International Sustainable Chemistry Collaborative Centre (ISC3)
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Friedrich-Ebert-Allee 32 + 36
53113 Bonn
Germany

UN Special Rapporteur to the Human Rights Council
Office of the United Nations High Commissioner for Human Rights (OHCHR)
Palais Wilson
52 rue des Pâquis
CH-1201 Geneva, Switzerland

Bonn, March 28, 2024

Submission: Input on Gender and Toxics - for the upcoming thematic report to the United Nations General Assembly

Dear Mr. Marcos A. Orellana, Special Rapporteur on human rights and the environment,

Thank you for your call for submissions to support preparations for your upcoming report on on exploring the application of a human rights-based approach to persons and groups that because of their gender find themselves more vulnerable to human rights violations and abuses because of toxic exposure.

We very much appreciate the opportunity to share with you herewith information relating to gender equality and chemicals management.

Since 2017, we, at the International Sustainable Chemistry Collaborative Centre (ISC3) foster the transition of the chemical and chemical-related sectors to Sustainable Chemistry, promoting a circular economy that is striving to implement multifaceted aspects of sustainability at every step of the life cycle of products and changing all stakeholder behaviour (www.isc3.org). Sustainable Chemistry is an opportunity to take the social dimension of international chemicals management into account, including a gender point of view (find further explanation below).

Therefore, the centre takes a multi-stakeholder approach, targeting policymakers, the public and private sectors, academia, and civil society. ISC3 contributes globally to international chemicals policy, professional and academic trainings, advisory services, innovation, entrepreneurship, and research. The ISC3 is hosted by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in cooperation with Leuphana University Lüneburg as ISC3 Research & Education Hub and DECHEMA Society for Chemical Engineering and Biotechnology (DECHEMA e. V.) as ISC3 Innovation Hub. The Centre was founded in 2017 on the initiative of the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection (BMUV, formerly BMU) and the Federal Environment Agency (UBA).

For further information or if you have any questions, please do not hesitate to contact us.

Best regards,

Anna Isabel Becker, ISC3

How toxics harm the health, social, cultural, and/or economic wellbeing of individuals and communities in gendered ways

PROBLEM SITUATION

Exposure to toxics and hazardous substances is a major and growing problem worldwide, and one that has important impacts on culture, work, income, valued nature, health across the life course, including sexual and reproductive health, and individual and community wellbeing. Harms resulting from exposure to hazardous substances is not equally distributed among people and places, however.

Women and girls' exposure to chemicals and their conditions are highly affected by biological, socio-economic and gendered differences. Men and boys may also experience the consequences of exposure to toxics in a differentiated way due to biological vulnerabilities and societal or cultural expectations. Similarly, persons of diverse gender identities and sexual orientations are often vulnerable to greater harms, and/or to specific harms both biological and for socio-economic reasons in highly gendered societies.

From a biological point of view women's bodies are often affected differently by certain chemicals than men's. Women tend to store more environmental pollutants in their body tissues than men due to a higher body fat content. In addition to puberty, women live through other phases of life such as pregnancy, breastfeeding and menopause, during which their bodies become more susceptible to health damages from chemicals due to the significant physiological changes. Furthermore, chemical exposure can also be passed on to the next generation. This chemical exposure happens through the placenta, as well as during breast-feeding, and that is why women in childbearing age needs special protection (UNDP, 2011; SAICM and IPEN 2020).

From a socio-economic point of view chemical exposure is influenced by various social gender aspects and women and men are affected differently because of their gendered roles in society and at work. Women are more likely to work in the care sector and come more often into contact with chemicals from cleaning, cosmetics, or care products then men. Additionally, the division of labour can also cause differences in exposure within individual sectors. Men are more often directly exposed because they more often perform risky tasks, and women's occupational diseases are on the other hand often under-diagnosed, under-reported and under-compensated because their exposition is often more indirect and over a long time (e.g. women in agricultural are more affected by indirect exposure of substances, e.g. from harvesting and handling chemically-treated plants or contaminated clothing, while men are often more directly exposed, e.g. when mixing chemicals. (UNDP, 2011; ILO, 2021; MSP, 2017).

THE ROLE OF SUSTAINBLE CHEMISTRY

The concept and framework of Sustainable Chemistry facilitates the needs of the present – without compromising the ecological, social, and economic needs of future generations. Sustainable Chemistry goes beyond the full life cycle of products (development, manufacturing, use, repair, reuse and recycling), by including system thinking throughout (e.g. replace specific chemical function by service, new design or both). This ensures **that processes contribute not only to an increase in economic efficiency** but also to a **reduction of negative impacts on the environment and human health, while at the same time improving social responsibility** through sustainable development and innovation.

Several **Key Characteristics of Sustainable Chemistry** (Kümmerer et al., 2021) are worth to point out within the thematic report and in order to assess the social dimension including gender in chemicals management (https://www.isc3.org/page/sustainable-chemistry)

Systems Thinking: Securing its interdisciplinary, multidisciplinary, and transdisciplinary character including a strong disciplinary basis but considering other fields to meet Sustainability to its full extent. Application as for industrial practice including strategic and business planning,

education, risk assessment and others including the social and economic spheres by all stakeholders.

Ethical and social responsibility: Adhering to value to all inhabitants of plant earth, the human rights, and welfare of all live, justice, the interest of vulnerable groups and promoting fair, inclusive, critical, and emancipatory approaches in all its fields including education, science, and technology.

Collaboration and transparency: Fostering exchange, collaboration, and right to know of all stakeholders for improving the sustainability of business models, services, processes and products and linked decisions including ecological, social, and economic development on all levels. Avoiding all “green washing” and “sustainability washing” by full transparency in all scientific and business activities towards all stakeholders, and civil society.

Sound Chemicals Management: Supporting the sound management of chemicals and waste throughout their whole life cycle avoiding toxicity, persistency and bio-accumulation and other harm of chemical substances, materials, processes, products and services to humans and the environment.

EXAMPLES OF ACTIVITIES FOR BETTER POLICY-MAKING

Interview Series with women experts on Sustainable Chemistry

To minimise negative impacts of chemicals on people and the environment as chemical production increases, future chemicals management must integrate the needs and realities of life for all. For this to happen, the gender dimensions of international and national chemicals policy must be acknowledged and considered in practice.

The **ISC3 Initiative on Gender & Sustainable Chemistry** provides insight via an interview series with women in the field of Sustainable Chemistry. In the article series the ISC3 presents women active in Sustainable Chemistry from various fields such as politics, innovation, NGOs, research and education and describes their achievements, experience and perspectives on gender mainstreaming (https://www.isc3.org/page/gender-sustainable-chemistry/isc3-initiative-on-gender-sustainable-chemistry).

Furthermore, we believe that women entrepreneurs and women as agents of change are especially important, as they know local and regional realities. Women-led start ups are characterized by a high degree of creativity, resilience and bring in unique perspective into the business world. At ISC3 we therefore continuously aim to provide a platform and space (**ISC3 Initiative on Empowering Change**) for women-led start-ups in our Global Start-Up Service and more information on their innovations can be found here (https://www.isc3.org/page/empowering-change).

In 2022 the ISC3 also extended its **training portfolio** by on-demand trainings, self-paced online learning courses, study courses that are focused on policy topics such as **Sustainable Chemistry and Human Rights,** where we touch on human rights issues, related to Sustainable Chemistry and sustainable development. The training elaborates on specific human rights (such as the human right to a clean, healthy, and sustainable environment) and marginalized groups such as children, youth, and women (https://www.isc3.org/page/trainings).

Additionally, the ISC3 supports landmark events such as the first-ever **Youth Forum on Chemicals Governance 2023**, which took place at the 5th International Conference on Chemicals Management, whereas youth reported on disproportionally negative effects of international chemicals management practices (https://enb.iisd.org/youth-forum-chemicals-governance-2023).