

# **REVEGETATION ACTIVITIES THAT COULD BE ELIGIBLE FOR FUTURE CDM PROJECTS IN AFRICA**

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## **BACKGROUND**

Revegetation is a human induced activity to enhance carbon stocks of biomass that does not meet the definitions of afforestation and reforestation. It involves establishing new vegetation and/or enabling and augmenting existing vegetation. These activities include measures that restore carbon stock of degraded lands (e.g. saline, sodic, eroded soils etc.), settlements and other lands that are not categorized as afforestation/reforestation, forestland, cropland, and grassland. Large areas of degraded lands subject to unsustainable use, erosion, organic matter depletion, salinization, and acidification, if not restored are expected to degrade further translating into large future GHG emissions. Revegetation is a cost effective option to restore severely degraded lands through improving soil organic carbon and biomass. Revegetation covers a range of activities that restore tree, shrub, and herb biomass in different land use categories such as urban spaces, mines, waste dumps, degraded lands (e.g. saline, sodic, eroded soils etc.), and other abandoned areas for establishing vegetation below the thresholds of forest. In addition to enhancement of carbon stocks, revegetation activities contribute to restoration of ecological processes, enhanced biodiversity, and amelioration of local environment.

## **REVEGETATION IN GENERAL**

- The five thousand years of grazing of North Africa and other places has left about million acres mostly bare of any.
- Farming in Africa is already severely affected by land degradation, a shortage of fodder for livestock and soil loss leading to lower productivity
- Over 40% of croplands in East and Southern Africa are severely degraded but most is not beyond restoration
- In East Africa, sustainable revegetation based on natural nitrogen-inputs with optimum use of available water.

## **REVEGETATION IN AFRICA**

Revegetation activities are of strategic/key importance in helping sustainable development goals in Africa

- Water resources conservation and protection
  - Catchment management measures including agroforestry, land conservation practices, and sustainable crop and livestock production techniques to impede run-off; Identify remedial measures to rehabilitate the affected catchments i.e. afforestation, soil fertility management, revegetation, filling up of gullies, development of protective works or soil conservation measures such as contour bands
- Natural resource management

- Checking soil erosion, checking deforestation and forest degradation, biodiversity conservation,
- Preventing human habitat degradation, and checking adverse health effects of air pollution in urban areas.
- Food security
  - Promotion of agroforestry, including horticulture and silvipasture
  - Combined use of integrated soil fertility management approaches and conservation agriculture practices that initiate restoration of degraded lands
- Ecological security
  - Halt the process of desertification, including encroachment of productive lands and transport infrastructure by sands, and its adverse effects
  - Maintain productivity of agricultural lands, esp. in rainfed farmland
  - Halting productivity of pasture and range lands
- Gender and children rights issues
  - Checking the ever increasing distance women and children are forced to walk in order to collect fuel wood.
- Plants that are used for revegetation in my country are perennial woody plants: trees and shrubs. If revegetation is eligible under the CDM we would use trees and shrubs (i.e. perennial woody vegetation) only.

## **BENEFITS FROM REVEGETATION**

- Revegetation allows for sustainable intensification of tree-crop-livestock farming systems.
- Revegetation is a part of greening the desert on the arid margins of Sahara
- Revegetation of mined out areas at open cast surface gold mine Ghana, West Africa
- Revegetation on a coal fire ash disposal site in South Africa
- Rehabilitation and revegetation of mined coastal sand dunes on the east coast of South Africa makes sense. It recovers ecosystem services such as carbon sequestration.
- Revegetation prevents soil erosion and degradation.
- Revegetation allows for diversification of sources of income in rural areas.
- Revegetation contributes to biomass production, which could be used as building material, a renewable-energy source to generate electricity or to produce heat.
- Revegetation carbon sinks provide benefits that may lead to carbon credits and the participation in carbon trading schemes.

## **PROPOSED REVEGETATION ACTIVITIES THAT COULD BE ELIGIBLE FOR CDM**

- Community-based natural regeneration of woodlands, forests and grasslands and degraded lands in specific agro-ecologies in Africa to support the Great Green Wall across the Sahel
- Combined use of soil fertility interventions and soil-water conservation techniques to promote revegetation of degraded lands across wide range of farming systems -initialization of revegetation efforts
- Technical and institutional capacity building and community training on catchment management, ecological intensification, and integrated forestry management - facilitation process to undertake revegetation
- Policy advocacy and development towards integration of vegetation options into national agricultural development and environmental protection plans for different eco-regions (e.g. semi-arid and humid zones) -sustainability and update enhance paradigm ship in policy and practices
- Promotion of sustainable (mostly ecological components) intensification of crop-livestock production systems to reduce pressures on regenerating woodlands, forests and grasslands

Example (slowing desertification or reclaiming ecosystems) through vegetation

- Stop wind erosion and storms by creating wind breaks
- Stabilize degraded soils/land by integration of nitrogen fixing and stress tolerant vegetation species
- Reclaim and restore areas with climate smart technologies for revegetation satisfying CDM guidelines

Activities that enable communities to forgo use of standing/longterm vegetation and sequestered carbon stock and therefore support their longterm nature should be embraced as eligible for CDM