



POLICY BRIEF

Extinction! Somaliland Critical Biodiversity Conservation: In-Situ Conservation of Geedka Deeble Botanic Garden

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What is a Botanical Garden?

Botanical garden is a garden purposively selected for the conservation of biodiversity and with the aim of multiples use both at community, academia and for global benefits. Botanical gardens known to be located around the globe with many efforts put to increase the numbers in all the continents. The garden contains a collection of living organisms and range from both Fauna and flora coexisting within the ecosystem established. The garden is often used as common gardens for community, and also serving the researchers with interest in understanding the ecosystems as well as supporting the establishment, management decision making and protection. The Botanical garden serve as a critical conservation site for many regions of the world, protecting critical biodiversity.



Fig 1. Official Lunch of Geed Deeble Botanical Garden graced by Vice president Hon. Abdirahan Ismail Saylici

Why is Botanical Garden a priority for Somaliland?



Fig 2. Fig Tree at Geed Deeble Botanical Garden

*Botanical Gardens have been documented to have crucial roles in growing the economy, and supporting sustainable development of any country. The Garden is very crucial consideration to Somaliland's economy, where the livelihoods of the people depends on natural resources, mainly on trees, shrubs, grasses, herbs, etc., which are critical Biodiversity that should be protected. It is well documented that, we can't protect, conserve and sustainably manage what we don't know, its value and impacts to the economy both at household and the nation at large. Many plants in Somaliland are faced with threats of extinction, including the valuable trees producing gum and resins (*Boswellia* spp) that support over 70% of households incomes in producing areas along the value chain. Other species at threat include *Codexia edulis* (Yeheb), *Acacia manubensis*, *Acacia flagellaris*, *Acacia densispina*, *Dracaena ombet* with a wide array of grasses and shrubs that were critical forage resources.*

Botanical gardens have big roles to combat climate change and its Impacts in Somaliland!

The need for engagement at all spheres in the efforts to combat climate change impacts is real. The world over, we know that biodiversity loss is one of the major impacts of climate change phenomena. The establishment of Botanical gardens provide the opportunity to make a contribution in the protection and consideration of critical biodiversity resource that have continued and also have potential for future adaptation to climate change. Botanical gardens provided researchers and practitioners with an opportunity to contribute to development of solutions and innovations that biodiversity offers in addressing climate change. The gardens offer the opportunity to conserve and protect the unique resources, including diverse collections of plant species growing in natural conditions. The gardens also offer opportunity to have a pool of historical records that will help plan for the future. The gardens with the provided experts in various fields have a role in educating the masses from the set up gardens on what options are available, which species and why for adapting and mitigating the climate change impacts, including the much need knowledge on choice of species and practices by the communities.



Fig 2. Community engagement on land preparation for the establishment of Geedka Deeble Botanical Garden

From the lessons from all over the world's Botanical gardens, they are known to attract a large number of visitors and volunteers, with the expected learning platform created, increased awareness on conservation efforts and biodiversity protection, has a wider spillover effect to help make the world landscape a better place to live. The support for research is also a valuable role played by the Botanical gardens of the world. The Gardens have also contributed to promising future directions for research and public engagement in solving societal problems. The botanical gardens have indeed advanced climate change research, often through the use of new or improved tools that allow researchers to leverage the living, historical, and specimen collections of botanical gardens. At the same time, new scientific, conservation, and public engagement challenges have arisen that botanical gardens are uniquely positioned to address. This has been emphasized in the published review 'New Phytologist Tansley' (Primack & Miller-Rushing, 2009), which highlighted on the underutilized capacity of botanical gardens – gardens that specialize in the display, scientific study, and utilization of plant diversity – to advance climate change research. In the decade since.



Fig 3. Tree Nursery at Geed Deeble Botanical Garden

Botanical Garden to save the effects of disappearing Somaliland's Biodiversity: Loss of natural wealth?

The establishment of Geedka Deeble Botanic Garden, situated about 25 km to south of Hargeisa within Geedka Deeble forest reserve is a positive step to save the critical Biodiversity within the areas. The Garden sits on an area of 800 ha of the reserve land which is representative of the Somaliland ecological zones harboring Somaliland

endemic plant species facing extinction with the need for protection. The garden will provide in-situ botanical garden where endangered plants will be grown and nurtured, protected and create a living gene bank. The botanical garden is envisaged to join the worldwide over 2500 botanic gardens established mainly for the sake of conserving plants for various purposes, and thus Geedka Deeble will be added to the database of the Botanic Garden from arid and semi-arid part of the world in the near future

Somaliland has more than 5000 Vascular plant species which 15% of them are endemic plants and provide food, shelter, fodder and medicine as well as raw material for production ,but for the last decades technological advancement ,population growth and climate changes accelerating and leading loss of large number of endemic plant species from their natural habitat. This losses is nothing more that loss of national Wealth! Thus, we need to act Now! And save the livelihoods of the future generations.

What are Challenges facing establishment of Botanical Gardens in Somaliland?

There is need to emphasise and seek support from the Somaliland Government and other development partners to provide support, invest, and provide the needed legal and policy directions on the establishment and management of Botanical Gardens. Over-exploitation from unsustainable utilization of natural biodiversity in the community has increased threats to the native biodiversity, which greatly affects existing valuable plants and trees in Somaliland. The high demand and poverty has increased over utilization of trees of direct value to the communities, reducing regeneration of tree with increased rates of tree mortality. The trees natural low regeneration when not well natured, greatly affects new trees growing, hence low population over time. This factors coupled with the frequent droughts and harsh climatic conditions, have led to the decline in population of important trees, nearly getting to extinction, classified as threatened. The present situation is no efforts by the community to propagate the trees, manage them for present and future generations, greatly threatening their major source of livelihood. Thus, the proposed Botanical Garden, with potential for replication to other areas will provide the future of assured conservation of critical biodiversity for better livelihoods.

The Potential economic, social-cultural and religious functions of Botanical Gardens for Somaliland

The establishment of the Botanical garden in Somaliland is expected to support the economy of the country by creating employment, support investments and savings, support research and education, as well as increase the Government role in conservation efforts of critical biodiversity. Below is examples of support services that Biodiversity offers.



Fig 3. The economic, cultural and religious function of Biodiversity in Botanical Gardens

What would be the Contribution of Botanical Gardens to Somaliland's economy and SDGs?

The establishment of National Botanical Garden by Somaliland is a step in support to the SDGs call for action by all countries, poor, middle-income and rich, to promote prosperity while protecting the planet. The Botanical Garden supports the efforts of ending poverty, which must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, Research, health, social protection, and job opportunities, while tackling climate change and environmental protection, roles that the garden directly contribute to attainment. With the 17 SDGs and 169

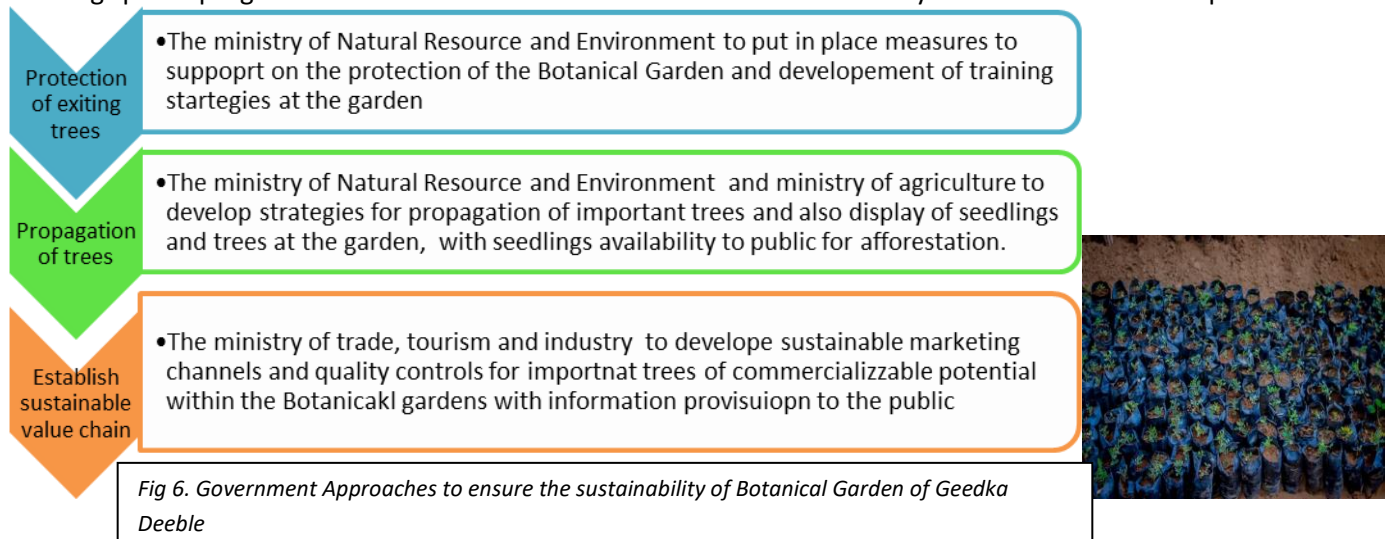
targets, the SDGs we recognise the inter-relationships between human development and the environmental, economic, social and political context in which it occurs. Thus, the Geed Deeble Botanic garden, with the focus on understanding, conserving and sustainably using plant diversity, as well as raising awareness of environmental issues, will be involved in many activities that contribute to the achievement of the SDGs below for Somaliland;





What can be done to protect and improve on the Geedka Deeble Botanic Garden in Somaliland?

There is urgent need to protect the plant biodiversity of Somaliland from over exploitation and put in place measures for propagation to increase the population, while having save heavens for in-situ protection to serve the community. To ensure that the biodiversity of trees and other important plants are protected by community, interventions on sustainable harvesting and community propagation are needed. This is among the roles that Geedka Deeble Botanic Garden will serve, including creating public awareness and training to visitors and the public at the garden, including creating special programmes for children in schools education on biodiversity and sustainable development.



Key Messages

- Over exploitation of plant Biodiversity has critically reduced the trees population in Somaliland endangering producers livelihoods and loss of biodiversity
- Loss of trees and other important plants like shrubs, grasses means loss of export income for Somaliland governments from the economic activities supported by Biodiversity

- The communities have limited skills and knowledge on Biodiversity losses and the benefits of biodiversity protection for sustainable development, which should be fulfilled by the Botanical garden to the communities.

Policy Recommendations

- The Government of Somaliland should develop a strategic plan and policy to support the establishment and management of Botanical gardens for the benefit of the stakeholders with registration of Geed Deeble Garden with international Botanical gardens.
- The Ministry of Environment and climate change should increase awareness on the benefits of Botanical gardens to the community and the development of the country
- There is also need to create awareness on the effects of over harvesting of trees on tree productivity and future effects on the community livelihoods
- The government of Somaliland should develop legislations and implement in line with communities cultural regulations and laws to protect and manage the botanical gardens
- The Ministry of Environment and climate change and partners should train communities on sustainable management of Biodiversity, support to eco-tourism awareness and benefits to the children and the community for sustainability
- The Ministry of Agriculture and Ministry of Environment and climate change should institute propagation strategies within the established garden of important and endangered tree and other plant species within the Garden to serve as seed bank and also extension to community producer groups and consider extension of propagation technologies for adoption
- Analyze and strengthen sustainable value chains that ensure fair trade for the benefit of producer communities within the plant Biodiversity with demonstration at the Botanical garden
- The Ministry of Trade should consider establishment of producer groups for economies of scale in production and marketing of Biodiversity resources in a sustainable manner with models establishment of the Botanical garden
- There is need to establish strategic botanical gardens within the country, to support conservation and protection of critical biodiversity to support the economy of the country

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**GEED-DEEBLE
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