



**Gender in
Horizon
Europe
Missions**



Institute of Sociology
Czech Academy of Sciences

**GENDER
ACTION**

Gender in Horizon Europe Missions

Institute of Sociology
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CONQUERING CANCER: MISSION IMPOSSIBLE... UNLESS A GENDER DIMENSION IS TAKEN INTO ACCOUNT

What gender dimension means and why it is important for cancer R&I

A gender dimension in the context of Horizon Europe missions refers to the **integration of sex/gender analysis methods in the research content**. It aims to stimulate excellence in science and technology by “fixing the knowledge”. “Sex” and “gender” are two distinct terms that should not be used interchangeably.

“**Sex**” refers to the biological characteristics of beings, whether female, male, or intersex. This involves different levels of expression: genes, gametes, morphology (primary and secondary sex characteristics).

“**Gender**” refers to socio-cultural processes that shape behaviours, preferences, values, products, technologies, knowledges, and how individuals and groups interact with their environment. Importantly, the two terms

interact with and influence each other. A sex and gender perspective in health and cancer R&I is crucial as it focuses on people’s circumstances in relation to their economic, social, cultural and working environments. Analysing **factors intersecting with sex and gender** is key to avoid overlooking or overemphasising sex or gender differences (e.g. age, comorbidities, disabilities, environment, ethnicity, geography, religion, sexual orientation, socioeconomic status, etc.).

As Gendered Innovations¹ presents it: **“[s]ex and gender can influence all stages of research or development processes, from strategic considerations for establishing priorities and building theory to more routine tasks of formulating questions, designing methodologies, and interpreting data. Many pitfalls can be avoided—and new ideas or opportunities identified—by designing sex and gender analysis into re-**

1 | Gendered Innovations (a collaboration between Stanford University and the European Commission): <https://genderedinnovations.stanford.edu/methods-sex-and-gender-analysis.html>

This initiative provides with a wide range of terms explanation, methods, checklists and case studies in science, health & medicine, engineering and environment with regards to the integration of a gender dimension in research and innovation. We highly recommend consulting the Health & Medicine Checklist to incorporate sex and gender analyses: http://genderedinnovations.stanford.edu/methods/health_med_checklist.html

search from the start. *Sex and gender analysis work alongside other methodologies in a field to provide yet further “controls” (or filters for bias) providing critical rigor in science, medicine, and engineering research, policy, and practice”.*

An emphasis has been made on the significant inequities “in access to and quality of cancer prevention, screening, early detection, treatment, care and survivorship support among Member States and among different social groups and demographic groups” (p. 17, recommendation 9), mentioning age and **gender**. That is why **the integration of sex/gender analysis methods as a 14th cross-cutting recommendation** in all the Mission’s areas is necessary. Below we discuss differences in the incidence and mortality, development, diagnosis and responses to therapy as well as the quality of life and survivorship.

Examples of how sex and gender interact in relation to cancer

Incidence and mortality²: women and men not only differ in the fact that they have sex-specific cancers such as uterine cancers or prostate cancers but the incidence and mortality of various non-sex specific cancers are associated with these differences:

- Colorectal cancer: “women developed right-sided malignancy while men manifested more on the left side (Kim et al., 2015). Right-sided colon cancer is associated with a higher severity compared with left-sided disease (Kim et al., 2015). The cause of disparity in location might

be due to differences in estrogen level between men and women.”

- Breast cancer: 99% of breast cancers are found in females. This leaves 1% of males and transgender men and women whose research needs must be addressed too, as their incidence and characteristics may differ from cisgender people³.
- Melanoma mortality: “Men had a 34% higher risk of death compared with women (Crocetti et al., 2015)”.
- Genetic and molecular sex differences with the example of the bladder cancer: “Men show a higher incidence of bladder cancer than women (Siegel et al., 2016)[...] It was reported that the His213 allele genotype *SULT1A1* significantly decreased the risk of bladder cancer exclusively in women (Zheng et al., 2003)”.
- Sex hormones: estrogen seems to have a protective role in cancers such as colon cancer or leukaemia. However, “[e]strogen is linked closely to a higher rate of thyroid cancer development in women (Lee et al., 2005; Dorak and Karpuzoglu, 2012)”.

Efficacy and toxicity of treatments⁴: 5-FU, Paclitaxel, Doxorubicin, Cisplatin, Bevacizumab, Rituximab anti-cancer agents all present sex differences in efficacy and toxicity. This is linked to the fact that research involving animal model and clinical trials has been almost only male-oriented.

Gendered lifestyles:

- Colorectal cancer⁵: diet, physical activity (PA) and obesity are three factors that

2 | Kim, H. I., Lim, H., & Moon, A. (2018) Sex Differences in Cancer: Epidemiology, Genetics and Therapy. *Biomolecules & Therapeutics*, 26(4), 335–342.

3 | de Blok, C.J.M. et al. (2019) Breast cancer risk in transgender people receiving hormone treatment: nationwide cohort study in the Netherlands. *BMJ*, 365: l1652.

4 | Kim, H. I., Lim, H., & Moon, A. (2018) *Ibid*.

5 | Conti, Lucia, Manuela Del Cornò, and Sandra Gessani (2020) Revisiting the Impact of Lifestyle on Colorectal Cancer Risk in a Gender Perspective. *Critical Reviews in Oncology/Hematology*, 145: 102834.

play a role in the incidence of colorectal cancer. There are gender-specific responses to these as women tend to have better diets, drink less alcohol and report less physical activity than men. Moreover, obesity, and especially weight gain in the waist and abdominal area has a stronger negative impact for men than for women.

- Smoking and lung cancer⁶: Cancer rates in women increased after they started smoking in larger numbers. Once smoking and cancer were linked, the overall smoking rate decreased, revealing that non-smoking women were more at risk at developing lung cancer than men (20% of death cases for women vs less than 15% for men).

Quality of life and gender: women and men can at times experience cancer and treatments in different ways, leading to a different quality of life (QOL).

- Cancer pain and QOL⁷: among women, QOL was significantly predicted by pain intensity and by depression, whereas among men, depression was the only symptom found to predict QOL.
- Colorectal patients' QOL⁸: gender differences were shown in illness symptoms and chemotherapy treatment effects where women reported body image, abdominal pain and dry mouth as the symptoms affecting their QOL while men

reported fecal incontinency, sexual impotency and sexual arousal.

Survivorship: gender norms and social expectations of masculinity and femininity shape how individuals experience illness and perform the roles of patient and survivor.

- Lymphoma survivors⁹: women tend to report greater personal posttraumatic growth and positive outcomes of cancer on their lives while men tend to deny growth and positive outcomes to maintain masculinity, preventing them from experiencing the benefits of growing from difficult experiences.
- Women continue to be primary caregivers and are affected by their relatives' cancer experience.

Recommendations on how to integrate a gender dimension in Framework conditions for Missions, Mission Work Programmes, project portfolios and evaluation

- Include sex and gender analysis in animal studies and clinical trials as a default requirement and if sex and gender are not relevant, an explanation must be provided why not. Sex and gender must be included in the entire research cycle from research design, methodology, to data interpretation and communication. It should be noted that populations understudy can

5 | Conti, Lucia, Manuela Del Cornò, and Sandra Gessani (2020) Revisiting the Impact of Lifestyle on Colorectal Cancer Risk in a Gender Perspective. *Critical Reviews in Oncology/Hematology*, 145: 102834.

6 | Chloe Bird, video "Sex & Gender Influences on Health & Disease". Available at National Institutes of Health website.

7 | Pud, Dorit (2011) Gender Differences in Predicting Quality of Life in Cancer Patients with Pain. *European Journal of Oncology Nursing: The Official Journal of European Oncology Nursing Society*, 15(5): 486–91.

8 | Trinquinato, Isadora et al. (2017) Gender Differences in the Perception of Quality of Life of Patients with Colorectal Cancer. *Investigación y Educación en Enfermería*, 35(3): 320–29.

9 | Powroznik, Karen, Irena Stepanikova, and Karen Cook (2018) Growth from Trauma: Gender Differences in the Experience of Cancer and Long-Term Survivorship. *Gender, Women's Health Care Concerns and Other Social Factors in Health and Health Care (Research in the Sociology of Health Care)*, 36: 17–36.

vary depending on the cancer researched whether it is sex-specific or mixed-sex.

- Include the integration of sex and gender in the research proposal as part of the evaluation process.
- Include gender scholars in the relevant research domain in the research team.
- Include gender experts among Mission project evaluators and ensure gender balance among evaluators.
- Strive for gender balance in research teams.
- Include in Work Programmes research projects that address knowledge gaps in cancer research (e.g. by focusing on only women or men, or trans women and men, or intersex individuals, etc.). Projects filling the data gaps should receive equal attention as studies that have a gender-balanced sample.
- Include gender indicators in Mission monitoring and evaluation and among key performing indicators.

- Using new technologies such as AI and machine learning to improve data gathering, interpretation, and medical protocol/treatment decisions was mentioned in several recommendations (e.g. 4, 6, 12). This will be beneficial to the whole society only if the dataset is free from gender bias¹⁰.
- Fund research that focuses on a gender analysis of quality of life of cancer patients, survivors and their carers while recognising that women are primary carers worldwide.

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European Commission (2020) *Conquering cancer: mission possible, Interim report of the Mission Board for Cancer*. Luxembourg: Publications Office of the European Union.

GENDERACTION (2018) *Briefing Paper no. 4 Gender for Horizon Europe Research & Innovation missions: ensuring a fast-track to better future for all*.

10 | Cirillo, D., Catuara-Solarz, S., Morey, C. et al. (2020) Sex and gender differences and biases in artificial intelligence for biomedicine and healthcare. *npj Digit. Med*, 3: 81.

100 CLIMATE-NEUTRAL CITIES BY 2030 BY AND FOR... ALL CITIZENS

What gender dimension means and why is it important for the future of our cities?

A gender dimension in the context of Horizon Europe missions refers to the **integration of sex/gender analysis methods in the research content**. Its aim is to stimulate excellence in science and technology by “fixing the knowledge”. “Sex” and “gender” are two distinct terms that should not be used interchangeably.

“**Sex**” refers to the biological characteristics of beings, whether female, male, or intersex. This involves different levels of expression: genes, gametes, morphology (primary and secondary sex characteristics).

“**Gender**” refers to socio-cultural processes that shape behaviours, preferences, values, products, technologies, knowledges, and so on, and how individuals and groups interact with their environment. Here, with our cities. Importantly, those two terms interact and influence each other. There is no anteriority of one on the

other but rather a co-influence. Analysing **factors intersecting with sex and gender** is key to avoid overlooking or overemphasizing sex or gender differences (e.g. age, comorbidities, disabilities, environment, ethnicity, geography, religion, sexual orientation, socioeconomic status, etc.).

As Gendered Innovation¹ presents it: “[s]ex and gender can influence all stages of research or development processes, from strategic considerations for establishing priorities and building theory to more routine tasks of formulating questions, designing methodologies, and interpreting data. Many pitfalls can be avoided—and new ideas or opportunities identified—by designing sex and gender analysis into research from the start. Sex and gender analysis work alongside other methodologies in a field to provide yet further “controls” (or filters for bias) providing critical rigor in science, medicine, and engineering research, policy, and practice”.

Gender and/or equality issues have not been mentioned so far in the document

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This initiative provides with a wide range of terms explanation, methods, checklists and case studies in science, health & medicine, engineering and environment with regards to the integration of a gender dimension in R&I. We highly recommend consulting their Urban Planning & Design Checklist: http://genderedinnovations.stanford.edu/methods/urban_checklist.html.

produced by the Cities Mission Board. The report does stress the importance of “leaving no one behind”, of participatory approaches and contributing moderately to SDG 5 and 10. We argue that **gender should be mainstreamed as a cross-cutting issue in this Mission**. Below, we introduce examples of relevant inclusion of sex/gender perspectives in urban planning, sustainable Industries, digitalisation, and cities governance followed by recommendations.

Examples of how sex and gender interact in relation to Urban & Industry planning

Integrated and gender-sensitive Urban Planning

Sustainable and gender-sensitive transportation

- **Different uses**²: It has been shown that, on average, men and women do not use the same means of transport and use them differently. Only 30% of women have access to a car during daytime³. When it comes to public transportation, women spend 1/4 of their public transportation use for caring work. They also make more stops on their way to work compared to men. Men, on the other hand have simpler travel patterns from home to work and back.
- **Can snow-clearing be sexist?**⁴ Snow-clearing is part of the cities’ duties for safe commuting. In Karlskoga, Sweden, major traffic arteries were cleaned

before sidewalks. This impacts men and women differently as women tend to walk more than men worldwide. By exchanging the order in the schedule, the city saved expenses on health care as less pedestrians/cyclists were injured by falls on slippery sidewalks.

- **Gender-sensitivity and accessibility**: As women make up most public transports users, their needs should be considered. This includes accessible stations and step-free entrance to the transport (e.g. for baby carriage). It also involves redesigning ticket fares (e.g. charging an hour instead of a journey or at each connection, as women tend to make stops).

Housing and neighbourhood design and gender

- **Gender-sensitive neighbourhoods**⁵: In many countries, women are the primary caregivers for children and elderly and/or do most of the housework. This involves a lot of commuting (as seen above) which has bad consequences on the environment and on these populations. To support them (as well as working parents) and reduce pollution, neighbourhoods can be organised in a gender-sensitive way, i.e. by including on-site child and elderly care facilities, shops, and primary-care medical facilities.
- **Gender-sensitive housing**⁶: Vienna developed sustainable and gender-sensitive housing. One example is the FWS-I floorplan, where “kitchens

2 | <http://genderedinnovations.stanford.edu/case-studies/transportation.html#tabs-2>

3 | Roero, L. M., Scioneri V., and Abluton A. (2009) *UrbSpace, WP3 Joint Strategy, Activity 3.2 Criteria and Principles, Sub-activity 3.2.3 Gender Aspects*, p. 17.

4 | Criado Perez C. (2019) *Invisible Women. Data Bias in a World Designed for Men*. New York: Abrams Press.

5 | <http://genderedinnovations.stanford.edu/case-studies/urban.html#tabs-2>

6 | *Ibid.*

are cantilevered and extend beyond the footprint of the building to allow an unobstructed view of open spaces for caregivers to monitor children at play". They also included different types of apartments in the buildings for inter-generational living and giving the possibility for families to have their elderly, who are predominantly women, in the same building/neighbourhood.

Safety issues⁷: men and women face safety issues in public spaces and transports. It has been shown that men face more violence and robbery while women face more sexual harassment and gender-based violence. Women, especially women of colour and/or LGBTQI+ women, as well as disable people, children and the elderly are more vulnerable groups as they encounter more intersecting discrimination (racism, ableism, homophobia, etc.). It has an impact on their use of transports and their quality of life. Part of the solution is to have well-lit open spaces, removing bushes around public transports stops, Wi-Fi connectivity in public transports or campaigns⁸.

Industry, Economy & Energy

Gender gaps in energy education and labour markets⁹: Gender segregation continues in STEM studies, including green energy education. This is then reflected in the energy labour market (composed of 77.9% of men in Europe). Additionally, women are mostly found in lower-skilled jobs. Explanations for this include lack of interest, idea that it is a "male domain",

difficulty of work-life balance, stereotypes, insufficient promotion and lack of mentors and role models.

Gender and economy: Cities gather most of employment possibilities and this will force women to move from rural areas to urban areas. Access to cities must then take this into account by designing better public transportation (as they tend to use more public transports than cars).

Gender and energy¹⁰

- **Women and energy poverty**: Women are more at risk of energy poverty (especially single mothers and elderly women) due to their average lower incomes although they rely more than men on heating and indoor air quality since they spend more time, on average, in the home, taking care of the unpaid work at home.
- **Women as sustainable consumers**: Women tend to have more environmentally friendly consumption patterns in terms of nutrition and transportation and are more willing to change their behaviour due to environmental pressures than men.

Urban digitalisation and gender

- **Free to Be maps, a crowd-mapping tool that identifies safe and unsafe spaces**¹¹: This tool is an online crowd-mapping that identifies spaces in Sydney, Delhi, Kampala, Lima, and Madrid where young women felt happy and good or uneasy and scared.

7 | [https://eige.europa.eu/gender-mainstreaming/policy-areas/transport#\[1type\]](https://eige.europa.eu/gender-mainstreaming/policy-areas/transport#[1type])

8 | M. Nuala, S. Lazar, and S. Weber (2019) *Gender Equal Cities*. Paris: URBACT.

9 | <https://eige.europa.eu/gender-mainstreaming/policy-areas/energy>.

10 | European Institute for Gender Equality (2012) *Gender Equality and Climate Change. Review of the Implementation in the EU of Area K of the Beijing Platform for Action: Women and the Environment: Report*. Luxembourg: Publications Office of the European Union.

11 | PLAN International (2018) *Free to Be initiative*.

- **Smart Kiosks¹²:** Access to Wi-Fi and information are part of women's empowerment. This can be done through smart kiosks. An example from Baltimore which did a pre-assessment of the needs of the targeted population showed that women would not use it as the space is not well-lit and they do not feel safe staying outside for long time because of crime rates. As a result, the city decided to improve the infrastructures and lighting before implanting the kiosks.
- Require cities to assess through a gender lens the utilisation of sites, locations, means of transports, etc. before planning projects and that gendered impacts of the Contract initiatives are assessed.
- Ensure sex-disaggregated data for additional indicators (e.g. decrease of energy in buildings, final energy consumed per inhabitant) to inform future policies.
- For the evaluation process, include the integration of sex and gender in the research proposal, include gender experts among Mission project evaluators and ensure gender balance among evaluators.

Cities governance

- **Women in decision-making positions:** In the European Union, 28.6% of regional assembly members, 36% of municipal council members and only 15% of mayors, are women. Sustainable cities may be attained faster with a more diverse representation in power structures.
- **Gender-sensitive public consultations¹³:** Consultations are a great tool to hear more diverse voices and shapes policies. They need to be accessible for all in terms of location, culture, language, timetable, and inclusive design.
- Strive for gender balance among all stakeholders involved in the Climate City Contract drafting, implementation, monitoring and evaluation and in participatory approaches, including the involvement of gender scholars and women who are locally active in urban planning and energy fields or actions.
- To improve women's participation and representation in urban planning and energy science and workforce, we advise you to take a look at our policy papers on structural change, disruptive measures for gender equality in R&I and on the role of Research Funding Organisations for gender equality in R&I.

Recommendations

- Include sex and gender analysis where relevant and on topics affecting human populations as a default requirement. If sex and gender are not relevant, an explanation must be provided why not. Sex and gender must be included in the entire research/innovation cycle from research design, methodology, to data interpretation and communication.
- The gender commitments must be accompanied by gender budgeting (in all levels of procedure)¹⁴.
- Cultivate a zero-tolerance attitude towards sexual harassment and gender-based violence in urban public spaces. Safety measures in the city should be accompanied by educational campaigns, information stands and other tools¹⁵.

12 | The Global Centre for Technology, Innovation and Sustainable Development (2020) *How to ensure gender inclusion of Smart City services*. Webinar.

13 | URBACT (2019) *Ibid*. See the case study of the consultation to increase women's presence in public sports spaces in Ramicu Sarat, Romania, p. 15.

14 | URBACT (2019) *Ibid*. See the case study on gender-responsive budgeting in Ixelles, Brussels, p. 22.

15 | URBACT (2019) *Ibid*. See the case study on Madrid, Spain, p. 48.

- Digitalisation implies collecting and using multiple sets of data on transportation, energy consumption, use of services, etc. Privacy issues and ethics should be the main concerns before the cities' optimisation and efficiency.

References

European Commission (2020) *100 Climate-Neutral Cities by 2030 – by and for the Citizens. Interim Report of the Mission Board for Climate-Neutral and Smart Cities*. Luxembourg: Publications Office of the European Union.

HEALTHY OCEANS, SEAS, COASTAL AND INLAND WATERS... AND THEIR GENDER IMPLICATIONS

What gender dimension means and why it is important for healthy waters R&I

A gender dimension in the context of Horizon Europe missions refers to the **integration of sex/gender analysis methods in the research content**. It aims to stimulate excellence in science and technology by “fixing the knowledge”. “Sex” and “gender” are two distinct terms that should not be used interchangeably.

“**Sex**” refers to the biological characteristics of beings, whether female, male, or intersex and for maritime populations, hermaphrodites. This involves different levels of expression: genes, gametes, morphology (primary and secondary sex characteristics).

“**Gender**” refers to socio-cultural processes that shape behaviours, preferenc-

es, values, products, technologies, knowledges, and so on, and how individuals and groups interact with their environment. Here, with ocean, seas, coastal and inland waters. Importantly, those two terms interact and influence each other. There is no anteriority of one on the other but rather a co-influence. Analysing **factors intersecting with sex and gender** is key to avoid overlooking or overemphasizing sex or gender differences (e.g. age, disabilities, environment, ethnicity, geography, religion, sexual orientation, socioeconomic status...).

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data. Many pitfalls can be avoided—and new ideas or opportunities identified—by designing sex and gender analysis into research from the start. Sex and gender analysis work alongside other methodologies in a field to provide yet further “controls” (or filters for bias) providing critical rigor in science, medicine, and engineering research, policy, and practice”.

An emphasis of this mission board has been put on the necessity to aim for “life-long gender-balanced learning opportunities for all ages to re- and up-skill a blue gender balanced workforce” (p. 20 of the Interim Report). This may not be sufficient.

Gender should be included in all streams of actions as a cross-cutting issue. Below, we discuss how sex or gender can be relevant regarding fishing, ocean acidification and pollution, women’s representation in ocean science and marine governance.

Examples of how sex and gender interact in relation to the Mission’s challenges

Unsustainable human footprint (incl. pollution, fisheries, tourism)

Blue economy and gender: the ocean, seas, coastal and inland waters are a life-support system for billions of people for food, jobs and resources, whether we talk about fisheries, maritime shipping, deep-sea mining, renewable energies or tourism. Gender needs to be taken into account.

- **Fisheries, climate change and gender:** In research, fishing has long been seen as a male activity but women have

always had an important role that has been overlooked². They can be found throughout the entire supply chain with pre-harvest activities (e.g preparing bait and nets), harvesting mainly in shallow waters (for family nutrition and supporting household income). They also dominate the processing and trade sectors (women compose 85% of the processing workforce)³. As climate change affects coastal biodiversity, it will affect women’s fishing practices and livelihoods.

- **Sustainable fishery and gender⁴:** Studies show that sustainability and gender are linked with, for example, women presenting more sustainable catches, better resources management and meeting high standards of sustainability.

Human Ocean pollution disasters and gender⁵: Fadigas (2017) shows through a case-study on the pre-2002 Prestige oil disaster that not only the entire coastal environment is at risk but that there are more vulnerable groups such as Galician shellfisherwomen. They were vulnerable already before the spill because of different causes (e.g. strong gender roles, pollution, lack of disaster response training, lack of risk perception, etc.) that the disaster made worse, forcing them to relocate or lose their jobs.

Climate change and acidification

Natural marine sciences and sex analysis: There is a lack of sex-disaggregated data in marine sciences. Marine ecosystems consist

2 | Gissi, E., M. E. Portman, and A. K. Hornidge (2018) Un-Gendering the Ocean: Why Women Matter in Ocean Governance for Sustainability. *Marine Policy*, 94: 215–19.

3 | WWF (2019) *Policy Brief Empowering women in marine communities to mitigate the impacts of climate change*.

4 | Gissi, E., M. E. Portman, and A. K. Hornidge (2018) *Ibid*.

5 | Fadigas, Amanda B.M. (2017) Vulnerability Factors of Shellfisherwomen in the Face of Oil Spill Events: An Analysis of the Prestige Case. *International Journal of Disaster Risk Reduction*, 24: 560–67.

of organisms with different reproductive qualities (female, male or hermaphrodite). Sex-based differences are interesting to understand the species better but also to understand the impacts global warming and ocean acidification can have on them, and consequently on us.

- **Ocean acidification (OA) and sex analysis:** Ellis et al. (2017)⁶ showed that only 3.9% of the experimental OA studies assessed sex-based differences in OA responses. Plus, *“only 10.5% of studies account for possible sex effects by assessing males and/or females independently”*. Moreover, it has been shown that *“ocean acidification results in 16% more female oysters over a single generational cycle, and increased aquatic pH results in more female cichlids”*⁷ to give only two examples.
- **Global warming and sex analysis:** Some fish and turtles are known for relying on temperature for sex determination. *“Turtles originating from warmer northern Great Barrier Reef [...] exhibit a female sex ratio of 99%, whereas cooler southern sites maintain a 68% female juvenile ratio”*⁸.
- **Anthropogenic disturbances and sex analysis:** Anthropogenic disturbances include habitat destruction, pollution and overfishing. *“Primary sex differen-*

*tiation has been shown to respond to a diverse range of these environmental factors in a growing number of species. Hypoxia, for example, has resulted in a higher ratio of males in zebrafish”*⁹.

All of these factors impact marine populations. It poses risks to sex ratios, demographic stability and viability of the species. This will impact the overall functioning of the oceans and waters and its capacity to absorb CO₂, and hence impact us. If we do not take into account sex analysis methods, we cannot fully understand how these factors influence waters.

Gendered vulnerabilities to impacts of climate change: Emerging research indicates that climate change impacts on women and men often differ and are more pronounced or severe in developing countries and for some local communities and indigenous peoples¹⁰. In most societies, women and children are among the poorest segments, the most ill-equipped to cope with and adapt to climate change, and thus the most impacted by its effects¹¹. In addition, they are less likely to be in positions of power to influence action to address climate change, even though they usually have distinctive knowledge due to their roles in coastal work and communities.

6 | Ellis, Robert P. et al. (2017) Does Sex Really Matter? Explaining Intraspecies Variation in Ocean Acidification Responses. *Biology Letters* 13(2).

7 | Tannenbaum, Cara et al. (2019) Sex and Gender Analysis Improves Science and Engineering. *Nature* 575(7781): 137–46.

8 | *Ibid.*

9 | *Ibid.*

10 | IPCC (2014) *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge and New York: Cambridge University Press.

11 | Munoz Boudet, A. M., Buitrago, P., Leroy De La Briere, B., Newhouse, D. L., Rubiano Matulevich, E. C., Scott, K., Suarez Becerra, P (2018) *Gender differences in poverty and household composition through the life-cycle: a global perspective. Policy Research working paper; no. WPS 8360*. Washington, D.C.: World Bank Group.

Lack of understanding and connection

Recognising the impact of women in marine conservation: Although marine R&I and policymaking has historically been a male-dominated environment, women have been at the forefront of marine conservation. Using these examples as role models for girls and boys for ocean literacy could help achieve a gender-balanced Blue workforce:

- **Rachel Carson**, one of the pioneers who initiated the contemporary environmental movement with her three bestsellers (*Under the Sea-Wind*, *The Sea Around Us*, and *The Edge of the Sea*).
- **Sylvia Earle**, first woman to create an all-female team of aquanauts in the 1960s.
- **Elisabeth Mann Borgese**, internationally-recognised German expert on maritime law and policy and environment protection.

Inadequate Governance

Women's inadequate participation in decision-making: As the examples above attest, women have experiences, skills and knowledges about ocean and maritime sustainability that should not be ignored in decision-making at all levels. Moreover, because women tend to have higher environmental concern than men^{12, 13}, they may

promote more sustainable group outcomes if given the opportunity to participate in decision making¹⁴.

A gender dimension in maritime security strategies¹⁵: The current instruments are gender-blind. They should respond to a human security approach, including the principle of gender equality explicitly. This should address, *inter alia*, actions against the illicit acts against girls and women at sea in addition to gender-balanced law enforcement rescue teams that will be able to better protect them from gender-based violence.

Migration and human trafficking at sea and gender has not been mentioned in the Mission's Interim report. It has not yet fully caught the attention of law enforcement.

- **Illegal, unregulated and unreported fishing (IUUF) and human trafficking¹⁶:** The majority of forced labour in IUUF are male and children. But women are also reported to work on vessels or offshore in supply chains and are subject to sexual abuse, as the "fish-for-sex" phenomenon has shown (women engaging in sexual work with fishers in order to obtain fish to sell and support their families). There are many shortcomings in international maritime law described in this article.
- **Climate change induced migration¹⁷:** "Some scholars argue that due to relatively higher levels of female poverty

¹² | European Commission (2017) *Special Eurobarometer 459: Climate Change*. Brussels: European Union.

¹³ | European Commission (2017) *Special Eurobarometer 468: Attitudes of European Citizens towards the Environment*. Brussels: European Union.

¹⁴ | Vollan, B., Henry, A.D. (2019) Diversity in decision-making. *Nat. Clim. Chang.* 9: 258–259.

¹⁵ | Lirola-Delgado, Isabel (2019) Maritime Security Strategies from a Gender Perspective: Implications for United Nations SDG 5 Implementation. *WMU Journal of Maritime Affairs* 18(4): 537–55.

¹⁶ | Becker-Weinberg, V. (2019) The protection of women in illegal, unregulated and unreported fishing. *WMU Journal of Maritime Affairs*, 18, 531–535.

¹⁷ | Hunter, Lori M, and Emmanuel David (2009) *Climate Change and Migration: Considering the Gender Dimensions*. Institute of behavioral science, University of Colorado. Boulder, CO, USA.

and broadly unequal power relations, climate change will disproportionately impact women (Beuchler 2009)", pushing them to relocate. Girls and women's vulnerabilities in migration have to be recognised.

Recommendations

- Include sex and gender analysis in animal studies where relevant and on topics affecting human populations as a default requirement. If sex and gender are not relevant, an explanation must be provided why not. Sex and gender must be included in the entire research cycle from research design, methodology, to data interpretation and communication.
- Tool to integrate gender perspectives in marine research and innovation: GenderWave¹⁸.
- Include the integration of sex and gender in the research proposal as part of the evaluation process.
- Include gender scholars in the relevant research domain in the research team where relevant.
- Include gender experts among Mission project evaluators and ensure gender balance among evaluators.
- Strive for gender balance at all levels in research teams and in decision-making /

governance.

- Include women who are locally active in marine or water-related fields or actions.
- Address sexual harassment and gender-based violence at sea, during expeditions, on vessels¹⁹.
- To improve women's participation and representation in ocean science and the blue workforce, we advise you to take a look at our policy papers on structural change, disruptive measures for gender equality in R&I and on the role of Research Funding Organisations in making gender equality happening.

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European Commission (2020) *Regenerating our ocean and waters by 2030, Interim report of the Mission Board healthy oceans, seas, coastal and inland waters*. Luxembourg: Publications Office of the European Union.

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Special Thanks

We would like to thank our colleagues from Horizon 2020 project Baltic Gender for their precious contribution to this paper.

18 | This tool was developed by the Horizon 2020 funded project Baltic Gender.

19 | Find examples of good practice to involve more women in decision-making and on how to tackle sexual harassment and sexual violence at sea in Baltic Gender's brochure "Gender equality in marine sciences, Best practices on structural change". Available at: <http://oceanrep.geomar.de/44349/>. They also developed three tools on sexualised violence at sea to help institutes and vessels implementing their guidelines: <http://oceanrep.geomar.de/49888/>.

CARING FOR SOIL IS CARING FOR LIFE

Ensure 75% of soils are healthy by 2030 for healthy food, people, nature and climate

What gender dimension means and why it is important for our soils' health

A gender dimension in the context of Horizon Europe missions refers to the **integration of sex/gender analysis methods in the research content**. Its aim is to stimulate excellence in science and technology by "fixing the knowledge". "Sex" and "gender" are two distinct terms that should not be used interchangeably.

"Sex" refers to the biological characteristics of beings, whether female, male, or intersex. This involves different levels of expression: genes, gametes, morphology (primary and secondary sex characteristics).

"Gender" refers to socio-cultural processes that shape behaviours, preferences, values, products, technologies, knowledges, and so on, and how individuals and groups interact with their environment. Here, with our soils and the food they

produce. Importantly, those two terms interact and influence each other. There is no anteriority of one on the other but rather a co-influence. Analysing **factors intersecting with sex and gender** is key to avoid overlooking or overemphasizing sex or gender differences (e.g. age, comorbidities, disabilities, environment, ethnicity, geography, religion, sexual orientation, socioeconomic status, etc.) and acknowledge heterogeneity within groups of the same sex and gender.

As Gendered Innovation¹ presents it: **"[s]ex and gender can influence all stages of research or development processes**, from strategic considerations for establishing priorities and building theory to more routine tasks of formulating questions, designing methodologies, and interpreting data. Many pitfalls can be avoided—and new ideas or opportunities identified—by designing sex and gender analysis into research from the start. Sex and gender analysis work

1 | Gendered Innovations (a collaboration between Stanford University and the European Commission): <https://genderedinnovations.stanford.edu/methods-sex-and-gender-analysis.html>.

This initiative provides with a wide range of terms explanation, methods, checklists and case studies in science, health & medicine, engineering and environment with regards to the integration of a gender dimension in R&I. There is an upcoming contribution on agriculture that will be added in Gendered Innovation publication, website and policy recommendations.

alongside other methodologies in a field to provide yet further “controls” (or filters for bias) providing critical rigor in science, medicine, and engineering research, policy, and practice”.

The Mission emphasises the importance of its **gender inclusive communication** (p.14). However, we argue that gender should be mainstreamed throughout the Mission and especially in its research and innovation content. Below, we present **examples of how gender and sex are relevant in agriculture, soil and health and international cooperation**.

Examples of how sex and gender interact in relation to agriculture and Soil health R&I

Gender equality in Agriculture

Agriculture has a key role in food production, environmental and landscape protection, Europe’s resilience, and in income generation and employment. Differences between men and women persist in this area in Europe.

- **Farm ownership²**: Women are under-represented in farm ownership. They own smaller farms than men and represent only 27% of EU farms holders specialising in livestock rearing or crop production, and 24% of EU organic farm holders. A growing literature on gender equality and agriculture shows that

equal access to resources and assets is correlated with economic growth.

- **Invisibilisation of women in agricultural and rural development³**: 3.3% of women are employed in agriculture compared to 5.2% of men. Women’s input is often under-reported since they are not asked to report by themselves, or farm work is narrowly defined as wage labour and therefore questions exclude activities predominantly performed by women without pay (e.g. processing, storage or caring services to farm workers and visitors). Women in rural areas also undertake most of house and care work which is often more intensive since facilities are often far, and children and the nearby living relatives (such as grandparents) rely on them for transport or errands. This invisibility and remoteness lead to the ignorance of women’s needs of access to resources, social security, land rights and other facilities.
- **Women as sustainable agents⁴**: In Europe, it appears that workshops on sustainable soil management attract more men than women. This is probably due to the higher visibility of men in agriculture. European projects (SoilCare and RECARE) showed that men were more willing to invest in new technologies, increase productivity and profit while women focused on the future health of soils. This is in line with a growing number of studies^{5,6,7} showing that women tend to

2 | European Institute for Gender Equality (2016) *Gender in Agriculture and Rural Development*. Luxembourg: Publications Office of the European Union.

3 | *Ibid*.

4 | Food and Agriculture Organizations of the United Nations (2019) *Mainstreaming gender for sustainable soil management*, n°161.

5 | European Institute for Gender Equality (2012) *Gender Equality and Climate Change: Review of the Implementation in the EU of Area K of the Beijing Platform for Action: Women and the Environment: Report*. Luxembourg: Publications Office of the European Union.

6 | European Commission (2017) *Special Eurobarometer 459: Climate Change*. Brussels: European Union.

7 | European Commission (2017) *Special Eurobarometer 468: Attitudes of European Citizens towards the Environment*. Brussels: European Union.

have more environmentally friendly consumption patterns in terms of nutrition and transportation, and are more willing to change their behaviour due to environmental pressures than men.

Gender, Soil and Health

- **Lack of data, health impact of chemicals and focus on women**⁸: Literature reviews demonstrate that women are understudied in chemicals and health-related studies. The male default prevails. Additionally, women's exposure to pesticides and poisoning are underestimated. For example:
 - FREIA project⁹ showed how endocrine disrupting chemicals (EDCs) worsen the risks for women to develop reproductive health issues such as early menopause, breast cancer, polycystic ovary syndrome, endometriosis, infertility, or irregular menstrual cycles.
 - The FP7 project Reproductive effects of environmental chemicals in females (REEF)¹⁰ found out that environmental chemicals had an impact on fertility and bone homeostasis which affected more males than females.
- **Poor health and agricultural productivity**¹¹: Poor health and nutrition (micronutrient deficiencies, undernutrition) affect work capacity but also resistance to diseases such as malaria and HIV but also new zoonic viruses such as Covid-19. Women are especially vulnerable

to those for different reasons such as changes in immunity during pregnancy, cultural norms reducing women's control over their sexuality thus increasing their risk to face STDs, work patterns increasing exposure to soil borne infectious diseases as they have a predominant role in acquiring and handling of water, wood, and food on all continents.

International cooperation in Soil R&I

The mission Interim report highlights the importance of European global footprint and thus international cooperation in R&I.

Agricultural innovations for sustainability

Technological interventions and innovation towards more sustainable agriculture in developing countries can have harmful consequences if gender and social perspectives are not considered. On the other hand, positive outcomes can emerge if they are taken into account:

- **Mechanical and technological innovations**¹²: Examples from developing countries show that the introduction of technology without considering the cultural settings (e.g. restrictions on leaving the house) may have negative consequences, such as replacing women's work or increasing their work-

8 | García, Ana M. (2003) Pesticide Exposure and Women's Health. *American Journal of Industrial Medicine*, 44(6): 584–94.

9 | FREIA and the Health and Environment Alliance (2020) *Endocrine disrupting chemicals (EDCs) and women's reproductive health*.

10 | <http://genderinnovations.stanford.edu/case-studies/environment.html#tabs-2>

11 | Harris, J. (2014) Gender Implications of Poor Nutrition and Health in Agricultural Households. *Gender in Agriculture*. Dordrecht: Springer Netherlands, pp. 267-283.

12 | Beuchelt T.D. (2016) Gender, Social Equity and Innovations in Smallholder Farming Systems: Pitfalls and Pathways. In: Gatzweiler F., von Braun J. (eds) *Technological and Institutional Innovations for Marginalized Smallholders in Agricultural Development*. Springer, Cham.

load (e.g. mechanical thresher, treadle pumping, seeder technologies). This negatively influences their economic status, health, and care work capacities. On the other hand, other innovations have been shown to have opposite outcome as it increased women's work opportunities.

- **Availability of more robust seed:** Innovations on seeds may help them become more resistant to drought and the lack of irrigation or to high temperatures; some unintended consequences of this were that the new seeds required longer cooking time, thus also more water and wood. This directly impacted women as they are usually in charge of acquiring and handling those items for the household.
- **Gender and "climate-smart" agricultural practices¹³:** Many of the 'climate-smart' agricultural practices and interventions, for example composting, vermiculture, and conservation agriculture may substantially increase women's workloads. This combined with the lack of access to resources is likely to hinder them to change their practices.

Recommendations

- Include sex and gender analysis where relevant and on topics affecting human populations as a default requirement. If sex and gender are not relevant, an explanation must be provided why not. Sex and gender must be included in the entire research/innovation cycle from research design, methodology, to data interpretation and communication.
- Produce and cross-analyse sex-disaggregated data on women's participation in

and contribution to agriculture (paid and unpaid work included), their access to key resources and assets, as well as on farm safety and health incidents, inclusion in sustainability efforts, differentiated by agro-ecological zones, types of farming, and conventional / organic agriculture.

- Make sure women and men are not addressed as homogeneous groups but systematically include their heterogeneity.
- Ensure gender balance in citizen engagement and co-creation, in Living Labs and the Lighthouse.
- Involve women who are locally active in agriculture, soil management and food security.
- For the evaluation process, include the integration of sex and gender in the research proposal, include gender experts among Mission project evaluators and ensure gender balance among evaluators.
- Include gender scholars in the relevant research domain in the research team and strive for gender balance in research teams.
- To improve women's participation and representation in agriculture and soil health studies and workforce, we advise you to take a look at our policy papers on structural change, disruptive measures for gender equality in R&I and on the role of Research Funding Organisations.
- Strategic Research options:
 - Alternative agriculture and gender: Reviewing what can be learned from alternative approaches to conventional agriculture in which women participate prominently (including organic or circular agriculture).

13 | Jost, C. et al. (2015) Understanding gender dimensions of agriculture and climate change in smallholder farming communities. *Climate and Development*. Dordrecht: Springer Netherlands, pp. 133-144.

- Modern agriculture, land uses and gender: Reviewing what can be learned about the relationship between ‘modern’ agriculture and land uses with degradation of soils, quality of produce as food, move away from soils in horticulture and urban farming warehouses, in combination with gendered impacts and inclusion.
- Developing a framework to include relationships of agricultural production alternatives (farming systems), soil and people’s health, (as differentiated by agro-ecological zones, types of farming, and conventional / organic agriculture) with gendered engagement, contributions, potential, needs, connections, decision-making, etc.

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ACCELERATING THE TRANSITION TO A CLIMATE PREPARED AND RESILIENT EUROPE

What gender dimension means and why is it important in the field of climate studies?

A gender dimension in the context of Horizon Europe missions refers to the **integration of sex/gender analysis methods in the research content**. Its aim is to stimulate excellence in science and technology by “fixing the knowledge”. “Sex” and “gender” are two distinct terms that should not be used interchangeably.

“**Sex**” refers to the biological characteristics of beings, whether female, male, or intersex. This involves different levels of expression: genes, gametes, morphology (primary and secondary sex characteristics).

“**Gender**” refers to socio-cultural processes that shape behaviours, preferences, values, products, technologies, knowledges, and so on, and how individuals and groups interact with their environment. Importantly, those two terms interact and influence each other. There is no anteriority of one on the other but rather a co-influ-

ence. Analysing **factors intersecting with sex and gender** is key to avoid overlooking or overemphasizing sex or gender differences (e.g. age, comorbidities, disabilities, environment, ethnicity, geography, religion, sexual orientation, socioeconomic status, etc.).

As Gendered Innovation¹ presents it: “[s]ex and gender can influence all stages of research or development processes, from strategic considerations for establishing priorities and building theory to more routine tasks of formulating questions, designing methodologies, and interpreting data. Many pitfalls can be avoided—and new ideas or opportunities identified—by designing sex and gender analysis into research from the start. Sex and gender analysis work alongside other methodologies in a field to provide yet further “controls” (or filters for bias) providing critical rigor in science, medicine, and engineering research, policy, and practice”.

The report highlights the socio-economic consequences of climate change and the

1 | Gendered Innovations (a collaboration between Stanford University and the European Commission): <https://genderedinnovations.stanford.edu/methods-sex-and-gender-analysis.html>.

This initiative provides with a wide range of terms explanation, methods, checklists and case studies in science, health & medicine, engineering and environment with regards to the integration of a gender dimension in R&I.

principles of “the resilience of social and economic systems with a commitment to equity, social justice and to leave no one behind” (p. 9). **We argue that sex and gender should be mainstreamed throughout the Mission as a cross-cutting issue.** Climate change is also a cross-cutting issue, but as other EU Missions already focus on soils, waters, and cities, we will not focus on these aspects specifically here². Below, we will present examples of how gender and sex are relevant in climate change research and innovation, covering gendered impacts of climate disruptions, the role of women in risk management, building resilience, and mitigation.

Examples of how sex and gender interact in relation to climate change

Gendered impacts of climate disruptions

Gendered impacts of climate disruptions in developing countries³: Climate disruptions such as droughts, crops fail, extreme weather and natural disasters affect developing countries to a larger extent. There are different risks when facing these disruptions from a gender perspective. On the one hand, women may have to walk longer to get water because of droughts (as they

are the primary house workers). They also may have less possibilities to flee a disaster because of their care duties, cultural expectations that restrict their mobility or the fact that they were not taught how to behave in an extreme case. On the other hand, men face higher death rates as cultural pressures of masculinity imply that they take more risks.

Gendered impacts of climate disruptions in Europe: The heatwave in 2006 in France killed around “1% more elderly women than men due to cardiovascular disease, respiratory disease and directly heat-related deaths”⁴. In Italy, another study shows that more men than women die from landslides and floods due to “a different propensity towards the risk taking and a different degree of exposure between males and females”⁵. In Serbia, the 2014 floods impacted more women, elderly people and disabled people because of the lack of information on the state of emergency, the possibilities for evacuation and difficulties during the rehabilitation after the disaster⁶.

Increase of gender-based violence during/after climate change-induced disasters⁷: Extensive literature shows that gender-based violence and inequalities, especially towards women and girls, but also against LGBTIQ+ communities⁸, increase during and after a climate change-induced

2 | Make sure to consult our other 2-pagers on Horizon Europe Missions at GENDERACTION website.

3 | Allwood, Gill (2014) Gender mainstreaming and EU climate change policy. In Weiner, Elaine and Heather MacRae (eds) The persistent invisibility of gender in EU policy. European Integration online Papers (EIoP), Special issue 1, Vol. 18, Article 6, 1-26.

4 | European Gender Equality Institute (EIGE), *Environment and climate change*.

5 | Salvati, P., Petrucci, O., Rossi, M., Bianchi, C., Pasqua, A. A., & Guzzetti, F. (2018) Gender, age and circumstances analysis of flood and landslide fatalities in Italy. *Science of The Total Environment*, 610-611, 867–879.

6 | Organisation for Security and Co-operation in Europe (2015) *Gender analysis of the Impact of the 2014 Floods in Serbia*.

7 | UN Women (2014) *Climate Change, Disasters and Gender-Based Violence in the Pacific*.

8 | Gorman-Murray, A., McKinnon, S., & Dominey-Howes, D. (2014) *Queer Domicide*. *Home Cultures*. 11(2), 237–261.

disaster whether in the domestic sphere⁹, or during displacements and sheltering. This is due to marginalisation from social and political spaces and from economic resources that aggravate their vulnerabilities.

Accelerate transition to a resilient future

Women as agents of change: A growing number of studies^{10,11,12} show that women tend to have more environmentally friendly consumption patterns in terms of nutrition (they are more likely to buy eco-labelled products than men, they eat less meat) and transportation (they are more likely to use public transports, for economic reasons but also as a choice) and are more willing to change their behaviour due to environmental pressures than men.

Women and mitigation strategies¹³: EIGE showed that women, in Europe, were more at risk of energy poverty because of their average lower incomes. On the other hand, as they spend more time at home doing unpaid housework, they rely on energy for heating, air quality, and household devices. Mitigation measures to lower GHG emissions might put pressures on women because of the financial burden. Research still needs to be done on women's need for energy and its impact on climate change

and the possible counterbalance with women's willingness to change their behaviours toward more environmental friendliness.

Inclusion of women in climate innovations:

- **Women's Weather Watch¹⁴:** After the floods in 2004 in the northern part of Fiji, WWW developed a community radio, providing real-time information via SMS alerts, a Viber group and Facebook page. The radio is composed of women leaders and correspondents.
- **Gender and water infrastructure¹⁵:** In developing countries, as women and girls spend a lot of time fetching water, they develop knowledge of soils and water yields. Using their knowledge and skills has proven efficient as the three case-studies on water infrastructure, on girls' and boys' education on water and health and on assistive technology to fetch water from Gendered Innovations show.

The inclusion of women in risk management¹⁶: Two case studies show that women take an important part in the aftermath of a disaster. They are usually taking on typical caring work, emotional work and taking care of resources such as food and water. But they also take part in the reconstruction

9 | Nguyen, H. T., & Rydstrom, H. (2018) Climate disaster, gender, and violence: Men's infliction of harm upon women in the Philippines and Vietnam. *Women's Studies International Forum*, 71, 56–62.

10 | European Institute for Gender Equality (2012) *Gender Equality and Climate Change. Review of the Implementation in the EU of Area K of the Beijing Platform for Action: Women and the Environment: Report*. Luxembourg: Publications Office of the European Union.

11 | European Commission (2017) *Special Eurobarometer 459: Climate Change*. Brussels: European Union.

12 | European Commission (2017) *Special Eurobarometer 468: Attitudes of European Citizens towards the Environment*. Brussels: European Union.

13 | European Institute for Gender Equality (2012), *Ibid*.

14 | Innovation Station: Women's Weather Watch, Fiji.

15 | <http://genderedinnovations.stanford.edu/case-studies/water.html#tabs-2>

16 | Drolet, J. et al. (2015) Women rebuilding lives post-disaster: innovative community practices for building resilience and promoting sustainable development. *Gender & Development*, 23(3), pp.433-448.

and recovery processes through agriculture and rebuilding houses devastated by disasters. The issue is that they are rarely part of the decision-making thus, their needs and concerns are not considered, and their potential knowledge and skills lost.

Harmful consequences of gender-blind EU responses to climate¹⁷: EU measures to reduce its use of fossil fuels and emissions from transports led to an increased demand for biofuels. This has the consequence of importing them from developing countries and to *“land use changes, which are often gendered, since the land used for biofuels production is most likely to be marginal land farmed by women for household subsistence rather than the prime agricultural land farmed by men for export”*.

Women in energy and climate change¹⁸: In Europe, sectors such as energy, transports and technological sustainable development are dominated by men in the workforce. It is also true in decision-making positions in ministries (18.2%) and at managerial level (27%). This is despite the fact that women make up (in 2012) 53% of the tertiary graduates in natural sciences and technologies.

Recommendations

- Include sex and gender analysis where relevant and on topics affecting human populations as a default requirement. If sex and gender are not relevant, an explanation must be provided why not.

Sex and gender must be included in the entire research/innovation cycle from research design, methodology, to data interpretation and communication.

- Include gender experts and local women active in climate actions in all of the actions of the Mission (the creation of climate risk profiles and comprehensive climate risk management plans, community resilience contracts, adaptation pathways, actionable solutions and Deep Demonstrations).
- Ensure the mainstreaming of gender perspectives in all the actions of the Mission.
- Make sure that the community infrastructures are safe, including prevention of gender-based violence.
- Ensure the production and use of sex-disaggregated data on climate change.
- Strive for gender balance in governance.
- To improve women’s participation and representation in climate change studies and workforce, we advise you to take a look at our policy papers on structural change, disruptive measures for gender equality in R&I and on the role of Research Funding Organisations.

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¹⁸ | EIGE Gender Statistics Database

Gender in Horizon Europe Missions

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