Outreach Event on the Role and Activities of the Intergovernmental Panel on Climate Change (IPCC)

Climate Change Mitigation – National Efforts

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Background

- Signed the UNFCCC in Rio 1992 and ratified in November 1993.
- ratified Kyoto Protocol in Feb. 2005
- Sudan signed Paris Agreement in April 2016 and ratified it in August 2017.
- Active member in UNFCCC and the IPCC.

 Article 4.1 of the climate change Convention requires all Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, to formulate, implement, publish and regularly update national and, where appropriate, regional programs containing measures to mitigate climate change.

- Sudan, as a least developed country (LDC), is not obliged to track a GHG emission reduction target.
- Sudan sights the planning process of reducing GHG emissions as an opportunity to strengthen national capacity, promote sustainable resource management, facilitate technology transfer, and identify synergies between national economic objectives and sustainable development.

Climate Change Mitigation – National Efforts

National Communication

- Sudan's submitted National Communications to the UNFCCC, including national programs and measures that reduces the GHGs emission to respond to climate change for both energy and non-energy sectors.
- First and Second National Communications prepared and Submitted in June 2003 and 2013 respectively.
- Third National Communication is ongoing.
- First Biennial Update Report proposed.

Second National Communication (SNC)

Emission of GHG (Million ton of CO2)



Environment: Global Warming Potential

MITIGATION OPTIONS IN SUDAN'S 2ND NATIONAL COMMUNICATION

Mitigation Scenarios

The following options are suggested according to subjective decisions/thoughts done by the energy team in the SNC project:

- 1. Effective household air conditioning
- 2. Energy saving lights in household sector
- 3. Fuel switching in some industrial sub-sectors
- 4. Partial replacement of cars by buses in transportation sector.
- 5. Collective mitigation approach
- 6. Other possible mitigation options (Renewable Energy)

Effective household air cooling



In order to meet that target the following polices are suggested to be applied from 2015 and afterwards:

- 1. To increase the taxation on the imported ACs.
- 2. To encourage households to use water cooler.
- 3. To introduce new pricing policy for household electricity.
- 4. To make new policies for housing design and building construction materials.
- 5. To perform better urban planning for the new cities/towns

Effective household lighting



Efficient lighting (by using compact fluorescent (CFL) and other technologies) is assumed to consume only 30% of the electricity used by conventional lighting.

Industrial Mitigation

Environment: Global Warming Potential





Transportation: Reducing private cars in favor of public transportation

This policy is assumed to be applied by 2015. The main scenario is to shift passengers from using private cars to use public transportation instead. That's mean, the passenger kilometer is kept constant along the simulation time and rate of increase in number of private cars is reduced. On the other hand incremental rate of public transportation quantity is raised to substitute the shortage in car number. Practically that can be done throughout the following policies:

- 1. Create very restrict car importing policy and /or increase custom fees on private cars
- 2. Create new traffic registration policies for aged cars
- 3. Encourage importing high capacity buses
- 4. Help establishment of new public transportation companies

Transport mitigation by increase of efficiency



- 1. Specify service roads for the public transportation to increase its speed
- 2. Upgrade traffic facilities such as installation of more traffic lights, change of road directions in certain hours to assure traffic flow with least traffic jam.
- 3. Restrict car movement by legislation (i.e. downtown passage allowance days for even or odd plate numbers).
- 4. Building flying bridges in crowded junctions
- 5. Restrict the import of high fuel consumption vehicles.
- 6. Spread public awareness of optimum tire air pressure
- 7. Encourage of using solar films on car's glass windows to reduce car's AC usage.

Collective Mitigation Effect

This scenario is created as a collective scenario which involves all the previous scenarios.



More than 5,000,000 Tone of CO2 can be mitigated by2030, which is equivalent to reduction of 21% from the reference scenario.

Technology Need Assessment (TNA)

- Sudan perform Technology Need Assessment (TNA) to identify and prioritized technologies that can contribute to the implementation of mitigation and adaptation measures planned by the country.
- Technologies were identified and prioritized, through country-driven participatory processes, taking in consideration the national development goals and priorities that set in compliance with the sustainable development goals SDGs.

SUDAN'S LCDS AND NAMA FRAMEWORK

- Project Initiation Plan (PIP) for Promoting Low Carbon development was developed
- **CDM** standardized baselines were developed for priority sectors.
- Framework for Nationally Appropriate Mitigation Actions (NAMAs) was developed.
- All these were done by climate change experts in consultation with the relevant government institutions, private sectors, public community, and various development partners.



