



Hope For The Future

SOMALI AGRICULTURAL TECHNICAL GROUP
(SATG)

STRATEGIC PLAN
2011

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1. Introduction

The primary goal of the Somali Agricultural Technology Group (SATG) is to support the development of secure food supply and distribution chains in Somalia.

SATG is the only NGO operating in Somalia which has:

- a proven ability to operate in a war-torn country and to be effective in all areas including the rebel occupied south;
- a focus on developing market-driven value chains for livestock and agricultural products;
- wide experience working with small-holder farmers, seed companies and agri-dealers in sub-Saharan Africa;
- deep connections, experience and acceptance within Somalia;
- access to expatriate Somali social investors;
- the ability to design, execute and disseminate appropriate crop research programs, and
- strong connections and networking with regional programs, international agricultural research organizations, academic institutions and diaspora groups.

2. Summary

SATG plans to develop several interconnected programs designed to increase agricultural output as follows:

- stimulate the development of distribution chains for improved seed, crop protection products and fertilizer by supporting agricultural entrepreneurs to develop agri-dealerships;
- provide training and technical support to smallholder farmers on best farming practices;
- continue to promote the proliferation of grain storage silos and to gradually reduce reliance on donor support by engaging expatriate Somali social investors;
- introduce improved varieties of forage for livestock feeding;
- build an in-country research capability to develop, test and disseminate appropriate technologies specifically for the different agro-ecological farming environments in Somaliland, Puntland and South Central Somalia.

3. About SATG

SATG is a registered non-profit association of Somali professionals and friends of the country dedicated to assisting in the reconstruction of Somalia and its agricultural heritage. SATG was established to provide sustainable home-grown solutions to alleviate the rampant food shortages caused by conflict and the lack of agriculture and food policies.

SATG draws upon a mix of both practical and scientific expertise that is applied to enhance food security at the household level. All work and studies undertaken by

SATG are conducted in key target areas working in co-operation with various partners and local farmers.

Agriculture, including livestock, is the backbone of the Somali economy. Pre-war figures indicate that 67% of the country's GDP came from livestock, agriculture and fisheries.

SATG envisions a huge opportunity whereby agriculture will not only play a crucial role in reconciliation and rebuilding in Somalia, but will be a key component in the rejuvenated Somali economy. This will go a long way towards solving both social and economic problems. Boxes 1 and 2 provide success stories that illustrate the potential role of agriculture in Somalia's economic development.

4. How we work

The SATG team consists of a board of directors, executive members, technical and administrative staff and a pool of experts called "associate members" scattered across the globe. The SATG head office is currently located in Nairobi, Kenya, and there is representation in Somalia (Somaliland, Puntland and South Central), USA and Canada. A team consisting of six technical support staff is based in the Bay region of southern Somalia, and additional teams of consultants are deployed as necessary for project implementation. SATG regularly draws upon the expertise available within the Somali Agricultural Association (SAGRA), based in Mogadishu. In Somaliland, SATG has recently assisted the formation of Somaliland Research for Development Steering Committee that has representation from various stakeholders including government Ministries, academic institutions and the private sector.

4.1 Board Members

- Ambassador Jelani M. Habib, Former Kenyan Ambassador to China and Tanzania (Nairobi);
- Dr. Mohamood Abdi Noor, Former Vice Minister of Agriculture in Somalia and a consultant for the World Bank (Washington DC);
- Richard Jones, Agribusiness Team Leader, IFDC (Nairobi). former ICRISAT Deputy Director for Eastern and Southern Africa;
- Paul Porter, Professor of Agronomy, University of Minnesota;
- Hussein Hajii, SATG Executive Director and former plant breeder for agriculture and agri-food Canada (Nairobi)

4.2 Core consultants

Abdulkadir Mohamed Abikar, Agronomist (Afgoi, Somalia)

Anasuya Prabhu, Development Economist (Nairobi)

Abdullahi Yehya, Microeconomist(African Development Bank, Nairobi)

Abdulbari Saif, Plant Pathologist (ICIPE, Nairobi)

Peter Bloch, Market Development Specialist (IFDC)

Kate Longley, Livelihoods and Food Security Specialist (Nairobi)

Hared Abdullahi Nur, IPM specialist (Hargeisa, Somaliland)

Salim Hagi, Information and Communication Technologist (Ottawa, Canada)

4.3 Associate consultants/members

Other consultants, many of whom participated in the SATG electronic forum discussion group, are also available when needed. This discussion group involves 50 agricultural professionals from 5 continents, and has been active since July 2003.

4.4 The Somali Agricultural Association (SAGRA)

SATG has close links with the Somali Agricultural Association (SAGRA), whose members previously worked for the agriculture research and academic institutions in Somalia. SAGRA was established in 2004 with a mission to provide technical support for local and international NGOs engaged in agriculture development programs. SAGRA members are scattered throughout Somalia. SATG, in partnership with SAGRA, has successfully implemented various projects in the Lower and Middle Shabelle regions of Somalia.

5. Activities

Current and past activities have focused on identifying and promoting existing 'best-bet' technologies, including:

5.1 Grain storage silos

SATG has adapted the design of a locally popular metal water-storage tank to create a metal grain storage silo that can easily be manufactured within the target communities. At this time SATG is in the final phases of completing a two-year FAO contract to provide 2,000 grain storage silos. By the end of 2010 this project had trained twenty artisan-fabricators and installed of 2,000 silos in Burhakaba and Baidoa districts of the Bay Region. SATG has also trained over 10,000 farmers on mediating post harvest and storage loss and the proper use of the household metal silos.

5.2 Mung bean (filsan)

Filsan is a superior variety of mungbean which is characterized by high yield potential, larger seed size, early maturity, and better cooking qualities compared to local varieties. It was originally introduced and tested at the Bonkaay Dry Land Agriculture Research Station, but after the collapse of the government in 1991 and the attendant collapse of those national institutions providing agricultural services, plans for the introduction of Filsan at scale level were shelved. Filsan seed became mixed with local varieties and planting of the pure variety was no longer possible.

In 2002, SATG became involved in identifying the Filsan seed pedigree and tracing it back to its origins. SATG obtained a small amount of Filsan breeder seed from AVRDC (Asian Vegetable Research and Development Centre) in Taiwan and began multiplying it at an experimental station in Minnesota, USA. Further multiplication took place in Kenya in 2004 with the support of ICRISAT. Finally, in 2005, SATG was

able to repatriate 110kg of Filsan seed to Somalia for further multiplication and distribution.

Through a collaborative project with SAGRA, 1000kg of Filsan seed was distributed to the farmers in the Lower and Middle Shebelle regions. Filsan still maintains its yield superiority and early maturity over the locally grown mungbean varieties. A recent evaluation conducted by Concern Worldwide in Lower Shabelle revealed that 92% of sample farmers who had tested the variety decided to adopt it¹, indicating its popularity among farmers.

5.3 Phosphate

A study by SATG has confirmed the role of soil phosphorus deficiency in limiting crop yields. Phosphorus was found to be the single most important factor determining crop yields in the Bay Region of Somalia. Experimental results obtained from sorghum and mungbean trials showed that crop growth and yield significantly increased between 100% and 400% when Triple Super-Phosphate (TSP) was properly applied. Similar results were obtained when animal manure was incorporated into the soil during land preparation. Phosphorus fertilizers were shown to promote early seedling vigour and crop maturity of both sorghum and mungbeans.

The subsistence nature of farming in the Dryland Agriculture of the Bay region is based on the exploitation of soil nutrients using a sorghum monocropping system. The effect of this type of farming on soil degradation and nutrient depletion is widely reflected in the poor yields of both sorghum (the main crop) and other crops grown in the region. The availability of phosphorus to plants is determined by the soils' ability to supply nutrients and by plants' ability to utilize the supplied nutrients. Phosphorus deficiency impairs the normal crop growth and yield through complex biochemical and physiological mechanisms.

The application of phosphorus can therefore be expected to increase crop production and thereby alleviate the acute shortages of staple grain which currently affect Somalia. The study found that the ideal method of phosphorus placement was simple and cost-effective for farmers: placement of phosphorus directly into the hole with seed, using simple and affordable technologies such as Coca Cola bottle caps, was found to be more efficient than broadcasting the fertilizer. However, phosphorus management practices need to be continuously improved and evaluated. Given the importance of phosphorus for crop yields in Somalia, there is an urgent need for more research on its application and effect.

¹ Concern Somalia, 2011. Food Income and Markets Project, External End Line Value Analysis. Concern and ICRISAT.

6. NEW ACTIVITIES

6.1 Agricultural research for relief, recovery and development

SATG, in partnership with the Consultative Group for International Agricultural Research (CGIAR), has provided technical support for technology testing, dissemination and training to a number of organizations including Concern Worldwide Somalia, FAO and Horn Relief. Building on the 'best-bet' technologies described above, among others, there is the potential to provide such types of technical support to a broader range of implementing agencies operating in Southern Somalia. There is also the need to provide technical inputs to the seed sector.

Since the collapse of the Somali state in 1990, a number of NGOs and international organizations have taken the lead in providing services to farmers. Relief seed distribution is a common short-term intervention, but limited effort has been made to assess the agro-ecological conditions, varietal suitability and technology adaptation to the local context. Generally, seeds and inputs are imported from neighboring countries and introduced directly to the farming community without prior testing. This can be a costly operation for small scale farmers if their crops fail due to poorly planned seed interventions. Some NGOs have developed an internal system of testing by introducing new technologies through Farmer Field Schools (FFS), but a lack of qualitative and quantitative data and comparative analysis makes it difficult to make an informed decisions about the technologies introduced through FFS.

In the more stable regions of the north, it is both necessary and possible to establish sustainable, long-term programmes for agricultural research for development (R4D). The recent peaceful election and consequent transition in Somaliland, as well as the prevailing peace, stability and enabling environments in both Somaliland and Puntland, are attracting professionals and highly skilled Somalis from the diaspora to come back to their homeland and contribute to the reconstruction of both public and private institutions. There are an increasing number of emerging universities and colleges that can also contribute to capacity building and longer-term research and development programmes.

In November 2010, SATG organized consultative workshops in Hargeisa and Nairobi to develop technical and institutional options for the provision of agricultural support and applied research services for implementing agencies involved in agricultural interventions in Somaliland, Puntland and South Central. The Somaliland Agricultural Research for Development Steering Group has since been established, composed of representatives from the government, universities, private sector, UN and NGOs. With support from SATG, this Steering Group will take the lead in formulating and implementing an agricultural research strategy for Somaliland. It is anticipated that SATG will facilitate the emergence of similar steering groups in Puntland and South Central Somalia.

6.2 Support to Farmers

SATG is a non-political, non-aligned NGO serving the needs of all smallholder farmers in Somalia. We have been able to operate efficiently in the South by using local staff to provide technical services. Our focus is on smallholder farmers who are either engaged in farming or who have access to farmland. Our work with farmers is either implemented directly by SATG staff or by working in collaboration with other NGO partners, both international and local. It often involves the on-going provision of technical advice and support to Farmer Field Schools (FFS) and the training of FFS facilitators and NGO staff. Appropriate 'best-bet' technologies and improved farming practices will be identified and promoted according to local agro-ecological conditions and marketing opportunities.

6.3 Support to emerging Agridealers

Although there are few, if any, formal agridealers there are a number of individuals who are operating informally. One of the constraints is that most of the agridealers are located in large towns and often find it difficult to access rural farmers. Our staff, all of whom will be recruited locally, will identify informal and potential agridealers; the latter may be farmers who have expressed interest in expanding into input supply. These agridealers and prospective agridealers will receive customized training which takes account of their skills and local conditions. Small workshops and individual mentoring will be offered to help this group to identify opportunities to build small businesses and offer both inputs and technical support to farmers in their communities.

We will also talk to community groups about developing clusters where farmer-agents work with seed and input suppliers. In Zambia, Pannar Seed and USAID PROFIT launched such a program which has been extremely effective in reaching smallholder farmers in remote, sparsely populated areas. Communities elect one of their own to act as the agent, and agents receive appropriate training. This is one of the models that SATG will promote where appropriate.

In Malawi, ICRISAT worked with local partners to help small agridealers branch out into seed production by explaining the opportunities and providing foundation seed and training. As there are no seed companies in Somalia, developing small local seed companies is a pathway that may be extremely effective. Agridealers can contract with farmers to multiply seed, provide technical support and then offer quality seed within their communities without having to address transportation challenges.

6.4 Support to IDPs (Internally Displaced Persons)

It is estimated that more than 1.5 million Somalis are internally displaced. South Central Somalia hosts 1,220,000 IDPs, while Puntland and Somaliland host 125,000 and 67,000 IDPs respectively. Intensified conflict in 2009 and 2010 has led to projections of an additional 120,000 IDPs for this year alone. Some international aid

agencies have been expelled from the country and others find it difficult to gain access to populations in need, thus limiting the support available to IDPs.

Many IDPs are – or were – engaged in some kind of agricultural activity before the civil war, and some not only have access to farm land but are engaged in farming. Where possible, SATG will advocate for IDP access to farmland where none is currently accessible and provide agricultural assistance to IDPs who are able to undertake farming activities.

Box 1. Livestock development

Somalia is home to 50 percent of Africa's camel population and 10 percent of the continent's sheep and goats. About 65 percent of people in Somalia make a living working with livestock in one way or another. A recent United Nations report revealed that livestock is Somalia's chief economic earner, bringing in 80 percent of the foreign currency. Much of the foreign income from the livestock export goes to the private sector, which plays a significant role in the development of livestock production, trade and marketing. The livestock export ban against Somalia was lifted after Somali authorities put in place health and safety measures requested by states in the Middle East, where virtually all of Somalia's livestock exports go. The export of livestock to the Middle East is valued at half a billion dollars annually. Recently, several holding and quarantine facilities were constructed where all exported livestock must pass for inspection and fattening. According to the Food Security and Nutrition Analysis Unit (FSNAU) of the Food and Agricultural Organization (FAO), overall livestock exports have significantly increased in Somalia since December 2009. In May 2010, livestock exports from Bosasso and Berbea ports were 30 percent and 10 percent higher than the previous year.

Box 2. Sesame Seed Exports

Sesame is the most import oil crop in Somalia. The crop is mainly grown in southern Somalia where the main growing regions are lower Shabelle, Middle Shabelle, Hiran, Lower Jubba, Middle Jubba and Gedo. Deyr season has the most favourable growing conditions for the crop, especially when the crop is planted in flooded controlled fields. In recent years, due to higher demand for sesame seeds worldwide and the rise of sesame price from an average of US\$ 500/tonne in 2007 to over US\$1000/tonne in 2010, the sesame production area increased significantly. At present, the total land area grown to sesame is about 150,000 ha - three times higher than the area in 2007. The positive impact is noticed in farm income increase from US\$100-360 per year. Sesame seed from Somalia is exported to markets in Europe, Middle East and Asia. The sesame industry is led exclusively by the private sector with some support from international NGO's working in the sesame production regions.