Measuring what is relevant: Progress so far of the Just Transition Framework in Ghana

By:

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Presented at the

East Africa awareness creation workshop to maximise the positive and minimize the negative impacts of implementation of response measures

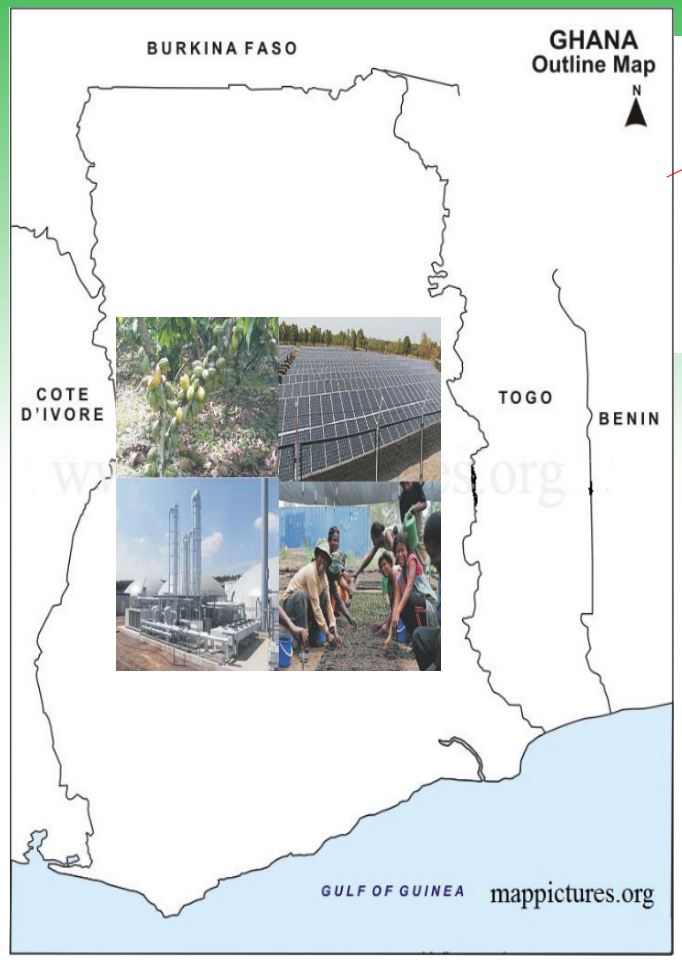
Sheraton Hotel, Kampala-Uganda

30th September-2nd October

Outline

- Ghana at a glance
- The NDCs
- Commitments
- ILO
- The Model
- Data
- Video
- Challenges
- Way forward

Ghana at a glance



Background and demography

Ghana is in West Africa and is a tropical country with a land area of 238 540 sq, km.
Continues to get warmer amidst erratic rainfall pattern and severe drought condition.
Population growth:18.8 million in 2002; 26.9 million in 2015. Annual growth rate of over 2%.

Macro economic outlook

Service sector 51.7% led economy as of 2014. Industry (28.4%) and Agriculture (19.9 %) contribute to the rest of the economy.
Agric employs 60% of the workforce.
Lower middle income with GDP/capita of 1,858.2 US dollars in 2014.
Average annual GDP growth of 8.5% between 2010 and 2014.

Political and legal system

Progress in institutionalizing democratic governance since the adoption of the 1992 constitution.
Dynamic Government Regulatory Bodies e.g.
Liberalization of the media and civil societies and trade unionists concerns and advocacy taken into account in governance issues.

Source: FAOSTAT, 2015. “Ghana”

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Ghana's national circumstances

- Ghana is a lower middle income has a vibrant democracy The economy relies strongly on the extractive industry and an agricultural production base. Despite the consistent economic gains, the country is still facing challenges associated with rising population and environmental change such as poverty, access to education and healthcare, pollution and energy access.

Ghana's economy depends on climate-sensitive sectors

1. energy (hydropower)
2. water resources
3. agriculture
4. infrastructure
5. coastal resources

Ghana at a glance

Economic outlook

1. Service-sector (49.8%) led economy as of 2014. Industry (29.5%) and Agriculture (20.7%) contribute to the rest of the economy output
2. Lower middle income with GDP/capita of 1,461US$ in 2014.
3. Average annual GDP growth of 8.5% between 2010 and 2014.

Export commodities and demography

4. Exporter of Crude Oil, Gold, cocoa, timber, tuna, bauxite, manganese ore, diamonds.
5. Commercial oil production started in late 2010. Emerging oil and gas economy.
6. 25.4 million People with one of the highest population growth rates (~2.4% per year) in the sub-region.

Development impacts on environment

7. Cost of environmental degradation is estimated at 9.3% of GDP
8. Tropical weather. Continues to get warmer whereas rainfall remains uncertain.
9. Total national emissions of 33.7 $MtCO_2e$ in 2012.
10. Land use change and energy are 2 largest sources.

Agriculture

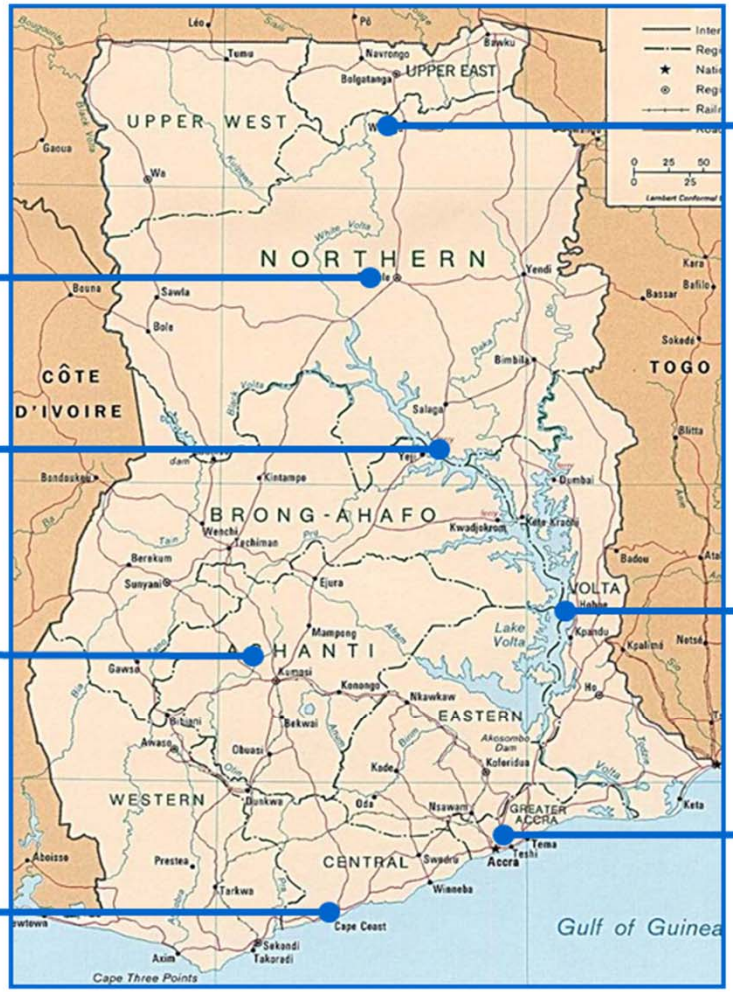
- Change in precipitation and temperature reduce yields

Water

- Variable precipitation increases water stress

Coastal areas

- Rising sea levels increase danger of flooding and coastal erosion



Health

- Changes increase risk of malnutrition, poor sanitation, diseases, and natural disasters

Energy

- Droughts endanger hydro power supply (60-70% of power)

Cities and infrastructure

- Floods and heat impact roads and buildings

Priority climate change issues that confront us

- Long dry-spells - (food and energy security issues, water access)
- Rising night temperatures (heat) – health & energy security)
- Uncertain rainfall patterns (food security, access to water, livelihoods)
- Rising extreme weather events (wind/rain storms) – (infrastrucre, properties)
- Sea erosion? Sea level rise? (livelihood, ecology, sensitive infrastructure)

Commitments

- Ghana published its third national communication in 2015, and since then has continued to implement wide-ranging policies to drive sustainable economic growth and mitigate greenhouse gas emissions.
- In 2016, the country announced a voluntary national mitigation commitment of 45% below BAU emissions of 74 million tonnes by 2030 in its nationally determined contributions.
- The measures that are being implemented to achieve the set mitigation commitments are in the areas of e-mobility and rail transit, low carbon electricity supply, stopping deforestation, scaling-up renewables, clean cooking, energy efficiency in households and industry, innovative waste management and HFC phase-down.
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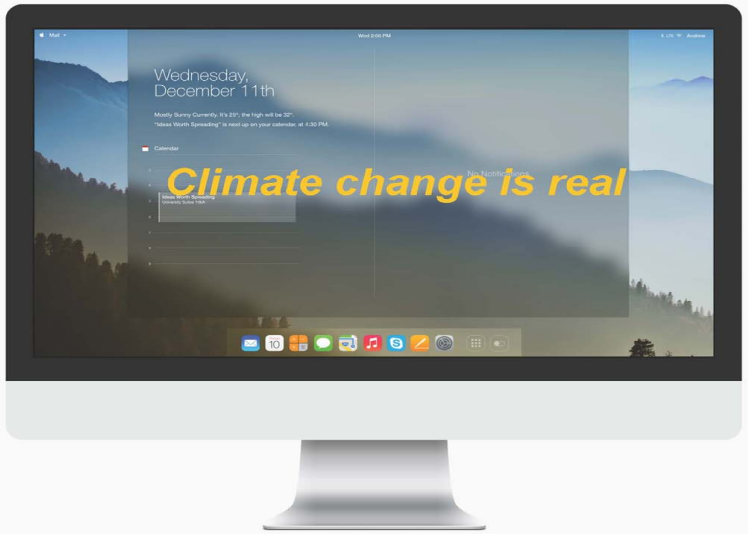
- https://www4.unfccc.int/sites/NDCStaging/Pages/Party.aspx?party=GHA
-

The climate change narrative



Greater warming

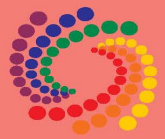
Frequent Extreme Events

Uncertain Rainfall

Rising GHG emissions

What motivates us?

Development First,
Climate co-benefit



Better lives
Better climate
Better economy

Cost effective
investments

Sustinability Transition

NDCs promise multiple outcomes

Snapshot of NDCs

31 development actions with climate benefits

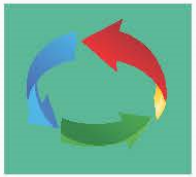
Ghana's flagship climate agenda

Timeframe

10 years (2020-2030)

Sector coverage

11 strategic economic sectors



Policy Alignment

- Ghana 40 year plan
- Medium-Term Development Framework
- National Climate Change Policy
- Low Carbon Development Strategy

Implementation stages

- Readiness (Pre-2020)
- NDC 1 (2020-2024)
- Review (2025)
- NDC 2 (2025-2030)

Investment cost

- $ 22.6 billion
- $ 6.3 billion - domestic sources
- $ 16.3 billion - International sources

What are they? Ghana's NDCs

- Development actions with climate imperatives
- Country pledges to reduce national emission and;
- Adapt climate change impacts toward;
- Achieving the long-term global 2 degree temperature goal;
- Contained in the Paris Agreement (PA)
- Features of NDCs:
  - Bottom up
  - Medium-term in nature (10 year outlook)
  - Option for 5-year update and submission
  - Linked to the mid-century low emission plan
  - Wide diversity in scope, theme and starting point
  - Nationally determined (national priorities, circumstances, capabilities)
  - Takes cognisance of the 2030 Agenda on Sustainable Development

GH-NDCs priority sectors

- Sustainable land use including food security
- Climate proof infrastructure
- Equitable social development includes gender
- Sustainable mass transportation
- Sustainable energy security
- Sustainable forest management; and
- Alternative urban waste management

Ghana's National Employment Policy

- The National Employment Policy (2015).
  - The Government of Ghana recognises the threats that unemployment and under employment pose to national stability, economic growth and development, and has shown commitments to its obligation to promote decent work for all its citizens as its indicated in the development agenda and in the Medium-Term Development framework.
- However, the mitigation and adaption actions themselves present a host of negative impacts, particularly on work.

Mitigation Report FNC

Cross-cutting

- Established SDG delivery fund
- Ratified Paris Agreement

Subsidy, tax and tariff reforms

- Fossil-fuel subsidy reforms
- Electricity tariff reforms
- Vehicle tax reforms

Decarbonise electricity supply

- Diversification of the grid-electricity
- Reduce distribution losses
- Technology efficiency improvement

Nuclear energy

HFC phase-down

- Ratified the Kigali Amendments

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Promoting renewables

- Renewable Energy Act
- Renewable energy masterplan
- FIT scheme
- Net metering
- SREP
- RE Fairs
- Training
- RE distribution and transmission codes
- Joined the international solar alliance

Energy Efficiency

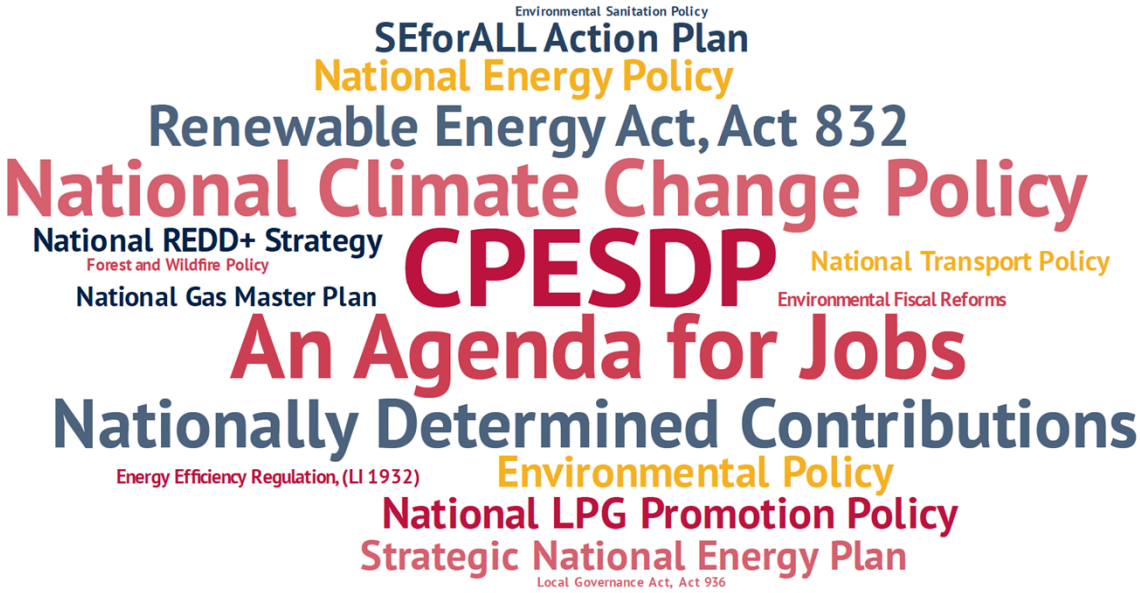
- Standards and labeling

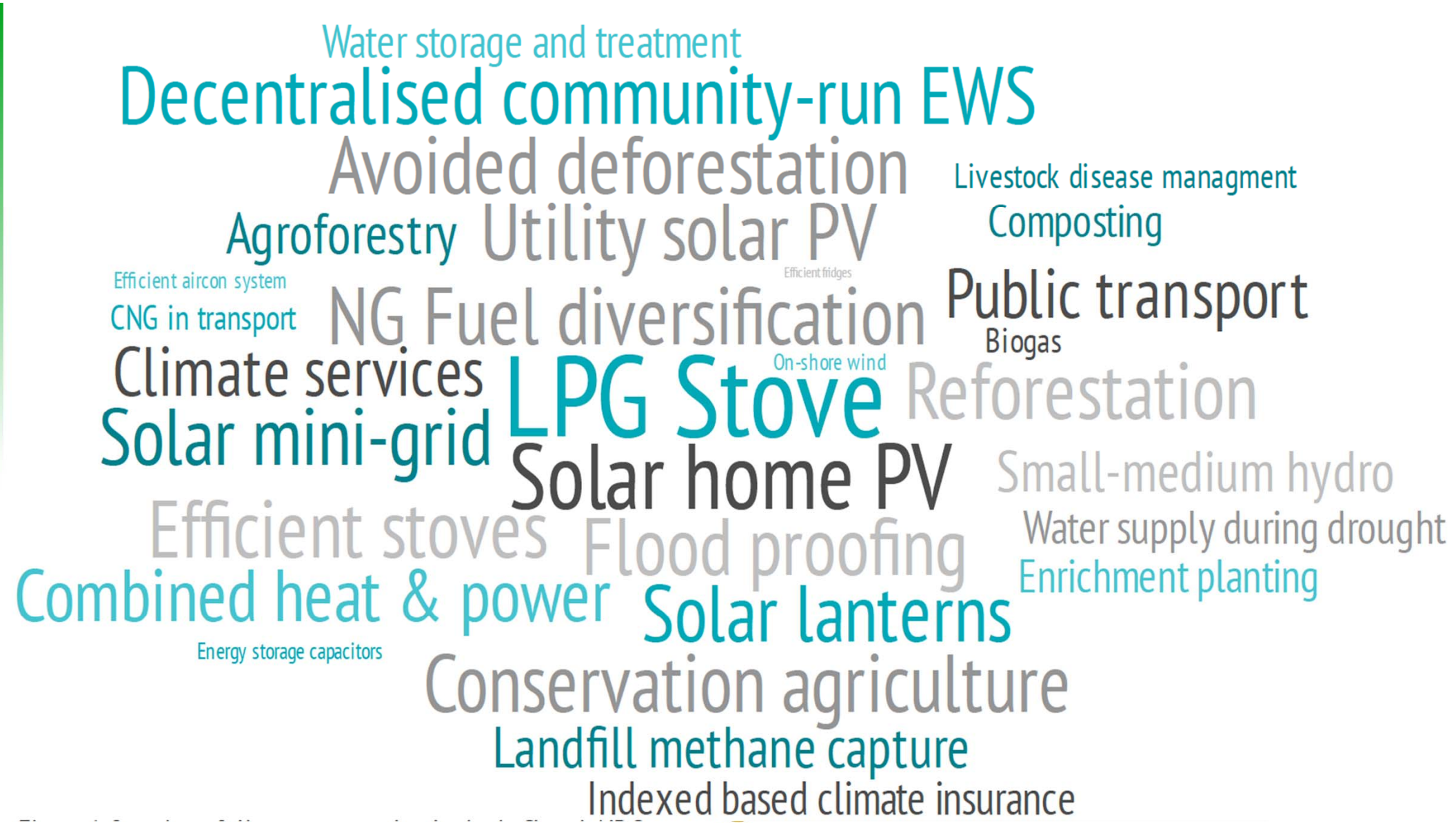
Lower deforestation and restoration of degraded lands

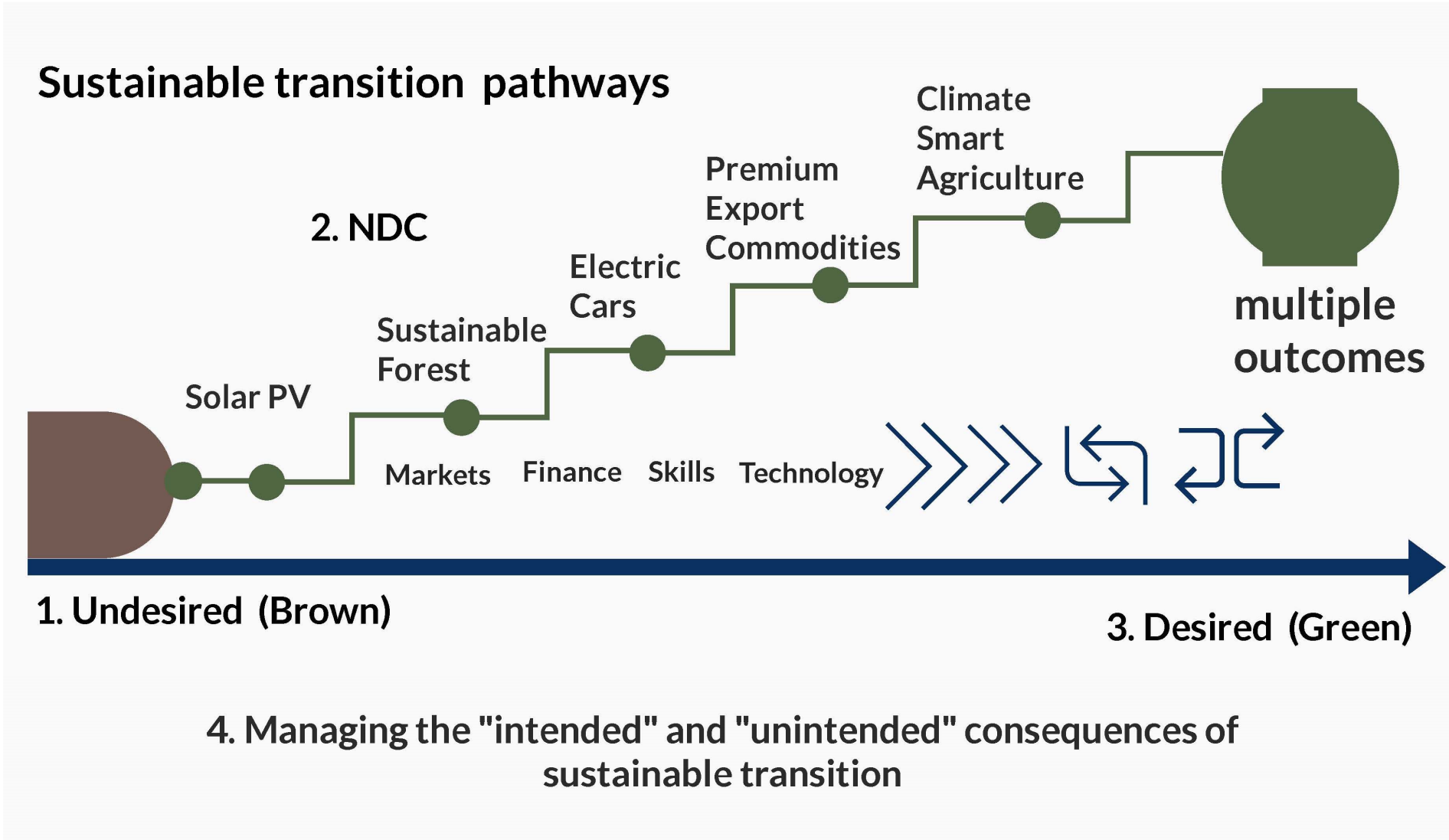
- REDD+ strategy
- National forest plantation development strategy
- National wildfire strategy
- Illegal mining (Galamstop, community-based mining), inter-ministerial taskforce

info.epa.gov.gh **SE4All Action plan**

Supporting policies




Water storage and treatment
Decentralised community-run EWS
Avoided deforestation
Livestock disease managment
Agroforestry
Utility solar PV
Composting
Efficient aircon system
Efficient fridges
Public transport
CNG in transport
NG Fuel diversification
Biogas
Climate services
On-shore wind
LPG Stove
Reforestation
Solar mini-grid
Solar home PV
Small-medium hydro
Efficient stoves
Flood proofing
Water supply during drought
Enrichment planting
Combined heat & power
Solar lanterns
Energy storage capacitors
Conservation agriculture
Landfill methane capture
Indexed based climate insurance


Sustainable transition pathways
Climate Smart Agriculture
Premium Export Commodities
Electric Cars
2. NDC
Sustainable Forest
Solar PV
multiple outcomes
Markets
Finance
Skills
Technology
1. Undesired (Brown)
3. Desired (Green)
4. Managing the "intended" and "unintended" consequences of sustainable transition

ILO

- Globally the ILO has been supporting policy-oriented research and integrated policy responses that can help address these inter-linkages to secure co-benefits while minimising and managing trade-offs.
- In 2015, ILO constituents adopted "*Guidelines for a just transition towards environmentally sustainable economies and societies for all*". The Guidelines offer a policy framework and a practical tool to address environmental sustainability challenges, in ways that maximize decent work creation and reduce the risks of social disruption and loss of employment and income.
- The ILO governing Body, mandated the Office to make use of the ILO Guidelines in global engagement and to support national implementation of climate change and environmental commitments.
- The ILO and the UNFCCC signed an agreement of collaboration in order to promote decent work and a 'just transition' of the workforce towards sustainable economies and societies in 2017.

The process

- Accordingly, Ghana was identified as one of three countries globally for a pilot application of the Just Transition Guidelines which started in 2018.
- A National Dialogue on 'decent work and just transition to an environmentally sustainable economy" WAS organised in January 2018 by EPA and Ministry of Employment and Labour Relations (MELR) with the participation of Ghana Trade Union Congress, Ghana Employers Association, ISSER and other stakeholders and with financial support from ILO and EPA.
- Two priority areas were identified on work on Just transition for this country and two areas of support proposed:
    a) An evaluation of the impacts of environment related policies, particularly the NDCs on jobs and the labour market with a view to inform the updating of the country's NDCs by 2020; and
    b) Support towards strategy development for green jobs promotion
- In response to the recommendations an Agreement was signed.

The Just Transition Framework

- There are a series of climate and green policies, strategies and initiatives which have been implemented in recent years in Ghana. At the same time social, economic development and job creation are at the heart of the national development plan. It is hoped that climate and green policies contribute to the broader social and economic development agenda.
- However, a planning tool that links climate and green objectives with social development outcomes was lacking.
- Notably, the question is how green and climate policies affect job creation, for women and youth, income distribution, skills development and economic growth.

Just Transition

- Such a tool is available and supported by the ILO to provide quantitative and qualitative employment estimates for evidence based decision making. The tool was developed by the Green Jobs Assessment Intuitions Network (GAIN), a global network of research and policy making institutions, and is named the 'Green Jobs Assessment Model'.
- Ultimately, the tool is to provide for better planning and coherence of policies with multiple objectives.
- To maximise job growth and minimize losses and protect those in the transition to sustainable development to be just.

Institutional Arrangements- Policy Coherence and Coordination

- Environment Protection Agency
- Ministry of Environment, Science Technology and Innovation
- Ministry of Finance
- Ministry of Energy
- Ministry of Gender, Children and Social Protection

- Ministry of Food and Agriculture
- National Development Planning Commission
- Ministry of Labour and Employment Relation
- Social Security and National Insurance Trust
- Ministry of Education-COTVET/TVET
- Ministry of Local Government and Rural Development
- Ministry Of Trade
- Bank of Ghana
- Ghana Atomic Energy Commission
- Social Security and National Insurance Trust
- CSIR-STEPRI, Institute of Industrial Research
- Ghana Statistical Service
- Energy Commission
- Forestry Commission
- Ghana Employers Association
- Ghana Technology University
- Ghana Labour Commission
- Institute of Statistical, Social and Economic Research
- Trade Union Congress
-

Ghana ILO Work Flow

Outcome	Activity	Timeline	Who is involved
Capacity in basics of GJAM build-(participants are to be discussed) Capacity of Statistical Service build in System of National Accounts (SNA) 2008 and System of Environmental and Economics Accounts (SEEA) 2012 Data and gaps analysed for production of updated SNA and SEEA	❖ 4 day introduction GJAM-12th to 15th March 2019 ❖ 5 day capacity building workshop on SNA and SEEA statistical guidelines	1st Quarter	TWG and other relevant policy makers and ILO National Researchers,
	❖ 5 day stock taking of statistics and data ❖ Production of statistics in SEEA and Environment Goods and Service industries based on existing data and Ghana's priorities over a period of 3 months	1st, 2nd and 3rd Quarters	Statistic Services, International Consultant specialized in SEEA, international consultant specialized in IOT and SAM and ILO Officials ILO Officials
	❖ Production of SUT/IOT and SAM ❖ Workshop to discuss results of analysis and policy recommendations ❖ Consolidation of policy recommendations	4th Quarter	Statistics Officers, TWG and other relevant Policy makers and ILO Officials

Objective

- The overall objective of the training was to help countries better understand the social and employment implications of climate policies and their national determined contributions (NDCs). The GAIN assessment methodology and Green Jobs Assessment Model (GJAM) was used to analyze NDCs' impact on key development indicators such as employment, GDP and Co2 emissions. The training was divided in research and policy tracks.

- **The training was in -Accra, Ghana and Pretoria South Africa:**

- Methodology to analyze how National Determined Contributions (NDCs) impact on key development and labour market indicators.

- Statistical database, including the System of National Accounts, labour force and establishment survey data and the System of Environmental and Economic Accounting (SEEA).

Model

- Ghana has adopted International Labour Organization (ILO) Macroeconomic model called the Green Jobs Assessment Model (GJAM) which is based on Input-Output Tables (IOT) or Social Accounting Matrix SAM.
- It is a Leontief model.
- It address the following question:
  - How many direct and indirect jobs will be created in a particular sector as result of a policy? How many jobs will be lost? Which sectors generate income and jobs? In which sectors will carbon emissions grow or decline? What will be the effect on formal and informal jobs? What is the impact on value added, household income, poverty and inequality?
- Also, the model provides government with tools for impact assessment of the alternative scenarios of conventional and green jobs as well as on other economic, social and environmental outcomes.
- It allows to analyse various policies
  - Climate Polices, NDCs etc.

Why GJAM

- It is not too complex
- It can be done in Microsoft excel which makes it cost effective
- It assesses three effects – direct, indirect and induced effects.
- It uses national data
- After the initial hands training the country owns the process
- The traditional Input-Output table can be expanded with physical quantities such as CO2 emission, water, land use ,employment etc.

Data

- The model is based on and relies on the national accounts data from the Ghana Statistical Service. The data should be made available or compiled by experts in an integrated framework of Supply and Use (SUT), Input Output (IOT) or Social Accounting Matrix.
- In addition, labour force data are required at the International Standard Industry Classification (ISIC) level.
- Carbon emissions and other environmental statistics, depending on the national focus of the model (waste, energy, deforestation etc.), should be collected.
- Detailed data on the structure of the environmental goods and service sector (EGSS), the so called 'green' industries, should be collected through establishment surveys, existing surveys or experts and estimation methods as described in the GAIN Training Guidebook.
- Depending on the policy questions such as income distribution, social protection, skills, women and youth etc. statistics need to be compiled.

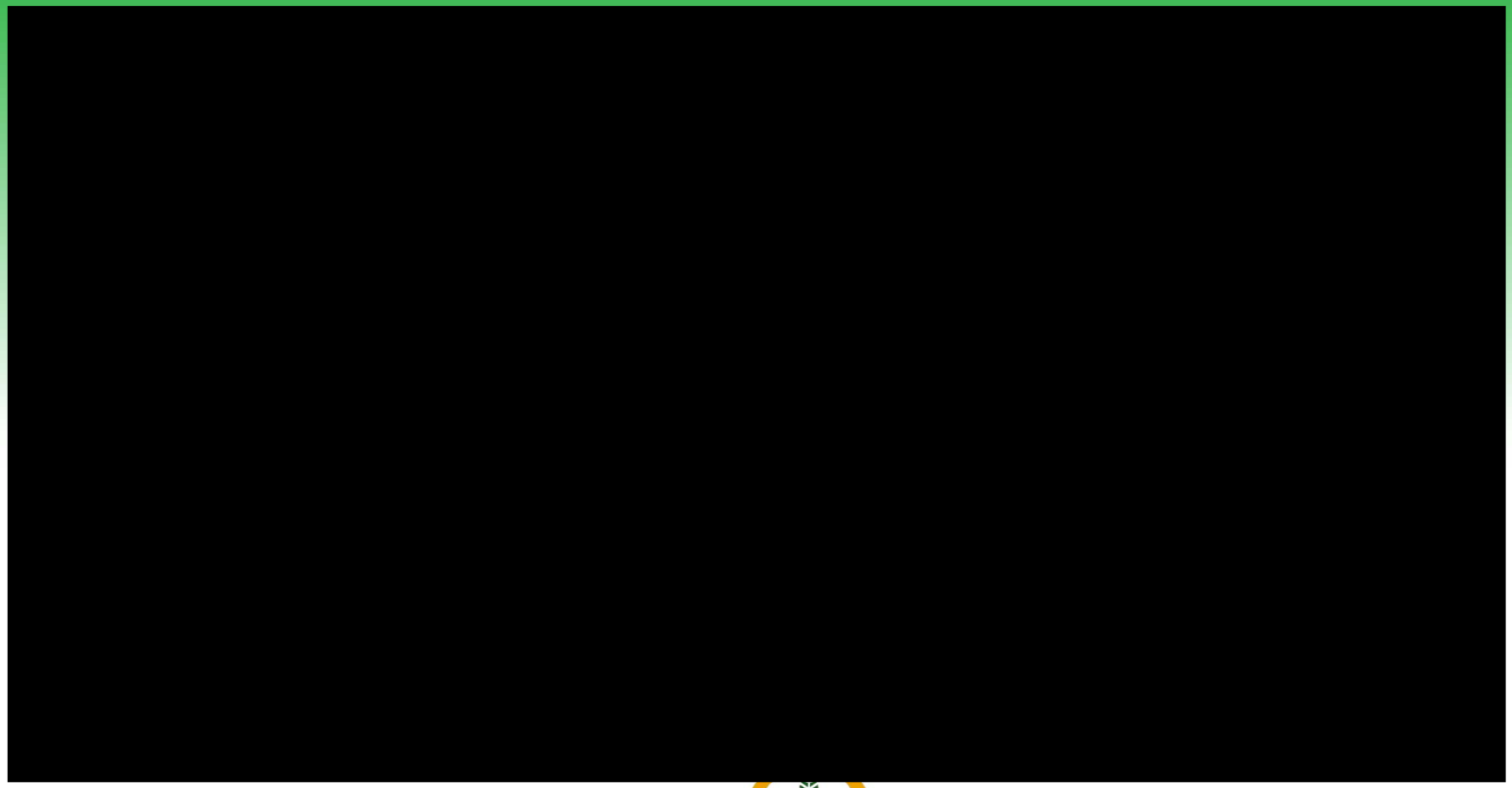
Data

- Elements of the Input-Output Table model, interpretation of multipliers and basic applications. Also, expansion of a traditional Input-Output table with physical quantities ; Social Accounting Frameworks with income distribution accounts.
- Climate and social response policy analysis and formulation to maximize positive and minimize negative effects of climate policies and to ensure a Just Transition for All.
- Develop a to model and measure the job impacts of national climate plans and policies (focusing on NDCs).

Ghana's NDC's (what we have done so far)

- Built the capacity of the Response measures Technical Working Group on global perspective and contextual issues of climate change and the UNFCCC process.
- Build capacity of the Technical Working Group of the NDC's on the elements of the Input-Output Table model, interpretation of multipliers and basic applications. Also, expansion of a traditional Input-Output table with physical quantities.
- Build capacity of Technical working group of the NDCs to model and measure the job impacts of national climate plans and policies (focusing on NDCs).
- Developed a Green Jobs Assessment Model for Ghana following the methodology as described in the "Guidebook on How to Measure and Model Social and Employment Outcomes of Climate and Sustainable Development Policies

GJAM IN ACTION



EPA, ILO HOLDS FOUR DAYS TRAINING IN ACCRA

By Alex Boye

The Environment Protection Agency (EPA) in collaboration with International Labour Organisation (ILO) has held four days' workshop on "Macro-economic Model Framework to Assess Social and Employment Impacts on Responses of Nationally Determined Contribution (NDCs) in Ghana (GJAM)."

The workshop, which was the first of its kind organized in the country, was designed to help the country develop strategic plan to stimulate economic growth, employment, income and other aspect of the economy.

The workshop, sought to generate knowledge and development policy response Transition in the country by using the Green Jobs Assessment Model (GJAM).

Mr. John A. Pwamang, Acting Executive Director of Environmental Protection Agency (EPA) at the second day of the workshop yesterday in Accra, indicated that despite the low levels of greenhouse gas emissions, Ghana is highly venerable to the impacts of climate change.

According to him, as part of global effort to tackle climate change, Ghana formulated its Nationally Determined Contributions (NDCs) in 2015 and had

proof infrastructure, equitable social development, sustainable mass transportation, sustainable energy security, sustainable forest management and alternative urban waste management.

Since the implementation of these 31 programmes will be over a ten years period, Ghana estimated to need US$22.6 billion investment from domestic and international public and private sources.

Furthermore, it needs US$6.3 billion from domestic sources to achieve 15% unconditional emission reduction below BAU and additional 30% conditional

Medium-Term Development Framework (NMTDF) prepared by the National Development Planning Commission (NDPAC).

"There is also an increasing recognition that environmental challenge and employment and social issues are interconnected: The combination of the climate change impacts affect the livelihoods of about 60% of Ghanaians," he noted.

This, he said the was a need for an integrated and coherent policy responses that will ensure shift in the direction of more sustainable and resilient economies,

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A photograph of the stakeholders at the EDA and ILO workshop

EPA, ILO hold training on Green Jobs Assessment Model

By Bernice Boateng

The Environment Protection Agency (EPA), in collaboration with the International Labour Organisation (ILO), is holding a four-day workshop on "Macro-economic Model Framework to Assess Social and Employment Impacts on Responses of Nationally Determined Contribution (NDCs) in Ghana (GJAM)."

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and alternative urban waste management.

Since the implementation of these 31 programmes will be over a ten year period, Ghana is estimated to need a US$22.6 billion investment from domestic and international, public and private sources.

Furthermore, it needs US$6.3 billion from domestic sources to achieve 15% unconditional emission reductions below BAU, and an additional 30% conditional reduction below BAU, with international support of US$16.3 billion.

Mr Pwamang added that the environment of Ghana, being aware

The Finder Wed

in fighting climate change - F

hat you subject it to this economic
ling tool that will enable us take de-
s which will rather enhance jobs in-
of a situation that will lead to people
their jobs. That is why this training
ortant," he stressed.
opined that the workshop would give
nd knowledge for a careful assess-
f how the measures which would be
ce may impact on job assets in com-
es and low-income households, as
mechanisms to ensure that they are
rse-off.
mang noted that the implementation
ns such as sustainable mass transi-
on, sustainable forest management
on was expected to help attain low
climate resilience through effective
ion and greenhouse gas emission re-

is 10-year programme, which spans
2030, he said, the country estimates
cing needs in the order of $22.6 bil-
estments from domestic and inter-
public and private sources, stating
illion from domestic sources to
15% unconditional emission reduc-

tion. Additional 30% conditional reduction can be realised with international support of $16.3 billion".

The acting Executive Director mentioned that the government has recognised the threat that unemployment and underemployment pose to national stability, economic growth and development, consequently, it has shown commitment to its obligation to provide decent work for its

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Awareness creation through the media

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Media coverage analysis

- 13 media houses were invited for the programme and were present except Multi TV. Due to interest in the programme, 4 media house that were not invited also attended, making a total of 17 media houses.
- Below is a list of the media houses in attendance with the uninvited marked with an asterix (*):
- **RADIO**
- GBC Radio
- Peace FM
- **TV**
- UTV TV3 *EIBN * OMY TV GH One
- **PRINT (9)**
- Daily Graphic Finder Ghanaian Chronicle
- Ghanaian Times New Crusading Guide Daily Guide
- Today * Educator *Insight
- **ONLINE (1)**
- GHANA NEWS AGENCY
- **3.0 COVERAGE**
- Nine (9) stories about the programme were published in Four (4) Newspapers and Five (5) websites. The stories were all favourable in nature.

Challenges

❖ Lack of current data for model

- The current Supply and Use Table (SUT) for Ghana was constructed in 2004. The oil and gas sub-sector under mining and quarrying sector is not part of 2004 SUT since Ghana started producing commercial quantities of oil in 2010.
- The need for support on the compilation of SUT 2013.
- There is the need to hire an international expert, ILO does not have the expertise in house.
  - Additional funds

❖Lack of data on the green and conventional Industries.

- Yet to understand the ILO indicators for the green and conventional industries in Ghana to support the model. (AKOBEN).
- Budgetary constraints.

Next stage

Development and update of SUT/IOT/SAM to latest GDP
Data collection of Green industry structure in terms of intermediate demand, import, value added and employment and spilt of ISIC into green and conventional industries
Training of field staff on the Questionnaire Inclusive piloting of questionnaires) *e) Sampling expert to sample Green industry from Ghana Statistical service business register totally 638,000 establishments.*
Data collection of additional labour, social and environmental statistics, cleaning and interpolation in concordance with ISIC and Green Industry extension of SUT/IOT
Yearly SUT/IOT baseline business as usual projection up to next 10-15 years, such as up to 2030 or aligning to national development agenda, using IMF or other forecast
Review of climate and green policies, developing a number of scenarios and quantification of those in terms of investment and final demand up to 2030
Yearly SUT/IOT 'green' projection up to 2030 using IMF forecast but modelling structural shift and taking into account quantified green and climate polices
Analysis of employment, social and environment, such as CO2 etc. outcomes of policies *a) Model Report in spread sheet* *b) Summary of report* *c) Technical Report*
Presentation and discussion of results in national workshop **Targeted groups:** **1. NDPC Commissioners;** **2. Media;** **3. Parliamentary Select Committees on Environment; Employment; Energy; and Land;** **4. Economic Management Team** **5. Financial, Investment and Pensions Institutions; and the** **6. Leaderships of relevant Workers and Employment Organisation**

Way forward

- Collaborate with Ghana Statistical Service to develop and update the Supply and Use Table to conform with the rebased GDP which reflect current socio-economic structures and developments in Ghana.
- This will help develop new input-output table to model and measure the job impacts of national climate plans and policies.
- Conduct Green Industry Survey to collect data on the Green Industry Structure in terms of intermediate demand, import, value added and employment which will help split green and conventional industries.

Thank you

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