



TEAM NIGERIA

Agencies Represented: Federal Ministry of Science and Technology, Government of Abia State, and Raw Materials Research and Development Council

Problem: The average Nigerian generates about 0.5 kg of solid waste per day; households and commercial centers generate approximately 90% of total urban waste; there is no effective system of waste collection and disposal

Policy: National Policy on Solid Waste Management; National Science, Technology, and Innovation Policy

Program: National Waste-to-Wealth Management Via Appropriate Technologies Program

Objective: Develop new skills and better understand the use of evidence to improve the coordination and implementation of the National Waste-to-Wealth Program

Funding: Government funding with support from international donors

THE PROBLEM:

Solid waste management is a large problem in Nigeria, with the average Nigerian generating about 0.5 kg of solid waste per day. Households and commercial centers generate approximately 90% of total urban waste, but there is no effective system to collect and dispose of that waste, and most cities resort to open dumping of refuse, which creates health risks. To address this challenge, the Government of Nigeria has developed the National Waste-to-Wealth Management Via Appropriate Technologies Program. However, implementation has been ineffective due to several issues, including institutional and coordination bottlenecks.

THE POLICY:

In 2016, a thorough review of previous policies led to the creation of a comprehensive National Policy on the Environment, a holistic framework to guide the sustainable management of Nigeria's environment and natural resources. Nevertheless, the indiscriminate dumping of solid waste has continued, generating concerns among a variety of stakeholders. The formulation of the draft National Policy on Solid Waste Management, which has been validated by stakeholders, seeks to close gaps identified during the implementation of the National Policy on the Environment. The 5-year policy emphasizes the need for the private sector to engage with waste management and recycling, and lays out Nigeria's expectation to ban single use plastics by 2020, which will help reduce waste and could contribute to a reduction in cancer cases. In addition, the Government of Nigeria hopes to reduce the number of illegal waste sites, incorporate waste management into school curricula, launch a national awareness campaign, and create jobs for youth within the waste sector value chain.

To achieve the objectives of the National Policy on Solid Waste Management, Nigeria's Federal Ministry of Science and Technology developed the Waste-to-Wealth Program to promote the use of appropriate technologies for integrated waste management systems. The program has a well-articulated Theory of Change, and seeks to:

1. Develop a pilot facility for waste recovery and treatment utilizing the desired technology, the Box-Type Anaerobic Digester System, developed for this pilot;
2. Develop a strategy for sustaining a culture of science, technology, and innovation within the waste management sector, using appropriate technologies to create employment and wealth across the country;
3. Develop pilot models to promote local entrepreneurship and infrastructure for technological innovation;

4. Deploy appropriate technologies for managing biomass waste, to promote climate-smart agriculture and food security;
5. Develop appropriate mechanisms to mobilize funds from local and international bodies; and
6. Develop a results-based monitoring and evaluation framework.

The policy is implemented by federal and state Ministries of Environment; state Environmental Protection Agencies; local government environmental authorities; the National Environmental Standards and Regulations Enforcement Agency; and the Federal Ministry of Science and Technology. The policy is funded by the federal and state governments with support from international donors. In Nigeria, Federal and State Ministries of Environment formulate environmental policies within their jurisdictions, while the State Environmental Protection Agencies and the National Environmental Standards and Regulations Enforcement Agency implement them and enforce laws enacted from the policies by the States and National Assemblies. The Local Government Environment Authorities are responsible for the collection, disposal, and management of the waste dump sites at the local level. To avoid overlaps and duplication, the National Council on Environment coordinates the formulation of all environmental policies in Nigeria.

IMPLEMENTATION PLAN AND STATUS:

The Federal Ministry of Science and Technology currently has approval from federal, state, and local governments to establish six Pilot Model Technology Facilities for solid waste management. Each pilot facility will be located in a different geopolitical zone of Nigeria and serve as a technology diffusion and transfer platform for public and private sector organizations. The Federal Ministry of Science and Technology will provide the technology, while the state governments are tasked with providing the land, manpower, and training to operate their respective facilities. The engineering plan for the pilot facilities and the Box-Type Anaerobic Digester System technology have been produced, and the program has been officially approved by the Honorable Minister of Science and Technology in five of the six geopolitical zones. However, construction has not taken off as planned: the pilot projects were expected to be completed in 2018, and funds are provided in the 2018 budget, but their actual release from the Federal Government remains a critical challenge.

The Federal Ministry of Science and Technology has developed a monitoring and evaluation framework for the Waste-to-Wealth program, as well as a staff training manual and clear standards for examining performance and progress. Some of the targets include a reduction in the number of illegal waste dump sites in Nigeria, an increase in the number of pilot facilities replicated by State Governments and the private sector, and a reduction in the number of reported cancer cases nationwide. As of July 2018, the Ministry is able to collect data on the type and quantity of waste in only two of the six pilot facilities. The National Solid Waste Management Policy envisages the creation of a national data bank on solid waste management, which would constitute a national system for collecting, classifying, analyzing, and disseminating solid waste data and other information.

KEY CHALLENGES:

Notable roadblocks for effective implementation of the National Policy on Solid Waste Management include:

- Inadequate institutional capacity to use technological solutions in waste management across the country
- Coordination challenges among key stakeholders and different tiers of government
- Insufficient funding and obstacles in releasing the funds allocated in the budget
- Absence of reliable data on solid waste management and program performance. This has hindered program planning and effective implementation

ACCOMPLISHMENTS:

- The current environmental and waste management policies were formulated based on in-depth reviews of previous policies and extensive consultations with relevant stakeholders
- Recycling activities are steadily increasing across the country, and plastic recycling plants exist in some states
- Waste treatment plants, composting plants, and a “waste to energy” plant have also been established

WHAT'S NEXT:

- Moving forward, the Federal Ministry of Science and Technology will need to improve data collection methodologies, develop a central database, and track common indicators to advance the implementation of the Waste-to-Wealth program
- At the workshop, the team from Nigeria hopes to gain new skills in policy coordination, especially regarding how to reconcile the role of federal and sub-national governments in implementing a nationwide policy. They are interested in hearing how other countries have navigated funding challenges and optimized resource mobilization and allocation across tiers of government
- The team also expects to better understand the use of evidence in policy development and implementation, and how feedback can inform the latter in real-time

Written in consultation with Peter Chidebe Ekweozoh, Director of Environmental Sciences and Technology, Nigeria Federal Ministry of Science and Technology, with support from Ari Gandolfo and Kelly Dale. © Results for All, July 2018. For more information, contact info@results4all.org.