



"CLEANER PRODUCTION TOWARDS A SUSTAINABLE TRANSITION"

## Stimulating the Market: Incentives for Cleaner Production and Energy Efficiency in Latin America

ASHTON, W. S. a,\*, IZQUIERDO-CRUZ, C. A. b, PANERO, M. A.c, ARIAS, A. L.d, BELFIELD, J.f BENTIN, J.i DE LA CRUZ, G.f, DUECKER-AGUILAR, S.a SALAZAR de TOBAR, Y.e, HURTADO, M.a, MARTINEZ-GREEN, T.g, PANCHAME, S.g, URIARTE, M.h,

- a. Illinois Institute of Technology, Chicago, IL, USA
- b. World Environment Center, Washington, DC, USA/Mexico
- c. New York Institute of Technology, New York, NY, USA
  - d. Instituto Tecnológico de Costa Rica, Costa Rica
  - e. Centro de Producción más Limpia, El Salvador
    - f. Universidad Rafael Landívar, Guatemala
- g. Universidad Autónoma de Honduras Valle Sula, Honduras
  - h. Universidad Nacional de Ingeniería, Nicaragua
    - i. Universidad San Ignacio de Loyola, Perú
    - \*Corresponding author, <u>washton@iit.edu</u>

## Abstract

Resource efficiency, including cleaner production and energy efficiency (CP/EE), is thought to be an important strategy for developing countries to grow their economies in a sustainable manner. However, in many regions the private sector, particularly smaller enterprises, has been reluctant to adopt such strategies due to a combination of informational, technical and economic barriers. A variety of players in Latin America, including international aid agencies, governments, banks and national cleaner production centers, have introduced market-based mechanisms to encourage enterprises to adopt resource efficient practices. In this paper, we conduct a comparative analysis of the availability and utilization of different types of market-based instruments for cleaner production and energy efficiency in micro, small and medium size enterprises in Central America. We surveyed 19 programs in 5 countries (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) to examine how effectively these instruments are being utilized, complementary barriers that prevent their adoption, and best practices for increasing their uptake. We find that most programs are focused on energy efficiency, are financed by international donors, offer grants and awards to companies for pursuing CP/EE, but are not specified towards MSMEs.

Keywords: cleaner production, resource efficiency, Small and Medium Enterprises, market-based mechanisms, energy efficiency