

ATC The Epidemic of Plastic Pollution

By Ashabrick Nantege / April 28 2023



Synthesis of the problem and efforts to overturn the cards and save the planet!



Plastic waste chocking the wetlands feeding Lake Victoria

Global solid waste generation rates stand at 2.01 billion tons annually and each person generates 0.11 to 4.54kgsⁱ. With over 70% of the plastic waste generated daily in Africa ending up mismanaged, environment and human health suffer the consequencesⁱⁱ. Plastics littered in the environment slowly deteriorate and leach harmful chemicals into the soils and when it rains the leach is transported into water bodies. Fumes from burnt plastics as a common method of managing solid waste are toxic and pollute the air. Ingestion and or inhalation of plastic fumes is attributed to increased risk of respiratory diseases, heart disease, headache, skin irritation, damage of the nervous system and organs such as liver and kidneyⁱⁱⁱ. Between 400,000 to 1million people die in developing countries due to diseases attributed to poorly managed waste^{iv}. To the environment, plastic waste in particular blocks drainage, catalyzes floods and increases the risk of health complications for aquatic life^v.

Seven years to end Sustainable Development Goals (SDGs) agenda and most Sub-Saharan African nations still lack comprehensive targeted efforts, infrastructure and resources to graduate the continent into a circular economy, a critical sustainable development tool.^{vii}

Knowledge not commensurate with action: The battle about plastic waste pollution is not about what you know but what you do with the knowledge you have. People seem knowledgeable about the dangers associated with poor plastic waste management however, current practices indicate no applied learning. Plastic production, use and littering continue to grow and has outpaced economic growth^{viii}. In the thick of this, technical questions about plastic lifecycle remain unanswered with inadequately informed decisions and regulations passed in line with production and management. Health and safety issues remain resolved as business continues to boom^{ix}.

Uganda is a linear waste economy based on the principle of **“Take-Use-Dispose”** that stand to be disastrous amidst the dilemma of climate change. Waste is disposed unsorted and anywhere without any environmental consciousness. The country embraced plastic products and the business is thriving with inadequate environmental impact assessment and public health hazard studies. With deep-rooted linear waste management practices, embracing plastics was an added liability to the already burdened environment.



Lake Victoria feeds on plastic waste in addition to its buffer zone being encroached for settlement

The country’s failed plastic control and regulation efforts much centered on selective ban of “buveera” – polythene bags use, with no attempts to address other forms of plastics that are widely used and are equally environmentally damaging^x. Plastic control initiatives also downplay the importance of educating masses about the negative public health impacts.

The rain season, time for water bodies to choke on plastics: Blessed with abundance, Uganda is currently experiencing the rain season with almost daily down pour. The season is expected to keep on up to May as per the guide by Uganda Meteorological Authority^{xi}. This is the time

for plastic waste transportation by storm water into our precious water bodies. The saying goes, “**Water is life**”. In simple terms, “**our life**” is choking on plastic waste pollution and we seem not to be bothered. Focus is on the temporary “lakes and rivers” created in the middle of the roads obstructing transport, delays brought about by induced traffic jam; those staying in low-lying areas worry of houses submerging and destruction of property but also look to the opportunity to drain their latrines (dispense faecal waste in water channels).

Time for action: As a country we need to up our game and establish a joint force against plastic pollution pandemic. Increase plastic circularity and this calls for concerted efforts by all stakeholders including manufacturers, regulators, users and waste handlers among others. We need; (i) to develop a national recycling strategy with clear objectives and actions, (ii) set up nation-wide infrastructure for waste management, (iii) create a dedicated fund for supporting projects on recycling, applied research, health and safety education (vi) develop and implement a policy committing producers/promoters of plastic packaging materials to have systems of managing the respective waste.

ⁱ Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. 2018. What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050. Urban Development,; Washington, DC: World Bank. <http://hdl.handle.net/10986/30317>

ⁱⁱ Emmanuel Sunday Okeke., Oluwatosin Atinuke Olagbaju., Charles Obwinwanne Okoye et al., (2022). Micro plastic burden in Africa: A review of occurrence, impact and sustainability potential of bioplastics. ELSEVIER. Science Direct. <https://www.sciencedirect.com/science/article/pii/S2666821122001624>

ⁱⁱⁱ SAS (2023). Health Concerns of Plastic Fumes.Sentry Air Systems. Inc. <https://www.sentryair.com/plastic-fumes.htm#:~:text=Health%20Concerns%20of%20Plastic%20Fumes&text=In%20general%20inhalation%20of%20plastic,%2C%20liver%2C%20and%20reproductive%20system.>

^{iv} WEF (2019). This is what the world’s waste does to people in poorer countries. <https://www.weforum.org/agenda/2019/05/this-is-what-the-world-s-waste-does-to-people-in-poorer-countries/>

^v Mengistu A. Jemberie., Assefa M. Melesse and Brook Abate (2023). Urban Drainage: The Challenges and Failure Assessment using AHP, Addis Ababa, Ethiopia. MDPI: Open Access. <https://www.mdpi.com/2073-4441/15/5/957>

^{vi} Justice Kofi Deborah., Godfred Kwesi Teyo and Maria Alzira Pimenta Dinis (2022). Barriers and Challenges to waste management hindering the circular economy in sub-Saharan Africa. MDPI. Open Access. <https://www.mdpi.com/2413-8851/6/3/57>

^{vii} Md. Golam Kibria., Nahid Imtiaz Masuk., Rafat Safayet., Huy Quoc Nguyen & Monjur Mourshed (2023). Plastic Waste: Challenges and Opportunities to mitigate pollution and effective management. Springer link. <https://link.springer.com/article/10.1007/s41742-023-00507-z>

^{viii} OECD (2023). The current plastics lifecycle is far from circular. Organization for Economic Co-operation and Development <https://www.oecd.org/environment/plastics/plastics-lifecycle-is-far-from-circular.htm>

^{ix} David Azoulay., Priscilla Villa., Yvette Arellano et al (2019). Plastic and Health: The hidden costs of a plastic planet. www.ciel.org/plasticandhealth

^x Piddo Ooscor (2023). The war against polythene bags (kaveera) in Uganda – 16 years of fighting. Right for Education Foundation. <https://rightforeducation.org/2023/03/27/war-against-polythene-bags-uganda/#:~:text=In%202007%2C%20The%20government%20of,%2030%20microns%20or%20less.>

^{xi} New Vision, March 14 2023. Top stories. In 30 pictures: City dwellers wake up to rainy hustle day. <https://www.newvision.co.ug/category/news/in-30-pictures-city-dwellers-wake-up-to-rainy-155911>