

# DEVELOPMENT IMPACT ASSESSMENT HIGHLIGHTS CO-BENEFITS OF GHG MITIGATION ACTIONS

## BACKGROUND

Understanding the impacts of low emission development strategies (LEDS) on broader development goals is of growing interest in countries around the world. These goals include reducing poverty, improving health and local environmental quality, expanding energy and water access, facilitating gender equity, and more.

Development Impact Assessment (DIA) is a process that explores interactions between development goals and LEDS. DIA aims to support informed decision-making by considering how policies and programs intended to meet one goal may impact other development priorities.

## SPOTLIGHT ON DIA IN ZAMBIA

Beginning in 2014, the Zambian Ministry of Lands, Natural Resources and Environmental Protection and U.S. Agency for International Development (USAID), via the Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) program, partnered to build capacity among local technical institutions and stakeholders to assess and communicate development impacts of LEDS actions. The partnership commenced with workshops and training sessions with the Zambian Center for Energy, Environment and Engineering (CEEZ) to champion a development impact assessment process in Zambia.



Zambian woman describes benefits of solar electrification of her home to inform development impact assessment.

PHOTO BY CEEZ

Zambia's DIA process informed prioritization of key actions included in the mitigation component of Zambia's Intended Nationally Determined Contributions (INDC) under three areas: sustainable agriculture, renewable energy and energy efficiency, and sustainable forest management. For example, renewable energy and energy efficiency actions focus on switching from conventional and traditional energy sources to sustainable and renewable energy sources and practices (e.g., coal to biomass, diesel to mini-hydro), and use of off grid renewable energy technologies for rural electrification as decentralized systems. Zambia's INDC documents the co-benefits of these actions, which were identified through the DIA process, as follows:

- Improved health impact due to reduction in child and maternal mortality and retention of medical personnel
- Improved food security—especially for women—due to increase in agriculture production resulting from use of irrigation
- Increased rural development impacts due to increased economic activities through small and medium enterprises
- Reduced indoor air pollution and load shedding
- Reduced greenhouse gas (GHG) impacts and improved air quality
- Reduced energy deficits.

The United States government, via the State Department, also supported further analysis of the mitigation component of Zambia's INDC, showing that proposed mitigation actions have the potential to reduce the country's greenhouse gas emissions by 25% to 47% by 2030.

## THE EC-LEDS PROGRAM

**Low emission development strategies (LEDS) are development plans that promote sustainable social and economic development while reducing greenhouse gas emissions over the medium to long term.**

**Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) is a flagship U.S. government-led effort that assists countries in developing and implementing LEDS. The program enhances partner country efforts by (1) providing targeted technical assistance and (2) building a shared global knowledge base on LEDS.**

**EC-LEDS country partners include Albania, Bangladesh, Cambodia, Colombia, Costa Rica, Ethiopia, Gabon, Georgia, Guatemala, Indonesia, Jamaica, Kazakhstan, Kenya, Macedonia, Malawi, Mexico, Moldova, Peru, the Philippines, Serbia, South Africa, Thailand, Ukraine, Vietnam, and Zambia.**

## EC-LEDS

ENHANCING CAPACITY FOR LOW EMISSION DEVELOPMENT STRATEGIES

## DIA TOOLS

**DIA Visual Tool.** The DIA visual tool, presented in Figure 1, provides a framework to help identify, document, and communicate the impacts that LEDS actions may have on a country’s social, economic, and environmental development priorities, while also considering GHG emission abatement potential. The tool can help decision-makers explore potential policy synergies and tradeoffs to achieve development goals and help build consensus among stakeholders around climate action.

**I-JEDI Model.** The International Jobs and Economic Development Impact (I-JEDI) model is an input-output model developed to quantify economic impacts of energy development and operation scenarios. The model currently includes country-specific data for EC-LEDS partner countries: Colombia, Mexico, Philippines, South Africa, and Zambia. Outputs from this model can be reflected in the DIA Visual Tool to show job and other economic impacts of potential energy actions.

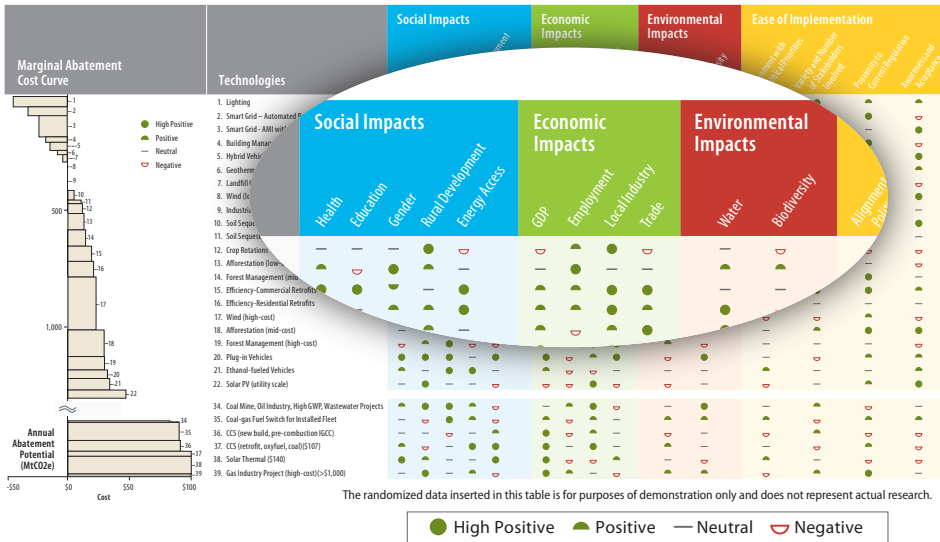


Figure 1. DIA visual tool.

## DIA SUPPORT RESOURCES

Building on lessons from DIA activities in Zambia and other countries, the EC-LEDS program and LEDS Global Partnership have developed a number of resources to support DIA globally. The *EC-LEDS DIA* webpage provides a DIA web tutorial, a downloadable version of the DIA visual tool, DIA case

studies, a link to a DIA tool finder, and information on other key resources to support country-led development impact assessment. Visit the DIA webpage at: [www.ec-leds.org/tools-page/development-impacts-assessment-tools](http://www.ec-leds.org/tools-page/development-impacts-assessment-tools).

## DIA Applications

To date, the DIA visual tool has benefited development-focused LEDS processes in Ghana, Kenya, Montenegro, and Zambia. In those countries, the tool informed LEDS-related climate actions and processes including INDCs, Technology Needs Assessments, and Nationally Appropriate Mitigation Actions. Through these country-specific applications, the tool was shown to be particularly effective in providing a framework for stakeholder-driven consultations and qualitative impact assessment methods. Building on lessons learned from these countries, DIA support resources are being developed to inform country-led DIA processes around the world.

## For questions about EC-LEDS

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