



# The EU Mutual Learning Programme in Gender Equality

## Synergies between gender equality and climate action

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# Exploring synergies between gender equality and climate action in The Netherlands

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## 1. Setting the Scene

The climate crisis increases the magnitude and occurrence of natural hazards, such as floods. The conventional policy approach to climate risk assessment focuses on event magnitude – considering factors like storms, flood peak, flood wave speed, and inundation area – and the estimated economic and physical damages to infrastructures and individuals. Unfortunately, this is not good enough to address the societal challenges that natural hazards raise in times of climate change. More holistic approaches are needed, approaches that are moreover based on the values of wellbeing, equality and inclusion. There are several reasons to make this claim. Firstly, in addition to physical damage and economic losses, natural disasters also take an emotional and psychological toll on individuals and communities. Trauma, anxiety, and depression are common emotional responses, with long-lasting effects on mental health and well-being. These emotional and cognitive aspects of disaster impact should be considered when assessing risks and designing response strategies.

Secondly, climate change does not affect all individuals equally. Their impact is not solely determined by forces of nature, but also by varying degrees of exposure and unequal access to opportunities. Low-income neighbourhoods, for example, may lack the necessary infrastructure and financial means to withstand climate change induced natural hazards or evacuate when necessary. Additionally, marginalized and vulnerable communities often have limited access to early warning systems and disaster preparedness education. And not only are these communities disproportionately affected by climate change, but climate change may also further increase existing social inequalities.

### 1.1 The gendered impact of climate change and climate policy

Within communities and societies, there are many differences between individuals that determine the impact climate change have. Gender is one such factor; Women represent the majority of the world's poor population and particularly in the Global South often lack access to education, food, clean water, and health services. As a result, they are more vulnerable to extreme weather events, such as floods and droughts. Climate-induced migration, driven by factors like extreme weather and sea

level rise, further exposes women to vulnerability, Gender-Based Violence (GBV), and poverty. And women often have limited access to, and control of, environmental resources and energy poverty disproportionately affects women, hindering their ability to participate in climate change adaptation measures<sup>1</sup>.

The climate crisis enlarges existing gender inequalities, with male-dominated industries like the extraction, fossil fuel, and industrial agriculture sectors contributing to emissions, while women and girls bear the brunt of its effects. Applying a gender lens thus reveals alarming insights into the drivers and dynamics of climate change, emphasizing the need for solidarity with women, particularly in the Global South underlining the need to explore more holistic and value-based perspectives on climate change risks and their policy responses.

## 1.2 The climate change issues to be considered from a gender perspective

Although gender is an important fact of human diversity, it is not the only one that matters when considering vulnerabilities in society in general and to climate change specifically. People may have varying perceptions of risk, influenced by factors like cultural background, past experiences, and trust in authorities. They may also have different perceptions of the environmental conditions and of the vulnerability of buildings and other structures. The ability to respond to and to cope with climate change also depends on factors like physical characteristics and cognitive capacities. And in the role that they have, caregivers may for example have different concerns and possibilities to respond than non-caregivers.

From a gender perspective, three intersecting and mutual reinforcing dimensions can be identified:

- **Economic:** e.g. women with low incomes are disproportionately found as heads of households either as single-parent families or, due to their greater longevity than men, living alone at pensionable age. Furthermore, women are less likely to be in professions benefiting from green transition investment.
- **Health:** e.g. age is a significant factor in dealing with climate change risks, with young children and older people being particularly vulnerable. Women are also considered to be more sensitive to ambient temperature than men. Especially in urbanised and industrialised European centres, air quality levels have an impact on women's health including reproductive health both before and during pregnancy<sup>2</sup>.

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<sup>1</sup> <https://75inq.com/services/library/the-gender-face-of-the-climate-crisis/>

<sup>2</sup> <https://www.ohchr.org/en/documents/thematic-reports/ahrc5233-women-girls-and-right-clean-healthy-and-sustainable-environment>

- Socio-cultural: women's energy needs and consumption patterns differ compared to men but also among women, factors like marital status, caregiving responsibilities and employment influence resource consumption.

### 1.3 The current situation of the gendered impact of climate change in Europe

There is a growing policy focus on climate change and just transitions in Europe and globally embedded in the United Nations Sustainable Development Goals and the United Nations Framework Convention on Climate Change (UNFCCC) based on the 2015 Paris Agreement<sup>3</sup>. A just energy transition is one of the policy's overarching goals to reduce climate change and mitigate climate change-induced natural phenomena like temperature fluctuations and floods. The current energy crisis in Europe puts energy poverty high on the political agenda to ensure access to sustainable and clean energy for all Europeans. National policies predominantly centre around the sustainability, affordability, and energy efficiency of housing. The Member States were required in 2019 to submit National Energy and Climate Plans (NECP) in support of the EU climate action and energy transition objectives. The NECPs communicate each country's objectives, targets, policies and measures along five dimensions: decarbonisation, energy efficiency, energy security, internal energy market, and research, innovation and competitiveness. When analysing the NECP<sup>4</sup>, the European Member States highlight in the obligatory energy poverty sections that the current energy poverty crisis stems more from an insulation issue rather than an affordability one. Yet, while retrofitting and insulation support help to alleviate energy poverty, it falls short of addressing the systemic social inequality that places large segments of the population in vulnerable positions. In the provision of updated reports, Member States were encouraged to include information on gender-responsive energy and climate measures.

Taking a closer look at the specific groups disproportionately affected by the current energy crisis in Europe, it becomes evident that women in particular, are being marginalized. With persistent income disparities between men and women, a disproportionately high caregiving burden for (single) women, and a higher concentration of female tenants in social housing, energy poverty emerges as a problem that disproportionately impacts women<sup>5</sup>.

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<sup>3</sup> [https://unfccc.int/process-and-meetings/the-paris-agreement?qclid=Cj0KCQiA4Y-sBhC6ARIsAGXF1g7-Ow6kmg53NiTqKCfyXsHbCXs1gfVrEt9TK-2XJ\\_l-QdCZFFyLJckaAIHMEALw\\_wcB](https://unfccc.int/process-and-meetings/the-paris-agreement?qclid=Cj0KCQiA4Y-sBhC6ARIsAGXF1g7-Ow6kmg53NiTqKCfyXsHbCXs1gfVrEt9TK-2XJ_l-QdCZFFyLJckaAIHMEALw_wcB)

<sup>4</sup> [https://energy.ec.europa.eu/topics/energy-strategy/national-energy-and-climate-plans-necps\\_en](https://energy.ec.europa.eu/topics/energy-strategy/national-energy-and-climate-plans-necps_en)

<sup>5</sup> <https://eige.europa.eu/publications-resources/publications/gender-equality-index-2023-towards-green-transition-transport-and-energy>

## 2. Collection of gender-disaggregated data for a just transition

To inform policy-makers, decision-makers and researchers the collecting, reporting and monitoring of gender-disaggregated data is crucial and essential. Data in which entities are dissected and report of the intersectional characteristics. Gender disaggregated data are crucial to incorporating gender mainstreaming into the policy-making process. Access to disaggregated gender data about education, climate change impact, labour market, and financing will allow policymakers to craft targeted policies that insulate women in times of unexpected crises and close long-existing gender gaps in the Just Transition sectors. It also exposes inequalities among minorities and allows for more defined and concrete ways of monitoring and evaluating the implementation of gender-focused policy recommendations.

However, although the EU has acknowledged that collecting gender-disaggregated data is essential to making inequalities visible and creating targeted policies and is of the utmost importance for a gender-focused approach to all issues at stake. It also clearly states that gender-sensitive data is still lacking in different areas of the EU's and Member States' policies. This is evidence that there is a lack of harmonised gender definitions and indicators among the EU Member States especially with regards to the gendered impact of climate change.

Gender disaggregated data may also not be easily accessible or user-friendly for policymakers, researchers, civil society organisations, or the public. Eurostat and EIGE are reporting gender-disaggregated data but are not user-friendly and Eurostat fail to report data over the age of 75.

### 2.1 The situation in the Netherlands concerning gender-disaggregated data for a just transition

The Netherlands is not yet collecting, reporting and monitoring gender-disaggregated data for a just transition, either when looking at the gender-disaggregated impact of climate change or how diverse groups in society are contributing to the workforce of the just transition sectors. Looking at the impact of climate change on diverse groups in society, we have to look at a wide variety of indicators, like income, housing situation, education and mobility patterns. This data is fragmented available, not up to date, and often on household level without further disaggregation.

Data on the labour market workforce in the just transitions sectors are only recently monitored due to the increase of political attention to the human capital agenda of the just transition. Independent research institutions and NGOs are collecting, reporting

and monitoring gender-disaggregated data on educational level (e.g. VHTO<sup>6</sup>) and women's participation in the energy sector (e.g. 75inQ<sup>7</sup>).

## 2.2 Key results and remaining challenges

There is limited gender-disaggregated data and even fewer intersectional data on involvement in just transition, including in policy formulation, research practice, and on energy poverty/vulnerability. This is limiting gender-sensitive policy formulation and implementation.

First, a gender analysis needs disaggregated data. As we have indicated above, such data are scarce – particularly across different demographics such as age and ethnicity. This is not only the case in the Netherlands but in the whole European Union and even at the level of European Union Institutions. The European Court of Auditors has also criticised the lack of gender-disaggregated data for hindering the analysis of gender mainstreaming (European Court of Auditors 2021). Secondly, both quantitative and qualitative data are needed. We therefore recommend that the European Parliament calls on the Directorate for Statistics (Eurostat) to require national statistical authorities to collect gender-disaggregated intersectional data. This would allow monitoring and evaluation of measures designed as part of European Green Deal to enable them to become more gender responsive and socially inclusive. We recommend that Eurostat consult with the European Institute for Gender Equality about the nature of the data required.

## 2.3 Related questions for debate at the seminar

- How can European Member States stimulate collecting, reporting and monitor gender-disaggregated data on the national and European level?
- What kind of data do policymakers need to make gender-sensitive decisions in their just transition policy interventions?

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<sup>6</sup> <https://www.vhto.nl/kennis/>

<sup>7</sup> <https://75inq.com/services/library/>

### 3. Women in STEM and Green Jobs

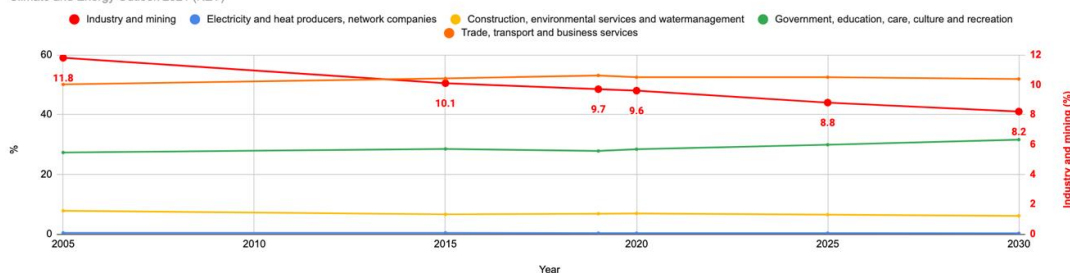
Globally, renewable energy employs about 32% women, compared to 22% in the energy sector overall. Still, within renewables, women's participation in science, technology, engineering and mathematics (STEM) jobs is far lower than in administrative jobs. IRENA (2019) estimates that the number of jobs in renewables could increase from 10.3 million in 2017 to nearly 29 million in 2050. The ongoing global energy transition offers the chance to create new jobs and reshape all aspects of how energy is produced and distributed. Renewables offer diverse opportunities along the value chain, requiring different skill sets. But these opportunities should be equally accessible, and the benefits equitably distributed, the report notes<sup>8</sup>.

#### 3.1 Related situation in the Netherlands

When analysing the contribution of the Dutch labour market to the fair and green transition, human capital is high on the agenda. By the end of 2022, the trade, industry, and energy sectors in the Netherlands were short of over 100,000 people. The definition of 'Green jobs' used in The Netherlands as used in the 2023 Green and Digital Action Plan is limited to technical and engineering jobs and skills, addressing the most pressing shortages in executing the 2019 Climate Agreement<sup>9</sup>. The average tension in the labour market for occupational groups in the climate sectors has increased sharply in recent years. The Labour Market Dashboard developed by Human Capital Topsectoren shows that employment in renewable energy, networks, and energy conservation has risen by approximately 2.4% since 2016 because of the climate agreement and the subsequent climate law<sup>10</sup>.

Declining employment in Industry and Mining

Climate and Energy Outlook 2021 (KEV)



Looking through a gender lens, the following observations are made concerning women working in the Dutch energy sector:

- 69% of the professions mentioned in the Dutch Climate Agreement are technical progressions requiring a STEM background.

<sup>8</sup> <https://www.irena.org/publications/2019/Jan/Renewable-Energy-A-Gender-Perspective>

<sup>9</sup> <https://www.pbl.nl/sites/default/files/downloads/pbl-2021-klimaat-en-energieverkenning-2021-4681.pdf>

<sup>10</sup> <https://topsectorenergie.nl/en/maak-kennis-met-tse/human-capital-agenda/>



- 7% of the STEM jobs are occupied by women.
- 22% of the energy jobs are occupied by women.
- 16% of the energy sector employees > age of 45 years old are women.
- 35% of the current employees in the climate sector have an intermediate vocational education background.
- 10% of the students at the vocational technical training level are women.

### 3.2 Good practices from the Netherlands

A key enabler for the participation of women is the option of flexible working arrangements, but this is not yet common practice in the technology sector. In 2023 a pilot will be initiated by the government to investigate how sectors where male workers work full-time, can be made more accessible to a larger target group of workers. This includes the climate and energy sectors (Ministerie van Sociale Zaken en Werkgelegenheid, 2023).

The Dutch government promotes Lifelong Learning and the development of a more skills-oriented labour market. The project 'Strengthen Infrastructure Lifelong Learning' (Ministerie van Algemene Zaken, 2022), financed with resources from the National Growth Fund, is giving a major boost to this by developing a skills ontology (common 'skills' language). Between 2021 and 2025, the National Growth Fund will invest EUR 20 billion in large-scale investment projects and programmes with a minimum subsidy amount of EUR 30 million per proposal. Proposals must contribute to the sustainable earning capacity of the Netherlands.

The government wants to take more control of the energy transition and is working with various programs aimed at regional and local implementation. These programmes have been formed with various coalitions of parties involved, ranging from local authorities to network operators and energy companies.

In addition to these sectoral and generic measures that have been initiated, the government is exploring additional measures to tackle the shortages and strengthen the labour market now and in the future. The following measures are currently being examined together with social partners and (educational) organisations: (1) various actions aimed at making work pay more; (2) additional efforts to increase labour supply; (3) financial support for switching to structural shortage sectors. (Ministerie van Sociale Zaken en Werkgelegenheid, 2023).

### 3.3 Key results and remaining challenges

The progress of the fair green transition in The Netherlands is constrained by the presumed shortage of skilled people in the job market and therefore a Green and Digital Jobs Action Plan was launched by the national government in 2023.

When analysing the contribution of the Dutch labour market to the fair and green transition, human capital drives the agenda. The tension in the labour market for occupational groups in the climate sectors has increased sharply in recent years. By

the end of 2022, the trade, industry, and energy sectors in the Netherlands reported a shortage of over 100,000 skilled people. This increasing shortage of technical personnel is presumed to be structural and the involvement of new groups, like women and immigrant workers is slowly progressing<sup>11</sup>.

For the agreed and necessary energy transitions, the limiting effect of scarce labour capacity means that the implementation of the policy will be delayed in the coming years and the costs of the climate transition will increase.



Source: 75inQ (2021)<sup>12</sup>

### 3.4 Related questions for the debate at the seminar

- How can a human capital agenda in the Just Transition policy contribute to decent and sustainable jobs for all?
- How can we engage broader communities in the Just Transition?

<sup>11</sup> <https://75inq.com/services/library/rapportage-vrouwen-in-de-energietransitie/>

<sup>12</sup> <https://75inq.com/services/library/rapportage-vrouwen-in-de-energietransitie/>

## 4. Increase of women in top-positions to ensure a gender just green transition

The representation of women across the whole spectrum of just green transition industries is low. When entering and advancing in the conventional and renewable energy sectors, they face various barriers as demonstrated in section 3. Those barriers are mostly related to long-term perceptions around the gender roles in many industrial activities and as such women must overcome difficulties entering the energy industries but mainly to retain leadership positions, engineering roles, get promotions, and training.

### 4.1 Related situation in the Netherlands

The Dutch situation is not an exception to the rule of the leaking pipeline of women in STEM careers. With only 4%-7% of the management positions in the green transition sector being women, the Netherlands is lagging behind not only in Europe but globally. This limited number of women in top positions is not only in the technical sector but is a phenomenon that is historically in many other sectors of the Dutch industry. What does not contribute are the persist low influx of female students in STEM education at all levels with as a result the low number of female starters in the sector to begin with. Adding the high number of women leaving the technical sector, makes the pipeline even more dramatically leaking.

With a legacy in The Netherlands of collaborating on major issues with the public sector, private partners and civil society, social dialogue is part of the modus operandi when developing new policies and the fair green transition is not an exception. However, including a multidisciplinary approach where sustainability, labour market and energy transition are combined remains a challenge. An example of a successful stakeholder participation to improve green and sustainable jobs at all levels is the Human Capital Topsectors of which the energy sector is considered one. Stakeholders involved are the Ministry of Economic Affairs and the Rijksdienst voor Ondernemend Nederland (national agency of entrepreneurship)<sup>13</sup>.

### 4.2 Good practices from the Netherlands

Ministers Adriaansens (Economic Affairs), Jetten (Climate and Energy), Dijkgraaf (Education, Culture and Science), Wiersma (Primary and Secondary Education) and Schouten (Poverty reduction, Participation and Pensions) presented the Action Plan for Green and Digital Jobs to the Parliament on February 3<sup>rd</sup> 2023. This plan contains measures to address the shortage of the labour market in sectors with jobs that are important for the climate and digital transition. For example, there is a lack of skilled people to install solar panels on roofs. Currently, there are 86 250 vacancies in the technology sector and 35 950 in ICT (Q2-2022). For tackling the shortages of

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<sup>13</sup> <https://topsectorenergie.nl/en/>

technical and digitally skilled staff, action is required on several fronts. It requires a coordinated approach involving all parties – employers, workers, education and national and regional authorities – to take joint responsibility for solving this problem of labour market shortages.

The Green and Digital Jobs Plan has four pillars: 1) increase the number of students in STEM at all levels, including vocational training 2) stimulate starters to enter the tech sector and keep existing tech workers in the sector (retention) 3) stimulate labour productivity and the number of working hours 4) strengthening governance and avoid fragmentation in programmes and policies. An important component against shortages in technology and ICT is the onboarding programmes and skills-refresh courses for workers and job seekers from, for example, less promising areas and other sectors. Secondary vocational education and higher education offer a variety of options to combine work with learning. The recommendations in the Green and Digital Jobs Plan are:

- ensure more labour-saving (process) innovation;
- ensure a culture change in technology;
- stimulate more interest in technology at a younger age;
- invest more in the matching and training of lateral entrants;
- set up a joint network for technical training;
- provide attractive primary employment conditions;
- put shortages in technology in a social perspective by using it in coherence with reducing shortages in other sectors.

### **4.3 Key results and remaining challenges**

A main barrier for many women to pursue leadership positions is the lack of network, mentors and sponsors. Stayers in the energy sector can be supported by recognising and breaking the existing glass ceilings within the sector. This starts with data collection, analysis and reporting of the progression of women within the organisation. Ambitious goals should be set and measured with progress (and lack thereof) reported regularly. Engaged top-management and shareholders should become acquainted with the underlying drivers of employees, and patterns of inequality and approach diversity as a measurable success factor. Women in the energy sector would be supported by networks of women within and beyond the companies they are working for. These networks and the activities associated with them are being pulled out of the voluntary sphere and are part of women's leadership and development programs within the sectors.

### **4.4 Related questions for debate at the seminar**

- How can Member States promote female leadership at all levels beyond industry and including political and public bodies in the just transition?

## 5. Conclusions

The progress of the fair green transition in The Netherlands is constrained by the presumed shortage of skilled people in the job market and therefore a Green and Digital Jobs Action Plan was launched by the national government in 2023.

When analysing the contribution of the Dutch labour market to the fair and green transition, human capital drives the agenda. The tension in the labour market for occupational groups in the climate sectors has increased sharply in recent years. By the end of 2022, the trade, industry, and energy sectors in the Netherlands reported a shortage of over 100,000 skilled people. This increasing shortage of technical personnel is presumed to be structural and the involvement of new groups, like women and immigrant workers is slowly progressing.

For the agreed and necessary energy transitions, the limiting effect of scarce labour capacity means that the implementation of the policy will be delayed in the coming years and the costs of the climate transition will increase.

Factors exacerbating the gender-differentiated impacts of climate change:

- Governance
  - Discriminatory laws
  - Lack of female voices at various levels (corporate, politics, CSO, research)
  - Administrative barriers related to land, housing and resources ownership
- Financial:
  - Gendered pay gap and the gendered income gap as a consequence (retirement plans, pension plans, investment capacity and savings)
  - Access to financial resources and tools to invest in climate change adaptation and – mitigation
  - High unpaid labour participation in care responsibilities
- Skills:
  - Access to training and capacity building programmes
  - Access to technological and digital tools