

HOW TO MODERNIZE AND INTENSIFY AGRICULTURE IN THE SAHEL



Recommendations and concrete solutions to be shared with stakeholders



SOS SAHEL . . .

Founded in Senegal in 1976 by President Léopold Sédar Senghor, in response to a devastating drought, SOS SAHEL is a non-governmental organization working on the ground, with a presence in 11 countries in the Sahelian strip, from Senegal to Djibouti.

The organization's main goal is to strengthen food and nutrition security in rural communities through economic and social development at the local level and large-scale long-term action to protect and restore the natural environment.

SOS SAHEL is already managing initiatives involving over 1,000 local organizations in the Sahel and covering vast geographical regions – such as central and northern Mali.

Our approach is notable for its combination of technical advice on environmental and agricultural practices tailored to the Sahelian climate and support for social development, basic social services, community governance and women's empowerment.

In 2017, SOS SAHEL organized the first AFRICA DAYS conference in Senegal to celebrate Africa and 40 years of action and achievement on the continent. We also used the conference to officially launch our *Food Security and Nutrition Initiative 2025* campaign.

In 2018, the AFRICA DAYS conference was focused on the idea of developing local products. SOS SAHEL organized a forum entitled "Sahel, setting a course for family farming" which highlighted the huge potential of local produce to provide Sahelian populations with healthy and nutritious food, within the context of a dynamic local economy which can provide jobs for its people.

The 2019 edition examined the modernization and intensification of agriculture in the Sahel and helped highlight local solutions that are both innovative and sustainable.

...IN FIGURES



Grassroot non-governmental organization founded in Senegal in

1976

by President Léopold Sédar Senghor in response to a devastating drought



1 objective

to reinforce food and nutritional security through the economic and social development of communities

1 action

on a large scale to protect and restore the natural environment



11 countries


of the Sahel belt (from Senegal to Djibouti) benefit from the actions of SOS SAHEL



1000

local and complementary organizations to reinforce rural communities and their skills



A young woman with a warm smile is the central focus. She wears a colorful, striped headwrap and a shimmering, metallic-patterned sleeveless top. In her left arm, she cradles a large, vibrant bundle of green leafy vegetables, likely a type of spinach or similar leafy green. The background is a lush, out-of-focus green landscape with trees and foliage, suggesting a rural or agricultural setting. A semi-transparent white rectangular box is overlaid on the lower half of the image, containing text.

Modernizing agriculture means providing agricultural players with the means to scale up, diversify and transform their production while adapting to climate change.

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In Chad,



300,000 families

are maintaining their income
thanks to gum arabic

In West Africa,

the food economy

employs



81 % of the population
in rural areas



35 % of the population
in urban areas



68 % of women

MODERNIZING AGRICULTURE FOR A GREENER SAHEL!



Rémi Hémercyck
Executive Director, SOS SAHEL

The synergy between actors from diverse backgrounds lies at the heart of the AFRICA DAYS. In 2017, 2018 and 2019, we worked to emphasize their meeting and participation for a greener, safer, more prosperous Sahel. As part of a structural modernization of agriculture, this synergy is required more than ever.

We know, for example, that access to energy is a major obstacle to the sustainable development of agriculture in the Sahel. Family farming covers 80% of the continent's food needs, but only 10% of small farmers benefit from mechanical energy. Making energy accessible would drastically increase their production capacities. There are many distributors and equipment manufacturers of renewable energy in the region; the opportunities therefore are very real.

However, the supply remains too high for small farmers. Appropriate funding mechanisms are necessary so that they can take advantage of these opportunities. For example, in Chad, in order to respond to the lack of access to this energy, the country provides VAT exemption for the equipment necessary for agricultural production. This is one example of the need for cooperation in a context as complex as agriculture.

In addition to solar energy, small-scale irrigation is a key point for ensuring food security for millions of households, but access to adapted technologies is difficult. However, the marketing of high-performance solar pumps would allow a greater number of producers to earn better incomes and to sell their products at a price that is more affordable for people. In this work, organizations such as the Practica Foundation, for example, are doing a remarkable job.

Effective and lasting solutions exist throughout the Sahel. Each solution presented in this booklet is proof of this. Driven by win-win partnerships, the detailed solutions also demonstrate the importance of dynamic and inclusive networks.

Together, let's continue to accelerate change by modernizing and growing Sahelian agriculture to allow each farmer to flourish and sustainably support their family, their community, and their country.

SOS SAHEL'S AFRICA DAYS 2019



The third AFRICA DAYS conference took place from April 25 to 27, 2019, in Dakar, Senegal. It brought together stakeholders active in the Sahelian region, from Senegal to Djibouti, in order to exchange and foster synergies that enable the creation of large-scale solutions benefiting as many people as possible and ultimately boosting food security, employment and economic growth. SOS SAHEL's AFRICA DAYS 2018 and 2019 were financially supported by the Agence Française de Développement (AFD).

The theme chosen for AFRICA DAYS 2019 was

"Sahel: towards an intensive and modern agriculture"

In sub-Saharan Africa, agriculture provides over 60% of all jobs. This figure is even higher in Sahelian countries that are still predominantly rural. But agriculture is currently facing a number of challenges: population growth, climate change, a loss of biodiversity and soil depletion, to name just a few.

In the face of these challenges, participants were able to discuss and ask questions about the actions necessary to facilitate the transition towards modern family farms. These reflections are helping achieve the vision provided by the African Union's Agenda 2063: *"An agriculture that is both modern and productive, thanks to science, technology, innovation and local knowledge. The hand hoe will be banished by 2025 and the sector will be modern, profitable and attractive for the continent's youth and women."*





SOS SAHEL'S AFRICA DAYS 2019 PROGRAM

Thursday April 25 - The pre-forum

The pre-forum provides an opportunity for stakeholders on both sides – those who support family agriculture and those who champion the development of food economy enterprises - to discuss solutions to modernize family farming. Fourteen Sahelian contributors shared their innovative initiatives and offered insights and recommendations based on the lessons they'd learned from their personal experience. These reflections provided food for thought for the forum's panel discussion.

Friday April 26 - The forum

The SOS SAHEL AFRICA DAYS forum is a participative space open to stakeholders who are active in the Sahelian food economy and come from a variety of backgrounds. It provided an opportunity to discuss two key issues in connection with the event's theme:

"How do we intensify family farming?" and
"How do we facilitate the transition towards modern family farms?"

Saturday April 27 - The field trip

Participants visited the region of Fatick where they observed innovative and promising initiatives for modernizing and intensifying agriculture:

- The gum tree plantation in the Nianing forest reserve.
- The Kaydara agroecological farm-school.
- Two economic interest groups (EIGs) in Salan Sedar and Nanor which were, once, supported by the Global Environment Facility's Small Grants Programme (SGP).



SOLID RECOMMENDATIONS FOR MODERNIZING AND INTENSIFYING SAHELIAN AGRICULTURE

The forum centered upon scaling the success stories and innovations presented during the Market Place. Four panels and three keynote speakers provided an opportunity for the 19 contributors to interact with the audience on subjects including their future vision, technology, forms of learning and organization and the measures that should be taken to modernize and intensify agriculture in the Sahel.¹

¹ Participation in the forum was significant with 110 people taking part, these including representatives of national and regional institutions and technological and financial partners from the private sector and civil society organizations.

The vision for modern agriculture in the Sahel

Modernization must support the emancipation of the small producer. A modern family farmer must leave the field in order to fully invest in their role in the agricultural value chain and to protect their environment and resources. Technologies, learning methods and actions must be made in an inclusive manner so that they meet these requirements.

“ The modern farmer must become aware of its place in contemporary society. They are simultaneously the heart of and the bearer of desired change.”

Alain GOUBA, Training and monitoring cycle manager, TERRE VERTE

“ A farmer must be well equipped to determine which resources and structures are necessary to support production chains. Organizations representing producers must be strong in order to negotiate and ensure that their choices benefit their members. A well-equipped and well-informed farmer can solve their own problems!”

Yousouf DIALLO, Water and Energy Specialist, PRACTICA

“ We must trust traditional systems especially on issues of governance, as they know what families need and which decisions should be taken to ensure that they flourish.”

Mariama DEYE, Program Manager, Japan International Cooperation Agency (JICA)





Intensification must be sustainable. It must be based on an agro-ecological approach. The reintroduction of trees and shrubs as well as integration with the livestock farming sector will make it possible to increase productivity while restoring the soil and ensuring sustainable water management.

“ Currently, producers must buy unsustainable inputs and engage in unsustainable farming practices to ensure they make enough return. We must change these mechanisms if we want to change the agricultural model in use.”

Nadjirou SALL, General Secretary of the Réseau des Organisations de Paysans et Producteurs d'Afrique de l'Ouest (ROPPA) [West African Network of Farmer and Producer Organisations]

“ To ensure the transition towards sustainable agriculture, we must support research, connect farmers with this experimental momentum, back local markets and strengthen advocacy work so that politicians give thought to these new models.”

Dr. Émile FRISON, Member of the International Panel of Experts on Sustainable Food Systems (IPES-Food)

“ The reintroduction of trees and shrubs into farming areas will provide soil with nutrient benefits. Integrating livestock farming into agriculture will provide the organic matter necessary for fertilization.”

Dr. Ibrahima DIÉDHIYOU, Professor of plant ecology - agroforestry, University of Thiès

The technologies that can transform agriculture

Introducing technologies that are compatible with local stakeholders' resources and which are powered by renewable energy. Technological innovations should be accessible to small producers. They should be practical to use and energy efficient. This would facilitate their adoption by users and bring real added value in modernizing practices.

"Modernizing our agricultural system will entail the mechanization of certain practices. Care must therefore be taken when choosing equipment to ensure that the price paid socially and environmentally is not too high for our communities."

Aminata Dominique DIOUF, Executive Director of the Domaine Agricole de Néma

"The integration of new technologies into African farming systems must be implemented using a holistic approach, simultaneously taking into account stakeholders, processes and the technologies themselves. We must see the contribution made by technology as a process adding value to the system."

Amara NWANKPA, Director of Public Policy Initiatives at the Shehu Musa Yar'Adua Foundation

"The adoption of a new technology or a new practice is not only a technical issue. Participatory action research, which puts the producer at the heart of experimentation is the model currently favored. This inclusive method facilitates the adoption of innovation."

Dr. Djaminatou SANOGO, Director of National Center for Forestry Research/ Senegalese Agricultural Research Institute (ISRA)





Technology that facilitates the sharing of information and good practices while strengthening action synergies and supporting the creation of an ecosystem conducive to entrepreneurship needs to be available to local stakeholders. Developing information technologies and improving rural connectivity are opportunities to be seized by small producers. These can support the rapid transformation of small family farms into consolidated entities, capable of economies of scale.

“ A producer who wants to become an entrepreneur must be able to develop in a fertile ecosystem, making it possible to accelerate existing initiatives. They must be part of a dynamic network of stakeholders that targets the international market progressively in order to guide the sector towards industry”

Mathieu DONDAIN, Managing Director of Nexira International and member of SOS SAHEL's advisory board.

“ Technologies can provide solutions in terms of knowledge sharing both between producers and through the creation of centers offering services and training. Solutions of this type are supported by the Global Environment Facility's Small Grants Programme (SGP) and have already been shown to help modernize agriculture and contribute to the development of agroecology and agroforestry.”

Yoko WATANABE, Chief Executive Small Grants Programme (SGP) at the Global Environment Facility (GEF).

Types of learning and organization for transition to a modern farming system

Promoting an inclusive approach and inclusive governance while strengthening connections between producers. Small producers should be able to participate fully in decisions that concern their well-being and the protection of their environment. This requires the consolidation of producer networks, so that they are recognized in the system and able to provide the services necessary for the modernization of their members' practices.

" According to a study carried out by CIRAD [Centre de coopération internationale en recherche agronomique pour le développement (French Agricultural Research Centre for International Development)] on the potential development of the Niayes area, the most harmonious future scenarios are all characterized by: a structured civil society, inclusive governance, regulation of the use and access to natural resources for their preservation, strong education and a dynamically regulated population."

Camille JAHEL, Researcher, CIRAD

" By improving connections between stakeholders in the value chain, small producers gain a better understanding of the sector and are more able to access the funding they need."

Dr. Macoumba DIOUF, National Director of Horticulture at the Senegalese Ministry of Agriculture





Developing the sector to attract new people with new skills, and thus support the creation of jobs. Agriculture offers African countries untold opportunities to absorb the young, qualified workforce that they hold. The sector is booming but needs targeted and tailored investment in order to flourish.

“ New technologies can provide a solution to the combined problem of job creation and population growth in Africa.”

Dr. Leena HOFFMANN, Associate Fellow Chatham House Africa Programme and member of SOS SAHEL's advisory board

“ Agriculture has huge potential but it also has a poor image in the eyes of youth. However, it can be made sexy and inclusive through a value chain approach so that we may be able to attract and provide work for a large range of young workers.”

Mame Khari DYENE, Agricultural value chains consultant, UN WOMEN

“ The use of digital technology enables farming entrepreneurs to promote their profession and attract young people to the job.”

Lamisse KANDIL, CEO of the Innovative Co-operative for Optimal Nutrition (ICON)

The measures to put in place to support change

Supporting small producers means giving them security to improve their resilience and ability to invest. Land regulation, agricultural insurance and access to finance are just some of the key measures that should be taken to enable stakeholders to build their self-confidence so they can be bolder in the actions they take.

“ Agricultural insurance plays an important role in the protection and resilience of small producers and facilitates access to financing.”

Khady Diouf DIALLO, Insurer at Compagnie Nationale d'Assurance Agricole du Sénégal (CNAAS)

“ Investment beyond agricultural production should focus on transforming raw materials in-situ to ensure value creation at the local level!”

Lamisse KANDIL, CEO of the Innovative Co-operative for Optimal Nutrition (ICON)

“ Land tenure security for farmers is vital to ensure investment.”

Mahamadi SORGHO, Director of the Goema Pilot Farm, TERRE VERTE





Proposing an area-based approach surrounding agronomic and human potential will facilitate the scaling up of virtuous initiatives. Sectorial and occasional action will not bring about the desired change. Efforts must create synergy between existing initiatives, bringing together all partners and supporting endogenous wealth to ensure the longevity of any impact made.

“ Food security is one of the main objectives of the African Union’s vision. To achieve this security at the continental level, it is essential that we transform current agricultural methods to improve productivity while protecting our environment. The initiatives implemented by our institution, such as the Comprehensive African Agriculture Development Programme (CAADP) and the Great Green Wall for the Sahara and the Sahel Initiative (IGMVSS), aptly illustrate this desire to combine food security and soil restoration.”

Dampha ALMAMI, Senior Policy Officer, Forestry and Land Management, African Union Commission

“ We must devise initiatives that can ensure the sustainability of actions taken on the ground and move away from a project approach while facilitating long-term partnerships in order to ensure that real development takes root at the local level through an area-based approach. SOS SAHEL’s A Better Life and The Green Initiative meet these needs.”

Rémi HEMERYCK, CEO, SOS SAHEL

INNOVATIVE SOLUTIONS

Each solution presented in this document begins by outlining:

VISION FOR CHANGE

- **An initial situation,** most commonly a point in the past, highlighting the fragility of people and situations, the constraints faced by stakeholders and the limits hampering their efforts.
- **The opportunities** that have presented themselves over the years and attracted the interest of SOS SAHEL and its partners, motivating them to identify innovative solutions.
- **The vision of an ideal situation,** yet to be realized, in which stakeholders have minimized the risks and developed the human, natural, and economic potential available to its fullest degree. This vision should encourage reflection and serve as a guide when drawing up action strategies.



This process of change is always part of a contrasting context, simultaneously containing advantages and solutions that can be implemented as well as challenges and constraints, these being the many **things to watch out for** and bear in mind when making strategic choices and working with operational goals.

The solution section is derived from the various stakeholders who are offered means of progress in terms of skills to acquire, organizational methods to build and economic mechanisms to put in place. The solutions set out here have already been tested on the ground and are yielding results.

The results and impacts set out here are real and observable on the ground and have been brought about by stakeholders and beneficiaries. Regardless of the figures and amounts, the results seen here are significant and important for stakeholders. They bear witness to the trajectory of change made possible with the support of SOS SAHEL and its partners.

Finally, the list of partners and **stakeholder coalitions** provided here, attest to the fact that effective and sustainable solutions are never simple, nor are they provided by a single organization, institution, or company in isolation, no matter how powerful. Every solution is comprised of many, many actions, carried out by a diverse range of stakeholders, each playing a distinct and specific role. In this respect, SOS SAHEL and other solution providers are mobilizers and facilitators as opposed to “realizers” per se.





ANIMAL FATTENING TO REVIVE THE ECONOMY IN NORTHERN MALI

Initiative owner

SOS SAHEL International France

Initial situation

Northern Mali is facing a particularly complex situation. Insecurity is heavily limiting the progress of economic activities and the area is suffering the effects of climate change which bring recurring droughts and flooding. In addition, community organizations lack capacity and the state is largely absent. This situation has a significant impact on pastoral activities and results in food and nutritional insecurity among local populations.



Opportunities

Despite this situation, local dynamics have not diminished. The administrative autonomy of these regions, which came about as a result of decentralization, contribute to the continuity of certain activities. The launch of the World Bank's Program for Mali Reconstruction and Economic Recovery and the pursuit of funding from multilateral organizations in order to rebuild the country's northern regions make it possible to support existing initiatives at the local level.



Vision

The practice of ovine and bovine fattening has been adopted by communities in northern Mali who see positive results from small scale intensive livestock farming and benefit from putting higher quality animals on the market. Women's cooperatives and the poorest households have learned the professional skills involved in animal fattening resulting in higher incomes and food security for households.



Potential levers

The livestock farming sector is already well developed in Mali and is contributing 19% to the national GDP. The north has strong pastoral potential which could support the region's development. Livestock farmers are already organized into cooperatives and some already practice fattening. During this crisis period, the members of these cooperatives already demonstrated their motivation to appropriate this innovative practice.



Stakeholders

- Projet de Reconstruction et de Relance Économique [Economic Regeneration and Reconstruction Project] (PRRE)
- World Bank
- Ministry of Finance
- Animal Husbandry Directorate
- Community-based Organizations



Potential Issues

Desire alone is not sufficient to guarantee the success of this practice in the region. Community-based organizations do not have the necessary technical capacity and must be supported to practice animal fattening. Furthermore, the security crisis has led to the departure of numerous microfinancing organizations previously present, making it harder for livestock farmers to borrow. Ultimately, animal health remains the biggest concern. This has to be guaranteed, under adverse conditions, for livestock farmers to avoid losing the investments they've made.



Solution

Fattening is a rearing practice which reduces animal mobility and makes it possible to fatten cattle more quickly. Once well fattened, the cattle sell better on the market. Fattening projects are written into the Economic, Social and Cultural Development Plans (PDESC) of the regions and communes in the intervention area. Local development agents supported by SOS SAHEL initially assist the fattening cooperatives so that they may take ownership of the required skills. Then, regular monitoring is provided by the local livestock departments with whom SOS SAHEL has signed memorandums of agreements. Special attention is given to providing veterinary care for the cattle. Necessary infrastructure, such as enclosures, is made available to cooperatives through local businesses chosen by the tender. The funding needed in the initial stages of the activity is provided by microfinancing institutions contracted by SOS SAHEL.



Results and impact

- **100 ovine fattening projects** and **79 bovine fattening projects** are underway in northern Mali.
- **179 community-based organizations** have benefited from these projects. Women have been heavily involved: 3,950 women vs. 2,900 men
- **Estimated average revenues per ovine fattening rearing cycle** (3-month cycle) and bovine fattening rearing cycle (6 months) per group have been estimated at **FCFA 390,000**, or €600
- **Cooperatives have strengthened social cohesion** and community resilience
- Through the **consumption of milk**, household nutrition has improved
- The vegetable sector has benefited from the **availability of organic manure** produced by livestock



“BEY DUNDÉ, DUNDAL” PRODUCING CROPS TO FEED YOURSELF AND OTHERS

Initiative owners

Institut panafricain pour la citoyenneté, les consommateurs et le développement (CICODEV Africa), GRDR Migration-Citoyenneté-Développement, Rufisque Department

Initial situation

In the urban and peri-urban areas of Senegal's Dakar region, one in every two children come to school without having eaten breakfast and one in three suffer from vitamin and mineral deficiencies. Only 1.7% of state primary schools have a canteen. And yet, 30% of Senegal's vegetable production comes from this area. The taste for imported foods and the rapid disappearance of Rufisque's agricultural production sites are putting the region's family farms at risk.



Opportunities

Dakar region is an important area for agricultural production, dominated by horticulture, poultry farming and fishing. Protecting green farming space is therefore crucial. The circumstances are favorable to this as the communes are increasingly being given greater responsibility in managing their land thanks to decentralization. A number of farmers' organizations are active in the area and have already organized to save farmland in the face of population growth and exploding urbanization.



Vision

A food system is in place that develops local farming potential and short supply chains, and which makes it possible to feed local people in a healthy and sustainable manner. Local foods, like the sweet potato, which have significant nutritional properties are considered at their fair value by consumers. The region's family farmland is secured thus enabling these farms to flourish.



Potential levers

Family farms are recognized for the role they play and the place they have in ensuring food security in the region. They can access institutional markets, in particular those associated with school canteens. Dakar's proximity is an advantage as the capital is an urban market highly likely to absorb produce not consumed locally.



Stakeholders

- Producer organizations: FENAGIE pêche [National Federation of Fishing Industry Economic Interest Groups], the Federation of Vegetable Growers in Niayes, the Bokk Jom EIG, the association of Lendeng vegetable growers and the Koyli Wirnde Young Farmers' Union (UJAK)
- The national Federation of Senegalese bakeries
- ASPRODEB Association for the Promotion of Grassroots Development
- Canteen management committees: school heads, teachers, parents
- Civil Society: Consumers' Association (ADEC) Association for the Defence of Consumers and the Environment
- Local and regional authorities: department, communes
- State institutions: Division of school canteens



Potential Issues

Family farms are not easily able to take the steps that would enable them to gain access to institutional markets. Once access to these markets is obtained, producers have to be able to honor any contracts signed and ensure the regular provision of the produce. The initiative has to benefit the most disadvantaged pupils and households. For this to be achieved, it is important to carry out an in-depth analysis of the social realities affecting the intervention area.



Solution

This initiative has three components: the development of local produce, supplying school canteens with local produce and support for family farms.

All of the activities are implemented under the auspices of the departmental council which encourages and coordinates commune actions through a Territorial Food Plan. The promotion of local products to urban and peri-urban households is an activity carried out by civil society organizations through media campaigns and the creation of awareness-raising tools. A comic strip comparing nourishment to Senegalese wrestling has been created, in collaboration with a team of specialists, in order to reach young people. Provision of produce to these canteens is guaranteed by producer organizations that sign contracts with the communes and the family farms. These farms are supported by ensuring the sale of their produce and protecting their land through secure land tenure.



Results and impact

- **7,873 pupils have received school meals** (lunch and doole bread) in 9 schools supplied with local produce.
- **The children's school performance has improved.**
- **5 producer organizations and 5 local bakeries** were involved in supplying the canteens.
- Awareness-raising **media campaigns reached 200 homes.**



CONTRACTUAL INTENSIFICATION OF ORGANIC MANGO PRODUCTION IN SENEGAL

Initiative owner

Sunuagrix

Initial situation

Senegal has no more than a 5% market share in the European Union mango market, despite the mangos being of high quality with a well-established source. This is far from realizing its true commercial potential, primarily due to uncertified production and producer uncertainty regarding whether their produce will sell.



Opportunities

Small producers can gain access to secure business opportunities. They can benefit from outside expertise to support them in their acquisition of new skills and good farming practices necessary to improve productivity and the quality of their produce.



Vision

An efficient system for the production, collection and sale of certified mangoes has become operational. This involves small rural producers on a large scale, in the context of a stable partnership. The system has resulted in an increase in mango exports to the international market and has secured agricultural produce opportunities for small producers.



Potential levers

Senegal is currently the second-largest exporter of mangoes in Western Africa, after Ivory Coast, with a favorable export window (from May to August) as compared to other producer countries in the sub-Saharan region and in Latin America. The country exports no more than 10 -15% of its produce. The mango sector is especially inclusive and generates income for over 25,000 family farms.



Stakeholders

- Sunuagrix
- Producers
- Business partners/clients/social investors
- Certifying bodies: GLOBALG.A.P., Ecocert, etc.



Potential Issues

Managing the system generates costs which affect profit margins, making produce less competitive. In addition, the relationship with producers could become fragile if compliance with the quality codes is not ensured and if, despite investments made in advance, producers' loyalty is not certain. Either of these possibilities coming to pass, could result in the collective alienation of producers, plunging the project's future into crisis.



Solutions

Sunuagrix is at the center of the system and is working in collaboration with a number of stakeholders to ensure the initiative's success. It offers producers a framework and sales agreement to ensure the sale of their produce on a fair year-round basis. In return, producers must guarantee the supply of produce and comply with established specifications. Sunuagrix provides the necessary investment by negotiating with banks and takes care of produce certification through the governing bodies. Once certified, Sunuagrix can sell the produce to international partners. This innovative system makes it possible to offer small producer partners year-round opportunities while also ensuring they have stable incomes so they can better manage and improve their financial situation as well as that of their families.



Results and impact

- **56 of Sunuagrix's producer-partners** received GLOBALG.A.P. and Agriculture Biologique certification for land totaling **173 ha in 2016**. A 110 hectare extension is underway.
- **Exports of mangoes from Senegal to the European market** have risen from **5,000 tons in 2010** to over **18,000 tons in 2018**.



INTENSIFYING THE DEVELOPMENT OF THE SAHEL'S WILD PERENNIALS

Initiative owner

Sahara Sahel Foods

Initial situation

In Niger, soils have become very degraded through exposure to drought and wind erosion. Fields have been stripped of trees and shrubs, accelerating the soil degradation. Crop yields are getting smaller and smaller. Local populations do not have access to varied nutrition and food insecurity is rising. The fruits of local plants are overlooked and viewed unfavorably.



Opportunities

Interest in assisted natural regeneration is rising. The inclusion of trees and shrubs in fields is becoming increasingly recognized to ensure soil fertility and prevent degradation. Non-wood forest products are attracting more and more interest both locally and internationally. Rainfall in the intervention areas is increasing and there is renewed interest in soil restoration due to increasing competition to access the soil.



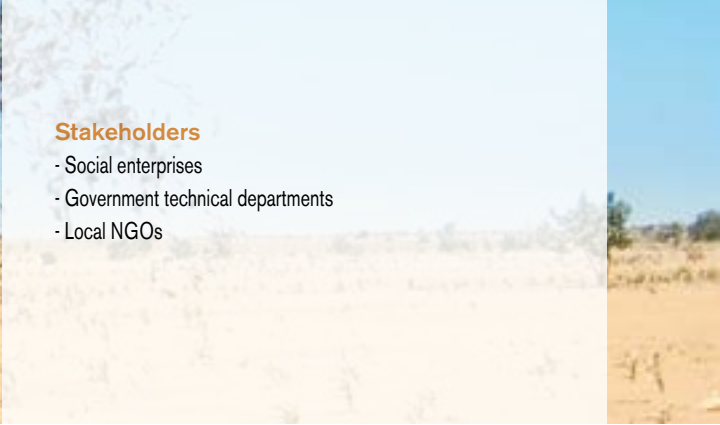
Vision

Fields and soils rich in perennial plants would produce a diverse range of foods all year round. Lands that are more fertile would produce better yields and improved food production and would also ensure better food and nutritional security for local communities.



Potential levers

Renewed interest in traditional knowledge and local cultural practices has made it possible to rediscover forgotten fruits and non-wood forest products. The improved image of these foods and the promotion of their nutritional potential gives renewed importance to local plants, which are well-suited to Sahelian contexts and weather conditions.



Stakeholders

- Social enterprises
- Government technical departments
- Local NGOs



Potential Issues

Food from endogenous plants were consumed locally in the past. It is necessary to destigmatize these foods and encourage local populations to eat them again. Without creating a local need in the market, developing these plants and their return to the field remains complex.



Solution

Sahara Sahel Foods works to produce and develop foods from endogenous plants. This organization ensures that the food processing facilities set up on its premises work. It provides producers with technical support and practical guidance to guarantee supply. It also raises awareness among consumers at the local, national and international levels about the benefits of local produce for nutritional diversification and local development. Sahara Sahel Foods organizes sales networks that guarantee the flow of produce to local markets but also to town and city centers further away.



Results and impact

- Field productivity improved by **150%** in spaces hosting “hanza”, a shrub present throughout the Sahelian strip
- Soil stabilization is observed and **cereal crops are protected**
- Option to **store produce for five years** in preparation for bad years
- **Food diversification** and improved household nutrition



WARRANTAGE: SAVING TO REINVEST IN AGRICULTURE

Initiative owners

SOS SAHEL, Union des Groupements Ten-Tieta (UGTT)

Initial situation

In Dissin, south-western Burkina Faso, small producers are suffering due to their remote location far from lucrative markets. They have significant difficulty accessing the credit necessary to ensure productive activities. They are not able to monetize their production surplus and often have to sell it at a bargain price at the time of harvest to satisfy social needs. In this situation, small producers can no longer ensure they have enough food for themselves, they lack seeds and are condemned to live in a vicious circle of poverty and food insecurity.



Opportunities

Given the situation SOS SAHEL set up a warrantage project in 2003, the success of which has been the impetus for drafting an inclusive national warrantage strategy since 2011. This favorable economic situation has been reinforced by a strong presence of microfinancing institutions which provide small producers with the opportunity to access the credit they need.



Vision

Thanks to warrantage, small producers have regular and reliable access to loan funding tailored to their needs and can better manage the sale of their produce and generate more income. This regular surplus makes it possible to ensure lasting food security and to generate savings that could be invested in modernizing the production system.



Potential levers

The wide availability of cereals in the intervention area means that production surpluses are available and can be stored. In Dissin, small producers are not developing individually. They have been cooperating on a long-standing basis within producer groups and union groups. The area benefits from the presence of remote warehouses which are linked to urban centers by a network of roads which are in good condition. The microfinancing institutions in Burkina Faso have been able to appraise the reliability and solvency of the warrantage system and are consequently willing to invest in the practice.

Stakeholders

- Ten-Tieta Union of Groups (UGTT)
- Producers brought together in groups
- Credit Unions Network
- SOS SAHEL International France and SOS SAHEL International Burkina Faso
- Government technical departments



Potential Issues

Small producers practicing warrantage need to store their produce and ensure its security. They require a solid understanding of the market in order to anticipate price fluctuations and choose the right time to sell their stocks and repay the loans they are granted.



Solutions

Warrantage, or inventory credit, is a loan system for a producers' cooperative which allows them to obtain a loan as collateral for non-perishable agricultural produce that has the potential to increase in value. This system of collective credit, granted to groups for six to eight months, is based on the principle of pledging stocks of agricultural produce. The system is driven by a coalition of stakeholders. SOS SAHEL supervises the producers' cooperative, the cooperative mobilizes the farmers' organizations who store the produce in warehouses, and monitoring duties are shared with the financial institution. The institution grants an agricultural loan to the cooperative, who then chooses, based on market fluctuations, the best time to sell the stock. The income made once the loan has been paid back and the storage paid for is redistributed to the producers who then reinvest it into modernizing their production system thus improving their food security over time.



Results and impact

Numerous **positive developments** have been recorded between 2005 and 2018:

- The number of **warrantors** rose from 27 to 1,300
- The number of **warehouses** rose from 1 to 8
- The weight of **cereals stored** has increased from 1.3 to 39 tons
- **Loans increased** from CFAF 295,000 (€450) to CFAF 18.5 million (€28k)
- **Net profits rose by 35%**
- **60% of profits were reinvested** in production capital



TRANSFORMING FAMILY FARMING THROUGH THE PRACTICE OF PERMACULTURE BASED ON “THE 4 PS”

Initiative owner

SOS Sahel Ethiopia

Initial situation

Small producers in Ethiopia have limited access to modern production technologies which limits their productive capacity. In addition, they are not well integrated or not at all integrated into local, national and international markets. Therefore, producers are not in a position to be able to modernize their practices and intensify production.



Opportunities

Ethiopian policy is very much in favor of modernizing the country's farming sector and supports the progressive transition of small producers towards a market economy. It supported, to this end, the creation of a solid partnership between producers and the public and private sectors. In this context, the experience of small Ethiopian producers in practicing permaculture is an advantage for the sustainable intensification of farming.



Vision

This agricultural system ensures the sustainable intensification of production and supply while quality produce wins consumers' confidence. Small producers have improved or developed their access to lucrative international markets and enjoy the resulting profits.



Stakeholders

- Small producers
- Private sector
- Public sector
- SOS Sahel Ethiopia
- Bilateral donors
- Consumers



Potential levers

Circumstances are particularly favorable at the current time for developing permaculture. This approach ensures quality organic production. The European and Middle-Eastern markets are very receptive to this type of production. Small producers in Ethiopia are becoming increasingly interested in this market option. The private sector appreciates the development of sustainable and responsible initiatives and could therefore support small producers in acquiring new technologies at competitive prices.



Potential Issues

The possibility of small producers gaining access to new markets is subject to consolidation of value chains by promoting collaboration between stakeholders and coordination of their efforts. Strong value chains can also limit the extent to which small producers are exposed to the price volatility associated with speculations on international markets.



Solutions

Permaculture is a systemic and holistic method that, when applied to agriculture, aims to create a system that is as sustainable as possible while taking into account material resources, the environment and human resources. When implementing this method in Ethiopia, small producers must be at the center of the process. SOS Sahel Ethiopia helps them integrate this approach through training and monitoring provided by local development workers. In addition, the organization establishes the agreements necessary for the 4Ps (Partnership, Producer, Public, Private). The private sector is responsible for putting small producers in touch with buyers at the international level and ensuring the sale of the produce.



Results and impact

- **135 small producers** are currently producing for **international organic markets**
- Through access to these new markets, **producer incomes have tripled**, rising from €322 to €966 a year
- The adoption of sustainable organic farming practices is helping to **protect ecosystems**
- **Small producers** have become **more resilient**



DEVELOPING SUPPORT FOR SMALL FARMERS AND INCREASING THE PRODUCTIVITY OF SUSTAINABLE AGRICULTURE

Initiative owner

SOS Sahel Sudan

Initial situation

In Sudan, pastoral communities do not have access to modern technologies but use rudimentary tools for farming and fishing. Their productivity is limited, and they are unable to ensure that they can feed their families. This situation leaves them lacking independence and resilience. They are becoming dependent on government assistance in order to survive.



Opportunities

Circumstances are changing. Pastoral communities are less isolated. They have gained access to new skills and more modern technologies that they can use in their farming. Financial and business support would possibly help them improve their farming practices and productivity.



Vision

Farmers and fishers have adopted improved practices, used suitable inputs and benefitted from services that enable them to modernize traditional systems and improve their productivity in a sustainable way.



Potential levers

Successfully developing modern and sustainable practices is easier thanks to the presence of producers' organizations already active in the area. They are able to support pastoral communities in changing their practices. Furthermore, government policy is very favorable to the development of better organized and more productive farming.



Stakeholders

- Pastoral community: producer organizations, farmers' organizations, fishers' organizations, women's organizations.
- Public sector: Ministry of agriculture, Ministry of outreach, Institute of Marine Research.
- Private sector: input suppliers.



Potential Issues

Development of the agricultural sector could be hindered by a number of technical factors that must be taken into account. Inputs are very costly to produce, and their availability is limited. Access to the funding needed for modernization is complex as the policies of financial institutions are unfavorable to small producers.



Solution

The adoption of new production systems by pastoral communities depends on public and private commitment that will support SOS Sahel's work. SOS Sahel is supporting communities and putting them in contact with financial institutions so they can obtain the loans necessary for their activities. The authorities responsible for agriculture and fishing are supporting communities by providing the necessary capacity and monitoring. The private sector is providing the input and funding needed to supporting modernization.



Results and impact

- **Food scarcity in households** affected by the initiative fell from 72% to 10%
- **Fishing yields increased by 96%** for 51% of fishermen and women
- **Horticultural yields increased by 95%** for 58% of farmers
- **The net income of 52% of fishermen and women rose by 96%**
- **The net income of 48% of farmers rose by 91%**



SOLAR IRRIGATION AND EMPLOYMENT FOR YOUNG HOUSEHOLDS IN CHAD

Initiative owner

SOS SAHEL International France

Initial situation

In Chad, *wadis* are valleys where traditional agriculture is practiced, in the middle of an immense desert area. *Wadis* are subject to serious sand drift problems which limit cultivable land and, consequently, the volume of agricultural produce. This reduction is the reason for food insecurity in the communities and a child malnutrition rate of 71%. The lack of resources has resulted in a rural exodus that emptied the villages and thus, a workforce that was very much needed.



Opportunities

The persistence of the food crisis in Kanem, one of Chad's 23 provinces, made visible by the Food Crisis Prevention Network, drew national media attention to the issues affecting the *wadis* and the communities that depend on them. This visibility elicited a strong reaction from the administrative authorities and international donors who increased their intervention efforts to preserve these vital ecosystems.



Vision

Wadis are protected against sand drift issues and their lands are thus made fertile and productive. Agricultural production increases in quality and quantity and ensures the food security of local communities while reducing the region's child malnutrition rate. Young people living in rural areas have access to the land and to sustainable employment which now keeps them in their homelands.



Potential levers

The conservation of these ecosystems could be aided, on the one hand, by the presence of a large water table that supplies water to a significant number of the region's *wadis*. And on the other, by the mobilization of local communities and authorities who are still able to draw on a large and motivated workforce.



Stakeholders

- Administrative authorities
- Decentralized technical departments
- SOS SAHEL International France
- SOS SAHEL International Chad
- Agence Française de Développement (AFD) and the European Union (EU)
- Private operators



Potential Issues

Only 1% of the population owns land. This limits young people's desire to commit to protecting the *wadis*. These young people must be allowed to sign land contracts giving them farms for at least 10 years. Providing this security is essential so that they can invest in training and in suitable equipment to ensure that practices are modernized and that the *wadis* are protected from sand drift.



Solutions

The initiative makes it possible to achieve several objectives: increasing agricultural production, providing employment for the communities' young people and protecting the *wadis*. It is based on developing entrepreneurship with village cooperatives and supporting young producers in using modern techniques. The initiative is developed around the use of solar hydraulic land-based works provided by private operators and managed by the cooperatives. These works make it possible to irrigate around 35 ha of land, stop sand drifts and stabilize the dunes. Actions on the land are accompanied by support for young producers who receive land contracts from the local authorities and technical support from the Government. All of these activities are carried out under the supervision of the *wadis*' environmental management committees which monitor the sustainability of the interventions.



Results and impact

- **60% increase in farmed land** on restored soil.
- **More than 700 households have access to the land** and have **increased their incomes by over 50%**.
- **3,050 land contracts** have been signed.
- **30 *wadis* have been protected** against sand drift.
- **150 young male/female households have been set up on land** entrusted to them.
- **Availability of vegetable and cereal products** 10 months out of 12.
- **Agricultural production all year round** and production increased by more than 60%.
- **Diversification of income-generating activities (IGAs)**.
- Improved resilience of beneficiary communities.



SPREADING THE SAHELIAN BOCAGE FOR FOOD SECURITY AND BIODIVERSITY

Initiative owner

TERRE VERTE

Initial situation

In Burkina Faso, the deterioration of the rural Sahelian environment has gotten worse over recent decades, putting rural populations at risk. The soils have become degraded and are progressively abandoned, leaving sterile land in their place. Biodiversity has become increasingly poorer. Farm production is falling in parallel with land degradation. Food insecurity has set in within communities and young unemployed people are being forced to leave for the cities or go abroad to find the resources their families need.



Opportunities

Creating bocages in rural space makes it possible to improve water conservation, reduce wind erosion and provide rural populations with a better working environment. Association Zoramb Naagtaaba (AZN), created in Burkina Faso in 1989, has a total of 30 years of experience at the Guié farm where it was able to demonstrate the success of this agroecological system. The know-how accumulated has evolved into good practices that are being passed onto young people through training.



Vision

This economic model is based on a high-yield and widely used agroecological system. Large scale soil restoration is thus achieved. Lands have become fertile again and become available to small producers who, based on land tenure security, are able to practice family farming, providing food security for households.



Potential levers

The development of a bocage perimeter has a very quick and positive impact on agricultural production. This facilitates the adoption of the method by producers. Land tenure arrangements made prior to the installation of the perimeters, secure access to restored and fertile land. This motivates producers to commit to the farm's success in the long term. Awareness-raising activities targeted at young children and upwards, make it possible to establish farming practices from generation to generation and strengthen involvement in this field.



Stakeholders

- Numerous charitable associations
- Customary and administrative authorities in the villages affected by the bocage perimeter project



Potential Issues

The informal manner in which land is secured for the development of a bocage perimeter implies that investors from outside the region could appropriate these restored lands. It would be useful to provide mechanisms to formalize land security and to provide small producers with reassurance about their future.



Solution

The initiative's concept is based on the creation of jointly owned bocage perimeters, comprising individual plots, the management of which is organized around a land grouping of beneficiaries. The result is increased production and an environment that has been totally restored; where agriculture is no longer synonymous with erosion, livestock farming is no longer synonymous with overgrazing and trees and shrubs have been harmoniously integrated into the environment. At the center of the system is a pilot farm operating under the auspices of the local inter-village organizations with the technical and institutional support of TERRE VERTE. The farm will be involved in a number of activities: training young producers, advising producer land groups, and monitoring the development and management of the bocage perimeters.



Results and impact

- **1,238 hectares of bocage perimeters developed**
- **438 households set up in bocage perimeters in Burkina Faso**
- An increase in **agricultural production of more than 100%**
- Development of **mixed livestock farming and sustainable agriculture practices in the bocage perimeters**
- **Availability and accessibility of wood and non-wood forest products** thanks to the tens of thousands of shrubs planted in the hedgerows
- The return of **biodiversity**



SOLAR PUMPING SOLUTIONS FOR SMALL-SCALE IRRIGATION

Initiative owner

Practica Foundation

Initial situation

In Senegal, small-scale irrigation is essential to ensure local food security and tailor agricultural systems to the growing consequences of climate change. Unfortunately, developing this type of irrigation is often hindered by a lack of knowledge, accessible technologies and relevant business models.



Opportunities

The solar irrigation sector may be able to take advantage of favorable political and economic circumstances. Technological innovations and increasing commercialization of high-performance solar pumps have resulted in a reduction in price - making these items affordable for small producers.



Vision

Water is accessible at an affordable cost all year round for the cultivation of high value vegetable crops. Local supply chains, financial solutions and services networks are available to increase accessibility and reduce risks for small producers.



Potential levers

Very few farmers are willing to pay more for water saving technologies, unless these improve their productivity and their income. Solar pumping makes it possible to access underground water through low-cost manual drilling techniques and consequently increases the amount of irrigated land. These technologies are within the reach of small producers who, should they be convinced by the quality of the equipment, represent a sizeable market segment to conquer.



Stakeholders

- Practica provides technical support to a large number of programs, projects and organizations involved in small-scale irrigation and solar pumping in a dozen or so African countries.
- Private sector involvement: manufacturers, distributors, and service providers in order to establish sustainable services and supply chains.
- Collaboration with NGOs and governments: essential for coordinating, developing and scaling irrigation solutions.



Potential Issues

One of the most significant constraints to the distribution of equipment to small producers is related to the high initial investment. Additionally, the technology has to be tailored to specific needs and good operating practices are required to ensure the equipment is used correctly. Support for small producers is thus important so that the equipment is chosen, acquired and used correctly.



Solutions

Practica Foundation promotes irrigation solutions that are both accessible and productive. It is developing solar pumps and adapting water use techniques to create optimal solutions at a reduced cost. To ensure that these innovations are adopted, the foundation is collaborating with users in the field to find solutions that meet their needs. It is in this way, intelligent and sustainable supply chains are being co-built with producers' associations. Similarly, alternative financing mechanisms (Pay-as-you-Go) provided through digital platforms, are being developed to improve accessibility and reduce risks for small farmers.



Results and impact

Solar pumping can provide:

- A 25% to 100% **increase in water efficiency**
- A significant **reduction in CO2 emissions**, as a solar pump produces only 196kg of CO2 per year
- A 3-fold **reduction in irrigation costs** per 3,000 m²
- The potential for a 13,000 ha **increase in Senegal's irrigable land**
- The **manufacturing of solar pumps** in Africa



SOLAR ENERGY, FOR MODERN AND PRODUCTIVE FARMING IN CHAD

Initiative owner

Energie Pour Tous

Initial situation

Energy access issues has resulted in a lack of agricultural development in Chad, where mechanization is very poor. This proved to be a real handicap for production and processing and has limited this sector's modernization. Without energy, small producers have to travel tens of kilometers to process and package their produce.



Opportunities

Chad's economic policy is focused on fostering a successful private sector that is able to stand on its own two feet and contribute towards the country's socioeconomic development. Solar energy production is becoming increasingly affordable and is potentially a solution for the modernization of family farming in the country.



Vision

Solar energy production is accessible to family farmers. Therefore, family farms have access to a source of energy that is clean, free, unlimited and mobile that can improve their productivity and the competitiveness of their produce. With increased resources, household living conditions have improved.



Potential levers

Chad is in a very favorable position in regards to the development of solar energy production. The country gets a lot of sun all year round and demand from the population is very high - as other energy sources are very expensive. 95% of the country's population does not have access to clean energy. To address this deficit and respond to the rapid growth of renewable energies, the Chadian state has granted a VAT exemption on the equipment necessary for their production.



Potential Issues

Énergie Pour Tous (EPT) is very focused on its' customers satisfaction, to win their loyalty and boost the distribution of kits to working people and households. The organization is currently working on improving the impermeability of its kits, as this flaw could pose a risk, most notably in humid environments.



Solutions

Énergie Pour Tous sells solar kits which provide independent electric energy for 12V DC electrical equipment. Two different models are produced and are available at a very competitive price: €100 and €250. The kits produced by private companies in Chad are available to producers and households to give them access to clean energy at an affordable price. The kits enable farmers to modernize their practices and increase their productivity.



Results and impact

- 85 sedentary and nomadic households, 20 producers and processors and 18 small entrepreneurs have already started **using the solar kits**.
- **23 places of worship** and **4 training centers** have been **provided with kits**.
- The **kits** enable small farms to **increase their productive** and **processing capacity** by more than 50% using modern means.



SMALLHOLDER HORTICULTURE EMPOWERMENT & PROMOTION (SHEP) PROJECT

Initiative owners

Agence Nationale de Conseil Agricole et Rural (ANCAR), Japan International Cooperation Agency (JICA)

Initial situation

Small farmers who represent around 85% of all Senegalese horticultural producers often struggle to sell their produce on the market. Insufficient storage and preservation infrastructure as well as lack of information about markets has led to many issues relating to the sale of produce.



Opportunities

Given the importance of the horticultural sector to the Senegalese economy, the government has decided to support small producers and position them as “central stakeholders” so that they are able to profit from their output. JICA has a huge amount of experience in implementing the SHEP method (Smallholder Horticulture Empowerment & Promotion) which has produced very good results elsewhere on the continent. It wants to develop this approach on a large scale, most notably in the agricultural sectors such as Senegalese horticulture.



Vision

Small horticultural producers in the Niayes area in Senegal have earned more income from their harvests as their productivity has increased and their produce has sold better. These producers have become more independent and have improved their standard of living.



Potential levers

The project's intervention area, Niayes, procures approximately 60% of Senegal's horticultural produce and 80% of fruit and vegetable exports. Small producers are already organized in groups with good internal structure. This makes it possible to facilitate the initial stages of the intervention which include a selection of target groups, the identification of extension agents and training activities.



Potential Issues

When implementing the SHEP approach, special attention has to be given to three needs: the need for independence, the need for competence and the need for social belonging. The issues faced by small producers have to be actively tackled in order to foster feelings of accomplishment and competence from successful results. It is essential to work on human relationships. It is, in this way, that each producer will develop their own intrinsic motivation, rather than it being something imposed on them.



Solutions

The SHEP approach, develops the principle of market-oriented farming. The initiative is based on the concept of "growing to sell" which is distinct from the principle of "growing and selling", traditionally applied to Senegal. To implement this approach, ANCAR, with JICA's support, initially works to help raise awareness among small producers of the gap that exists between market needs and their initial situation. Then it helps farmers make decisions and plans. Finally, it devises technical solutions tailored to each specific circumstance. At the end of the process, small producers have a better understanding of how markets work and are better connected with other stakeholders in the value chain. This new knowledge enables them to become more competitive and increase their income.



Results and impact

An initial pilot phase supported **two groups of producers** and produced some very encouraging results:

- The **Kalasane group** saw an 8.6 fold increase in income.
- The **Mboro Total group** saw a 2.1 fold increase in income.



RENEWABLE ENERGY, A MOTOR FOR TRANSFORMING FAMILY FARMS IN WEST AFRICA

Initiative owner

Practical Action

Initial situation

Family farming meets 80% of the continent's food needs. It is comprised of 33 million farms with less than 2 hectares of land. Only 10% of these small producers' needs are covered by mechanical energy. Strengthening this type of energy production would thus make it possible to significantly increase the productive capacity of these small farmers.



Opportunities

Demand for agricultural produce rises with population growth. In Africa, it will be necessary to produce at least 50% more to feed the population by 2050. Meeting this demand will depend on several factors and in particular the ability of producers and processors to access sustainable and affordable energy.



Vision

Stakeholders in agricultural value chains are working together with energy providers to improve access to and use of renewable energy in family farming activities. The productivity of small producers has improved as has their income and their food security.



Potential levers

The institutional framework is very favorable to the promotion of renewable energy and there are many distributors and equipment suppliers with a presence in the Sahel. Family farms are inclined towards sustainable and profitable production methods. They want to save on energy costs. There is additionally huge potential with regard to biomass, post-harvest and processing by-products for the production of bioenergy.



Stakeholders

- Family farms
- Agricultural and food processing research
- Suppliers of sustainable energy solutions
- Companies and groups involved in processing agricultural produce
- Financial institutions
- Merchants



Potential Issues

Despite plentiful supply, equipment is still expensive for small producers. Their purchase should include suitable financing mechanisms. If not, producers may opt for systems of production that are more economical and easier to sustain but create more pollution. In addition, the renewable energy market suffers from a lack of monitoring, which makes it easier to sell poor quality equipment.



Solutions

Practical Action is working at the regional level, to create a synergy between value chain stakeholders in the horticultural sector. It provides a support service to identify existing good practices and reflect on ways to strengthen the sector through sustainable energy. One of the reasons for blockage in chains is often a lack of knowledge between stakeholders. Practical Action is supporting the creation of bespoke frameworks for discussion between stakeholders. These frameworks must make it possible to mobilize the funds necessary in a concerted and collective manner, to support the search for solutions and intervention ideas tailored to the African context.



Results and impact

- Creation of a **diagnostic tool** for analyzing agricultural value chains with a view to demonstrating that **energy is a "catalyst"**
- Production of a **simplified technical and financial analysis tool for sustainable energy solutions**
- The creation of a **business model** to develop the productive use of renewable energy in agricultural value chains
- The roll out of a solar **pumping system for irrigation**



AN INTER-AFRICAN SOCIAL ENTERPRISES COOPERATIVE FOR FAMILY AGRICULTURE

Initiative owners

ICON Africa, Springboard

Initial situation

Africa is the continent most affected by hunger and malnutrition: one in four people is undernourished in sub-Saharan Africa. Changing food-consumption habits is crucial. Substitution of imported foods that are low in nutrients with healthy, local foods and food price stabilization can improve the situation in the Sahel. The region's small producers have limited access to markets and a limited capacity to innovate and support the commercialization of their produce. In response to this situation social enterprise Springboard launched an initiative in Nigeria to supervise 3,000 farmers.



Opportunities

To help solve the problems linked to nutrition, Ashoka - the global network of social entrepreneurs - has been able to help around one hundred social entrepreneurs in Africa develop innovative solutions and scale them up. The Technical Centre for Agricultural and Rural Cooperation ACP-UE (CTA), which distributes information and encourages training and innovation, joined forces with Ashoka to support the creation of the ICON cooperative (Innovative Co-operative for Optimal Nutrition), formed by 16 African social entrepreneurs spread over 9 African countries.



Vision

African social entrepreneurs have a greater capacity for production and are better able to access markets, thus they can supply highly nutritious produce to local consumers who are aware of the importance of a healthy and balanced diet.



Potential levers

The African continent is currently enjoying population growth and rapid urbanization. The emergence of numerous medium-sized towns will provide farming entrepreneurs with new markets which will need local quality produce. This movement which is accompanied by the regionalization of African markets constitutes a significant opportunity to be seized for the continent's producers.



Stakeholders

- 16 social entrepreneurs and their respective partners
- Financing: CTA and Ashoka
- Foundations: Mitsubishi Fund for Europe and Africa
- Technical support: Ashoka, Organic Planet - Federal College of Agriculture
- Private companies



Potential Issues

The ability to share and circulate information between the entrepreneur members of the cooperative and the viability of ICON's economic model are the factors to be monitored to guarantee the initiative's success.



Solutions

The ICON cooperative has created a collective brand of nutritious local produce, ICON Africa "Nutrition for all", which will help ICON members identify and position themselves better in new markets. At the same time, the cooperative is coordinating research and providing services to member social enterprises to identify the best practices and know-how which can be disseminated to producers. Consumers and distributors will thus have better access to locally-produced nutritious produce.



Results and impact

- Participation of over **3,000 students** in the "Farm to School" nutritional education program
- Recognition of an **African cooperative in 18 African countries**
- Launch of the **ICON Africa "Nutrition for All"** collective brand for the promotion of entrepreneurs' goods and services



CONCLUSIONS

SOS SAHEL's AFRICA DAYS 2019 posed a series of questions related to agricultural intensity and modernization two themes at the heart of African governments with concerns as they look towards their immediate future, as well as those at the heart of current political and economic events at the international level. The answers to these questions will be important not only for the future of the agricultural sector but for the future of Africa, and most notably for the millions of homes that engage in small scale farming.

To try to answer them, SOS SAHEL broadened its scope of investigation beyond its traditional partners. AFRICA DAYS 2019 saw an incredible variety in solution providers: from local organizations to government institutions, to bilateral stakeholders widely recognized for their support of modern solutions, and representatives of small producers and private sector stakeholders.

The solutions emerging nevertheless remain clear and pronounced. Small farms each have a place in a modern vision of agriculture. In that, they can simultaneously provide food security and a great many jobs while also meeting the challenges posed by environmental degradation and climate change. But it is for this reason that small farmers need more than just technical and technological solutions. Above all, they need a better organized political and economic environment, that provides them with services to develop their initiatives, access useful information more easily and become better integrated in value chains. In the Sahel more than anywhere else small farmers need to be at the center of the development processes.

All of the partners and solutions presented here clearly highlight the rapid change in African agriculture: initiatives are multiplying in every domain and in every country, and modernization and intensification are ideas already incorporated by a great many farms, in which farmers are actively investing. Furthermore, these solutions highlight the need for support, resources, political and economic frameworks in order to succeed. Assistance must be provided in a much more targeted way than is currently the case in order to transform agriculture so it measures up to the continent's current challenges.

The conclusions from these days confirm and enrich SOS SAHEL's vision and position. The solutions presented and the partners involved in this event will be a source of inspiration and partnership for SOS SAHEL in the future so that we may bring about sustainable development and food security for millions of Sahelians.

PARTNERS



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