The Coalition of Finance Ministers for Climate Action

EfD—a global research network combining research, academic training, training of civil servants, and advisory to inform policy

Environment for Development Initiative

A contribution to the 'Compendium of Practice from a Global Community of Ministries of Finance and Leading Organizations: Economic analysis and modeling tools to assist Ministries of Finance in driving green and resilient transitions'

Topic: Enhancing analytical capacity in Ministries of Finance

June 2025

Access the full Compendium at www.greenandresilienteconomics.org

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Overview

The Environment for Development initiative (EfD)[1] is a global research network rooted in low- and middle- income countries that tackles urgent climate, environment, and development challenges.

Understanding and managing the economics of climate change has long been a central component in the EfD's work, including advisory work for Ministries of Finance. The Initiative looks at not only the economic and environmental effects of climate change but also the distributional effects and social acceptance. It covers both mitigation and adaptation; in many countries the latter demands the most attention.

The EfD's 12 environmental economics research centers, hosted at reputed universities in Chile, Colombia, Costa Rica, Ethiopia, Ghana, India, Kenya, Nigeria, South Africa, Tanzania, Uganda, and Vietnam, engage in South-South-North collaborations with partners in China, France, Germany[2], Ireland, the Netherlands, Sweden, and the U.S.

One of EfD's research programs, Emission Pricing for Development, addresses problems relating to the implementation of carbon pricing in the Global South, with the aim of producing appropriate analyses and designing effective policies that are politically viable. Ongoing/recent work includes the following.

Colombia

The Carbon Pricing Plus Model is a user-friendly tool for the tropics that helps identify efficient climate policies, looking at both regulated and unregulated emission sources.[3] EfD Colombia is hosted at the Universidad de Los Andes, Bogotá.

Nigeria

EfD Nigeria and the Center for the Study of Economies of Africa, Abuja, analyzed the optimal carbon-tax pricing policy for Nigeria. The study identified the scope of taxation (consumption and/or production), fuel types, sectors, and the optimal tax necessary for specific emission abatement levels and revenue generation. Consumption taxes are found to be more effective than production taxes in the short term, and transfers to households can significantly mitigate negative impacts of carbon taxes. EfD Nigeria was also part of a team analyzing the macroeconomic impacts of the Energy Transition Plan included in Nigeria's NDC. EfD Nigeria is hosted at the University of Nigeria, Nsukka.

Ethiopia

EfD Ethiopia, based in the Policy Studies Institute, provides technical support to the Government through generating data-driven evidence on climate change issues such as emission taxes and subsidies, and through the cost-benefit analysis of green investments (e.g., alternative energy sources) using economy-wide models such as computable general equilibrium (CGE) models.

India

EfD India is developing a dynamic CGE model to analyze the economy-wide impact of the tradable performance standard (TPS) for energy intensive industries, and its interaction and relative effectiveness with respect to renewable portfolio standards and deployment policies in India's Nationally Determined Contributions. The TPS, which sets a performance standard goal per unit of output, will also be compared with more traditional carbon pricing approaches such as a carbon tax and cap and trade. EfD India, hosted in the Centre for Research on the Economics of Climate, Food,

1 https://www.efdinitiative.org/.

2 See separate Compendium entry by the Environment for Development Initiative: 'Facilitating socially responsible carbon pricing policies: the global Carbon Pricing Incidence Calculator (CPIC)'.

3 See entry on CPIC, op. cit.

Energy and Environment at the Indian Statistical Institute, Delhi, has been engaged in an advisory role with the Ministry of Finance since 2021.

Funding

The EfD receives core funding from Sida and works closely with MoFs in East Africa in the Inclusive Green Economy in Practice capacity-building program. This five-year program fosters knowledge exchange between academia and senior civil servants for a just green transition.