

- Training; Equipment; Office space and facilities. The need of utilizing capacity developed by previous and existing infrastructure such as servers, ITC link between institutions and programmes such as NAFORMA;
- Revising Work plans and Budget;
- Engaging stakeholders in the process of NCMC operationalization; and
- Preparing modalities for national and international partnership arrangements and operations with technically competent institutions.

### ***Submission of the Tanzania's Forest Reference Emission Level to the UNFCCC***

Submission of the Forest Reference Emission Level (FREL) is among the first achievements of the NCMC. This submission to the UNFCCC was done in December 2016 followed by a Technical Assessment process. The technical assessment was initiated in March 2017 and concluded in November 2017.

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**NCMC**



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**DECEMBER, 2017**

### **Climate change and forestry**

Climate change is caused by concentration of Green House Gases (GHGs) in the atmosphere. The GHGs come from the anthropogenic activities such as industries, vehicles, energy and destruction of forests. Carbon dioxide gas (CO<sub>2</sub>) is the primary GHG in the atmosphere. Forests can clean up this gas. CO<sub>2</sub> is a Compound made of one carbon and two oxygen atoms. Trees absorb CO<sub>2</sub> and release oxygen into the atmosphere through the natural process of photosynthesis in which CO<sub>2</sub> is converted to carbon and stored in the woody tissue (biomass). The amount of carbon they store makes trees increase in size.

Therefore, increase in forest area or their productivity, results in an increased uptake of CO<sub>2</sub> from the atmosphere. As such some forms of forestry activities are used as valid means for atmospheric CO<sub>2</sub> reduction which contribute significantly to climate change mitigation. Environmental conscious countries and civil society organizations feel responsible and take actions to reduce their carbon foot prints. Among other means they use clean energy in their activities but also invests in tropical forestry activities through either voluntary or official carbon markets.

In the voluntary carbon market, countries and civil society organizations may offset their carbon foot prints anywhere in the world. Through the official carbon market forest carbon trading is possible through the Clean Development Mechanism (CDM) of the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC) where afforestation and reforestation activities are permitted. Other forestry activities that reduce the rate of carbon emissions by improving forest management and by avoiding deforestation, i.e. the kinds of activities currently carried out under Community Forest Management (CFM) in Tanzania, can benefit from another UNFCCC mechanism termed as *Reduced Emissions from Deforestation and forest Degradation* (REDD+).

### **Tanzania REDD+ Readiness process**

In April 2008, Norway and Tanzania signed a Letter of Intent on a Climate Change Partnership; with a focus on supporting REDD+ pilot activities in the field, research and capacity building, national strategy development and implementation. The two countries agreed to cooperate for five years (2008-2013) on climate change and REDD+ and Norway committed

itself to support the cooperation with up to US\$ 100 million for the period. During the REDD+ readiness process Tanzania:

- Prepared the National Framework for REDD+;
- Prepared the National REDD+ Strategy and Action Plan;
- Conducted research and capacity building in support of REDD+;
- Carried out nine REDD+ pilot project; and
- Raised awareness on REDD+ to different stakeholders.

### **The Climate Change Impacts, Adaptation & Mitigation CCIAM programme**

The Climate Change Impacts, Adaptation & Mitigation (CCIAM) Programme was implemented between year 2009 and 2015 with the support from Norway. The objective of this programme was to conduct research and capacity building in support of REDD+ process in Tanzania. Sokoine University of Agriculture was the lead institution in this programme. The three partner institutions in Tanzania were Ardhi University (ARU), University of Dar es Salaam (UDSM) and Tanzania Metrological Authority (TMA). There were also partner institutions from Norway.

Among others, this programme achieved the following:

- Build a climate change modelling laboratory where the National Carbon Monitoring Centre (NCMC) is now hosted;
- Trained 69 MSc. & MA students;
- Trained 22 PhD students;
- Carried out 21 research projects;
- Published over 100 scientific articles and 2 books;
- Published 19 Policy Briefs;
- Installed a Tide Gauge at Tanga port; and
- Installed 4 Automatic Weather Stations in 4 different regions.

This programme therefore laid a foundation for the establishment of the NCMC.

### **Establishment of NCMC**

The idea of establishment of NCMC first appeared in the National Framework for REDD+ of 2009 and after three years later i.e. in 2012 writing up of the project document on establishing NCMC started.

Many institutions expressed interest to host the NCMC but through a competitive process in 2013, SUA was announced by the government to be the host institution for NCMC. This was due to SUA's competence on environmental issues in particular on forest management and climate change. In July 2014, the Memorandum of Understanding between the Vice President's Office and SUA on the establishment of NCMC was signed.

The implementation of the project on "establishment of NCMC of Tanzania" started on 1 January 2016 following a support of US\$ 4.2 million from the government of the kingdom of Norway.

### **Functions of NCMC**

The objective of the Centre is to build national capacity to measure, verify and report adequately on carbon emissions at national and international level on behalf of the government of Tanzania. To fulfil this objective, the specific objectives are to:

- Provide technical services on measuring, reporting and verification of REDD+;
- Accommodate emissions accounting from new sectors and provide monitoring, reporting and verification for social and environmental safeguards in MRV activities;
- Hosting and managing the National Carbon Database and REDD+ project registry;
- Verification of research outcomes;
- Be the custodian of the National MRV system and platform;
- Be the centre for reporting and documentation on climate change related information;
- Provides policy and regulatory advice; and
- Oversight for governance and advocacy in forest carbon stocks and other carbon sinks and the likes.

### **Functions of the NCMC establishment project**

- Appointment of NCMC inception team;
- Appointment of NCMC Advisory Committee;
- Facilitate recruitment of NCMC staff;
- Procurement of equipment needed for the inception and operationalisation phases;