



UCPC NEWSLETTER

ISSUE NO. 1

In this issue you will read all about;

- ◆ Introduction to Resource Efficient and Cleaner Production (RECP).
- ◆ Benefits of RECP .
- ◆ RECP Methodology.
- ◆ RECP in some of the previous projects implemented by UCPC.

INTRODUCTION

Uganda Cleaner Production Centre (UCPC) was established in 2001 by the Government of Uganda with technical and financial support from United Nations Industrial Development Organisation (UNIDO). UCPC is one of the over 65 National Cleaner Production Centres (NCPC) established worldwide under the UNIDO-UNEP Cleaner Production Programme.

The Centre promotes Resource Efficient and Cleaner Production (RECP) tools in manufacturing and service enterprises to improve competitiveness and environmental excellence by embracing the “triple win kind” approach of integrating economics, environment and social accountability.

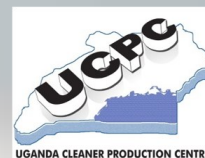
The Centre is a nodal Government agency in providing advisory services in RECP which seeks to increase the productivity of enterprises by reducing wastage of resources (water, energy and raw materials) and their associated negative environmental impacts.

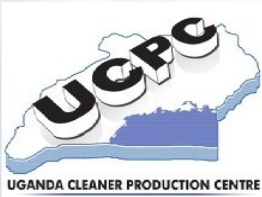
UCPC is also playing a key role in encouraging enterprises, especially industries, to improve their environmental performance, while at the same time, fostering improved competitiveness and profitability of the enterprises.

The main objective of UCPC is to introduce and promote Resource Efficient and Cleaner Production (RECP) practices to enterprises in Uganda in order to help companies reduce their operating costs through increased overall efficiency, especially in the use of water, materials and energy.

As a Centre of excellence for promotion of RECP strategies and technologies, UCPC's core functions include;

- ◆ Technical assistance and in-plant RECP assessments.
- ◆ Training in RECP and related concepts
- ◆ Information dissemination and awareness creation.
- ◆ Policy advice.
- ◆ Technical assistance in transfer of environmentally sound and cleaner technologies.





Since its establishment in October 2001, UCPC has worked with over 150 enterprises under different programmes that aim to improve their economic, environmental and social performance. The major programmes at the Centre include;

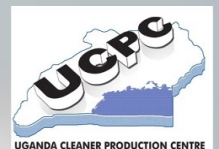
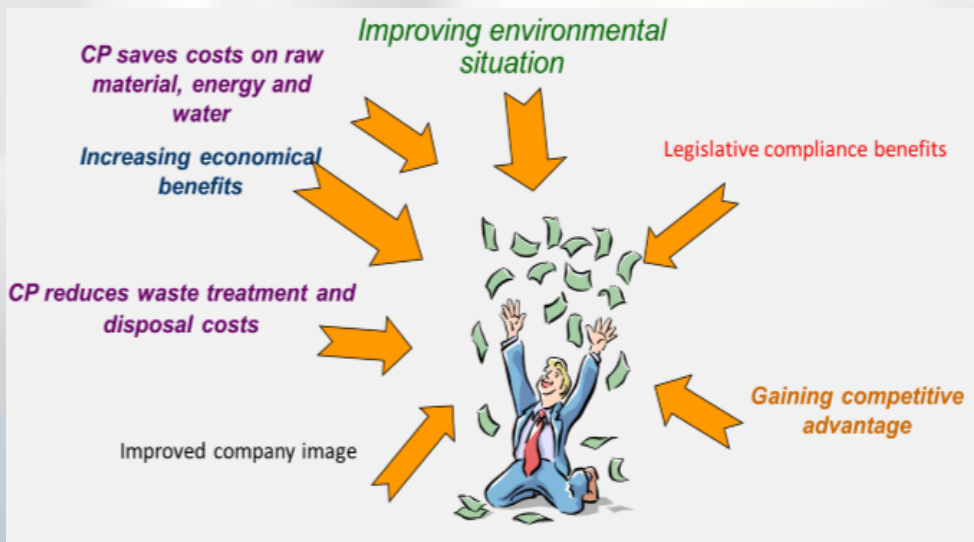
- Eco Design and Product Innovation,
- Environmental Management Systems,
- Eco Benefits (RECP) Programme,
- Energy Efficiency,
- Low Carbon Production,
- Life Cycle Assessment,
- Policy advise and development,

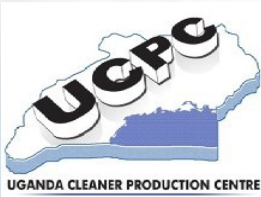
- Occupational Health and Safety,
- Regional Programmes like Engaging Private Sector in Green Growth in Lake Victoria Basin, Switch Africa Green etc.

increasingly, experience is showing that the aims of economic growth and environmental protection can be met by improving the environmental efficiency of business. By reducing environmental impacts and cutting waste, business operators in Uganda can improve their productivity, save money and remain competitive especially in global markets where growing consumer concern about the environment is already being reflected in purchases of goods.

RECP does more than improving the environment by minimizing pollutants and waste. Other...

BENEFITS OF RECP





RECP is a special program that analyzes the need for

RECP 8 Techniques.

effective business development and the use of environmentally friendly technologies, grouping and viewing the necessary methods and tools in the following special and interesting techniques .

1. Good housekeeping,
2. Input Change,
3. Better process control,
4. Equipment Modification,
5. Technology change,
6. On-site reuse and recycling,
7. Useful byproduct,
8. Product modification.

In market economy the company projects and implements its economic activity itself. In doing so the company relies on the contracts signed with suppliers and customers and projects its further development based on consumer demand.

Any company can use RECP practices and techniques to achieve its strategic and production goals and to benefit in various ways.

For example, as a result of improved housekeeping and input material change, the reduced material consumption of production can lead to sparing material stocks and enable producing additional quantity of products.

Better process controls, consistent modification and proper maintenance of equipment and production

lines will help in planning and ensuring production of necessary quality products.

Product modification, on-site reuse and recycling as well as useful byproduct production minimize waste generation.



Preparing a MSME (Micro, Small and Medium Enterprise) for resource efficient, product design and cleaner production is a complex task involving a wide range of departments from product design to purchasing, production, sales and maintenance. Therefore, the process needs a synchronized approach harmonized with the company's management system .

The underlying methodology for the MSME toolkit is defined on the basis of the PDCA cycle. The relevant activities are largely in line with UNIDO's Cleaner Production Toolkit.

⇒ **Plan.**

During the “plan” phase, the following activities are performed:

- ◆ Management commitment.
- ◆ RECP Team formation.
- ◆ Project planning.

⇒ **Do.**

It comprises of:

- ◆ Detailed water, energy, waste, chemicals audits according to the goals set during the pre-assessment



- ◆ Identification of improvement options
 - ◆ Evaluation of feasibility
 - ◆ Implement improvement measures
- ⇒ **Check.**

In the 'Check' phase, performance indicators are established and monitored and data is evaluated. It is good practice to document the old and the new situation for evaluation and learning.

⇒ **Act**

The following elements are important in this Act phase:

- ◆ Preparation of an action plan
- ◆ Continued implementation of Resource Efficiency options .
- ◆ Monitoring and reviewing of performance



- ◆ Rewarding good performance

Lastly an action plan is prepared to track implementation of Resource Efficiency goals and prepare regular reports to management on the progress to justify time and resources used on the programme.

Through the above methodology of promoting RECP, companies have been able to improve resource productivity in-terms of energy, water and materials productivity in relation to production output, reduce their pollution loads through promotion of waste reduction at source not end of pipe solutions and more jobs have been created.

This is evident from previous projects implemented by UCPC such as LVEMP II, Eco-Benefits program etc.

Lake Victoria Environmental Management Program (LVEMP II)

Within this project, Sub-component 2.2 that deals with promoting Cleaner Production technologies was implemented by the three centres (Kenya, Tanzania and Uganda) and coordinated by the Kenya National Cleaner Production Centre (KNCPC). The sub-component was designed to address the industrial pollution challenges and unsustainable resource consumption patterns within the Lake Victoria Basin.

The project aimed at increasing competitiveness of the Lake Basin enterprises by promoting waste reduction and reduction of negative impacts as well as





optimizing material, water and energy utilization through the application of Cleaner Production technologies and techniques.

As a result of project activities, capacity of internal staff in regards to RECP was built and this aided the implementation of project activities.

Due to implementation of the RECP measures

identified, significant reductions in pollution loading from enterprises in sectors such as Sugar, Dairy, Leather, Beverages, Chemicals e.t.c were achieved. BOD load reduced from an average of 3.10×10^7 to 7.24×10^5 Kg/year, COD load reduced an average of 4.61×10^7 to 1.24×10^6 Kg/year representing percentage reduction in BOD and COD loading of 78.40 and 72.98 respectively

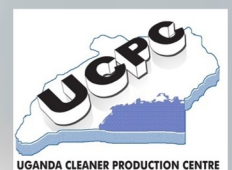
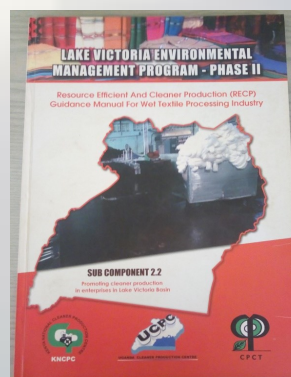
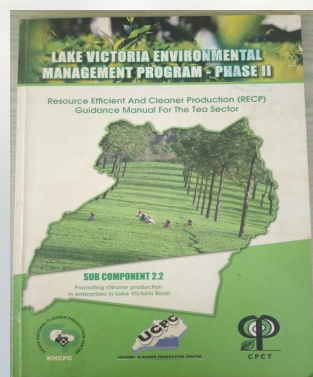
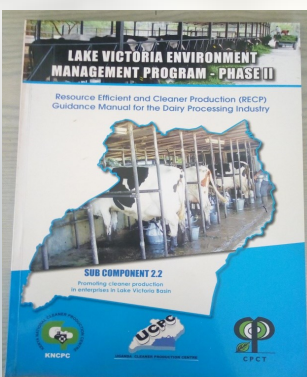


Old leaking tanning drum used before RECP



New tanning drum after RECP

As a result of the implementation of LVEMP II project, sector specific manuals for guiding enterprises in the implementation of RECP were developed and these are readily available at UCPC. These sectors include; tea, sugar, leather and fish.





Eco-benefits Programme

The core objective of the programme was to strengthen the economic situation and competitiveness of companies in Uganda by introducing Cleaner Production. This was achieved through supporting companies of all sectors to become more efficient and hence remain competitive by

training key selected staff from the companies through a comprehensive know-how and on the job training in Cleaner Production.

About 40 enterprises across Uganda participated in the subsequent eco-benefits programmes and the results are documented in eco-benefits publications 1-4 brochures

The company, which knows to solve its problems is less efficient than one that knows how to avoid them.

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