

POLICY BRIEF

Empowering women in the energy sector in Central Asia

Introduction

Despite the invaluable role that women could play across the energy value chain in support of economic growth and sustainability, the energy sector remains one of the least gender diverse. Currently, women only account for 22% of the global labour force in oil and gas and 32% in renewables [1]. Meanwhile, the energy transition to more efficient and sustainable energy systems is set to become a key motor for job creation, economic development and enhanced energy security across regions. Moreover, the growth of the renewable energy sector has the potential to empower women and provide them with a platform to be agents of change and drivers of the clean energy transition.

This transition could be particularly beneficial to the economies of the five Central Asian OSCE states (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan) due to their high potential in the beginning process of transformation of energy sector and women role in it.

This is why, within the framework of the OSCE Project “Promoting women’s economic empowerment in the energy sector in Central Asia for energy security and sustainability”, the OSCE in partnership with the Kazakh-German University (DKU) conducted a gender analysis of the energy sector in Central Asia, including through the undertaking of a survey.

Context

All countries in the Central Asia region have signed the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). At the level of each country, efforts are being made to address the gender imbalance through improving legislation and improving corporate culture in different sectors of the economy.

In 2022, the World Economic Forum (WEF) [2] ranked Kazakhstan 65th, the Kyrgyz Republic 86th and Tajikistan 114th out of 146 countries in its Global Gender Gap Index (but Uzbekistan and Turkmenistan are not included in the ranking). This index is recognized globally and measures the gaps between women and men across four sectors such as education, economy, health and politics.

In the countries of the region, there are almost identical barriers for women to enter higher-paying technical, qualified or managerial positions, in particular, in the energy and other infrastructure sectors that are traditionally considered male-dominated. The most significant of them are:

- gender stereotypes of patriarchal society, primarily affecting the roles of women and men in society;
- a superficial look at the choice of profession of female students, as a result of which low-paid jobs in the field of healthcare, education and social security are chosen.
- At the same time, 37% of the region's population believe that university education is more important for boys than for girls:
- the difficulty for women to join clubs or interested activities where they could establish business connections for career advancement;
- lack of information about STEM-related (science, technology, engineering and mathematics) careers needed to gain well-paid and management positions;
- the burden of housework and caretaking takes away women’s time and opportunity to improve the level of education necessary to meet career ambitions.

Thus, 20% of women do not receive education, work or vocational training due to unpaid housework, while among men this figure reaches only 2% [3].

Assistance programs from almost all donors in the region include a gender component aimed at improving the status of women. Thus, a number of programs of UNDP, USAID, EBRD, the German Agency for International Cooperation GIZ, ADB intend to raise the number of women studying STEM or professional qualifications to prepare for technical and leadership occupations in the energy sector.

At the same time, research conducted by DKU on gender issues in STEM education demonstrates the following:

- In Kazakhstan, where, according to the Committee on Statistics of the Ministry of National Economy, 53.9% [4] of the total number of students are girls, up to 20% of female students receive diplomas in specialties related to the exact sciences; in engineering, construction, and manufacturing - the proportion of women is within 15%. Up to 35% in total.

- The 45% of graduates of higher educational organizations in Uzbekistan were women in 2021 [5,6]. Proportion of female graduates of STEM programs in higher education was 33.4% in 2020 [7]. The sum of science, engineering, manufacturing and construction female graduates was 30.1% over total in 2020 [8].
- In Kyrgyzstan, in total, for the 2021-2022 academic year, the contingent of students: at the department of Renewable Energy Sources is 153 students, of which 136 are male students and 17 are female students, at the faculties of «Electric power and electrical engineering», «Technosphere safety», «Thermal power engineering» is 157 students, of which 146 are male students and 11 are female students.
- In Tajikistan, the number of institutions of secondary vocational education at the end of 2019 was 74, the number of students was 90.4 thousand, among them girls make up 65.0% (58.8 thousand). In the 2019/2020 academic year, compared with the 2018/2019 academic year, the number of women studying in institutions of higher professional education increased by 13.3% and amounted to 86.5 thousand people, or 37.7% of the total number of students.

Survey methodology and findings

Survey, which was conducted from May till July 2022, collected information on barriers and opportunities for women in STEM and energy sector from 197 respondents in 4 countries of the Central Asian region: Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. 90.3% were women aged 18 to 45+ years, most of whom have higher education (82.2% of respondents study or work in STEM).

The purpose of the survey was to identify the existing barriers, stereotypes and cultural norms as well as women's access and motivation to energy-related studies and careers.

During the survey, it was revealed that in different countries, when choosing a profession, there is a difference in the criteria and the degree of their importance (Figure 1).

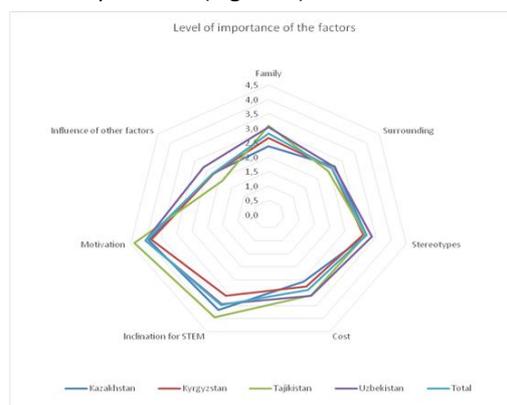


Figure 1. Levels of importance of the factors

Survey respondents from all countries gave various suggestions for improving the status of women working in STEM-related fields (Figure 2).

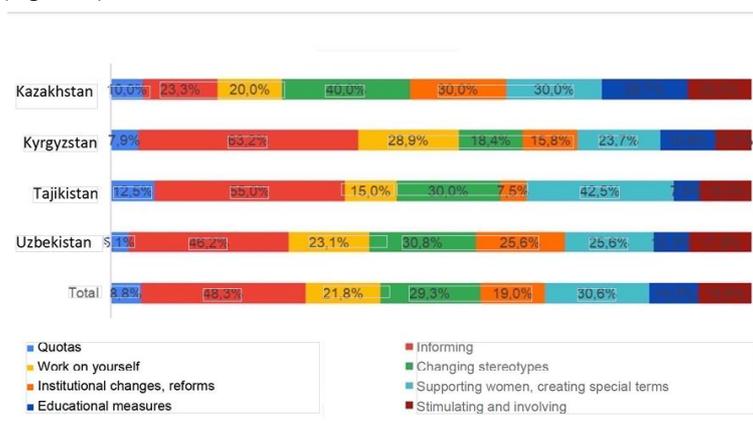


Figure 2. Suggestions of respondents

Barriers

During the survey, the following barriers were identified by experts and participants:

- lack of economic incentives and the presence of administrative barriers in terms of increasing the number of women in the energy sector, increasing their income levels and increasing the economic stability of the family;
- lack of access to technical education (or) and incentives - especially for girls from remote villages, such as grants for technical specialties from the state, business, international organizations and various programs;
- lack of mechanisms to increase the number of women in middle and senior management positions in the energy sector (vice-ministers, heads of departments, top managers of companies) by allocating quotas and other forms of encouraging participation;
- there are no conditions to support and protect women on maternity leave, as well as working mothers, such as keeping a job for a longer period, flexible hours, access to kindergartens and nurseries, remote forms of work, etc.;
- lack of professional development, employment and professional and personal growth programs for women.

Conclusions and Policy Recommendations

Identifying the root causes of such barriers in Central Asia is essential to provide energy decision-makers and practitioners across the region with tailor-made recommendations and policy guidance on how to include gender equity considerations in their energy and hiring policies, and ultimately close the gender gap in this field.

Policies aimed at reducing the gender imbalance in the countries of Central Asia:

- Incentives are needed to encourage as many girls as possible to choose educational programs in fields related to exact sciences or energy. Because of the strong intra-family ties and the great influence of parents on girls' career choices, it is necessary to inform parents about the benefits of choosing engineering majors. A good incentive for families would be to have quotas and grants for girls entering STEM-related majors.
- One of the decisive factors in choosing STEM-related specialties for girls is aptitude for the exact sciences. It is necessary to create conditions in schools in the region, especially in rural areas, and get girls interested in STEM, starting from middle school.
- It is important that women play an active role in decision-making and policy-making processes in the energy sector, through participation in working groups, discussions and directly working in authorized bodies, in Parliament. In this case, all decisions made at the level of laws, by-laws will take into account gender issues.
- The most effective approach to improving the situation with gender equality in the energy sector is first of all to change the working and corporate culture, which is still largely dominated by men. Eliminating factors such as gender bias, stereotypes and discrimination against women will yield good results.
- Effective measures for empowerment and equality of women in the energy sector are the creation of women's networks and the development of mentors.
- Internships to expand the talent pool of qualified female students. Women should see future career paths in all sectors of activity and institutions, in all fields and positions, private and public.
- An important part of reducing the gender imbalance is the creation of conditions for working mothers, such as flexible schedules, access to day care centers and nurseries, remote forms of work, and the ability to take parental leave for men. This will allow women to reach career heights faster, on an equal footing with men.

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