journal 6(55):292-300

¹⁶ <https://kadinbalikcilardernegi.org/women-in-fisheries-in-turkey/>

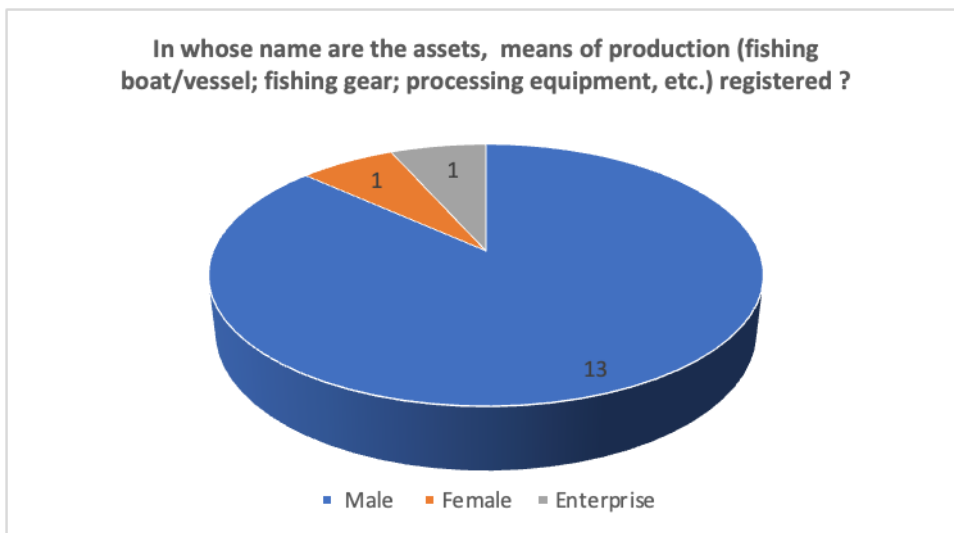
¹⁷ https://www.academia.edu/34565026/FISHERWOMEN_IN_GOKOVA_BAY_TURKEY

¹⁸ In particular, in connection with the environment state of the sea, the issue of social protection of fishers, whose only source of income was sea fishery and trade in fish products, has been raised.

were actualized in society, with the exception of the interest and support of the non-governmental sector and donor organizations.

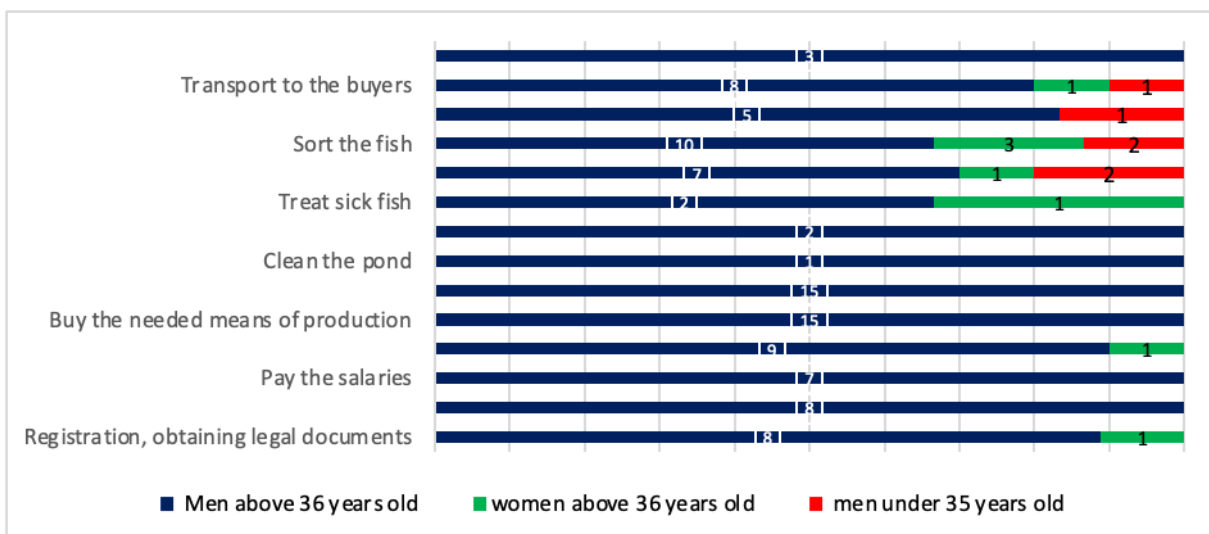
As already noted, women make a minority in the fish farming and aquaculture sectors: of licensed marine fishers only 3.2% are women, and of licensed inland fishers only 4.9% – women. Cooperatives, which have become widespread in agriculture throughout Turkey, have not become a zone of women fishers support. According to studies, female fishers make up only 1% of the total number of cooperative members in the entire region. As in other countries, women in Turkey have limited access to assets – the means of production. Although the study is not representative, it generally reflects the gender balance in the sector.

Figure 7. Answers to the question “In whose name are assets, means of production registered?”



Unlike other countries, respondents in Turkey have been working in the sector for much longer on average, for some of them fisheries is a dynastic profession inherited from their parents, and they have been working in this sector since early youth. In general, older people, employed in the sector, is its typical feature. This is reflected, for example, in a diagram of the routine daily division of labor in fish farms:

Figure 8. Respondents' answers to the question: “Who usually performs the following tasks in your daily routine? Turkey, June 2021 (sample = 15)



As seen from the diagram, the main workload in the respondents' farms is on the adult men who perform representative functions (negotiate with buyers, apply for documents to official bodies), basic managerial functions (hire workers, pay salaries and keep documentation, purchase consumables and means of production), and are also engaged in routine physical operations (cleaning of ponds, feeding, sorting and treatment of fish, net setting and pulling). Adult men are as well responsible for the fish trading. Adult women are also involved in some types of work: sorting and treating fish, bookkeeping and tax records, preparing official documents, as well as (as singular instances) – transporting fish to the buyers, nets setting and pulling. Actually, young men are even less involved in fish farm activities.

The aging of workers in the sector was repeatedly noted in their interviews by the respondents of this study, who emphasized that this is especially sensitive for the women involved. The fact that young women prefer not to link their fate with fisheries was also discussed on the online page of “Women in Fisheries Society”¹⁹. The reasons for this were stated as follows: firstly, women were previously involved in netting and thus performed a key function, while at present the industrial production of nets has forced women out of this business. In some projects attempts were made to revive the tradition of fishing netting, but in general the culture has been lost. Secondly, in the Turkish context, other economic opportunities have emerged – that have less gender expenses, for example in the tourism sector, which contributes to the ‘washing out’ of women from fisheries²⁰.

Key barriers for fish farms are related to the issue of financial investment; remoteness from large fish markets hinders the development of fish farm production. All women also noted the lack of farmers' sufficient business management skills as a barrier.

One of the major challenges, that women face when working in fisheries is the lack of social security or welfare. Among the respondents of the field study conducted by the author, only a few women were included in the social security system, while the rest were either pensioners or did not participate in the social security system for various reasons.

CONCLUSIONS

Thus, summarizing the field data and opinions collected by the national researchers of the five countries, made it possible to develop a common barrier scheme for more meaningful involvement of women in the fish farming and aquaculture sectors, in which the key components are resources, infrastructures and ongoing processes, management systems, people and culture, those create a disloyal environment.

Hence, the structural barriers and challenges to women's engagement and productive participation in fish farming and aquaculture can be summarized as follows:

- 1) Despite changing gender perceptions, financial and status dominance of men is the norm of perception, and men remain the primary owners of assets, associated with the development of the fishing business (vessels / boats, gear, other equipment). For women, the fact that they do not own property and means of production, is largely the reason for their concentration in the “post-harvest” area (sorting, processing, trade).
- 2) For small-scale fish farms, the families and ties to relatives remain a key resource for the reproduction of activities: due to the unpaid work of family members, many farms manage to stay afloat. At the same time, such strategies tend to devalue the contribution of unpaid domestic workers, who are predominantly women, especially young ones.
- 3) The division of labor in fisheries varies from country to country and depends on a whole range of cultural norms and practices, as well as the configuration of economic opportunities in the modern economy of the country: in some countries in recent history, women have been active in the labor market on an equal footing with men and reminiscence about that has not yet

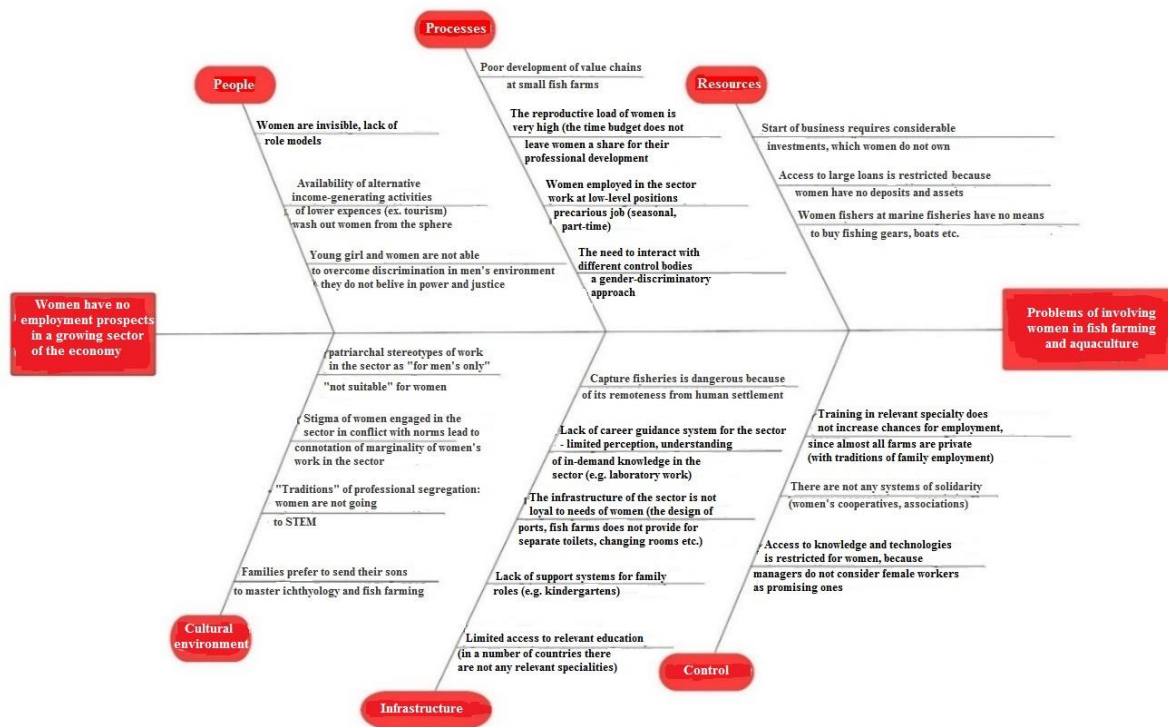
¹⁹ <https://kadinbalikcilardernegi.org/calismalarimiz/>

²⁰ Yesim Mutlu. Study On Gender, Fisheries and Aquaculture for CACFish study. Country report, October 2021

disappeared, in other ones it is in fact the practice of families with a single earner – a man. In some countries, fish farming seems to be the most promising area of labor and private investment due to government regulations, natural and climatic environment, etc. in other ones there exist more cost-efficient alternatives. In some countries, fisheries is a tradition, a profession passed down from generation to generation, in other ones, individuals and families start aquaculture production from scratch, having neither experience nor knowledge about it. Therefore, for some, fisheries is not just the one and only source of income, but also a way of life in general, while for others it is an attempt to find an activity that can provide a sustainable source of income, along with other (traditional) types of economic activity.

- 4) In the perception of survey respondents – women and men – businessman/entrepreneurs from the fish farming and aquaculture sector, limited access to financial investments in enterprises development remains the main structural barrier.

Figure 9. Fishbone diagram of barriers to women's involvement in fisheries in Azerbaijan, Armenia, Kyrgyzstan, Tajikistan and Turkey.



RECOMMENDATIONS

I. Policy frameworks and legislation

The national legislation of all five countries integrates international norms and standards for protecting women's rights and promoting gender equality. These include specific stand-alone national laws and practical measures for the state to guarantee gender equality. However, policies and normative decisions of economic policy are almost universally gender-neutral (blind), and gender legislation limits the scope of regulation to a few aspects of women's and men's livelihoods, leaving out women's participation in the labour market, including in the fisheries and aquaculture sectors.

The few policies and practices undertaken by the governments of five countries to improve women's access to decent employment and promote entrepreneurship are largely based on a conservative patriarchal approach that only encourages women's jobs from a perspective of their domestic responsibilities and contribution to the household's income. Based on this logic, participation in the aquaculture and fisheries sectors is not considered as "suitable" for women, and no specific measures are taken to facilitate their engagement and growth in these sectors.

Among the measures aimed at involving women in the labour market and developing women's entrepreneurship, there are no plans to include or strengthen social protection and insurance for women employed in the informal economy, including artisanal fishing and micro-entrepreneurship in aquaculture production, processing or the marketing of products.

Points for action:

1. Promote a gender audit of sectoral legislation to identify bottlenecks and implement mechanisms and measures that would promote women's empowerment.
2. Promote measures to ensure that women working in the informal economy, artisanal fisheries, aquaculture micro-enterprises, fish processing and marketing are integrated into the social protection system.

II. Production, analysis and use of disaggregated data and support to gender analysis

The fisheries sector is traditionally and mainly documented through economic statistics on catches and aquaculture production. The quality of sex-disaggregated data on employment is limited and fragmented and not all key indicators at a national level are available. The national statistical organizations responsible for collecting statistical information have identified the gaps in indicators for monitoring the SDGs, paying attention to gender disaggregation. However, a critical mass of indicators that would adequately reflect the actual status of women and men, including in fisheries and aquaculture, is insufficient in all five countries.

Points for action:

3. Consider and support annual conferences or other meetings to share experiences on the use of methodologies and the collection of disaggregated data across countries to improve the quality of statistical gender-disaggregated reporting and monitoring the use of statistics in evidence-based strategic planning processes in the sector;
4. Strengthen the capacity of institutions and organizations in the fisheries and aquaculture sectors to collect, analyze and use disaggregated statistics and gender-sensitive approaches in the policies and practices of these organizations.

III. Support to enabling environment for women to engage in the sector

The share of economically active women is in general high for most countries in the region, but in agriculture and fisheries they tend to concentrate in informal jobs. At the level of small-scale fisheries,

women often work as unpaid workers. Women's representation in entrepreneurship in all five countries is low. Without land ownership and with limited access to water, rural women cannot access large and long-term credit to purchase equipment and increase productivity, and therefore are doomed to stay in small-scale production with low returns on investment.

Key structural barriers to women's engagement in the sector are as follows:

- Limited access to finance for women in the sector, lack of ownership and dependence on family capital;
- Lack of a supportive environment and limited inclusion of women entrepreneurs in the sector's social networks (networking);
- Limited access to knowledge, information and technology;
- Disproportionate division of household labour and limited opportunities for women to successfully balance family and work roles and responsibilities;
- Invisibility of women in the sector, lack of successful role models, despite the availability of a critical mass of women suitable for these roles;
- Lack of infrastructure to support women's and men's family responsibilities (kindergartens, after-school groups for primary school students, etc.).

Points for action:

- Support educational and training projects and programs for farming families and local communities, promoting gender transformative approaches such as GALS²¹;
- Projects and programs aimed at developing the fisheries and aquaculture sectors should pay specific attention to supporting women's entrepreneurship;
- In partnership with fishers' associations, unions and cooperatives, support and promote among the relevant government stakeholders the need to develop and implement a social protection system for those employed in the fisheries sector;
- Encourage women's cooperatives, self-help groups and other forms of women's professional solidarity, for joint promotion (marketing) of produced goods and services, technological transition to digital interaction with clients, etc.

IV. *Address discriminatory social practices and contribute to transformative agri-food systems*

The lack or absence of self-confidence among women working in the sector is a result of discriminatory gender practices, and can be addressed through strengthening interactions within women's cooperation platforms, exchanging experiences, and leadership training.

Traditionally, criteria for evaluating different types of work are not universal and "double standards" exist: if a man works on a particular task, then his work is more valued, based on the "specific abilities" of men who perform such work, and is seen as visible. On the other hand, if a woman performs certain tasks, her work is invisible, evaluated poorly, and is seen as not requiring specific skills, but rather as "suitable for women" due to their "natural" role. Traditions of invisibility of women's contribution to the family and households, combined with a low recognition of women's work at home does not allow women to realize their own strengths and significance.

Social patterns and practices of raising girls in the family are gender-biased and socialize girls in a spirit of conformity and obedience.

Points for action:

²¹ GALS (Gender Action Learning System) is a community-led empowerment methodology that uses principles of inclusion to improve income, food and nutrition security of vulnerable people in a gender-equitable way.

- Collaborate with media structures to promote women's leadership, entrepreneurship, and gender equality;
- Support the creation of a community of women- fish farmers and fishers in the five countries and provide them with a platform for sharing experiences and dialogue, facilitating the development of business and professional connections;
- Promote solidarity with women from rural communities where fish farming and aquaculture are being developed, to provide these communities with technical assistance in developing alternative kindergartens, after-school groups for primary school children of working women;
- Through extension and advisory services widely disseminate information about women-specialists able to provide professional consultations in the sector, promoting them in projects and programmes that provide support to women entrepreneurs;
- Educational institutions should strengthen the use of gender-disaggregated data and interactions with graduates (annual tracer study). Along with this, they should actively promote professional training in ichthyology and aquaculture among girls and women.
- In communities focusing on fisheries and aquaculture, promote action and information campaigns to recognize the economic contribution of women and promote successful women entrepreneurs in fisheries.