#### Sustainable Ecosystem management for Adaption to clima change improvement in Nile Basin

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#### **Presentation Outline**

- Introduction
- Sudan's position in a regional context
- Climate Change Impacts on the Ecosystem Sudan
- Country priorities
- Next Steps

## Sudan in regional context

- Sudan is one of the largest countries in Africa.
- Its total area is 1,882,000 Km<sup>2</sup>, much of which is comprised of arid lands and desert (more than 60%).
- Throughout much of the country, water resources are limited, soil fertility is low, and drought is common.
- These underlying conditions are exacerbated by range of human pressures, creating a situation in which Sudan is already highly vulnerable to current climatic shocks - and apart from taking adaptive measures - will become even more vulnerable in the face of future climate change.

#### Climate change impacts in ecosystems of Sudan

- There is little public awareness or political sensitivity about ecosystem protection in Sudan.
- Since the 1970s, expansion of large-scale rain-fed agriculture, urbanization and other types of development have caused the destruction of over 5,000 km2 of forest, and the extent of reforestation amounts to just 300 km2.
- Many wildlife species have been lost for similar reasons, as well as because of the conflict in the south, and numerous other species are endangered or vulnerable. Pasture lands have been destroyed or degraded by overgrazing, droughts and fires.
- In spite of substantial land and water resources, Sudan is seriously handicapped by floods, droughts and the burden of disease.
- Agriculture, which provides the livelihoods of 80% (CBS- 2010) of the population, currently claims about 55% of available freshwater resources.
- Given that the water use in this sector may as much as double by 2025, water saving through better irrigation methods will become a critical factor for meeting the needs of other sectors in a sustainable fashion.

- A decreasing rainfall trend associated with climatic variability and likely climate change might further limit water availability and lead to serious scarcity.
- Overall, the lacks of accurate assessment of water resources and of a national water policy are the major obstacles hindering effective management of water resources.
- A fragmented water sector, lack of coordination among bodies responsible for water management, gaps in legislation and poor enforcement are other issues further aggravating the situation.
- These challenges, combined with social unrest, have led to deepening poverty, which affects a majority of the rural population. However, there is considerable potential for improvement through adoption and implementation of better policies on water and land resources.

#### country priorities

- Water resources development and management,
- Securing access to natural resources,
- Environmental management (including renewable energy and bio-diversity),
- Strengthening pollution control in Sudan,
- Community and institutional capacity strengthening and conflict resolution management,
- Rehabilitation and development of rangelands and sustainable natural resources areas;
- Strengthening of policy, legal and institutional frameworks to manage agricultural production, particularly the livestock, agriculture and fishery sectors,
- Community and institutional capacity strengthening and conflict resolution management.
- Development of agriculture, forestry and agro-industry

### Regional priorities

- Support poverty reduction and food security.
- Support export promotion and participation in regional or global free trade.
- Enhance productivity and enhance investment.
- Higher forward and backward linkages.
- Ensuring a balanced development and wide spread effects on population.
- Support the sustainability of the utilization and maintenance of natural resources.
- Enhancing national institutional and technical capacities productivity increase food security and poverty reduction and capacity building emerge as possible priority areas.

# Adaptation Projects Proposed by Stakeholders

- During the course of the national stakeholder consultations, numerous types of projects that were considered to have the potential to decrease vulnerability relative to climate variability and extreme events were proposed and discussed.
- At the national level, Sudan cooperated with the global sustainable development and millennium Declaration goals and put environmental issues one of the main five pillars of its strategy. Also Sudan has many efforts to support gender and sustainable development. One of these efforts was national the policy of women empowerment and gender mainstreaming. This policy has been issued by the council of ministries and the president of Sudan in 2007; the strategic objective of the policy is to empower women for active participation to attain sustainable integrated development.
- Important of Great green wall project to enhance ,gum Arabic production, natural forest & rangeland rehabilitation, , Encroaching sand dunes control and sustain deteriorated ecosystems.

#### How issues are

#### addressed

- Some of the development plans needs to be reviewed to accommodate the new borders of Sudan, after the independence of South Sudan;
- More work is needed to smooth the linkage of water resources development and livelihood improvement;
- An organogram should be prepared to show the involvement of different government institutions in the coordination process and how it is linked to the regional coordination system

#### Suggested solutions and key messages:

#### **Short-term**

Enhance dryland crop and livestock production systems,

- Support needs to be given to pastoralist livelihoods and promoting livelihoods resilience and adaptation to climate
- Implementing Integrated Water Resource Management (IWRM)
- International partnership and resources

#### **Medium term:**

- Strengthening community based Disaster Risk Management (DRM) with focus on early warning/preparedness rather than response.
- Investment in environmentally beneficial projects on significant scale to commensurate with the environmental challenges.

increased efforts in coordination amongst the UN and donor community.

#### Long term:

- The government should assume increasing responsibility in mainstreaming the environment into the budgeting and national planning frameworks
- The basics for good environmental governance needs substantial strengthening.
- Land tenure issues and land policies need to addressed
- Formulation of long-term and short term policies and strategies

#### Next steps: towards implementation

#### **Furthering:**

- Gender mainstreaming in the NBI
- To identify areas of intervention, areas of top priority regarding climate change, we need to strengthen the statistical systems through collection of disaggregated data on regular basis
- Traditional investment measures should be adopted for ecosystem financing and to make sure that investors and stakeholders are benefiting from these activities

#### **Resource Mobilization:**

Development partners commitments to the priorities and focus.

#### **Implementation:**

 Identification of lead government institution to guide the process at the national level and coordinate with the regional structures.

