Members of vulnerable communities from remote rural Rwanda have been for long blamed for preventing the regeneration of trees and thereby contributing to the degradation of hill slopes, rangelands following the high demand for firewood and charcoal.

However, 30-year-old Vincent Ahishakiye from Busasamana village in Southern Rwanda, is slowly changing such a trend through his indigenous tree fodder.

“There have been significant changes in our local ecosystems since I started planting these native trees,” Ahishakiye said in an exclusive interview.

Over the past few decades, the East African country’s original, old forests have declined for a variety of reasons, among them resettlement and livestock farming. Although most farmers in Rwanda still prefer trees with high economic value like eucalyptus, climate researchers argue that the most important factor to consider is for villagers to choose what appropriate species of tree to plant, and where to plant it.



Rwanda has committed to restore two million hectares of degraded land by 2030 through various tree planting campaigns which started in 2011. Rwandan Minister of Environment, Dr Jeanne d'Arc Mujawamariya leads in this tree planting drive with major focus on indigenous species

This is because one of the biggest challenges facing these vulnerable communities is to change their mindset by picking interest in planting indigenous trees, as they highly prefer non-indigenous which make quick profits in the short term.

Currently researchers in Rwanda are focusing on understanding how to handle native tree seeds for germination. This is being done by gathering data on growth and mortality rates of these species.

Rwanda poised to plant 63 million indigenous and exotic tree seedlings. This ambitious reforestation initiative serves a dual purpose: to sell carbon credits on the

carbon market and combat climate change while bolstering resilience against extreme weather events.

Professor Beth Kaplin, the Director of the Center of Excellence in Biodiversity and Natural Resources Management of the University of Rwanda pointed out that what is important is to plant native trees which have adapted to a particular area, which have deep relationships and interactions with the other species in that ecosystem.

“We are engaging the local community to better understand their perceptions and knowledge about trees, how to propagate trees, what values they have, which ones are preferred,” she said.



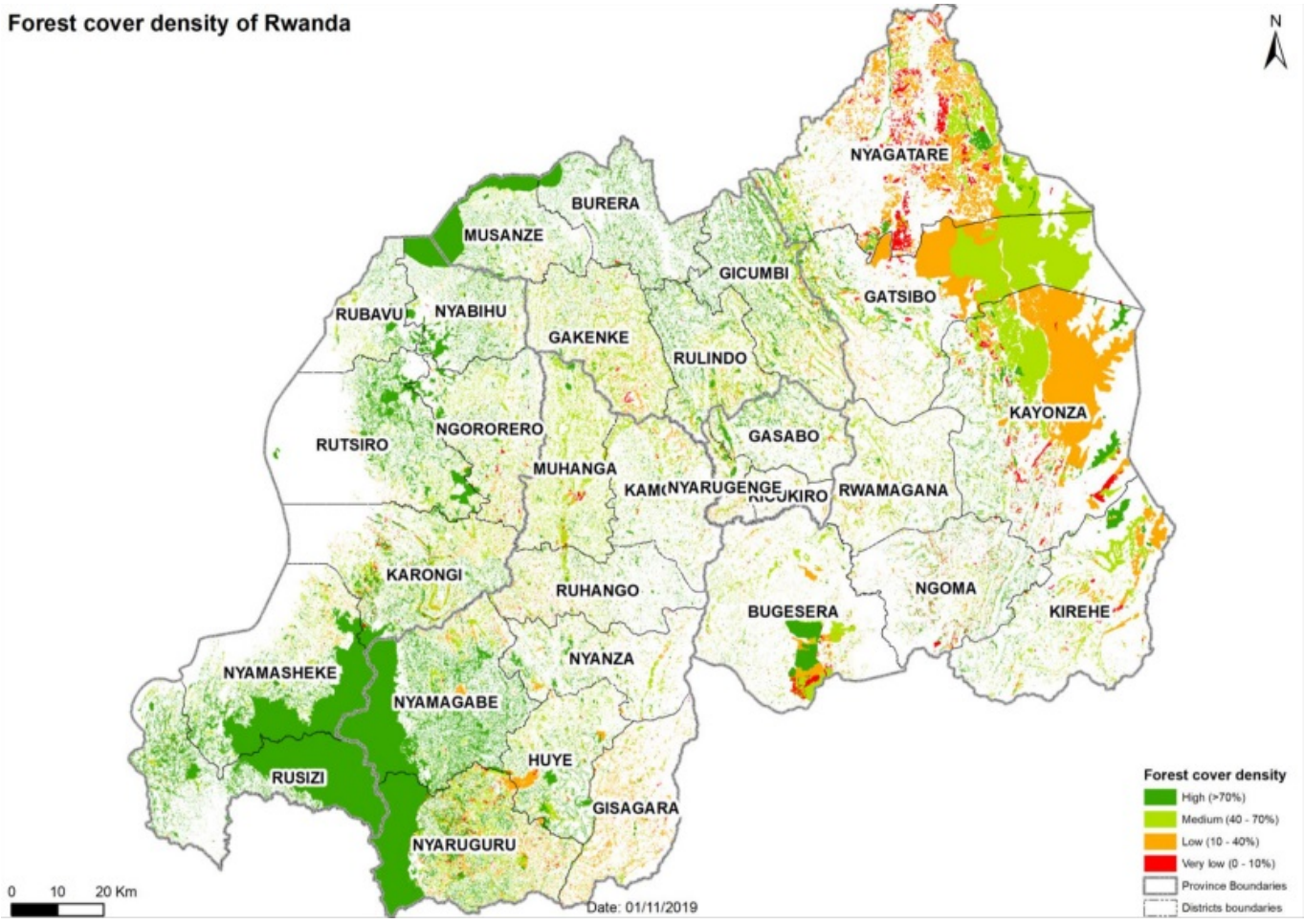
Several thousands of indigenous trees have so far been planted countrywide and Rwanda is pushing to achieve the target of reaching 2 million trees

In addition, researchers say a paradigm shift is critical to end the homogenization of

the landscape – all riparian zones should not be all one species. “We lose out on the multiple benefits of a mix of native tree species which can not only protect soil from erosion (….) these trees can also sequester carbon, attract birds, insects, pollinators that can serve the surrounding agricultural landscape,” Prof. Kaplin said.

Planting campaign

The Spatial Biodiversity Assessment developed by the research center as a tool to guide restoration practices including tree planting has identified 29 indigenous species that can help guide tree planting in the appropriate locations across Rwanda.



Forests in Rwanda occupy about 724,695 hectares of the total country land (30.4%) of which 387,425 hectares (53.5%) are plantations, 130,850 hectares (18.1%) are natural mountain rainforests, 161,843 hectares are wooded savannah (22.3%) and 43,963 ha are shrubs (6.1%). (Source:

Rwanda Forestry Authority -RFA)

Through these efforts, Rwanda is planning to plant 63 million indigenous and exotic tree seedlings not only to increase the forest cover which is currently estimated at 30.4% of total land area – about 724,662 hectares, but also be able to sell carbon credits on the carbon market.

The Rwanda Forest Authority (RFA) predicts that the country will plant 4.9 million fruit trees, 6.7 million ornamental trees, 273,590 bamboo trees, 34.2 million agro-forestry trees, and 16.5 million trees in general for different purposes.



Researchers in Rwanda have identified 29 indigenous species that can help guide tree planting in the appropriate locations to restore ecosystems and tackle climate change

According to Concorde Nsengumuremyi, the Director General of RFA, much efforts are currently being put into selecting tree species that are resistant to drought and can sequester large quantities of carbon dioxide to cope with climate change.

The ongoing tree planting campaign with focus on indigenous species according to officials aims to support the implementation of Rwanda's carbon market framework to help the country compete on the international carbon market.

This first ever Rwanda's carbon market framework blueprint that was officially launched on the sidelines of COP28 in Dubai underscores the commitment by the East African nation to combating climate change and fostering a sustainable future.

According to official projections, Rwanda will establish a floor price of at least $30 per tonne for carbon credits, applying it to both technology-based and nature-based solutions through a range of interventions, with a significant focus on forestry. This initiative aligns with Article 6 of the Paris Agreement, signed in 2015.

Estimates by Rwanda Forestry Authority (RFA) show that 53% of the total forest cover across the country are plantations, 21% are wooded savannas, 19% are natural mountain rainforests and 6.2% are shrubs.



Rwanda has the greatest number of people living in or near forest restoration opportunity areas like here in Nyungwe rainforest

Juliet Kabera, Director General, Rwanda Environmental Management Authority (REMA) pointed out that key projects seeking to generate carbon credits in Rwanda will focus on various cross-cutting initiatives in key sectors including forest initiatives where more efforts will be put on engaging local communities in planting indigenous trees.

Fighting against deforestation

By planting more indigenous trees as part of national carbon strategy, Rwandan officials say, the country could capture about several quantities of carbon. Through a 10-year national climate action plan, which requires $11 billion for implementation through 2030, Rwanda is also emphasizing to bring the forest ecosystems into better management and realize a range of benefits by engaging local communities in this carbon market.



Dr Jeanne d'Arc Mujawamariya, Rwandan Minister of Environment (L) and Faustin Munyazikwiye, the Deputy Director General of Rwanda Environmental Management Authority (REMA) at COP 28 in Dubai

In the meanwhile, some climate activists say local communities also need to gain new knowledge if they are to successfully and permanently adopt new practices in forests with indigenous species. "It is important to introduce new alternatives dedicated to consume less fuel and save cooking time for the poor," says Faustin Vuningoma, coordinator of Rwanda Climate change and Development Network (RCCDN), a platform of civil society referring to the situation in Rwanda.

Farmers like Ahishakiye are making the transition to adopt indigenous trees and officials and scientists are convinced that the current campaign to have these native species scattered around the Rwandan landscape will maximize nature's contributions to people.

This article is part of the series written by citizen journalists of the Forest Fellowship. Learn more about the programme at www.globalyouth.eu