**WOMEN’S EMPLOYMENT IN THE E-WASTE SECTOR AND THEIR EXPOSURE TO TOXICITIES**

***Key Issues:***

* E-waste management and poor working conditions.
* Negative and toxic environmental impact on women’s health.
* Protection of Women’s Green Rights in the e-waste recycling domain.

***Keywords****:* Environmental Justice, Environmental Rights, Women Empowerment, Intersectionality and Gender Equity.

**Introduction**

Women encounter inequality and injustices in almost all spheres of their lives, whether it is employment, status, well-being, working conditions etc.[[1]](#footnote-1) For ages, the national and international communities are endeavouring to provide and maintain gender equality in all spheres of their lives. In the same vein, additional difficulties that form part of women's injustices are the undervaluation of women's contribution to natural resources management and dealing with negative environmental impacts.[[2]](#footnote-2)

I argue that women's employment and working conditions in e-waste handling are substantial issues which require immediate attention and action, especially for women working in the informal se-waste sector.[[3]](#footnote-3) According to Global E-waste Monitor 2024, women are struggling with gender-specific challenges. These stereotypes are related to strength and technical expertise that frequently discourage women from perpetuating the gender gap and completely participating in the e-waste management field.[[4]](#footnote-4) Additionally, owing to the women's exposure to toxic hazardous substances and unfavourable working conditions in the e-waste sector, women come across several difficulties that severely affect their physical and mental well-being. “*Electrical and electronic equipment contains heavy metals, chemicals and other hazardous* substances *are particularly harmful for pregnant women and children. Workers in e-waste are also exposed to physical and ergonomic hazards that can lead to work-related injuries, ill health and diseases.”[[5]](#footnote-5)* Mismanaged e-waste and its pollutants cause a severely disproportionate impact on women, in terms of health, and well-being,[[6]](#footnote-6) and create barriers to their natural development.[[7]](#footnote-7) This results in a violation of their human and environmental rights, which requires a progressive stance to be taken by the national and international community to control the harmful bearing, and to take the necessary measures to secure their employment with utmost safety and security and to safeguard their employment in the e-waste management business aligning with the International Labour Standards.[[8]](#footnote-8)

**Women's Employment and Engagement with E-waste**

Approximately 50 million tonnes of e-waste are discarded worth 62.5 billion dollars. Out of which less than 20 percent is recycled formally and a major chunk partake in informal recycling.[[9]](#footnote-9) The E-waste scrap and recycling business is a huge revenue-generating sector, [[10]](#footnote-10) expected to expand more with the increase of information technology equipment and machinery.[[11]](#footnote-11) Millions of women and men worldwide are involved in collecting, repairing, refurbishing, dismantling, recycling and disposing of e-waste.[[12]](#footnote-12) The e-waste can be considered as a resource that aids in the generation of employment, provides capital and helps in circular economy.[[13]](#footnote-13) Equal work, fair economic conditions and occupational safety in e-waste employment contribute to environmental justice, which requires equity and equality for all workers. However, evidence reports that a disproportionate burden and adversities are associated with women in e-waste employment.[[14]](#footnote-14) Primarily e-waste is recycled in the informal sector which is unregulated and involves toxic exposures to the recyclers, who are commonly women.[[15]](#footnote-15) *Up to 12.9 million women work in the*[*informal waste sector*](https://waste-management-world.com/recovery/colombian-waste-pickers-called-to-re-invent-themselves/)*, which exposes them to potentially toxic e-waste and puts them and their unborn children at risk.*”[[16]](#footnote-16) Marginalized and uneducated women largely indulge in the e-waste recycling business as it is a good source of income for them, which in reality is nothing but a cheap-paid employment opportunity.[[17]](#footnote-17)

**Violation of Women’s Rights**

We have established that environmental degradation and its impacts are gender-differentiated, whether it is associated with employment opportunities in the waste sector, working conditions or the quality of life. Sadly, women are considered to be the first to be affected by the exhaustion and depletion of natural resources and the associated negative consequences of environmental obliteration.[[18]](#footnote-18) “*E-waste recycling, especially in the informal sector, is geared toward high throughput and output. Occupational safety and environmental protection are not prioritized.”[[19]](#footnote-19)* Study reveals that women employed in the informal sector largely hold the lowest tiers of the hierarchy, these are, door-to-door collectors/small-time dealers/buyers, and waste pickers their roles are non-specialized, and low-paying with limited or no chance to negotiate.[[20]](#footnote-20) Occupational hazards and associated health risks are the major challenges as workers involved in the recycling process are not facilitated with protective equipment and gadgets. Additionally, their working hours are frequently against the labour norms, which results in extreme exposure to toxins. Sanitation and hygiene conditions add up to other environmental harms. Uneducated, unaware and underprivileged women workers, mostly suffer from severe health hazards as an outcome of e-waste employment.[[21]](#footnote-21)

It is pertinent to note that women's participation in environmental decision-making, leadership and governance is also quite limited.[[22]](#footnote-22) Women's knowledge and approach towards the environment including plants and animals and other ways of sustainable management differs,[[23]](#footnote-23) their valuable insight has never been put to good use or utilized in its entirety. Correspondingly, women are not provided with quality education, requisite training and skills and are frequently deprived of cerebral employment opportunities to participate in environmental regulation and policy planning.[[24]](#footnote-24) Women working in e-waste handling are not adequately protected, their rights concerning, a wholesome environment, development, pollution-free living including human rights to education, health and decent work opportunities to name but a few are not safeguarded appropriately under the current regulatory framework.[[25]](#footnote-25)

**Significant International Norms: Women’s Green Rights**

To address gender employment inequality and to recognize women’s green rights, on several occasions, the international community directly/indirectly addressed the key issue disturbing women's growth. The international organizations in several documents emphasized the key role of women in environmental development especially taking into account the conditions of women in developing countries. The international community recommended the member states, develop and implement integral policies that are women-centred, women-managed, innocuous and effective. It has urged the states to provide adequate attention to women's welfare including mental and physical health. The international community profoundly accredited that the engagement of women in the decision-making, planning, and implementation process is essential for sustainable development.[[26]](#footnote-26)

The United Nations Conference on Environment and Development 1992 provides extensive participation of women as an essential element for sustainable development.[[27]](#footnote-27) The Convention on Biological Diversity recognizes the integration of women’s rights and gender equality in conservation and sustainable use. The Action Programme of the International Conference on Population and Development adopted in 1994, highlighted several critical areas such as gender equality, reproductive health services, equal access to education and equal sharing of responsibilities. The World Summit for Social Development 1995, took gender equity as the core strategy for social and economic development and environmental protection. Further, the Rome Declaration 1996, advised governments to ensure an enabling political, social, and economic environment. The Millennium Declaration of 2000 also emphasized respect for nature and shared responsibility to promote gender equality and the empowerment of women to promote sustainable development. Women’s participation in decision-making in climate change has also been recognized at the global level in the Conference of the Parties to the United Nations Framework Convention on Climate Change in 2012.[[28]](#footnote-28)

The e-waste sector and women's engagement also fall under the right to work in a decent and fair environment, with the facilitation of technical and vocational training [ICESCR art. 6] women are required to be given advanced training to work at the higher levels in the E-waste businesses. Furthermore, equal rights of women concerning employment [CEDAW art. 11; ILO Conventions No. 100 and No. 111] and SDG 5 also seek to achieve gender equality and empowerment. To ensure the full participation of women, their access to reproductive health care and equal access of women to economic resources are vital subject matter calls for comprehensive social, economic and legal action plans.[[29]](#footnote-29) Other than these, ILO protects several labour rights of working women and their working conditions such as freedom of association, wage, working standards, discrimination, health and safety, social benefits etc[[30]](#footnote-30) however, these rights lack rigorous safeguard measures and ultimately contribute to negative environmental impact affecting women globally.

**Concluding Remarks**

The circular economy requires extensive planning and assessment, bearing in mind the gender impact. To regulate and formalize e-waste businesses and women's employment, a keen focus is essential for the informal sector regulation. Enabling a comprehensive policy regime to uplift women by providing vocational training for free, mentorship, technical skills programs, capacity building etc. can result in more participation and promotion of their role in the e-waste management stratum. Additionally, the enhancement and firm enforcement of international and national legislation is also crucial, in terms of protecting women’s health, employment and allied welfare. The strategies must be moulded to integrate more women's contributions to the environment ministry and to encourage women's environmental conservation approach for the management, administration and planning of natural resources. Sustainable development and women empowerment both as a concept and praxis are the needs of the digital age and prospect, the promotion of green technology, energy conservation tactics, the creation of green jobs and appropriate use of women’s knowledge, their mandatory involvement in high profile employment and the protection of their employment rights are all these are an integral part of the sustainable development, which is yet to be realized by the national and international community in its entirety.

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