Climate Change Resilience of Ecosystem Services (CRES)

Report on Reconnaissance Visit to Project Sites

Report By:

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Introduction

On the 13th July 2021, a CRES research team including Dr. Bernard N. Baatuuwie and Mr. Tony Klu commenced a reconnaissance visit to the research sites i.e. Kumbungu, Navrongo and Nandom where the activities will be implemented. Mr. Julius Awaregya Atudeko, Director of Organization for Indigenous Initiatives and sustainability (ORGIIS) supported the field work in Navrongo. The purpose of the field visit was to undertake the following activities:

1) Find out and confirm the existing Women and youth groups for implementation of the project in the area.
2) Confirm the presence of the targeted multipurpose native tree species in the study sites including:

   - Baobab (*Adansonia digitata*)
   -Bombax (*Bombax costatum*)
   -Marula (*Sclerocarya birrea*)
   -Jujube (*Ziziphus mauritiana*)
   -Locust bean (*Parkia biglobosa*)
   - Lannea (*Lannea microcarpa, Lannea barteri and Lannea acida*)
   - Balanites (*Balanites aegyptiaca*)

3) Ascertain any information on domestication e.g plantations of the above species
4) The possibility of nursery establishment
5) Availability of land for plantations

Methods Employed

As point of entry, a meeting was convened with the Director of Organization for Indigenous Initiatives and Sustainability (ORGIIS) and staff of Savannah Fruits Company (SFC) as these organizations are partners in the implementation of the project. The two organizations are also already into the product processing and marketing of some of the selected species as well as their conservation. Additionally, these organizations have well established women groups at the community levels across the study areas which the project can leverage on for successful implementation of the project.

Staff of these organization led the CRES research team to the selected communities to interact with women groups as well as ascertain the presence of the targeted tree species within the communities. A meeting was held with the women/youth groups for introduction of the CRES project and its activities. (Plate 1). The knowledge of women groups about the availability of the targeted tree species and their uses were elicited. The team also tried to find out the interest of the women groups as well as the availability of land for nursery establishment and subsequent planting of these tree species. A guided walk with community members and staff of ORGIIS and SFC (Plate 2) was done to observe and identify the targeted tree species on their lands. Ocular estimation was carried in the field to estimate the status of dominance and/or availability of these tree species.

Plate 1: A meeting with women group at Zimuopare (Golo-Yir) in Nandom

Plate 2: A guided walk with women group at Naaga Pengo to ascertain the presence of the selected tree species

Key Findings

Availability of Women/Youth Groups in the communities

Table 1 presents the list of communities and women/youth groups visited in the study sites. In all, seventeen (17) communities were visited of which seven (7) were in the Kumbungu area and five (5) each from the Navrongo and Nandom areas (Figure 1).

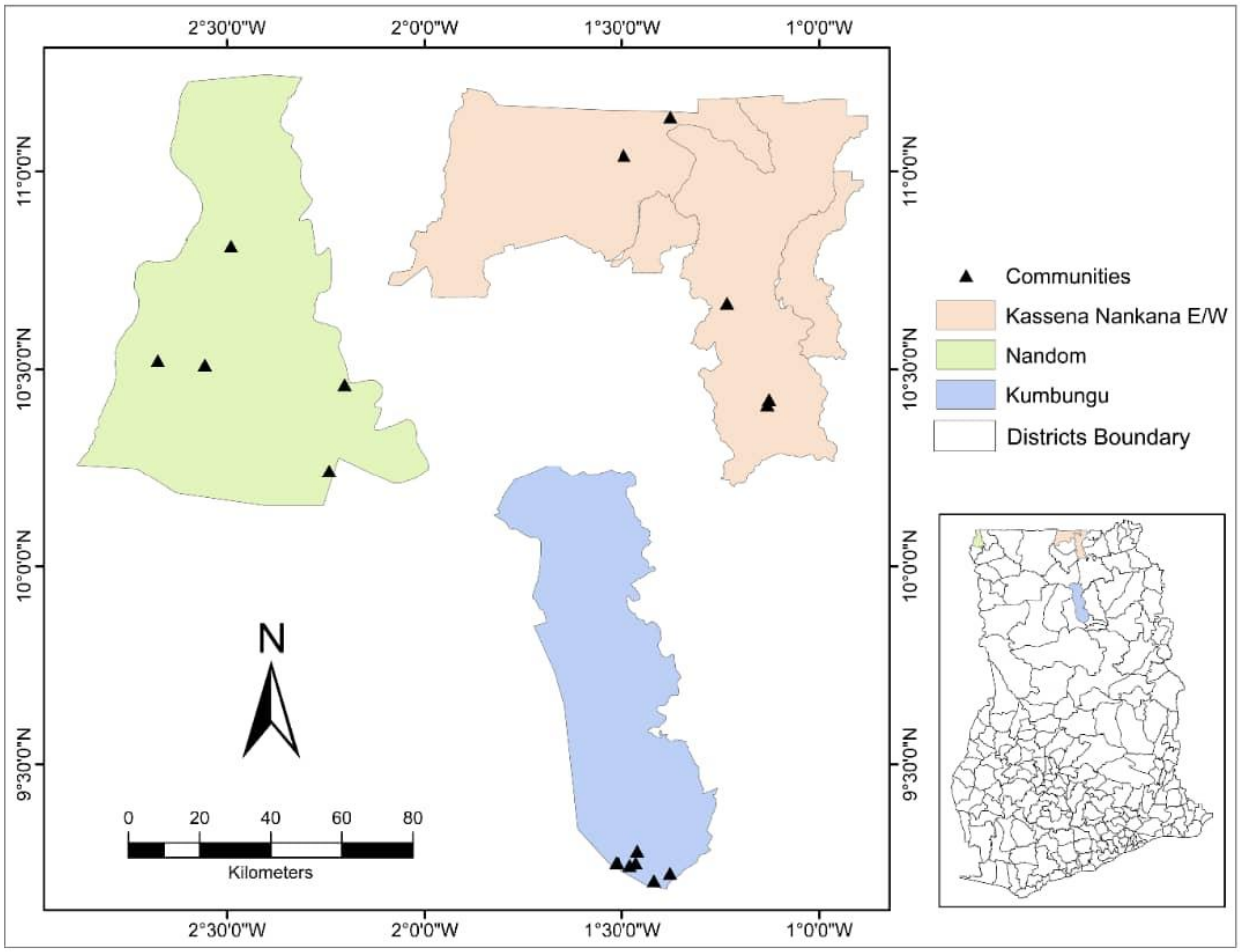

Figure 1: Communities Visited in the Study Areas

Twenty-eight (28) women/youth groups were met and interacted with in these communities. It was clear that all the groups were engaged in the harvesting and utilization of some of these tree species. Some of the women use these species for income generation purposes, while others use them for domestic purposes. The women groups visited also indicated the scarcity of some of the tree species in their area and were willing to make themselves available for capacity building in relation to the propagation, harvesting and value addition of the targeted species in their communities. The women groups also showed interest in seeking permission from their husbands to release land or allow them to plant some of the trees around their farm boundaries.

Table 1: Women Groups and Their Activities

Community	Name of women group	Group Size	Location	Region	Coordinates (Degrees)	Major activity of the group
Pindaa	Dezendani	54	Navrongo	Upper East	N: 10.97864 W:001.15158	Harvesting, partial processing and marketing of plant products such as bombax, baobab, lannea etc.
Chiana	Wupolo	30	Navrongo	Upper East	N: 10.92861 W:001.21438	Harvesting, partial processing and marketing of plant products such as locust bean , baobab, lannea etc.
Naaga Pengo	Akabikire Group	*25*	Navrongo	Upper East	N: 10.60654 W:001.02244	Harvesting, partial processing and marketing of plant products such as bombax, dawadawa, baobab, lannea etc.
Naaga Main	Auntaaba Group	120	Navrongo	Upper East	N: 10.5996 W: 001.02478	shea and baobab collection
Kologo Naayir-Fonge	Azaalibisi Group	30	Navrongo	Upper East	N: 10.73340 W:001.07757	Baobab and shea collection and marketing
Ketuo	Boyeng Group	20	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Ketuo	Tietaa Dikpe	18	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Ketuo	Songtaa	28	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Ketuo	Tietaa-Songtaa 1	20	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Ketuo	Tietaa-Songtaa 2	18	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Ketuo	Enye 1	16	Nandom	Upper West	N: 10.90252 W:002.79825	Village Saving and Loans (VSL) and harvesting of wild fruits for home consumption
Ketuo	Enye 2	20	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Ketuo	Tietaa-Kpenaolong	20	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Ketuo	Monye group	20	Nandom	Upper West	N: 10.90252 W:002.79825	VSL and harvesting of wild fruits for home consumption
Zimuopare (Golo-Yir)	Kpimer group	29	Nandom	Upper West	N: 10.80528 W:002.71757	VSL and harvesting of wild fruits for home consumption

Community	Name of women group	Group Size	Location	Region	Coordinates (Degrees)	Major activity of the group
Zimuopare (Boo)	Songtaa-Nongtaa group	28	Nandom	Upper West	N: 10.80528 W:002.71757	VSL and harvesting of wild fruits for home consumption
Zimuopare (Boo)	Nungmo group	31	Nandom	Upper West	N: 10.80528 W:002.71757	VSL and harvesting of wild fruits for home consumption
Lyssah	Lyssah Shea Butter Co-operative	53	Nandom/Lawra	Upper West	N: 10.74463 W:002.72863	VSL and harvesting of wild fruits for home consumption
Koselle	Enye group	40	Nandom	Upper West	N: 10.81922 W:002.81685	VSL and harvesting of wild fruits for home consumption
Koselle	Tier-Kaa group	34	Nandom	Upper West	N: 10.81922 W:002.81685	VSL and harvesting of wild fruits for home consumption
Gengekpe	Gengekpe Women group	67	Nandom	Upper West	N: 10.82222 W:002.85031	VSL and harvesting of wild fruits for home consumption
Kpaliga	Sorokonbo	46	Kumbungu	Northern Region	N: 09.44724 W:000.95925	Shea nut collection and processing of butter
Cheyohi	Chelnyoli Ka Bo	79	Kumbungu	Northern Region	N: 09.43549 W:000.98562	Shea nut collection and processing of butter
Gizaa	Gizaa Women Group	100	Kumbungu	Northern Region	N: 09.46412 W:001.04475	Shea nuts collection and butter processing
Gundaa	Gundaa Women Group	100	Kumbungu	Northern Region	N: 09.46495 W:001.04796	Shea nuts collection and butter processing
Jakpahi	Malbeganda	90	Kumbungu	Northern Region	N: 09.46043 W:001.02502	Shea nuts collection and butter processing
Jojing	Nwun Kpalinda	70	Kumbungu	Northern Region	N: 09.46422 W:001.01514	Shea nuts collection and butter processing
Gbulung	Maltiti	89	Kumbungu	Northern Region	N: 09.48358 W:001.01247	Shea nuts collection and butter processing

Observed Targeted Tree Species in the Field

A number of the targeted tree species were found in the communities visited in all the three study sites in Ghana. Table 2 presents the tree species identified in the visited communities and their status of dominance/availability by ocular estimation.

Plate 4: A Woman Harvesting Baobab Leaves

Baobab is found in almost all the communities visited but they are highly available (commonly seen with high population in relation to the others) in Chiana at the Navrongo area. It was observed that baobab leaves were over harvested at the Nandom area which hindered their growth and survival (Plate 4).

Bombax was observed to be highly available in the Naaga area in Navrongo and very low across most of the communities visited. Issues of unsustainable harvesting methods were reported by the women groups visited. Thus, tree branches are cut/broken down yearly to harvest both leaves and fruits. This has resulted in the death of many of the individual trees and hence, the decline in their population.

Marula was found to be common at the Pindaa and Naaga of the Navrongo area. *Lannea macrocarpa* was observed to be highly available in all the communities at the Navrongo area and two communities i.e. Ketuo and Zimuopare in the Nandom area. *Lannea acida* was also observed to be common in Naaga and Ketuo areas of the Navrongo and Nandom areas respectively. With the exception of the Ketuo community, locut bean was observed to be highly available in all the

communities visited in the Nandom area and Cheyohi in the Kumbungu area. It was however reported by the women groups that the locust bean trees do not bear fruits Though balanites???????? was observed in all the communities, they were highly available in the Ketuo community of the Nandom district. Few Jujube plants were also found in three communities at the Navrongo area. *Lannea barteri* was however not seen in any of the communities visited by the team.

Observed Targeted Tree Species in the Field

Location	Community	Baobab (*Adansonia digitata*)	Bombax (*Bombax costatum*)	Marula (*Sclerocarya birrea*)	Jujube (*Ziziphus mauritiana*)	Locust bean (*Parkia biglobosa*)	Lannea (*Lannea microcarpa*)	Lannea (*Lannea barteri*).	Lannea (*Lannea acida*)	Balanites (*Balanites aegyptiaca*)
Navrongo	Pindaa	Available	Available	Highly available	Low	Not seen	Highly Available	Not seen	Low	Available
	Chana	Highly available	Low	Low	Not seen	Low	Highly Available	Not seen	Low	Low
	Naaga Pengo	Available	Highly available	Highly available	Low	Low	Highly Available	Not seen	Highly available	Available
	Naaga Main	Available	Low	Highly available	Low	Low	Highly Available	Not seen	Highly available	Available
	Kologo Naayir-Fonge	Low	Low	Available	Not seen	Low	Highly Available	Not seen	Availabl e	Available
	Ketuo	Available	Very Low	Very Low	Not seen	Low	Highly Available	Not seen	Highly available	Highly available
Nandon	Zimuopare	Available	Available	Not seen	Not seen	Highly available	Highly Available	Not seen	Availabl e	Available
	Lyssah	Available	Very Low	Not seen	Not seen	Highly available	Available	Not seen	Low	Available
	Koselle	Available	Very Low	Very Low	Not seen	Highly available	Available	Not seen	Low	Available
	Gengekpe	Available	Very Low	Very Low	Not seen	Highly available	Available	Not seen	Low	Available
	Kpaliga	Very low	Very Low	Not seen	Not seen	Available	Very Low	Not seen	Very Low	Low
Kumbungu	Cheyohi	Very low	Very Low	Not seen	Not seen	Highly available	Very Low	Not seen	Very Low	Available
	Gizaa	Available	Low	Low	Not seen	Available	Very Low	Not seen	Very Low	Available
	Gundaa	Available	Low	Low	Not seen	Available	Very Low	Not seen	Very Low	Available
	Jakpahi	Very low	Low	Not seen	Not seen	Available	Very Low	Not seen	Very Low	Low
	Jojing	Very low	Very Low	Not seen	Not seen	Available	Very Low	Not seen	Very Low	Very low
	Gbulung	Low	Very Low	Not seen	Not seen	Available	Very Low	Not seen	Very Low	Very low

NOTE:
Highly available: Species can easily be seen or found closed to the community as the population is high

Available: Species can be seen/found around the community with reduced population in relation to other species
Low: Species are available but not very common
Very Low: Species are very scarce
Not Seen: Species has not been sighted by team

Domestication/Plantations of the Targeted Species

The team found out that ORGIIS has started a tree nursery of which some of the targeted tree species e.g. Baobab and locust bean are part of the seedlings grown. They have successfully grafted and transplanted some of the baobab in the 2020 farming season in some of the communities. ORGIIS is also willing to use its nursery as a seedling production and training site for beneficiary communities under the CRES project.

Conclusion and recommendations

The reconnaissance field visit revealed that:

- There exist a number of women and youth groups in the study sites of whom their livelihood activities have bearings to the selected tree species under study.
- With the exception of *Lannea barteri,* all the targeted species were found in many of the communities of the study sites.
- There is an effort to domestication or establish plantations of the targeted species especially by ORGIIS.
- The women/youth groups visited were willing to make themselves available for capacity building to plant some of these tree species
- The use of Marula and Jujube was not widely known by the various groups in the study areas

The following recommendations are drawn from the visits:

- Since there are enthusiastic groups in the study sites, they can be leveraged on for successful implementation of the project in the area.
- For the purposes of plant material collection and species diversity studies, it is recommended that communities with “highly available” species should be selected for the studies.
- Detailed study to estimate tree densities is required as the above was based on ocular estimation
- Investigate the inability of the locust bean tree in bearing fruits.
- Investigate and propose sustainable harvesting methods for bombax and baobab.
- Nursery and plantations as well the technical-know of ORGIIS can be leveraged for project implementation.