

## EfD Policy Day October 2, 2024 – Concept Note

### ***Policy Instruments for a Just and Inclusive Transition in the Energy, Transport and Industrial Sectors in East Africa***

#### **Introduction**

The Environment for Development (EfD) Policy Day aims to foster knowledge exchange and dialogue among policymakers, researchers, and experts on strategies for achieving a sustainable and equitable green transition in the energy, transport and industry sectors in East Africa. This concept note provides essential information to help participants prepare for the group discussions. Each group will have 1 hour and 45 minutes to delve into key issues, share experiences of successful and failed policies, and develop actionable recommendations. The focus areas for discussion are Energy Access and Equity, Sustainable Transport Systems, and Energy Efficiency in Industry and Manufacturing.

#### **Theme 1: Energy Access and Equity**

**Background** East Africa faces the dual challenge of increasing access to clean, affordable energy while reducing reliance on dirty fuels. This mainly happens in rural and low-income communities that often lack access to modern energy services. The dirty fuels include firewood, charcoal, animal waste and fossil fuels among others. Depending on such fuels has negative implications on health, environment and other social outcomes such as time poverty, insecurity and schooling. Indoor air pollution (IAP) is responsible for respiratory diseases such as chronic obstructive pulmonary disease (COPD), asthma, lung cancer, acute respiratory infections (ARIs), and pneumonia, and can lead to premature deaths. This is more so in women and children who spend a significant amount of time cooking. Data from the World Health Organization (WHO) indicates that about 3.2 million deaths per year including more than 237000 deaths of children below 5 years in 2020 resulted from IAP. Carbon emissions from dirty fuels and deforestation are responsible for environmental degradation and climate change. Women and children are the main family members responsible for collecting fuel, especially cooking fuels, and are often faced with insecurity challenges when collecting fuel, particularly from long distances. They also spend a significant amount of time collecting fuel, reducing the time available for productive activities for women and schooling for children. An inclusive approach that integrates gender perspectives is essential to ensure that energy policies are equitable and effective.

Participants will discuss successful and failed policies, focusing on the development and financing of renewable energy infrastructure, policy frameworks supporting equitable energy distribution, and the role of women in the energy sector. The goal is to identify best practices and propose solutions that address the socio-economic barriers to clean energy access.

#### **Key Discussion Questions:**

- What are the most effective strategies for increasing access to affordable, clean energy in underserved communities, and how can these be scaled up?
- How can policy and regulatory frameworks be improved to support equitable energy distribution, particularly in rural and low-income areas?

- What role can women play in enhancing energy access solutions, and how can gender inclusivity be prioritized in policy development?

## Theme 2: Sustainable and Inclusive Transport Systems

**Background** Rapid urbanization and economic growth in East Africa necessitate the development of sustainable transport systems to reduce air pollution and carbon emissions and improve urban mobility. The majority of the carbon emissions in the energy sector come from fossil fuels including oil used for powering transport systems. The latest data from the International Energy Agency (IEA) shows that the transport sector contributed about 21.6% of the total carbon emissions in Africa in 2021. The heavy reliance on small-capacity transport systems such as minibuses and cars pose a challenge to mobility and heavy congestion in urban areas. Nairobi, for example, is among the most congested cities in the world with an average commuting time of 53 minutes based on the global traffic index. This calls for actions to address fuel dependency in the transport system. Adoption of massive public transport systems could also go a long way in reducing carbon emissions and addressing issues of mobility in urban areas. The proposed public transport systems must be inclusive and accessible to all demographics. Innovation and investment in green transport technologies are critical to achieving these goals.

Participants will share insights and experiences of successful and failed policies related to green transport initiatives, public transport inclusivity, and investment in sustainable transport infrastructure. The discussion will aim to identify effective strategies and propose actionable recommendations for sustainable transport development.

### Key Discussion Questions:

- What are the key lessons from successful and failed green transport initiatives, and how can they inform future policy development?
- How can public transport systems be made more just and inclusive?
- What role should public and private investment play in fostering innovation and developing sustainable transport infrastructure?

## Theme 3: Energy Efficiency in the Industrial Sector

**Background** Improving energy efficiency in the industrial sector is crucial for reducing operational costs and environmental impacts. The industrial sector is one of the heavily energy-consuming sectors and mainly uses energy for production, cooling, heating, and distribution of products. Recent data from the International Energy Agency (IEA) shows that the industrial sector consumes about 14.7% of Africa's total final energy consumption. This makes it third in energy consumption after the residential sector at 54.9% and the transport sector at 19.9%. The heavy reliance on energy, especially fossil fuels, by this sector, makes it to be a major contributor to carbon emissions in the region. Data from the IEA shows that the sector contributed an average of 9.6% of the total carbon emissions in Africa in 2021. This was third after the electricity and heat producers at 55.9% and the transport sector at 21.6%. Energy efficiency is one of the key ways to addressing energy issues in the industrial sector. By being energy efficient, it implies that the sector could continue producing the same amount of output by using lesser amounts of energy or produce more output by using the same amount of energy.

Technological advancements, capacity building and policy incentives are thus key to the successful adoption of energy-efficient practices. These practices are not only important in reducing operational costs and environmental degradation but could also go a long way in creating jobs in handling new energy-efficient technologies. The industrial sector should ensure that these opportunities are widely shared with all sections of the population including marginalized groups and groups impacted by the adoption of energy-efficient technologies.

Participants will discuss experiences with policies that have been successful or unsuccessful in promoting energy efficiency, focusing on technological advancements, policy incentives, implications for other outcomes (particularly employment and firm productivity), and best practices. The goal is to identify and recommend effective approaches to enhance energy efficiency in these sectors.

#### **Key Discussion Questions:**

- What technological advancements have proven most effective in improving energy efficiency in industry and manufacturing, and how can they be widely adopted?
- Which policy incentives have successfully encouraged industries to adopt energy-efficient practices, and what lessons can be learned from them?
- How inclusive are energy efficiency improvements, both in terms of the types of industries that are able to implement them, and in terms of their implications for workers?
- What are the best practices for implementing energy efficiency measures in industrial and manufacturing settings, and how can they be scaled?

#### **About Environment for Development (EfD):**

Environment for Development (EfD) is an international initiative focusing on the application of environmental economics in the Global South. The overall objective of EfD is to support poverty alleviation and sustainable development in the Global South through academic programs, research, and policy interaction. EfD is committed to integrating environmental economics into policy-making processes to support sustainable development and poverty reduction. One of our initiatives is the Inclusive Green Economy in Action program for civil servants in East Africa on economic policy instruments for achieving a just green transition. EfD is generously supported by the Swedish International Development Cooperation Agency (Sida). Learn more about our work at [www.efdinitiative.org](http://www.efdinitiative.org).