

Chapter 19

Solid Waste Management in Vietnam: State and Institutional Framework and Challenges

Thang Trung Nguyen

Institute of Strategy and Policy on Natural Resources and Environment, Vietnam

Hanh Hoang Hong

Institute of Strategy and Policy on Natural Resources and Environment, Vietnam

Phuong Anh Thi Duong

Institute of Strategy and Policy on Natural Resources and Environment, Vietnam

Tu Ngoc Nguyen

Institute of Strategy and Policy on Natural Resources and Environment, Vietnam

ABSTRACT

This chapter will provide an overview of waste management in Vietnam, including drivers, the current waste management situation, impacts, an institutional framework, issues, and challenges. There have been improvements in the last 10 years. However, waste management in Vietnam continues to face issues and constraints related to inefficient waste reduction, a national level efforts to implement separation at the source, environmental pollution caused by informal sector recycling efforts, and 70% to 75% of municipal solid waste in landfills. These issues are caused by incomplete legislation, inadequate financial resources, weak enforcement and implementation efforts, and low stakeholder awareness. Based on the analysis, several recommendations are provided for future improvement.

INTRODUCTION

Waste management plays an important role in environmental protection and sustainable development of a country. Globally, waste is often well managed in developed countries. However, many issues face developing countries. Poor waste management leads to environmental pollution, health impacts, and global warming. The United Nations (UN) has appealed to countries to implement measures to promote green growth, green economy, and circular economy. These efforts include waste management.

After over 30 years of renovation, Vietnam has achieved remarkable economic development success. Its economic growth has been maintained, poverty reduction has achieved remarkable progress, and the income per capita has increased. However, the country has experienced environmental pollution and degradation. A key environmental issue is inadequate waste management. In collaboration with the international community, Vietnam has committed to implement the 2030 Agenda for Sustainable Development, which will implement 17 sustainable development goals (SDGs), and the Paris Agreement on climate change.

The purpose of this chapter is to provide an overview of waste management in Vietnam by analyzing drivers of waste generation, current waste generation, collection, recycling, and treatment/disposal. It will also review the impacts of waste management and the institutional framework. The chapter will use identified issues, reasons, and challenges to provide recommendations and measures for improvement of waste management. It aims to achieve the SDGs and climate change commitments.

COUNTRY CONTEXT

Located in south-east Asia, Vietnam is the third most populated country in the region, ranking 14th in the world by population (see Figure 1). The country population increased from 86.95 million in 2010 to 94.67 million in 2018. Its average of 1 million people per year is expected to increase. Vietnam has also experienced a rapid urbanization process with the urban population increasing from 26.51 million (~30% of total population) in 2010 to 33.83 million (~36%) in 2018 (see Figure 2).

Figure 1. Administration map of Vietnam (Ministry of Natural Resources and Environment [MONRE], 2018a)



26 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/solid-waste-management-in-vietnam/240088

Related Content

Creating a Usable Atlas

Timothy Nyerges, Kathy Belpaeme, Tanya Haddad and David Hart (2011). *Coastal Informatics: Web Atlas Design and Implementation* (pp. 256-266).

www.irma-international.org/chapter/creating-usable-atlas/45092

A Review of Methodological Integration in Land-Use Change Models

Anh Nguyet Dang and Akiyuki Kawasaki (2016). *International Journal of Agricultural and Environmental Information Systems* (pp. 1-25).

www.irma-international.org/article/a-review-of-methodological-integration-in-land-use-change-models/158093

Adopting Green ICT in Business

Subramanian Chitra (2011). *Green Technologies: Concepts, Methodologies, Tools and Applications* (pp. 1145-1153).

www.irma-international.org/chapter/adopting-green-ict-business/51752

Smart Farming: An Approach for Disease Detection Implementing IoT and Image Processing

Hui Pang, Zheng Zheng, Tongmiao Zhen and Ashutosh Sharma (2021). *International Journal of Agricultural and Environmental Information Systems* (pp. 55-67).

www.irma-international.org/article/smart-farming/273710

Estimation of the Temperatures in an Experimental Infrared Heated Greenhouse Using Neural Network Models

Angeliki Kavga and Vassilis Kappatos (2013). *International Journal of Agricultural and Environmental Information Systems* (pp. 14-22).

www.irma-international.org/article/estimation-temperatures-experimental-infrared-heated/78155