

Community Awareness Programme ON Conservation of *Encephalartos whitelockii* (Zamiaceae) in Mpanga

A presentation

By

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Female cone of *E. whitelockii*



Male cone of *E. whitelockii*

We need each other to survive, so protect us just like you love to live

What are Cycads?

Some general characteristic features of cycads.

- Ancient group of woody plants that produce seeds
- Have superficial resemblance to palms or ferns, but not related to either
- Consist of a trunk underground or above ground depending on the species
- Trunk usually short with no side branches and topped by whorls of leaves
- Are dioecious in nature i.e with both female and male individuals
- Have specialized woody growths on the cones, called sporophylls that bear the sexual parts.
- Sporophylls on the male cone produce pollen, while those on the female cones bear large ovules which if fertilized develop into seeds
- Pollination is either by wind or insects depending on the species
- Have their seeds borne in cones

Distribution of Cycads

- Many species of cycads exist all over the world (About 100 species from 11 genera).
- In Uganda only four species have been recorded namely;
 1. *Encephalartos macrostrobilus*
 2. *E. equatoliaris*
 3. *E. whitelockii*
 4. *E. hildbraedantii*

Why *Encephalartos whitelockii*?

- It is a Ugandan plant species (Endemic) i.e. found only in Ugandan in a natural habitat.
- Unique from other plants we have in Uganda majorly by;
- Way of reproduction. It is a dioecious plant
- Very slow growth rate. It matures after several decades
- It is habitat specific. Its growth is favoured by ecological and environmental conditions in Mpanga gorge.

Note: These aspects make the species fragile, hence the need to cooperate as stakeholders to protect its survival.

What the project needs do?

- Sensitization/ awareness raising on ecological and conservation significance of *Encephalartos whitelockii*.
- To establish a nursery to raise cycad seedlings for re-planting. Capacity building programmes on selection and processing of cycad seeds for propagation, planning and preparation of a good nursery bed and nursery management will be conducted, where the selected community members will be trained as trainers for other people in the area.
- To restore the cycad areas that have been degraded.

Note: But efforts and success on this need to be complimented by the community through collaboration.

How should the community collaborate to save the Ugandan cycads?

- Build a mutual working relationship with project staffs. Be supportive and harness efforts made by the project
- For cycads on privately owned land. Conduct environmentally friendly farming practices that support cycad survival. Avoid cutting and burning of cycads in a bid to clear land for agriculture. Cycads are nutrient (Nitrogen) fixers. (Nitrogen is essential for good growth of plants. Encourage “inter-cropping” to exploit this opportunity.
- Secondly, the cycad (seed pulps) are a palatable food to the baboons thus, enhancing the cycad population can help minimize crop raids by the animals). Therefore measures that support a fairly large population of cycads to thrive foster chances of reproduction since the species is dioecious).

Importance of Conserving Cycads

- Are nitrogen fixers
- Are a natural resource of national treasure with potential for tourism and scientific research

Tourism potential

1. It is a unique plant in an aesthetically scenic environment.
2. Seeds are a source of food for baboons. Thus the plant enhances wildlife / nature conservation thereby contributing greatly on tourism prospects

Research potential

In other countries where other species of cycads exist, research has been done to explore their economic value. In general, many plants have been found to have;

1. Pharmaceutical value i.e drugs for both humans and animals
2. Colouring agents i.e dyes for foods, fabrics and craft materials
3. Food preservatives and adhesives e.t.c

Then who knows what potential *Encepharlatos whitelockii* has?

1. It is only possible to know if research is conducted to ascertain the economic values of this plant. To permit the research process, the plant has to be conserved first.

What happens when a novel product is discovered from *Encepharlatos whitelockii* and who benefits?

1. Uganda as a country of origin. (Through sale of patents/ property rights)
2. The district
3. The world as a whole when discoveries are made applicable and available for human use.

Conclusions

- Consider *Encephalartos whitelockii* as a useful plant resource and protect it. Its survival will pave way for exploration of how to exploit it for livelihood of humankind.
- The development we experience in our societies is based on initiatives from all fields of science. Science starts within the communities or societies we live in.
- As we leave this place to go back home, compare our beloved Ugandan cycad to a young baby at home. You can never tell and appreciate the future of that baby until maturity time. Appreciation is realized later following good nurturing. So let us cooperate with whoever it concerns to conserve our cycad species and its habitat. The fruits may be realized not with our generation today, but probably with the next generation.

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Thank you for listening and your cooperation will be highly appreciated