

Concept Paper on Incorporating Stall Fed Dairy Goats into REAP Stewardship Programme.

REAP (Rural Extension with Africa's Poor) is committed to helping churches and Christian organisations develop a teaching approach to rural development that is relevant to the rural poor by focusing on teaching that specifically relates to the reality of the rural poor. REAP has been seeking to develop both strategies and teaching that takes into account the fact that the rural poor do not have easy access to cash, but tend to have ample family labour, so that labour intensive rather than external input dependent teaching is particularly relevant. They are also characterised by having small plots of land in relation to family size, pointing to the relevance of intensive land use.

The REAP Stewardship Programme seeks to help churches to motivate farmers in sustainable agriculture based on low external input systems relevant to the rural poor. The main teaching given in the Stewardship programme is based upon the book *The Stewardship of God's World* by the director Dr Roger Sharland. This teaching seeks to motivate farmers to responsible stewardship by referring to Biblical teaching and linking this with identifying practical approaches. This is a strategy that seeks to bring about transformational change in areas where churches are strong and therefore very influential. In these areas the whole community can easily be influenced through envisioned churches, the structures of which are already effectively established.

African societies are holistic in their thinking. Every aspect of life is seen as a whole and linkages are easy to identify. The thinking behind the REAP Stewardship programme has led logically to an approach to agriculture that is based upon organic thinking, although the philosophy may be different from some other sectors of the organic movement. It is often a matter of re-interpreting organic ideas to make them particularly relevant to the rural poor. The rural poor tend to be organic as a result of circumstances rather than as a result of principle.

One of the greatest challenges in sustainable agriculture is the maintenance of soil fertility. This is in particular a challenge for the rural poor. Animal manure is a very useful resource but is more available for the economically more advantaged than the poorer sectors of the rural population. Zero grazing with crossbred or grade cows has been introduced into many parts of Kenya and has proved to be a very positive means of sustainable agriculture when manure management has also been included in the teaching. However, grade cows require a level of economic ability above that of the target group of REAP.

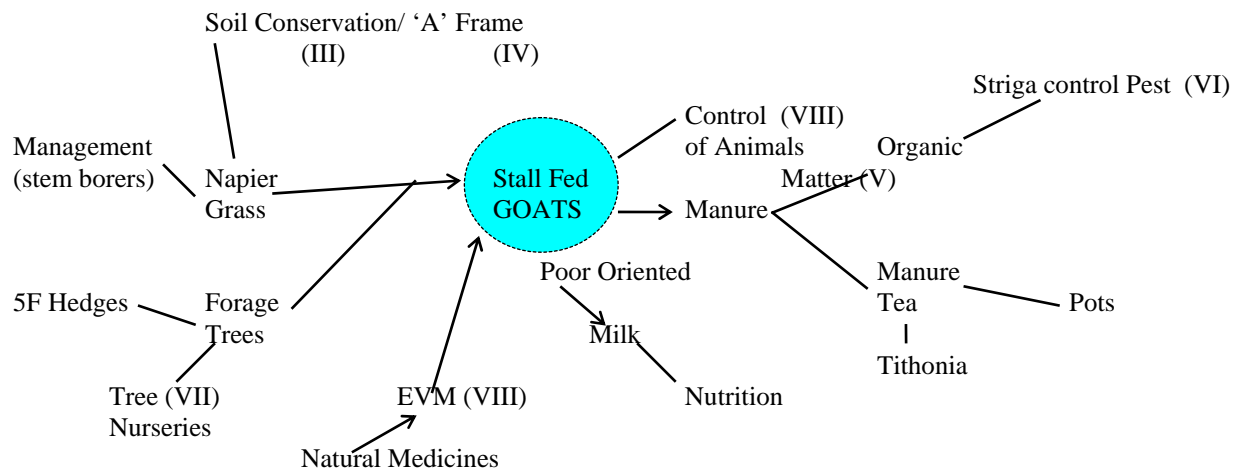
However, stall-fed or zero grazed milk goats have a potential for bringing the same benefits with a greater emphasis on reaching the rural poor. REAP has a commitment to reaching the rural poor and has a strategy which takes technologies that seem to work and apply them to the needs of the rural poor. The REAP stoves programme is successfully making energy-saving stoves more accessible to rural women through churches in rural Kenya, and using the same basic approach REAP would see great potential in stall fed goats.

The following table seeks to summarise some of the thinking on how milk goats are more relevant for the rural poor than REAP targets than the conventional zero-grazed grade cows.

	<i>Grade Cow</i>	<i>Milk Goats</i>
1	Relatively large units	Relatively smaller units
2	Area of fodder needed per animal relatively large	Area of fodder needed relatively smaller
3	Relatively long generation span leading to relatively slow multiplication rate	Relatively short generation span leading to relatively quicker multiplication rate. Twinning more frequent.
4	The loss of an animal may be the loss of the total production unit	The loss of one animal is the loss of only part of the production unit.
5	Housing that efficiently collects manure needs many purchased inputs	Raised housing, which collects the manure effectively, can be made entirely from local materials
6	Cows are usually a male investment	Women are very involved in goats, leading to more family use

REAP is committed to a holistic approach to development that recognises the cohesiveness of African rural society and the linkages between different activities. In our thinking about the potential of stall fed milk goats, the following linkages to other aspects of REAP teaching have been identified:

Linkages of Stall Fed Goats to general REAP teaching.



(Numbers in brackets relate to chapters in the REAP book *The Stewardship of God's World*)

As can be seen from the numbers in brackets these linkages relate closely to teaching already incorporated in the REAP Stewardship programme. Other aspects relate to the wider work of REAP, especially to teaching through the women's programme. Incorporating stall fed goats into the programme would give a focus that would bring together the different aspects of teaching into a whole. Some of these linkages can be expanded by looking at the inputs to the goat production system and the outputs from it:

INPUTS

The inputs relate to fodder and health:

The main fodder would be from Napier Grass and Forage trees.

Napier grass links in very well with soil conservation teaching in being ideal for planting on contour lines.

It also links in with teaching on natural pest control, as it is an important catch crop for stem borers.

Fodder trees link in very well with current teaching on tree planting. REAP emphasises the value of multi-purpose trees of which fodder is an important part. Fodder is a very good motivation for planting trees. In particular the teaching on 5F hedges (Fence, Fuel, Food, Fodder, Fertility) links in very positively with fodder tree plantation.

The other input is use of Ethno veterinary Medicine or Natural Medicines. REAP has been looking at natural medicines as a strategy for the rural poor, and extending this to livestock is a natural progression.

OUTPUTS

The primary output is milk, which has clear nutritional, health and economic advantages, but the manure is an equally significant output when well managed.

The management of manure fits well with REAP teaching on maintenance of fertility, and strengthens other teaching. The teaching on soil fertility links with other teaching REAP is involved with including pest, weed and disease control. It also links, through manure tea, and clay pots with the REAP stoves programme.

Another important output is that stall-feeding is a first step for communities to be involved in control of roaming animals that in many areas is a very limiting factor on establishment of trees and perennial crops, and environmental management.

REAP therefore is looking for ways of getting involved in stall-fed milk goats as an important hub for the overall stewardship teaching.

Dr Roger Sharland,
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