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Canadian Foodgrains Bank
A Christian Response to Hunger

foodgrainsbank.ca

FMNR Works Along-Side CA Principles

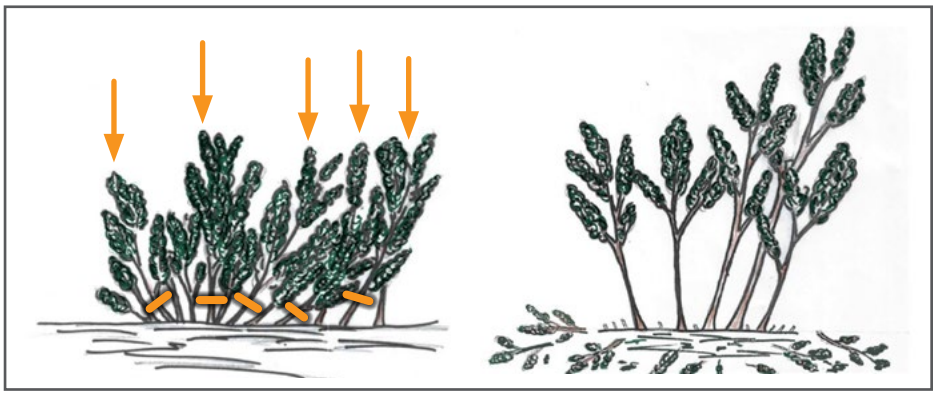
Neil Rowe Miller, Agriculture and Livelihoods Technical Advisor, Eastern Africa

Farmers in southern Niger have reclaimed 5 million hectares of land and increased food production by more than 500,000 tons per year by managing naturally-occurring trees and shrubs with Farmer Managed Natural Regeneration (FMNR). The FMNR movement began in the early 1980s, and in recent years has spread to many other countries in Africa and beyond. CFGB-supported projects have begun incorporating FMNR alongside CA principles, recognizing that the two approaches are highly complementary.

Near-complete deforestation in semi-arid Niger in the 1950s to 1980s led to recurring drought, strong winds, high temperatures, and infertile soils. Combined with rapid population growth and poverty, these problems contributed to chronic hunger and periodic acute famine. Millions of dollars were spent on conventional forestry approaches, transplanting nursery-grown trees, but drought, pests, weeds and destruction by people and animals left very few live trees and very little impact.

In the early 1980s, farmers associated with World Vision Australia began recognizing that tree cover was better re-established by managing existing stumps of trees and shrubs rather than transplanting new plants. The basic steps of FMNR include:

1. **Select which stumps you want to leave** (10-200 stumps per hectare) and which you will keep based on their growth habit and potential to produce useful products such as firewood, fruit or fodder. If existing stumps are too few, additional trees can be seeded or transplanted.
2. **Remove all but 3-5 shoots**, leaving only the strongest and straightest ones. Use sharp tools and wherever possible, cut upwards rather than downwards to reduce damage to the bark.
3. **Prune side branches** to half way up the stems of the remaining shoots. Pruning too high up the stem will cause shoots to become weak and top-heavy.
4. **Protect growing stems** from unwanted harvest, livestock grazing, fire, etc. Mark the stumps you are managing with paint or a bright-colored cloth. Other strategies include fencing, placing a thorny barrier at the base of each plant, and tying shoots together to make it harder for livestock to damage them.
5. **Return every 2-6 months to trim** new unwanted shoots and side branches. This is typically done during the dry season when labor demands are lower.
6. **Harvest 1-2 mature shoots when needed**, always leaving a few larger shoots and allowing a new shoot to take the place of each shoot which is cut.



FMNR Manual, World Vision Australia, 2018

Maize and beans grow well under FMNR disbursed shade, especially in hot climates.

RARE project participants harvest fodder grass in Mandera Kenya

Many farmers view trees on farmland as "weeds" which needed to be eliminated because they compete with food crops. For this reason, it may be best to start by leaving only 10-20 trees per hectare. However, once farmers see that these trees do not suppress crop growth, and begin to view them as a cash crop, they will be more willing to increase tree numbers. In addition to cash income, well-managed trees also provide disbursed shade which protects crops from excessive tropical sunshine, they slow wind movement which reduces moisture loss, and they produce biomass which improves soil quality and productivity.

FMNR need not be confined to croplands. It is also being practiced on grazing land and degraded forests as well. In Mandera, Kenya ADRA's RARE project, funded by ADRA/CFGB, tripled milk production (to 7.5 liters per household per day during the normal season and 3.3 liters/day during the dry season) using FMNR and grazing management.

Over time, as the value of trees is more widely recognized, local bylaws, with support from village and district chiefs must be established to protect trees from indiscriminate harvesting by livestock, or neighboring farmers. Without support for the protection of private property, it is unlikely that FMNR could have spread as fast as it did in Niger.

Sources

Reij, Chris; Tappan, Gray; Smale, Melinda. 2009. Regreening the Sahel. Ch. 7 in Spielman, David; Pandya-Lorch, Rajul (eds.). Millions Fed – Proven Successes in Agricultural Development. Washington: International Food Policy Research Institute. pp. 53–58

Rinaudo, T.; Muller, Alice; Morris, Mary. 2019. Farmer Managed Natural Regeneration (FMNR) Field Manual. World Vision Australia.

Gender and Food Security

Jean Twilingiyumukiza, Agriculture and Livelihoods Technical Advisor, Central/West Africa

Food and nutritional insecurity affect millions of people around the world. These problems have socio-political and economic causes, but they are also augmented by gender injustice. Persisting inequalities between women and men are both a cause and a result of their unequal access to the means of food production and consumption. These inequities prevent societies from living an abundant life where hunger, poverty and discrimination are eliminated.

Gender roles in food production and food security

"Gender" refers to the socially constructed roles and responsibilities of women, men, boys and girls. Gender roles and responsibilities are learned and, contrary to sex which is the anatomy of an individual's reproductive system, they can change over time.

Food security is achieved when everyone, at all times, enjoys access to nutritious food. FAO argues that food security will be achieved when four pillars: access, availability, use, and stability have been insured (FAO 1996). However, these pillars need to be achieved across gender categories in order for food security to become a universally equitable reality.

Inequitable male/female relationships, resulting from cultural and historical background affect the health of women and their families (KAMBOL, 2011). Food restrictions negatively impact the entire family, but are particularly damaging for young girls and women, especially those who are pregnant or breastfeeding. For example, pregnant women in some parts of DR Congo are not allowed to eat eggs, because it is believed that their child will become bald, nor pig meat because childbirth will be difficult, nor green vegetables, as this can cause abortion. In Rwanda, women were traditionally banned from eating goat meat in order to avoid growing a beard. Adult men were banned from eating fruit, thinking that they are only for children; nor porridge, to avoid drowsiness during the night when they need to remain alert for family protection and security.

In many countries, rural women are the mainstay of small-scale agriculture and daily subsistence of the family. In sub-Saharan Africa only 15% of women own land (FAO, 2010); while they make up nearly 70% of the continent's agricultural workforce (*Orégand*, 2008), in addition to carrying out unpaid work of household chores, taking care of children, etc. Nonetheless, legal authority and decision making power belong to the head of household who is generally a man. In rural areas, faced with increasing poverty and migration of men to urban centers, the workload and responsibilities of women have increased even more.

Women's beneficiaries of the CFGB/MCC funded Oasis project harvesting beans in Fizi, DR Congo (Photo: L. Kabamba)

Gender strategies in food security programming

Despite the above dynamics, gender is sometimes disregarded in smallholder agriculture programming, especially inclusion of women. Sometimes a lack of understanding of the nature and role of women's and men's contributions to agriculture and food production leads to misguided or counter-productive initiatives. Food security projects should, therefore, always begin with a thorough analysis of gender roles and dynamics in the community.

This analysis should be used to design projects in which men, women, girls and boys have equitable access to benefits. When warranted by different levels of need, some gender groups should be given preferential access to project goods and services. Many food security projects supported by CFGB and its Members give priority to female beneficiaries, such as the Koti project with MCC/ODE in Burkina Faso which facilitates women to secure farming plots, supports them in cereal production, and improves nutrition by increasing off-season agricultural production. Over the past five years, farmers trained by CA projects supported by CFGB have averaged 58% women. Nonetheless, simply including more women in training may prove counter-productive since men often retain decision making authority. If they are not equally convinced of the value of a given change in farming practices, they may prohibit other family members from its implementation.

When selecting technologies for promotion, attention should be paid to how these technologies may impact different gender groups. For example, mechanized tillage may reduce the labor demand for men who are responsible for primary tillage, but by opening more land it may *increase* the workload of women who are often responsible for weeding. Promotion of certain crops has a gender component as cash crops are often controlled by men while subsistence food production is often the responsibility of women.

In order to assure a positive impact on gender, project monitoring frameworks (PMFs) should be disaggregated by gender. Project evaluations should include questioning on gender including unanticipated impacts that may not appear in the predetermined PMF. Such information should then be used to reorient any programming which is found to bring negative impacts to gender equity.

Gender within the Canadian Foodgrains Bank

CFGB strives to be a gender sensitive organization. CFGB's gender equity policy specifies that all projects will be, at a minimum, gender sensitive, and where possible, gender transformative. "Equitable food and nutrition security from a gender perspective means a world free from hunger, where women, men, girls and boys have equal access to nutritious, healthy food, as well as equal access to the means of production, sale and purchase of food products. It is a world where everyone's right to food is fulfilled (CFGB, 2019)."

Partner Profile: BAOBAB Organization in Chad

Jean Twilingiyumukiza, Agriculture and Livelihoods Technical Advisor, Central/West Africa

BAOBAB *(Bureau d'Appui aux Organisations de Base)*, is a Chadian non-governmental organization established in 2001 and an MCC Partner since 2007. Located 460 km from N'Djamena, the organization of 27 people was formed in response to the fall of oil prices, with the aim of supporting young associations to better defend the interests of the population, with the empowerment of women being a key factor.

Chad is a vast, semi-desert, landlocked country with a very hot and dry climate. The rains sporadically start in June, drop in July and August, and continue decreasing until September; leaving a long dry season from October to May. Agriculture remains the main livelihood for the population, and women are primarily involved

Women gardeners fetching water to water their vegetables (Photo: BAOBAB Organization, 2019)

in production activities. Farms are family-owned and include subsistence farming (millet, sorghum, maize, cowpeas, groundnuts, sesame, rice, tubers, fruits and vegetables); cash crops (cotton and sugar cane); livestock (cattle, camels, sheep, goats, poultry and pigs); and the exploitation of natural products (honey, shea nut and gum Arabic).

BAOBAB reaches about 1350 beneficiaries, the majority being women, in seven villages from Western and Eastern Logone Provinces. They promote gender equity between men and women through income generating activities, increased agricultural production through conservation agriculture, vegetable production, livestock vaccination, and marketing of processed agricultural products. In addition, they supply school kits, blankets, mosquito nets, water wells, food, and agricultural equipment to refugee returnee camps in the south.

BAOBAB is recognized at the local level and by administrative authorities as one of the most effective actors in the promotion of gender equality, despite the somewhat restrictive socio-religious context, the fragile security situation and the limited financial means of the local population. They support rural women for their emancipation and financial empowerment through capacity building and specialization in the production and marketing of vegetables, the creation of discussion space for gender as well as food security related issues. They are a living example of how improving food and nutrition security and promoting gender equity are intrinsically interrelated.

Discussions from the Network

Keke Phooko: Good people, what should I use for this insects (termites). They work day and night collecting grass as you can see. They store it underground.

Hayley McNeill: Look after these guys. They become your farm workers.

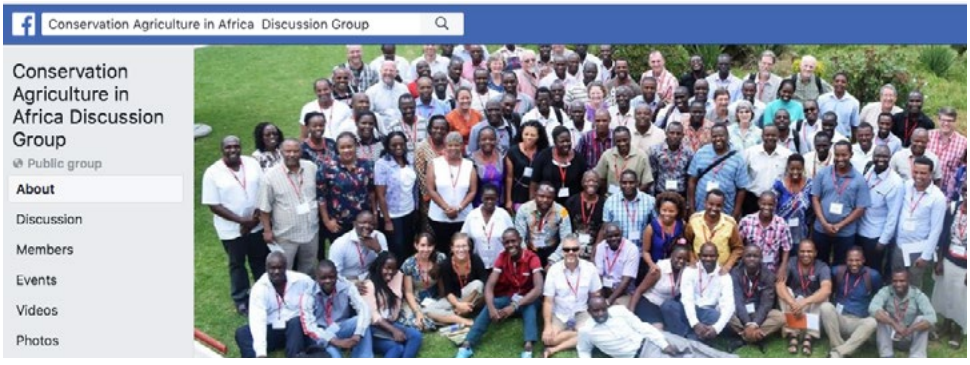
Keke Phooko: Thank you Hayley. These guys are so stubborn, they destroy a thatch roofed house. I don't want more of them. I wish they could have a boundary where to eat and where they don't have to.

John Mashambe: They're are positive in most cases unless they're destroying crops. Otherwise they help to fertilize the soil and improve aeration.

Chester Malamulo Chataya Msiska: Like them as they are not harmful to crops.

Neil Miller: I think we need to be careful not to over-glamorize these insects. They do provide benefits, but if they destroy our mulch, we lose the benefits of soil cover. Also, they can harm crops. So they provide both benefits and problems. For more info on termite management, read the article in our December newsletter.

Keke Phooko: Thank you Neil! You are right, here they are harvesting my wheat even before I could think of it!



The Agriculture and Livelihoods Technical Advisors manage a Facebook Discussion Group from which allows individuals and organizations to discuss issues and ask questions related to CA. If you'd like to join the discussion, sign up at www.facebook.com/groups/CAinAfrica.

ALTA Travel Schedules

JEAN TWILINGIYUMUKIZA

18-21 June 2019
Rwanda (5 Districts)
MCC-PDN project visit

25-28 June 2019
Eastern Rwanda
CBM-AEBR project team building

15-26 July 2019
London, UK
Tearfund orientation

5-16 August 2019
S&N Kivu, DR Congo
Country-level annual training

NEIL ROWE MILLER

2-7 June 2019
Debre Markos, Ethiopia
MSCFSO project visit

25-28 June 2019
Makueni, Kenya
Fadhili project design workshop

3-5 July 2019
Dodoma, Tanzania
National CA workshop

15-26 July 2019
London, UK
Tearfund orientation