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Mini workshop on “Implementation of the 2030

Agenda for Sustainable Development:

what role for standards and regulatory cooperation?”

Gender mainstreaming in standards

Note by the Secretariat¹

Summary

The Working Party agreed at its 25th session to continue discussion on how it could further contribute to the Sustainable Development Goals (ECE/CTCS/WP.6/2015/2, para 11).

This note by the Secretariat intends to further this discussion, in particular as regards how standardization policies and technical regulations can contribute to Goal 5, “Achieve gender equality and empower all women and girls”, and the specific role of the Working Party within this context.

Proposed Decision

“Member States agree to give a mandate to the Bureau and the Secretariat to initiate consultations on developing a roadmap and a recommendation on mainstreaming gender into standards and regulatory policies at national and international levels”.

¹ The Secretariat wishes to thank Ms. Froukje Kruijssen, Ms. Rhiannon Pyburn and Ms. Verena Bitzer of the Royal Tropical Institute (KIT) of the Netherlands for preparing an excellent background paper for the present document.

I. Introduction

1. The Working Party agreed at its 25th session to continue discussion on how it could further contribute to the Sustainable Development Goals (ECE/CTCS/WP.6/2015/2, para 11). This note by the Secretariat intends to further this discussion, in particular as regards how standardization policies and technical regulations can contribute to Goal 5, “Achieve gender equality and empower all women and girls”, and the specific role of the Working Party within this context.
2. In particular, this document provides background information for a discussion among member states on the following issues:
 - What is the “gender dimension” of standards and technical regulations?
 - What are the entry points for mainstreaming gender in standards and technical regulations?
 - How can standards and technical regulations contribute to realize Goal 5 of the UN Agenda 2030, “Achieve gender equality and empower all women and girls”?
 - How can the Working Party contribute to addressing gender-based discrimination and promote gender equality in standardization and regulatory activities?
3. This document intends to allow Member States to take an informed decision on: “giving a mandate to the Bureau and the Secretariat to initiate consultations on developing a roadmap and a recommendation on mainstreaming gender into standards and regulatory policies at national and international levels”.
4. The roadmap would support the UNECE policy for gender equality and women’s empowerment. This policy aims to:
 - advance women’s equal participation with men as decision makers in the areas of work of UNECE;
 - mainstream a gender perspective in the substantive work of the Sectoral Committees;
 - reduce gender inequalities in access to and control over the resources and benefits of development in the areas pertinent to UNECE’s areas of work (UNECE 2014).
5. The roadmap would also support the activities of the Working Party on Regulatory Cooperation and Standardization Policies in support of the implementation of the Agenda 2030, in particular as regards promoting the use of standards as building blocks of a pattern of sustainable and resilient development, at national, regional and global levels.

II. Gender dimension of standardization policies

6. The discussion about the gender dimension of standards is in its early phases. There is limited evidence of gender being discussed, and addressed, in standards bodies at both international and national levels.
7. There is very little literature on gender dimensions in standards, with the notable exception of a small group of studies on gender and labour standards. Anecdotal evidence points to the following concerns:
 - (a) Prevailing gender norms present barriers to women’s participation in the development of standards.

(b) Dominance of male representation in standard-setting affects the way that standards are produced, with insufficient consideration of women specificities in the deliverables.

(c) Standards are generally presumed to be gender-neutral and are developed without recognizing the differences between male and female standard users.

(d) There is a lack of explicit gender policies and implementation strategies in standard organisations².

(e) Little knowledge about the gender impacts of standards exist due to the lack of sex-disaggregated data.

8. Due to these data and information constraints, this document aims at providing references and setting the direction for a discussion, rather than pointing to solutions or developing strategic directions for policy-makers.

III. Definitions

A. Standards

9. Standards play a fundamental role in all aspects of everyday life, from communications and technology, to food and health, construction and infrastructure, energy and water, and many more. A standard is formally defined as a “document established by consensus & approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods with which compliance is voluntary” (ISO). Thus, standards constitute a specific type of rule, developed by one or several people or organizations, for common and voluntary use³.

10. Standards have a variety of purposes, ranging from ensuring inter-operability of technical devices, regulating business behaviour and the quality of products/services, protecting consumer interests, ensuring adherence to health, safety, social and environmental criteria, to facilitating the harmonization of international systems (e.g. accounting), minimising environmental and health hazards, and ensuring public safety. Standards can be categorized on the basis of several distinctions, including technical (‘compatibility’) and non-technical standards, process and product standards, or de jure and de facto standards.

11. Standards can also be a key to changing the characteristics of products and processes and driving change in consumers’ and producers’ behaviours. As such have the potential to become a transformational force for sustainable and resilient development. To fully exploit this potential, it is critical that standards are developed and implemented through a participatory and inclusive process and properly used and implemented. This also requires the availability of a “national quality infrastructure system”, including an array of private and public sector bodies, i.e. metrology institutions, accreditation and conformity

² Pyburn, R. “A guidance for ISEAL member standard systems on gender integration”. Royal Tropical Institute, 2015.

³ Brunsson, N., Rasche, A. and Seidl, D. 2012. The Dynamics of Standardization: Three Perspectives on Standards in Organization Studies. *Organization Studies*, 33(5-6), 613-632

assessment bodies, as well as testing laboratories, so as to allow the monitoring of conformity and compliance against the standards' requirements⁴.

B. Sex, gender and gender mainstreaming

12. Sex refers to biological qualities characteristic of women [females] and men [males] in terms of reproductive organs and functions based on chromosomal complement and physiology. As such, sex is globally understood as the classification of living things as male and female, and intersexed⁵.

13. Gender—a socio-cultural process—refers to cultural and social attitudes that together shape and sanction “feminine” and “masculine” behaviours, products, technologies, environments, and knowledge (European Commission 2013). It is a social construct that is dynamic and changes over time and in different places. Whereas sex is male/female based on biology, gender is man/woman based on socially constructed identities.

14. Gender mainstreaming has been defined by United Nations Economic and Social Council (ECOSOC) as “[...] the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in any area and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension in 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”⁶.

15. Integrating a gender dimension into standards and regulations implies the use of both sex and gender-based analysis in all stages of the standards cycle and related areas, including: the development and setting of standards and regulations, conformity assessment and enforcement activities, and the gathering of gender-disaggregated metrics to document impacts. These steps will ensure that standards and regulations represent the interests, needs, experiences and expectations of both men and women.

IV. Entry-points for integrating gender perspectives in standards

16. The following paragraph presents a preliminary overview of possible entry points identified by the Secretariat for the inclusion of a gender perspective in standards.

17. These include: inclusive standards development, support to implementation and conformity assessment of gender-informed standards and enforcement of gender-informed regulations, support to the development of gender-informed technical regulations, measuring the impacts of standards-related policies on gender equality.

18. Member states are invited to review and comment upon these suggested entry points and suggest other relevant entry points.

⁴ UNECE 2015. Contribution of the Working Party on Regulatory Cooperation and Standardization Policies to the implementation of the 2030 Agenda for Sustainable Development. ECE/CTCS/WP.6/2015/3

⁵ European Commission 2013. Gendered Innovations: How Gender Analysis Contributes to Research. Report of the Expert Group “Innovation through Gender”. Directorate General for Research & Innovation EUR 25848

⁶ ECOSOC, Agreed Conclusions 1997/2, www.un.org/womenwatch/daw/csw/GMS.PDF

(a) Inclusive standards development process

The process of standards development is a solid starting point for the inclusion of a gender lens. Some entry-points include: promoting the participation of women in standard-setting and regulatory processes, taking biological differences into account including gender indicators and criteria in standards and Measuring the impacts of standards-related policies on gender equality:

- (i) Promoting the participation of women in standard-setting and regulatory processes, including: the formulation of the aims of a standard, in the stakeholder consultation process, and the feasibility assessment. This includes ensuring gender-balanced representation in standard setting processes (also see section 4.2 below). Historically, standards have been developed in a male-dominated environment, through male technical experts and engineers.

One of the more prominent examples of a standard setting process that took place in a more participatory way is ISO 26000, a standard which offers guidance to organisations on social responsibility. Between 2005 and 2010, this standard was developed using a process that engaged six main stakeholder groups (industry, government, labour, consumers, nongovernmental organizations, and service, support, research and others). Representatives from each group were drawn from about 80 countries and international organisations, resulting in more representation from developing countries than from developed countries. In addition, the ISO group also aimed to strike a balance between male and female members of the drafting team. While ISO conceded that they could not always achieve a full and equitable balance of stakeholders due to the availability of resources and the need for English language skills (ISO, 2009), monitoring records show that representation by women during the five year process started with 33% in 2005 and was at a record high in 2009 with 42%⁷. This makes this ISO standard one of the most inclusive examples of standard setting processes.

Such a participatory process was also used in a partnership between the “Global Alliance for Clean Cookstoves” and ISO aimed at developing and applying standards to ensure the best possible cook stoves and fuels are available in the market. With women as the main end user of cook stoves, it was recognized that it was imperative to involve women in their design for their acceptance, popularity, awareness and long-term sustained use of the stove (Gold Standards Foundation 2016). Through a process that involved more than 90 stakeholders from 23 countries an International Workshop Agreement was developed (IWA 11:2012), which defines tiers of performance for efficiency, emissions and safety of cook stoves (<http://www.iso.org/iso/news.htm?refid=Ref2030>). However, we were unable to find evidence on whether this process was able to include a sufficient number of women.

To ensure inclusion of women in standard setting processes there may be a need for further skills development for women related to work on the development and implementation of standards.

- (ii) Taking biological differences into account in standard setting is of key importance and not doing so may put women at a disadvantage, or in danger, as the following examples illustrate.

In the transport sector, reference models for the human thorax, used in the automobile industry to improve safety for car occupants, were earlier largely based on a “50th percentile seated man” so not appropriate for smaller people and in particular women.

⁷ Ward, H. 2012. ISO 26000 and global governance for sustainable development. International Institute for Environment and Development (IIED), London

Similarly, crash test dummies were not representative for pregnant women who do not properly fit car seatbelts, leading to foetal death related to maternal trauma in motor vehicle crashes⁸. The above two examples both led to revisions of standards and development of pregnant crash test dummies for the car industry, thereby improving the representativeness of the results of the tests for a wider population and people's safety⁹.

That is the case also for standards for air-conditioning settings in offices. Recent research on metabolic rate, one of the main variables to determine thermal comfort, has shown that the current standards based on the resting metabolic rate of a 40-year-old man, overestimate the metabolic rate of women on average by 20 to 30 percent. In addition to women, older people also have slower metabolic rates and thus prefer higher temperatures. The authors have called for a new system that takes into account gender differences, as well as age and weight. Not only would changes in standards make office workers more comfortable, it would lead to energy savings and lower emissions¹⁰.

Finally, occupational health standards are insufficiently taking into account women's needs. Research has shown that biological differences between and among men, non-pregnant women, and pregnant women can influence exposure and response to workplace toxicants. These differences therefore need to be defined, compared, and taken into account when regulatory standards are set for the protection of workers from potentially hazardous workplace environments. Differences are related to height, weight, metabolism, total body water and pulmonary other body functions¹¹.

(iii) Including gender indicators and criteria in standards: There are some examples from sustainability standards where gender related issues are, instead, taken into account. These are primarily standards for agricultural and textile products and relate mainly to non-discrimination in labour and hiring policies and working conditions and equal pay. They often also refer to the intersection of gender with other aspects, such as race, and religion. The explicit specification of gender issues in standards is important to provide the issues with visibility, and making it part of the auditing framework¹².

Often, gender implications of standards, regulations and policies cannot be readily evaluated because of lack of data. Tools and methods such as gender analysis and gender impact assessment are being applied in the development sector to ensure that sex and gender are taken into account when developing projects and policies, so that they do not result in unintended harmful consequences for particular groups and take advantage of opportunities to promote gender equality. Similar methods and tools can be adopted in the standards setting process for gender mainstreaming.

A useful checklist for assessing the gender sensitivity of standards and reference models was developed by Gendered Innovations in Science, Health & Medicine, Engineering and Environment (see Annex).

⁸ European Commission 2013. Gendered Innovations: How Gender Analysis Contributes to Research. Report of the Expert Group "Innovation through Gender". Directorate General for Research & Innovation EUR 25848.

⁹ Ibid.

¹⁰ Kingma, B. and van Marken Lichtenbelt, W. 2015. Energy consumption in buildings and female thermal demand. *Nature Climate Change* 5, 1054–1056

¹¹ Silvaggio, T. and Mattison, D.R. 1994. Setting occupational health standards: toxicokinetic differences among and between men and women. *Journal of Occupational Medicine*, 36(8): 849-54

¹² Pyburn, R. 2015. A guidance for ISEAL member standard systems on gender integration. Royal Tropical Institute

(b) Support to implementation and conformity assessment of gender-informed standards and enforcement of gender-informed regulations

Once new or revised standards that include gender considerations are developed and agreed upon, organizations of different kinds may require support to implement them. Governmental authorities, business associations, certification bodies, and civil society organizations could play a role in this process. Support could also be given in kind (i.e. staff development, development of an action plan or road map for compliance).

(i) Conformity assessment is the demonstration that specified requirements relating to a product, process, system, person or body are fulfilled (ISO/IEC 17000:2004). This includes activities such as testing, inspection, and certification. UNIDO has observed that these processes are overall male-dominated. This is partly a result of the low level of women's participation in science, technology, engineering and mathematics education in general, and tackling this issue thus requires promotion of the sciences among women, and the inclusion of gender balance criteria when selecting candidates for the training of conformity assessment professionals (laboratory technicians, inspectors, certification agents)¹³. In addition, it has been observed that in some locations where conformity assessments are being carried out, such as border inspection control points, are particularly liable to gender-based violence, including physical harassment and abuse, verbal insults, stripping, sexual harassment, and rape, especially within regions with important levels of cross-border informal trade¹⁴.

(ii) The enforcement of regulations is oftentimes limited to the formal part of the economy. However, the majority of the world's workers are working in the informal sector, including owners or workers of micro enterprises, unpaid family labour, contract workers and domestic workers. Women are particularly confined to informal forms of work, pointing to a large (gender) gap in the reach of voluntary standards and even regulatory obligations (Franck, 2008). For instance, labour standards developed with a view to protecting workers' rights, are limited to work in the formal sphere, where enforcement is a well-recognized challenge. Yet, "even if the state were able and willing to enforce compliance with labour protection within the formal economy, this would apply to a minority of the labour force; given the over-representation of women in the informal economy, such compliance would not protect the female labour force working in the informal sector"¹⁵.

(c) Support to the development of gender-informed technical regulations

It has also been observed that capacity is lacking within policymaking institutions to understand gender implications and assess the impact of policy options on gender equality. Concerns related to differential impacts on men and women may not be widely disseminated within policy-making bodies¹⁶.

In as far as technical regulations are – to a large extent – based on standards, or refer to standards, the assumption can safely be made that if standards do not take gender considerations sufficiently into account, this will also be true of technical regulations.

¹³ UNIDO 2015. Guide on Gender Mainstreaming: Trade Capacity-Building Projects. United Nations Industrial Development Organization

¹⁴ Ibid.

¹⁵ Pearson, R. 2007. Beyond Women Workers: gendering CSR. *Third World Quarterly*, 28(4), 737.

¹⁶ UNIDO 2015. Guide on Gender Mainstreaming: Trade Capacity-Building Projects. United Nations Industrial Development Organization

https://www.unido.org/fileadmin/user_media_upgrade/What_we_do/Topics/Women_and_Youth/Gender_TCB_Guide.pdf.

Additionally, the regulatory processes will suffer from concerns similar to those described in paragraph 4.1 above, including the insufficient representation of women in regulatory bodies and in regulatory committees. Consultations by these bodies with women and representatives of the women communities also is likely to be inadequate, although, again, there is no sufficient evidence to support this claim.

(d) Measuring the impacts of standards-related policies on gender equality

Attention to gender perspectives also needs to be made more explicit in the assessment of the impacts of standards implementation. Of key consideration here is how impacts are measured, taking into account process indicators such as:

- Collection of sex-disaggregated data;
- Measuring differential impacts among women and men using products based on existing or new standards (gender analysis);
- Reviewing progress in terms of gender equality in representation and participation in standard setting and implementation.

V. Role of standards and technical regulations in the implementation of Goal 5 of Agenda 2030

19. Mainstreaming standards considerations into standards and technical regulations would support the achievement of Goal 5 of Agenda 2030: “Achieve gender equality and empower all women and girls”.

20. Ensuring that standards and technical regulations fully take into account gender considerations promotes gender equity in education opportunities and at the workplace. The reverse is also true: gender equality in education opportunities and at the workplace are pre-requisite for effective participation and representation of women’s interests in standardization.

A. Gender equity in the workplace

21. The representation of women in standards-related activities depends in no small part upon the place women occupy in their respective workplaces. This is because participants in standards-setting processes are mostly men and women that are active in the workforce. Gender equity in the workplace can – from this perspective – be also seen as a factor that plays an important role in strengthening women’s participation in standards-related activities.

22. Several sets of auditable standards for gender in the workplace have already been developed, which could be useful in helping to promote gender equity in companies and organizations. These include EDGE certification (<http://www.edge-cert.org/>) and the Gender Equity Seal (GES) (<http://goo.gl/jkeJ7R>) developed by Social Accountability International (SAI) and UN Women Egypt. Both are standards that measure and promote companies’ performance related to gender equality, as measured in terms of equal pay for equivalent work, recruitment and promotion, leadership development training and mentoring, flexible working and the company culture.

23. Looking more in details at the different stakeholder groups that participate in the standards-setting process points to more disaggregated action points that could play a part in furthering gender equality:

(a) Private firms: Women are under-represented in business communities. Promotion of the number of women entrepreneurs has been recommended, not only at small or medium, but also at large-scale levels.¹⁷

(b) Quality infrastructure institutions (national metrology bodies, test laboratories, conformity assessment bodies): Low representation of women in senior metrology posts was observed in a project called “Implementing the Metrology European Research Area” (iMERA). Their recommendation is to improve the gender balance in European metrology through career development in metrology institutes and equal opportunity policies¹⁸.

(c) Consumer organizations: Involvement of women as a distinct category was recommended in a UNIDO study.

24. At the same time, as the examples in paragraph 21 above show, women needs are not sufficiently taken into account in workplace occupational health standards and other standards that affect directly the participation of women in the workforce. Links between standards and gender equality at the workplace run both ways: standards contribute to empower women at their respective places of work, leading – among other things - to a stronger representation of women in standards-related intuitions and a more balanced representation of societal interests in standards and standards related processes.

B. Education and capacity building

25. Better representation of women in standards-related processes may also require professional skills development for women.

26. The inclusion of standards in university curricula in all different fields has been recognized as an important priority, and included in the WP. 6 programme of work. Furthering education on standards could be specifically targeted to the specific training and education needs of women and girls. This would contribute to ensure that more women are better prepared to playing their part in standard development and in jobs related to the implementation of standards.

27. In section 3.1 we have also mentioned skills for gender analysis and gender impact assessment as key areas of attention. The ability to implement this requires building of capacity and skills in these areas with professionals working at different levels in all organizations that are stakeholders in standard and regulatory processes. Capacity building programs for gender analysis and gender impact assessment have become common in the development sector. Tools and training materials could be adapted to make them more relevant in the specific field of standards and regulations, and related activities.

VI. Conclusion: the possible role of WP. 6

28. Furthering gender equality and empowering women and girls has been recognized as an important challenge and priority for policy-makers. It is at the same time one of the goals of Agenda 2030 and a pre-requisite for the achievement of most, if not all, of the others.

¹⁷ UNIDO 2015. Guide on Gender Mainstreaming: Trade Capacity-Building Projects. United Nations Industrial Development Organization
https://www.unido.org/fileadmin/user_media_upgrade/What_we_do/Topics/Women_and_Youth/Gender_TCB_Guide.pdf.

¹⁸ iMERA 2009. Implementing the Metrology European Research Area – iMERA: ERA_NET Coordinating Action, Contract number: 016220. https://ec.europa.eu/research/fp7/pdf/era-net/publishable_summaries/fp6/imera_publishable_final_activity_report_en.pdf

29. The Working Party is a forum for discussion on standards and standards related policies. As such, it plays an important role in bringing together the standards community and policy makers. It could thus play an important role as a catalyst for mainstreaming gender consideration in matters related to the development and implementation of standards and the development and empowerment of technical regulations.

30. Some of the specific actions it could undertake include:

- Gathering information and data on: the participation of women in standards development processes, in activities related to their implementation of standards.
- Promoting participation of women in standards related activities through specific actions related to furthering opportunities for women's education and gender equity at the workplace.
- Setting guidelines for standards bodies to ensure a more balanced representation of the interests of women and men in standards and technical regulations.

31. This document calls therefore member States to take a decision on further activities on this priority to be undertaken by the Bureau and the Secretariat, and explore opportunities for funding the continuation of this line of work.

Annex

Checklist for standards and reference models

When analysing human standards and reference models, researchers/engineers will want to consider the following questions:

- (a) Does the existing model differentiate between women and men?
- (b) Are existing standards up-to-date, or based on old data that might be invalidated by trends? For example, the incidence of obesity has increased significantly in highly developed countries over time (WHO, 2011). Japan, Brazil, the U.K., and the U.S. have all seen rates of obesity roughly triple in less than 30 years (Jeffrey et al., 2008).
- (c) If a model does not consider sex, is it based on research in both sexes, or is it in fact a male reference model (or, in some cases, a female reference model) that is being improperly used as a generic “human” model?
- (d) If standards do consider sex, how important is sex to the reference model? Have researchers adequately investigated non-biological influences due to gender and other social or biological factors?
- (e) Beyond considering sex differences, does the model address sex-specific factors among women (such as pregnancy) and men (such as susceptibility to prostate cancer)?
- (f) Does the existing model take into account differences between women’s and men’s attitudes, needs, and interests?
- (g) Are reference models based upon male animals being used as reference models for the species overall?

When analysing experimental reference models, researchers will want to consider the following questions:

- (a) Are reference models by default based on one sex but taken to be valid for the species overall?
- (b) Do data for one sex lag behind data for another sex, so that sex-specific reference models may not be equally developed or validated?
- (c) What criteria are used in selecting species, strain, and sex of model organisms used in research that will be translated to humans?
- (d) Does the choice of a particular model organism significantly affect findings?

Source: Schiebinger, L., Klinge, I., Sánchez de Madariaga, I., Paik, H. Y., Schraudner, M., and Stefanick, M. (Eds.) (2011-2015). *Gendered Innovations in Science, Health & Medicine, Engineering and Environment*. <http://ec.europa.eu/research/gendered-innovations/>.