

# PROMOTING CHANGE

EfD

**HOW EfD  
MAKES A  
DIFFERENCE**



**ENVIRONMENT FOR DEVELOPMENT INITIATIVE 2018–2022**

**CAPACITY DEVELOPMENT — RESEARCH — POLICY ENGAGEMENT**

# WELCOME TO THE WORLD OF EfD

**T**HIS REPORT HIGHLIGHTS some significant contributions made by EfD from 2018 to 2022 toward realizing the Sustainable Development Goals. As a university-based research network, we are committed to positive policy change by introducing new ideas and knowledge to the agenda, facilitating knowledge exchange between researchers and policymakers, and training students and civil servants.

## CHALLENGES AND OPPORTUNITIES

The period since 2018 has been marked by a series of crises, including the COVID-19 pandemic, the spread of misinformation, rising food prices, conflicts, and renewed calls for urgent action to combat climate change and biodiversity loss. These challenges have led to increased poverty levels. However, we have also witnessed positive developments such as the rapid expansion of renewable energy, digital solutions enhancing smallholder productivity, and growing acceptance of measures to protect public health and promote climate action. Although promoting sustainable development is a complex task, it is achievable.

During this period, EfD has experienced substantial growth, with new centers established in Ghana, Nigeria and Uganda and more policy engagement in East Africa through the Inclusive Green Economy in Practice Program. We are proud of the trust placed in us by an expanding body of funders. We work in challenging environments where governance structures are weak, and democratic space is limited. Therefore, the significance of independent research and global partnerships is greater than ever.

## INDEPENDENT RESEARCH AND GLOBAL PARTNERSHIPS

Our model focuses on building local capacity through South-South-North partnerships and collaborative research that informs the international community. Our approach creates the necessary conditions for evidence-based, locally grounded, sustainable solutions. EfD remains committed to contributing to a sustainable future for all. We hope that you will enjoy reading this compilation of examples of what we have achieved during the last five years. ■



**GUNNAR KÖHLIN**  
*EfD Director*

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## EFD'S OVERARCHING OBJECTIVE



EfD contributes to evidence-based domestic and international policies for poverty reduction, environmental and resource management, and climate change impacts in the Global South through integrated capacity development, research, and policy engagement.

# ABOUT EfD

Photo: EfD/Petra Hansson

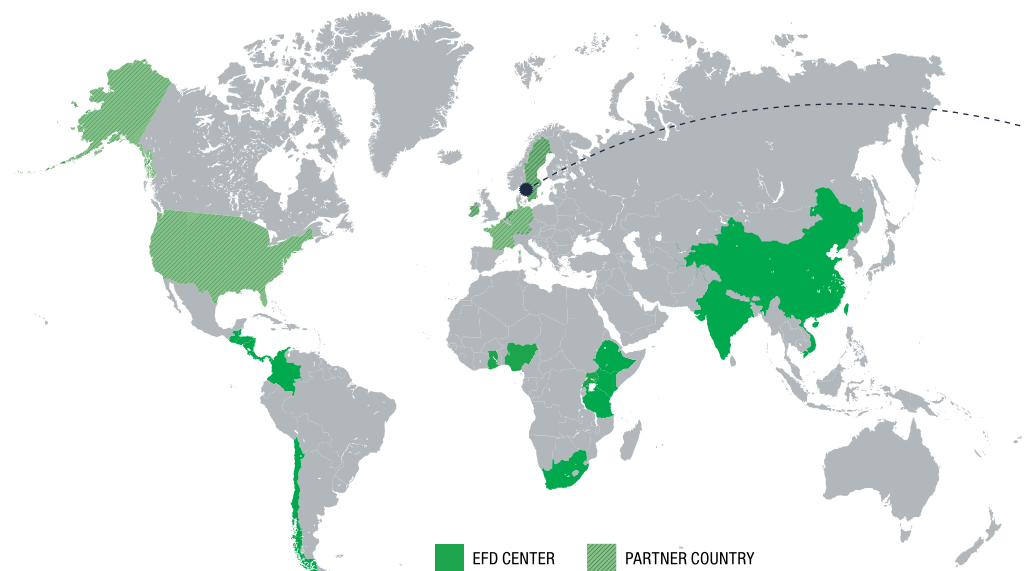
**ENVIRONMENT FOR DEVELOPMENT** (EfD) is a global network of environmental economics research centers addressing the world's most pressing environmental and development challenges.

In order to thrive, scholars need a high-quality research environment to call home. EfD has established and supports vibrant, productive, and well-respected research centers at leading domestic academic institutions. The 13 institutions in the Global South that house EfD centers have the institutional capacity to run graduate academic programs, implement high-quality policy research, and foster interaction with key stakeholders and policymakers.

EfD is first and foremost a global network that connects scholars with colleagues around the world. A key competitive advantage of EfD is its infrastructure for collaboration across countries, with a particular focus on South-South interaction. EfD facilitates this collaboration with international research collaboratives around areas such as sustainable energy transition, emissions pricing, sustainable consumption and production, forests, marine resources and natural capital.

**THE NETWORK IS COORDINATED** by the EfD Global Hub, located at the School of Business, Economics, and Law, University of Gothenburg, Sweden. It has, from its start in 2007 also established numerous partnerships with leading academic institutions in the Global North.

**EFD IS PRIMARILY SUPPORTED** by the Swedish International Development Cooperation Agency (Sida). Other funders include International Development Research Centre, The Kamprad Family Foundation, Asian Development Bank and various international and national research funders. ■





*There is a willingness to pay more for clean energy in Vietnam, if health benefits are well communicated. Solar plant in Tra Vinh, Vietnam.*  
*Photo: Shutterstock*



## Paving the way for a cost-effective **green transition** in Vietnam

Vietnam's comprehensive overhaul of its environmental law went into effect in January 2022. It provides policymakers with new tools to cost-effectively manage environmental challenges and meet Vietnam's stated goal of achieving net zero carbon emissions by 2050. EfD has significantly contributed to this change, drawing upon local and global expertise.

**V** **VIETNAM HAS ONE OF THE MOST** dynamic economies in the world, but its rapid growth has placed strains on the environment and public health. Pollution from the industrial sector is a major problem, particularly in the form of air and water pollution. In addition, climate change poses a serious threat to Vietnam's long-term development, as the low-lying nation is highly vulnerable to flooding. As Vietnam has evolved away from central planning to a more market-based economy,

the environmental regime hadn't kept pace and was still heavily reliant on inflexible and costly command-and-control mechanisms.

EfD has been at the forefront of the analysis of policy tools for environmental protection and natural resource management in the Global South, with an emphasis on alternatives to traditional command and control approaches. Its collaborative research program on emissions pricing is building a global community to support the design and implementation of effective and politically viable pricing policies.





Photo: EfD Vietnam

## EMISSION PRICING FOR DEVELOPMENT



The goal of this EfD program is to address the problems related to the implementation of carbon pricing in the Global South. The aim is to create a global community for research and engagement with policy makers, to ensure widespread capacity for producing appropriate analyses and designing effective policies that are politically viable.

### USING THE POLICY-WINDOW

The EfD center in Vietnam was part of a global team of EfD researchers documenting experiences with market-based instruments for managing the environment and natural resources in Asia. The report, made for the Asian Development Bank, had its soft launch at EfD's 2018 annual meeting in Hanoi during the "Policy Day". EfD's signature Policy Day Workshops are designed to spur productive dialogues between researchers and government officials, and the timing of the report's release was fortuitous as Vietnamese policymakers in attendance were in the process of overhauling the national environmental legislation.

"We were not the first to propose these solutions, but the moment was right. They (government ministries) were open to listen and discuss during and after the meeting", says Pham Khanh Nam, Director at the EfD center in Vietnam.

Intense meetings and joint work with the Ministry of Natural Resources and Environment followed. The work included a staff briefing on the details of various approaches to environmental protection, briefings with the Minister, support in organizing workshops and specific input on Chapter 13 of the law which focuses on market-based instruments.

"Dr. Nam and his team were very supportive and made valuable contributions in the reform process", says

Nguyen The Chinh, former Director General of the Institute of Strategy and Policy on Natural Resources in charge of writing the revised law.

### AT A CROSSROADS

With the legislation in place, Vietnam is currently looking at options both for a carbon tax and a carbon trading system.

Around the globe, governments are searching for politically acceptable ways to raise the price of carbon. Successful examples seem to have two things in common – first some type of compensation to the most affected, and second, a good communication strategy.

A recent EfD study provides some good news for policymakers in Vietnam seeking to introduce a price on carbon. Compared to other countries, residents of Ho Chi Minh city stated a high willingness to pay more for renewable energy to improve air quality and reduce carbon emissions.

"Personally, I think Vietnam should aim for a carbon tax. It's efficient, easier to manage administratively and creates space for public investments. However, it seems that many stakeholders, not least industry, prefer a carbon trading system where money is shifted between market actors," says Pham Khanh Nam.

It remains to be seen in which direction the government will decide to go, but it continues to seek the advice of the EfD team, who won the EfD Policy Impact Award 2022. ■

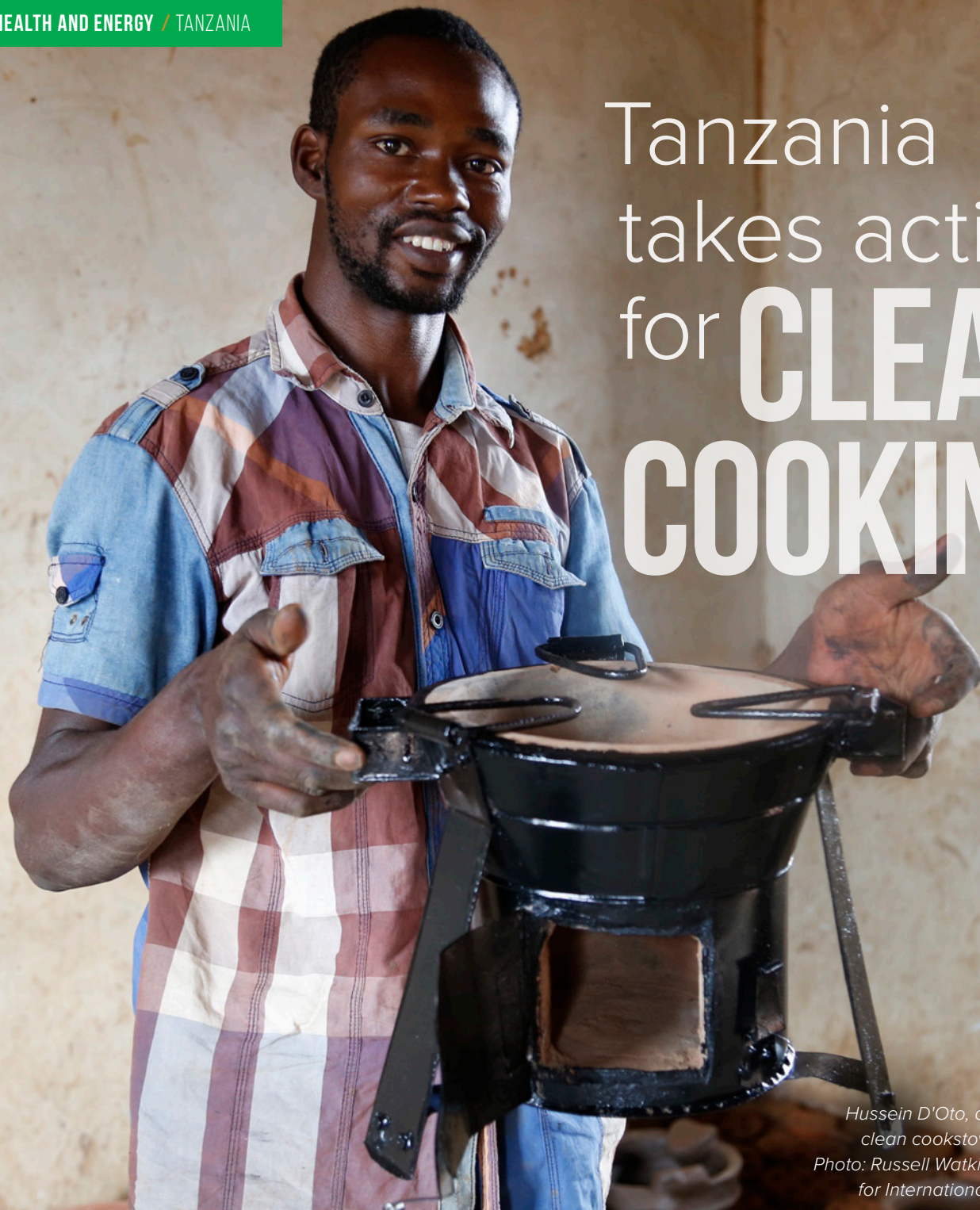
**"Personally, I think Vietnam should aim for a carbon tax. It's efficient, easier to manage administratively and creates space for public investments."**



EfD researcher  
Pham Khanh Nam  
Photo: EfD/Nhan Le



# Tanzania takes action for **CLEAN COOKING**



*Hussein D'Oto, a potter making  
clean cookstoves in Tanzania  
Photo: Russell Watkins/Department  
for International Development*

**In Tanzania, reducing charcoal and firewood use has been on the agenda for decades and numerous efforts, including a charcoal ban, have been attempted.**

Over 33,000 Tanzanians die annually from the health effects of using firewood for cooking. Climate change, deforestation, and loss of biodiversity are other negative impacts from burning firewood and charcoal. EfD has played an important role in supporting the Tanzanian government's recent efforts to address this issue.

**IN TANZANIA,** reducing charcoal and firewood use has been on the agenda for decades and numerous efforts, including a charcoal ban, have been attempted. Yet, for a mix of economic and cultural reasons, more than 75% of Tanzanians still rely on biomass. The burning of charcoal or firewood has severe health consequences on top of its damage to the natural environment and is among the main causes of respiratory illnesses and deaths in Tanzania. Women and children are worst affected by air pollution caused by burning biomass. There is also a social aspect: the time spent collecting firewood could be used to do paid work or other socially beneficial purposes instead.





The Sustainable Energy Transitions Initiative (SETI) is an interdisciplinary global collaborative that aims to foster research on energy access and energy transitions in low and middle-income countries, and to better understand their drivers and dynamics, as well as their impacts on health, gender equality, economic growth, poverty alleviation, climate change and natural resources.

## THE PRESIDENT TAKES THE LEAD

In November 2022 the president of Tanzania, Samia Suluhu Hassan announced a package of measures to address the root causes of indoor air pollution and deforestation: the use of traditional stoves.

**1.** She ordered a formulation of a National Taskforce with members from government ministries, the private sector, academia, NGOs, and development partners tasked with making a comprehensive roadmap and strategy for a fast-track transition to clean cooking in Tanzania. The goal is that at least 80% of Tanzanians will use clean cooking technologies by 2033.

**2.** The government will set aside a clean cooking fund with resources earmarked for supporting initiatives for the clean cooking transition.

**3.** All government institutions serving at least 300 persons, for instance, schools, hospitals, and prisons will switch to cleaner cooking technologies by the year 2024. A one-year grace period was given to ensure that all needed preparations are put in place to allow a smooth and sustainable transition.

Her announcement came at the Clean Cooking Conference, attended by some 2,000 people from relevant sectors, government and political leaders, civil society organizations, development partners, financial institutions, researchers, scientists, cooking technology companies, LPG suppliers and distributors, NGOs, and others.



Efd Researcher Remidius Ruhinduka.  
Photo: Efd/Petra Hansson



Samia Suluhu Hassan, the President of Tanzania, presenting a package of actions at a Clean Cooking Conference 2022. Photo: Joyce Msangi

## LONG TERM ENGAGEMENT PAYS DIVIDENDS

Efd Researcher Remidius Ruhinduka, University of Dar es Salaam, had prominent roles at the conference, as panelist and moderator.

“The reason I got to do this, is the comprehensive work on this issue that we have undertaken over the years at Efd Tanzania and with colleagues in the network,” says Remidius Ruhinduka.

“Especially the work we did for the Vice President’s Office under the leadership of January Makamba, then Minister for Environment, now Minister for Energy and responsible for the new clean energy strategy.”

The work he refers to is the Country Environmental Analysis (CEA) from 2019, which Efd Tanzania prepared together with the Government of Tanzania, the World Bank and Efd colleagues. The analysis showed key trends and highlighted strategic policy issues. One of the four pathways proposed in the report, Access to Modern Fuels and Low Impact Urbanization, helped inspire recent government action.

## EVALUATE DISTRIBUTION OF COOKSTOVES

The Efd team in Tanzania has been regularly active on the topic of clean fuels, including a recently completed evaluation study on bioethanol in cooperation with the private sector and a separate study on Liquid Petroleum Gas (LPG). Together with colleagues in the global



The health benefits of gas stoves are significant. Photo from an Efd study on the uptake of modern cooking solutions. Photo: Efd/Remidius Ruhinduka

Sustainable Energy Transitions Initiative they are currently evaluating a large-scale distribution program of improved cookstoves in Simiyu, Tanzania.

Joyce Msangi is an IGE fellow (see page 16 on capacity development) from the Ministry of Energy, the National coordinator for the Integrated Approach to Sustainable Cooking Solutions program and part of the organizing team for the National Clean Cooking Conference in November 2022.

“They (the Efd team) are sharing research findings on clean cooking from the Tanzanian context, challenges and solutions. This is key for addressing this complex question. I also think researchers have a role to play for raising awareness about health, cultural behavior and environmental costs of traditional cooking,” says Joyce Msangi. ■

# Reaching for results

## EfD's impact model

**E**FD AIMS AT CONTRIBUTING TO locally grounded, evidence-based policy-making that benefits people and the environment. We do this by conducting high-quality, policy-relevant research, training the current and next generation of decision-makers, and actively engaging with policymakers and other stakeholders.

EfD's credibility comes from research that addresses real problems that are, or should be, at the top of the policy agenda. It comes from the expertise of EfD's researchers who provide trusted advice based on their research skills and deep familiarity with the local settings. It is amplified by international connections that provide access to global experts, third-party validation, and learning opportunities.

### CREATING SYNERGIES

Policy relevance is an important selection criterion for EfD-funded research. Collaborative research themes also create synergies between research conducted in multiple countries. The EfD Policy Impact Award promotes excellence in policy impact and the special funds for cross-country policy learning create further incentives to engage with policymakers. EfD also offers opportunities to strengthen skills for policy engagement, interaction, and communication with stake-

### EFD'S IMPACT COMES IN MANY FORMS



**1. INSTRUMENTAL** – EfD contributes to actual changes in policy at international, national or local levels (see story on p 4)

or practices, how things are done, at individual, organizational or system level.

**2. CONCEPTUAL** – EfD contributes to a broader societal awareness of pressing problems and understanding of policy options (see story on p 11)

**3. CAPACITY DEVELOPMENT** – EfD enhances students' and civil servants' skills to understand and apply powerful policy instruments to key sustainability challenges (see story on p 16).

**4. ENDURING RELATIONSHIPS AND COLLABORATIONS** – EfD builds lasting relationships and trust through networking activities and partnerships with practitioners and policymakers (see story on page 20).

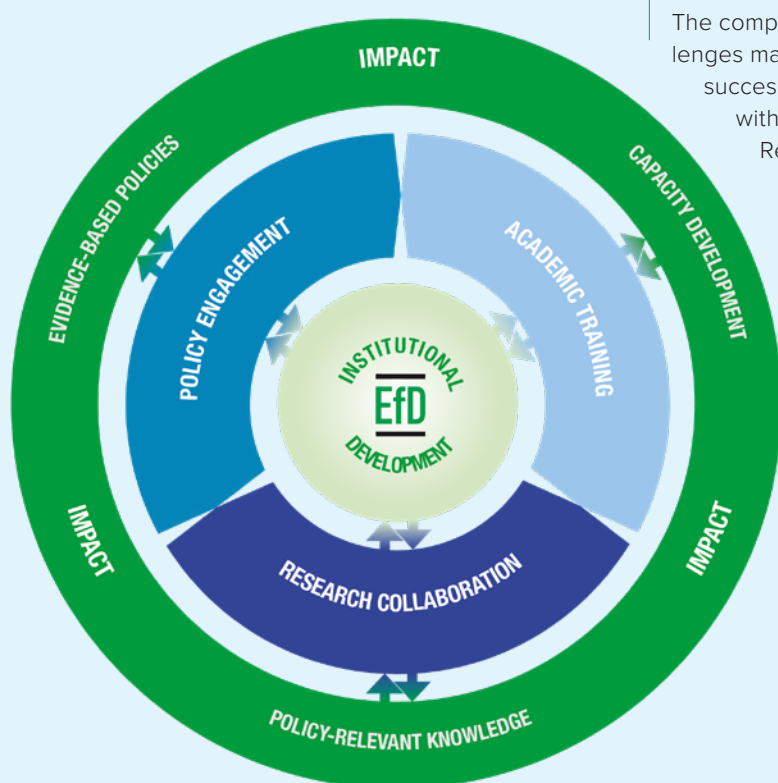
holders through training programs. The EfD webpage and social media channels are important vehicles for the network to reach out to a very broad and diverse group of stakeholders in multiple countries.

### COLLABORATIONS PROVEN EFFECTIVE

The complexity and scale of the sustainability challenges make it apparent that no one institution can successfully address them alone. Collaborations with the regional development banks, World Resources Institute, IUCN, and other organizations have proven effective in bringing EfD research into policy dialogues.

Creating impact is not a simple task, nor is it fully within our control to make it happen. Policymaking is a complex, often unpredictable process where scientific knowledge is only part of the puzzle. However, as this report shows, by developing a strong capacity and by being both opportunistic and persistent, research can play an important role and result in impact in different forms. ■

*Institutional support creates the necessary conditions for research, academic training and policy engagement. Our impact is a result of all these building blocks.*







*Photos: Samson Tarimo, Boudewijn Huysmans & David Clode (Unsplash)*

# Taking nature into **account**

How we view and value nature matters greatly for our actions. In 2021 the UN Statistical Commission approved a new framework for ecosystem accounting. EfD contributed to its development and to the promotion of its wider use. It requires more than statistical capacity and resources.

**T**HE NEW UN FRAMEWORK, System of Environmental Economic Accounting (SEEA-EA), makes it possible to measure nature's contribution to economic and social well-being and the state of ecosystems in both economic and physical terms. This can give environmental considerations a more equal standing in the decisions on investments, policies or strategies made by governments and the private sector. "The adoption of this economic and environmental framework is a historic step towards transforming the way we view and value nature," said UN Secretary General António Guterres. "No longer will we allow mindless environmental destruction to be considered as economic progress."

**"The adoption of this economic and environmental framework is a historic step towards transforming the way we view and value nature"**

The approval of the SEEA-EA was years in the making and involved a global community of statisticians, policymakers, researchers, and members of civil society. While there has been a great deal of work on valuing ecosystem services in developed countries, much less has been done in a developing country context – a particularly glaring shortcoming since the natural resource base plays such a vital role in many of these countries' economies. This is a gap that EfD has been working hard to close.

At a global level, EfD researchers and affiliated partners had an opportunity to directly inform the development of the SEEA-EA framework. Valuable lessons were learned in the Ecosystem Accounting for Development project (ESAfD) where valuation estimates for three different ecosystem services in six countries were developed. The three areas were water purification





**Above:** Jane Turpie, EFD researcher involved in accounting work in Uganda and South Africa. Photo: EFD.

**Left:** Recreation and water purification are two of many ecosystem services that forests provide. Photo: AdobeStock.

**“My experiences through training in and doing ecosystem accounting in Africa have shown me that there is tremendous interest in getting these accounts done but also a need for support in helping policy makers interpret the findings.”**

services by forests, pollination services for crops and urban green spaces.

#### **“POTENTIALLY A REVOLUTIONARY CHANGE”**

The ESAfD project was a joint effort by EFD centers in China, Costa Rica, Ethiopia, Kenya, South Africa and Tanzania, Resources for the Future (RFF), and the Swedish Environmental Protection Agency. Juha Siikamäki, now chief economist at the International Union for the Conservation of Nature, (IUCN) led the ESAfD project from RFF and was well placed to inform the SEEA-EA standard. He served as a member of the Revision Editorial Board and Technical Committee and chaired a UN working group on the topic. EFD researchers wrote a paper for this group

#### **NATURAL CAPITAL COLLABORATIVE**



The objective of this EFD program is to improve the knowledge and empirical experience of valuing ecosystem services and biodiversity, water systems, and sustainable agriculture in order to better account for and manage these services throughout the Global South.

and participated as experts in various meetings associated with the revision of the standard.

As Juha Siikamäki reflects on the EFD contribution: “Ecosystem accounting is poised to help transform how governments evaluate the role of ecosystems and nature. It’s great that EFD is part of helping move forward what is potentially a revolutionary change.”

#### **ACCOUNTING IS NOT ENOUGH**

EFD researchers in Nigeria, South Africa, Tanzania, Uganda have recently been active in accounting work, awareness raising and training of civil servants on ecosystem accounting. There are significant variations not only in the availability and accessibility of data for accounting, but also in the form that it takes – with different countries measuring things in diverse ways and at different scales. Gradually methods are becoming more standardized. Putting the framework to use, however, requires more than accounting skills, data, and time.

“My experiences through training in and doing ecosystem accounting in Africa have shown me that there is tremendous interest in getting these accounts done but also a need for support in helping policy makers interpret the findings,” says Jane Turpie, EFD researcher currently involved in accounting work in Uganda and South Africa. “We need to work on this very carefully.” ■



# The EfD framework for plastic pollution policies gained high-level attention

**E**LEVEN EFD RESEARCHERS published a report in 2020 called A framework for selecting and designing policies to reduce marine plastic pollution in developing countries.

"The report was designed with the functionality of an app in mind," explains EfD researcher Francisco Alpízar, who led the group.

"Policymakers in different countries will be able to find country-specific solutions."

The report has garnered significant attention, including citations in academic papers and policy reports from international institutions like OECD, the World Bank, and UNESCO.

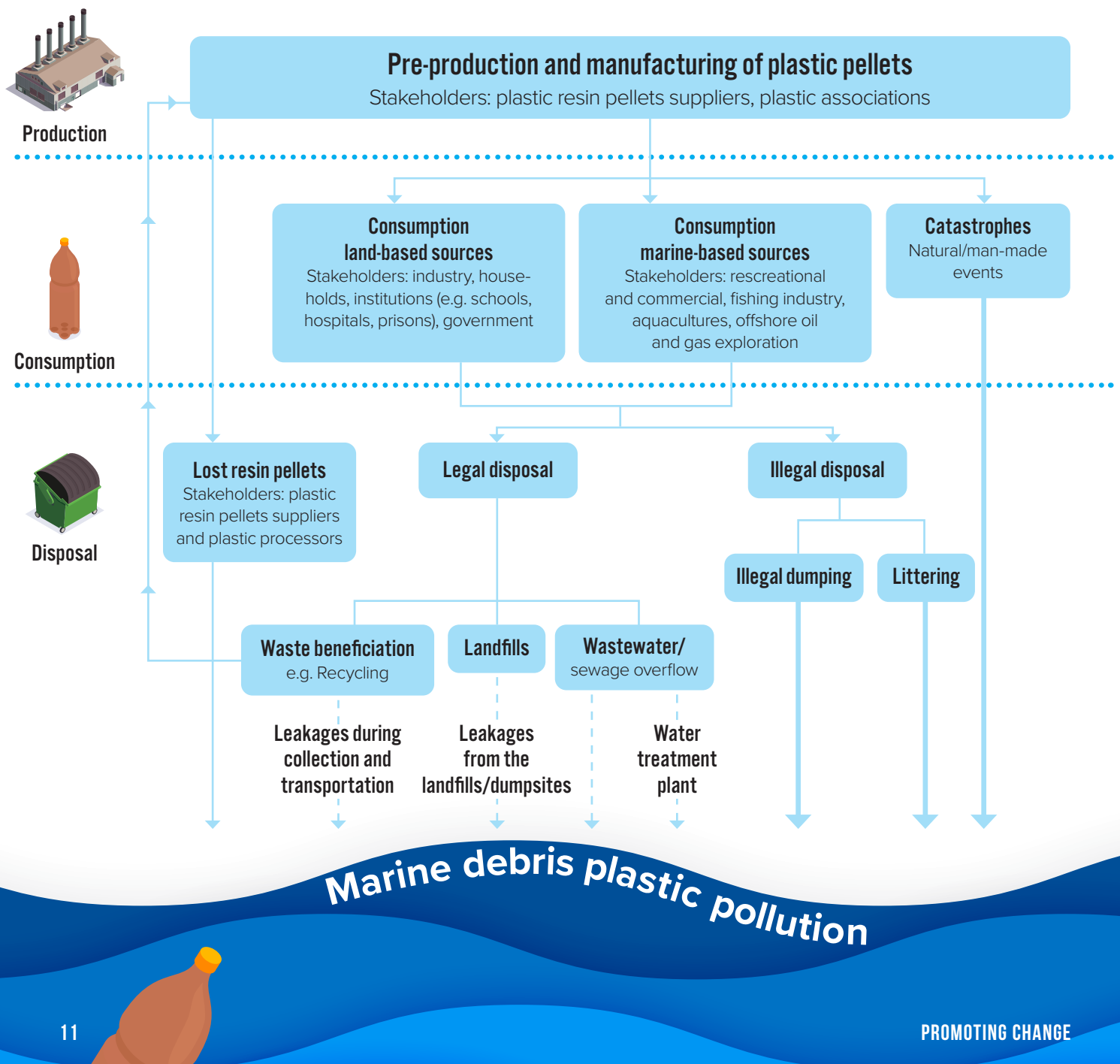
The UN decided on a binding resolution on plastic pollution in 2022. One of the authors of the framework report, EfD associate Bethanie Carney Almroth, has been involved in several steps along this process, among others leading a multi-stakeholder dialogue

that included 900 people and reporting back to the UN General Assembly.

The global dialogue on plastic pollution has broadened its scope since 2020, from mainly focusing on plastic waste in the oceans to considering the entire life cycle of plastics.

"Our framework report includes solutions for all parts of the life cycle, so it's still very relevant and will hopefully be useful when selecting policies," notes Bethanie Carney Almroth. ■

## IMPACT PATHWAY OF MARINE PLASTIC POLLUTION





About 20 percent of Ghana's labor force are active in the fisheries sector and many jobs are at risk.  
Photo: AdobeStock

# Identifying solutions to Ghana's unsustainable fishing industry

Jobs, nutrition, and the economy at large are at risk as Ghana's ocean fisheries are over-exploited. Video cameras and removal of inefficient subsidies are now broadly discussed as viable solutions to problems in the sector, partly thanks to EfD researchers.

**T**HE FISHERY SECTOR is one of the main drivers of Ghana's economy. It employs about 20 percent of the nation's labor force and generates about one billion dollars in annual revenue. But Ghana's ocean fisheries have not been managed sustainably. If current trends continue, a major ecological collapse is likely, threatening livelihoods and Ghana's economy. The major problems with the sector are over-capitalization, with too many canoes chasing too few fish near the shores, and environmentally destructive harvesting techniques, especially by large industrial trawlers fishing in the open sea.

Powerful vested interests make addressing this situation difficult. The number of small-scale artisan fishers fishing along the coast creates an attractive constituency for politicians seeking to woo public opinion. Small operators receive a generous subsidy on their purchases of fuel. And, despite rules requiring large vessels to be

licensed to Ghanaian citizens, the industrial trawlers are largely controlled by foreign interests, particularly from China, who hire a national willing to serve as the listed owner.

## REMOVE COSTLY FUEL SUBSIDIES

Even in the short-term, overfishing is harmful economically and over-capitalization of the artisan sector is a drag on the economy. According to EfD research, reducing the number of canoes from 14,700 to around 9,000 would increase the value of the catch by approximately \$100 million annually.

The situation is exacerbated by the fuel subsidy, which defrays 70% of the fuel cost for fishermen. Not only does



this subsidy encourage overfishing, but EfD researchers have estimated that it is extremely poorly targeted with less than 20 percent actually going to the fishermen. The rest is diverted and resold on the open market.

Despite regulations to monitor the activities of industrial trawlers, the enforcement and oversight has historically been lax. While there have been attempts to place observers on trawlers to monitor their practices, there have been reports of intimidation and violence, which has discouraged accurate reporting. The EfD team has proposed installing video cameras on the boats to allow for real-time monitoring. The magnitude of illegal fishing practices is so severe that installing such devices on trawlers could produce benefits that exceed the costs of enforcement by a factor of over 20.

#### MOMENTUM FOR TESTING NEW APPROACHES

A rich body of policy-relevant research by itself is not enough to create real change.

"I think that a big role for researchers," says Wisdom Akpalu, "is carrying

out the necessary research and documenting facts that we can bring to the attention of not only government decision-makers but also various stakeholders and the general public to create the awareness needed to change policies and behaviors.

"In that spirit, EfD-Ghana has coupled its research efforts with extensive outreach and engagement.

For example, the center has hosted roundtable discussions featuring Ghanaian fisheries regulations enforcement officials and other stakeholders from government, academia, and industry to discuss sustainable fisheries management. The events featured extensive discussions about the economic costs of overcapitalization, the inefficiencies associated with the fuel subsidy, and damage caused from illegal fishing equipment and techniques.

"Professor Akpalu promotes transparency and tells the truth as it is. He does not just talk but has the facts and figures to back up his arguments" says Nana Jojo Solomon. President of the Ghana National Canoe Fishermen Association.

**"Not only does this subsidy encourage overfishing, but EfD researchers have estimated that it is extremely poorly targeted"**



Photo: AdobeStock




**Above:** EfD hosted a meeting with scientific and technical committee (STC) members of the Fisheries Commission of Ghana. EfD researcher Wisdom Akpalu in yellow.  
Photo: EfD/Vicentia Quartey

**Left:** From Africa Verified's documentary about Ghana's fishing industry.  
Photo: YouTube

Public discussions have generated significant national media coverage highlighting the issues plaguing the nation's fishing sector. Among other things, this coverage resulted in an invitation from former president Jerry Rawlings, to discuss approaches to fisheries management in Ghana. More recently, Wisdom Akpalu was prominently featured in a documentary by Africa Verified, highlighting the issues facing Ghana's fisheries sector that has garnered more than 50,000 views on YouTube.

#### BLUE RESOURCES FOR DEVELOPMENT

 The main objective of this EfD program is to contribute to increased knowledge regarding the development of sustainable capture fisheries, aquaculture, and marine spatial planning, and their links to blue growth, food security, and poverty alleviation.

The mix of research and engagement is having results. After years of discussions, the Ministry of Fisheries and Aquaculture Development decided to test the monitoring of trawler activities via onboard video devices. Wisdom Akpalu now serves as vice chair of the Scientific and Technical Committee of the Fisheries Commission and is a member of the Technical Advisory Board of Marine Stewardship Council. Dr Akpalu's work on fisheries policies was runner up in the EfD impact award 2022. ■

## EFD CREATES SPACE FOR SOUTH-SOUTH COLLABORATION

**EFD RESEARCHERS IN GHANA, CHILE, SWEDEN, AND VIETNAM** have spent much of their careers studying fisheries and aquaculture. When it comes to aquaculture, Vietnam and Chile are global players. In Chile, the value of farmed fish and other types of aquacultures is much larger than the value of the capture of wild resources. Researchers from the two countries are working together to study the environmental impacts of aquaculture farms and its impacts on productivity, local livelihoods, and people's health.

"The EfD-network connects people from the Global South to boost knowledge exchange in a way that it is hard for people from the Global North to imagine," says

**Jorge Dresdner** (pictured left), EfD Chile. "Typically, academic exchange in the Global South is bilateral and North-South. So, if it was not for the EfD initiative, we in Chile, would probably never have interacted with Vietnam and Ghana."



## SYSTEMATIC POLICY ENGAGEMENT AWARDED

**THE EFD CHILE TEAM** was runner up in the EfD Impact Award in 2022 for their systematic interaction with stakeholders in the fisheries sector, evaluations of fisheries policy and input to policy processes. Jorge Dresdner is involved in drafting a new General Law on Fisheries and Aquaculture as an advisor to

the Ministry of Economy. He wants to improve how fishery quotas are allocated.

"The allocation should be efficient, fair and contribute to the welfare of the country. I still think we have a long way to go," says Jorge Dresdner.





# Training this and **the next generation of leaders**

**P**EOPLE'S CAREERS are impossible to predict. A key role for universities is to equip students, including Ph.D. students, with an excellent learning environment. The EfD network's support for academic training and training of civil servants is illustrated throughout this report. Sometimes former students and researchers move into formal or informal positions with high decision-making power.

## STAYING CONNECTED

Two former EfD researchers demonstrate this very well: Claudine Uwera and Adolf Mkenda. Claudine Uwera serves as Minister of State in charge of Economic Planning in Rwanda, and Adolf Mkenda serves as the Minister of Education, Science, and Technology in Tanzania. They both received their Ph.D. at the University of Gothenburg and remain in contact with the EfD network. While EfD celebrates their success, EfD researchers are busy training the next generation of leaders in government, business, civil society, or academia. ■



*Claudine Uwera, Minister of State in charge of Economic Planning in Rwanda and Adolf Mkenda, Minister of Education, Science and Technology both have frequent contacts with researchers in the EfD network.*

**“Sometimes former students and researchers move into formal or informal positions with high decision-making power.”**



Participants at Peer Learning  
IGE workshop in Rwanda,  
November 2022.  
Photo: EfD/Anders Ekblom

# Knowledge exchange for an **Inclusive Green Economy**

The Inclusive Green Economy in Practice (IGE) program is a capacity development program for civil servants in Eastern Africa that strengthens national knowledge on approaches to achieve an inclusive green economy. One of the most important impacts is the creation of networks for exchange of knowledge and experiences.

**T**HE IGE PROGRAM focuses on economic policy instruments while considering the social aspects of policy implementation, for instance, how households and businesses are affected and their willingness to accept reforms. To build capacity for an inclusive green economy it combines training sessions, workshops, peer learning, practical work, and networking. In addition, training-of-trainer sessions help the participants, IGE Fellows, cascade their knowledge to their colleagues.

## PUTTING KNOWLEDGE TO USE

The program has already gained visible results. For example, the National Development Plan 2023-27 for Kenya includes contributions by IGE Fellows. Also, the new policy that exempts electric vehicles from tax in Ethiopia was to a great extent developed by an IGE Fellow.

After a successful 2-year pilot in 2020-2021 in which 50 senior civil servants in Ethiopia, Kenya, Rwanda, Tanzania, and Uganda participated, this Sida-funded program has now been expanded and extended for at least five years.

"This means that we can level up our efforts, strengthen the collaboration with the organizations we work with, and promote long-term impacts," says Anders Ekblom, Program leader. ■

**"We can level up our efforts, strengthen the collaboration with the organizations we work with."**

## VOICES FROM THE PROGRAM

"This was the most practical program I have ever attended. We need more capacity on IGE so I hope a lot more people will get the opportunity to attend this program."



**Ann Mwangi**, Chief Economist  
at Kenya's State Department for  
Planning.

"It's a very good program! It provides a platform for us to share experiences on a regional level. It's also very valuable to have experts explain specific policy instruments."



**June Nyakahuma**, Economist at the  
Ministry of Finance, Uganda.



# SOME OF THE QUESTIONS WE ARE SEEKING ANSWERS TO

**WANT TO  
LEARN MORE?**

CHECK OUT THE EFD WEBSITE!



**HOW CAN POLICY DESIGN INCREASE  
PUBLIC ACCEPTANCE FOR A GREEN  
TRANSITION?**

**HOW CAN POVERTY AND GENDER CONCERNS  
BE INTEGRATED IN MARINE SPATIAL  
PLANNING?**

**CAN INSURANCES REDUCE THE RISK OF  
CLIMATE RELATED CONFLICTS?**

**WHAT LESSONS FOR URBAN WATER POLICY  
CAN WE LEARN FROM THE CAPE TOWN  
WATER CRISIS?**

**HOW CAN WE ENHANCE THE CONTRIBUTION  
OF SEAFOOD TO NUTRITIONAL SECURITY IN  
THE GLOBAL SOUTH?**

**WHAT ARE THE MOST COST-EFFECTIVE  
POLICIES TO REDUCE URBAN AIR-  
POLLUTION?**

**WHAT ARE THE BARRIERS TO OFF-GRID  
ENERGY DEVELOPMENT IN EAST AFRICA?**

**TO WHAT EXTENT CAN DIFFERENCES IN  
RISK AND NEGOTIATION BEHAVIOR EXPLAIN  
THE GENDER WAGE GAP?**

## INTERVIEW

**MARTINE VISSER** is the center director for the EfD team at the University of Cape Town, member of the EfD Advisory Board and EfD Coordination Committee. She specializes in behavioral economics and has studied how nudges by energy and water utilities can influence consumption. Nudging is a concept in psychology and economics that refers to the use of subtle prompts to influence behaviors.

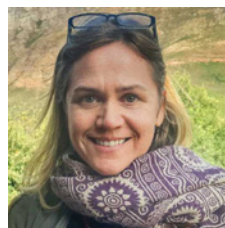
### **What kind of information can shift behaviors?**

Clear and transparent information that highlights people's own consumption, compares it to that of their neighbors and recognizing their good efforts in public forums are all excellent ways of changing behavior.

### **Are energy and water utilities in emerging economies making use of the research in this field?**

There is increasing interest in behavioral economic insights as a supplementary tool, but few have trialed these methods. Often there is a lack of capacity and skill within local govern-

ments. I believe there is a lot of scope to use training programs and workshops to make policy makers more aware of this type of work and give them the know-how to implement it.



### **The Cape Town water crisis in 2016-2018 received global attention, did you see any impacts of your work?**

Our study to nudge households to conserve water at the early stages of the drought, instigated a novel intervention at the height of the drought.

We had seen that social comparisons and social recognition were effective in getting households to conserve water. We worked with the City of Cape Town to design a live water map that indicated whether households were compliant with water saving targets, using a color system. The map was updated monthly and available online to communicate with households. ■

**“There is increasing interest in behavioral economic insights as a supplementary tool, but few have trialed these methods.”**



**JACKSON OTIENO** works as a Water Economist for the Athi Water Works Development Agency, an agency responsible for water and sewage infrastructure for about ten million Kenyans. He is also an EfD research associate.

**Why do you collaborate with EfD?**

I was introduced to EfD as a junior researcher in Cape Town. Back in Kenya I have seen the benefits of collaborating with academic researchers to access their methods and analytical knowledge.

**How are you making use of the research findings?**

Investing in infrastructure is costly, we need to get our decisions right. Data generated in our collaboration with local and international EfD researchers feeds into decisions on policies and investments.

**“I have seen the benefit of collaborating with academic researchers to access their methods and analytic knowledge.”**

**Could you give one example of a change of policy or practice at Athi?**

We reformed our tariff system following a study that showed potential for more targeted subsidies. Removing the subsidy from those who use more than six cubic meters allows us to recover costs and increase coverage of unconnected groups, such as poor households. I'm also happy to note that colleagues working for utility companies have joined the research team, this is a new and positive development.

**What research question do you want to explore next?**

Previous attempts to improve water access for pastoralist communities have failed. We want to explore how to do it right. ■



**EDWARD BBAALE** is the center director for the EfD team in Uganda where sustainable and equitable management of forests is a prioritized research area.

**What led you to organize a policy workshop on forests in November 2022?**

This time, we wanted to meet with local stakeholders, municipalities, civil society, the private sector, and the environmental police. Policy workshops can inform and ground our work. The aim was to discuss and learn why forests and resources are degraded, despite Uganda having policies and agencies for a sustainable management of natural resources in place.

**What did you learn?**

The meeting confirmed that local actors want to have more say on how natural resources, forests, swamps, etcetera are managed. Awareness of rules and regulations is weak, and many stakeholders are blaming government departments for bypassing legislation, which could border to corruption.

**Under what conditions do local actors manage forests better?**

According to the literature, communities and local actors tend to manage their resources better, if they are empowered and sensitized, for instance they have the knowledge and can control the resource. I think policies should start from a bottom-up approach, with participatory planning. This will be very important when forests increasingly are used to store carbon.

**THE EFD FOREST COLLABORATIVE**



...is a community of practice that aims to generate new knowledge on forests in the global south that can be used to guide conservation, restoration and management.

**How is the EfD team in Uganda contributing to improved forest policies?**

First, through our research efforts. For example, we are currently looking at governance aspects and evaluating how livelihoods are impacted through a project that is converting degraded

lands into forests. Second, through continued engagement, we have decided to meet policymakers in smaller groups than the workshop settings we have tried in the past. By this, we hope to target stakeholders that are change drivers, that is senior civil servants and policymakers. ■



# What we need to know for a **low-carbon transition** in the Global South

What knowledge gaps need to be filled? How can academia best provide help and evidence for the policies needed for the transition? These are questions that Canada's International Development Research Centre (IDRC) wanted answers to and commissioned EfD with partners to establish a research agenda.

**T**HE EFFECTS OF climate change strike hard on the Global South. The transition to a low-carbon economy is urgent, politically challenging and knowledge intensive. This project, *Inclusive Green Transition for Sustainable Development in the Global South: Development of an Actionable Research Agenda*, had a budget of 1.2 million Canadian dollars. According to Bhim Adhikari, Senior Program Specialist at IDRC, it is unique in its scope.

## Why did you choose EfD for this task?

"There are many reasons! EfD is an impressive global capacity-building network with a strong foothold in the Global South. You have also been

**"EfD is an impressive global capacity-building network with a strong foothold in the Global South. You have also been around for a long time, and we have had good experiences working with EfD."**



Bhim Adhikari, Senior Program Specialist at IDRC. Photo: EfD/Petra Hansson

# 60

**MORE THAN 60 RESEARCHERS** from six EfD centers, Duke University, the International Institute for Environment and Development, Mercator Research Institute on Global Commons and Climate Change and the World Resources Institute worked on the project. It was coordinated by the EfD Global Hub, launched in 2021 and following validation workshops with policymakers on three continents, finalized in the Spring of 2023. Check out the project [website](#).



Validation workshop in Cartagena with Colombian national institutions, other stakeholders and the EfD led consortium.

around for a long time, and we have had good experiences working with EfD. You have many quality researchers, many of them trained at the University of Gothenburg which is one of the prime academic institutions in environmental economics. You have a lot of experience in research-to-policy interaction. EfD's collaborative programs are very relevant to us. For this project, you brought in WRI, IIED, and other experts to the team. The fact that this project is very 'south-driven' was also important, as well as the strong gender perspective in your overall research design." ■



*This woman took a loan to farm onions. In Ethiopia, women make up about 40% of the agriculture labor force. Climate smart agricultural practices will become even more important in coming years.*

*Photo: Gizaw Denboba*

## Better tracking systems for Ethiopia's key plans

While baselines and indicators may sound boring, they are essential for tracking progress. In Ethiopia, the EfD team led a process for indicator development that fed into the Nationally Determined Contribution (NDC) and the 10-year development plan.

**E**THIOPIA LAUNCHED an ambitious Climate Resilient Green Economy (CRGE) strategy in 2011. The overall vision of the strategy is the daunting task of sustaining fast economic growth while increasing resilience to climate change and keeping emissions low. Nine years into the strategy, the CRGE facility, tasked with monitoring of strategy implementation, saw the need for a more robust tracking system. They called on the EfD team in Ethiopia to take the lead on developing a Monitoring and Evaluation system. The request made sense because EfD had been engaged extensively in the CRGE process with policy-oriented research, impact evaluations and knowledge exchange.

**“I think our biggest contribution was the development of climate resilience indicators and baseline data.”**

### CLOSING GAPS ON CLIMATE RESILIENCE

The effort, which was to be carried out in close collaboration with line ministries, also included capacity development, IT infrastructure and more.

“I think our biggest contribution was the development of climate resilience indicators and baseline data,” says Mintewab Bezabih Ayele who coordinated and led the work that involved nine ministries and five Ethiopian researchers from the center.

She notes that while well-established indicators for emission reduction are largely generic, good, contextualized indicators for resilience and adaptation in Ethiopia were missing. Smallholder farmers represent about 85% of employment, and Ethiopia is highly dependent on rain-fed agriculture and natural resources. The team came up with new indicators to track food security, climate-smart agricultural



practices, health, etc. and contributed with baseline data from both new studies and existing sources.

The process of developing new indicators had a significant capacity-building element as well. Many ministries had not been involved in deeper analysis of how to mainstream and track environment and climate resilience in their work before.

“The collective learning process was perhaps as important as the final selection of indicators in our project,” says Mintewab Bezabih Ayele.

### UPTAKE WITH CONSTRAINTS

During the final project workshop, the Planning and Development Commission asked the nine participating ministries to officially endorse the indicators as input to the Ten-Year Plan to be concluded by October 2020. In this respect, the process contributed to greater alignment around indicators, although not all the suggestions were included. After intense consultations with line ministries, research, data collection and training of statisticians the proposed M&E framework was completed in 2021.

**“The collective learning process was perhaps as important as the final selection of indicators in our project.”**



**Above:** Mintewab Bezabih Ayele, who coordinated and led the work that involved nine ministries and five Ethiopian researchers from the centre.

**Below:** The handover event of the indicator assessment and the IT database which was attended by Sida's head of cooperation in Ethiopia, the then Environment, Forest and Climate Change Commission (EFCC) Commissioner, the Policy Studies Institute executive director, and the ECRC and EFFCC colleagues who were involved in the project. April 2021.

“We took most of the baselines and indicators generated in this process into the NDC (Nationally Determined Contribution),” says Bemnet Teshome, project manager at the Environmental Protection Authority. He was both involved in the development of the Monitoring and Evaluation system and the revision of the NDC in 2021. NDCs are pledges that countries make to reduce their greenhouse gas emissions and adapt to the impacts of climate change.

Access to good data for tracking progress remains a challenge for Ethiopia, and new efforts are made to address resource constraints.

“We have a robust, comprehensive monitoring system that is integrated in both the 10-year development plan and the NDC, but we have not yet reached the final goal of this being fully operational,” says Bemnet Teshome. ■



# EfD in figures

PEER REVIEWED ARTICLES  
2018–2022:

897

NUMBER OF  
EfD CENTERS:

13

NUMBER OF  
EfD RESEARCHERS:

224

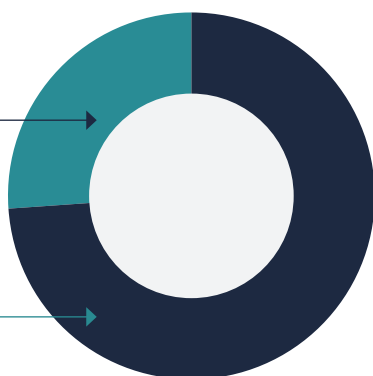
NUMBER OF  
EfD PARTNERS:

7

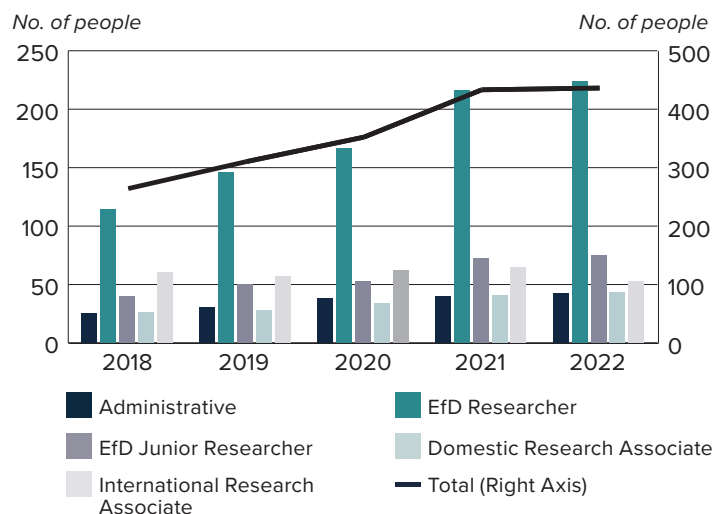
GENDER BALANCE EfD RESEARCHERS:

26%  
WOMEN

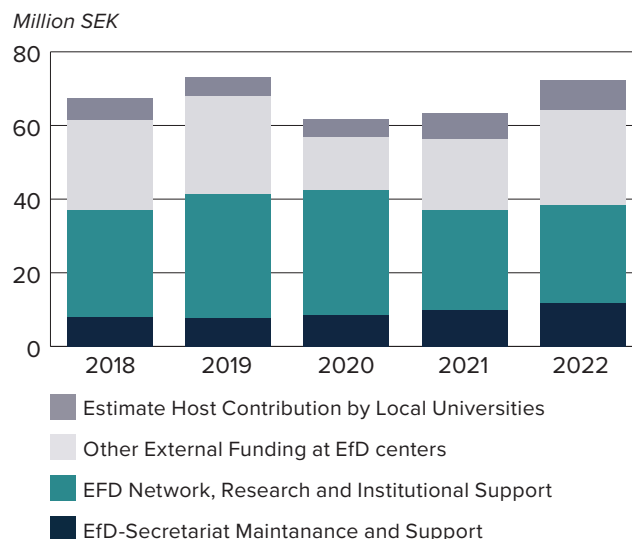
74%  
MEN



RESEARCHERS AT EfD CENTERS



EFD FUNDING FROM CENTERS AND SIDA CORE PROGRAM FUNDING



## TIMELINE

WHEN CENTERS JOINED



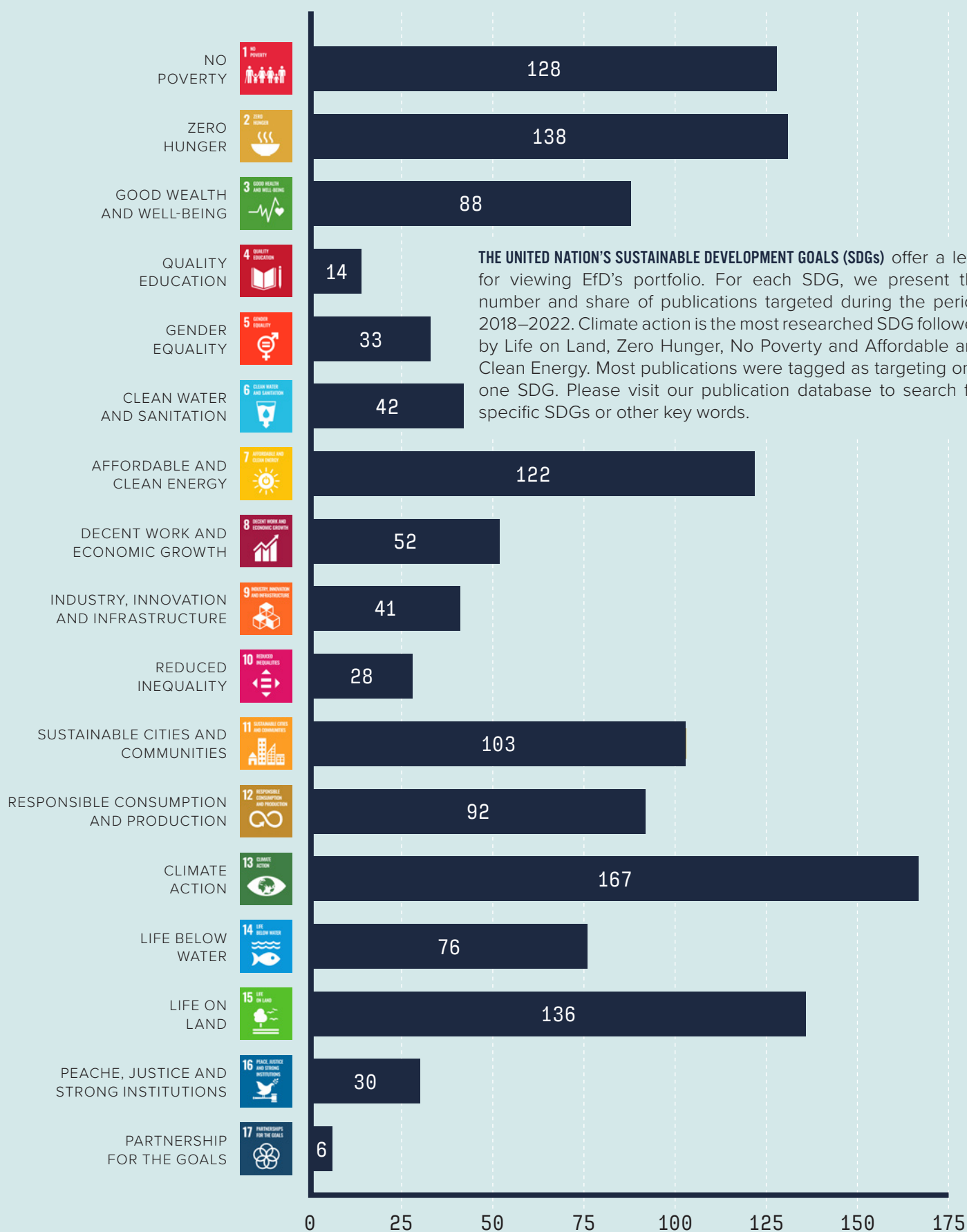


# EfD Research and the SDGs 2018–2022

Total sum of Peer Reviewed Articles: **897**

Total sum of EfD Discussion Papers: **110**

Total sum of Book Chapters: **39**



## EfD CENTERS

**EfD Central America** is hosted by the Tropical Agricultural Research and Higher Education Center (CATIE), located in Turrialba, Costa Rica and operates under the Spanish name Unidad Ambiente para el Desarrollo.

[Website](#)

**EfD Chile**, the Research Nucleus in Environmental and Natural Resource Economics (NENRE) is host-ed by the University of Concepción, Concepción, Chile.

[Website](#)

**EfD China**, the Environmental Economics Program in China (EEPC) is hosted by the research center China Centre for Environmental and Energy Economics (C2E3), affiliated with the National School of Development, Peking University, Beijing, China.

[Website](#)

**EfD Colombia**, the Research Group on Environmental, Natural Resource, and Applied Economics Studies (REES) is hosted by CEDE (Center for Economic Development Studies) at the Department of Economics, Universidad de Los Andes, Bogotá, Colombia.

[Website](#)

**EfD Ethiopia**, the Environment and Climate Research Centre (ECRC) is hosted by the Policy Studies Institute, Addis Ababa, Ethiopia.

[Website](#)

**EfD Ghana**, the Environment and Natural Resource Research Initiative (ENRRI) is hosted by the Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana (UG), Accra, Ghana, with the collaboration of the School of Research and Graduate Studies (SRGS) at the Ghana Institute of Management and Public Administration (GIMPA).

[Website](#)

**EfD India**, is hosted by the Center for research on the Economics of Climate, Food, Energy and Environment (CECFEE) located in Indian Statistical Institute, Delhi, India.

[Website](#)

**EfD Kenya** is hosted by the Department of Economics and Development at the University of Nairobi, Nairobi, Kenya.

[Website](#)

**EfD Nigeria**, the Resource and Environmental Policy Research Center (REPRC), is hosted by the University of Nigeria, Nsukka, Nigeria.

[Website](#)

**EfD South Africa**, the Environmental Economics Policy Research Unit (EPRU), is hosted by the School of Economics, University of Cape Town, Cape Town, South Africa.

[Website](#)

**EfD Tanzania** (EfDT) is hosted by the School of Economics, University of Dar es Salaam, Dar es Salaam, Tanzania.

[Website](#)

**EfD Uganda**, the EfD-Mak Centre is hosted by Makerere University, Kampala, Uganda, and managed by the College of Business and Management Sciences (CoBAMS) and the College of Agricultural and Environmental Sciences (CAES).

[Website](#)

**EfD Vietnam**, the Economy & Environment Partnership for Southeast Asia (EEPSEA), is hosted by the University of Economics Ho Chi Minh City, Ho Chi Minh City, Vietnam.

[Website](#)

## PARTNERS

EfD partners are institutions that work with EfD at the institutional level typically involving several researchers and types of interactions with the network. Examples of activities include co-leading or participating in collaborative research programs, developing larger proposals for research, and contributing to academic training or policy engagement.

**Duke University**, Sanford School of Public Policy, Durham, USA

[Website](#)

**Mercator Research Institute on Global Commons and Climate Change** (MCC), Berlin, Germany

[Website](#)

**Portland State University**, Institute for Economics and the Environment (IEE), Portland, USA

[Website](#)

**Resources for the Future** (RFF)

[Website](#)

**The Toulouse School of Economics** (TSE), Environmental and natural resource economics group and the TSE Energy & Climate Center.

[Website](#)

**University of Gothenburg**, Environmental Economics Unit, School of Business, Economics and Law, University of Gothenburg

[Website](#)

**Wageningen University and Research**, Environmental Economics and Natural Resources Group, Wageningen, The Netherlands

[Website](#)



EfD Global Hub is a special unit at the School of Business, Economics and Law, University of Gothenburg, in Sweden.



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