Journal of the Geographical Association of Tanzania, Vol. 41, No. 2: 149–153

Conversation:
More Trees, Less Protection for the Meru-land of Tanzania

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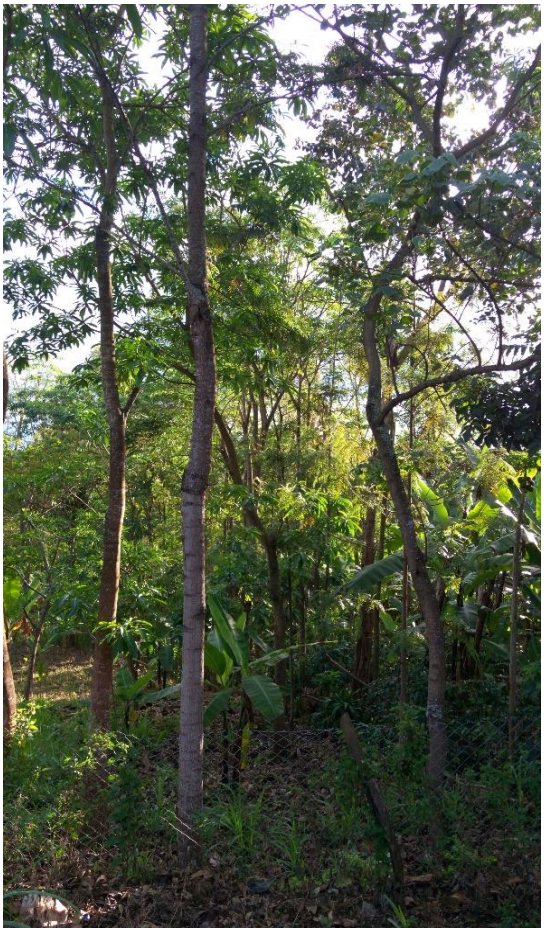
'Would you say these are trees? In the past, these were used for making sweeping brushes. Trees that can protect the soil and water are those that cannot be harvested by their own age mates' (Key informant, April, 2017)

It took me two years to understand what my father meant when he insisted that there is more environmental destruction in Meru now than in the past twenty years. Meru is an area named after Mount Meru. The Meru people are mountain famers, as described in Thomas Spear (1996); and they reside in the eastern side of Arumeru district that border the Kilimanjaro region. Having grown up in Meru, I had an opportunity to make reference to some hilltops that were relatively open in the 1990s but are currently covered by trees. Precisely, I suggested that there was a notable increase in number of trees and subsequent recovery of land cover that added to the famous Meru coffee and banana green belt. This observation was contradicting with views of those who had not left Meru as I did in 1997. Their popular narrative has been: *'Indeed, things have changed. Trees have been cut and now we have all the problems of less rainfall, water and droughts'*. However, this is not consistent with my observation of the past few years. The narrative and my observations remained confusing until recently when I conducted more in-depth interviews with key informants, in addition to transect drives and analysis of satellite images for different years.



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The story of trees and their 'age-mates' is embedded in the Meru age-set system. The surviving oldest age-set is called *sitimu* (with only few individuals remaining at the age of 95+ years, followed by their young brothers *seuri*[1] (80+ years), and the current senior age called *talala*[2] (55+ years). *seuri* and *talala* have given birth to the 'modern generation' of the age-set called *kilowiyo* (25+ years). Reference to this age-set system in the current local narratives symbolizes the change in the meaning and use of trees across Meru. For the older generation, trees of benefit (those that can protect the land and water) are those that grow to surpass at least one age-set. This derives the narrative: '*You can only harvest a tree that was planted by your father or grandfather*'. The trees referred to here are indigenous, including *iringaringa (Cordia Africana)*, *ifufuru (Croton macrostachys)*, *isesewe (Rauvolfia caffra)*, *ilolondo (Olea capensis)*, *iruka (Albizia schimperiana);* to mention just a few. These trees take between 60 and 100 years to mature, and have become scanty in the current generation of trees. Hence, when the older generations mourn the loss of forest cover, they are not mourning the loss of trees *per se,* but a particular set of trees: the ones–and the only ones–that could count for them, and the land that support their farming livelihoods.

The Kilowiyo age-set has no attachment to the story of trees and their age-mates. Theirs is a 'crisis' story that makes reference to the possibility for Meru to turn into a desert. The desert was framed to problematize the high rate of tree harvesting due to the increasing demands for building materials from both the growing Meru population, and the expanding city of Arusha. Coupled with land scarcity and the increasing soil infertility, degradation was to double following poor methods of farming along the slopes of the mountain. This would cause numerous other physical and social problems, including water scarcity and a rise in communicable diseases. Thanks to the interventions of the Swedish International Development Cooperation Agency (SIDA), which was to turn the Meru crisis into an opportunity.

The Sida support to the Tanzanian forest sector was to open a chapter for a better future for Meru. Specifically, a business-oriented perspective manifested through the Soil Conservation and Agroforestry Programme for Arusha (SCAPA[3]), which started in 1989 in Arumeru and Arusha districts. The SCAPA worked with small farmers to promote soil conservation and agroforestry techniques through on-site training and agricultural extension services. During the same time, a proposal was approved for the transformation of the already

[1]Also known as '*stelinji*' (to represent those who were circumcised at the time of the construction of Arusha-Moshi tarmac road (*stelinji* is a named after the tarmac road (sterling))
[2]Also known as '*roketi'* (those who were circumcised when rockets were seen for the first time)
[3]As it was with Dodoma Region Soil Conservation Project (HADO)) and Babati Land Management and Environment Programme (LAMP)

existing Meru forest plantation into a self-financing project (currently operating under the Tanzania Forest Services). In this blog I mainly focus on the work of SCAPA that influenced changes in farmlands through agro-forestation.

With the former SCAPA field extension officer sitting as the current District Forest Officer, there is continuity of SCAPA, even though the program phased out in 2001. The officer, Mr. Bernad Saruni, joined Sokoine University of Agriculture to qualify for his current position. He explains that *'trees are wealth'*[4]*;* and that *'if SCAPA did not come, Meru would have turned into a desert'*. By using the district annual statistics for tree-planting and the national annual target of planting 1.5 million trees in each district, the forest officer promotes the legacy of SCAPA in turning the Meru land crisis into a business opportunity.

The analyses of land cover maps generated from satellite images for five years correspond with the forest officer's claim, and my own observations, that Meru is more forested than three decades ago. Specifically, there is increase in open forests (by 27%) and closed forests (25%); while shrubland and croplands have decreased by 13% and 32%, respectively. The decrease of the two categories is associated with the shift of turning grazing and croplands to forest-based land uses (Figure 1).

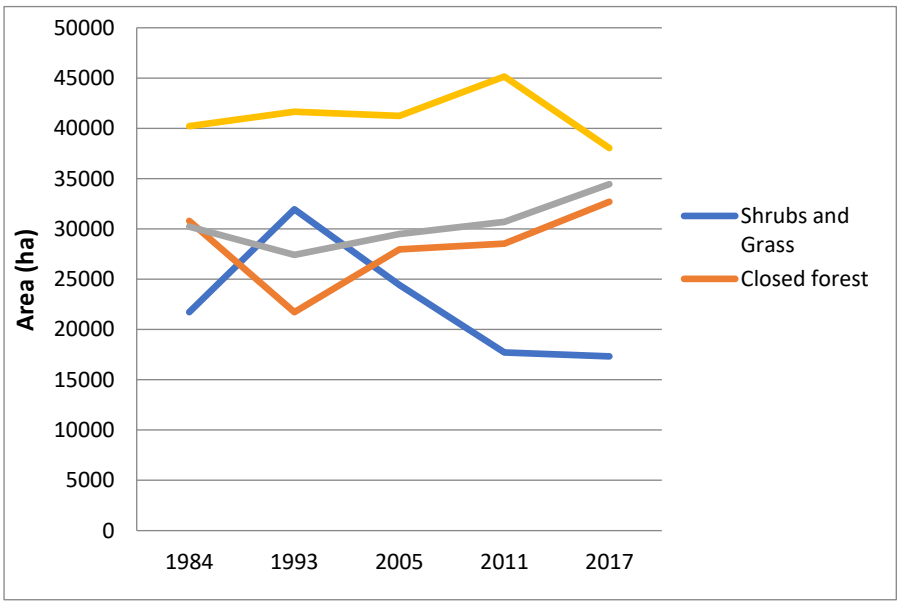

Figure 1: Increase of Forested Land in Meru (1984-2017)
Source: Satellite images (1984, 1993, 2005, 2011 and 2017)

[4] The TFS slogan is also the title of the *Tanzania Forest Journal*, Vol. 1 of January-March 2012

Definition of Land Categories:

- *Closed forest*: areas dominated by closed tree vegetation, including closed forest plantations.
- *Cropland*: areas under cultivation with herbaceous shrub crops and/or clear fields.
- *Shrubs and grass*: areas dominated by woody plants that are smaller than trees, including natural grassy and herbaceous plants, which form grazing land.
- *Open forest*: areas dominated by sparse tree vegetation and afforested plantations.

Whereas the business opportunity associated with the increase of trees is hard to substantiate due to the lack of statistics for tree-harvesting–both at the district[5] and national levels–the change narratives are interesting for they shade light into the current analyses of global green economy initiatives that promise a win-win scenario for the environment and local livelihoods. In fact, the evaluation of thirty years of Sida support to Tanzania's forest sector summarizes that:

> … the Swedish assistance contributed a new way of working, in terms of introducing modern more-business oriented and integrated concepts of forest management, harvesting, and processing' (Katila et al., 2003: 2).

Going by the local iconography of modernity, the *kilowiyo* age-set (the sons of *stilingi* and *roketi*), could as well be named after Sida's SCAPA. This is the generation that was trained to plant '*trees with benefits*' and, according to the district forest officer, these trees can mature and provide fodder, firewood, soil nutrients and timber in about five to ten years. Common names for these include, for example, grevillea (*Grevillea robusta)*, jacaranda (*Acaranda mimosifolia)*, different pines species (*Pinus patula. Elliottii and P. caribaea*) and eucalyptus (*Eucalyptus cloezina)*. It remains an assumption that there has indeed been an increase in these exotic business-trees in farming plots over the past 30 years. However, this assumption needs to be tested empirically. The research methods that are used in the current research (local narratives and interpretation of satellite images) have limitations in supporting empirical claims for tree species, and their economic and environmental impacts. Yet, local narratives have potentials to bring new insights into the understanding of green economy from a perspective of an African rural community.

[5]Although the district office must issue permits and collect revenues for every tree that is harvested, there are no records of harvests per se but piles of letters. Village councils that forward the letters to the district do not keep these records

Despite the observable increase in trees in family plots (which make up the open forest as suggested in Figure 1), my inquiry of this change receives an interesting response from the young Meru generation. That is: yes, *there is a change because trees have been cut and now we have problems of unpredictable rains, droughts and water scarcity*. Clearly, this response echoes that of the elders. However, the two do not mean the same thing. The difference is that the *kilowiyo* refers to the crisis as told by the SCAPA, while their elders point to the 'current crisis' of the loss of indigenous trees that had extensive shades to protect the soils, while also extending the roots to water-producing rocks. These trees are currently few, and most are in the list of threatened species; hence making them inaccessible because they are 'government trophies'.

Conclusion

This piece is meant to ignite a conversation about whether tree planting that target economic gains has protected the land and its resources. While the official narratives have put monetary value to trees to encourage planting, threats have come from the same market valuation that gives more importance to quick financial returns than long-term social and environmental impacts. The old generations see the disappearance of 'age-mate trees' and the emergence of 'moneymaking trees' as a serious misinterpretation of change. Against this background, questions remain on whether land (and water) is more protected today, and if trees have contributed to sustainable household wealth.

Acknowledgement

I acknowledge the role of two anonymous reviewers from the Greenmentality project team who shaped the initial drafts of this piece. I am also grateful to the Meru elders who accepted to take me through the story of trees and age-sets during the fieldwork.

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