



# ***IEC CONTRIBUTION TOWARDS ACHIEVEMENT OF THE UN SUSTAINABLE DEVELOPMENT GOALS ( SDGs) PRIORITIES FOR AFRICA***

**WORKSHOP FOR INDUSTRIALIZING COUNTRIES (WIC)  
83<sup>RD</sup> IEC GENERAL ASSEMBLY, SHANGHAI, CHINA**

By

**Eng. Jared Othieno**  
Ag. Managing Director & CEO

**Dr. Eng. Peter Kimemia**  
Manager, Standards

**Kenya Power & Lighting Co. PLC, Nairobi, Kenya**



**23<sup>rd</sup> October, 2019**  
**Shanghai International Convention Center**



# AGENDA

1. Introduction
2. Global Progress
3. Characteristics of Industrializing Countries
4. IEC Standardization Challenges in Industrializing Countries
5. Goal 1: No Poverty
6. Goal 2: Zero Hunger
7. Goal 3: Good Health and Wellbeing
8. Goal 4: Quality Education
9. Goal 5: Gender Equality
10. Goal 6: Clean Water and Sanitation
11. Goal 7: Affordable and Clean Energy
12. Goal 8: Decent Work and Economic Growth
13. Goal 9: Industry, Innovation and Infrastructure
14. Goal 10: Reduced Inequalities
15. Goal 11: Sustainable Cities and Communities
16. Goal 12: Responsible consumption and Production
17. Goal 16: Peace, Justice and Strong Institutions
18. Goal 13: Climate Action
19. Goal 15: Life on Land
20. Goal 17: Partnership for the Goals
21. Conclusion - IEC Support to Industrializing Countries- Priorities for Africa

***NB: Data inside is from UN SDGs Report 2019***

# Introduction-Global Progress Towards Achievement of the UN Sustainable Development Goals

While people overall are living better lives than they were a decade ago, **progress to ensure that no one is left behind has not been rapid enough** to meet the targets of the 2030 Agenda. Indeed, the rate of global **progress is not keeping pace** with the ambitions of the Agenda, **necessitating immediate and accelerated action** by countries and **stakeholders at all levels**.

*United Nations, 2018*

*Sometimes **comparisons** are not appropriate, methodologically speaking. You can't compare a marathoner with a speed runner by saying that **both have the same finish line**. Countries with **better socioeconomic positions will achieve targets faster than the others**.*

***Carlos Lopes, ECA's Executive Secretary.***

- **Low starting points and inequality that exist between countries and within countries**
- **Achieving the SDGs/IEC way in Africa will require extraordinary efforts.**

# Characteristics of Industrializing Countries

1. Heavy **overdependence on primary commodities** for national income, employment and foreign currency earnings;
2. Economy primarily based on **agriculture and/or extraction of raw materials**;
3. Low standards of living and low Human Development Indices (HDIs)- **per capita gross domestic product (GDP), per capita income, rate of literacy, life expectancy, basic infrastructure**;
4. Economic **vulnerability**, based on instability of agricultural production, instability of exports of goods and services;
5. Lack of productive and decently paid jobs and existence of **labor-intensive, low-technology activities, informal employment and survival activities** for people without any prospects for formal employment;
6. Predominance of **microenterprises; undeveloped industries**; few technology developers.

# IEC Standardization Challenges in Industrializing Countries

1. Low adoption, usage, rate of Implementation, application (choosing/adopting) of national, regional, and international standards;
2. Insufficient information/awareness on application of international/regional standards activities and standards development organizations;
3. Limited or difficulty in understanding, contribution and participation by all country stakeholders in national/regional/international standardization activities and Standards Development Organizations (SDOs) Work– NCs, TCs, GMs;
4. Lack of human resources, especially competent experts, from industry-imbalance between industrialized and industrializing countries;



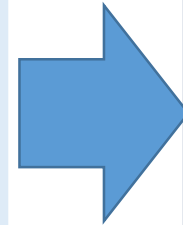
# IEC Standardization Challenges in Industrializing Countries

5. Unfavorable conditions to participate in international/regional standardization activities-**Policy support, budget, time, research/access tools, technical and engineering infrastructure;**
6. Adopting Standards and identification of **critical/minimum requirements** applicable to **local conditions and contexts** in preparation of technical specifications for product procurement or development of technology products and market share based on international standards ;
7. Inadequate **capacity in standardization**, quality conformance, metrology, accreditation, calibration, testing and certification, and inspection;
8. Inadequate **access to reference IEC standards/ reference documents**, and IEC Conformity Assessment Systems certificates - Cost, tools, platforms.

# End Poverty in all its Forms Everywhere

## SDG Challenges:

- The **differences among regions** are stark; pockets of worst forms of poverty persist
- **Situation alarming** in sub-Saharan Africa (SSA)
  - 413 million people lived in extreme poverty in 2015
  - Share of working poor stood at 38 per cent in 2018, living on less than \$1.90 a day;
  - Substandard working conditions;
  - Only 13% of children covered by social protection systems in SSA
- The toll of climate-related disasters is rising, with poorer countries most affected



## IEC Actions:

- Pro-poor IEC Standards and targeted technical assistance
- **Targeted measures** to address specific underserved geographic areas within each country.
- More **resilient standards** to reduce vulnerability and to withstand disasters
- **Technical Assistance** to shift production to higher-value-added products and sectors, upgrading technology, diversifying the economy and raising productivity.



# End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture

## SDG Challenges:

- 2/3 of extremely poor employed workers worldwide are agricultural workers
- 1/3 of undernourished people worldwide live in sub-Saharan Africa
- Conflict, drought and disasters linked to climate change are among the key factors

But also:-

- Post-harvest losses;
- Quality and productivity deterioration;
- Contamination of agricultural produce.



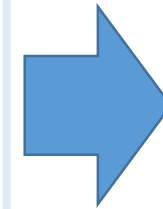
## IEC actions:

- Scale up technological interventions to improve agricultural productivity and resilient agricultural practices
- Better transport systems and better storage facilities, especially for small-scale farms.
- Programmes to improve the ability of domestic producers to make better use IEC Standards

# Ensure Healthy Lives and Promote Well-being for all at all Ages

## SDG Challenges:

- 2/3 of the world's maternal deaths occur in SSA, 30% births not assisted by skilled attendants
- Too few well educated and unequal distribution of health professionals and services, many specialties totally absent
- Poor infrastructure and low resources makes transportation of patients less of an option hence impairing access to basic healthcare
- Sub-Saharan Africa continues to carry the heaviest burden -3.5 million more malaria cases in 2017 compared to 2016 -Substantially more resources are required
- Gaps in detection and treatment systems



## IEC actions:

- Sustained investment and attention in health to meet the global target
- Support technologies that enable easier access to skilled health personnel, and care and support
- Dedicate more attention and resources for easier and affordable prevention, surveillance, detection/diagnostic testing and treatment technologies and systems to reduce cost of healthcare

# Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for all

## SDG Challenges:

- Disparities in educational opportunities and outcomes along the lines of age, gender, urban-rural location and other dimensions
- Youth and adult literacy in SSA remains low
- Non-proficiency rates remain disturbingly high in SSA, where 88 % and 84% of primary and lower secondary school age were not proficient in reading and in mathematics respectively in 2015
- Less than ½ of schools in SSA have access to drinking water, electricity, computers and the Internet
- SSA has the lowest trained teachers in pre-primary (48 %), primary (64 %) and secondary (50 %) education



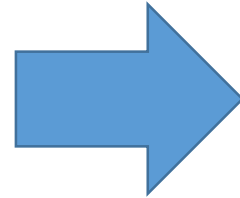
## IEC actions:

- Targeted efforts to improve the quality of education
- More focus on education infrastructure to broaden access to education

# Achieve Gender Equality and Empower all Women and Girls

## SDG Challenges:

- Gender **inequality** continues to hold women back and deprives them of basic rights and opportunities
- Women and girls perform a **disproportionate share** of unpaid domestic work compared to men
- Women continue to be **underrepresented** at all levels of leadership and development



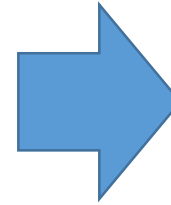
## IEC Actions:

- **Support actions**, policies, laws, resources and **accountability commitments** that advance gender equality by **addressing structural impediments and root causes** of women discrimination and underrepresentation in leadership, development and decision-making

# Ensure Availability and Sustainable Management of Water and Sanitation for all

## SDG Challenges:

- 2 billion people live in countries experiencing **high water stress**
- Unsafe drinking water, unsafe sanitation and lack of hygiene
- Lack of proper wastewater management, 2/5 lack basic handwashing and sanitation facilities
- 785 million people world wide lack of access to basic safely managed water supplies



## IEC actions:

Standards targeting **technologies to increase water efficiency and improving water management** that are critical to balancing the competing and growing water demands from various sectors and users.

# Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for all

## SDG Challenges:

- Three billion people use inefficient and highly polluting cooking systems. SSA advances have not kept pace, in contrast to other regions
- High **cost of electrification and complexities of reaching** remote and hard-to-reach communities and those connected to an aging and overburdened grid
- Limited **renewable energy solutions** in the heat and transport sectors
- Large gaps exist between rural coverage (78%) and urban areas ( 97%)

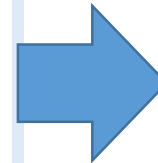


## IEC actions:

- To increase the capacity for **preparation, adoption, application and dissemination of IEC Standards** targeting policymakers and key barriers e.g. electricity availability, affordability, efficiency, reliability, quality, limited financing and consumer awareness

## SDG challenges:

- Informal employment and labour market inequality; unemployment; low labour productivity; unsafe and insecure working environments for all workers remain pervasive
- Standards development and adoption, and conformity assessment in SSA has been too slow to keep abreast with technology advancements, decrease costs, increase productivity, access new markets, and facilitate freer and fairer global trade



## IEC actions:

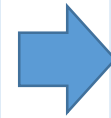
- Use IEC standards as the basis for national or regional standards for good regulatory practice and good public governance
- Develop a body of technical experts involved in writing the technical standards and specifications
- Assistance to participate more in standardization activities
- Technical Assistance to develop capacities to comply with non-tariff measures and international standards



# Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

## SDG Challenges:

- Higher-tech manufacturing and industrial productivity is growing worldwide, except in sub-Saharan Africa
- Per cent of GDP spent on R&D in 2016 on R&D was only 0.42 per cent in SSA
- Low application (choosing/adopting) of international/regional standards
- Inadequate/limited participation in standardization activities and contributing to the work of national, regional and international standards development organizations



## IEC Actions:

- Capacity building for technical standardization experts and policy support for intensification of R&D capacity
- Accreditation /competency certification schemes for specialized equipment testing and commissioning experts
- Access to international standards *and technical specifications* adapted to local contexts, *at a specially discounted or no price*

## SDG Challenges:

- Income inequality continues to rise-cause and a manifestation of the standardization development gap
- Disparities exist in voluntary standardization, technical regulations, conformity assessment, human resources skilled in standardization, and participation in IEC activities
- Compliance with costly and time consuming rules-of-origin certification processes to benefit from preferential treatment in exports



## IEC actions:

- Efforts and policies promoting equality and inclusivity to reduce disparities and inequalities and bridge the standardization gap
- Technical Assistance in standardization, testing, certification processes and IECEE, IECQ, IECEx and IECRE CA systems to increase access to world markets and reduced transaction costs through standardization especially for SMEs.

# Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable

## SDG Challenges:

- Growing number of slum dwellers, inadequate and overburdened infrastructure and services worsening air pollution and **unplanned urban sprawl, which negatively affects urban equity and inclusion**, health and safety, and livelihood opportunities
- Only 18 % of residents in SSA have convenient access to public transport



## IEC actions:

- Renewed focus on housing, waste management infrastructure and integrated water and sanitation management systems, roads and transport
- **IEC standards for sustainable transport** available to all, particularly to vulnerable populations such as women, children, seniors and persons with disabilities.

# Ensure Sustainable Consumption and Production Patterns

## SDG Challenges:

- Efficiency with which resources are used remains unchanged
- **Generation of waste is mounting**
- 1/3 of the food produced for human consumption each year is lost or wasted, most of it in developed countries.
- Construction of new infrastructure in emerging and transitioning economies
- Outsourcing of the material- and energy-intensive stages of production from high-income nations to less resource-efficient countries
- In 2017, **developed countries used about 1/5 as many natural resources as developing countries to produce the same amount of economic output**



## IEC actions:

- Tangible efforts by IEC towards overall **sustainable consumption and production**
- **Efficient technologies with less material footprint to prevent over-extraction of resources and waste**
- Improve **resource efficiency and material intensity**, reduce waste and mainstream sustainability practices



# Take Urgent Action to Combat Climate Change and its Impacts

## SDG Challenges:

- The world continues to experience **impacts of climate change**-rising temperatures, rising sea levels, changing rainfall patterns, and the impact of weather-related disasters on health, water supply and sanitation, agriculture and food security, forestry and fisheries, energy, industry and trade
- To prevent runaway climate change, exacerbating disaster risk, requires rapid and **far-reaching transitions in energy, land and urban infrastructure and industrial systems**



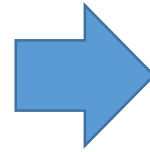
## IEC actions:

- **Coherence between the IEC Standards and climate change**
- **Technical guidance and support on implementation of standards** in renewable energy investments, energy efficiency as a resource, and Sustainable transport
- **Scale up Standards Development to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change** of infrastructure, through built-in safety mechanisms and processes that reduce greenhouse gas emissions

# Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development

## SDG challenges:

- Global trends point to **continued deterioration of coastal waters** due to pollution and eutrophication
- Advancing the **sustainable use and conservation** of the oceans and marine biodiversity, intensification of research capacity and increases in ocean science
- Many small-scale fishing communities continue to be marginalized yet they account for more than half of total production, both in terms of quantity and value, in developing countries



## IEC actions:

- **Reduce land-based pollutants** that lead to coastal eutrophication
- Encourage **responsible extraction** of ocean resources and off-shore energy related activities
- **Promote cooling and storage technologies that support small-scale fisheries** and value chains of commercial capture fisheries to help fisherfolk access productive resources, services and markets

# Protect, Restore and Promote Sustainable Use of Terrestrial Ecosystems, Sustainably Manage Forests, Combat Desertification, and Halt and Reverse Land Degradation and Halt Biodiversity Loss

## SDG challenges:

- Habitat loss from unsustainable agriculture, deforestation, unsustainable harvest and trade, climate change and alien invasive species
- Protection of forest, terrestrial ecosystems, biodiversity, land productivity and genetic resources and to curtail the loss of species



## IEC actions:

Forging innovative approaches in standardization towards aiding conservation and sustainable use of resources



# 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

## Promote Peaceful and Inclusive Societies for Sustainable Development, Provide Access to Justice for all and Build Effective, Accountable and Inclusive Institutions at all Levels

### SDG Challenges:

- Deprived communities of their security, rights and opportunities
- Advances in promoting the rule of law and access to justice are uneven
- Regulations to promote public access to information
- Strengthening institutions upholding human rights at the national level
- Non-inclusive decision-making



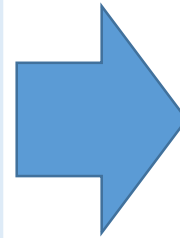
### IEC actions:

- Promoting the rule of law, strengthening institutions at all levels
- Promoting access to information and inclusivity
- Strengthening the standardization and conformity assessment institutions' legal and institutional frameworks

# Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

## SDG Challenges:

- Strong international cooperation and multilateral action in sync with sustainable development
- Effective mobilization and use of domestic resources with national ownership for strong, sustained and inclusive economic development
- All stakeholders to refocus and intensify efforts on areas where progress has been slow



## IEC actions:

- Strengthen the IEC coordination function for effective participation in standardization by all stakeholders
- Develop indicators to track implementation of standardization
- Increase mobilization of resources for demand-driven funding of standardization work
- More focused strategies, initiatives, policies and systematic efforts to bridge the standardization gap.

## IEC Support to Industrializing Countries- Priorities for Africa

The following gaps should be bridged to improve the standards development, implementation, and usage capacities of industrializing countries:-

1. Support to **build their own national capacity** in standardization, regulation, quality infrastructure, testing capability, and well-functioning certification systems;
2. Capacity building for a **technical infrastructure ecosystem** of individuals, specialized standards experts, business/ private sector, and academia participation;
3. Support and **facilitate participation and contributions** in international standardization activities;
4. Advocacy/support **governments' systematic efforts to bridge the standardization gap** through standards strategy, laws, regulation and policies, government funding and investment in standardization;
5. Access to standardization **training materials and curricula** for academia and industry;

## Conclusion

# IEC Support to Industrializing Countries- Priorities for Africa

6. Deeper collaboration between IEC and other SDOs Standards to ensure the requirements of industrializing countries are taken into account in the development of standards;
7. Mentoring of National Committees in IEC member industrializing countries;
8. More IEC forums in industrializing countries for information exchange, benchmarking, shared experience and best practices;
9. Technical Support, awareness raising and capacity building in implementing the current any future IEC Conformity Assessment Systems established by the IEC;
10. Training in equipment testing and certification capability, and establishing large, medium and small-scale 3rd party testing labs according to national needs;
11. Implementation guidelines and technical regulations/specifications adapted to local conditions and contexts for new IEC recommendations;
12. Conducting consultancy projects to determine consistency of existing National Standards with the current IEC Standards.

**...Narrow the gaps. Bridge the divides. Rebuild trust by bringing people together around common goals. Unity is our path. Our future depends on it.**

***António GUTERRES***

***Secretary-General of the United Nations***



# AGENDA

1. Introduction
2. Global Progress
3. Characteristics of Industrializing Countries
4. IEC Standardization Challenges in Industrializing Countries
5. Goal 1: No Poverty
6. Goal 2: Zero Hunger
7. Goal 3: Good Health and Wellbeing
8. Goal 4: Quality Education
9. Goal 5: Gender Equality
10. Goal 6: Clean Water and Sanitation
11. Goal 7: Affordable and Clean Energy
12. Goal 8: Decent Work and Economic Growth
13. Goal 9: Industry, Innovation and Infrastructure
14. Goal 10: Reduced Inequalities
15. Goal 11: Sustainable Cities and Communities
16. Goal 12: Responsible consumption and Production
17. Goal 16: Peace, Justice and Strong Institutions
18. Goal 13: Climate Action
19. Goal 15: Life on Land
20. Goal 17: Partnership for the Goals
21. Conclusion - IEC Support to Industrializing Countries- Priorities for Africa



# Thank You

