

In Egypt, the plastic production industry is substantial, annually producing over 2 million tons of major thermoplastics like PE, PET, PP, PS, and PVC, supplemented by about 6 million tons of imports. This highlights Egypt's significant role in the global plastics market. Production is centralized among eight major manufacturers that rely primarily on fossil resources and are closely linked to other mineral oil industry products, such as caustic soda and hydrochloric acid. The industry's reliance on established, capital-intensive processes presents challenges in adapting to new environmental standards and shifting towards more sustainable production technologies.

The Center for Environment and Development for the Arab Region and Europe (CEDARE)

CEDARE is an international inter-governmental organization established in 1992. It aims to promote sustainable development by integrating environmental considerations into policies and practices across five priority areas: water resources management, land resources management, information technologies, sustainable growth, and environmental governance. CEDARE emphasizes public participation and strives to implement the Global Agenda 2030 for Sustainable Development.



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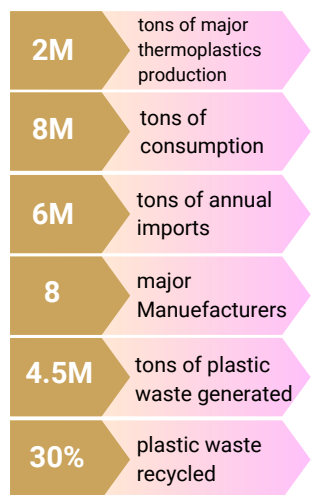


The UNEP and CEDARE partnership under the EU-funded SwitchMed Programme developed a report entitled **"Plastic Production Transformation in Egypt - Impact assessment of measures and initiatives on material flows"**, aiming to assess the current material flows of plastics from production to disposal ("cradle to grave") in Egypt and evaluating the impact of both national and international initiatives on reducing plastic pollution.

CHALLENGES

- **Environmental Impact:** The production and disposal of plastics significantly contribute to environmental pollution, necessitating improved waste management and recycling initiatives.
- **Technological and Financial Rigidity:** Existing technologies require substantial financial investments, limiting flexibility in production changes and adaptations to new environmental standards.
- **Insufficient Recycling Mechanisms:** Current recycling processes are underdeveloped, failing to capitalize on significant quantities of recoverable materials.

HIGHLIGHTS OF PRODUCTION



- **Import Dependency:** Egypt imports around 6 million tons of plastics annually to supplement its production, highlighting its deep integration into the global market.
- **Concentration of Manufacturers:** Plastic production is centralized among eight major manufacturers, which streamlines the production but also centralizes potential issues like pollution and waste.
- **Linkages to Mineral Oil Industry:** Plastic production is closely linked with the broader mineral oil industry, impacting the availability of non-plastic products and influencing environmental policies.



ANALYSIS

- 1. Production Overview:** Egypt's robust plastic industry, heavily reliant on imported raw materials and with substantial capital investments in traditional technologies, faces challenges in adopting more sustainable practices.
- 2. Environmental and Regulatory Context:** The environmentally degrading production processes have prompted the implementation of regulatory frameworks to enhance recycling and reduce single-use plastics.
- 3. Challenges in Plastic Waste Management:** Egypt's plastic waste management struggles with inadequate collection systems, low recycling rates, and a lack of data on waste flows, impeding effective pollution control and resource recovery.
- 4. Economic Implications:** The economic significance of Egypt's plastic industry is at risk from global sustainability trends, necessitating adjustments in production to adopt circular economy principles for long-term viability.
- 5. Technological Innovations and Opportunities:** Investment in technologies like chemical recycling and bioplastics presents opportunities to mitigate environmental impacts and foster sustainable product development.
- 6. Stakeholder Engagement and Awareness:** Varied awareness and engagement levels among stakeholders necessitate targeted awareness campaigns and educational programs to effectively implement environmental policies.
- 7. International and National Measures:** Aligning with international standards and enhancing national regulations, including incentives and penalties, are crucial for Egypt to bolster its environmental policy framework and ensure industry compliance.

RECOMMENDATIONS

- **Enhance Recycling Efforts:** Develop comprehensive national recycling strategies to increase the current low recycling rates, integrating both formal and informal sectors into the recycling process.
- **Invest in Sustainable Technologies:** Encourage the adoption of advanced technologies that minimize environmental impacts and enhance resource efficiency.
- **Policy and Regulatory Improvements:** Implement stricter regulations on waste management, single-use plastics, and incentivize innovations in biodegradable and recyclable plastic alternatives.
- **Stakeholder Engagement:** Increase awareness and cooperation among producers, consumers, and recyclers to foster a collaborative approach towards sustainable plastic management.

The transformation of plastic production in Egypt towards sustainability is pivotal for both environmental and economic health. Strategic investments in technology, regulatory adjustments, and stakeholder engagement are crucial. It underscores the urgent need for a comprehensive approach to manage the lifecycle of plastics, from production to disposal, to align with global sustainability goals and ensure environmental protection.

For more information please contact: luc.reuter@un.org; chang.yan@un.org

United Nations Environment Programme

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The SwitchMed programme is funded by the European Union (EU) and implemented by UNEP. It aims at achieving a Circular Economy in the southern Mediterranean by changing the way goods and services are produced and consumed. To achieve this, the SwitchMed provides tools and services directly to the private sector, supports an enabling policy environment, and facilitates exchange of information among partners and key stakeholders. www.switchmed.eu