



USAID
FROM THE AMERICAN PEOPLE

DELIVER PROJECT

Case Study

Ghana: Recycling Turns Environmental Risk into Community Benefit



USAID | DELIVER PROJECT 2013

Plastic bags from more than 12 million long-lasting insecticide-treated bed nets, used in Ghana's campaign to prevent malaria, are waiting to be recycled.

Over 12 million empty bed net bags—enough to fill 12.5 forty foot containers—were turned into paving blocks.

DECEMBER 2013

This publication was produced for review by the U.S. Agency for International Development. It was prepared by the USAID | DELIVER PROJECT, Task Order 7.

U.S. Agency for International Development
www.usaid.gov

To combat malaria in Ghana, the National Malaria Control Program (NMCP) works to increase the ownership and use of long-lasting insecticide-treated bed nets (LLINs). Bed nets protect individuals from mosquito bites, lowering the risk of people being infected with the malaria parasite. Stopping infection of humans breaks the disease transmission chain and averts malaria-related incapacitation and deaths.

As part of its strategy to achieve universal ownership and use of LLINs in the population, the NMCP with support from partners (the Global Fund, USAID/President's Malaria Initiative, UNICEF, DFID, Malaria No More, and WHO) conducted a nationwide distribution campaign. From August 2010 to March 2012, volunteers distributed and hung LLINs directly at the sleeping places of beneficiaries to increase use of LLINs, especially by women and children.

With more than 12 million bed nets distributed, campaign organizers were left with a large amount of residual materials that could create environmental risks. Each LLIN is contained in a plastic bag that must be properly disposed of to prevent environmental pollution. Personal use of the plastic bags may lead to contamination, including poisoning and allergic reactions, and children may risk suffocation if they play with them.

During the campaign, empty plastic bags were collected at designated locations in each district for purposes of accountability and validation of LLINs distributed. The USAID | DELIVER PROJECT provided technical assistance to evaluate the disposal options for the accumulated plastic waste, while making sure that



PRESIDENT'S MALARIA INITIATIVE



disposal methods were consistent with WHO, FAO, and USAID environmental standards, and with the standards of the Environmental Protection Agency of Ghana.

Based on technical recommendations provided by USAID | DELIVER PROJECT, the NMCP and stakeholders selected disposal by recycling as the best option for disposal, and a local waste management company, Cyclus Limited, was contracted to recycle the waste. The project also developed an environmental mitigation and monitoring plan that guided the disposal process.

The NMCP, assisted by partners, transported over 12 million empty LLIN bags—enough to fill 12.5 40ft containers—from various storage points in the districts to the recycling plant of Cyclus Limited, where they were recycled into pavement blocks that will be used to improve public and private spaces. By collaborating to find an environmentally sustainable approach to managing the waste; government, development partners, and the private sector turned an environmental risk into a benefit for local communities.



USAID | DELIVER PROJECT 2013

Finished pavement blocks made from recycled bed net plastic bags are displayed at Cyclus Limited, a local waste management company in Ghana.

The USAID | DELIVER PROJECT, Task Order 7, is funded by USAID, implemented by John Snow, Inc., and supports USAID's implementation of malaria prevention and treatment programs by procuring, managing, and delivering high-quality, safe, and effective malaria commodities; providing on-the-ground logistics capacity, technical assistance, and pharmaceutical management expertise; and offering technical leadership to strengthen the global supply, demand, and financing of malaria commodities.

The authors' views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the United States Government.

USAID | DELIVER PROJECT

John Snow, Inc.

1616 Fort Myer Drive, 16th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: askdeliver@jsi.com

Internet: deliver.jsi.com