Gender & SAICM Beyond 2020

How to create a gender-just healthy planet

March 2019

The MSP Institute
Multi-Stakeholder Processes for Sustainable Development eV

IMPRINT

Gender & SAICM Beyond 2020 - How to create a gender-just healthy planet

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The present publication was produced as part of the project: „Gender and Chemicals - Together for a gender-just healthy planet“, conducted by the MSP Institute in 2019. We thank all authors for their contributions, miratrick for her wonderful illustrations and Ulrike Röhr, Chair of the Board of MSP Institute, for her feedback and guidance on previous drafts of this publication.

This publication was printed climate-neutral with organic inks on recycled paper.

We are grateful for the generous support by the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU).

Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

About the project: Gender and Chemicals - Together for a gender-just healthy planet

There is a number of gender aspects relevant to chemicals and chemicals and waste management. However, many of them are not receiving the attention they should in order to ensure the best possible decisions in policy-making and effective implementation.

The goal of our project is to increase the integration of gender in international chemicals and waste management policies and implementation. We are aiming to raise awareness of gender aspects and to increase the participation of women's organisations and gender experts in the UN process dealing with chemicals management: SAICM Beyond 2020.

Other Publications:

Dr Minu Hemmati, Anna Bach (2017): Gender and Chemicals. Questions, Issues and Possible Entry Points.

Dr Minu Hemmati, Anna Holthaus (2018): Gender and Chemicals Beyond2020. Policy Suggestions. How to integrate gender in SAICM Beyond 2020.

A BLOG SUMMARY

Content

Foreword

Flowers represent the beauty of nature and its diversity. Flowers can express joy and good wishes, but also sympathy and grief. They are symbols of human relationships and a form of communication. Often by giving flowers, we express what words cannot.

What many people do not know is that many of these flowers are produced in developing countries. It is mostly women who are responsible for cultivating and trading the flowers there. Large amounts of chemicals are used to produce these flowers. Looking at production conditions more closely, we see that there are significant gender-specific inequalities when it comes to the handling of chemicals.

The correlation between these inequalities and chemicals safety is addressed in an article in this brochure. The article illustrates why gender-related issues are so important for international chemicals and waste management. Gender mainstreaming brings a new perspective into the debate that is often lacking. It enables us to take greater account of gender-specific aspects when making decisions.

The SAICM Beyond 2020 process is focussed on the future of international chemicals and waste management. We expect that global sales of chemicals will double by 2030. If we want to effectively tackle the negative impacts of hazardous chemicals and wastes on humans and the environment, we need to take action now.

This includes finding ways implement sustainable chemicals and waste management in line with the 2030 Agenda.

Furthermore, the 2030 Agenda needs to recognise the particular needs of women. We now have a unique opportunity to use the potential of gender mainstreaming to make our work in the field of chemicals and wastes more comprehensive and more sustainable.

Since 2017, the MSP Institute has been working on illustrating the significance of gender for chemicals and waste policy. This brochure goes even further by combining analyses and ideas of various stakeholders on chemicals and waste management. These are the first steps towards a healthy and more gender-just planet. Reading this brochure will help inform all those who want to take gender aspects adequately into account in the management of chemicals and waste. I hope you enjoy it.

Federal Minister Svenja Schulze
German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Introduction

"HEALTHY [ENVIRONMENT] [PLANET], HEALTHY PEOPLE!"

This was the vision with the most support for a new international framework on chemicals and waste management beyond 2020 at the second meeting of the intersessional process (IP2) in March 2018 in Stockholm.

And we agree: this vision can be a strong statement for the future. Health is defined as *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*" (WHO 2006). We all know that this is not the case for everyone around the world, nor for our planet. One reason are massive gender inequalities, manifest in every dimension of sustainable development. The 2030 Agenda for Sustainable Development recognizes that gender equality is central to this transformative vision as an important goal in itself and as a catalyst for progress across the entire Agenda (UN 2015). Therefore, it is crucial to integrate a gender perspective into the implementation and monitoring of all the Sustainable Development Goals and UN Institutions working on them (UN Women 2018) – including in chemicals and waste policies.

SAICM has an agreed Overarching Policy Strategy (OPS) that sets out the scope, needs, objectives, financial considerations underlying principles and approaches, and implementation and review arrangements of SAICM as a platform and process. The OPS underlines the specific importance of women as stakeholders and their still evident lack of representation in the implementation and decision-making processes for the sound management of chemicals and chemical safety (SAICM 2012). Yet, specific knowledge on differentiated and long-term effects of chemicals on women and men is still lacking. Most delegations and stakeholders are not aware of the knowledge we do have and comprehensive gender analysis of chemicals and waste management is lacking even more - let's change that!

Why Gender and Chemicals?

- Women's and men's bodies are affected differently by certain chemicals – exposure, risk, and impacts can be different between the sexes.
- Gender, as a social category, is linked to gender-specific norms of behaviour, roles in society as well as the development of 'feminine' and 'masculine' identities, which in turn influence people's behaviour, including their impact on the environment, their affectedness by environmental degradation, and their access to and power over resources.
- Gender analysis allows to ask questions that help us understand and unpack root causes of unsustainable behaviour and societies, and hence have a transformational potential. We need to tap into this potential in order to bring about sustainable development, justice and peace.

Our main policy suggestions to integrate gender in SAICM Beyond 2020 are:

- Increase research and availability of sex-disaggregated data
- Make Gender Impact Assessment tools available and ensure their application
- Create a Gender Focal Point in SAICM and develop a Gender Action Plan
- Ensure the full inclusion of women in decision making
- Provide information about financing for women
- Involve women in the transfer of environmentally sound technologies
- Implement effective communication strategies

With this summary of our blog article series *How to create a gender-just healthy planet,* published since August 2018, we want discuss how we can create a gender-just healthy planet and demonstrate the potential of gender mainstreaming into chemicals policies.

Enjoy reading!

Anna and Minu from the MSP Institute e.V.
"Gender and Chemicals - Together for a healthy planet"

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SAICM (2012): SAICM Texts and Resolutions of the International Conference on Chemicals Management.

UN (2015): Transforming our world. The 2030 Agenda for Sustainable development.

UN Women (2018): Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development. http://www.unwomen.org/en/digital-library/publications/2018/2/gender-equality-in-the-2030-agenda-for-sustainable-development-2018#view

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#Explanation

WHAT IS GENDER MAINSTREAMING?

A strategy to achieve gender equality

"*Gender equality is more than a goal in itself. It is a precondition for meeting the challenge of reducing poverty, promoting sustainable development and building good governance.*" Kofi Annan (1998)

There are global patterns of inequalities between women and men: Women tend to experience domestic violence more often than men; women's political participation and leadership positions are limited; women and men have different access to resources; women are still more likely than men to live in poverty; and women and girls are often disproportionately affected by climate change and environmental disasters (UN 2002, UN Women 2018). And it is not only women who are negatively affected - gender inequalities impact whole societies: for example, not investing in female education lowers the gross national product; gender discrimination in the labour market decreases national income; and gender inequality reduces the productivity of the next generation because it has negative effects on household investments in nutrition, health and education of children (UN 2002). "Achieving greater gender equality will require changes at all levels, including changes in attitudes and relationships, changes in institutions and legal frameworks, changes in economic institutions, and changes in political decision-making structures" (UN 2002).

Definition of Gender Mainstreaming

The strategy for promoting gender equality is Gender Mainstreaming. Since 1990, there was a growing debate about gender mainstreaming strategies in the UN as well as the EU. Gender Mainstreaming was then endorsed in the Beijing Platform for Action, agreed at the United Nations Fourth World Conference on Women in 1995. It was finally defined in the ECOSOC agreed conclusions 1997/2 as: "the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality" (ECOSOC 1997). This official UN definition is strong with regard to including all different spheres and levels and all the phases of the policy cycle but also has some weaknesses from a feminist perspective: the actors in charge of implementation are not mentioned; it remains a top-down approach; the definition reduces the term 'gender' to 'women and men' and is not used as an agenda-setting approach. When developing a particular Gender Mainstreaming Strategy, it is therefore useful to also take note of other definitions, for example: Gender Mainstreaming is "the (re)organization, improvement, development and evaluation of policy processes, so that a gender equality perspective is incorporated in all policies at all levels and at all stages, by the actors normally involved in policy-making" (Council of Europe, 1998).

How to mainstream gender

The primary objective of gender mainstreaming is to design and implement development projects, programs and policies that:

- Do not reinforce existing gender inequalities (Gender Neutral),
- attempt to redress existing gender inequalities (Gender Sensitive/Gender Responsive),
- or attempt to re-define women and men's gender roles and relations at the structural level (Gender Positive / Transformative).

Institutional gender mainstreaming strategies ideally combine several components (EIGE 2016):

- A goal definition for mainstreaming gender with targeted actions for gender equality
- A gender analysis of the initial position
- A gender impact assessment of planned measurements, programs and projects
- Gender budgeting
- A combined approach to responsibilities (where all staff share responsibility, but are
- supported by gender experts or a gender focal point)
- Gender trainings and gender awareness raising
- Monitoring and evaluation

Opportunities, obstacles and processes in the context of gender mainstreaming are often very different for each area of work. Thus, "there is no set formula or blueprint that can

be applied in every context. However, what is common to mainstreaming in all sectors or development issues is that a concern for gender equality is brought into the 'mainstream' of activities rather than dealt with as an 'add-on'" (UN 2002) – "it requires change in all mainstream policies, programmes and resource allocations" (UN 2007).

Gender mainstreaming is not a new strategy. It builds on years of experience of trying to bring gender perspectives to the center of attention in policies and programs and is used nowadays by numerous institutions at all political levels, inside and outside government. Many lessons have been learned and we can build on this knowledge and experience when mainstreaming gender in the sound management of chemicals and waste management in the SAICM Beyond 2020 framework.

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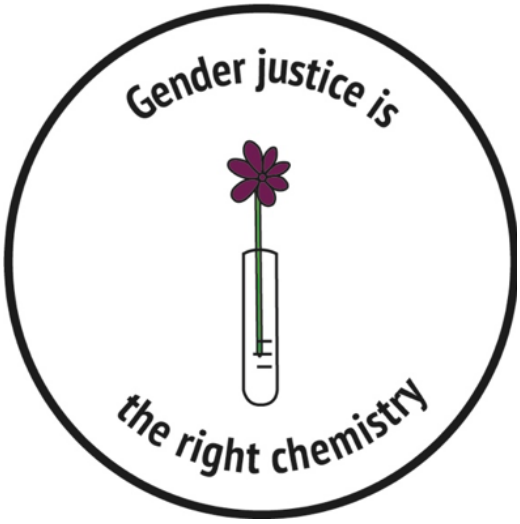
ECOSOC (1997): Mainstreaming the gender perspective into all policies and programmes in the United Nations system. http://www.un.org/womenwatch/osagi/pdf/ECOSOCAC1997.2.PDF

EIGE (2016): What is Gender Mainstreaming?

UN (2002): Gender Mainstreaming. An Overview. http://www.un.org/womenwatch/osagi/pdf/e65237.pdf

UN (2007): Mainstreaming a gender perspective into all policies and programmes in the United Nations system. Report of the Secretary-General, 2007/64.

UN Women (2018): Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development.



Further information on Gender Mainstreaming with resources and tools

Gender Mainstreaming in general:

UN Women: Gender Mainstreaming. http://www.unwomen.org/en/how-we-work/un-system-coordination/gender-mainstreaming

European Institute for Gender Equality: What is gender mainstreaming.
http://eige.europa.eu/gender-mainstreaming/what-is-gender-mainstreaming

Gender Mainstreaming and chemicals:

UNDP (2007): Chemicals Management: The why and how of mainstreaming gender.
http://www.undp.org/content/undp/en/home/librarypage/environment-energy/chemicals_management/chemicals-management-the-why-and-how-of-mainstreaming-gender.html

BRS Conventions: Gender. Overview. http://www.brsmeas.org/?tabid=3651

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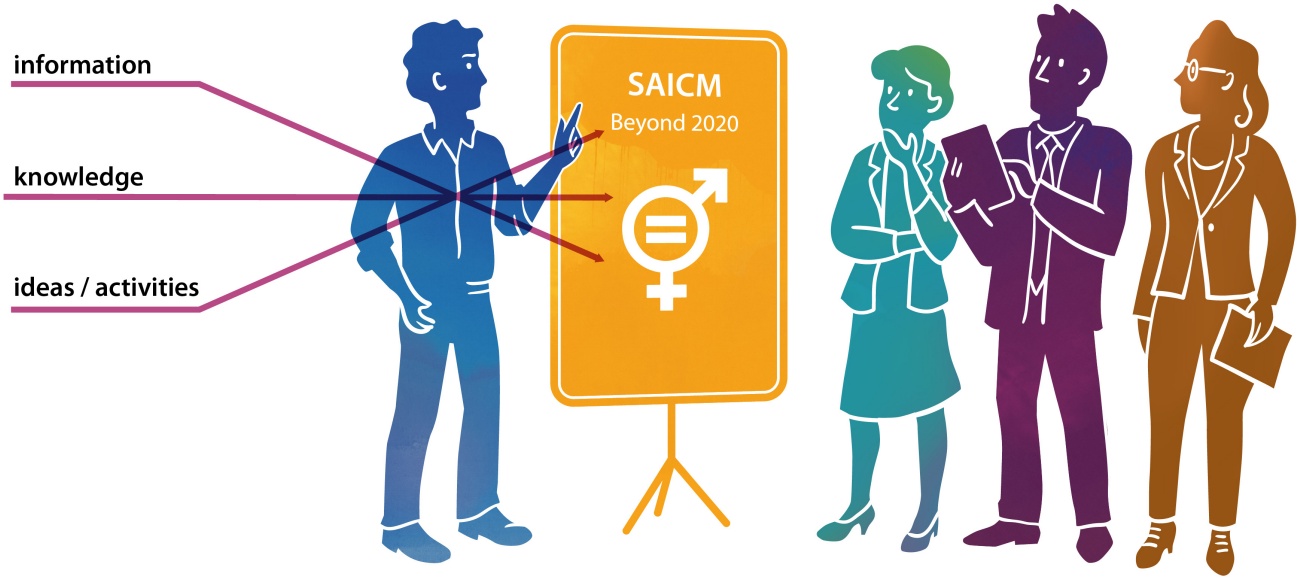
WHAT IS A GENDER FOCAL POINT?



An optical focal point is the point on the axis of a lens or mirror to which parallel rays of light converge and from which they appear to diverge after refraction or reflection. The role of a gender focal point is very similar: to bundle and synthesize information, knowledge, ideas and activities relating to gender and to disseminate these among colleagues across the whole organization.

The Gender Focal Point is the key staff member within an organization dealing with its gender mainstreaming strategy and building capacities among his or her colleagues for incorporating gender into their work, in terms of content and processes. The Gender Focal Points role is "advocating for increased attention to and integration of gender equality and women's empowerment in the agency's policy and programming" (UN Women Training Centre 2016). Therefore, the Gender Focal Point shouldn't work alone on gender issues but with a coordination team or committee that meets on a regular basis and is responsible for the coordination, monitoring and evaluation of the organization's gender mainstreaming strategy (Norad 2015).

Generic responsibilities of the Gender Focal Point include (UN Women Training Centre 2016; ibid.):

- to facilitate or coordinate the development and/or implementation of a gender action plan
- to give technical support for the inclusion of gender issues in programs/projects
- to ensure earmarked funds for gender mainstreaming activities
- to develop capacity by identifying the needs of colleagues for information and training in gender mainstreaming and obtaining relevant documents and training material or gender trainers
- to participate in and contribute to the work of UN interagency, donor, NGO and academic networks on gender equality
- to participate actively and contribute to activities of relevant working groups on gender
- to participate in gender communities of practice and gender networks, share information and prepare inputs into global reports, disseminate information among colleagues

Mind you, the person working as the Gender Focal Point doesn't have to be female! There are more and more male gender experts. In highly technical sectors, such as chemistry and waste, there are arguments for and against engaging a social scientist as the gender focal points. A social scientist usually already has a very good understanding of gender aspects, a technical person with training in gender is more able to speak the technical language of her/his colleagues, understand their work and the culture of the organisation. To overcome the notion that gender is more of a women's issue and to avoid the marginalization of the gender activities it is also a good strategy to rotate the position - for example every two years, and at high levels in the organisational hierarchy (Norad 2015).

In the past, "[g]ender focal points have often been the most junior female staff members, which sends a message that gender equality is not being taken seriously" (OSAGI 2001). In order to avoid this, ECOSOC Resolution 2004/4 "[r]equests all entities of the United Nations system to enhance the effectiveness of gender specialist resources, gender focal points and gender theme groups, by establishing clear mandates; by ensuring adequate training, access to information and to adequate and stable resources; and by increasing the support and participation of senior staff". Ac-

cordingly, the UN System-wide Action Plan on Gender Equality and the Empowerment of Women (UN-SWAP) requires entities to designate focal points "at the P4 level or equivalent or above"(UN Women 2012) and "at least 20 per cent of their time allocated to focal point functions" (ibid.).

Two examples of successful Gender Focal Point activities: The "Gender Heroes" Campaign and the "Gender Pioneers for a Future Detoxified Award" by the BRS Conventions Secretariat and its Gender Coordinator celebrated eleven women and men for their achievements in advancing gender equality and mainstreaming gender issues in the area of chemicals and wastes, and under the UNFCCC even 32 national gender focal points under the UNFCCC have been established so far to support the national inclusion of gender considerations into climate negotiations, implementation and monitoring.

For a new framework on the sound management of chemicals and waste beyond 2020, the creation of a Gender Focal Point would be a groundbreaking step: the Gender Focal Point could coordinate the development of a Gender Action Plan; a multi-stakeholder working group on gender and chemical safety could be established and coordinated ;and capacities of regional/national focal points could be strengthened with regard to sex differences, gender analysis and gender mainstreaming in chemicals and waste management – all of this would help to create a gender-just healthy planet.

The Gender Focal Points role is "advocating for increased attention to and integration of gender equality and women's empowerment in the agency's policy and programming" (UN Women Training Centre 2016).

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OSAGI (2001): UN System-wide Gender Focal Point Study. Executive summary. Online at: http://www.un.org/womenwatch/osagi/gmfp-study.htm

UN Women (2012): UN System-Wide Action Plan for Implementation of the CEB United Nations System-Wide Policy on gender Equality and the Empowerment of Women. Online at: http://www.unwomen.org/-/media/headquarters/attachments/sections/how%20we%20work/unsystemcoordination/un-swap/un-swap-framework-dec-2012.pdf?la=en&vs=3435

UN Women Training Centre (2016): Webinar: Gender Focal Points as agents of Change. Online at: https://www.youtube.com/watch?v=58iRu1wAxqA

Gender focal points and their activities:

United Nations Framework Convention on Climate Change: https://unfccc.int/topics/gender/the-big-picture/introduction-to-gender-and-climate-change

BRS Conventions: http://www.brsmeas.org/Gender/Overview/tabid/3651/language/en-US/Default.aspx

Convention on Biological Diversity: https://www.cbd.int/gender/

WHAT IS A GENDER ACTION PLAN?

A “Gender Action Plan” (GAP; or “Plan for Gender Action”) is the road map for gender activities that an institution has adopted for itself. Its purpose is to make the institutions’ activities “gender responsive and transformative, and thus more effective, efficient and successful“ (UNCCD 2018) by redressing existing gender inequalities and re-defining womens and mens gender roles and relations through guidance on gender mainstreaming. The basic ideas of a Gender Action Plan are that policy interventions decrease women’s burden and that women not only contribute, but also benefit from it (ibid). Therefore, its objectives are:

- to develop, or deepen, the understanding on the issue of gender within the institution;
- to ensure that the policy programs and activities include a gender perspective;
- to promote the considerations of gender issues at all policy levels; and
- to support staff in achieving a sustainable work-life balance (see e.g. BRS 2016).

Generally speaking, the key elements of a Gender Action Plan include:

- Vision
- Principles
- Policy objectives
- Time-bound targets to be achieved (short- and long-term)
- Outputs to achieve policy objectives
- Stakeholder responsibilities
- Mechanisms for Implementation (working with women organizations, mobilize financial resources, reporting and monitoring, etc.).
- Priority areas of actions (as identified during gender assessment)
- Resources needed/budget planning

How to develop a gender action plan?

The first step is always a gender analysis with a gender impact assessment. After carrying out this assessment, you hopefully will have in hand a list of identified gender gaps. Now, the task is to prioritize these gaps depending on various factors, for example: the urgency of the problem, global relevance, access to financial resources, time, etc. On the basis

of a list of prioritized gender gaps you can engage your stakeholders in a participatory process to formulate a vision of a gender-responsive/transformative policy - like the BRS-GAP Vision: “Gender equality is an integral part of the implementation of the Basel, Rotterdam and Stockholm conventions, including the secretariat activities“ (BRS 2016).

Then, the real work begins: it is time to develop the gender-responsive policy objectives, short and longtime time-bound targets and outputs – that is, clear statements on what you want to achieve until when, how you want to do this related to the mandate of your institution, who is responsible, and how much human and financial resources have to be allocated to it. In case you were able to identify urgent policy problems during the gender impact assessment, it is recommended to use these as prioritized areas of action.

Several UN Conventions and Organizations have their own Gender Action Plans: The CBD Convention welcomed their first Gender Plan of Action already in May 2008. The BRS Secretariat developed their Gender Action Plan in 2013, the UNCCD in September 2017 and the latest milestone for feminist policies was the United Nations Climate Change Conference in November 2017 (COP23), when the first UNFCCC Gender Action Plan was adopted – just to name a few. An increase of women’s participation in policy processes, the development and implementation of diverse gender actions and projects as well as an increase of gender equality considerations in national policy plans are some of the positive results achieved through Gender Action Plans until now (IUCN Gender Global Office 2018a).

A future framework on the sound management of chemicals and waste needs a Gender Action Plan!

“Gender Action Plans can serve to unite policies, programmes and stakeholders/staff around a common issue—and, specifically, map steps necessary to meet a goal.” (IUCN Gender Global Office 2018b)

By using the experiences of other sustainable development related institutions with Gender Action Plans, SAICM Beyond 2020 needs to developed a Gender Action Plan in consultation with governments, international organisations and stakeholders as the basic frame for gender activities, in order to create a gender-just healthy planet.

References and Information on several Gender Action Plans:

IUCN Gender Global Office (2018a): EGI Analysis & Knowledge Products. Global Gender Office. http://genderandenvironment.org/egi/information-knowledge-products/

IUCN Gender Global Office (2018b): Gender Action Plans. Gender Global Office. http://genderandenvironment.org/work/gender-action-plans/

UNAIDS: http://www.unaids.org/en/resources/documents/2018/jc2925_unaids-gender-action-plan-2018-2023.

UN Convention to Combat Desertification (UNCCD 2018): https://www.unccd.int/actions/gender-action-plan

UN Convention on Biological Diversity): https://www.cbd.int/gender/action-plan/.

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A “Gender Action Plan” is the road map for gender activities that an institution has adopted for itself.

WHAT IS A WOMEN AND GENDER CAUCUS?

What's a caucus?

In the context of international policy processes, the participation of non-government actors has played an increasingly important role. A variety of interest groups, stakeholders, constituencies and actors are active in processes that affect or concern them.
The term "caucus" originates from structures and mechanisms in political parties, e.g. in the US, a caucus is a „meeting held to decide which person a political party will support in an election" (Cambridge Dictionary). In international policy making, participating non-government actors are often organized in caucuses – i.e. groups of people with influence or an interest in something who meet to consider a particular issue or problem. If the groups meet very regularly, sometimes institutional groupings called 'constituencies' or 'major groups' emerge.

With Women and Gender Caucuses, Constituencies and Major Groups, feminists and women activists have established a structure to coordinate their tasks and political positions as well as to make their voices heard and advocate for gender equality within UN processes on two levels: On the one hand, their aim is to strengthen women's active participation by sharing information and access to documents, by organizing possibilities to submit proposals or to speak at negotiation meetings, and enabling physical participation by organizing travel funding for colleagues, especially from the Global South. On the other hand, they combine expert knowledge of women's organisations, gender experts and other academics to support gender mainstreaming activities within policy processes, often in direct contact with the respective secretariat and/or with other relevant stakeholders. Women and Gender Groups and meetings are mostly self-organised but recognized by the official institutions who regard them as liaisons or focal points to reach out and interact with particular stakeholder groups. Women and Gender Caucuses are usually open to all interested stakeholders working to promote human rights-based sustainable development with a focus on women's human rights, the empowerment of women and gender equality. Sometimes, participation is limited to non-government or civil society organisations and individuals, and many caucuses have developed their own rules, procedures, and governance, from electing co-chairs, through facilitating representative, joint submissions to negotiations to managing shared financial resources. During UN conferences, they met regularly to discuss the ongoing negotiations and to develop joint responses from a gender perspective, between conferences they mostly communicate via email list servers and online platforms.

A bit of history

Since many years Women and Gender Caucuses contribute to UN policies on sustainable development with successful advocacy activities:

In 1992, the Earth Summit (United Nations Conference on Environment and Development, UNCED) took place and was one of the first breakthroughs in women's advocacy for sustainable development: Preparing for the conference the Women's Caucus, organized by the Women's Environment Development Organization (WEDO), met every morning to discuss texts, interventions and strategies, based on its own *Women's Action Agenda for a Healthy Planet,* developed at the Women's World Congress for a Healthy Planet in Miami in 1991. During the Earth Summit, the Women's Caucus also played a key role with the Women's Tent "Planeta Femea" of the parallel forum "Foro Global" with over 1.000 Women coming together from all regions of the world (Dankelmann 2011; WMG 2018).

The Earth Summit recognized nine stakeholder groups, so called "Major Groups", to ensure a broad participation in the policy and implementation process: farmers, trade unions, indigenous peoples and their communities, children and youth, NGOs, local authorities, science and technology, business and industry, and women (WMG 2018). Agenda 21, one of the key outcome documents of the Earth Summit, includes chapters dealing with each of these Major Groups, recognizing their needs and roles, and underlining the need for their active participation in realizing sustainable development.

Major Groups, caucuses and constituencies today

Today, the Women's Major Group (WMG) is an official participant in the UN processes on Sustainable Development and active at UNEP, with over 600 list server members who are organisations and individuals. The WMG is the focal point for UN-DESA, ECOSOC and the General Assembly for all UN Sustainable Development policies.

Its mandate covers Agenda 2030 for Sustainable Development, including the Sustainable Development Goals and Indicators, the Technology Facilitation Mechanism and the High-Level Political Forum. It covers the Rio+20 outcome, with SDGs, Financing for Sustainable Development, Small Island Development States SIDS, Technology. Furthermore, it also covers the global and regional policy processes of the United Nations. The Women's Major Group on Environmental Policies follows the policy processes related to the UNEP and those governed by UNEP such as Sustainable Consumption and Production (UN DESA 2018). Additionally, the WMG works closely with other Women's and Gender Caucuses or

Constituencies in other UN policy processes, e.g. the Convention on Biological Diversity (CBD), Disaster Risk Reduction, Cities / UN Habitat, Financing for Development, Commission on Population and Development (CPD) and the United Nations Framework Convention on Climate Change (UNFCCC) (ibid.).

The Women and Gender Constituency (WGC) is, for example, one of the nine constituencies, i.e. stakeholder groups, that is part of the UNFCCC process. Established in 2009 by women and gender activists, who actively discussed whether and how the issue of gender should be given more attention at the climate change negotiations since 2003, the WGC now consists of 28 Women and Gender Organisations and Networks with advocates from more than 60 countries. Since 2015 the WGC has organized the Gender Just Climate Solutions Award to promote gender responsive climate awards, in 2017 the WGC managed to shape the "Gender and Work Program" that has been decided upon at the COP 20 in Lima in 2014 and the most recent highlight is the "Gender Action Plan" from COP 23 in Bonn 2017, which was finally adapted through much advocacy work after years of discussions (GenderCC 2018).

A Women and Gender Caucus for SAICM Beyond 2020

Creating an informal and open-to-all Women and Gender Caucus For the Sound Management of Chemicals and Waste can create an inspiring, useful, and powerful space for discussion, information sharing and advocacy to push forward the implementation of the 2030 Agenda and ensure the recognition of the interconnections between gender and chemicals. Such a caucus – gathering at the SAICM meetings and communicating electronically in between can strengthen the participation of (indigenous) women and also help to increase the visibility of SAICM beyond 2020.

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THE GENDER DIMENSION: WHY CHEMICAL EXPOSURE AFFECTS EACH SEX DIFFERENTLY

by Brenda Koekkoek - SAICM Secretariat

It's a fact that chemicals are in everything we touch and that chemicals are essential for our sustainable development and future. Yet while chemical exposure can pose a risk to all, it has been shown to affect men and women differently, whether due to physical conditions or in reproductive health.

The susceptibility to chemical exposure varies according to sex - starting in the womb, through childhood and the first years of development to puberty, when adolescents are particularly susceptible. In order to ensure the health of future generations, the different vulnerabilities of men and women must be understood and considered.

The gender dimensions of the sound management of chemicals and waste are highly relevant. Exposure to chemicals depends on geographical location, behavioural patterns, age, nutritional status, and other biological factors. Hence, sex and gender are highly influential in an individual's physiological susceptibility to chemicals. For example, the varying roles of men and women in the workplace and at home help determine respective exposures and vulnerabilities to chemicals. Because of largely gender segregated labour markets, there are many occupations involving chemicals that affect either women or men to a larger extent.

Although often overlooked, domestic exposures to chemicals and toxins must also be considered. Men and women use different personal care products and cosmetics and are affected differently. For example, women tend to use more personal items than men, and with over 5,000 different ingredients used in the personal care industry, it increases their dermal exposure to chemicals. Work involving household cleaning products also leads to chemical exposures, and with changing gender roles, exposure patterns also change.

With the size of the global chemical industry projected to double by 2030, there is a growing concern for people working in chemically intensive sectors such as agriculture, construction, electronics and textiles. Women are also increasingly working in the informal sector and rarely receive basic training about the chemicals they use, which increases their vulnerability to pesticide-related health risks.

Now more than ever, it is vital that measures are taken to ensure that the needs of particularly vulnerable demographics are met, when it comes to the sound management of chemicals. In considering reproductive health as an example, both parents have susceptibilities that must be understood for the health of future generations.
One step in the right direction is gender mainstreaming. This is defined as a strategy for equally making both men and women's concerns, needs, and experiences an integral part of policies and programmes in political, economic and societal spheres. The Sustainable Development Goals (SDGs) of the 2030 Agenda aim to address inequalities among all population groups - especially women, children, and the impoverished. Particularly, SDG5 aims to achieve gender equality and improve women's rights. Directly addressing the links between the environment and gender in the context of the SDGs will provide new opportunities to achieve these goals in a more sustainable and beneficial manner and can yield tangible results and will provide benefits for both women and men.
UN Environment and the International POPs Elimination Network (IPEN) are working in partnership on gender and chemicals, in particular on raising awareness, promoting womens' engagement and leadership in decision-making processes as well as contributing to activities related to the Strategic Approach emerging policy issues and relevant SDGs. Furthermore, it is very positive that gender considerations have been increasingly incorporated into global multilateral environmental agreements, including the Basel, Rotterdam and Stockholm Conventions and the Minamata Convention on Mercury.

Gender and the SAICM Emerging Policy Issues

SAICM stakeholders have identified eight emerging policy issues and other issues of concern since the inception of the Strategic Approach in 2006. In general, all of these have susceptibility and exposure considerations related to gender, which I would like to illustrate:

1. Lead in paint
Lead, a widely used toxic metal, contaminates the environment and causes extensive public health problems. Children are particularly vulnerable and the exposure of pregnant women to high levels of lead may cause miscarriage, stillbirth, premature birth, and minor malformations.

2. Highly hazardous pesticides
Understanding gender roles in agricultural communities can create opportunities to unpack root causes of unsustainable behaviour in communities and has potential to support transformational change. For example, a large number of women in South Asia, East Asia, and sub-Saharan Africa work in agriculture and related tasks such as washing pesticide containers and thinning crops exposed to pesticides. The resulting exposure calls for the regulation of the use of highly hazardous pesticides.

3. Chemicals in products (CiP)
Efforts to label and classify chemicals help consumers make informed choices. By engaging with consumer product sec-

tors, there are opportunities to empower workers and consumers, for example, to understand potential exposures to chemicals and to target initiatives to empower particular vulnerable groups. UNEP's Chemicals in Products programme promotes transparency of information in supply chains and is currently focused on, but not limited to, the following sectors: textiles, toys, building materials, and electronics.

4. Hazardous substances within the life cycle of electronic products
The manufacture of electrical and electronic products relies on the use of over 1,000 chemicals, many of which lack comprehensive health and safety information due to weak regulatory policies. As the electronics industry has grown, women in Latin America and Asia have become the primary source of labour, and are now exposed to high levels of toxins such as lead and chromium.

5. Nanotechnology and nanomaterials
Nanomaterials, which can be found in many consumer products, can affect both male and female reproductive systems. These materials are prevalent in pharmaceuticals and textiles, and in the products related to information and communications technology.

6. Endocrine-disrupting chemicals (EDCs)
EDCs affect the hormone systems of men, women and children. The International Federation of Gynecology and Obstetrics notes that the global rise in non-communicable diseases, as well as the increase in preterm births, low-birthweight babies, and the early onset of breast development can be partially attributed to EDCs.

7. Environmentally persistent pharmaceutical pollutants (EPPPs)
The sources of pharmaceutical pollution include drug manufacturing, human excretion, disposal from homes and hospitals, and wastewater from large-scale livestock operations. However, gender-specific effects of EPPPs remain largely unknown, due to the limited methods to measure such a wide-spread phenomenon.

8. Perfluorinated chemicals (PFCs)
PFCs have become extensively used in both industrial and consumer products to make them resistant to stains, water, grease, or heat. Studies have shown that high levels of PFCs can be highly toxic, and animal tests have found PFCs to be potentially carcinogenic in the reproductive and fetal development stages, although these effects on humans remain inconclusive.

In general, all of the SAICM emerging policy issues and other issues of concern have susceptibility and exposure considerations related to gender, though no on-going gender activities are formally identified within the Strategic Approach context. A gender review across the current emerging policy issues and other issues of concern has been initiated as part of the SAICM GEF Project on global best practices on SAICM emerging policy issues.

What can we do for the future?

There are numerous relevant, diverse and influential stakeholders that can contribute and enable gender mainstreaming in chemicals and waste management. These include, amongst others, national and local governments, intergovernmental organizations, regulatory bodies, regional bodies, donor organizations, NGOs, industry associations, farmer organizations, media, consumers, employers, educators and researchers, health professionals, workers and trade unions and indigenous peoples.

When it comes to designing the future for SAICM and the sound management of chemicals and waste beyond 2020, all stakeholders have the opportunity to tap into the potential to address gender issues, promote equality, and protect vulnerable populations in line with the 2030 Agenda for Sustainable Development.

Strong legislation, effective information systems as well as scientific evidence and knowledge for chemicals are at the core of the SAICM community efforts on emerging policy issues today and remain relevant in the future to protect human health and the environment from harmful effects of chemicals across the lifecycle. There are additional opportunities for strengthening focus on developing, collecting and analysing gender-disaggregated data, indicators and other information to support decision-making.

Let's work together in moving forward to apply a joint gender lens in our work-planning, prioritizing, implementing and decision-making!

This article is based on the policy brief by the SAICM Secretariat; published September 2018 at http://www.saicm.org/Portals/12/Documents/SDGs/SAICM_Gender_Policy_Brief.pdf. Please follow SAICM on twitter @chemandwaste. To find out more about SAICM, please visit http://www.saicm.org.

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Photo by IISD Reporting Services

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WHAT HAS GENDER GOT TO DO WITH CHEMICALS?
by Gertrude Kenyangi - SWAGEN, Women's Major Group, #women2030

A whole lot, if you ask me! Gender and chemicals are strange bed fellows! I mean, gender is defined as the social construction of masculinity and femininity as opposed to "sex", which refers to biological and physiological differences. If gender is about social relations, where then do chemicals come in? One would expect chemicals to be in scientific discourses along with science laboratories and not in human relations! However, sex (biology) and gender (a social relationship) interact constantly and lead to gender disparities in all facets of life, including in the handling of and exposure to hazardous chemicals.

Our societies are to a large extent patriarchal, meaning that socio-cultural factors such as norms, values, and beliefs have made men the standard, they have handed men power. Power is a composite word. It connotes authority, legitimacy and force. When one has power one is in a privileged position of making decisions and makes the rules. In the workplace, this has affected occupational segregation, which is the underlying reason for so many gender inequalities. The characteristics of both female and male jobs, the specific features of those jobs (who does what, when, how and for how long), the different responsibilities that women and men have at workplace determine levels of exposure to harmful chemicals.

Chemical exposure becomes a gender issue due to the positioning of men and women on account of their gender. Gender stereotypes have restricted women and men in "feminized and masculinized" sectors of activity (horizontal segregation). This is also true where women and men have the same job, but perform different tasks. In addition, men are more likely to work in jobs higher up in the occupational hierarchy where they are part of decision making and earn a much better income than women, who are likely to have low paying part-time or temporary contracts, with no decision-making power (vertical segregation). Hence gender segregation at the same workplace strongly contributes to an unequal distribution of working conditions and exposure to different physical and psychological risks between sexes also in the same workplace. It determines the different bargaining positions of both men and women, the different abilities to exercise their agency. Job segregation strongly contributes to different hazards exposure and consequently to different health outcomes. As such, men can afford to purchase protective gear like gloves, masks and gum boots while women handle dangerous chemicals bare knuckle! Even if women could afford protective wear, there is another dangerous-chemical-related gender disparity: Across the world, work equipment, tools and personal protective equipment (PPE), have been traditionally designed for the male body size. As a result, women face challenges finding suitable and comfortable PPE because they do not conform to standard male worker model. Uncomfortable work equipment and tools can lead to poor working posture, leading to an increased risk of musculoskeletal disorders (Industrial Accident Prevention Association 2006)!

Even chemicals discriminate in favour of multiplication of men! In recent years, a number of reports have suggested that environmental and occupational exposures to Endocrine Disrupting Chemicals (EDCs) may be altering the sex ratio within given human populations.

Sex ratio—the proportion of male to female live births—is very constant on a worldwide basis, typically ranging from 102 to 108 male births for every 100 female births. In a study appearing in the July 2005 edition of Human Reproduction, a group of Swedish researchers analyzed blood and semen samples from 149 fishermen to investigate whether exposure to the persistent organochlorine pollutants CB-153 (a PCB) and p,p′-DDE affected the proportion of Y-and X-chromosome-bearing sperm. They discovered that elevated exposure levels of both chemicals were positively associated with a higher proportion of Y-chromosome sperm. The re-

searchers conclude that their findings add to evidence that exposure to persistent organic pollutants may alter the offspring sex ratio, with the higher proportion of Y-chromosome sperm likely tending to lead to a higher proportion of male births.

To date, many studies, on which much of our understanding of occupational risk is based, have been performed on men excluding women (Punnett/Herbert 2000). It has only recently been defined that gender-related biological differences may result in differential vulnerability of women and men to physical workplace factors such as hazardous substances and biological agents. Generally, chemical susceptibility varies depending how quickly and efficiently toxic agent is metabolized. Regard to chemical susceptibility, some biological differences between sexes could play roles in the real risk associated with occupational exposure. There are various ways of classifying biological differences between sexes regard to occupational exposure to toxic agents. The most obvious are the anthropometric differences between sexes according to muscle mass, fatty tissue, and bone mass. Adipose tissue may make women more susceptible to organic solvents such as all the liposoluble substances e.g. benzene and trichloroethylene that accumulate in fat. Hormonal influences, such as menstruation, pregnancy, lactation and menopause can be important physiological determinants of the biologically active dose. Epidemiologic studies have shown that sensitivity to asthmatic attacks increases in the premenstrual phase and airway reactivity to allergens and irritants varies over time and with hormones (Tollefsen et al. 2007). These differences could make women more susceptible than men to occupational asthma and indicate the need for additional prevention measures during the premenstrual phase.

Not all vulnerability is skewed against women however! Gender discrimination could also influence the collection of useful data. For example, special attention has always been given to women exposed to chemicals that could be hazardous to their reproductive health while this has been little emphasized in men, although many chemical agents could also damage the sperm production and motility. In this regard, there is still a need to improve gender responsive collection and analysis of data in a sex-disaggregated manner on occupational health and chemical exposure. In addition, being born with, you guessed it, a phallus does not socially construct one masculine! There are poor men, with low levels of education and not very competitive on the job market who are as socially excluded as many women. They too handle dangerous chemicals bare knuckle!

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WOMEN AND CHEMICAL SAFETY IN AFRICA: THE CASE OF THE FLOWER SECTOR
by Dr. Yahya Msangi - Welfare Togo

The fight for chemical safety in Africa is complicated by many factors. First is the fact that many chemicals do not cause instant visible harm, damage or death. Chemicals are silent operators. In a continent where there are a number of other causes of instant harm, damage and death such as mosquitoes, wild animals and pathogens effects of chemicals are not prioritized. Other factors that complicate the fight for chemical safety are culture, poverty, high rates of illiteracy, aggressive marketing by the industry, lack of expertise, poor policies and enforcement of legislations.

There is no group that is more affected than women and children, in particular working women, and the flower sector shows the typical problems.

Kenya was the first country in Africa to develop the flower sector and it was followed by Tanzania, Uganda, Zambia and Ethiopia. Flower production shifted from Northern developed countries to Southern developing countries due to lower health and environmental standards in the South, availability of sunshine, free land and water. Labor costs are also much lower. But production of flowers requires intensive use of chemicals and plastic sheets. This increases the risk of exposure to hazardous chemicals to women. Why women? Because the flower industry is feminine! In general, flower production employs 80 % women, particularly girls of ages between 16-28 years. Why? There is a silent belief that flowers require tenderness in their production, and women are linked to tenderness. However, behind this there are hidden reasons!

In Africa, women are less educated and are therefore paid less than their male counterparts. In Africa, women are brought up to become obedient and less argumentative especially in front of men (though the workforce is feminine almost 90% of supervisors in flower farms are men!). When you are paid less and expected not to speak out the possibility of exposure to chemicals increases. For example, low salaries force women in the flower sector to work longer hours in order to earn overtime pay. Women also don't ask for personal protective clothing (PPE) as doing so will be regarded as being argumentative, which is against culture and tradition.

Women in the flower sector are more exposed during high demand seasons in the developed countries i.e. during Valentine, Mother's Day, Christmas and Easter. Ironically it is fellow women in developed countries who are the main consumers of flowers during these periods! The more the demand in the North, the higher the rate of exposure in the South. Cases of instantaneous abortions, nausea, loss of consciousness, etc. are not very uncommon during these periods, particularly in the green houses and grading rooms.

In order to address the situation a group of NGOs and Trade Unions established the International Cut Flower Code of Conduct (ICC). This code mainstreamed gender and chemical safety issues and was used by many programs including the Fair Flowers Fair Plants Program (FFP – Netherlands, see also their benchmark document for label certification), the Flower Labelling Program (FLP – Germany; not active at the moment), Max Havelaar - Switzerland), The Kenya Flower Council and the Ethiopian Code for the cut flower industry.

Mainstreaming gender and chemical safety in codes of practice for each industry or occupation is the best way of protecting women, girls and children. In my view, all international programs including SAICM, Paris Climate Agreement, Agenda 2030 and others should design appropriate codes of practice or provide guidance to stakeholders rather than just mentioning gender issues in their texts. To me, just mentioning or acknowledging the gender dimension is not enough; it is artificial mainstreaming. Real mainstreaming requires more than text!

Author

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Why women? […]
There is a silent belief that flowers require tenderness in their production,
and women are linked to tenderness.

GENDER IMPACT ASSESSMENT - AN INSTRUMENT TO CREATE A GENDER-JUST CHEMICALS AND WASTE POLICY
by Dr. Jutta Emig - German Federal Ministry for the Environment

For our work on international chemicals and waste management, it is essential that we pay attention to women and gender issues. The gender actions developed by the BRS Conventions secretariat are an important step towards developing comprehensive gender strategies and taking effective institutional measures. This and other policy actions and instruments could serve as suggestions to create a gender-just framework for a sound management of chemicals and waste beyond 2020. One important instrument is the Gender Impact Assessment (GIA), and I would like to share the experience with the GIA developed in the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and share some aspects of ongoing work on gender and environment issues.

BMU developed its GIA model in 2004, in collaboration with the Institute for Social-Ecological Research (ISOE). GIA is a key instrument of the political strategy of gender mainstreaming, originally developed in the Netherlands in the early Nineties (Verloo/Roggeband 1996). It is an ex ante evaluation or analysis of a law, policy or programme that makes it possible to determine, in a preventative manner, if its future implementation "is causing negative consequences for the state of equality between women and men" (EIGE 2018). The basic understanding of GIA is "that the gender neutrality of political measures often has unintentional but highly consequential and often negative impacts on gender relations in a society and on men and women themselves" (ISOE 2002). Thus, the central question of GIA is: "Does a policy measure reduce, maintain or increase the gender inequalities between women and men?" (EIGE 2018).

GIA Stage Model

The environmental Gender Impact Assessment developed by BMU and ISOE is the specific review of an environmental policy measure by using a GIA stage model. Its three stages are:

1. Relevance (Pre Test): In the first step it is checked whether the implementation of a GIA is relevant to the examined policy measure or not. Are persons directly or indirectly affected by the measure or parts of it and to what extend? At the end of this step, the decision is made if a GIA should be implemented or not. At the end of this step, the decision is made if a GIA should be implemented or not.
2. Gender Impact Analysis (Main Test): In the second step, the gender
   impacts are analyzed. Which factors of the policy measure are influencing women and men, as well as gender relations? The aim of this working step is to provide a detailed description of relevant gender aspects of the examined policy measure that will lay the foundations for the subsequent rating.
3. Rating and Voting: In the third step, the analyzed gender impacts are evaluated and improvements are developed. At the end these are again tested: Are gender aspects sufficiently taken into account within the new recommendations? Is gender equality better addressed by the measure than before the measure?

Last but not least, the GIA stage model has to be anchored in the regular work. In Germany, a Gender Focal Point at the Federal Environment Agency is managing the work on gender and environment issues and within the research project "The contribution of gender justice to successful climate politics", the Federal Environmental Agency is currently further developing the GIA instrument and adapting it to issues related to climate change.

In this context, the dimensions of gender analysis are being further developed, including with a view to the transformative potential of gender mainstreaming in all sustainable development policies. In a current research project on gender and climate change (Röhr, Alber & Göldner 2017) existing gender dimensions of such an analysis were harmonized and further developed. Seven provisional gender dimensions were identified (ibid.):

- Care economy / care work (sex specific responsibilities for work and decisions inside the house and household; cost-benefit-analysis of care; logic and criteria of the care economy)
- Income economy / paid work (sex-specific division of paid and unpaid work; gender pay gap; poverty and poverty risks; distribution of wealth)
- Public resources: provision, design, access, usability of public services and infrastructures (distribution of public space, public finance, quantity and quality of services & infrastructures, access to resources)
- Structural aspects: symbolic order (dominant societal constructions of gender and gender identities, including perceptions, attitudes, risk assessments, and problem identification)
- Structural aspects: institutionalized andro-centrism (institutional rationalities that determine the understanding of tasks, processes, organization and outcome; models of masculinity as the norm, conceptualization, methods, production of knowledge)
- Power of definition and decision-making of actors (processes, decisions, power relations and governance

structures, participation, empowerment, choice of instruments)
- Body, health, intimacy (physical differences between the sexes and age groups, sexual harassment, reproductive health, sex-specific responsibilities for health, sex-specific perception of physical risks)

These seven dimensions allow identifying differences between genders in terms of roles, identities and behavior that lead to differences in exposure and impact and to address root causes of inequities, injustice and unsustainable development.

Transformative potential of GIA

The 2030 Sustainable Development Agenda clearly states that we need fundamental change: transformation of economies and societies towards justice, environmental protection, and resource-efficiency. Gender Equality is an essential cross-cutting task for advancing transformation towards sustainable development, justice and peace. GIA has enormous potential in this regard: beyond avoiding negative effects it can also be used in a transformative way as a tool for defining gender equality objectives and formulating policies that proactively promote gender equality.

Sex differences, and gender differences in terms of roles and identities are important to understand so that we can improve chemicals and waste management. But we can go a step further: We also need to understand structural causes of gender inequalities, environmental degradation and pollution. Gender injustices and gender inequalities are symptoms of androcentric structures in societies. Using GIA helps to see these connections and to find better solutions. A future framework for the sound management of chemicals and waste should use this potential and integrate GIA as a tool when developing chemicals and waste management policies.

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FROM AGRICULTURE TO GOLD PANNING: CHEMICALS IS A GLOBAL CONCERN
by NDEYE Maïmouna DIENE - PAN Africa

Photo by PAN Africa

Gender and chemicals

Metallurgical, pharmaceutical, veterinary, cosmetics, agro-food, photographic reproduction, plastics and rubber industries... and also the sectors of agriculture, mechanics, automotive and aeronautics, construction, textiles, electronics and in many other sectors of production, trade and services, in multiple SMEs and large enterprises, chemicals are present in all sectors of activity, even though this is often ignored by those who handle them.

The issue of gender and chemicals is poorly addressed in national and international anti-chemical programs and policies. Why is there a special interest in these questions? Because understanding the gender dimensions of health impacts of chemicals and determining how gender roles and occupations influence exposure to chemicals has become a human rights issue.

From agriculture to gold panning, women's exposure to chemicals is a real fact

Recall that for several decades, chemicals have been used in virtually every sector. Over the years, it has been recognized that chemicals have a wide range of adverse effects, ranging from health hazards such acancers and physical hazards such as flammability to environmental hazards such as widespread contamination or toxicity for aquatic life.

In many developing countries, women's work is essentially devoted to agriculture. Agriculture uses large quantities of artificial chemicals as fertilizers, insecticides or herbicides and as regulators of plant growth. For example, in Senegal, rural women represent more than 52% of the population (National Agency for Statistics and Demography, ANSD, 2009) and they are mainly active in the agricultural sector. In phytosanitary treatments, they use large quantities of pesticides. However, the health effects of pesticides have mainly been studied in male populations of farmers and farm workers. Hence there is a lack of knowledge of the effects on women, and of exposure routes other than occupational exposure itself, during the preparation of the mixture and its application.

According to the literature, exposure of women to pesticides would increase the risk of reproductive disorders, later translation disorders. A report published on July 2, 2010 by CHEM Trust points out that some studies show an increased risk of cancer in children when the mother is exposed to pesticides. Many workers in gold panning activities are women. They participate in large numbers in artisanal mines, ranging from

40% to 50% in the sector as a whole, reaching up to 90% in some areas, usually gold-bearing (African Center for Mining Development, 2016); and they perform various functions in gold washing and ore processing, as well as in work related to goods and services. Artisanal mining can have significant health effects: it can cause respiratory diseases (cough, pneumonia, angina...) due to the inhalation of dust and often fatal accidents, due to archaic mining techniques (Artisanal Gold Mining, 2015).

PAN Africa's experiences, challenges and successes in mainstreaming gender in its projects

PAN Africa began in the 1980s the fight against inequalities between men and women specifically in the field of chemicals and especially pesticides. Thus, PAN Africa in collaboration with partners at national and international level developed programs and projects that have always taken into account the issue of the integration of gender and chemicals. Initiatives were taken and consisted in working with women's associations and groups from Senegal, Mali, Benin, and elsewhere.

Projects and programs have been focusing on awareness raising, capacity building and advocacy for gender mainstreaming in chemicals. Thus, as part of its Funding Leadership and Opportunities for Women (FLOW) program funded by the Netherlands between 2012 and 2016, PAN has worked to strengthen women's capacities on gender, leadership and advocacy issues, chemicals and sustainable agriculture. The Rural Women Empowerment Program (http://www.pan-afrique.org/departen.php) is a good example of training on gender issues and chemicals.

For a better consideration of gender in chemicals, PAN Africa with the support of the Marisla Foundation, is implementing since 2012 training activities for women farmers on agro-ecological practices for a reduction in the production and use of pesticides, reducing the exposure of women to pesticides. The project also sought to raise men's awareness of the importance of women in agro-ecology and the search for alternatives to synthetic chemical pesticides.

PAN Africa in collaboration with the Government of Senegal in the framework of the Minamata Initial Assessment (MIA) also carried out information and awareness activities on the issues of exposure of women and children in the artisanal mining sites in Senegal but also on gender issues.

Women's empowerment on gender issues and chemicals is not well developed. It is in this context that PAN Africa, with the support of the Global Environment Fund, has granted funding to a group of women who have conducted training activities on gender, POPs and alternatives to POPs in Senegal.

From my point of view, advocacy actions are needed in order to make SAICM and conventions such as Stockholm, Minamata and Basel more serious about gender. It is more than urgent to develop programs and set up specific funds for gender and chemicals issues. The momentum has certainly begun, yet timidly. I hope that concrete actions will be implemented in the years to come.

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More information about PAN Africa and their work you can find on their website: http://www.pan-afrique.org/ or you can contact them via e-mail: panafrica@pan-afrique.org

PROTECTING THE HEALTH OF WOMEN, CHILDREN, AND FUTURE GENERATIONS
by Pam Miller, Olga Speranskaya, Joe DiGangi - IPEN

A safe, clean, healthy and sustainable environment is a human right. Exposure to hazardous substances and wastes undermines this right and puts women, children, and other vulnerable groups at risk of human rights abuses. Throughout their lives, women are exposed to numerous hazardous chemicals that can harm them and our future generations by transfer across the placenta during fetal development and through breast milk to the nursing infant.

Sampling mercury in women of child-bearing age in Nepal – Photo: Ram Charitra Sah, Center for Public Health and Environmental Development, Nepal

The scale of this problem is significant. For example, mercury in a woman's body can transfer to her fetus during pregnancy, exposing the developing child to this brain damaging neurotoxin. IPEN recently conducted a global study of mercury in women of childbearing age. Hair samples of 1044 women in 25 countries revealed levels of mercury associated with the onset of fetal neurological damage in 55% of the global sample of women. Mercury is only one example and the reality is that today, children are born "pre-polluted" with hundreds of hazardous chemicals in their bodies.

A growing number of women understands this toxic threat. At a meeting of community residents and health professionals, Vi Waghiyi gently starts by introducing herself as a daughter, mother, and grandmother from the Arctic Indigenous community of St. Lawrence Island. Her calm cadence steadily builds to describe a current reality faced by women everywhere. *"We are being exposed to toxic chemicals without our consent in our homes, in our workplaces, our children in schools and playgrounds, and where we live… In 2015, seven of us in my family, including myself, had cancer at the same time."* These plain-spoken facts justify the importance of women's knowledge and understanding of crucial environmental issues and their impact on women and children's health in building a sustainable future.

One international agreement that should address the relationship between women and chemical safety is the Strategic Approach to International Chemicals Management (SAICM), coordinated by UN Environment. But there is a long way to go to fulfill SAICM's chemical safety mission.

When SAICM emerged in 2006, it was ahead of its time. Ministers of Environment from more than 100 countries adopted a declaration which committed governments to, "*work towards effective and efficient governance of chemicals management by means of transparency, public participation and accountability involving all sectors of society, in particular striving for the equal participation of women in chemicals management.*" SAICM's Overarching Policy Strategy notes that risk reduction measures need to be improved, "*to prevent the adverse effects of chemicals on the health of children, pregnant women, fertile populations, the elderly, the poor, workers and other vulnerable groups and susceptible environments.*"

Actual implementation of these commitments has lagged and now SAICM stands at a crossroads as delegates try to figure out what to do when the agreement expires in 2020. More than 100 countries have agreed that delegates should develop *"measurable objectives in support of the 2030 Agenda for Sustainable Development"* for the new chemicals framework. This includes Sustainable Development Goal #5 which commits governments to "*Achieve gender equality and empower all women and girls.*"

Gender equality is a fundamental human right and to achieve it, women must be empowered to realize a toxics-free future. But women cannot be empowered if they are being poisoned by toxic substances and if their children are born pre-polluted. Gender equality cannot be achieved if exposures to hazardous chemicals leave women suffering from cancer, chronic illnesses, infertility, and damage to their nervous systems.

Furthermore, the health of girls and women is critical to reducing child disabilities and mortality, and to improving the health of families and communities.

Looking ahead, it is clear that concrete measures to address women and chemical safety in the new global chemical framework need to be agreed upon, then actually implemented. These should include creation of a multi-stakeholder women and chemical safety working group to develop recommendations for actions. One important task is to connect women and chemical safety to SAICM's issues of global concern. For example, hazardous chemicals in electronics is a global issue of concern, but work under SAICM has not really touched upon health impacts in women workers who often comprise the majority of the workforce in this chemically-intensive industry.

In 2020 when the new chemical framework is launched, ministers – and particularly female ministers – of environment, health, agriculture and labor should make a ministerial declaration on women and chemical safety. This declaration should commit governments to specific actions and affirm the right to a safe, clean, healthy and sustainable environment.

Donors, intergovernmental and non-governmental organizations can help ensure all this happens by requiring gender-related activities in all chemicals, wastes, and agriculture projects and making all gender-disaggregated data publicly available. A step towards achieving this goal was made at the third session of the UN Environment Assembly in 2017 when UN Environment and IPEN signed a partnership agreement with the goal of contributing to the work on gender and chemicals through a focus on women. Upcoming activities will include a report on women leaders fighting toxic chemical pollution worldwide. But this is just a start.

Advancing the relationship between women and chemical safety should include investigating gender-specific routes of chemical exposure, biomonitoring studies, exposing harmful chemicals in women's and children's products, mapping priority chemical hotspots and hazardous waste sites that affect the health of women and children, educating parents and caregivers about the exposure pathways of harmful chemicals, raising public awareness about environmental violence and the precautionary principle, training women to become public speakers, and advocating at the national, regional and international levels for gender equity policies in relation to chemicals.

Vi Waghiyi has worked for years to push these kinds of activities forward. As she closes her presentation, she looks directly into the eyes of audience and quietly sums up why this issue is so urgent for women everywhere: *"We've lost so many people due to health disparities never seen before in our people… We're being contaminated without our consent. It's environmental violence."*

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IPEN is a global network of public interest NGOs working together for a world in which toxic chemicals are no longer produced or used in ways that harm human health and the environment.
You can find them at www.ipen.org or twitter: @toxicsfree

TOXIC GENDER? THE ROLE OF SEX AND GENDER IN CHEMICALS MANAGEMENT

by Arn Sauer, Jürgen Arning, André Conrad, Małgorzata Dębiak, Marike Kolossa-Gehring, Nadja Steinkühler[1] – Umweltbundesamt/ German Environment Agency

Engagement with the role of sex and gender in chemicals management is not a new phenomenon either internationally[2] or in the German context,[3] but it is persistently complicated. The relevance of sex (physical/biological) and gender (social/behavioural) aspects to chemical risk assessment and management is usually discussed in three ways: 1) in relation to sex/gender and exposure; 2) in relation to sex/gender and issues of impact assessment and 3) in relation to the issue of gender balance and equal participation of women and men in chemicals management decision-making. The embodiment approach, based on epigenetics, developmental biology and neuroscience, has added to this discussion yet another dimension, in which the debate of "nature vs. nurture" has been reconciled. Social, cultural and physical environments influence gene activation and physical processes[4]; hence, biology is not destiny in the sense that an individual's biological characteristics are not pre-determined, but are rather the co-products of genes and the individual's own experiences as well as those of past generations. Despite these long-term and recently emerging, ongoing discussions, sex/gender or embodiment approaches have not yet arrived in the oft-cited mainstream chemicals policy.

Although these topics have not yet been tackled in a structured manner within the German Environment Agency (Umweltbundesamt - UBA), the agency has had some initial experience in this area in the form of a pilot study on cleansing agents.[5] Results of the pilot study showed that impacts on women were significantly higher as compared to men, due to the higher exposure of women to cleansing agents. This higher level of exposure can be attributed to a gender-role typical division of household labour, in which women perform more household cleaning, have a more predominant role in choosing cleansing products, and are thus exposed to more advertising for these products. That the interrelationship of sex and physical susceptibility to chemicals beyond pregnancy in humans remains an under-explored topic cannot be attributed solely to a lack of awareness, but rather chiefly to inconclusive data, data gaps and governance issues within chemicals management. It appears difficult to gain insight into the importance and relevance of sex and gender issues in all sectors of chemicals management (research, policy design and governance),[6] which calls for heightened attention to these topics, and when they are found to be relevant, decisive action. But why is gender in chemicals management so "toxic" and complicated? What do we know and what do we have yet to learn?

What we know and how it is relevant

A recently finished project "GeUmGe-Net"[7] (an interdisciplinary research network on sex/gender in environmental health) demonstrated in a systematic review of publications in environmental toxicology, environmental medicine, environmental epidemiology and public health that sex/gender aspects are still widely ignored in these disciplines.[8] There are some things, however, that we do know: The established risk assessment schemes for chemicals are based on animal experiments and/or in vitro observations. Epidemiological data or other human data are used only in exceptional cases. It is hypothesised, and some indicative evidence exists to suggest, that different population sub-groups are more susceptible to chemicals than others either because they are exposed more due to habits, due to their different environments and professions (the gender dimensions) or because they exhibit higher chemical sensitivities (sex).[9] The chemical exposure and the chemicals' effects on the target organism might depend on various factors, e.g. geographical location (nearby releases of chemicals from industries like petrol stations or refineries), behavioural patterns (i.e. usage of cosmetics, cleansing agents or paints), age (esp. in utero, in childhood and at a young age), nutritional status (e.g. due to the influence of nutrition on the immune system), biological effects (e.g. metabolism, endocrine systems, pregnancy) or the burden of chemicals within each individual body, as a mixture of different chemicals are always present and effective in each individual's body at the same time.

The aforementioned early UBA pilot study on chemicals in cleansing and washing agents[10] addressed the difference in chemical burdens on women and men and possible consequences for chemical risk assessment. Statistical data taken in 2001/2002 from the initial study[11] showed that women spent seven times longer cleaning clothes, three times longer cleaning the living space and two-and-a-half times longer cleaning dishes, than men. The second statistical update of the German time study based on data taken in 2012/2013[12] indicates that, even today, differences between women and men— especially in households with children— remain significant. Despite some equality gains and the increased participation of women in the labour market, traditional roles and responsibilities have changed only marginally, particularly in family constellations. Socialisation theory is as prevalent as ever: The persisting division of labour between women and men at home, the labour market segregation with regards to different occupational choices as well as differences in spare time activities or consumer choices affect chemical exposure and safety. We know, moreover, that even performing the same tasks might make a difference and results in differences between women and men. For instance, it has been shown that the mortality rate in the cleaning industry in Belgium was higher for men than for woman if compared to non-manual workers of the respective sex.[13] The authors discuss as possible explanations of the higher male mortality factors such as: the higher employment rates of men in highly-ex-

posed industrial cleaning jobs, or the greater number of women working part-time, but also their greater readiness to leave jobs when experiencing health problems because they contribute less to the family income. This study poses a range of open questions; among others, it does not address whether the disparity in mortality rates could be attributed to a lower chemical risk awareness among men (who perhaps unconsciously adhere to constructions of invulnerable masculinity?), when handling cleansing agents. What is a certain and persistent finding in this and in other studies is that exposure to different materials, precautionary measures taken during exposure, as well as duration of exposure may vary according to gender. In combination with physical factors and different metabolic reactions to toxins between women and men (sex), these findings point to the need for a gender- and sex-sensitive chemical risk management.

Differences in external and internal exposure to chemicals that are due possibly to the influence of gender can be observed in environmental health monitoring studies: UBA's German Environmental Survey (GerES), for instance, showed a higher average indoor air concentration of limonene in bedrooms of girls.[14] A possible explanation for this result is that girls use products like scented candles, fragrances or cleansing agents more often. In the German Environmental Specimen Bank (ESB), copper levels in blood plasma are substantially higher in women,[15] which can be explained by the use of oral contraceptives.[16]

In terms of perceived health impacts, the UBA's environmental awareness study shows that women are more aware of health-related environmental risks. Thus, women tend to feel more exposed to environmental factors, such as chemicals in products and plastic particles in drinking water and food. These gender differences may be related to the fact that women generally have a higher awareness of the environment but also of their own health, whereas men (on average and along with other intersectional factors) are more negligent of their own health and do not attribute the same importance to environmental risk as do women.[17]

What we do not know (yet) and how to tackle it

With regards to sex, toxicological research appears to focus mainly on endocrine-disrupting chemicals. Some ubiquitous chemicals such as phthalates, used as plasticisers, and the plastic ingredient Bisphenol A have an impact on the endocrine systems of test organisms, and it is assumed that they can also disturb the endocrine systems of women and men.[18] What is known from environmental toxicology is that synthetic estrogens and other chemicals acting as endocrine disruptors demonstrate adverse effects on environmental species such as, for example, impacting life-cycles and reproductive success or by altering the sex ratio in fish.[19] In the heyday of high doses of contraceptives, women who were taking the "the pill" were thus advised to collect their urine separately and to dispose of it as hazardous waste in order to avoid impacting the environment. Compounds such as ethinyl estradiol (EE2) present in these medications are not, in fact, easily filtered out or degraded in our water treatment plants. Current contraceptives contain much smaller estrogen doses; however, the basic problem of insufficiently treated waste water and the addition of EE2 to the total environmental bur-

den of estrogenic active chemicals remains. At the same time it stays unclear to what extent the estrogenic burden in surface water might result in relevant drinking water contamination with endocrine disruptors, with potential impacts on the human reproductive system, i.e. on male semen quality.[20]

Discussions within chemicals management around how to effectively tackle emerging issues such as endocrine disruptors have not yet come to a convincing conclusion. The Organisation for Economic Co-operation and Development (OECD) is developing adequate testing and assessment methods for these chemicals of emerging concern as well as approaches for how to evaluate them.[21] Such chemicals of emerging concern are amongst others hormones, pharmaceuticals and hormone mimetic synthetic chemicals and their activity as endocrine disruptors. Regarding endocrinologically active chemicals, regulations like the ones for biocidal and plant protection products have classified certain chemicals as endocrine disruptors based on well-established scientific criteria accepted across the EU.[22] Still, our knowledge of endocrine disruptors is limited and confined to certain endocrine pathways (such as sex steroids and substances that affect the thyroid) and to only very few vertebrate species besides humans (mainly fish, amphibians and rodents). Thus, the regulation of endocrine disruptors in the environment still suffers from gaps in scientific knowledge and uncertainties, as well as from a lack of widely-accepted criteria for the identification of such chemicals across all relevant legislative frameworks. To tackle these issues, more research and the development of new or the amendment of existing endocrine-sensitive test methods are needed. Additionally, on the policy level, a consensus on the classification of endocrine disruptors based on well-substantiated science must be reached, irrespective of the regulatory consequences this classification may have for single substances under different legal frameworks.

Gender Balance and Participation in Decision-making within Chemicals Management

Last but not least, and similar to all science- and technology-dominated fields, chemicals management has much room for improvement in terms of the number of women in decision-making bodies. The target of gender balance seems hard to meet, but some promising initiatives have recently sprung up. The Quick Start Programme[23], for example, which funds small projects in developing countries, requires an ex-post evaluation of the gender balance in decision-making bodies. UBA research funding does not yet engage in similar activities; however, the UBA has a successful gender equality strategy for its own staff and is currently catching up fast in its last remaining field of gender imbalance on the managerial level. The UBA currently has its first female president, Maria Krautzberger, and in terms of top-level managers, the UBA has achieved gender balance. Steady improvement in gender representation within middle and lower management, with 40% female and 60% male managers overall in 2018, show that the UBA is closing in on its ultimate goal of equality, which it wants to reach during the next gender equality plan 2020-2023 (earlier than 2025, as demanded by the current coalition government).[24]

Outlook

Sex and gender issues in chemicals management may have been "toxic" in the past, in the sense that they did not receive (enough) attention from various scientific communities and responsible agencies, but they cannot remain so in the future. The need for change is why it is so crucial that SAICM draws attention to sex and gender issues as it does in its paper "Gender and the sound management of chemicals and waste."[25] This paper will also be discussed in the UBA with regard to how susceptibility and exposure are influenced by sex/gender, how these interactions affect domestic life as well as occupational health and what we can learn from these insights for future research and policy advice. The 2030 Agenda with its Sustainable Development Goals (SDG)[26] provides a window of opportunity to mainstream awareness of the gendered effects also into chemicals use and chemicals management. The cross-cutting SGD 5 "Gender Equality" in particular, in combination with many other relevant SDGs,[27] will raise awareness of the need for integrated approaches and the adequate involvement of all sectors, stakeholders, and societal groups, and will also be relevant to the sound management of chemicals beyond 2020.

As a country of the Global North, Germany's main areas of concern with regards to chemical safety and sex/gender could be related to chemicals in products (e.g. cosmetics and beauty products) and endocrine-disrupting chemicals together with environmentally-persistent pollutants, as these are either not being filtered (completely) by water treatment plants or persist and accumulate in fatty tissue. Yet another potential area of inquiry is determining the toxicological endpoints of chemicals (with regards to germ cell mutagenicity, reproductive toxicity, organ toxicity and carcinogenicity) and their possible sex/gender interactions and differences, as attested by the Scientific Group on Methodologies for the Safety Evaluation of Chemicals (SGOMSEC).[28] Some of the open questions in toxicology and exposure science might hopefully be answered in UBA research projects. The UBA is already taking part in the collaborative research project INGER (Integrating Gender into Environmental Health Research),[29] aiming the conceptualisation of gender theories in human biomonitoring studies. The UBA's department for toxicology and environmental health has also designed a governmental founded project for the statistical analysis of toxicological studies according to sex related differences in toxicity in rodents that should start in 2019.

In terms of research governance, and independent from chemicals management like in the current SAICM processes, the UBA has introduced a gender mainstreaming strategy, according to which all newly designed research projects are subject to a gender relevance test. If gender is found to be relevant to the project, a full gender impact assessment should be performed in order to integrate sex and gender

issues into research questions, methods and results. Accordingly, in 2018, the UBA has introduced a gender relevance tick box: once ticked, the UBA gender quality officer will then be involved through the course of the project. She and her research officer for gender mainstreaming are thus able to give feedback and support, if needed, in developing the research concept. In the environmental research funding programme of the UBA, for example, a total of 16% of all submitted proposals in 2018 were earmarked as gender relevant. This general research quality assurance mechanism will hopefully also contribute to more gender- and sex-sensitive chemical and toxicology research in the future.

What could be improved with regard to participation in chemicals management is the involvement of women's organisations and female experts in conducting such research and providing policy advice. Here, a gender balance in all key commissions and scientific boards is already required by law, [30] and now needs to be carried out in practice. In terms of equal opportunities and the participation of women in chemicals management, the UBA has made great advances in the past and will continue to do so, due to its gender equality plan and established quotas therein.

Authors

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[1] Acknowledgements: This article benefited immensely from discussions with Dr. Petra Greiner, Caren Rauert and Dr. Hans-Christian Stolzenberg. We also thank Kai Egener for editing the article.

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Background

The MSP Institute is passionate about high-quality multi-stakeholder processes (MSPs) for sustainable development. Meaningful participation, open dialogue and effective collaboration involving all sectors of societies will play a key role in achieving transformation towards sustainable development. Gender equality and high quality engagement processes are important goals in themselves but they are also pre-requisites for just and peaceful societal transformation.

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