



Country: Burkina Faso
Sector: Integrated Waste Management
Project: Enhancement of resource productivity and environmental performance of micro, small and medium enterprise through the concept of industrial symbiosis
Grantee: Women Environmental Programme Burkina (WEP BF)
Partner: African Roundtable on Sustainable Consumption and Production (ARSCP)

Acknowledgements

The SWITCH Africa Green programme was developed by the European Commission (EU) to support African countries in their transition to an inclusive green economy, the main objective being to promote sustainable development. This is based on sustainable consumption and production patterns, while generating growth, creating decent jobs and reducing poverty.

This impact sheet on Enhancement of resource productivity and environmental performance of micro, small and medium enterprise through the concept of industrial symbiosis provides a snapshot of the results and achievements of the project under the Green Business Development Component of Phase I (2014-2019) of the SWITCH Africa Green programme. This component supported micro, small and medium-sized enterprises (MSMEs) to apply and adopt sustainable consumption and production practices in their business operations.

The project was implemented by the Women Environmental Programme Burkina Faso (WEP BF) in partnership with the African Roundtable on Sustainable Consumption and Production (ARSCP), with the support of the SWITCH Africa Green National Focal Point Polycarpe Bationo, Ministry of the Environment, Green Economy and Climate Change (MEEVCC) and National Coordinator Albert Compaoré, MEEVCC, Burkina Faso. The grants were managed by the United Nations Office for Project Services (UNOPS) and coordinated by Celia Marquez with support from Mercy Gatobu.

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Background

Waste management is a challenge being faced in Burkina Faso, as in other African countries. With a growth in the number of MSMEs, waste generated from their operations has added to the amount produced by the country. The MSMEs however lack the capacity for proper waste management. Industrial symbiosis (IS) provides a solution for addressing waste management with its potential to redirect waste streams and underutilised resources from one enterprise or activity to another. IS gives an opportunity to support enterprises and create jobs and new businesses, as it gives entrepreneurs the opportunity to capture value from waste.

Capacity building and technical support is therefore required to develop and implement an integrated solid waste management strategy in Burkina Faso and foster new opportunities for the private sector to recover and valorise waste.

The SWITCH Africa Green programme supported WEP BF in partnership with ARSCP in implementing the IS project. The project aimed to enhance the resource productivity and environmental performance of MSMEs through the concept of IS.

Beneficiaries

The project engaged over 90 MSMEs in Ouagadougou and Bobo-Dioulasso, Burkina Faso to raise awareness and build their capacity in adopting Resource Efficient and Cleaner Production (RECP) and IS.

Objectives

- Increase awareness of IS as a tool for sustainable consumption and production (SCP) and eco-entrepreneurship
- Support integration of the IS toolkit into existing activities promoting SCP
- Develop capability among technical institutions to apply IS and systems thinking with MSMEs

Outputs

Improved awareness and capacities of policy makers and stakeholders on industrial symbiosis

WEP BF participated in the regional workshop held in Kampala, Uganda in 2016 organized by the ARSCP on awareness raising of IS to policy makers. Relevant policy makers drawn from the African region were introduced to the concept

of IS and the role for policy in promoting its implementation.

Technical staff from WEP BF also participated in a knowledge sharing event organized by ARSCP in Mauritius. This created an opportunity to network with other SWITCH Africa Green Programme grantees. Project beneficiaries participated in the SWITCH Africa Green Regional Networking Forums in Uganda (2016) and in Burkina Faso (2018).

Improved stakeholder participation in green economy policy development

Through project support, WEP BF in collaboration with relevant government representatives, developed the Guide to scaling up industrial symbiosis in *Burkina Faso*. The guide is expected to inform the national strategy on promoting the implementation of IS.

Improved capacities of Business Development Services (BDS) to promote SCP practices by MSMEs

Technical staff of WEP BF participated in the 'training of trainers workshop' held in



Pretoria, South Africa. Their capacity was built on the techniques of training MSMEs on the implementation of IS.

Improved capacities of workers in green sectors

The project supported the organization of five training workshops in Bobo Dioulasso and Ouagadougou between 2016 and 2017. Through the training workshops, 99 MSMEs gained awareness of IS.

Detailed assessments of the operations of about 91 per cent of the MSMEs who were trained on IS were carried out by WEP BF. The process involved materials tracking and identifying unused resources; assessment of the adequacy of resource utilization; evaluation, measuring and quantification of resources produced; along with associated economic, social and environmental issues. Technical support in RECP as well as implementation of IS was provided to 90 MSMEs. WEP BF supported the process through monitoring resources management and providing technical advice on efficient resource use.

Development of an award scheme for RECP and IS

An award scheme for enterprises demonstrating commitment and excellence in RECP and implementation of IS was supported by the project. Before project completion, 10 MSMEs

were nominated for the award, with three being awarded prizes.

Outcomes

Uptake of SCP practices by MSMEs

By the end of the project period, 51 MSMEs were implementing IS. The main types of waste that were being exchanged among these MSMEs included: agricultural, plastic, glass, electronic, soap scraps and food and animal waste.

Improved capacities by MSMEs supported

The table below illustrates some of the ways in which the capacities of the MSMEs improved following implementation of the project.

Impact

Environmental impacts

About 63 tonnes of virgin material extracted was reduced as a result of introducing IS to the MSMEs. Material usage was reduced through efficient use of inputs and more enterprises were making use of recycled material instead of procuring virgin material.

The estimated annual reduction of CO₂ emission amounted to 12,014 tonnes from the MSMEs that implemented IS.

A total of 497 tonnes of waste was diverted from the landfills.

The MSMEs found new uses and users for their waste and by-products.

Economic impacts

The beneficiary MSMEs reported savings in costs related to handling and disposal of waste amounting to USD26, 901,500.

Social impacts

The SWITCH Africa Green supported project on promoting IS among MSMEs in Ouagadougou and Bobo-Dioulasso, Burkina Faso led to the creation of 32 jobs in total, where 27 were full-time and 5 part-time.

Lessons learnt

- Following technical capacity building of the MSMEs on IS, in order to implement the options identified they needed access to financing
- A waste management framework was needed to effectively coordinate waste management issues
- Adequate timelines for training and technical support for MSMEs in the IS project should be accounted for in the project implementation period to track the changes attained

Table 1: Developed capacities in some of the beneficiary MSMEs

Enterprise	Developed capacities
New Karikis International	Rational use of water, reduction of energy consumption by drying and use of shea cakes as firewood, use of solar energy, production of clean carbon-free butter, and the sale of all waste produced
Huilerie Stab	Transformation of the company's waste into livestock food; the use of mahogany shells to replace firewood in the boiler, use of translucent sheet metal and LED lamps
Us Linda	Quantification of resources, reduction of raw materials; decrease in the number of gas cylinders (through the use of vacuum fans); use of water barrel and better control of water use; company equipped in LED bulbs (20); sale of mangoes waste

“Many thanks to the NGO WEP BF and the SWITCH Africa Green programme which gave us this great idea to do business with our once bulky solid waste. We will continue to make changes in the areas of efficient resources management and industrial symbiosis.”

Ms. Bassono, Faso Attieke.



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