

Haiti

South Department
Forest Energy
Supply Chains

UNEP Haiti, September 2016



NORWEGIAN MINISTRY
OF FOREIGN AFFAIRS



First published in October 2016 by the United Nations Environment Programme

© 2016, United Nations Environment Programme

United Nations Environment Programme

P.O. Box 30552, Nairobi, KENYA

Tel.: +254 (0)20 762 1234

Fax: +254 (0)20 762 3927

E-mail: uneppub@unep.org

Web: <http://www.unep.org>

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder provided acknowledgement of the source is made. No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from UNEP. The contents of this volume do not necessarily reflect the views of UNEP or contributory organizations. The designations employed and the presentations do not imply the expressions of any opinion whatsoever on the part of UNEP or contributory organizations concerning the legal status of any country, territory, city or area or its authority, or concerning the delimitation of its frontiers or boundaries.

Cover Photo: A truck is loaded with bags of charcoal in the commune of Tiburon, South Department, for transport to Les Cayes and Port-au-Prince. 2014 © UNEP/Marc Lee Steed.

Photos: Unless otherwise credited, images in this report were taken by UNEP staff and Marc Lee Steed.

Design and layout: Claudia Zimerman

UNEP promotes
environmentally sound practices
globally and in its own activities. This
publication is printed on recycled paper
using vegetable-based inks and other eco-
friendly practices. Our distribution policy
aims to reduce UNEP's carbon footprint.

Haiti

South Department
Forest Energy
Supply Chains

UNEP Haiti, September 2016



Table of Contents

6	Acknowledgements
7	Definition of terms
9	Executive Summary
10	Section A: Introduction and purpose of report
10	Introduction
12	Purpose of report
12	UNEP in Haiti
14	Section B: A background to forest energy in Haiti
14	National energy consumption and demand
16	Governance of the forest energy sector
18	Section C: Impacts and drivers in the wood energy sector in the south of Haiti
18	Pressure on forest resources in the southwest peninsula
19	The wood energy economy in the South Department
20	Section D: Survey results for charcoal and firewood supply chains and markets
20	1. Charcoal and firewood
30	2. Charcoal market trends for the South Department
30	› Les Cayes
32	› Port-au-Prince
34	3. Cleaners and bakeries

36 Section E:
Analysis of alternative interventions

36 **Energy plantations/fuel-wood forests**
37 › Project site: Maniche-Cavaillon, South Department

38 Section F:
Conclusions and recommendations

44 Annex A: d
Methodology

44 **Surveys of charcoal producers, bakeries and cleaners**
44 **Surveys of Les Cayes and Port-au-Prince charcoal and firewood markets**

45 Annex B:
Charcoal supply chains

48 Annex C:
Results

52 Annex D:
Bibliography

53 Annex E:
Report authors

Acknowledgements

This report was developed by the UNEP Haiti team, led by Adrienne Stork and Jean Elie Thys. Antonio Perera and Andrew Morton provided project supervision.

The surveys on the charcoal and firewood supply chains were developed by UNEP Haiti and executed through a partnership with the Université Américaine des Caraïbes in Les Cayes, led by Paul Touloute, Director of the Agronomy Department. A team of students from the University executed the surveys on the ground: Avridor Assert, Beauzile Sancha, Blanc Sylvain, Exumé Rodine, Fenelon Hyvertha, Georges Marie Claudette, Jean Louis Ruben Bersonly, Lalane Dachna, Louis Jean Junette, Simelus Dieubon, Telisca Angelitho et Telisca Thierry. A second team of students from the University of Notre Dame in Les Cayes also assisted the survey work: Destine Wadline, Theogene Markenzy, Yvenie Jean Charles, Policar Jean Olrich Rico, Calvin Job and Dely Herve.

Market surveys in Port-au-Prince were carried out by UNEP Haiti and by Macorel Coquillon. In Les Cayes, market surveys were completed by Danio Gerard. The visits to Maniche with OREB and OPSALMADJ were coordinated by Jean Elie Thys with Victor Moise.

Definition of Terms

Carreau A traditional unit of land measurement in Haiti equal to 1.29 hectares.

Communes/ Sections The commune is the third-level administrative division of Haiti. The country's 10 departments have 42 arrondissements, which are divided into 145 communes and then into 571 communal sections.

Département/ Department Administrative unit of Haiti; there are 10 departments in the country.

En détail "En détail" can mean anything from a marmite (5-6 pound coffee can) to even smaller bags of charcoal that are sufficient to cook one pot of food or one meal for a household. Typically, a household requires 2-3 marmites of charcoal per day to cook food and boil water.

Farine Flour

Gourdes National currency of Haiti. As of April 2016, the exchange rate was approximately 60 gourdes per US dollar.

Jouisseur A housing arrangement whereby the owner of a house allows a person to occupy it without paying any formal rent or claiming ownership. It is an informal arrangement widely recognized in Haiti.

Marchands "Marchand" is a general term for merchant in Haiti. Marchands can be those who sell goods in the markets that they have produced (such as agricultural products) or those who buy wholesale and re-sell (such as imported commercial goods, charcoal, etc.).

Marmite A marmite is a 5-6 pound coffee can that is used as a standard unit of measurement in Haitian markets for everything from charcoal to dry goods like beans or flour.

Sac Charcoal bags are classified in three sizes in Haiti: "gwo sak" which are 2 sacs sewn together and sell for around 10,000 Htg; "saks nomals" which sell for 4500 – 7500 Htg; and "ti saks farin", or small flour bags, which sell for 4,000-4,500 Htg. A "gwo sak" holds approximately 70 marmites of charcoal, a "sak nominal" holds around 50, and a "ti sak farin" holds between 20-22 marmites.



Photo 1. The process of making charcoal typically takes around 4-5 days, whereby all water and volatile elements of freshly cut wood becomes converted to carbon through a slow pyrolysis method. The traditional charcoal production method includes a pile of wood covered with dirt and leaves that will be lit from below and left to burn. This method of charcoal production is highly inefficient from an energetic perspective, as only around 25% of the energy in the wood remains in the finished charcoal.

Photo 2. Once the charcoal is ready, producers go through the laborious task of filling sacks to transport it to market. In doing so, they are exposed to high amounts of charcoal dust, which is especially damaging to the lungs, especially for the elderly and young children, who are often implicated in these tasks.



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_14750

