



Project proposal for planting of fifty thousand (50,000) tree seedlings in the Kassena Nankana East Municipal in the Upper East region of Ghana



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Executive Summary: African Foundation for Climate Change and Sustainable Development (AFCCSD) is a non-profit, non-partisan, non-governmental organization registered under the Government of Ghana. AFCCSD is established with the view to promote Climate Change Awareness and its Adaptation, Sustainable Livelihoods and Development in Africa.

This proposal presents a project to promote tree planting to five selected communities in the Kassena Nankana East Municipal in the Upper East Region of Ghana.

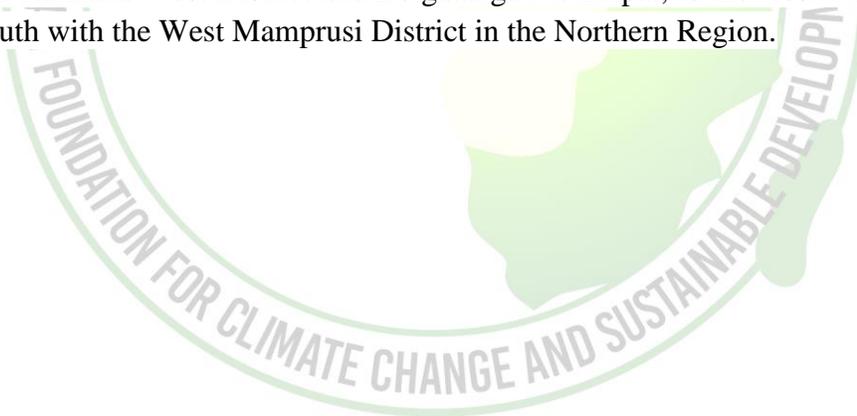
The population of Kassena Nankana East Municipality, according to the 2010 Population and Housing Census, is 109,944 representing 10.5% of the region's total population. Males constitute 48.8% and females represent 51.2%. About 72.7% of the population live in rural localities. The population of the Municipality is youthful (under 15 years) (39.2%) depicting a broad base population pyramid which tapers off with a small number of elderly persons 60 years and above (8.8%). The total age dependency ratio for the Municipality is 84.0, the age dependency ratio for males is higher (85.3) than that of females (82.8%).

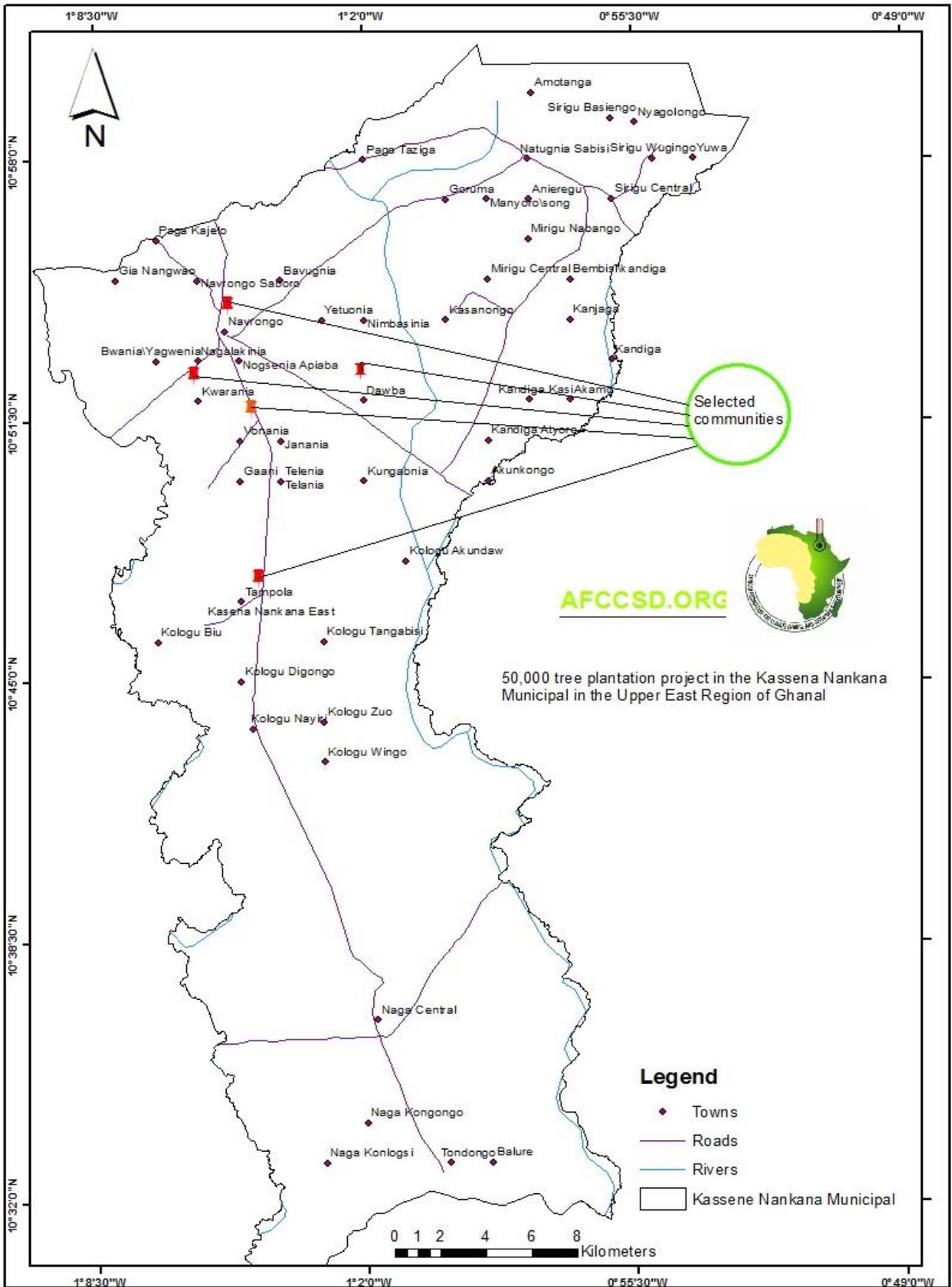
In the municipality, 82.7% of households are engaged in agriculture. In the rural localities, 93.1 percent of households are agricultural households while in the urban localities, 56.8 percent of households are into agriculture. Most households in the Municipality (96.1%) are involved in crop farming with Poultry (chicken) as the dominant animal reared in the municipality.

A change in rainfall pattern is one of the major climate change impact in Kassena Nankana East Municipality. The temperature in the Municipality have been increasing at an annual rate of 0.02°C in the last 30 years and it records the highest annual temperatures in Ghana and hence, the most likely to be affected by the adverse effects of climate change in the near future. The monthly average temperatures range from 27.9°C to 32.6°C. Increases in temperature could lead to increases in evaporation and evapotranspiration rates and these together reduce soil moisture, create heat stress and reduce the quality and quantity of farm commodities, thus likely to have large impacts on crop and livestock production. The rainfall amounts/ distribution during the rainy season has also declined over the last three decades with implications for available soil moisture for crop production, as crops are sensitive to moisture for growth and optimal yield.

The project seek to promote environmentally friendly, ecologically stable and economically flourishing Kassena Nankana. Fifty thousand (50,000) tree seedlings will be planted within a period of five years. We came up with this proposal as a result of decrease in agricultural production due to rainfall unreliability, rapid soil erosion due to bare soil, and deforestation.

Project Area: The Kassena Nankana Municipal was upgraded by LI 2106 from the Kassena Nankana District which was established in 1988 by LI 1855. It is one of the fifteen (15) districts/municipalities in the Upper East Region of the Republic of Ghana. The municipality has Navrongo as its political and administrative capital. The municipality lies approximately between latitude 11°10' and 10°3' North and longitude 10°1' West. The municipality shares boundaries to the north with Kassena-Nankana-West District and Burkina Faso. To the east, it shares boundary with Kassena-Nankana West District and Bolgatanga Municipal, to the west with Builsa District and to the south with the West Mamprusi District in the Northern Region.





Map of the project area

Vision of the project: An environmentally friendly, ecologically stable, and economically flourishing Municipality for the people of Kassena Nankana.

Project Goal: The project will cover an equivalent of 125 hectares of land in the various communities in the Kassena Nankana municipal owned by local communities, cities/urban authorities, Ghana National Road Authority, Forestry Commission, etc within a period of five years from the date of commencement of the project.

Significance of the project: The project will contribute to the improvement of livelihood and resilience to climate change of the people of Kassena Nankana Municipal through:

- Improving community knowledge and awareness of climate change issues and supporting demonstration and adaptation practices that reduce the impacts of climate change on peoples livelihood such as best practices on water protection and preservation, soil fertility conservation etc.
- Increasing in the number of barriers to wind, which intern reduce soil erosion and destruction of crops and properties by wind.
- Contributing to climate stabilization thus reducing the negative effects of climate change that are culminating to global warming.
- Increasing the number of shade trees especially in gazetted urban resting places such as green parks and recreational centers.
- Filter air by removing dust and absorbing other pollutants like carbon dioxide, sulfur dioxide and nitrogen dioxide in the environment.

Target planting: Fifty thousand (50,000) tree seedlings will be planted over approximately 125 hectares considering a spacing of 5 x 5 meters.

Mid-term review, Project Evaluation and Closure: This project will be implemented over a period of five years from the date of commencement of activities. Mid-term review will be conducted after two and half years of operation to ascertain whether the project is being run in the desired direction. Internal audit mechanism will be put in place to ensure close monitoring and evaluation of project performance on a quarterly bases (i.e. after every three months). This will help to streamline management to required standards. The project is expected to wind up by the fifth year of its operation after which it will be subjected to a full audit examination of its contribution to the target community in the light of its preconceived management objective. Depending on trade-offs justify by new opportunities/ successes created by the formal project, recommendation will be made for either a completely new project that will seek to address fresh challenges or extension of the operational tenure of the formal project to sustain similar benefit/opportunities to a wider target communities in Ghana.

Methodology: Implementation of the project will take course through a number of phased stages designed to ensure acceptance and effective implementation by the target community. These are summarized in the following accounts:

- **Community sensitization:** Project extension workers will meet members of the target community in their home, public places, and in village council meetings, where there will be sensitized on the importance of the project. They will also collect information from the target community regarding the selected tree type for the project.
- **Tree Nursery Establishment:** Tree nurseries will be established in two communities in the municipality. In addition, soil conditions, seedlings to be raised by the project will depend on the choice of preferred varieties as assessed from peoples responses during the sensitization programs. Tree nurseries will be strategically located in areas of utmost convenience and accessibility to the target community.
- **Distribution of seedlings:** Establishment of the tree nurseries will be made in advance of a target planting season so that seedlings are ready by the onset of a particular raining season. Seedlings will be distributed to the selected project area for the commencement of the exercise. The following simple formula will be used as a guideline during distribution of seedlings:

Number of seedlings per hectare at 5m x 5m spacing =400

Number of seedlings per acre at a 5m x5m spacing =160 i.e. (400 /2.5)

Total number of seedlings per community with Y acres of land =160Y

- **Delivery of seedling to the planting site:** Delivery of seedlings will include site sketch maps for locations where planting is meant to take place. This will help the project field team in ensuring effective delivery of seedlings to planting sites successfully. The field team will ensure that seedlings are save and well protected from excessive sunshine and domestic animals such as goats and cows.
- **Site preparation and planting:** The project field/ extension staff will guide the target communities on requirement for site preparation such as lining out, pitting and planting. We will ensure that seedlings planted are well maintained through regular weeding.

The following species of seedlings will be provided by the project to members of target communities and will define the species sample space from which choice for planting depend.

Table 1: Seedling varieties targeted for AFCCSD planting project.

COMMON NAME	BOTANICAL NAME	ECONOMIC VALUE	REMARKS
Cedro	Cedrela Odorata	Timber/firewood	Good agroforestry tree
Odum	Milicia excels	Timber	
Shear Butter tree	Vitellaria paradoxa	Shear butter	It has many medicinal uses.

Annual Budget for the project

A	Item/Material	Unit	Quantity	Unit cost USD \$	Total cost USD \$
	Nursery/seed		50,000	1	50,000
	Stakes	Number	50,000	0.5	25,000
	Mulch, fertilizer	Bags	600	18	10,800
	Land preparation/clearing	Number	125	100	12,500
	Pesticide/herbicide	bottles	600	8	4,800
	Computer inventory software		2	2,400	4,800
	Subtotal				107,900
B	Equipment and Buildings Use				
	Office space (temporal)		3	600	1,800
	Equipment storage /building		3	600	1,800
	Pruning tools		5	10	50
	Truck (Toyota pickup)		1	25,000	25,000
	Spraying equipment (knapsack sprayer)		20	20	400
	Subtotal				29,050
C	Services (Municipal, volunteer and contracted)				
	Salaries and fringe benefits	person	100	150	15,000
	Volunteer allowance	person	50	60	3,000
	Consultant services	person	5	200	1,000

	Educational programs		5	1000	5,000
	Other transportation cost	-	-	1000	1,000
	Administration/Monitoring			1000	1,000
D	Water supply				26,000
	Solar powered borehole drilling and installation	Number	3	5,000	15,000
	Poly tank (5000l)and its setup	Number	3	1000	3,000
	Subtotal				18,000
					180,950
	Grant total (A+B+C+D) USD\$				

AFCCSD: We Stand for Change in Africa!!

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