Ficus Natalensis Agroforestry systems

Why to choose this solution?
Tree is grown as a live fence around homes and at a wide spacing for shade and soil rejunevation in coffee, cocoa and banana plantations, as it drops leaves which quickly decay to provide both soil cover and manure. Throughout Uganda, barkcloth is made from this tree which can be used domestically or sold to supplement household income. Leaves are used to treat dysentry and sore throats. Other uses: Pruned branches are used as fuel wood when dry and as fodder for livestock, and also act as windbreaks.

Savings per day or production:
Any annual or perennial crop can be inter-cropped with Ficus spp. provided the tree canopy is managed well.

Cost in money and in own time to construct:
The most important factor affecting cost is labor to transport the bulky stem cuttings to the site. However, Ficus natalensis is easy to establish and is durable (over 100 years) depending on management.

Lifetime:
Ficus Natalensis is propagated using cuttings from young branches which are planted vertically 6m apart along a contour. The tree is quite robust and can attain heights of over 20m, with a very extensive canopy if left to grow unchecked.

Maintenance needed:
Pruning raises its canopy to the desired height above the ground. Fencing is required to protect the tree from damage by livestock in early stages. Within 12 to 18 months, the tree is established enough to withstand browsing (WOCAT, 2014). Implementation of the technology on steep slopes(> 50%) not possible without other supportive Sustainable Land Management interventions including construction of stone lines and mulch application.

Resources needed in use:
A Ficus tree can live for a hundred years.

Problems and limits:
Scarcity of fuel wood may lead to over-harvesting of branches, destroying the canopy. Nonetheless, the tree regenerates quickly with the coming of the rains.

Where and how can you get it or make it?
Ficus Natalensis is propagated using cuttings from young branches which are planted vertically 6m apart. Propagation material (large cuttings and seedlings) is readily available and cheap, making the technology inexpensive to establish. It is cultivated in all regions of Uganda.

Skills needed to produce, install. maintenance, use:
Simple farming knowledge and skills. A wide strip of bark is removed in one piece, then softened with steam. An 18-inch-wide strip of bark can be beaten with a mallet into pieces of cloth over seven feet wide. One tree could yield 40 bark strippings (AB Katende et. al., 1995).

How to use it:
Barkcloth Making in Uganda: https://www.youtube.com/watch?v=uhznFtHhkBo

How to maintain it:
Maintenance is by simple agronomic practices like weeding when still young. Care should be taken no to harm the skin if the aim is to get good quality bark-cloth. When the canopy grows so thick and heavy it may be good to reduce because a very heavy canopy can result to getting the tree uprooted during storms.

Climate effect (if any):

Where it is used and how many users are there?
Uganda

Why is it successful?
Propagation material is readily available and cheap, making the technology inexpensive to establish.

If you can make it, a short description, typical problems, materials needed:

How to make it (if possible):

How is it delivered and by whom?

Successful financial model

What policies and strategies helped the success?
The National Forestry and Tree Planting Act (2003) that recognizes indigenous knowledge in forest conservation, in line with the Convention on Biodiversity.

More info:
AB Katende et. al, (1995). Useful Trees and Shrubs for Uganda. Regional Soil Conservation Unit. WOCAT (2014). Ficus Natalensis Agroforestry System.

Sources:
http://www.fao.org/3/au287e/au287e.pdf

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