

Welcome to the F@rmLetter 4.0!

SUSTAINABILITY
PRACTICES
ON FARM

ORGANIC
AGRICULTURE
AND CLIMATE
CHANGE
ADAPTATION

CARBON-AGRI

PRODUCTION FINANCE IN DISASTER AREAS

CONTENTS

EDITORIAL	3
WFO TALKS TO	4
IN DEPTH	8
INNOVATIVE IDEAS	15
STORIES FROM THE FIELD	23
DIALOGUES	37



CHIEF EDITOR: Arianna Giuliodori MANAGING EDITOR: Valeria Di Marzo

GET IN TOUCH

WFO I O.M.A.
Via del Tritone, 102
00187 - Rome (IT)
PH. +39 06 421291
EMAIL: info@wfo-oma.org
WEBSITE: www.wfo-oma.org

Find us on Facebook
Follow us on Twitter
Connect on Linkedin
Subscribe to our YouTube Channel

SUBSCRIBE

Sign up for our F@rmLetter on the WFO website

The views and opinions expressed by the authors do not necessarily reflect the position of the World Farmers' Organisation

FDITORIAL

Welcome to the F@rmLetter 4.0!

by Theo de Jager, President, World Farmers' Organisation

t is a great pleasure for me to welcome you to our totally revamped WFO magazine.

The World Farmers' Organisation has come a long way since its launch in 2010. We have grown into the biggest farmers led organisation in the world, representing farmers of all sizes, all regions, all sectors, under the umbrella of an undeniable vital principle: sustainability. Our mandate is clear: bringing the farmers' voice to the table of any global process that is affecting the life of family farmers on the field back home in their countries.

These are times of great challenges and great concerns. The recent outbreak of Covid19 is putting our families, communities, countries, economies under unprecedented pressure. We, the farmers, are standing strong in the middle of this storm: we are not locking down our farms, because our activity is so much more than a business! We feel the responsibility of feeding the world. We have always felt this on our shoulders but I am confident that today all the people living in the big cities, all the governments dealing with food supplies, all the institutions called to implement the global agenda for sustainable development will realize that agriculture represents the backbone of our societies, an engine that allows the complexity of our social and economic systems to deploy their potential and a tremendous opportunity for sustainable wealth creation.

The F@rmLetter we are launching today would like to offer the world a picture of this central role of the farmers in the global discussions and an opportunity to create bridges with all other actors of the economy and the society that are working hard every day to find solutions to complex issues like the Agenda 2030 with its Sustainable Development Goals, the Climate Change Agenda, the digital transformation, just to name a few. Farmers are key for a successful overcome of all these challenges. That is why we are promoting a "farmers' route" to them. But as farmers, we are also deeply aware of the fact that only joining hands with all other actors in the value chain, with all players of the food systems and civil society and academia and international organizations, we will be able to win. We are in this together and together we will overcome any obstacle. That is why the F@rmLetter is giving voice to all of them. I wish you a good time reading our on-line magazine and I invite you to share it with your network, to make the farmers' voice grow strong and to build together a better future for all.



Theo de Jager,
President, World Farmers'
Organisation

Theo de Jager is the President of the World Farmers' Organisation (WFO) since June 2017 and former president of the Southern African Confederation of Agricultural Unions (SACAU, 2013-2018) and the Pan African Farmers Union (PAFO, 2014-2017). He has farmed in South Africa since 1997 (in the South African Lowveld region) with timber and subtropical fruits (avocados, mangoes and macadamia nuts).

As farmers, we are also deeply aware of the fact that only joining hands with all other actors in the value chain, with all players of the food systems and civil society and academia and international organizations, we will be able to win.





Q&A Session with Ms Elizabeth Nsimadala, President of Pan African Farmers' Organisation and Eastern Africa Farmers Federation

WFO TALKS TO...

Every year, on the 8th of March, we celebrate the International Women's Day around the world honoring the social, economic, cultural and political achievements of women. Last May, during the 2019 General Assembly, WFO awarded you, as leader of Eastern Africa Farmers Federation (EAFF), for all your efforts in supporting the world farmers and contributing to a better agricultural sector. Two months after, in July, you have been elected President of the Pan African Farmers Organisation (PAFO). In your opinion, what is the added value of young and female leadership in organised agriculture?

Once queen Rania of Jordan said: "If you educate a woman, you educate a family, if you educate a girl, you educate the future." I say: our youth is the future and our women are the guarantee of a successful future. Especially in Africa, women are those who care of the farm, they are those who work everyday on the farms, making sure that the business goes smoothly that workers are happy and that financials are in a good shape.

Women are also those who care about the family, the children and the stability of the households. Because of their unconditional love for their land, for the tradition and an ongoing development of the communities, women have inner leadership skills that if accompanied with proper education can lead an entire nation. Farming is a family business and the farming sector, being it a local, national or regional level, is a family. Young farmers are our future and their leadership is based on passion for innovation, for growth, for development. They have a vision much longer than our and we cannot miss their perspective in organized agriculture.

Unfortunately, in Africa, both women and youth join leadership roles with an array of challenges that may limit their participation in farmers' organizations leadership, sometimes because of the patriarchal systems with cultural norms that mostly value the male gender at the expense of their counterparts. However, once in leadership roles, young women are a great asset and an added value to organized agriculture, they are full of energy to change the status quo, their zeal is coupled with new ideas and innovations to address the challenges they encounter and are able to drive meaningful and impactful change in the sector.





Elizabeth Nsimadala, President of Pan African Farmers' Organisation and Eastern Africa Farmers Federation.

Elizabeth Nsimadala is the President of the Pan Africa Farmers' Organization (PAFO) and President of Eastern Africa Farmers Federation (EAFF).

She is a successful agriprenuer from Uganda and was recently awarded and globally recognized by the World Farmers' Organisation (WFO) as one of the exemplary women leaders in Farmers Organizations' contributing to sustainable development.

Because of their unconditional love for their land, for the tradition and ongoing development of the communities, women have inner leadership skills that if accompanied with proper education can lead an entire nation.

WFO TALKS TO...

Women are central to agriculture and make a substantial contribution to food security and nutrition at both the household and community levels. Still, their role, especially in developing countries, is limited by barriers to finance, inputs, and extension services, as well as land ownership and rights. What is needed to empower women and close the gender gap in agriculture? How many years will it take before we achieve gender equality in the agricultural sector?

Gender equality is a fundamental development objective and is essential to enabling women to participate equally in society and in the economy. Many programmes in the African Region are dedicated to improving the lives of women and men by supporting government partners with knowledge and finance.

Significant progress has been made in closing gender gaps in Sub-Saharan Africa: by 2008, there were 91 girls for every 100 boys in primary school, up from 85 girls in 1999. And at 61 percent, women in Sub-Saharan Africa have one of the highest labor force participation rates in the world. Despite these gains, African women continue to face some unbalanced situations, especially when it comes to education and finance access. Girls are still much less likely than boys to benefit from a secondary education. Women and girls often have little influence over resources and norms, restricting what jobs and crops are considered appropriate for women and thus limiting their earning potential in agriculture, enterprise or the labor market. Women's voice and agency remain limited, with rates of gender-based violence reaching alarming levels.

Achieving gender equality in the agricultural sector is a gradual process hence not easy to give timelines, the truth is that it cannot be attained in a shortest time but every win is a success worth cerebrating and a motivator to double efforts. There is need for all the actors to appreciate the importance of gender equality and all equally contribute towards attaining it.

The Decade of Action calls for an ambitious global effort to deliver the 2030 promise, which pledges to "leave no one behind." With just ten years to go, how can we ensure that farmers, especially women, are truly prioritized and not left behind?

We need to empower women economically through skills development in Agribusiness and commercial agriculture. Governments should offer incentives to the women farmers including start up and patient capital which would support them to add value to what they produce andbe able to boost their incomes, we need to see increased participation and inclusion of women in leadership spaces and decision making processes to have their voices heard this can be done through creation of women and youth specific slots In the organizational governance structure, we need an alternative strategy for gender equality that should include the use of male champions to drive campaigns that advocate for equality, we need to say no to the harmful cultural and traditional practices that make women vulnerable. Lastly, we need to profile successful cases of women who have made it to act as role models through sharing their experiences and peer to peer learning.

Gender equality
is a fundamental
development
objective and is
essential to enabling
women to participate
equally in society and
in the economy.



Being a woman, a farmer, a leader. What are the biggest challenges facing your work? What are your main goals?

The biggest challenge is balancing the different roles, addressing the challenges and meeting deadlines that come with each responsibility; as a mother and wife the children and husband expect me to be a mother figure and a captain of the house, as a farmer my eyes on ground are very important in shaping the business, as a leader I have to be the vision bearer of the different organizations that I lead and make sure that I give strategic direction and play an oversight function on behalf of the different Boards but also other corporate social responsibilities that arise from the different communities, churches and schools where I sit on management boards and governing councils. But for every opportunity I believe there is always a challenge and a solution, I have embraced technology and made sure that all my programs are managed in the google calendar, I have made myself very flexible to hold both physical, e- meetings and at times after office late hour meetings with the CEOs of both PAFO and EAFF. I have prioritized timely communication at all levels to be up to speed with the different responsibilities and am happy that I have positive support from everyone around me.

My main goal is to become a successful agriprenuer and a leader who will impact on people's wellbeing and community transformation.

A phrase or a quote you will never forget?

Hmmmmmm! At some point due to political differences, someone was trying to confront me with inbox messages and after several attempts, I responded, "Silence does not mean I agree with you, it actually means I have studied enough of you and you don't deserve my response. It's my pill to idiocy" the person went mute for more than twelve years. Recently I met that person at a friend's wedding party and he reminded me about the statement I sent him twelve years ago and how it trimmed and shaped his character.

My main goal is to become a successful agriprenuer and a leader who will impact on people's wellbeing and community transformation.

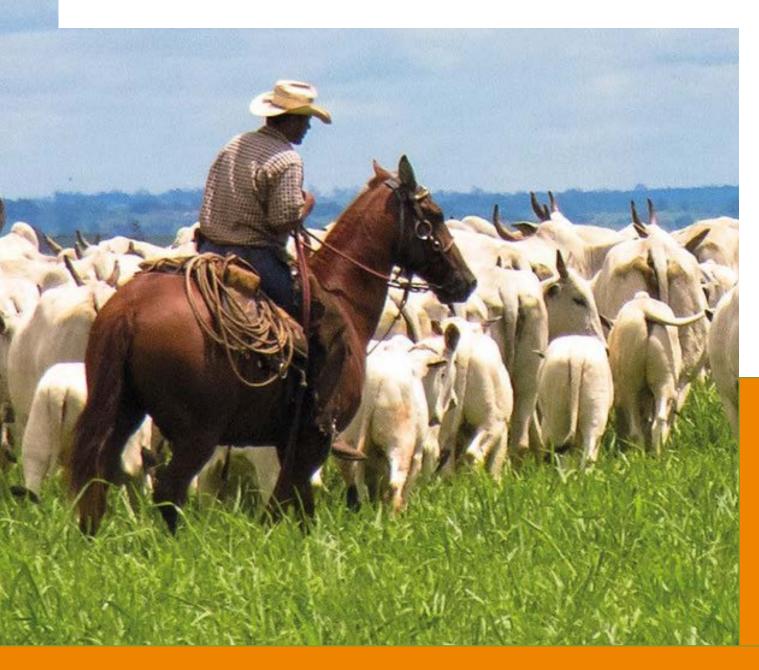


Farmers are an integral part of Public-Private Partnership (PPP) in the veterinary domain

by Isabelle Dieuzy-Labaye, Senior Advisor, Partnerships, World Organisation for Animal Health

Farmers and their representing organisations at regional or national levels are key stakeholders in the initiation, development and implementation of impactful and sustainable Public-Private Partnerships (PPPs) in the veterinary domain. This is evidenced by a large survey conducted by the OIE among its 182 Member Countries. Public and private participants in this on-line survey responded with their account and experience of successful PPPs in the veterinary domain. From this large database, the OIE, in partnership with Cirad (the French Agricultural Research Centre for International Development) and with support from the Bill & Melinda Gates Foundation, drew a typology of PPPs in the field of animal health.

This work was recently published in **PLOS ONE**.



Most PPPs in the veterinary domain will involve farmers, including pastoralists, as important stakeholders. Moreover, producer organisations are clearly identified as the key private partners of many successful PPPs in the veterinary domain. One of the PPP clusters identified in the work conducted by OIE and Cirad involves partnerships between the National public Veterinary Services and Farmers' groups or associations. Activities within these PPPs range from participation in defining policies, programs and legislation around animal health, to improving surveillance of diseases or collaborating to improve disease control, ensure food safety and facilitate trade and access to national or export markets.

Based on the global survey, and under guidance by experts from both the public and private sectors, the OIE produced a set of guidelines for impactful and sustainable PPPs in the veterinary domain: the OIE PPP Handbook. These guidelines are illustrated by case examples, detailing the benefits and impact of partnerships, in particular between private producers and the public sector. For example, in Namibia, PPP allowed the development of an emergency animal health fund which could be mobilized during an FMD outbreak to assist the Veterinary Services to efficiently set up disease control measures and maintain export livestock and meat markets. In Paraguay, the collaboration between the Veterinary Services and cattle producers through the Foundation of Animal Health Services (FUNDASSA) strengthens vaccination, certification and registration within the national programs to control diseases such as brucellosis or FMD. Participation and empowerment of livestock producers are considered key elements to ensure the success of the execution of animal health programs. This is of critical importance in a country where livestock employs 17% of the active population and contributes 12% GDP. In Australia, producer associations for the majority of animal industries - covering intensive (poultry meat and eggs, dairy, pigs and feedlots) as well as extensive productions (cattle, sheep meat, wool, goats and alpacas) and equestrian, are key private partners within Animal Health Australia, a not-for-profit public company that facilitates innovative partnerships between multiple levels of government, livestock industries and other stakeholders to protect animal health and the sustainability of Australia's livestock industry.

Following the release of the <u>OIE PPP Handbook</u> at the OIE 87th General Session in May 2019, the OIE recently conducted several regional workshops in Africa and Asia, gathering public and private sector representatives of around 40 countries to stimulate common work on potential PPPs to strengthen veterinary services. Farmers were represented in several countries and



Isabelle Dieuzy-Labaye, Senior Advisor, Partnerships, World Organisation for Animal Health

Dr Isabelle Dieuzy-Labaye is Senior Advisor, Partnerships at the OIE. She has over 20 years of international experience in the animal health market. Isabelle is also a Board Member of GALVmed, Ecole Nationale Vétérinaire d'Alfort (ENVA) and the Moredun Research Institute. She holds a DVM from ENVA and obtained her MBA at INSEAD.



For more information on the OIE PPP initiative and its next steps, please contact oie@oie.int

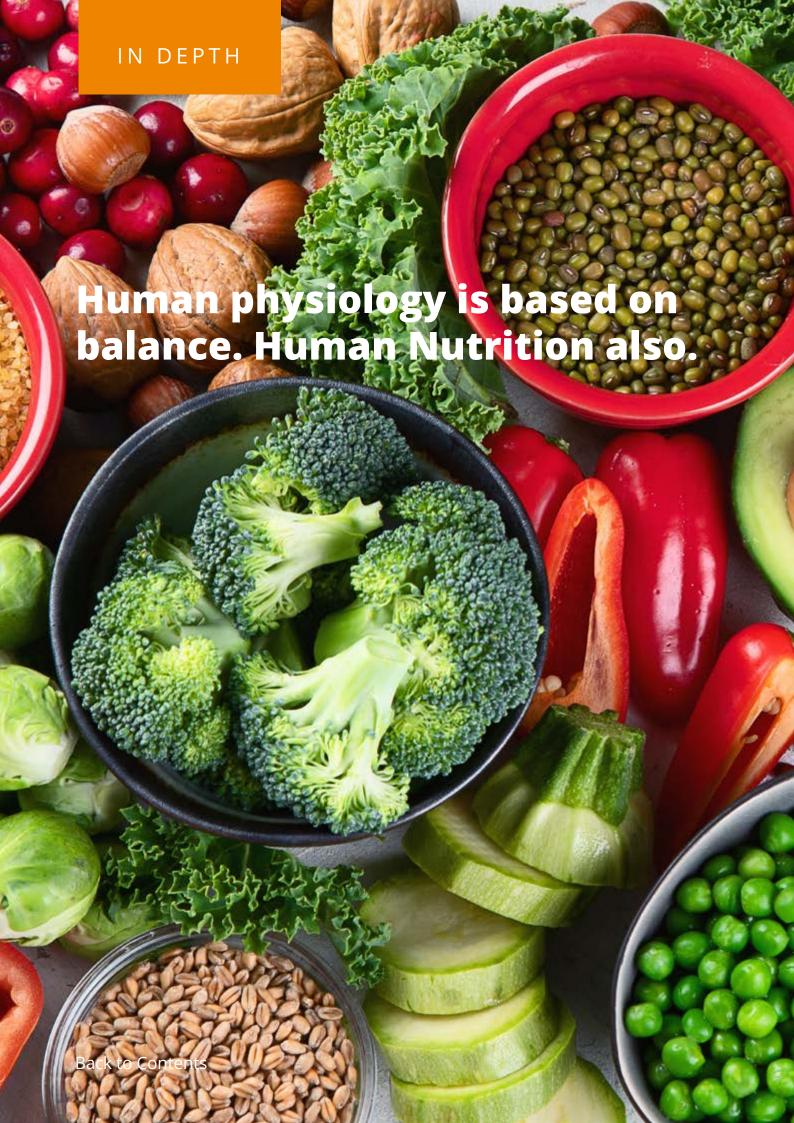
expressed high interest, highlighting the importance to have representative bodies that well represent their needs, in order to efficiently engage into partnerships with other public or private stakeholders.

The OIE is willing to further disseminate these guidelines and continue its work with partners to expand on this initiative, in view of better serving needs of both public and private stakeholders in the veterinary domain. The latest edition of OIE's flagship publication, the OIE Panorama, released in January 2020, focuses on "Public-Private Partnerships and perspectives in the veterinary domain".

Several tools presenting the benefits and impact of PPP are also fully available and downloadable on the OIE website: www.oie.int/publicprivatepartnerships.

The World Farmers' Organisation (WFO) and the World Organisation for Animal Health recently signed an agreement to confirm their joint efforts, putting farmers at the very centre of discussions about animal health.





Human physiology is based on balance. Human Nutrition also.

by Giovanni Vanni Frajese, Scientific Advisor, World Farmers' Organisation

Human physiology is based on balance: A varied, balanced diet, based on local sustainable traditions and healthy unprocessed fresh foods is, and has been for long, the healthiest choice in human nutrition.

Nowadays, the international debate on nutrition, sustainability and food security is shaping the way people will eat in the future (1,2).

Sustainable diets have become a key issue in public health nutrition (3,4,5,6,7) driving the development of food systems (8,9,10). The FAO has estimated that by 2050, in order to satisfy the needs of a growing and richer world population, with increased demand for animal products, food production will have to increase by at least 60 % (11). The need for a radical change in food production and consumption over the coming decades (12) has stirred scientists, governments, NGOs and other stakeholders, to propose and implement sustainable diets. "Sustainable diets are those diets with low environmental impacts which contribute to food and nutrition security and to a healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources (11)". Sustainable global diets have been discussed recently in three summary publications (13,14,15) - the Lancet EAT commission on healthy diets from sustainable food systems; the international expert report on the policy reform and realignment that is required to build sustainable food systems in Europe; and the FAO report on biodiversity for food and agriculture.

All environmental analyses agree on the need to promote more plant-based diets-achieved practically by using "more forks than knives" and mostly abandoning animal-based products. Interestingly these recent publications have overlooked that, a

sustainable, scientific-proven healthy, and up to date with modern needs diet, is already available today. It is based on frugality and local habits, enhancing biodiversity, seasonality, culinary activities and tradition. It's local and produces eco-friendly food products and conviviality.

Add adequate rest, water intake and regular physical activity and the scientific efficient recipe is ready.

It's called The Mediterranean Diet Pattern, and it has been around some 5000 years.

It's called the Mediterranean, because of the area in which it was over time developed, changed and integrated with several different cultures. There is no single Mediterranean diet, but rather many variations according to the different cultures and religions, of a common nutritional theme.

Olive oil and olives, fruits, vegetables, cereals (mostly unrefined), legumes, and nuts, moderate amounts of fish and dairy products, and low quantities of meat and meat products.

In the last 60 years, it has evolved from a "traditional" diet to a sustainable dietary pattern (16).

The scientific confirmation of its beneficial health effects began with the ground-breaking Seven Countries Study conducted by Ancel Keys (17) in the 60s and has been confirmed and expanded ever since. The Mediterranean pattern has a positive, proven, effect on: Cardiovascular disease (18), Diabetes and metabolic Syndrome (19), hypertension and chronic diseases (20), cancer and its prevention (21), ageing (22), Alzheimer's disease (23), immunity (24), mental disorders such as depression (25), as well as the quality of life (26). It is a varied and balanced diet, inclusive of all categories of foods, linked only with beneficial aspects to human health. The Vegetarian or Vegan diet, supported by the latest scientific trends, while having beneficial effects on ischemic heart



disease, has a disputed effect on cancer (27,28) and might have a higher risk of strokes according to a recent study (27). Furthermore, it has a higher risk of anemia, lack of vitamin B12, other undesired effects on hematological parameters (29), and has been associated with poorer health (higher incidences of allergies and mental health disorders), a higher need for health care, and poorer quality of life (28). Meat eaters are protected from stroke (27), meat should be used in healthy nutrition according to the Nutritional Recommendations (NutriRECS) Consortium (30), and the previous studies linking meat consumption to cancer and cardio-metabolic disease have been recently strongly challenged (31,32). Healthy nutrition is based on balance, and this is easier to obtain not excluding or demonizing any food category.

The Mediterranean Dietary Pattern (MDP) besides its well-known health and nutritional benefits, offers a lower environmental impact and richness in biodiversity compared to other current dietary patterns (33,34,35,36,37). It encourages the use of a wide range of cereals, fruits and vegetables, not only cultivated products but also wild species and herbs, thus sustaining them along the local traditional knowledge about their use and specific cooking methods. Increased adherence of the Spanish population to the MDP had a marked impact on all environmental footprints: it reduced greenhouse gas emissions, land use and energy and water consumption, while on the contrary, adherence to a Western dietary pattern increased all these parameters (37). MDP is not a hypothetical projection on a virtual model, it has been, and it is tested daily in the real world, it supports local specificities, ensures the conservation and development of traditional activities and crafts, thereby guaranteeing the balance between the territory and the people and it is economically sustainable (38). Moreover, MDP is not just nutrition, is a way of living, linked to high cultural, social and economic values. Food is given a lot of care in the Mediterranean area, in its preparation, moderation in portion size and attention to avoiding waste. Meals are a moment of conviviality, social exchange and communication, for the family and business transactions (39).

It is no wonder that in 2010 MDP has been acknowledged as an Intangible Cultural Heritage of Humanity: The Mediterranean Diet, from the Greek word 'díaita' 'diet'means 'way of life–lifestyle', a set of skills, knowledge, rituals, symbols and traditions, ranging from the landscape to the table. Eating together is the foundation of the cultural identity and continuity of communities throughout the Mediterranean basin. The Mediterranean diet emphasizes values of hospitality, neighborliness, intercultural dialogue and creativity, and a way of life guided by respect for diversity.'

The Mediterranean diet embraces all, discriminates none, it is multiethnical, sustainable and healthy. Resources should be employed on revitalizing it and adapting it to different places of the earth, each supporting their particular traditions and local trades, instead of proposing a "one model fits all" approach based on extreme industrial concepts, far from the balance that regulates both the human physiology and the eco-system.

"If more of us valued food and cheer and song above hoarded gold, it would be a merrier world." – J. R. R. Tolkien



Giovanni Vanni Frajese, Scientific Advisor, World Farmers' Organisation

Prof Giovanni Vanni Frajese is currently the director of the "SMART Lab" at the "University of Rome Foro Italico", and researches medicine and biotechnologies with interest in the field of Endocrinology, Oncology, Metabolism and Nutrition. He graduated in 1996 in Medicine at the University of Rome "Tor Vergata" and specialized in Endocrinology and Dysmetabolic diseases in 2001. He has authored over 70 papers in international peer-reviewed science journals. Member of several societies including Endocrine Society (USA), American Diabetes Association (ADA), N.Y. Academy of Sciences, SIE (Italian Society of Endocrinology), Prof Frajese is the Scientific Advisor for the WFO.

A varied, balanced diet, based on local sustainable traditions and healthy unprocessed fresh foods is, and has been for long, the healthiest choice in human nutrition.



INNOVATIVE IDEAS

e-GRANARY – Digitally aggregating Farmers for Market in East Africa

by Eastern African Farmers Federation, EAFF

<u>e-GRANARY</u> is a mobile based digital platform that facilitates the meeting of demand and supply of agricultural output and inputs, reduces cost to serve and risks to enable service providers gainfully invest/serve small holder farmers. The e-GRANARY is a unique blend between a public body (EAFF) that represents famers and farmer groups, and a commercial business model, e-GRANARY that builds on that to generate sustainable economic returns and stimulate investment across the value chain.

The structure of EAFF allows the e-GRANARY to effectively organize and aggregate the otherwise dispersed producer base, in order to achieve scale and engage as a significant stakeholder in the agricultural economy.

The business goal of the e-GRANARY is to increase farming profitability by improving the productivity of participating farmers through input provision and technical services, as well as resolving bottlenecks and improving efficiencies of the value chain leading to access to markets and improved trade. The business is hinged on these four key components;

Direct and efficient access to markets – e-GRANARY secures supply contracts, giving farmers a predictable and consistent market. This ensures farmers are paid fair prices for their commodities and enabled to sell in bulk since partner off-takers have the capacity to purchase large quantities.

Farmer groups for marketing – It is very expensive to serve individual smallholder farmers. Thus, EAFF aggregates farmers into viable economic groups to enable them to access their network of service providers.

Pooled purchasing – Grouping farmers enable e-GRANARY to aggregates the demand for advantageous rates/bulk purchase discounts and ease of access for certified inputs, small loans and crop insurance.

Digital financial services – Farmers now receive payments via mobile money. They are able to pay for inputs and rent tractors through their mobile phones, and access to credit is envisaged through the mobile digital platform.



INNOVATIVE IDEAS

Progress to date

So slightly over 200,000 farmers have been recruited on e-Granary, enabling access to inputs and crop markets, while 30,000 farmers are accessing extension messages.

Increased market access by farmers



Aggregation and forward contracts Buyers enter into

> stable buying relationships with smallholder farmers through supply contracts extending beyond one season. Smallholders use this stability in demand as collateral to access finance used for seeds. fertilizer, and machinery to improve their productivity and incomes.

○ >159,000USD

worth of maize and soya beans traded so far....

> 3,500Acreage cultivated to

Current upper rift hub project is covering 680 acres min contract price Kes 2,300 signed. For 2020 season over 1,300 acres secured for season 1



EAFF is a non-political, non-profit and a democratic apex organization of all Farmers of Eastern Africa. Its role is to voice legitimate concerns and interests of farmers of the region with the aim of enhancing regional cohesiveness and social-economic status of the farmers. The Federation apart from voicing views and demands of the farmers on crosscutting issues will also endeavor to promote regional integration of the farmers through trade and good neighbourliness.

Access to financial services -credit/insurance

Farmers are unable to access financing

Smallholder farmers are seen as high-risk profile clients, dependent on climate. and with no collateral. Financial institutions a very shy of investing in small holder farmers and less than 1% of bank lending goes to Agric and even this is mostly consumed by large scale farmers.

Alternative collateral solutions

eGRANARY has partnered with appropriate micro finance institutions who are willing to lend to farmers based on forward contracts, group guarantees and use of alternate nontraditional data for credit scoring process. Serving loans is digitized to reduce cost to serve for the financial inst.

>6,500 SMHs have received bundled

input loans

>Repayment rate for our 2 different portfolios has averaged 91% -Industry average is around 85-90%



Find out more at https://www.eaffu.org/

Data



Non existence data on farmers

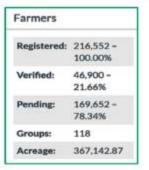
Lack of bio data, traceable financial and production history for farmer to aid in decision making on the

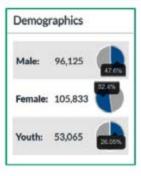
eGRANARY data platform

eGRANARY has implemented a farmer led data management solution. Data capture is done by farmers through their mobile phones using a USSD app. This basic supply chain information allows relevant service providers engage with farmers in a mutually beneficial relationship.

eGRANARY has so far registered >216,000 farmers in Kenya

alone. 46,000 of these farmer have had their data verified through a Govt. Database





Age Range	Female	Male	Total
Below 25	4,271	7,539	11,810
25-35	17,975	19,629	37,604
36-45	55,099	43,510	98,609
46-55	12,393	10,429	22,822
Above 55	14,584	12,630	27,214

Access to GAPS



expensive, inaccessible and ineffectual extension services

extension services infrastructure is broken and in many farming communities not there. Farmers rely on old farming practices. Available extension service is expensive and not accessible to most farmers

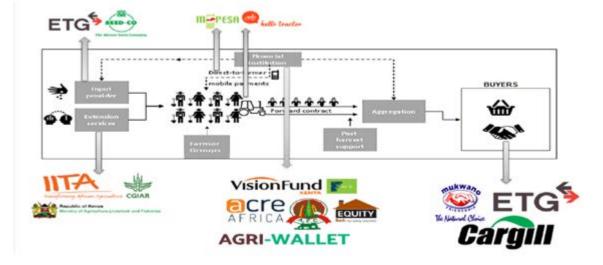
eGRANARY eextension solution

eGRANARY together with relevant research institutions has implemented a text and voice based eextension services that accessible to all our farmers. Also through the farmer groups we have established centers of excellence with help of our field staff.

>30,700 SMHs

have received training on GAP (good Agricultural Practices) in the last two and half years.

Key value chain partner already secured and validated





INNOVATIVE IDEAS

FO-MAPP initiative: an interactive platform for sharing information about Farmer Organisations in the world

by Katungisa Kenneth, Chief Executive Officer, Uganda National Farmers Federation

Background

At the Global Farmers Forum (2016) at IFAD, one of the string requests from the farmers' organisations (FOs) was the creation of an interactive database of Farmers organisations and rural producer organisations. This platform was to be fed by the farmers' organisations themselves with information on their nature, areas of intervention, their services and products. This initiative was adopted by the United Nations General Assembly in December 2017.

This platform (Farmers and Rural Producers' Organisation – FO-MAPP, as it came to be called, was created) was created by IFAD and was tested by the farmers' organisations, following the testing, some changes were made based on the feedback from the FOs that tested the platform and it was finally launched at the World Rural Forum in Bilbao and also presented at the just concluded Farmers Forum 2020.

Who can be on this database?

The farmers' organisations that can be on this platform must be legally recognized, be membership-

based, have a membership composed primarily of smallholders and family farmers, have a minimum of 500 individuals in their membership, operate at national and sub-national levels.

What does this platform offer?

This Platform is a unique tool that provides enough information about farmers' organizations' services, products, location, geographical coverage, strategic direction among others. With a click of a button, an interested party can be able to get a first impression of any farmers' Organisation that is on the platform. FO-MAPP, therefore, has the capacity to improve their (FOs) visibility and engage in sustainable development.

Who can use this information and for what?

A wide range of actors – including development assistance agencies and governments– could use information in the database to identify organizations in a given country/area and explore possible synergies and partnerships that could be developed.



INNOVATIVE IDEAS

Development assistance agencies and practitioners

these can use the database to better target their financial support and/or identify countries and regions in which farmers and rural producers' organizations might be partners for them to engage within the design, implementation, monitoring and evaluation of development projects and initiatives. The platform would provide an avenue to get this information (at least the basic information) from the comfort of their offices so as to make decisions without necessarily having to physically visit the FOs.

Farmers and rural producers' organizations

can use FO-MAPP as a tool for knowledge-sharing among peers, to support their engagement with one another, and to increase their visibility for governments and other actors; it can also act as a tool to support each other in the implementation of their programmes in areas where the organisations are implementing programmes/ projects in the same geographical area.

Local and national governments

can use the database to better recognize and identify farmers and rural producers' organizations, enable public officials to easily approach them and foster partnership and collaboration. Most of the farmers' organisations are very good tools for farmers mobilization and information dissemination (based on how elaborate their structures are) so this tool would help governments at all levels to make better choices on which FO to work with where and in which programme.

Private agri-food companies and financial services providers

can use the information in the database to better understand the activities, expertise, services and products undertaken by farmers and rural producers' organizations in a particular country or region, and explore the possibility of engaging in win-win partnerships and also make investment decisions after all, the farmers are their clients and this tool would give an idea of which farmers, in which geographical areas need what services.



Katungisa Kenneth, Chief Executive Officer, Uganda National Farmers Federation

Mr Kenneth holds a Masters Degree in Business Administration from Uganda Management Institute with 9 nine years of experience in Farmer Organisational Leadership. An environmentalist by p rofession has helped to spearhead innovations in agriculture to tackle the advance effects of climate change through training farmers on mitigation, adoption and adaption mechanisms. He has also coordinated the implementation of several Projects along different value chains such as Cassava, Coffee, among others. Kenneth has a passion of changing the agricultural sector through institutional capacity building and empowering farmers by creating an enabling environment for sustainability and engage duty bearers through lobby and advocacy and create synergies and networks to improve policy processes with different stakeholders in the agricultural sector.

Find out more at https://www.fo-mapp.com/





Sustainability practices on farm

By Canadian Federation of Agriculture (CFA)



Description

As the frequency of events like droughts increases under climate change, crop yields would decrease. This would increase the vulnerability of producers to climate change, particularly in semi-arid regions of Canada.

Warmer summers could also cause problems for livestock producers related to heat-wave deaths. This is especially true in poultry operations. Other impacts could be reduced milk production and reduced reproduction in the dairy industry, as well as, reduced weight gain in beef cattle.

In addition, droughts and floods could reduce pasture availability and the production of forage, forcing producers to find alternative feed sources or reduce their herd size. There are several possible effects climate change could also have on crop pests and disease. These would include increased weed growth due to higher levels of atmospheric Carbon Dioxide (CO2) and an increased prevalence of pests and pathogens in livestock and crops. The increased range, frequency and severity of insect and disease infestations are also potential impacts.

While these changes will not have large effects on greenhouse gas (GHG) emissions from crop production systems; they could cause an increase in energy use associated with the manufacture, transportation and application of pesticides.

Within the Federation, farmers experimented the following practices in order to mitigate and adapt to climate change:

Within the Federation, farmers experimented the following practices in order to mitigate and adapt to climate change:

Agricultural Nitrous Oxide Emission Reductions:

Manages applied nitrogen (N) sources in a more comprehensive and sophisticated way to reduce nitrous oxide (N2O) emissions associated with nitrogen fertilizer application. These BMPs are integrated into a new technology called a Comprehensive 4R (Right Source at the Right Rate, the Right Time and the Right Place) Nitrogen Stewardship Plan.

Conservation Cropping:

Conservation cropping, also known as conservation tillage and zero tillage, reduces or eliminates use of tillage machinery, such as combines. Three benefits associated with conservation cropping include: new carbon stored annually in agricultural soil; lower nitrous oxide emissions from soils, and associated emission reductions from reduced fossil fuel use from fewer passes per farm field.

Intercropping:

The process of growing crops (e.g. cereals and legumes) in close proximity to increase soil organic carbon and soil organic matter and thus, carbon sequestration. The Ontario Government lists the per hectare (per ha) carbon sequestration potential of this method as medium.

Winter Cover Crop:

The process of growing crops post-harvest to ensure that croplands are not bare throughout the winter. Winter crop cover reduces soil erosion and maintains soil organic matter, increasing the cropland's ability to sequester and store carbon.

Biofuel Production and Usage:

Feedstock for biofuel may produce from a number of agri-food processes, such as crushing of oilseeds and refining of vegetable oils. This creates emission reductions from the avoidance of fossil fuel consumption when the fossil fuel is replaced by biofuels

Energy Generation from the Combustion of Biomass Waste:

The use of biomass to generate thermal energy and/or power can reduce greenhouse gas (GHG) emissions from a when the biomass energy is used to displace energy derived from fossil fuel combustion. Agricultural residues from manure and animal bedding can serve as biomass sources.

Reduced Age at Harvest of Beef Cattle:

Reduces emissions associated with the raising of beef cattle by reducing the number of days required to get a feeder calf from birth to harvest.

Reducing Greenhouse Gas Emissions from Fed Cattle:

This protocol for reducing greenhouse gas emissions in fed cattle addresses digestion and manure storage/handling sources of livestock greenhouse gas emissions.

Selection for Low Residual Feed Intake Markers in Beef Cattle:

Selective breeding of cattle using a genetic marker for low residual feed intake (RFI) can result in cattle that are more efficient in their feed utilization compared to other cattle. This increased efficiency of feed utilization results in reduced enteric fermentation emissions being released by the cattle to other cattle.

Woodland Conservation & Reforestation:

Listed as having a high carbon sequestration potential by the Ontario Government, woodland and reforested areas serve as carbon sinks. Added benefits include soil erosion reduction.

Riparian Buffer Strips, Windbreaks & Shelterbelts:

Involve use of wooded areas to protect farmlands from the erosive effects of waterbodies and winds. This erosion control prevents loss of soil organic matter needed to ensure carbon sequestration.

Results

From 1981-2011, agricultural best management practices helped reduce Canada's annual biological farm emissions from 1.1 million tonnes to -11 million tonnes, effectively making agriculture a carbon sink. Canada's crop sector alone has sequestered the equivalent of 61.4 million tonnes of carbon since 1986 – for a total value of just under \$1 billion when priced at \$15 per tonne under Canada's federal carbon pricing regime. Agricultural landscapes can also provide Ecological

Goods and Services (EG&S) when it comes to building landscape scale resiliency. Agriculture can support Canadians and municipalities in adaptation through water management in times of both drought and flooding, and water quality improvements. Furthermore, agriculture supports landscape scale adaptation through soil conservation, air quality and localized cooling during heat events. Agricultural adaption is critical for predictable yields that support food security, to support rural livelihoods and to grow a strong Canadian economy.

Climate smartness

The different practices promoted in the project, contribute significantly to the three CSA pillars, as they are focused on mitigation and adaptation to climate change and mainly the cost-effectiveness of crops. Most of the practices promoted in the project are identified within a global CSA evaluation carried out by Sova et. al., 2018.

It is worth mentioning that those practices are more focused on nitrous oxide emissions, production and use of biofuels. Changes in the management of cattle and forest systems are mostly related to mitigation, understood as the reduction of emissions and the capture of greenhouse gases.

The practices focused on crop management and the use and conservation of water sources, are more related to the increase of the adaptive capacity of productive systems.

It is necessary to consider the incorporation of additional practices that are currently working in the region, which can improve the yields and climate resilience of the farmers. Similar, it is essential for the optimal implementation of climate smart agriculture practices the strengthening of the climate information flow to the producers, as well as the empowerment regarding to the use of climate information, to ensure better decisions in the future, adjusted to their socioeconomic and environmental conditions



Organic agriculture and climate change adaptation: a case study of a small farmer

By Nepal Agriculture Cooperative Central Federation Limited (NACCFL)



Description

Punya Ghimire, a small farmer of Maharanijhoda, Jhapa had been practicing non-organic farming for 8 years. After testing the soil of his land, the farmer noticed that the soil was being degraded and acidic due to overuse of fertilizers. For this reason, he decided to be trained in organic agriculture and started farming accordingly, adopting agricultural practices with the aim to mitigate climate change:

Seed treatment:

utilization of organic methods for treatment of seeds such as hot water treatments, disinfectants, herbal treatments, treatments with trichoderma, usage of salt for rice seeds etc.

Soil treatment:

application of well-decomposed farm yield manure, vermi-compost, and compost.

Weed management:

manual or mechanical control of weeds. No use of weedicide on farm.

Fertilizer management:

well-decomposed farm yield manure is applied in order to prevent diseases. Organic fertilizers, such as compost, have been used for crops. Different organic fertilizers have been used as per recommended doses. Different types of beneficial microorganisms such as trichoderma and rhizobium have been incorporated in the soil.

Pesticides and insecticides management:

integrated pest management practices are carried out on the farm. Biopesticides and insecticides have been preferred for the management of pests. Several types of insect traps have been used in the farm. Different beneficial microorganisms like Bacillus thuringiensis, egg parasite Trichogramma,

Beauveria bassiana have been used to manage whiteflies, thrips, aphids and weevils. Lecanicillium spp. are deployed against white flies, thrips and aphids. Metarhizium spp. are used against pests including beetles, locusts and other grasshoppers, hemiptera, and spider mites. Paecilomyces fumosoroseus is effective against white flies, thrips and aphids.

Diseases control:

beneficial microorganisms such as Bacillus subtilis and Trichoderma viridae are also used to control plant pathogens. Crop rotation, intercropping has also been practiced in the field for the control of diseases. Different home-made bio-fungicides, bio-bactericides have been used to control diseases.

Results

Organic agriculture is taken as one of the appropriate farming systems which has twin objective of climate change mitigation and adaptation. Organic farming mainly depends upon crop rotations, use of crop residues, well decomposed farm yield manure, mineral rock and biofertilizer, natural pesticides and insecticides. Organic agriculture reduces emission of greenhouse gases. It is because of the avoidance of chemical fertilizers in farm. Thus, it enhances the carbon content of soil. Organic farming is also more energy efficient. It is reported that the use of energy is 20 to 50% less in comparison to the conventional farming system (Pimentel et al., 2005; Schader et al., 2011 and Muller) As organic farming avoids the use of insecticides, pesticides, hormones, etc. it helps in mitigating the climatic change. Organic farming easily sequesters carbon in the soil. (Panwar et al., 2010; IFOAM, 2009).

Climate smartness

As described in the project results, practices promoted contribute to all CSA pillars (adaptation, mitigation and productivity), because these practices increase adaptive capacity, yields and incomes from agricultural systems, as well as, support the reduction of greenhouse gas (GHG) emissions and increase soil carbon sequestration.

The project may benefit from including other practices (some of them in CIAT et al., 2017), which can be identified by the farmers themselves if participatory processes for building capacity are put in place. This may be done through strengthening farmers understanding of historic and future climate information and its effect on agricultural systems.

Such processes may increase farmers resilience in terms of providing them tools for better-informed decision-making processes which may be tailored on their needs, socioeconomic and environmental contexts.



Carbon-Agri

By French livestock institute (IDELE), interprofession of meat and milk (Interbev and CNIEL) and farmers associations (CNE)



Description

Since 2013, ruminant breeding sectors have been engaged in the fight against climate change.

Today more than 12,000 cattle farms are involved in low carbon initiatives. Many technical levers for reducing GHG emissions and increasing carbon storage are offered to farmers to reduce the carbon footprint of milk and meat produced.

In order to certify these emission reductions and this additional carbon storage, the French livestock institute (IDELE), the interprofession of meat and milk (Interbev and CNIEL) and farmers associations (CNE) developed the "CARBON AGRI" methodology, which is labelled by the new "Low Carbon Label" created by the French Ministry of Ecology.

France Carbon-Agri association, created by breeders' representatives, facilitates the implementation

of agricultural projects to reduce GHG emissions in France. The objective is to involve and support farmers and their technical partners in their low carbon initiatives and create the link with the actors – communities, companies – who want to support financially and transparently innovative projects for the climate.

Many economic players (Paris City Hall, BNP Paribas, La Poste, J.O. Paris 2024, Metropole of Nancy, etc.) testified their desire to achieve carbon neutrality and support the low carbon transition. The Label"Bas-Carbone" provides a certified framework for the development of local voluntary compensation projects.

This is a low carbon voluntary policy creating a training phenomenon involving all stakeholders. An innovative compensation perspective, this label will remove the obstacles to change.

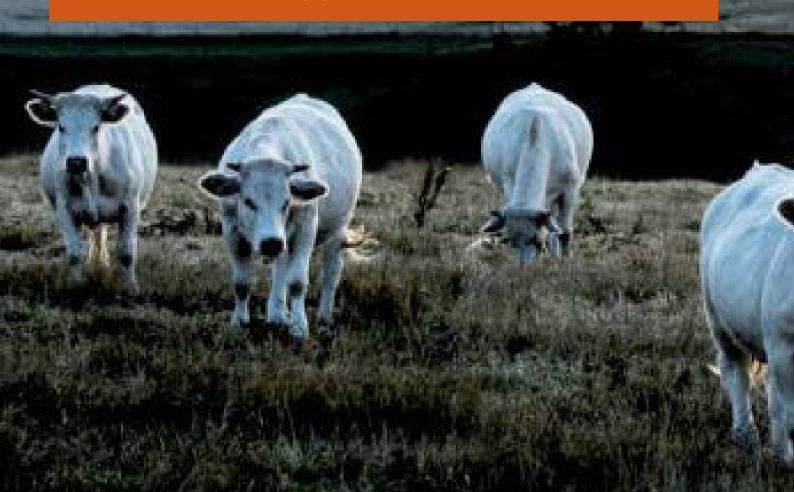
Results

On September 30, 2019, the Ministry of Ecological and Solidarity Transition approved the CARBON AGRI methodology. This certification makes operational the certification of low carbon projects implemented on farms. In this context, France CARBON AGRI association was created to ensure project engineering and thus provide support to regional or national project sponsors. The first call for projects is now open, the project holders and / or farmers can come forward with the association or the Institute of Livestock.

Climate smartness

The political support and the particular commitment of the leaders of this initiative have helped its scaling, as a result of a public-private partnership. In addition to that in CARBON AGRI description , it is mentioned that, in order to promote mitigation with the creation of low carbon labels, the project has

created the opportunity for some farmers to have access to new markets and improve their income. For all the above, CARBON AGRI is line up with CSA pillars by reducing emissions and increase producers' income. It is recommended to generate a portfolio of practices that helps to reduce GHG emissions, increase productivity and improve the adaptive capacity of the cattle system to climate variability events.



Production finance in disaster areas

By Southern African Agri Initiative (SAAI)



Description

A third of South Africa is currently facing a drought crisis that has reached such serious levels that entire communities are in trouble, including agricultural businesses. This is the third consecutive year that the dry conditions loom, in some areas even longer, and it has caused a major debt problem for most part of family farmers. Because of ongoing debt, farmers are unable to get financing and obtain production loans.

Instead of using land as collateral, the project consists in a supply contract or production contract that stipulates a price and a supply date; inputs are then financed based on that. Comprehensive harvest insurance is a requirement for the project as well.

Participating family farmers are organised into a traditional agricultural cooperative. The coop will enter into a supply contract, lend money for seed, fertiliser, diesel, pesticides and insurance, and rent for the mechanisation that farmers need. Regardless of how solidly such a scheme is structured, even in the most favourable scenario a producer will need his own minimum contribution of 30% to obtain financing. In order to cover that 30%, the five largest input suppliers were requested to each leave 6% of their invoices in the pool until the supply contract is honoured. In Saai's proposed plan, the input suppliers will help carry a portion of this risk.

Saai and its network partners also offer assistance in this regard. Crowd funding, fundraising projects and corporate donations will contribute to a newly

established collateral fund. There are even some well-known artists who offered to donate proceeds of their concerts to the fund. The fund will serve as a first risk buffer and contribute to make the project and its farmer beneficiaries bankable. Should the co-op not be able to repay its debts to the banks, the collateral fund will take responsibility for a percentage of the debt.

In 2015 the Southern African Confederation of Agricultural Unions (SACAU) started a similar pilot project in Arusha, Tanzania during which excellent agricultural technical advice was shared by input suppliers. A portion of their profits was still on the farmlands and they were readily available to advise the farmers and look after their interests.

Results

This innovative financing model is currently aimed at farmers whose farming activities have been debilitated by the drought in certain areas of South Africa. If implemented successfully, it has huge potential for production finance in other disaster areas, communal areas and for beneficiaries of land reform, where land cannot be offered as security against loans.



Climate smartness

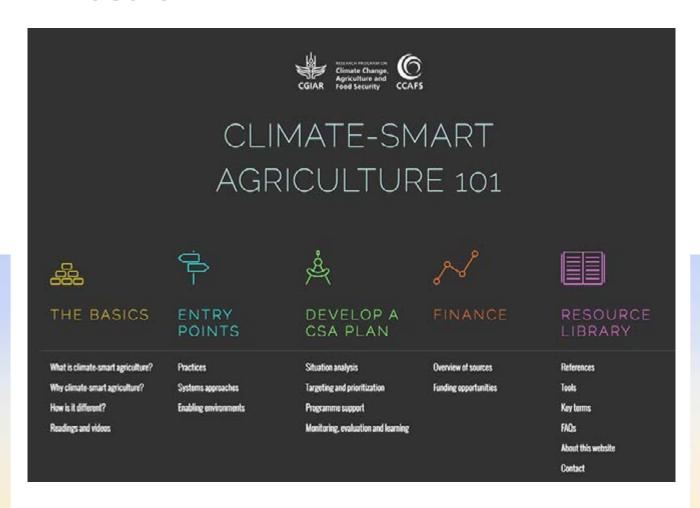
Climate-smart financial mechanisms are very important as a way to reduce agro-climatic risks and therefore, increasing resilience to climate variability.

This initiative may benefit from tailored capacity building in local adaptation planning in order to understand how using current climate vulnerability and short-term weather forecasts, farmers can plan their agricultural activities (crop planning, management and harvest) accordingly. Therefore, it could reduce the probability of yield

losses when knowing how weather may behave and how each crop may be affected (e.g. water stress indicators). This will reduce the chance of losing the investment and better prepare to deal with climate variability.

In some countries, index insurance products have been developed and put in place in order to secure farmers investments even before finishing the cropping season, because the triggers are associated to climate variables rankings according to the crop, agro-ecological zone, among other criteria (Greatrex et al. 2015).





CSA 101: your online guide to climate-smart agriculture

By Marissa Van Epp, Global Communications and Knowledge Manager, CCAFS

Introduction

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) and partners developed a <u>guide website</u> introducing multiple dimensions of the climate-smart agriculture (CSA) approach to food security and sustainable development. The website aims to help

practitioners, researchers and decision-makers working with or interested in CSA. It provides guidance on how to get started, as well as all the resources you need to dig deeper. For countries following up on their commitments under the Paris Agreement, the CSA Guide is a useful tool for setting up mitigation and adaptation initiatives in agriculture.

What is climate-smart agriculture?

The most commonly used definition of climate-smart agriculture is provided by the Food and Agricultural Organisation of the United Nations (FAO), which defines CSA as "agriculture that sustainably increases productivity, enhances resilience (adaptation), reduces greenhouse gas emissions (GHGs) where possible (mitigation), and enhances achievement of national food security and development goals."

CSA can help agriculture initiatives become climateresilient. The approach is effective because it addresses a number of important challenges simultaneously:

- Food security, misdistribution and malnutrition
- The relationship between agriculture and poverty
- The relationship between climate change and agriculture

The Guide

The Guide presents the CSA approach to food security and sustainable development in a user-friendly format. It offers a combination of practical tools and guidelines and in-depth resources that can support the planning, implementation and assessment of CSA initiatives.



Marissa Van Epp, Global Communications and Knowledge Manager, CCAFS

As Global Communications and Knowledge Manager for CCAFS, Marissa Van Epp is responsible for communications and knowledge management strategy and implementation across the program, and for coordination with other CGIAR centers and programs in these areas. She holds an MPhil in Social Anthropology from Oxford University and an MSc in Sustainable Development from the London School of Economics.



DIALOGUES

1. The basics:

This section provides users with crucial information about what climate-smart agriculture is, how it helps address important challenges, how it is different from other sustainable agriculture approaches and suggests introductory reading materials and videos.

2. Entry points:

This section gives an introduction to the numerous entry points for initiating CSA programmes. To help users navigate among them, they are presented under three thematic areas: practices (e.g. soil management), systems approaches (e.g. value chains) and enabling environments (e.g. climate information services).

3. Develop a CSA plan:

The guide also presents the CSA plan, which is an approach for planning, implementing and assessing CSA projects and programs. The CSA plan supports the operationalization of CSA planning, and implementation and monitoring at scale, through its four major components: situation analysis; targeting and prioritization; program support; and monitoring, evaluation and learning. The guide provides a step-by-step approach to developing a CSA plan and presents useful tools and resources for each component.

4. Finance:

This section offers an overview of potential sources of funding for CSA activities at national, regional and international levels and for a number of different potential "clients," including governments, civil society, development organizations, and others. Additionally, it includes options to search among a range of funding opportunities according to CSA focus area, sector and financing instrument.

5. Resource library:

The resource library provides quick and easy access to all the references, key resources, key terms and frequently asked questions related to CSA.

6. Case studies:

This section brings together all the specific projects that are detailed in other sections of the guide. An interactive map allows users to view all case studies at once or filter the search by entry points.

Further resources

The CSA Guide website was developed by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) for the World Bank in collaboration with a range of other partners and institutions. The Guide is available in English, Spanish and French.





CSAYN declares Farmers Driven Climate Change Agenda as top priority program for 2020

by Nkenglefac Tacha Foretia Divine, Communications Lead, CSAYN

January 2020 opens a new chapter for Climate Smart Agriculture Network (CSAYN) following the official signing of a Memorandum of Understanding (MoU) with the World Farmers' Organization (WFO) back then in 2019. The signed MoU between the CSAYN Founder/Managing Director Mr Ntiokam Divine and Mr Theo De Jager, President of WFO paved the way for a joint implementation of the Farmers Driven Climate Change Agenda officially known as 'the Climakers'. The Climakers whose primary goal to enhance the position of farmers in the global political discussion on climate change aligns with the 5 Years CSAYN Strategy Plan (2018-2023) which is to reinforce the integration of Climate-Smart best practices among smallholder farmers within it 50 Member Countries. Following the above-mentioned engagement, CSAYN joined the Farmers Driven Climate Change Alliance as a representative for Civil Society Organizations (CSO) and

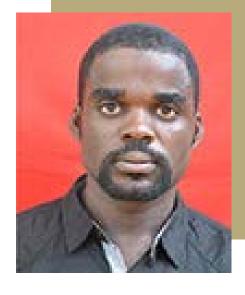


DIALOGUES

emerged as a key contributor on the <u>first technical meeting</u> held at the WFO headquarters in Rome, Italy in February 2019. This meeting focused on developing a survey to collect the success stories from farmers and map out home-based agencies to collaborate with. CSAYN is collaborating and supporting WFO plan to promote the Climakers' agenda through different sets of actions most of which are highlighted in the December 2019 <u>CSAYN Special Edition Newsletter</u>.

It is within this framework of raising awareness on farmers' best practices and making the fights against climate change meaningful on a long-term, that CSAYN took as a top priority in July 2019 to massively disseminate the <u>Climakers' Survey</u> and <u>Case study template</u> across it partners and network members. "Climate-Smart practices provide the best alternative to scale up productivity and livelihood within the agriculture value chain," said Ntiokam Divine, CSAYN Founder/Managing Director at the <u>UN Secretary-General Climate Action Summit 2019</u>.

Climate-Smart practices provide the best alternative to scale up productivity and livelihood within the agriculture value chain.



Nkenglefac Tacha Foretia Divine, Communications Lead, CSAYN

Nkenglefac Tacha Foretia Divine is the Communications Lead at the CSAYN. He is responsible for the management of the Network's social media presence and blogs. He is also the point of contact for Nature Base Solution at the Global Coordination Unit of CSAYN.



