



ECOWAS SUSTAINABLE ENERGY FORUM ESEF 2024

Towards a Just Energy Transition in the ECOWAS Region

Importance of Standards for Bioethanol Clean Cooking

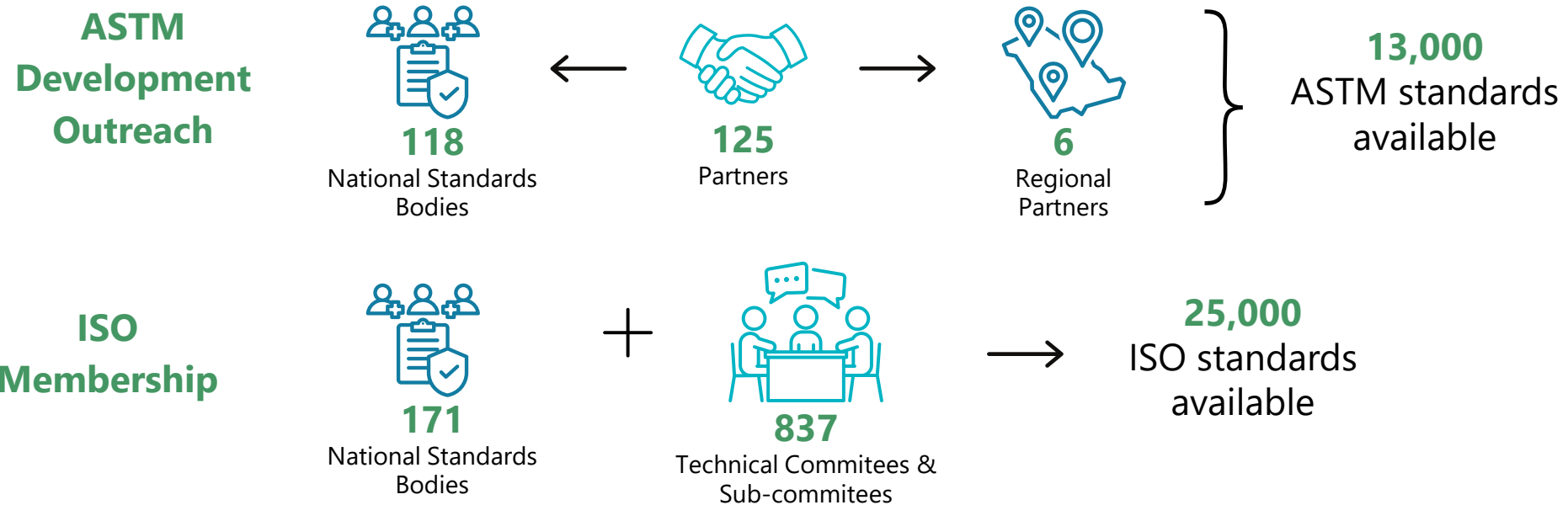
Exhibition Centre - Abidjan, Côte d'Ivoire
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www.ecreee.org



STANDARDS LANDSCAPE

- Standards are used everywhere in our daily lives; they are **a set of established requirements, specifications, guidelines or characteristics that provide a common language** to ensure that materials, products, processes and services are fit for purpose



- Both ASTM and ISO are compliant with the World Trade Organization (WTO) Technical Barriers to Trade (TBT) Committee Decision on the Development of International Standards, Guides and Recommendations**



BIOETHANOL STANDARDS

CRITICAL STANDARDS

Denatured Ethanol for Use as a Cooking and Appliance Fuel (ASTM E3050-22)	Enabling recognition of ethanol as a cooking fuel (vs. drinkable alcohol) and providing specifications for blending the fuel (e.g., dye addition, water content) is critical to providing an adequate fiscal environment to enable ethanol for cooking.
Test protocols for institutional cookstoves (ISO 5714:2023)	Provide testing methods to evaluate institutional cookstoves' energy performance, emissions, safety, and durability for high-quality institutional cookstoves.
Field testing methods for cookstoves (ISO 19869:2019)	Provide field testing methods to evaluate cooking system performance in real-world conditions (guidance for measurements of household air pollution and personal exposure to PM2.5 and CO) to ensure consumer safety and quality
Harmonized Laboratory Test Protocols (ISO 19867-1:2018)	Provides standard test protocols to establish international comparability in the measurement of cookstove emissions and performance, safety and durability, ensuring that modern and efficient ethanol cookstoves are offered to consumers.

IMPORTANCE OF HARMONIZATION

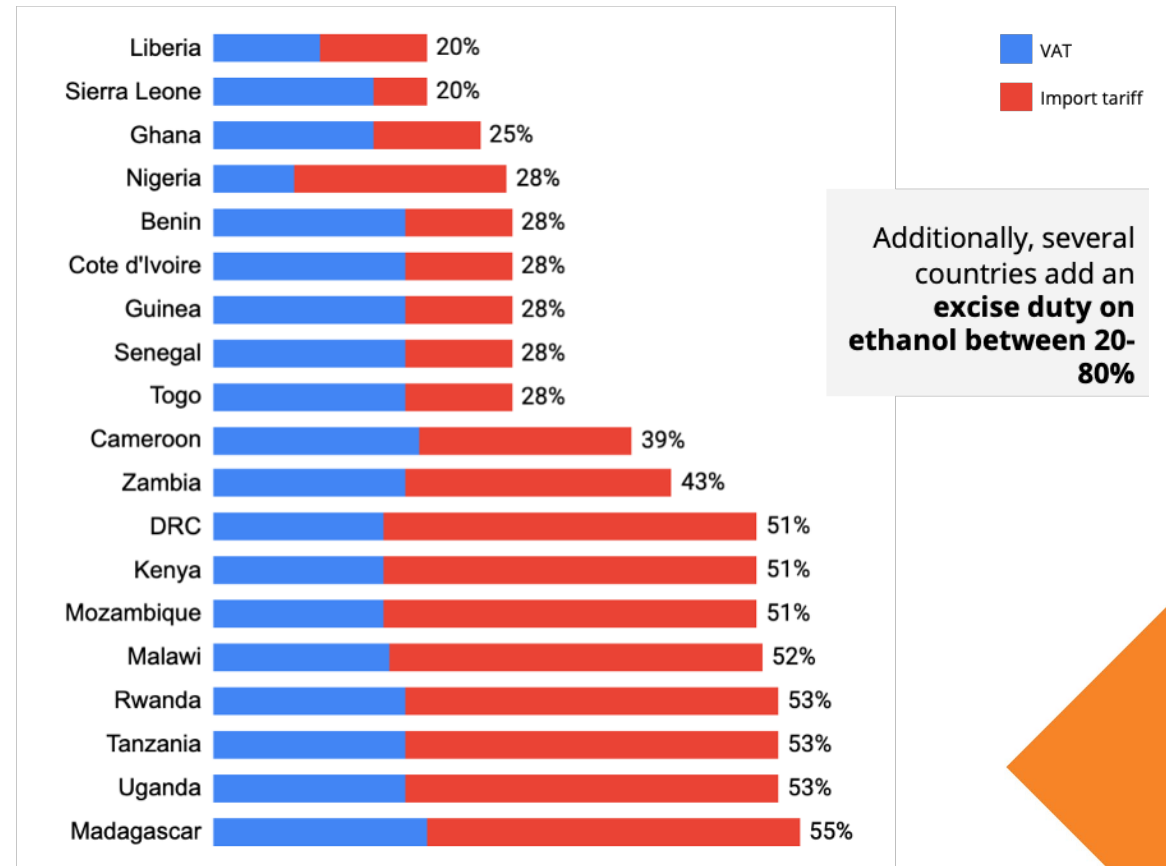
- Prioritizes consumer safety throughout the ethanol cooking supply chain
- Promotes international trade by reducing potential barriers to market entry
- Boosts consumer confidence in products/services across regions by ensuring consistent and quality products in the market
- Provides the regulatory framework to enable private investments
- Makes it easier for local, national and global commerce to conform to applicable standards
- Allows for streamlined supply chains and operations, which enhance a nation's energy sector competitiveness globally



POLICY ENVIRONMENT

- Policy environment for bioethanol in its infancy and needs active participants from government and private sector in order to expand industry opportunities
- Fiscal policy needs to evolve for bioethanol which face tariffs of often 20-55% compared to the rest of the modern fuels
- Most African countries have not yet developed and adopted standards and regulations for ethanol cooking

Bioethanol still face substantial import tariffs, VAT and excise duty



Additionally, several countries add an **excise duty on ethanol between 20-80%**

Duty and tax burden on imported denatured Bio-ethanol
Subset of 19 SSA nations, reflecting duties + taxes, %
Source: KOKO Networks review of National Policy, January 2024



DEVELOPMENT PROCESS



STAKEHOLDER DIALOGUE

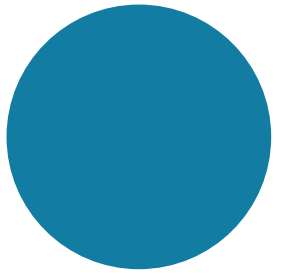
- **Physical forum for multi-stakeholder dialogue** to build capacity, develop relationships, and support engagement around biofuels
- Foster an enabling environment through **standards and policy dialogue and adoption**
- **Implement** applicable regulations, and determine support and resources needed to develop bioethanol markets

OUTCOMES

- **GOVERNMENTS AND NSB'S EQUIPPED TO DEVELOP BIOFUELS POLICY, REGULATION, AND PRICING STRATEGIES**
- Local **private sector informed** on market opportunities and international partners
- **Agricultural expansion and green job** creation opportunities (pilots or feasibility studies)
- **Internationally recognized standards** ensure quality control and improved trade opportunities
- **Broadened networks** allow for continued knowledge exchange, access to resources, and future market participation
- Partnering for **market building opportunities** through programs such as USDA, USGC, UNIDO



REGIONAL EXAMPLES



Kenya

- KEBS ADOPTION OF STANDARD WITH NORMATIVE REFERENCES TO ASTM E3050-16



Tanzania

- TBS adoption of standard with normative references to ASTM E3050-16
- Adoption of ASTM E3050-22 in process



Uganda

- ADOPTION OF ASTM E3050-16
- Adoption of ASTM E3050-22 in process



Mozambique

- ADOPTION OF ASTM E3050-22
- Adoption of 5 additional ASTM bioethanol blending standards in progress



Rwanda

- ADOPTION OF ASTM E3050-22
- RSB standard adopted for ethanol fueled cooking appliances



ARSO

NEW WORK ITEM PROPOSAL ACCEPTED FOR ADOPTION OF ASTM E3050

ECREEE

MOU WITH PIVOT; ESTABLISHED ON THEIR THC5 SECRETARIAT COMMITTEE AS AN EXPERT CONTRIBUTOR



MOVING FORWARD

Accelerating standards development to unlock bioethanol for cooking potential

1

**Standards
Adoption in
Target
Countries**

- Stakeholder engagement to establish relationships and foster and enabling environment through policy and standards development
- Determine resources needed and work toward standards adoption and implementation of applicable regulations

2

**National and
Regional
Standards
Development**

- Assess and evaluate any existing clean cooking or bioethanol policies and standards
- Use existing standards to accelerate standards development in other regions

3

**International
Harmonization of
Standards**

- Opportunities through harmonization, including improved interoperability across borders, leading to enhanced safety and commerce
- Increased consumer awareness and confidence in products/services across regions



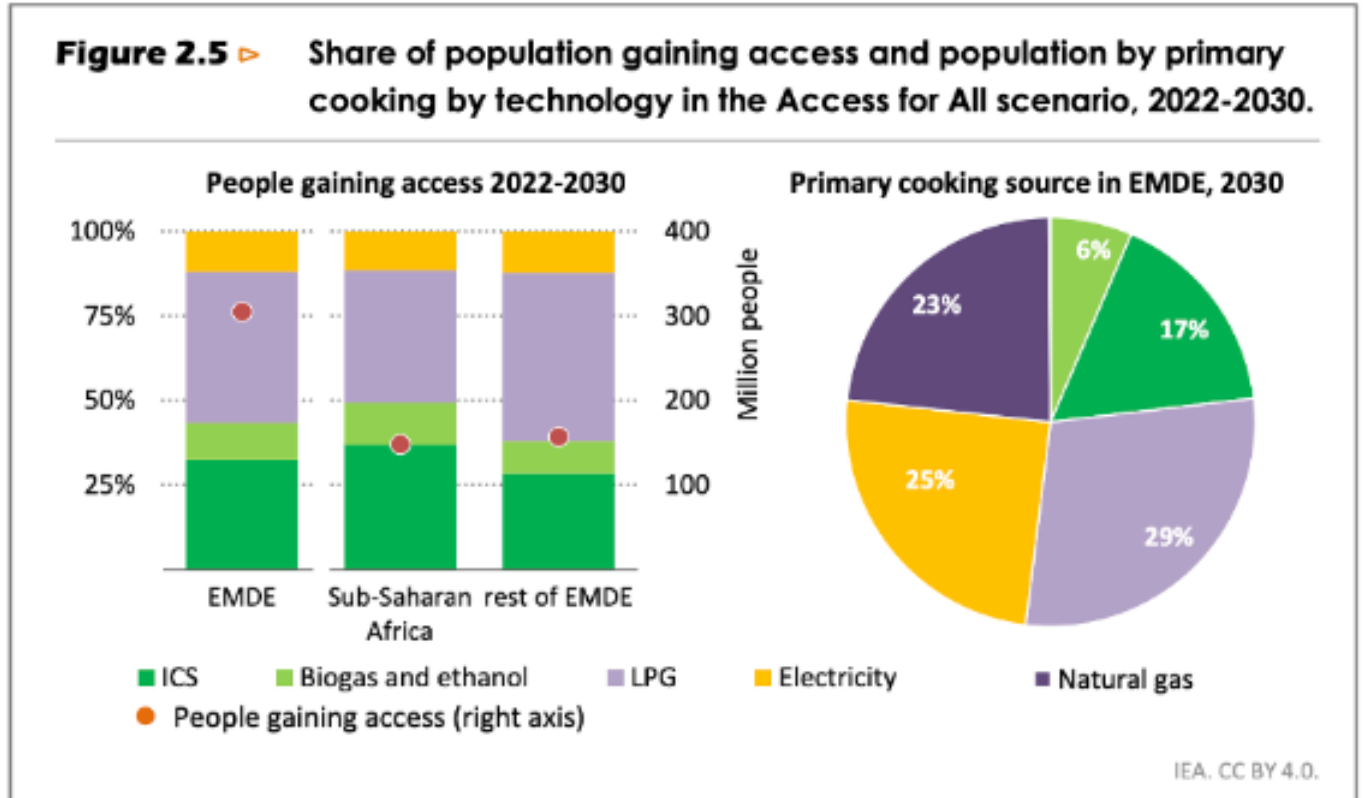
BIOETHANOL IS PART OF THE FUTURE

84 Million

People will need to gain access to clean cooking using modern biofuels **by 2030 in Sub-Saharan Africa**¹



Clean Cooking energy mix by 2030 (IEA)



A Vision for Clean Cooking Access for All, IEA, Page 37, 2023



BIOETHANOL DYNAMICS



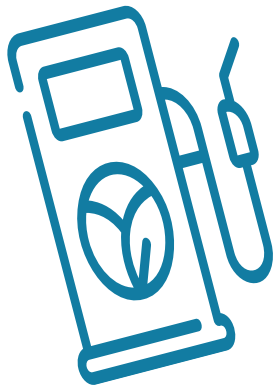
UNIQUELY POSITIONED

ENVIROME
NT

CARBO
N


HEALTH

BLENDING MANDATES



WELL-DEVELOPED SUGAR PRODUCTION SECTOR

BIOETHANAL PRODUCTION



**DOWNSTREAM
OPERATIONS &
DISTRIBUTION**

VAST AGRICULTURE POTENTIAL





THANK YOU!



Energy Seals | dan@pivotcleanenergy.org | www.pivotcleanenergy.org