

Health Risks of Plastic Packaging in the Food, Water and Beverage Industries in the Global South. A Case Example from Ghana

Reem Mohammed and Professor Jeffrey Squire
Department of Social Science

RESEARCH QUESTION

In assessing the environmental and human health risks associated with the proliferation of plastic packaging in the Global South, the research project poses the questions: Who is the most vulnerable? What are the implications on gender? And What is being done to address this problem?

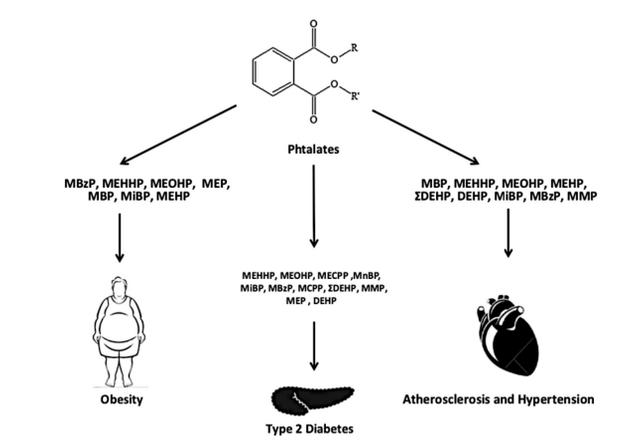


Figure by Muscogiuri and Colao (2017), retrieved from Archives of Toxicology, 91.



Figure by Proshad et al. (2018), retrieved from the International Journal of Health, 6 (1).

ABSTRACT

As a ubiquitous packaging material in the food, water and beverage industries, plastic packaging has successfully maintained its explosive growth owing to its durability, versatility and cost-effectiveness. This marked the plastic packaging industry as a dominant player in the global economy, generating in excess of USD \$600 billion per year. Despite offering a multitude of benefits in its use, plastic packaging raises adverse effects to the environment and human health. To investigate the associated implications, this project focuses particularly on studying the impacts in the Global South (primarily Sub-Saharan Africa) where it is commonplace for foods, water and beverages to be sold in individual polythene sachets or plastic shopping bags, thereby posing extreme detriments to the environment and human health.



Photo by Randy Olson (2019), retrieved from National Geographic.



Photo by Michelle Mech (2017), retrieved from NEREIDA Marine Education.

IMPLICATIONS OF PLASTIC PACKAGING

Due to the toxic chemicals used in the manufacturing of plastic packaging, a few being bisphenol A (BPA), solvents and phthalates, scientists have linked type two diabetes, altered functions of reproductive organs, birth defects, cancers, kidney diseases and abnormalities in liver enzymes as some of the risks to human health.

In terms of the environmental implications of plastic packaging, land degradation, changes in agriculture, decline in biodiversity in marine environments, as well as the release of greenhouse gas emissions have been identified as the central repercussions of elevated plastic packaging production and consumption. Therefore, provided that the plastic packaging industry maintains its exponential growth over the next decades, severe detriments on human health and the environment will advance.

METHODOLOGY

To explore the social, political and economic variables of the plastic packaging industry, the political economy framework was utilized as the central outline of the study. The research process involved collecting, identifying and organizing relevant data from peer-reviewed scholarly sources to gather a comprehensive review on the implications of plastic packaging, as well as to decipher the inner-workings of the industry. The study also relied on case studies to gather a comparative analysis of the effects of plastic packaging across various regions in the Global South.