

# SGG-ROTARY TROPICAL AGROFORESTRY AND CONSERVATION PROJECT

## INTRODUCTION

Sustainable Global Gardens [SGG] has been promoting tree-planting in East Africa for several years. Most of the trees planted so far have been planted on small-scale farms and have been directly useful to the farmer, such as fruits [e.g. mango, avocado, pawpaw, bananas, citrus fruits] or multipurpose species [e.g. *Grevillea robusta*, *Azadirachta indica*, *Markhamia lutea*, *Moringa oleifera*]. The main purpose of such tree-planting has been improvement of the environmental conditions & production on the farm, together with improved socio-economic status for the farming household. This work would therefore fall within Rotary's 'economic and community development' area of focus. Such work also contributes to UN Sustainable Development Goals no 1 and 2, the eradication of extreme global poverty and hunger, the foundation aims of SGG.

For the foreseeable future most of SGG's planting will continue to be of this type. Although there was a significant decline in the number of people defined by the UN as chronically hungry between 2005 and 2015, the recent covid pandemic and new problems of food production associated with climate change mean that there are still more than 700 million whose lives are ruined by hunger & food insecurity. Thus, our projects based on tropical agroforestry will increase as this is an essential component of both permaculture and climate-smart agriculture in such locations.

## RELEVANT INFORMATION

The original plan was to launch this agroforestry project, to be accompanied by a similar carbon capture project, in late 2019. However, SGG and the whole of Europe have been severely disrupted by the coronavirus crisis in 2020. In mid-2021 it looks likely that the project will not get fully underway until early 2022 when SGG hopes to undertake a field visit to East Africa, make new agreements and payments to African planters, and generally monitor progress. For the present SGG's main efforts will be focussed on raising awareness about tropical tree-planting as a crucial component of small-scale farm improvements, and securing sponsorship for this activity. However, we do not quite know what the future will bring!

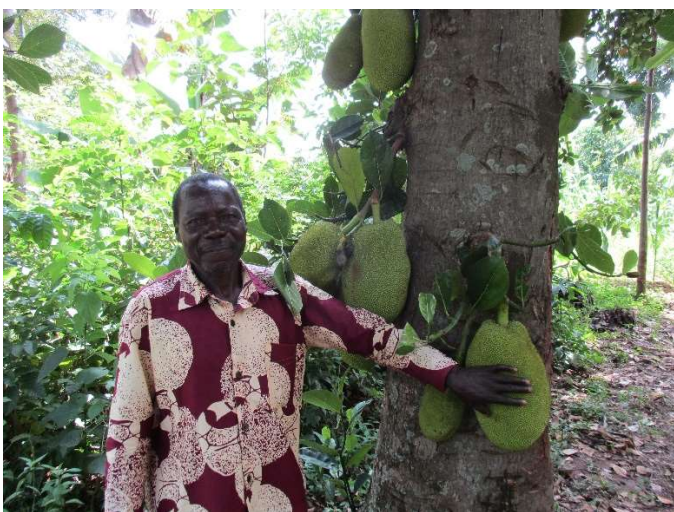
As SGG is still in the preparation stage of this project with neither all the stakeholders nor the available budget yet known, the formal writing of all relevant project details is not yet done. However, the formal version of the project will include the following points:

- the fundamental aims of SGG are poverty & hunger alleviation within locations where incomes are typically below \$2/day. We strive to contribute to UN Sustainable Development Goals 1 [i.e. end poverty in all its forms everywhere] and 2 [i.e. end hunger, achieve food security, improve nutrition and promote sustainable agriculture]. Most of the projects we have supported are located in rural regions of Eastern and Southern Africa;
- SGG's general strategy is to partner with small-scale, semi-subsistence farmers and to promote various innovations which can increase farm productivity and household incomes. Such innovations have included microirrigation, improved composting, use of natural pesticides, permaculture methods, microfinance, and especially in the last 7 years agroforestry. We have clear evidence that this is one of the most effective methods of enabling poor farmers to move out of poverty;

- SGG has several years' field experience of tree-planting in Kenya, Tanzania, Uganda and Malawi. In 2017-8 SGG registered 41,475 trees newly planted in those locations as part of a Rotary International initiative. Under SGG's present circumstances we believe that a SGG-Rotary partnership has the capacity to arrange through our local African partners the planting of up to 100,000 trees with perhaps 10,000 trees for carbon capture, 10,000 fruits for improved nutrition, and 80,000 trees for multipurpose agroforestry use;



Here [see above left] is an example of agroforestry planting on a small-scale farm in Busia county, West Kenya. In this belt of trees there is a mixture of *Grevillea robusta*, *Melia Azerdarach*, & *Markhamia lutea*, but elsewhere on the farm there is a fruit orchard. This can be seen [see below left] as farmer Mark Maloba displays some of his jackfruit harvest. As SGG and a group of Birunda Friends [see above right] walk along a farm path, we are counting recent tree-planting by the farmer. The trees here to the right of the path are *Markhamia lutea*, a favoured indigenous species often planted along field boundaries. During the SGG field visit, we check the tree nursery belonging to Birunda Friends and discuss future plans [see below right]. They wish to increase tree-planting, especially fruits and indigenous species [e.g. *Ficus* spp, *Sizygium* spp, *Warburgia ugandensis*]. In early 2021 they accepted a small commercial sponsorship and agreed to plant 5,000 trees on farms within the Birunda locality



- to reach the above targets SGG is dependent on both Rotary and commercial sponsorships, grants from funding trusts as well as individuals wishing to contribute towards a more sustainable planet. We are also dependent on thousands of people who contribute their labour & care when planting trees;



- SGG has received many donations & small grants in support of tropical tree-planting. The justification for planting in East-Southern Africa is threefold : a] young seedlings are much cheaper to buy in African markets, so SGG advertises on the basis of “plant a tree for 20p” and a donor plants many more trees than could be planted in the UK where a young ‘whip’ with protective sleeve & stake typically costs about £2.50p; b] trees grow much faster in the humid tropics; c] tropical trees have all the environmental benefits of trees planted in the temperate world but also much greater ‘humanitarian benefits’ as they are often used as a ‘reserve bank’ to cover educational/medical/other occasional costs;
- thus, this particular project has as a unifying theme ‘Environmental Improvement and Community Development Through Agroforestry’, but within that theme there are two aspects. One is to implement tree-planting in various African locations as a strategy for both income-generation and on-farm environmental improvement. The second aspect is to provide a tree-planting mechanism for those who wish to contribute to poverty & hunger alleviation or to reduce their carbon footprint;
- for agroforestry tree-planting participating farmers can join this project in two ways. They can plant a new seedling. That seedling will be checked after several months to ensure that the seedling has survived. If it is well established the farmer will be paid 20p in recognition of the labour and care that has been taken when the young tree is most vulnerable to damage. For fruits such as avocado, mango, or citrus fruits that payment is £1/tree. As SGG has been promoting tree-planting for several years, most farmers we know plant seedlings at the time most suitable for themselves and then wait to claim their payment when a SGG representative visits their farm;
- such payments & tree registration began in October 2019;
- after the initial registration most of the participating farmers will be visited on an annual basis, so
- SGG’s priority is to promote tropical tree-planting, and we are now looking to extend our tree-planting activities to new locations in East and Southern Africa.



In 2021 SGG hopes to partner with ZombaTreez in Malawi and the local village communities to implement agroforestry planting on local farms and nearby forest restoration.

- the ‘carbon capture’ aspect is a pilot scheme, so the planting target is set at 10,000 for trees planted in tropical locations to enable African farmers to become accustomed to this type of enterprise. The details related to this pilot scheme are given in a separate file;
- tree-planting for carbon capture is currently a pilot scheme so the location of such planting, which has different arrangements to the above, will be confined to a few particularly suitable sites. However, the long-term intention is to establish carbon capture planting on small-scale farms where agroforestry planting predominates;
- at SGG we believe that a crucial aspect of our tree-planting projects is the annual field visits to planting sites, which are followed by detailed reports for significant donors. We intend to continue this pattern as soon as covid travel restrictions are lifted.

## PROGRESS SO FAR

From 2018 onwards the Rotary Club of Newcastle-Gosforth raised funds to sponsor a tropical tree-planting project, similar to the SGG-Rotary Tropical Tree-Planting project of 2017-8. This new project was to be implemented by SGG at the first opportune moment after sufficient African planting partners has been identified. In addition SGG undertook its own fundraising work at this time with much of that funding raised by giving talks about tree-planting to Rotary clubs.

The actual implementation started in earnest from October to early December 2019 when SGG undertook a field monitoring visit to Kenya and Tanzania. The following was recorded during the field visit and reported to D1030 District Team in April 2020:

*“The focus has been on agroforestry planting of species useful to farmers as economic & community development is a fundamental aim of the planting. Fieldwork by Rn Paul Keeley in November 2019 established the following planting locations:*

1. 1250 seedlings planted by Trees4Kili, mainly used to cover former rubbish dump site in Boma Ng’ombe, Tanzania,
2. 1375 seedlings planted by Samia cluster of OVC [‘orphans &/or vulnerable children’] farmer groups, West Kenya,
3. 1935 seedlings planted by Matayos cluster of OVC farmer groups in West Kenya,
4. Bungoma Rotary Club pledge to plant 3350 trees during the subsequent rains,
5. grant of Ksh 25,000/- [approximately £200] for Bungoma Rotary Club to purchase & plant 250 avocado seedlings,
6. 1564 seedlings planted onfarm by Kitale & Birunda Friends, Kenya,
7. 1245 seedlings planted on farm plots by Mlai family in Rombo District, Tanzania,
8. 405 seedlings planted by Ndaswa farmer group in Rombo District. Tree counting here is incomplete with about a quarter of farms counted,
9. Usa River Mali Hai group in Tanzania where 1607 trees counted & a further 2,000 pledged for 2020,
10. Same Rotary Club with 2505 seedlings planted mainly through the Lutheran Diocesan youth programme.

*In January 2020 a grant of £200 was made to Rn John Philip of Newbury Rotary Club to support the planting of fruit trees on Ukerewe island, Tanzania.”*

By the end of 2019 SGG had recorded a total of 26,464 with 10,587 counted in Tanzania and a further 15,877 trees in Kenya. Furthermore SGG records showed that by this time there were 142 African planting partners, of which more than 120 were individual small-scale farmers.





On many farms which are part of the SGG-Rotary planting programme farmers have adopted an agroforestry system where trees provide a new cash crop amongst the customary food crops grown on the farm. Here [see above left] a farmer on Rusinga island, West Kenya has dedicated this small plot to growing *Moringa oleifera* for income generation. On Kilimanjaro farmers are looking for a new cash crop to replace coffee, which has suffered from poor prices in recent decades. This farmer [see above right] has recently planted 65 avocado as there is a ready market in the locality.

By early 2020 the majority of funding came from Newcastle-Gosforth Rotary who sponsored most of the 15,486 trees mentioned in the D1030 report. Thus, it was established that a single Rotary club could facilitate the planting of more than 10,000 trees in a single year. What we want to encourage in 2021-2022 is for individual Rotary districts in the British Isles to take on the challenge of planting 10,000 trees in one year the “Ten Thousand Tree Challenge”

Before 2020 the great majority of planting was done within an agroforestry land use system primarily for the purpose of income-generation in Western Kenya or North-East Tanzania, but 2020 brought significant changes to that pattern. One such change was a policy to encourage similar tree-planting in areas outside SGG’s customary locations, preferably in partnership with other NGOs & Rotary clubs. One example of this was the £200 grant given to the NGO ‘UK to UK’ for tree-planting in Ukerewe, Tanzania. Another example would be the 4,000 trees planted in Malawi with SGG funding. By May 2021 new tree projects were being established in Mubende Uganda and also on the Zomba plateau in Southern Malawi.

The other major development of 2020 was the coronavirus pandemic, which has resulted in limited fundraising and a postponement of field monitoring work. This means delays in all aspects of the project, but with more than 30,000 trees already recorded by mid 2020 SGG was in a good position to complete this project within 12 months after the end of coronavirus and associated travel restrictions.

## PROSPECTS FOR 2021 AND ONWARDS

Although project progress has been limited since March 2020 when the UK went into national lockdown, it is not the case that nothing has happened. During 2021 SGG may not have been able to check progress during field visits to planting locations, but we have had success in gaining significant new support for this project. In May 2021 SGG has £14,035.41p funding specifically allocated to tree projects. Such funding has come from 12 Rotary clubs, 3 commercial sponsorships, 2 UK funding trusts, and countless individuals. As these funds are largely paid after SGG has counted & monitored trees during fieldwork, a task which could not be done during 2020, SGG has most of these funds, which are still to be paid to African planters for the environmental services they have provided.

Coronavirus and lockdown has meant that many rotarians are kept back at the planning stages of their environmental projects, but life must continue on the East African small-scale farms which are implementing this SGG-Rotary project. Our farming partners continue to plant trees, even if they have to wait until 2022 to receive their remuneration for environmental services. SGG anticipates that many, probably most, of those new trees planted in 2021 will conform to the following policy preferences for the project:

- support at least 10 community-based organisations [CBOs], school or Rotary planting groups with a small grant which will allow the planting of at least 1,000 trees each. It is intended that at least 4 of these 10 small grants are invested with new partners in new locations so that more beneficiary farmers can be engaged;
- these various schemes should benefit a total of at least 1,000 farmers;
- our priority will be to support agroforestry systems where planting is on farms and the trees will belong to the farm household. We know that this improves the survival rate of young seedlings when they are vulnerable in the first year after transplanting. A major benefit of this strategy though is that we shall be making a direct contribution to poverty and hunger reduction in rural Africa;
- we shall plant trees useful to farmers and appropriate to the environmental conditions on farm. These include fruits [e.g. avocado, mango, bananas, pawpaw, jackfruit]; medicinal & nutritional species [e.g. Azadirachta indica, Moringa oleifera], natural pesticides [e.g. Tephrosia vogeleii] as well as multipurpose species [e.g. Grevillea robusta, Markhamia lutea, Maesopsis eminii];
- Rotary clubs and planting partners should work with SGG, who will take responsibility for monitoring the tree-planting and payment to farmers for the work they have done;
- SGG will also provide a progress report for all significant donors;
- SGG will look for funding support from both Rotary clubs and any others, either individuals or groups, wishing to contribute to poverty and hunger eradication or carbon capture through the strategy of tropical tree-planting. The SGG network can readily find thousands of poor farmers wanting to plant trees, far more than a single Rotary club or Rotary District can support on their own. If your Rotary club or district wishes to get involved in this activity, SGG asks you to accept “The Ten Thousand Tree Challenge”;

Here is what SGG plans to do in North Tanzania. Here [see below left] rotarian Patrick Makundi of Mamba Club is checking his new avocado trees and other trees planted to encourage honey production on his plot near Marangu. A new farm plot on the slopes of Mt Meru, near Usa River has plenty of room for a line of Acrocarpus trees along the property fence. These trees have been planted by Usa River Mali Hai, a youth group promoting greater tree cover in the locality. SGG intends to continue working in partnership with both of these Tanzanian groups for the foreseeable future.





## SUMMARY

This document explains the basis of this SGG-Rotary tree-planting and conservation project, which promotes on-farm agroforestry as well as planting for carbon capture/climate change mitigation which is described elsewhere. It also describes progress made so far. At the time of writing SGG has a total of 80,035 trees either counted/confirmed by SGG or recorded by SGG's local coordinators or planned for planting before July 2022. This number of trees may well be in the ground by the time of SGG's next monitoring & payment field visit, so SGG is now looking to secure further funding support so that this project can exceed the 100,000 planting target. Concerning the number of farmers participants, there are now 178 entries on SGG records of planting schemes, yet SGG estimates that we still have hundreds of farmers still to visit. Thus, although SGG currently holds a budget of £8,000 approx. for agroforestry planting, we have nowhere near sufficient to reward farmers for what they are doing to improve the environment. This document is, therefore, a call for more funding support from those who wish to improve the planet on which we live. If you intend to contribute to that improvement or would like to find out more details about this project, please contact the main project coordinator at [sgginfo16@gmail.com](mailto:sgginfo16@gmail.com) through the Sustainable Global Gardens website, [www.sustainableglobalgardens.org.uk](http://www.sustainableglobalgardens.org.uk). I am looking forward to hearing from you.

Paul Keeley

Past President of Newcastle-Gosforth Rotary Club D1030

Director of Sustainable Global Gardens

28<sup>th</sup> May 2021