Issues Note

Session 5

Gender-specific consumption patterns, behavioural insights, and circular economy

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Session 5: Gender-specific consumption patterns, behavioural insights and circular economy

Due to cultural norms, occupational and physical differences, men's and women's consumption patterns differ. At the same time, unsustainable production, waste generation and pollution often have distinct harmful impacts on women, in particular on those from socially disadvantaged layers, through various channels – from straining natural goods on which they depend for subsistence to poor labour conditions in the "feminised" workforce, to increasing amount of unpaid work related to waste management and a greater involuntary and uninformed exposure to harmful products and chemicals. Systematic incorporation of a gender lens in the circular economy design –understanding consumer behaviours, integrating lessons learnt from traditional sustainable practices, of which women are often knowledge holders, and leveraging local value chains for sustainability – would not only ensure a "just transition" for all, but would also inform how to make the new economic paradigm operational and sustainable. Targeting gender roles and behavioural preferences in consumption as well as waste generation and prevention could be a key pillar in transition to circular economy not only by reducing waste but also by addressing some gender inequalities through recognising the value of jobs supporting circular economies. Along with campaigns by governments, businesses and media should play an active role in promoting sustainable and ethical business practices and encouraging responsible consumer behaviour, as called by SDG 12.

Unsustainable consumption and production patterns

The growth in materials use, together with the environmental impact of their extraction, processing and disposing has put tremendous pressure on our limited natural resources and damaged the Earth's ecosystems. According to OECD, the use of materials resources rose from 27 billion tones (Gt) in 1970 to 90 billion tonnes in 2017, which is practically equal to the growth of GDP over the same period (2.6% and 2.7% annual average, respectively) (OECD, 2019a). If this lack of decoupling of materials use from economic growth continues, the consumption of materials will double by 2060, substantially worsening environmental consequences (OECD, 2019a). Global energy demand is projected to be 80% higher by 2050 – 85% of it being covered by fossil fuels - while global water demand is expected to increase by 55% (OECD, 2012).

Currently, the annual per capita material consumption in OECD countries is 60% above the world average (OECD, 2015). An average person consumed about 46 kg of materials – mainly construction and industrial minerals, fossil energy carriers and biomass, and produced 1.45 kg of waste on a daily basis in 2011 (OECD, 2015; OECD.stat., 2020). Rapidly increasing population and industrialisation in developing countries will intensify environmental and social challenges in these countries as they put further pressure on natural resources while the impact of climate change materialises.

Gender-specific consumption patterns

There are several key areas of consumption that have a strong gender dimension, and where influencing behaviour needs a gender perspective to be effective in improving sustainability. For example, traditional division of household responsibilities influences consumption patterns, as women often have responsibility for buying short-term use products (household products, food, etc), while men tend to decide on the purchase of more durable items (e.g. cars) (Yaccato, 2007; Kelan, 2008; OECD, 2018a). This traditional work-home division of responsibilities, persists to some extent in dual-earner households. Estimates from Canadian companies show that women make over 80% of consumer purchasing decisions, but men spend over 80% of household income, although this balance is changing as women's economic and social situation advances (Yaccato, 2007). This pattern has been confirmed in other studies (Kelan, 2008).

Surveys also show that women tend to be more sustainable consumers and are more sensitive to ecological, environmental and health concerns (Johnsson-Latham, 2007; Kaenzig et al., 2010; Khan and Trivedi, 2015; OECD, 2008). Women are more likely to recycle, minimise wastage and buy organic food and eco-labelled products. They also place a higher value on energy-efficient transport and in general are more likely to use public transport than men. Men, on the other hand, are more likely to go into debt than women, contributing to overconsumption and risky indebtedness. For instance, a survey of 2,500 adults across the US found that men have, on average, triple the amount of debt as women (Huddleston, 2017). According to credit agency Experian, women also have higher credit scores than men – 675 compared to 670 (LaMagna, 2018).

Studies in developing countries have also found major differences between men's and women's consumption preferences. Women are more likely to use income and debt to consume for food, health and education for their families. Conversely, men are more likely to use money on things that personally benefit them – such as snacks, alcohol or luxuries. Such trends explain the success of microfinance initiatives, such as the Grameen Bank which lends practically only to women and has a 97% repayment rate (Esty, K., 2014).

Women can therefore be key actors to move consumption towards more sustainable patterns. In this regard, public policies and new approaches to influence consumption decisions, such as behavioural insights should take into consideration a gender perspective.

On the flipside, women disproportionately use, what can be, toxic cosmetics and household cleaning products that both harm their health and the environment. Women expose themselves to "skin-lightening creams that contain mercury, vaginal douches containing phthalates, and talcum powder," in sync with feminine norms and societal pressure to be beautiful (Heise et al., 2019). The skin lightening industry is a multi-billion dollar global enterprise, and the mercury commonly found in the products and other cosmetics (eye makeup, mascara, cleansing products) is eventually discharged into the environment via wastewater, where it "becomes methylated and enters the food-chain as the highly toxic methylmercury in fish" (WHO, 2011).

The women's wear industry, worth about EUR 500 billion, is the largest segment of the whole textiles industry (Statz and Kane, 2015). It uses toxic substances (such as formaldehyde, dyes, residues of cleaning products and fabric and hygiene conditioner) that affect the health of both textile workers and wearers of clothes, and can also end up in the environment during manufacturing, use and disposal phases. When washed, some garments release plastic microfibers, of which around half a million tonnes every year contribute to ocean pollution – 16 times more than plastic microbeads from cosmetics (Ellen MacArthur Foundation, 2017). Environmental and health concerns, such as, carcinogenicity, mutagenicity, skin sensitization arise in the cosmetics and cleaning products sector which also employs millions of women and targets them as its main consumers (Nijkamp et al., 2019).

Women also bear the brunt of childcare and along with this comes the responsibilities of it, such as changing nappies. Carrying the double-burden of paid and unpaid work – women are driven toward time-saving options, one of which, is disposable diapers which generate a lot of waste. It is estimated that nappies account for 2-3% of all household waste in the United Kingdom (BBC, 2018), an estimated 3.75 million enter Australian landfills

per year, and an estimated 4.2 million tons of diapers are discarded per year in the United States (Clyde and Wahl, 2017). Wet wipes are also problematic and the build-up of discarded wipes in the United Kingdom are even changing the shape of British riverbeds as they accumulate in mounds (The Guardian, 2018).

Women also utilise an array of disposable products, such as tampons and sanitary pads, which often consist of plastic. Over the course of her lifetime, a woman may use between five and 15,000 pads or tampons and menstruate for about 40 years in total (Borunda, 2019). Knowing exactly how much waste these products create is not so easy to track, but the amount of tampons sold per year are in the tens of billions, with a third sold in the United States alone in 2018 (Borunda, 2019).

Social effects of unsustainable production and irresponsible consumption

The costs of the linear economy which brought about degradation of the environment are particularly heavy for disadvantaged groups of the population. Poor people tend to live closer to polluted waters, factories and transport hubs, suffering more directly the negative consequences of pollution and climate change. Women tend to be more affected, both because they are often among the world's poorest populations, and also because of social norms, under which certain roles such as waste management falls under household tasks which are mainly assigned to women (Scheinberg et al., 1999). The social and environmental implications of production across global supply chains is addressed in the OECD Due Diligence Guidelines for Responsible Business Conduct (OECD, 2018b).

Environmental degradation

Women are more likely to experience the negative side-effects of unsustainable production, such as pollution and the destruction of rural communities and public commons such as forests. In low-income countries, girls and women are often responsible for collecting water and gathering biofuel and food from forests, which makes them more exposed to climate change and environmental change.

The operation of multinationals in developing countries is of particular concern, as often labour, health and environmental standards are less stringent or less effectively applied. Multinational companies may move their operations abroad in search of less strict regulations, where despite initiatives such as the UN Global Compact and the Global Reporting Initiative, they are not applied the same controls and reporting standards as in their home countries. Multinational enterprises are responsible for some of the most egregious damage to the environment, in particular the ongoing deforestation in countries within the tropical region to open up land for grazing and farming, much of which is export-oriented. Subsistence farmers, a majority of which are women, are major casualties of such developments.

Waste management

Due to social norms in many cultures, women are more often in charge of waste management, hence more waste means more work for them. In developing countries, the waste management sector has a high percentage of female participation, it is however limited to informal work and unregulated employment (Ocean Conservancy, 2019). Health risks in this sector are exacerbated by gender inequality, as the equipment is designed for men and women have an additional physical safety challenge. [1] Two major landfill collapses that

[1] See Ziraba, A. K., Haregu, T. N., & Mberu, B. (2016). A review and framework for understanding the potential impact of poor solid waste management on health in developing countries. Archives of Public Health, 74(1), 55. https://doi.org/10.1186/s13690-016-0166-4 and Kummer, K., (1999). International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules. Oxford University Press. Great Britain.

took place in Addis Ababa, Ethiopia in 2017 and Maputo, Mozambique in 2018, illustrate such inequalities as more than 65% and 75%, respectively of the hundreds of casualties were women (Moshenberg, D., 2018).

Inadequate labour conditions

Overconsumption also requires cheap labour to nurture global production chains. In developing countries women are overrepresented in assembly-line type jobs, which tend to be low-pay, have bad working conditions (long and irregular working hours) and weak employment and social protection. Much of this employment is located in export processing zones (EPZs), in which between 70-90% of workers – around 50 million - are women (Wick, 2010). Sectors with a particularly high representation of women include textiles, clothing, food processing, horticulture, pharmaceuticals, household goods and toy production.

Reports on the conditions in textile factories and the garment sector particularly highlight the vulnerability of women. In Vietnam, 80% of the 700,000 garment factory workers are women. They work for longer hours than men, are less likely to receive training and benefits, and earn only 85% of men's wages (The Guardian, 2014). Even in factories that supply some of the best known companies in the world, working conditions have sparked human right violation allegations. In the span of three days in November of 2016, 360 workers collapsed in Cambodia. They reported working in 37 degree Celsius heat, being overworked and underfed (The Guardian, 2017). Human Rights Watch similarly revealed that women were refused bathroom breaks, denied sick leave and suffered from sexual and physical abuse (Human Rights Watch, 2015).

Women are also the main victims of the use of hazardous products in the textile and footwear industries. The industry uses toxic substances (colouring, dyes, adhesives and primers) that affects the health of both textile workers and wearers of clothes, and can also end up in the environment.

Weak labour conditions not only negatively affect women's well-being but are also linked to sectors that are responsible for unsustainable production practices (e.g. cotton). Due to public pressure, companies increasingly report on social and environmental aspects of their activities. Through initiatives such as the UN Global Compact, the Global Reporting Initiative, the OECD Guidelines for Multinational Enterprises, and the OECD Due Diligence for Responsible Business Conduct, multinationals are increasingly being held accountable for their operations in developing countries, including their carbon footprint, broader environmental impact and the labour and human rights conditions of their employees. But a stronger effort is needed to improve national economic accounting and enhance awareness about the real cost of global products, with a specific focus on the impact on women, vulnerable groups and the environment. More also needs to be done to improve transparency and corporate accountability for environmental impact and human rights and workplace conditions along global supply chains.

Behavioural insights

Consumption patterns at the level of the end-user are important to explore, as consumers – through their actions and purchasing habits – can influence how products are being developed, produced, used and potentially reused. Women and men have different attitudes, perceptions and behaviour, due to social norms and education, hence they are expected to follow different consumption patterns. Women and men also have different interests regarding environmental improvement based on the different purposes they use natural resources for, there is however an increased willingness by women to pay for improved services (Bulle, 1999). Women seem to follow a more sustainable approach to their consumption patterns, being more responsive towards ecological and environmental considerations of products purchased and consumed, including their reusability when they have a choice (Johnson-Latham, 2007; Kahn and Trivedi, 2015; Bulut et al., 2017). They also tend to be more sensitive to waste prevention, to ecolabels and energy and water saving initiatives at a household level (Yaccato, 2007).

On stated preference about goods and services, for instance when selecting electronic products, women prefer those that have an end-of-life feature (that is reuse, remanufacture or recycle). Additionally, they would also be willing to pay a supplementary amount if the product purchased was more environmentally friendly. Men would also be willing to pay a premium price, but only if that was very low (Atlason et al., 2017).

Women seem also to be more responsive to more sustainable waste management solutions. Depending on location and income, women are more likely to accept sorting recyclables and bio-waste as part of their household waste disposal ritual when compared to men; men, on the other hand, seem to not be very engaged in recycling and consider less the environmental impact of their lifestyle choices (Nainggolan et al., 2019).

The main OECD work on this matter involves a two round household survey dating from 2008 and 2011 that showed that in some countries - Australia, Canada, the Czech Republic, France, Italy, Korea, Mexico, the Netherlands, Norway and Sweden - women are likely to see environmental issues as more pressing than men, whereas in other countries men are more likely to be concerned about the environment (OECD, 2011). Further, the survey showed differences also in energy consumption behaviour: men are more likely to take special measures to buy renewable energy from their electricity provider, while women – depending on the country and the distribution of household tasks – are more likely to engage in energy saving activities such as turning off the lights, energy metering and shifting to renewable energy. In the study, it was concluded that respondents responsible for the economic charges of energy in households are more likely to partake in energy saving practices. As a result from the self-assessment based study, men appear to be more familiar with energy-efficient labels, while women have an overall better knowledge of eco labels.

About 50% of households' consumption worldwide covers food and beverages, clothing and footwear and other household products (World Bank, 2019). Around 50% of global plastic waste generated is plastic packaging, with single-use plastic for food and beverages being most common (UNEP, 2018). Women are considered to be the decision-makers when it comes to 70-80 per cent of household purchases: as such, they could determine the shift to more sustainable consumption patterns and can therefore become key drivers of eco-friendly behaviour (Forbes, 2015).

Consumption patterns can be heavily influenced via effective public communication campaigns and labelling. Building on behavioural insights can support consumers in reaching more sustainable consumption choices by adapting messages across different social groups. Businesses, media and citizens' engagement can play a significant role in changing unsustainable consumption patterns and in transitioning towards a sustainable economy.

Women and the Circular Economy

Agenda 2030 has set out some ambitious targets under SDG 12, including substantially reducing waste generation by 2030 through prevention, reduction, recycling and reuse, and halving per capita global food waste at the retail and consumer levels. The concept of the circular economy is indispensable to achieve sustainable resource management and reducing carbon emissions through fundamental shifts in the way we produce and consume. For instance, a report by the Carbon Trust, Innovate UK's Knowledge Transfer Network and Coventry University (Carbon Trust, 2014) estimated that the remanufacturing typically uses 85% less energy than manufacturing, and that on a global scale it could offset more than 800,000 tonnes of CO2 emissions per annum. The circular economy can also boost growth and employment opportunities. The World Economic Forum and the Ellen MacArthur Foundation (2014) estimate that a shift in reusing, remanufacturing and recycling products could create more than half a million jobs in the recycling industry across Europe.

Yet, so far work on the circular economy has largely focused on the environmental and business aspects of circularity, while there has been little analysis of the social implications, in particular the role of women in leading the necessary transformations in the circular economy, the skills set needed, and the impact on women's job

opportunities. As Murray et al (2015) point out, "key social equality aspects such as gender, racial and financial equality, inter- and intra-generational equity and equality of social opportunities are [still] often absent in the existing conceptualizations of the circular economy."

On the production side, the circular economy needs to look at all the steps of the chain to minimise the use of resources and their ecological footprint; to keep resources in circulation for as long as possible; and to recovers as much as possible of those resources at the end of service life of the product via recycling. Products are therefore designed in a way to facilitate reuse and recycling. A well-designed circular economy also need to promote sustainable consumption practices that minimise waste by extending the service life of products and promoting the sharing economy and second hand markets. Without understanding consumer behaviour it is not possible to design sustainable circular economy models.

Engaging women in the circular economy – awareness-raising on sustainable consumption and encouraging participation in leadership and managerial roles - is indispensable to create good circular systems. A move towards a more circular economy can be designed to encourage gender equality. As women are more often segregated into jobs with low pay, low security and limited social mobility, the rise of green jobs as part of the circular economy movement offers an opportunity to empower women (ILO, 2015).

At the OECD, the RE-CIRCLE project provides policy guidance on resource efficiency and the transition to a circular economy and aims to identify and quantify the impact of policies to guide a range of stakeholders in OECD member countries and emerging market economies through quantitative and qualitative analysis. One aspect that deserves further evidence gathering and research within this initiative is both the role of women in the development of such new business models as well as the different gender impacts that such models may have, taking into consideration women's preferences and needs and different labour market patterns.

Transforming the fashion industry

Women could play a central role in the circular economy, above all as consumers, but also by directly steering companies towards production methods based on the circular economy and as employees. There have been important efforts recently in women-focused industries such as the fashion industry. The Global Fashion CEO group has set out the circular economy as a strategic priority for the sector. Apart from the choice of materials, other initiatives with the potential to reduce materials use include the fashion reuse market.

A growth in clothing reuse (e.g. rental, resale, remanufacturing) can contribute to develop local economic activity in consumption markets and present new job opportunities and types of roles. On the other hand, more traditional roles, such as retail and long-distance transport, would decline. There is the concern of erosion of the quality of such jobs and their remuneration. Remanufacturing also requires specific technical skills, which given women's underrepresentation in STEM, could hamper job opportunities.

Transforming recycling and waste management

In developing countries, waste handling represents a considerable source of income, especially for the more disadvantaged female groups. Circular economies can generate economic opportunities for women in recycling and waste management, while helping to tackle the risks of waste picking and manual recycling of products. Leveraging these opportunities requires a consideration of a gender perspective in the development of national and local circular economy strategies and measures, as well as relevant initiatives at the business level (OECD, 2019b).

An example of a case where initiatives engaging women resulted in improved sanitation and sustainable consumption took place in Harare, Zimbabwe (Davies and Kudzai, 2016). By including women in solid waste management, proper sanitation behaviour across the community improved, together with household income as waste management can generate returns. A similar initiative took place in Bangalore (India) (Huysman, 1994).

In Indonesia, the government launched a Waste Bank initiative in 2008, which has created employment opportunities for women as well as increased incomes (OECD, 2019b).

Another example is a company in Uttar Pradesh, India, which employs over 150 women from the lower social and economic strata to collect flowers daily from more than 30 temples and mosques. The companies detoxifies the flowers of all the major insecticides and pesticides and uses them to make incense and soaps. The flowers would have normally ended up in the Ganges River, polluting the water.

Despite these positive examples, women remain generally absent in the ownership and senior management of large recycling companies and landfill operators, where the marginal profits appear to be the highest (Ocean Conservancy, 2019). Also, the modernisation of waste management generally makes it capital and technology intensive, with reduced employment opportunities for less qualified labour (Durgekar, 2016).

A focus on disadvantaged groups, and women in particular, should be at the core of initiatives to modernise waste management (Groh, 2017). Civil society organisations also have a key role to play to champion labour rights and women empowerment, including via stakeholder consultations and awareness raising campaigns (Samson, 2010).

Promoting woman's role in the circular economy in cities

Regions and cities, where most of the people live and will be living in the future (70% of the global population by 2050), are taking actions towards the transition to the circular economy. Cities like London, Paris, Amsterdam, but also smaller in size like Valladolid, Granada, Umea and Groningen, to name a few, are developing and implementing circular economy strategies (UNDESA, 2018). Projections show that greenhouse gas emissions are likely to decrease by half a million tonnes of CO2 per year in the City of Amsterdam; that circular approaches applied to the built environment, food, textiles, electricals and plastics in London are estimated at GBP 7 billion every year by 2036 (Amec Foster Wheeler, 2015); finally, in the Île-de-France about 50 000 jobs linked to the circular economy are estimated to be created (Paris.fr, 2020; OECD, 2019c). The City of Quillota (Chile) set up capacity building programmes for women entrepreneurs that wish to invest in activities related to re-using goods and products.

The OECD Programme on the Circular Economy in Cities and Regions supports them in defining their role as promoters, facilitators and enablers of the circular economy (OECD, 2019c). As such, it is widely recognised that transitioning from a linear to a circular economy is a shared responsibility across governments and a wide range of stakeholders, including women.

Questions for consideration

- In which economic sectors is there a need for a specific gender focus to tackle negative environmental and health effects of consumption and production? Please share with us some examples.
- How can traditional household roles and behavioural insights influenced by gender be leveraged for better environmental outcomes in terms of waste production and management?
- How can awareness raising campaigns and regulation of the advertising industry be best designed to influence change towards more sustainable consumption patterns in households and by businesses?
- What is the distinctive role women could play in the transition to the circular economy? What is the played role in this regard in OECD and in non-OECD countries?

- How can circular economy strategies better integrate women and promote their economic opportunities? What are the respective roles of government, businesses and civil society in supporting gender equality goals as part of circular economy frameworks?
- What can OECD and other international organisations do to support the transition to circular economies through a gender lens?

References

Amec Foster Wheeler (. (2015). *LWARB Circular Economy Report (pp. 20-30) (Available online at: Https://www.lwarb.gov.uk/wp-content/uploads/2015/12/LWARB-circular-economy-report_web_09.12.15.pdf)*.

Atlason, R. & Giacalone, D. & Parajuly, K. (2017). *Product design in the circular economy: Users' perception of end-of-life scenarios for electrical and electronic appliances. Journal of Cleaner Production. 168. 1059-1069. 10.1016/j.jclepro.2017.09.082.*

Borunda, A. (2019). *How tampons and pads became so unsustainable* [National Geographic]. https://www.nationalgeographic.com/environment/2019/09/how-tampons-pads-became-unsustainable-story-of-plastic/

Bulle, S. (1999). *UWEP Working Document 11.*

Bulut, Z., Cimrin, F., Onur, D. (2017). *Gender, generation and sustainable consumption: Exploring the behaviour of consumers from Izmir, Turkey. "International Journal of Consumer Studies, Vol. 41, Issue 6, pp. 597-604. Https://doi.org/10.1111/ijcs.12371*.

Carbon Trust. (2014). *Innovate UK's Knowledge Transfer Network and Coventry University. Supporting Excellence in UK Remanufacturing: Stakeholder dialogue on opportunities and challenges. Https://www.carbontrust.com/media/627773/supporting-excellence-in-uk-remanufacturing.pdf*.

Davies, N. and N. Kudzai. (2016). *"'The Usefulness of Including Women in Household Solid Waste Management. A Case Study of Dzivaresekwa High Density Suburb; Harare", IOSR Journal of Humanities and Social Science, Vol. 21, pp. 92-108.*

Dial, C., & Wahl, G. (2017). *Diaper Industry Workshop Report*. EPA.

Durgekar, V. (2016). *Towards Sustainable Waste Management Through Technological Innovations, Effective Policy, Supply Chain Integration & Participation. Procedia Environmental Sciences, 35, 140–149. Https://doi.org/10.1016/j.proenv.2016.07.061*.

Ellen MacArthur Foundation. (2017). *A new textiles economy: Redesigning fashion's future, (Available online at: Http://www.ellenmacarthurfoundation.org/publications).*

Etsy, K. (2013). *Twenty-seven dollars and a dream: How Muhammad Yunus changed the world and what it cost him*. Emerson Books.

Forbes. (2015). *Top 10 things everyone should know about women consumers. Available at: Https://www.forbes.com/sites/bridgetbrennan/2015/01/21/top-10-things-everyone-should-know-about-women-consumers/#626fcfff6a8b*.

Groh. (2017). *Chemicals and waste in the Circular Economy*.

Heise, L., & et al. (2019). Gender inequality and restrictive gender norms: Framing the challenges to health. *Lancet*. https://doi.org/doi: 10.1016/S0140-6736(19)30652-X

Huddeston, C. (2017). GoBankingRates. *Life and Money*.

Human Rights Watch. (2015). *"I Just Sit and Wait to Die" Reparations for Survivors of Kenya's 2007-2008 Post-Election Sexual Violence*. HRW. https://www.hrw.org/report/2016/02/15/i-just-sit-and-wait-die/reparations-survivors-kenyas-2007-2008-post-election

Huysman, M. (1994). *Waste picking as a survival strategy for women in Indian cities. Environment and Urbanization, 6(2), 155–174. Https://doi.org/10.1177/095624789400600209*.

ILO. (2015). *Gender Equality and Green Jobs, Green Jobs Programme, International Labour Organization.*

Johnsson-Latham. (2007). *A study on gender equality as a prerequisite for sustainable development* (pp. 1–90) [Report to the Environment Advisory Council, Sweden 2007:2].

Kaenzig, J., Hille (née Heinzle), S., & Wüstenhagen, R. (2013). Whatever the customer wants, the customer gets? Exploring the gap between consumer preferences and default electricity products in Germany. *Energy Policy*, *53*. https://doi.org/10.1016/j.enpol.2012.10.061

Kelan, E. (2008). *Bound by stereotypes?. Business Strategy Review, 19: 4-7. Doi:10.1111/j.1467-8616.2008.00509.x*.

Khan, N., & Trivedi, P. (2015). Gender Differences and sustainable consumption behaviour. *British Journal of Marketing Studies*, *3*(3), 29–35.

Maria, L. (2018). Why don't more women get promoted? *Market Watch*. https://www.marketwatch.com/story/why-dont-more-women-get-promoted-2018-04-10

Moshenberg, D. (2018). *"Women bear the brunt of Africa's urban disasters, such as the collapse of landfills", The Conversation, Available online at: Http://theconversation.com/women-bear-the-brunt-of-africas-urban-disasters-such-as-the-collapse-of-landfills-92854*.

Nainggolan, D. et al.,. (2019). *Consumers in a Circular Economy: Economic Analysis of Household Waste Sorting Behaviour," Ecological Economics, Elsevier, vol. 166(C).*

Nijkamp et al. (2014). *Hazardous substances in textile products. RIVM Report 2014-0155, National Institute for Public Health and the Environment. Ministry of Health, Welfare and Sport, The Netherlands*.

Ocean Conservancy. (2019a). *The Role of Gender in Waste Management: Gender Perspectives on Waste in India, Indonesia, the Philippines and Vietnam, p. 5. Available online at: Https://oceanconservancy.org/wp-content/uploads/2019/06/The-Role-of-Gender-in-Waste-Management.pdf*.

Ocean Conservancy. (2019b). *The Role of Gender in Waste Management: Gender Perspectives on Waste in India, Indonesia, the Philippines and Vietnam, p. 51. Available online at: Https://oceanconservancy.org/wp-content/uploads/2019/06/The-Role-of-Gender-in-Waste-Management.pdf*.

OECD. (2019a). *Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences, OECD Publishing, Paris. Http:/doi.org/10.1787/9789264307452.*

OECD. (2019b). *Green Growth Policy Review of Indonesia 2019 https://www.oecd-ilibrary.org/sites/1eee39bc-en/1/1/6/index.html?itemId=/content/publication/1eee39bcen&_csp_=7468dfe1794076b594471907eea323e7&itemIGO=oecd&itemContentType=book*.

OECD. (2018b). *OECD Due Diligence Guidance for Responsible Business Conduct*. Available online at: https://mneguidelines.oecd.org/OECD-Due-Diligence-Guidance-for-Responsible-Business-Conduct.pdf

OECD. (2018a). *"Policy Coherence for Sustainable Development and Gender Equality: Fostering an Integrated Policy Agenda, OECD.*

OECD. (2019c). *The Economics and Governance of Circular Economy in Cities. Cities: Urban Policies and Sustainable Development Division [Available online at: Http://www.oecd.org/cfe/regional-policy/circular-economy-cities.htm]*.

OECD. (2008). *2008 Annual Report on Sustainable Development Work in the OECD*. https://www.oecd.org/greengrowth/42177377.pdf

OECD. (2011). *Greening Household Behaviour: The Role of Public Policy, OECD Publishing, Paris, https://www.oecd.org/env/consumption-innovation/greening-household-behaviour-2011.htm*.

OECD. (2012). *OECD Environmental Outlook to 2050, OECD Publishing. Http://dx.doi.org/10.1787/9789264122246-en*.

OECD. (2015). *Material Resources, Productivity and the Environment, OECD Green Growth Studies, OECD Publishing, Paris. Http://dx.doi.org/10.1787/9789264190504-en*.

OECD.stat. (2020). *Waste-Municipal Waste. Https://data.oecd.org/waste/municipal-waste.htm*.

Paris.fr. (2020). *Deuxième feuille de route de l'économie circulaire https://www.paris.fr/economiecirculaire*.

Samson. (2010). *Reclaiming Reusable and Recyclable Materials in Africa A Critical Review of English Language Literature, Women in Informal Employment: Globalizing and Organizing, Urban Policies Research Report, No. 6, WIEGO.*

Scheinberg, A., Muller, M. and Tasheva, E.L. (1999). *Gender and Waste: Integrating gender into Community Waste Management: Project Management Insights and Tips. Urban Waste Expertise Programme (UWEP) Working Document 12, Gouda, the Netherlands*.

Statz, L. and Kane, G. (2015). *Facts on the Global Garment Industry, Global Garment Industry Factsheet, Clean Clothes Campaign, pp: 1-21.*

UNDESA. (2018). *2018 Revision of World Urbanisation Projects.*

UNEP. (2018). *Single-use plastics, a roadmap for sustainability. Https://www.unenvironment.org/resources/report/single-use-plastics-roadmap-sustainability*.

WHO. (2011). *World Health Statistics 2011* (ISBN 978 92 4 156419 9). WHO Library Cataloguing-in-Publication Data.

Wick, I. (2010). *Women working in the shadows: Informal Economy and Exporting zones* (SÜDWIND Institut Für Ökonomie Und Ökumene).

World Bank. (2019). *Datatopics: Consumption. Available online at: Http://datatopics.worldbank.org/consumption/*.

World Economic Forum and the Ellen MacArthur Foundation. (2014). *Towards the Circular Economy: Accelerating the scale-up across global supply chains. Http://www3.weforum.org/docs/WEF_ENV_TowardsCircularEconomy_Report_2014.pdf*.

Yaccato, J.T. (2007). *The 80% Minority: Reaching the Real World of Women Consumers.* (9(1), 4-7.).

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