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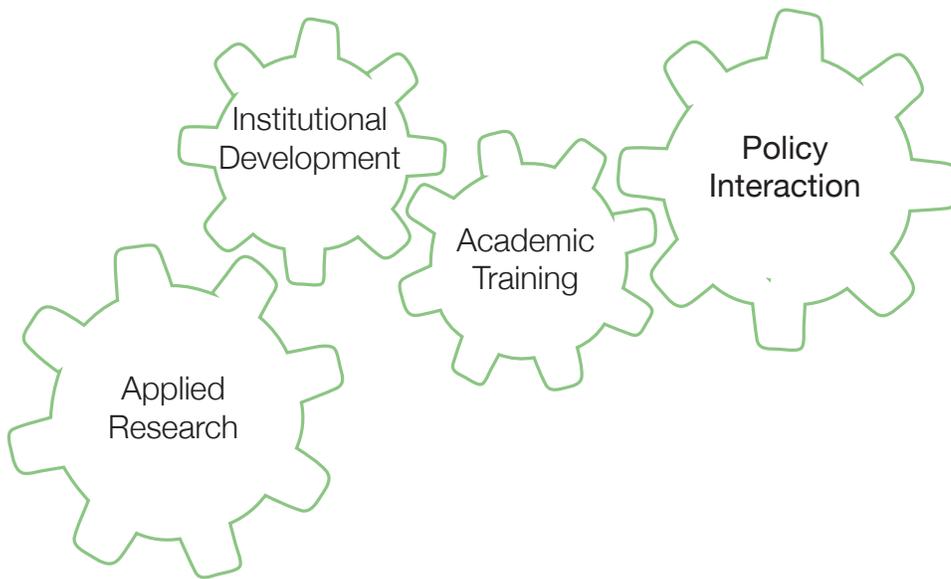
ANNUAL REPORT

Central America
2017

Environment for Development

The EfD Initiative is a global network of environmental economics' research centers.

We contribute to effective management of the environment in the global south through:



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Director message

The Environment for Development Center for Central America (EfD-CA) is a hub for politically-relevant scientific research for both the Central American region, and Latin America more broadly. We have consolidated a dynamic, successful research team that has produced many relevant publications, secured research funding, and embarked on important international collaborations.

During 2017 we worked closely with several government agencies providing advice and critical analysis of policies and programs. We have also coordinated workshops and spaces to allow for interactions between our researchers and policy makers, so that they can be exposed to the ideas coming from our work. We made our research become action through relevant research results, that in hand with our communication efforts, will change the decision making processes at all levels, from households to technicians from governmental agencies to assure that our knowledge is spread widely in all of the actors to create impact.’

Our research contributed to several projects that aim to inform decision making processes at all levels in our Central American region, from household level, right through to technicians working within government agencies.

This will ensure that the knowledge we generate as a result of our research is spread widely to all the relevant actors, creates impact, and is a vital input for the formulation of public policies. We have used different platforms to interact with policy makers, in order to communicate our findings, including workshops and international congresses.

Our research colleagues, support staff, the outreach network of local and international partners, and our funding partners allowed high quality research that is useful and can inform the design of policies appropriate to the social, and economic contexts.

EfD Central American director, Dr Róger Madrigal.



Research

This year, our research became action through communication efforts of our projects. The EfD-CA CASCADE project - an initiative that promotes adaptation to climate change in vulnerable communities of small holder farmers in Costa Rica, Honduras and Guatemala through ecosystem-based adaptation strategies - delivered 18 scientific publications in all. It also produced five published policy reports, and capacity-building materials. We were also able to train more than 150 technicians from Guatemala, Honduras and Costa Rica in the field of adaptation to climate change, and adaptation practices based on ecosystem services. Nine local institutions have replicated the training with more than 1 000 farmers across the region.

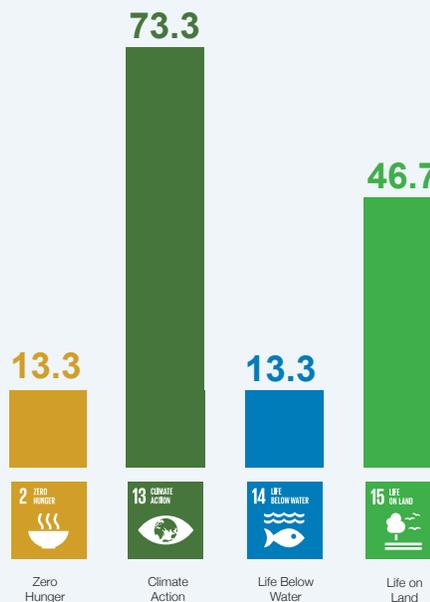
Our water availability and management project found that by encouraging adoption of water efficient technology in households, vulnerable communities can become more resilient to climate change. Through the AC3 Project, we installed water-efficient showers in 400 households in the driest, more vulnerable region of Costa Rica, and found that average monthly water use decreased by 11% (2.69 m³).

Also, EfD-CA researchers found that Costa Rica could save \$17 million a year in bronchitis care (and its impact on disability and quality of life), \$55 000 in asthma health care and \$233 000 in hospitalizations, if the country reduces its vehicle-related air pollution to levels recommended by the World Health Organization. This is based on the findings of a study on the economic impact of air pollution in the country, conducted by our researchers on behalf of the Directorate of Climate Change in the Ministry of Environment and Energy in Costa Rica. Funds for the work came from EUROCLIMA project, a regional cooperation program of the Economic Commission for Latin America, Latin America and the Caribbean (ECLAC).



CASCADE Project training guides on climate change and ecosystem-based adaptation for agriculture.

% of center publications that address SDG's



(total amount of % does not add up to 100 percent due to double counting)



29 publications in 2017
15 Peer reviewed publications

Collaborative Research Programs



Ecosystem Services Accounting for Development researchers at the 2017 workshop in Addis Ababa, Ethiopia

EfD has institutionalized south-south-north experience sharing through the research collaborations. The Sustainable Energy Transition Initiative (SETI) network, the Forestry Collaborative, and the Ecosystem Services Accounting for Development (ESAforD) that apply the “Community of Practice” approach have been very active during 2017. SETI organized a big workshop at Duke in May 2017 with more than 70 practitioners. Similarly, the forestry collaborative organized a meeting back-to-back with the EAERE annual conference in Athens in June 2017.

All collaboratives had meetings during the EfD annual meeting in Addis, Ethiopia in October. We now start to see the outcomes of these collaborations. There is increased learning between centers, and increased joint participation in various international meetings etc. We expect to see much more impacts in the years to come while these collaborations continue to mature.

Sustainable Energy Transition Initiative Program leader Subhrendu Pattanayak presenting at EfD’s 2017 Annual Meeting in Addis Ababa, Ethiopia



Policy Interaction and Communication



Senior researcher Dr Francisco Alpizar presenting CASCADA results at the EfD Policy Day 2018 in CATIE headquarters, Turrialba, Costa Rica



Working tables during EfD- CA's policy day that brought together representatives from the coffee industry, Costa Rica



Importance of Ecosystem based adaptation to climate change was one of the key findings presented to the Policy Day participants

The EfD-CA's 2017 policy interaction workshop focused on the coffee industry. It gathered host researchers, practitioners, and decision makers from the sector, and presented EfD-CA's research and its contribution to policy discussions on agricultural and environmental issues relating to coffee farming.

The workshop focused on fostering a dialogue between researchers and decision makers to identify priority areas for future research efforts, strengthening institutions, and developing public policies according to the needs encountered. The diversity of audience that was present at the workshop allowed the event to serve as a space for ideas to be shared and discussed amongst all relevant actors of the coffee sector in Costa Rica.

The event brought together people from a number of institutions, including relevant government agencies such as the Ministry of Agriculture (MAG), the National Coffee Institute (ICAFE), and Costa Rica's National Insurance Institute (INS), among others.

The development banking sector was also present, with representatives from both the public and private banking sector, including the BAC-Credomatic Group. The workshop allowed for international cooperation, with people there representing the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Inter-American Development Bank, as well as research institutions like the Research Program on Climate Change, Agriculture and Food Security (CCAFS). Also, important coffee cooperatives actively participated in the event, contributing to a productive dialogue.

The final thought, following the workshop discussions, is that there is still not enough two-way dialogue between the different stakeholders within the coffee industry. Participants also agreed that we need to find ways to improve decision making and strategies within the coffee industry, including from stakeholders in the public, private, and academic sector. This is aligned with EfD-CA's policy day objective.

Academic Capacity Building



Coffee farmers learning how to cope with the impacts of climate change at workshop lead by EfD-CA's researchers

Paralleled to our research efforts, we have put considerable effort into building capacity in order to spread the knowledge obtained through our research. In 2017, we held training sessions for the Nicaraguan Electricity Company (ENEL), where we focused on the design of payment for ecosystem services. This training was linked to advisory activities where more than 30 technicians participated. EfD-CA also hosted the fifteenth international training course on economic valuation and the second international training course on climate smart agriculture at the Tropical Agricultural Research and Higher Education Center (CATIE) based in Costa Rica. We also received government officials from Ghana and Liberia to conduct a study tour where they learned Costa Rica's experience on Payment for Environmental Services. EfD-CA's master's program at CATIE received seven students trained in public economics, quantitative methods, econometrics, environmental economics, and natural resource management, among others. Our senior researchers were able to supervise five master's students from across the region through the writing of their theses, which helped to sharpen their research skills and should go a long way towards them becoming future leaders.



17 in-service training courses for civil service- over 440 participants

55 Masters Students on Environmental Economics Courses



Workshops in Nicaragua trained technicians in the principles of payment for ecosystem services training.



EfD in Central America

Research Program in Economics and Environment for Development (EEfD/IDEA), Tropical Agricultural Research and Higher Education Center (CATIE)

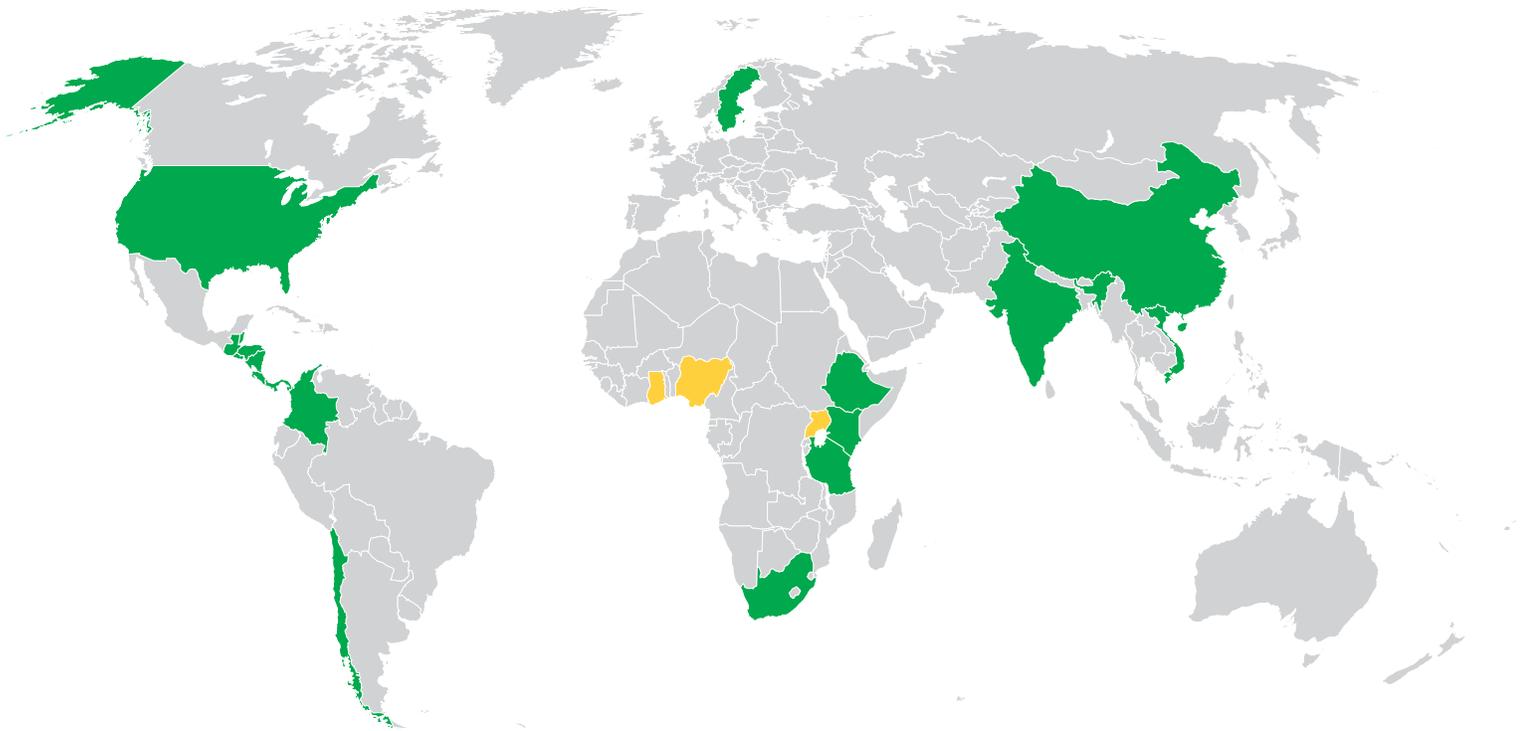
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