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Reducing Emissions and Water Consumption in Serbia’s Beverage Production

Knjaz Miloš has about 900 employees. Some 230 are involved in the production process at 10 production lines, two syrup plants and two water treatment units -- including auxiliary services for electric machine maintenance, energy and the preparation of water and juice. With the support of the National Cleaner Production Centre in Serbia and UNIDO, the company signed a chemical leasing contract with its supplier, Ecolab, and also implemented resource efficient and cleaner production solutions. Knjaz Miloš was able to reduce CO2 emissions by 436 t/y and saved 90,000 m$^3$/a in water consumption -- with cost savings of about EUR 260,000 per year.

Gaining Economic Benefits with Less Resources

UNIDO’s Resource Efficient and Cleaner Production (RECP) method entails the continuous application of preventive environmental strategies to processes, products and services in order to increase efficiency and reduce risks to humans and the environment. RECP addresses three sustainability dimensions individually and synergistically:

- **PRODUCTION EFFICIENCY**: Improve the productive use of natural resources
- **ENVIRONMENTAL PROTECTION**: Minimize the impact on nature
- **SOCIAL ENHANCEMENT**: Support communities and reduce risks

Since the mid-1990s, UNIDO and the United Nations Environment Programme (UNEP) have collaborated to foster the global uptake of resource efficient and cleaner production. Under the joint flagship RECP programme, UNIDO and UNEP have responded to countries’ growing demand for help by assisting organizations -- especially small- and medium-sized enterprises, governments, civil society, research institutions and related stakeholders -- in more than 60 developing and transition economies. Together with partner governments and an initial core of RECP service providers, in 2010 UNIDO and UNEP established a global network -- RECPnet. Since then, the global network has grown from 41 founding members to more than 70 members and has sharpened its focus and operations to better meet increasing industry demand.

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“We achieved environmental improvements, work safety and cost reduction.”

Zorica Vukcevic-Kljaic, Operations Director, Knjaz Miloš

Website: [http://www.cpc-serbia.org/](http://www.cpc-serbia.org/)

Video: [https://youtu.be/BEuoqyUjrRk](https://youtu.be/BEuoqyUjrRk)
Nationwide Capacity Building in South Africa

The National Cleaner Production Centre of South Africa (NCPC-SA) is a government programme that promotes the implementation of Resource Efficiency and Cleaner Production (RECP) methodologies to assist industry in lowering costs through reduced energy, water and materials usage, and waste management.

The NCPC-SA launched the NCPC-SA Internship Programme, designed to turn young science and engineering graduates into RECP practitioners. The programme’s first 20 interns were placed at manufacturing plants in Gauteng, KwaZulu-Natal and the Western Cape where they will be mentored by experienced RECP professionals.

According to NCPC-SA Skills Development Manager Wynand van der Merwe, the internship programme aims at growing the pool of competent RECP practitioners in the country and improving the employability of the interns.

The benefits are evident in many companies and organizations, regardless of sector, location or size. The implementation of RECP measures -- energy efficiency methods and the use of renewable energy -- at the Central University of Nicaragua (UCN), for example, led to annual savings of USD $34,450. With the savings generated by the implementation of RECP, the UCN was able to finance the investment required through a green line, and reduce GHG emissions by 26.78 tons of CO2 annually -- equivalent to 56,490 kWh/y.

“I feel very proud to be part of our university, because it is the first university to implement such a project and is building awareness. It is changing the mentality not only of the students but everybody towards a more sustainable life by using efficiently the resources.”

Joselin Torres - UCN Managua, Nicaragua

Website: http://ncpc.co.za/
Video: https://www.youtube.com/channel/UCmcZKPnBWUwfo8TKtdrQySg

Energy Efficiency and Renewable Energy at a University in Nicaragua

The efficient and rational use of materials, energy and water -- along with the minimization of waste and emissions -- is good business. The efficient use of resources through cleaner production is a way to accomplish this in a comprehensive and systematic manner. RECP covers the application of preventive management strategies that increase the productive use of natural resources, minimize waste generation and emissions, and promote responsible production.

For more information contact: environment@unido.org

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