Africa's Great Green Wall Initiative: Landscape Protection Beyond Afforestation

Introduction

What if a wall - usually a symbol of division, restriction, or entrapment - instead had the power to connect, reinvigorate, and restore? The Great Green Wall Initiative, introduced by the African Union in 2007, aims to facilitate exactly this alternative. The Initiative has grown to involve over 20 countries and spans the width of Africa's Sahel region, from Senegal and Mauritania in the west to Ethiopia and Djibouti in the east (UNCCD, n.d.; Schleeter, 2023). With an aspirational deadline of 2030, the Initiative's overarching aim is to better manage - and prevent further degradation of - key landscapes (UNCCD, n.d.). Despite afforestation being frequently heralded as a fundamental component of many Nature Based Solutions (NBS) to climate change, the Initiative has conceptually evolved far beyond simply a continent-wide wall of trees, developing into a geographically-specific range of projects each with its own set of targets and impacts (Raman, 2023). In this way, the Initiative can be said to demonstrate a highly multifaceted and multidimensional approach to landscape restoration.

This paper aims to further expand on the benefits of this more multifarious approach to sustainable development, providing localised examples from across the Initiative - namely projects in Ethiopia, Burkina Faso, and Senegal - in support of an overarching assertion that this piecemeal style of landscape intervention is more effective than a blanket continent-wide approach. Whilst this paper primarily speaks positively about the Great Green Wall Initiative, the physical, socioeconomic and political complexity inherent to many land management efforts mean that an Initiative of this scale has undeniably demonstrated some variation in degree of success across geographical space. An evaluative stance therefore sees this paper culminate in a section briefly outlining some of the Initiative's identified shortcomings, particularly in the face of a changing climate and evolving geopolitical context.

How location-specific projects within the Initiative promote synergistic progress towards the SDGs

The Great Green Wall Initiative, although labelled under this all-encompassing title, is in fact composed of several smaller-scale projects which collectively form a continent-wide belt of landscape management. One benefit of this more piecemeal management approach is that each of the Initiative's projects can be better-tailored to its unique locational context, in doing so producing more place-appropriate environmental management and simultaneous socioeconomic and environmental benefits - or *synergies*.

Ethiopia

Deforestation and land degradation have significantly damaged Ethiopia's soils, causing loss of fertility, reduced agricultural productivity, and increased risks of erosion and landslides. Faced with these challenges, the Great Green Wall Initiative has worked to reverse these alarming trends by attempting to restore degraded forests, better protect soils against erosion, and improve the overall resilience of ecosystems to climate change (Silabat, 2023). Indeed, the Great Green Wall Initiative has seen 1 million hectares of land be restored, 800,000 hectares naturally reforested, and an additional 150,000 hectares reforested through other techniques, and Ethiopia's efforts contribute substantially to this overall total (Kelly, 2024 and UNCCD, n.d.). The Initiative's effective use of locational context, and the subsequent achievement of greater synergy between objectives, can be exemplified through Ethiopia's careful selection of tree species for land management efforts as both the region's environmental and socioeconomic interests have been simultaneously met.

Large-scale afforestation efforts across Ethiopia's component of the Great Green Wall Initiative has offered multiple soil conservation benefits; new tree roots have stabilised soils and reduced erosion risk, while the forest canopy protects soil from the impacts of wind and heavy rain (Ali, 2022). Watersheds and chains of trees known as windbreaks also reduce the

impacts of drought by improving water retention and maintaining higher levels of shade and humidity respectively (Ali, 2022; Newell, n.d.). Alongside maintaining soil structure, trees have additionally played multiple essential roles in restoring soil fertility by enriching soil with organic matter and fixing atmospheric nitrogen (Newell, n.d.).
Soil conservation and restoration as a result of tree planting therefore acts to improve overall environmental conditions and reinstates land that can protect and support life, with the correct implementation and preservation of natural resources improving soil quality, promoting agricultural growth, and protecting organisms (Ali, 2022). It is important to recognise that any newly planted or protected trees do not exist in isolation but sit within a wider ecosystem; in light of this, the appropriate selection of tree species has arguably been as critical to Ethiopia's afforestation success as the quantity of trees planted. Indeed, any inappropriate introduction of species would have arguably risked ecosystem disruption through elimination of organisms unable to adapt to an altered food chain and new competition dynamics.

However, careful selection of tree species is of more than just environmental significance. From a socioeconomic perspective, reintroduction of certain hardy tree species such as Acacias, Eucalyptus, Cordias Africanas, and Boswellia papyrifera has provided a range of beneficial resources and greater economic prosperity for local populations (Ali, 2022). The creation of employment opportunities can be partly attributed to these newly planted trees, demonstrating the potential for simultaneous - or synergistic - pursuit of the social and economic Sustainable Development Goals. For example, growing Boswellia papyrifera - a native plant known to produce incense - has allowed communities to sell incense products for income and therefore contributes to SDG12: Responsible Production and Consumption alongside SDG15: Life on Land. Identifying where these synergies between socioeconomic and environmental goals can be exploited is important in the pursuit of sustainable development given that its social, economic, and environmental pillars are all required to uphold the contemporary idea of sustainability which underpins the goals themselves (Baker, 2016).

How small-scale, bottom-up projects within the Initiative support disadvantaged or marginalised communities

As outlined in the previous section, a clear overarching synergy present within the Great Green Wall Initiative has been between environmental protection and the creation of novel socioeconomic opportunities for local populations. A result of this new economic potential - and a second benefit of the Initiative's multifaceted nature - has been opportunity for greater focus on small-scale and bottom-up development strategies. This bottom-up development is beneficial insofar as it provides greater autonomy to local groups and allows development to be tailored to the specific needs of the population. Additionally, compared to top-down initiatives there is a much greater chance of economic rewards being distributed locally or reinvested rather than lost to external agencies. The Initiative is expected to create approximately 10 million new jobs through its implementation (UN Women and UNCCD, 2024); in addition to the environmental benefits of better landscape management, expanded job opportunities for women in sectors such as agroforestry could especially facilitate progress towards sustainable, emancipatory development.

Burkina Faso

The requirement for better opportunities for women cannot be understated in the case of Burkina Faso, a country located on the western side of the African continent, particularly given the country's high rates of current socioeconomic disparity along lines of gender. Male participation in the labour force is almost 15% greater and earnings on average 22% higher, whilst women and younger girls are also seen to undertake the majority of unpaid care work and a greater proportion of informal employment (UN Women and UNCCD, 2024).
A technical brief by UN Women identifies four key employment sectors showing promising signs for greater female employment opportunity in Burkina Faso, namely forestry,

agriculture, energy, and waste management (UN Women and UNCCD, 2024). These opportunities mark progress towards sustainability in a multifaceted sense, insofar as they signal a green transition to improved land-based practices whilst additionally promoting inclusivity and more equitable economic growth. In doing so, this particular element of the Great Green Wall Initiative evidences potential synergies between SDGs 5 (Gender Equality), 8 (Decent Work and Economic Growth), and 15 (Life On Land) and supports women who otherwise constitute a more marginalised population subgroup.

Senegal

The effectiveness of local-scale, bottom-up action regarding pursuit of sustainable development and the creation of synergies between goals can additionally be observed in Senegal, one of the Initiative's original participants. Since its introduction to the country in 2008, Senegal has contributed greatly to the Great Green Wall Initiative, channelling its three-way pursuit of landscape restoration, increased resilience, and economic development primarily into agroforestry efforts (UNCCD, 2020). The Initiative spans 545km and covers 817,500 hectares; covering three administrative regions - Tambacounda, Matam, and Louga - and including 16 municipalities (UNCCD, n.d.).

Results observed from the Initiative within Senegal include 119,202 hectares of restoration and 72,452 hectares of reforestation, with windbreaks installed as more tailored support for agriculture (UNCCD, 2020). Some areas have been chosen specifically as locations for reforestation, while others were allowed to undergo restoration naturally, an allocation process optimised by collaboration between stakeholders and those with local, site-specific knowledge (UNCCD, 2020). These efforts towards SDG15 in Senegal were complemented by the accompanying training of over 2000 local people for associated employment (UNCCD, 2020), emphasising again the importance of the smaller-scale and the inseparability of sustainable socioeconomic and environmental development in effective land management.

Shortcomings of the Initiative

The Great Green Wall Initiative is arguably one of the world's most prominent land management pursuits, however as a result of its size and complexity the realisation of its targets is by no means free from difficulties. The broader geographical context within which this project is being implemented is of particular importance, for example. The United Nations Convention to Combat Desertification (UNCCD) recognised that in being "inflicted with political, social, and environmental challenges, all of which are interconnected", the Sahel has proven to be a challenging landscape upon which to enact a green and sustainable transition (UNCCD, 2023). Indeed, while a strength of the Initiative has been its ability to simultaneously reap social, economic, and environmental benefits, this is arguably only necessary or possible because such dimensionally-interwoven problems exist in the first instance.

It must also be noted that given the evolution of the Initiative beyond afforestation, and because some countries joined the Initiative after its beginning in 2007, indicators and measures such as the number of trees planted or total area reforested in each country is likely to be a somewhat misleading indicator of success when used in isolation (UNCCD, n.d.). Success could therefore be better measured through assessing how well introduced projects help each country and community meet their individual sustainability targets, again emphasising the importance of the local-scale and bottom-up development.

Conclusion

This essay has aimed to outline and explain the nature of the Great Green Wall Initiative which is currently being implemented in the African Sahel, detailing just some of the multifaceted ways in which it is contributing to SDG15 and sustainable development more broadly.

The breadth of the Initiative means that not all aspects could be covered in the scope of this essay, however through three country-specific case studies it is hoped that the diversity of approaches to landscape restoration, and the associated synergies between SDG15 and other sustainable development goals, are recognised.

One commendable and overarchingly positive feature of the Initiative relates to how it has been shaped by Africa's transnational sociopolitical and environmental diversity. Rather than just constituting a grand afforestation gesture, the Initiative is instead composed of many smaller projects tailored to each landscape, country, and population. Through this holistic landscape- and population-specific approach it can be ensured that progress benefits populations - often marginalised - from the bottom-up, and that socioeconomic and environmental synergies continue to outweigh any trade-offs. It can therefore be argued that the context-specific and piecemeal nature of the Initiative are without doubt features which could and should be adapted to suit large-scale, transnational projects in other regions.

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