E-WASTE MANAGEMENT

Award Scheme	**Others**
Themes	**Waste Management**
Sustainable Development Goals	**Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable**

Summary

Electronic waste, commonly referred to as e-waste, is any electronic device that has been discarded by its former user and is one of the fastest growing waste streams on the planet. KEY CONSIDERATIONS: Understanding the quantities and flows of e-waste provides a basis for monitoring, controlling, and ultimately preventing illegal transportation, dumping, and improper treatment of e-waste.

Background and Objective

The consumption of Electrical and Electronic Equipment (EEE) is strongly linked to widespread global economic development. Higher levels of disposable incomes, growing urbanization and mobility, and further industrialization in some parts of the world are leading to growing amounts of EEE. After its use, EEE is disposed of, generating a waste stream that contains hazardous and valuable materials. This waste stream is referred to as e-waste, or Waste Electrical and Electronic Equipment (WEEE). In 2019, the world generated a striking 53.6 Mt of e-waste, an average of 7.3 kg per capita. The global generation of e-waste grew by 9.2 Mt since 2014, and is projected to grow to 74.7 Mt by 2030 – almost doubling in only 16 years. In 2019, the formal documented collection and recycling of e-waste was 9.3 Mt, or 17.4% compared to e-waste generated. A total of 71 kt of plastics are found in globally undocumented flows of e-waste annually, which is largely released into nature and impacts environmental and human health. Although there are individual efforts to improve the collection and recycling of plastics in e-waste at the local level, the plastics value chain remains fragmented, with a significant percentage of the global e-waste stream being transported to developing countries and processed in rudimentary and dangerous conditions, or otherwise dumped and burned in open pits. City e-waste take-back events and programs have frequently unknowingly contributed to the illegal transboundary movement and dumping of e-waste in nature, with reports widespread. Source: ewastemonitor.info

Actions and Implementation

The e-waste stream must become a focus area for municipal waste management authorities, as this stream is not only a highly polluting plastics concern, but also a hazardous waste concern. In 2019, the Conference of the Parties to the United Nations Basel Convention adopted two important decisions to address plastic waste. These steps have strengthened the Basel Convention as the only global legally binding instrument to specifically address plastic waste, providing technical assistance to assist Parties in fulfilling their obligations. The Basel Convention also defined a set of actions for preventing and minimizing the generation of plastic waste, improving its environmentally sound management and controlling its transboundary movement in an effort to reduce the risk from hazardous constituents in plastic waste, with particular focus on e-waste. This requires action at all levels, and engaging stakeholders across the value chain, from manufacturers, to distributors, to users, to those tasked with waste collection, processing, and recycling. Since most e-waste is generated in urban areas, a city's capacity to collect, process and recycle e-waste is critical to the environmentally sound management of this waste stream. The development of sound policies, e-waste management protocols and local capacities can only be achieved with better e-waste data. Understanding the quantities and flows of e-waste provides a basis for monitoring, controlling, and ultimately preventing illegal transportation, dumping, and improper treatment of e-waste. ???????????The Global e-waste Statistics Partnership? (GESP) The International Telecommunication Union (ITU), in cooperation with the United Nations University (UNU) acting through its Vice Rectorate in Europe hosted Sustainable Cycles (SCYCLE) Programme and the So?lid Waste Association (ISWA), have joined forces to form the Global e-waste Statistics Partnership? (GESP). Its main objectives are to improve and collect worldwide statistics on WEEE. The GESP also raises visibility on the importance of compiling WEEE statistics and delivers capacity building workshops using an internationally recognized, harmonized measurement framework. The initiative informs policy makers, industries, academia, media and the general public by enhancing the understanding and interpretation of global WEEE data and its relation to the SDGs. Sustainable Cycles Programme (SCYCLE) SCYCLE's vision is to enable societies to reduce the environmental load of production, including but not limited to the use and disposal of electrical and electronic equipment, to sustainable levels through independent, comprehensive, and practical research that provides facts for more thorough policy development and decision-making. SCYCLE's activities focus on the development of sustainable production, consumption and disposal patterns for electrical and electronic equipment (EEE), as well as for other ubiquitous goods. e-Stewards® e-Stewards is a global team of individuals, institutions, businesses, non-profit organizations, and governmental agencies upholding a safe, ethical, and globally responsible standard for e-waste recycling and refurbishment. The e-Stewards initiative defines and promotes responsible electronics reuse and recycling best practices worldwide.

Urban Agenda Platform

The global platform for sharing progress, action and knowledge on the implementation of the New Urban Agenda to achieve sustainable urban development.

e-Stewards certified recyclers adhere to the highest global standard for environmental and social responsibility. When you drop your electronics off at an e-Stewards recycler, you are assured that they take the necessary care to: Account for all toxic materials and their final destinations to prevent them from going to developing countries or ending up in the environment and food chain. Prevent your toxic electronics from being processed in prison, slave, or child labour operations. Destroy your private data and prevent it from ever being released. Protect recycling workers in certified facilities to minimize their toxic exposure. The PolyCE Project PolyCE is a European Commission funded project that has taken on the challenge to transform the lifecycle of e-plastic materials into a more sustainable one. PolyCE consists of a consortium of 20 expert organisations that are working together to significantly reduce the use of virgin plastics and enhance the use of recycled plastics in new electronics applications.

Conclusion

ALTERNATIVE SOLUTIONS ifixit iFixit is a wiki-based site that teaches people how to fix their electronic devices to extend their useful life, thereby reducing demand for new devices and reducing the e-waste stream. iFixit provides step-by-step guidance with videos and detailed photos, so even the uninitiated can navigate the inner workings of their electronic device.