

CLIMATE-SMART AGRICULTURE IN ACTION

ALLIANCES DRIVING THE GLOBAL CLIMATE-SMART
AGRICULTURE (CSA) AGENDA



Global Alliance for Climate-Smart Agriculture (GACSA)

<p>What is GACSA?</p> <p>GACSA is an inclusive, voluntary and action-oriented multi-stakeholder platform on Climate-Smart Agriculture (CSA).</p> <p>Its vision is to improve food security, nutrition and resilience in the face of climate change. GACSA aims to catalyse and help create transformational partnerships to encourage actions that reflect an integrated approach to the three pillars of CSA.</p>	<p>What does GACSA Do?</p> <p>GACSA works towards three aspirational outcomes to:</p> <ul style="list-style-type: none"> • Improve farmers' agricultural productivity and incomes in a sustainable way; • Build farmers' resilience to extreme weather and changing climate; • Reduce greenhouse gas emissions associated with agriculture, when possible. <p>Context specific priorities and solutions need to be aligned with national policies and priorities.</p> <p>GACSA aims to catalyze and help create transformational partnerships to encourage the three pillars of Climate-Smart Agriculture (CSA) – productivity, adaptation and mitigation.</p>
<p>How does GACSA do it?</p> <p>GACSA fosters knowledge learning, sharing, partnership building, while also providing a space for dialogue and debate.</p>	<p>Our Mission</p> <p>The mission of the Alliance is to address the challenges facing food security and agriculture by tapping the wealth and diversity of resources, knowledge, information and expertise, from and between its members, in order to stimulate concrete initiatives at all levels.</p> <p>It provides a forum for those who work on climate-smart agriculture to share and exchange experiences, information and views on issues that need immediate attention what works and what does not when adapting to climate change and mitigating green house gases in the agriculture sector.</p>

This publication mainly profiles GACSA and regional alliances for CSA activities and outputs

We are well aware of the roles agriculture plays in securing sustainable livelihoods and reducing poverty. Hence, this publication is intended to showcase the multiple roles of alliances in supporting and promoting climate-smart actions in agriculture. We believe that this issue will help reaffirm the centrality of agriculture and climate change to development and the message on the need for CSA.

GACSA is proud to share with you regional experiences and lessons from the ground. As you read through the publication, take time to reflect on what new things you have learnt and how to share your lessons with a wider audience.

Please send us feedback on your reflections and seize the opportunity to share your lessons in the next issue.

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INTRODUCTION

The world today faces a great challenge tackling global hunger and malnutrition in the face of climate change and increasing natural resource scarcity. The agriculture, forestry and other land uses (AFOLU) sector worldwide is rapidly changing due to the global renewed interest in sustainable development which has brought convergence of the economic, social and environmental sciences. Faced with an increasing competition over limited natural resources and their quality, agricultural production systems are further compounded by changing climatic and weather conditions.

The world population is expected to reach [9.1 billion](#) by 2050, and with the global trends in diets and population, [60% more food](#) will be needed in 2050. Despite the attention paid to agricultural development and food security, there are still about **800 million undernourished and 1 billion malnourished people** in the world ([FAO 2019](#)). The widespread understanding of the need to respond to this situation suggests that the agriculture and food systems must improve their sustainability and adapt to the impacts of climate change. Meeting the global dietary trends underscore the challenge to achieving the [Zero Hunger](#) target of the [Sustainable Development Goals](#) (SDGs) by 2030, according to the [State of Food Security and Nutrition](#) in the World 2019. The sustainability of agriculture and food systems will determine our ability to ensure food security for a growing world population.

Climate change multiplies the challenges of achieving the needed growth and improvements in agriculture and food systems. The challenges highlighted in the 2018 Intergovernmental Panel on Climate Change (IPCC) report are clear. The IPCC report affirmed that warming of the climate system is unequivocal, with effects such as increasing land and ocean temperatures, rising global average sea level, and reduced snow and ice already being observed. These changes –which are linked directly to human activities producing greenhouse gases (GHGs) – are already causing changes in ecosystems, water supply and availability, agriculture productivity and patterns of extreme events with consequent threat to livelihoods and to economic and social development (IPCC, 2019). The impact of the changing climate has also increased vulnerability of the agriculture sector as climate disasters increased.

The effects of climate change on agriculture are severe, and one of the most significant emerging challenges to household livelihoods; inaction is not an option. As such, it is imperative that efforts to address agriculture in the context of food security and rural development take climate change into consideration. The risk which climate change poses to the sector has significant implications for the poverty-reducing capacity of growth and development. Tackling climate change and making agriculture more adaptive and climate-smart is therefore fundamental to the sector's capacity to contribute to sustained human development progress. If we are to achieve the Sustainable Development Goal of ending hunger by 2030, there is need for integrative approaches to address the interlinked challenges of food security.

In this context, climate-smart agriculture (CSA) becomes vital from a food security and developmental perspective. It is an approach that can help reduce the negative impacts of climate change on food supplies, livelihoods and economies, and increase the adaptive capacity of farming communities to long-term climatic trends as well as to increasing variability in weather patterns (FAO 2010). Emerged as a concept of the Food and Agriculture Organization of the United Nations (FAO), CSA addresses interlinked challenges in a holistic and effective manner. CSA is an approach for transforming and reorienting agricultural production systems and food value chains so that they support sustainable development and can ensure food security under climate change. The approach is defined as sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and/or removing greenhouse gas emissions, where possible. It is not a single specific agricultural technology or practice that can be universally applied; it is a combination of policy, technology, and finance options that involves the direct incorporation of climate change adaptation and mitigation into agricultural development planning and implementation (FAO, 2010).

Several strategies, policies, partnerships and investments have been initiated to put the CSA concept into practice, at the global, regional and national levels. The scaling up of context-specific climate-smart agriculture practices will require effective institutional and governance mechanisms to facilitate the dissemination of information and ensure broad participation. As an approach, CSA seeks to reduce trade-offs and promote synergies when agricultural producers, policy makers and researchers make decisions at the local, subnational, national and global levels about short- and long-term strategies to address climate change. To put the CSA concept into practice, at the global, regional and national levels, the approach involves different elements embedded in local contexts both on-farm and beyond the farm, and incorporates technologies, policies, institutions and investment.

BUILDING A NETWORK OF ALLIANCES

Agriculture is an important sector with high potentials for employment generation, food security and poverty reduction. As a buy-in to the FAO initiative, a coalition of supporters came together to launch the Global Alliance for Climate-Smart Agriculture (GACSA) in New York during the Climate Summit on September 24, 2014. As the sole global multi-stakeholder apolitical platform for CSA, with more than 400 member entities, GACSA uses an integrated knowledge-intensive approach to catalyze collaborative action to accelerate the scaling up of CSA through its members' initiatives, engagements, and programs.

GACSA is an inclusive, voluntary and action-oriented multi-stakeholder platform on Climate-Smart Agriculture. Its vision is to improve food security, nutrition, and resilience in the face of climate change by tapping into the wealth and diversity of resources, knowledge, information, and expertise that come from the broad spectrum of its members at all levels. Members work collaboratively through three Action Groups of experts (knowledge, investment, enabling environment) and a network of CSA platforms, focusing on bringing concrete solutions to fruition, accelerating coordinated efforts within and across regions on scaling up CSA initiatives, and facilitating match making and project development towards tangible effects on the ground. The Action Groups consist of members of the Alliance and other interested stakeholders. The Action Groups support the identification of the objectives, key priority areas of work and early action of the alliance including engaging in regional and thematic programmes.

Acknowledging that food security is the point of departure for climate-smart agriculture, the Alliance takes note of international agreed principles, conventions, and work done within the UN and international development and financial institutions. The Alliance takes into account international processes, related to agriculture, food security and nutrition and climate change, such as the Sustainable Development Goals, the United Nations Framework Convention on Climate Change (UNFCCC), the UN Committee on World Food Security and Multilateral Environmental Agreements, and will make full use of synergies between them. The Alliance is aware that countries and regions have their own local context-specific strategies, plans and programs driving action on advances and implementation to scale-up CSA and related issues, including through their respective NDCs.

Convergence and fostering synergies among partners

It is increasingly clear that the goals to achieving food security and sustainable agriculture and addressing the challenges of climate change are intertwined. Responding to the call for alignment in a coordinated manner helps address how food and agriculture can help achieve the multiple Sustainable Development Goals is greater. To tap the agriculture sector's full potential, that accelerates achievement of food and nutritional security there needs to be collaborate drive to promote transformation and engage in adaptive and innovative processes. By coming together under one umbrella as one Alliance further promotes the adoption of innovations and impacting knowledge and skills to farmers. The alignment of the CSA Alliances creates an avenue for members to increase their awareness and raise issues of concern.

With an expanding base, GACSA is a network of alliances. The GACSA platform serves as a collective voice that galvanizes support and action and amplifies voices from countries and the regions. In addition, GACSA provides the platform to further showcase and promote activities that would have commenced from the regions and culminate into the global level. GACSA leverages this network to deliver unbiased, high quality policy dialogue and analyses.

The niche for GACSA lies in its distinct role as an all-inclusive platform that brings stakeholders from government, policy analysts, farmers and private sector to work together. This is a unique gathering both globally and in the regions. Pursuant to the launch of GACSA, a number of independent and voluntary multi-stakeholder alliances and networks have been established at national and regional level. With its vision being ***‘working together to ensure that the world’s agriculture can sustainably feed and nourish humanity and secure livelihoods in the face of a changing climate’***, GACSA and its regional CSA alliances recognize the importance of empowering farmers. The emergence of these alliances and networks worldwide is a positive and strong signal that shows global community’s commitment to scale up CSA.

Scaling CSA requires knowledge, funding, an enabling policy environment, strong institutions, and accountability for impact. Putting all these elements in place requires the engagement and commitment of all key stakeholders. CSA Alliances are seen as a vehicle for bringing together all those constituencies to resolve differences and forge innovative solutions. As a collection of a diverse group of CSA stakeholders, GACSA plays a significant role in facilitating interactions to galvanize and reinforce working together with and among Regional CSA Alliances.

Knowledge generation and capacity strengthening

There are several opportunities to accelerate the scale-up of CSA practices, and fundamental to this is building a collaborative CSA community of practice. As an inter-sectoral and multi-stakeholder platform that supports a framework for collating emerging regional issues that cascade to a global platform.

Knowledge generation and sharing is one of the driving forces in bringing together GACSA members for agri-food systems transformation to meet the food and nutrition security needs of a growing global population in a sustainable manner. Multi-stakeholder processes are important in fostering collaboration, sharing and innovation at local, national, regional and global levels.

Key to towards building sustainable agri-food systems in a changing climate for GACSA is showcasing evidence from success stories, contributions from research and advisory services and farmer experiences. These contributions are key as they highlight strategies for assessing and strengthening capacities to engage in a consultative manner.

As an action-oriented platform, the strength of GACSA lies in its global inter-sectoral network of Members and partners that are central to a continuous transformation process. These active engagements build a proactive CSA community and are conceivable at the regional level, bringing some coherence into the global CSA platform. The GACSA Annual Forum collates issues emerging from the Regional CSA dialogue platforms to strengthen the alliance and for a common position on CSA. In addition, this multi-stakeholder regional to global interactions allows GACSA to crowdsource and ground-truth CSA development and progress. By galvanizing the support and action, this global inter-sectoral network amplifies the voices from countries and regions to a collective global voice for agenda alignment to support countries implement their SDGs and COP21 Agreement commitments.

REGIONAL CSA ALLIANCES

GACSA's network of Alliances configuration is a unique model, which is a major selling point towards membership and resource mobilization. It is vital that as an Alliance, the open communication, co-ownership, and inclusiveness of GACSA should lead to the gradual build-up of a strong reputational platform within the agriculture and food security sector. The value proposition for each of the CSA alliances is that the approach cuts across borders and promoting south-south and north-south on the ground knowledge and collaboration that is centralized, monitored, and widely communicated.

Africa CSA Alliance (ACSAA)

The Africa CSA Alliance (ACSAA) is a pan-African platform that was established as an outcome from the 31st African Union Summit in Malabo, June 2014. It was at the Summit where Heads of State and Government endorsed the AUDA-NEPAD programme on agriculture and climate change, intensified support to smallholder farmers and the setup of an African CSA Coordination Platform as means in pursuit of what was endorsed as the African Union Vision to have at least 25 million farm households more practicing CSA by 2025.

- Established in: May 2015 in Addis Ababa, Ethiopia
- Member Countries: pan-African
- Hosting institution: the African Union Development Agency (AUDA-NEPAD)

ACSA is a country-driven and regionally integrated initiative to provide the tools for action and platform for partnerships to deliver results. It is centred on AUDA-NEPAD, fully aligned with and an integral part of the CAADP process (Comprehensive Africa Agriculture Development Programme). The initiative is focusing on catalytic and enabling programme interventions to strengthen grassroots capacity to plan, innovate and implement to scale up sustained practicing of CSA. It also emphasises accountability and learning along a results-based system: Monitoring and collating data/information on performance, results and impact will therefore be important, as a capacity issue in the Programme's strategy and activities. The Africa CSA Alliance is a multi-stakeholder platform for facilitating peer exchange and learning, building a common understanding of contributions to CSA, and aligning and harmonizing various climate change and agriculture programmes being undertaken across Africa and at multiple scales.

The ACSAA platform as part of the AUDA-NEPAD Programme on CSA focuses on climate resilient and prosperous farming community improving national food and nutrition security and driving socio-economic transformation. The drive for this programming is to accelerate adoption of CSA across Africa in line with Agenda 2063 and Vision 25 x 25 targets, with two workstreams namely, Country Action and Regional and Continental (pan-African) Action.

Country Action

ACSAA provides support to Member States to achieve national climate change priorities and targets under the Paris Climate Change Agreement. The support includes (1) executing practical action and investments to showcase and promote adoption of CSA technologies/practices; (2) supporting realignment of policies, institutions and planning processes; and (3) strengthening national capacity to access to international climate finance.

Regional and Continental (pan-African) Action



Activities under this cluster entail building a common Africa position and solidarity on climate change. Activities include: (1) coordinating and catalyze open dialogue and collaboration, sharing of lessons, good practices; (2) facilitating alignment, coherence and harmonization on regional and continental positions on climate change (e.g. in the UNFCCC climate negotiations); and tracking progress in achievement of continental targets on CSA adoption.

The ACSAA's programming is further aligned with the African Union AGENDA 2063 Aspiration of "a prosperous Africa based on inclusive growth and sustainable development".

Association of Southeast Asian Nations (ASEAN-CRN) and Asia

The ASEAN Climate Resilience Network (ASEAN-CRN) is a platform for regional exchange, particularly for sharing information, experiences, and expertise on climate smart agriculture (CSA), which is supported by the ASEAN German-Programme on Response to Climate Change in Agriculture and Forestry (GAP-CC) through the Forestry and Climate Change (FOR-CC) module.

- Established in: 2014
- Member Countries: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam
- Hosting institution: the Association of Southeast Asian Nations – Climate Resilience Network (ASEAN-CRN)

The ASEAN-CRN was established to promote the adaptive capacity of ASEAN Member States (AMS) to climate change and enhance the resilience of major crops for food security. Likewise, the ASEAN CRN supports the process of scaling up of CSA practices amongst AMS through regional cooperation. Some of the initiatives being implemented include:

Regional-wide

ASIA

Inclusive and sustainable production landscapes

The Sustainable Rice Landscapes Initiative (SRLI) was launched in March 2019. The Initiative is a partnership between FAO, UN Environment, the World Business Council for Sustainable Development (WBCSD), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the International Rice Research Institute (IRRI) and the Sustainable Rice Platform (SRP) to support countries to meet growing demand for key crops such as rice in a more sustainable manner.

Primarily the Initiative aims to promote sustainable and inclusive rice production landscapes that link farmers to markets and employ best practices and new technologies to generate a range of global environmental benefits including increased agrobiodiversity, ecosystem resilience, enhanced water and fertilizer use efficiency, reduced chemical usage and lower greenhouse gas emissions. For farmers, the Initiative is working to improve quality and diversify cropping systems through access to extension services, technology deployment and strengthening local networks of value chain actors to reduce inputs costs and connect to market.

In close collaboration with member country governments and with the support of the Global Environment Facility, SRLI projects or projects with a SRLI related component are now under development in seven countries across the region potentially mobilizing around US\$60 million of GEF resources and as much as US\$750 million of public and private sector co-financing.

Facts and Figures

- Agriculture employs as much as 60% of the population in Lao PDR and accounts for around 16% of GDP.
- Nation-wide floods in 2018 cost the agriculture sector USD 27.3 million in economic loss and USD 43.7 million in recovery costs.

REGIONAL – ASEAN - CRN

Supporting regional coordination to further climate change priorities for agriculture in Southeast Asia

South East Asia is heavily dependent on the agriculture sector and maintaining sustained growth in this sector is important for socio economic development and for achieving food and nutrition security. The region is also one of the most vulnerable to the impacts of the changing climate. The vast majority of the member states of the Association of Southeast Asian Nations have made agriculture a key priority for climate action evidenced by a range of sector specific actions in their respective Nationally Determined Contributions (NDCs). While the ASEAN Member States (AMS) are in different stages of socio-economic development, many of the NDC priorities for the region share a common technical focus or theme including more resilient crop varieties, improved water management and the establishment of early warning systems.

Facts and Figures

- Two (Vietnam and Thailand) out of the 11 AMS are among the 10 countries most affected by climate change globally in 2017 by Germanwatch.
- Agriculture contributes to about 14% of the GDP and employs about 32% of the total population in the region.

To foster greater coordination and collaboration to address the shared threats and opportunities that climate change poses for the agriculture sector in the region, FAO and the GIZ, in close cooperation with the ASEAN secretariat, are supporting the ASEAN Climate Resilience Network. All 10 AMS are part of this multi-stakeholder platform, which is working to advance the role of climate resilient and climate smart agriculture (CSA) in supporting the achievement of national and regional goals for tackling climate change in agriculture.

Impacts

Since 2015, the ASEAN CRN has made significant contributions to coordinate and further regional and national work to prepare for and implement NDC priorities using CSA. The group has developed ASEAN Regional Guidelines for Promoting CSA Practices that were endorsed by the ASEAN Ministers of Agriculture and Forestry (AMAF). ASEAN CRN has also organized knowledge exchanges on a range of shared technical issues including climate risk assessment, agriculture insurance and NDC implementation. In 2016, ASEAN CRN spearheaded the formation of the ASEAN Negotiation Group on Agriculture (ANGA) to better support regional engagement with broader UNFCCC processes related to agriculture. With support from FAO and GIZ, the CRN has since worked to ensure that ASEAN common priorities for agriculture are being voiced in ongoing negotiations regarding the Koronivia Joint Work on Agriculture (KJWA).

LAO PDR

Digital transformation is increasing agricultural sector climate resilience in Lao PDR

FAO is working with Government of Lao PDR with support from the Global Environment Facility to bring about a digital transformation that will improve the capacity of farmers to tackle climate change. Under the project Strengthening Agro-climatic Monitoring and Information System (SAMIS) FAO is developing harmonized IT and data analysis tools to enhance decision making for climate resilience.

At the farm level, the SAMIS project is enabling farmers to make informed judgements about the most appropriate technologies and approaches to adopt in the face of climate variability by building infrastructure for agro-climatic monitoring and a web tool called LaCSA (Laos Climate Services for Agriculture) that provides weekly, monthly and seasonal recommendations by crop. At the policy level, new decision makers are being provided with IT

Facts and figures

- Rice is produced on 160 million hectares, mostly by 144 million smallholders in Asia.
- Uses 34-43% of the world's irrigation water for production.
- Responsible for up to 10% of global methane emissions (and up to 20% of national emissions for some countries).

hardware, software and capacity development to assess how climate change may shift suitability of key crops and the socio-economical acceptability of different future potential farming and cropping systems.

Impacts

At field level, by June 2019, 180 farmers have been trained in LaCSA and 4,590 farmers / indigenous people (of which 2,229 females) in using or being aware of the pilot agro-meteorology system. Bulletins are shared through a government Facebook webpage, and were accessed by 100,000 active users in Vientiane Capital in the month of July 2019 alone. Advanced IT trainings has been provided to more than 200 national experts of which approximately 25% were women. The tools and capacity being developed by the SAMIS project will support practical action and innovative planning approaches to reduce the impact of climate change on the agricultural sector.

MYANMAR

Sustainable cropland and forest management in priority agro-ecosystems of Myanmar

Rural Myanmar faces serious land degradation, forest degradation, and climate change threats. These threats emanate from existing forestry and agricultural practices. The origin of these threats is a persistent management capacity gap that extends vertically from national management authorities to local resource users. Despite these challenges, there are very few tangible examples of better business practices designed to innovate climate smart agriculture and/or community-based forest management and farmers have few opportunities to gain exposure to best international principles and practices.

With support from the Global Environment Facility, FAO is jointly coordinating and implementing a project with the Ministry of Environmental Conservation and Forestry (MOECF) and the Ministry of Agriculture and Irrigation (MoAI) to build the capacity of farming and forestry stakeholders to mitigate climate change and improve land condition. The project is working to facilitate the wider adoption of climate smart agriculture and sustainable forest management policies and practices across the country.

Facts and Figures

- Although only 24% of GDP comes from agriculture, this sector employs a vast majority of the nation's labor force. Farms are rarely mechanized. Farms of less than 4 hectares make up roughly 60% of all farmed lands.
- The Climate Change and Environmental Risk Atlas 2014 lists Myanmar as 16th in their global assessment of countries most at risk from climate change

Impacts

To date the project providing support to apply CSA techniques/practices through farmer field schools in 96 pilot sites involving over 2550 households and covering 2200 ha of land agricultural land. In addition, 86 Government Extension Officers have been trained on CSA techniques to support the further dissemination of CSA techniques/practices. Scaling up the success stories from the project's field activities is being further supported with the establishment of a dedicated CSA knowledge.

East Africa CSA Alliance (EACSAA)

The sub-regional Eastern Africa CSA Platform (EACSAP) was established in recognition of the need for the existence of a functional and effective national and sub-regional CSA coordination platforms and sharing of information and lessons among stakeholders. The Eastern Africa Sub-regional CSA Platform was established with the purpose of coordinating the activities of organizations working to support the introduction and promotion of CSA in the Eastern Africa Sub-region.

- Established in: 2014
- Member Countries: Burundi, Djibouti, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Tanzania and Uganda
- Hosting institution:

The Platform envisions appropriate CSA practices will be adopted by farmers throughout Eastern Africa leading to increased productivity, food security, farm profitability and sustainable farming systems.

The Eastern Africa Sub-regional CSA Platform provides a platform for the coordination of stakeholders working at a sub-regional level to address the various constraints and exploit opportunities in the adoption and up scaling of CSA; provide strategic leadership in the sub-region; develop sub-regional projects and programs to address issues that are sub-regional in nature; and support the development of country specific CSA projects and programs with the ultimate aim to support and promote the adoption by farmers across Eastern Africa, of CSA practices and techniques that are appropriate to their agro-ecological situation and farming practices.

The roles of the Eastern Africa Sub-Regional CSA Platform are as follows:

- Coordinate the work of stakeholders with a sub-regional perspective on CSA development;
- Develop and manage sub-regional projects and programs to address issues that are sub-regional in nature;
- Support the development of country specific CSA programs, projects and activities;
- To develop and support implementation of a robust monitoring, evaluation and learning framework/mechanism to track the performance of CSA and provide learning lessons;
- Identify and facilitate implementation of priority sub-regional CSA research;
- Support capacity building and training in CSA at a sub-regional level;
- Establish and maintain a knowledge and information hub on CSA;
- Generate evidence to support policy analysis and advocacy on CSA adoption and up scaling;
- Develop and implement guidelines for Eastern Africa Sub-Regional CSA Platform members, and others seeking funding through the Eastern Africa Sub-Regional CSA Platform for CSA activities; and
- Make linkages with the CSA supply chain at a sub-regional level.

North America CSA Alliance (NACSAA)

An increasingly variable climate poses unprecedented risks to the sustainability of North America agriculture. To mitigate these risks, a diverse group of agricultural leaders and organizations across the continent have joined together to form the North America Climate Smart Agriculture Alliance (NACSAA). NACSAA is a platform for inspiring, educating, and equipping agricultural partners to innovate effective local adaptations that sustain productivity, enhance climate resilience, and contribute to the local and global goals for sustainable development.

- Established in: 2015
- Member Countries: Canada, Mexico and the United States
- Hosting institution: Solutions from the Land (SfL)

The Alliance is producer-led and focused on utilizing climate-smart agriculture strategies to enhance the adaptive capacity of North America agriculture. Adaptive management involves responses taken by producers and the value chain to reduce risks and capture opportunities created by changing conditions. These actions range from minor adjustments in existing production systems to major changes in production and marketing practices.

NACSAA has three complementing strategies: (1) sustainably increasing agricultural productivity and livelihoods (i.e. sustainable intensification); (2) enhancing adaptive capacity and improving resilience; and (3) delivering ecosystem services, sequestering carbon, and reducing and/or avoiding greenhouse gas emissions.

OBJECTIVES

Alliance partners have set forth four objectives to guide the Alliance:

- **Inspire** agricultural and forest sector leaders to become leaders in the broader discussion of climate change, including adaptation and mitigation;
- **Educate** agricultural and forestry leaders on the potential impacts of climate change in ways relevant to their daily lives;

- **Equip** leaders and producers with the tools and knowledge they need to make informed decisions and manage new risks under changing conditions; and
- **Mobilize** thought leaders to advocate for needed changes in land use practices, research, education and policy.

PRIORITY ACTIONS IN SUPPORT OF OBJECTIVES

NACSAA works with and through its members to build and strengthen adaptive capacity at the local level and create national and global networks of mutual benefit. Activities will include:

- Recruit and equip CSA Champions and service providers;
- Support the development of cropping/production systems as well as commodity specific action platforms and networks for achieving CSA outcomes;
- Create and facilitate a framework and discovery process that champions can use to help their members assess conditions and risks, as well as identify barriers and design solution sets that address their own unique (regional, commodity, organizational) needs and challenges;
- Develop a system to curate and share innovative CSA strategies and results;
- Design and support a platform for education, training and knowledge sharing within and across sectors;
- Identify, aggregate and help members advocate for needed enabling policies, infrastructure upgrades, research programs, risk management and decision support tools;
- Build and maintain a toolbox that members can use to achieve CSA goals they set;
- Provide a bridge to USDA Climate Hubs and other centers of knowledge/learning; and
- Recognize and celebrate CSA leadership by farmers and retailers/service providers.

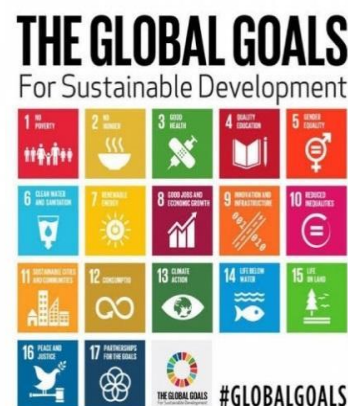
HOW WE DEFINE SUCCESS

Indicators that knowledge sharing is occurring, that farmers are motivated and enabled to adaptively manage their production systems, and partners are effectively advocating for solutions are:

- NACSAA member organizations and their members are assessing risks; and identifying and prioritizing needed practices and services; and reporting results congruent with CSA;
- An inspired, locally based constituency advances CSA national outcomes to meet local needs, champions CSA solutions, embraces multi-stakeholder collaboration and peer-to-peer learning about climate science, and utilizes CSA technologies and practices;
- Policies and programs that assist producers in implementing locally appropriate climate-smart agriculture systems and practices are proposed, informed by science and vetted by local collaborations, as well as supported by national leaders;
- Farmers and their partners identify and implement CSA practices in ways that allow landscapes to produce the full range of climate-smart ecosystem services;
- Producer and service provider innovations are unleashed at the local, national, and global levels, they are then collected, curated, widely distributed and made easily accessible to producers and their partners: and
- Productivity is increasing and year-to-year variability is decreasing, production systems are becoming more resilient, and farmers are delivering near-term, high-value, climate solutions.

Examples of some of NACSAA's deliverables include:

- A submission made to the House Select Committee on the Climate Crisis- "[Enabling Policies Recommendations from NACSAA Handed Over to Congress](#)" (posted March 5, 2020). The Alliance's submission was constructed from input gathered from NACSAA's members including agriculture, food production, equipment manufacturing, life science and conservation organizations. In developing these suggestions for the Select Committee, NACSAA offers a collective body of work which – though not every partner may endorse every item on the list – presents a composite consensus of important climate change enabling policies evolving from North American agricultural stakeholders. Together, they reinforce comments and recommendations offered by individual NACSAA members and stakeholder partners in support of climate innovation and sustainable production in the United States.



- [Guiding Principles for the Koronivia Joint Work on Agriculture](#)
- Monthly eNewsletter- knowledge sharing
- Periodic blog posts- thought/opinion leader essays

Pacific CSA Alliance

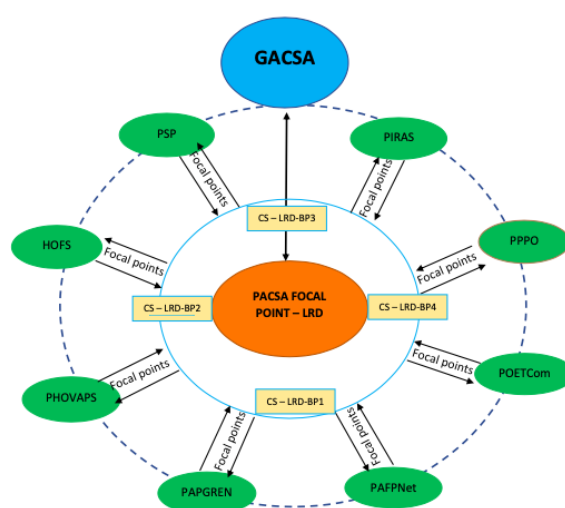
The Pacific Community (SPC) hosts the Pacific CSA Regional Alliance (PCSAA). SPC is the biggest regional organisation in the Pacific and it is the principal scientific and technical organisation in the Pacific region. SPC is renowned for knowledge and innovation in areas such as fisheries science, public health surveillance, geoscience and conservation of plant genetic resources for food security.

Pacific Island Countries and Territories (PICTs)

are among the most vulnerable communities to the impacts of climate change and are facing major challenges to achieve sustainable livelihoods and food and nutrition security for the people. Climate induced disasters such as cyclones, sea level rise and drought are causing damage/loss to crops and livestock, contamination of ground water sources, genetic erosion and loss of arable lands.

The food production challenge is influenced by many factors including, declining soil fertility, limited water availability, arable lands, narrow genetic base (crops and animals), and increasing incidence of crop and livestock pests and diseases fading traditional knowledge. A range of other socio-economic factors come into play reducing the population's capacity for resilience including, population pressures on natural resources, fragility of environment, limited income opportunities; youth unemployment; poor institutional and human capacities; and outdated policies and regulatory frameworks. These factors, in turn, contribute to the increased heavy reliance on imported food, which are often in low diversity and thus have an impact on food security and the Non- Communicable Diseases (NCD) pandemic in the Pacific.

- Established in: 2019
- Member Countries: the Cook Islands, Fiji, Kiribati, the Northern Marianna Islands, New Caledonia, Palau, Papua New Guinea, the Pitcairn Islands, French Polynesia, Tokelau, Tonga, Tuvalu, Niue, the Marshall Islands, the Federated States of Micronesia, Wallis and Futuna, Nauru, the Solomon Islands, American Samoa, Vanuatu and Samoa.
- Hosting institution: Pacific Community (SPC)



Establishing a Pacific Partnership on Climate Smart Agriculture is necessary to support build resilient farming systems to meet the sustainable livelihoods and food and nutrition security for the Pacific communities. Given the activities of the existing networks, cutting across climate smart agriculture practices, PACSA establishes strong linkages amongst the existing networks through the focal points to streamline communication, information sharing and joint activities on CSA by leveraging on core competencies and on GACSA's experience.

While there are various ongoing initiatives related to progressing CSA in the Pacific, SPC recognised that there a wide range of gaps and priorities that could be further developed into short and medium-term programmes to support collaboration between SPC, GACSA/FAO and other development partners. Key priorities that should be further developed include:

1. Advancing CSA in the Pacific – progress vulnerability assessment of the pacific farming systems to support scientific and evidence-based tools to accelerating national NDC related CSA in the Pacific.
2. Strengthen knowledge management capacities of existing networks within LRD to facilitate efficient information sharing and networking on CSA in the Pacific and with GACSA alliances.
3. Building resilient atoll farming systems – promotion of research and development of targeted technologies to build resilient atoll communities focusing on circular economy through integrated crop (soil health, resilient/nutritional varieties, pests and disease management) and livestock production systems (local feed research, waste management and resilient breeds)
4. Developing a monitoring and documentation system for the conservation and development strategies/activities on promoting the availability, access and use of diverse quality seeds to support resilient farming systems and sustainable livelihoods and food and nutrition security in the Pacific.
5. Maintaining healthy ecosystems – promotion of sustainable land and forest management practices that balance economic development with environmental protection

Regional Alliance in Europe

Climate-KIC was established to address the disconnect between research universities and private industry and is hosted by the European Institute of Innovation and Technology (EIT). Climate-KIC is the European Union's largest public-private partnership addressing climate change through innovation. Its work is focused on four sectors: Urban Transitions; Sustainable Production Systems; Decision-Making and Metrics; and Sustainable Land Use. Climate-KIC's work on CSA falls under its Sustainable Land Use theme, where it has established a CSA Booster (CSAb), which is designed to bring together researchers, practitioners and experts to foster and accelerate agricultural techniques and approaches that reduce greenhouse gas emissions and support adaptation, while at the same time enhancing yields.

- Established in: 2010
- Member Countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK
- Hosting institution: European Institute of Innovation and Technology (EIT)

The stated aim of the CSA Booster (CSAb) is to be “the leading European CSA innovation hub, community and collaboration platform - catalyzing the application, adoption and scaling of the most innovative and disruptive CSA solutions, and accelerating the transition to a climate-smart and low-carbon economy across Europe and beyond.” Climate-KIC CSAb evolved from an organization of just six research partners to a broader European network of 40+ project and non-project partners, including multi-national companies, start-ups, farmer organizations, industry alliances, foundations, universities and international organizations.

Climate-KIC's CSA Booster has been active on numerous fronts, serving as a multi-stakeholder European CSA ecosystem and innovation platform, while also raising awareness of key issues related to CSA. One asset that CSA brings to the larger CSA movement is their work with technology start-ups. Within Europe, Climate-KIC has developed a set of national and regional hubs; these include: France; Netherlands; Italy; and the Nordic countries.

Southern Africa CSA Alliance (SACSAA)

The sub-regional African "Southern Africa Climate Smart Agriculture Alliance (SACSAA)" exists within the ambit of Africa Climate Smart Agriculture Alliance as a platform that enables to leverage policy, technical and financing support for grassroots national and regional level programmes and initiatives that can drive the widespread adoption of CSA practices throughout Sub-Saharan Africa.

In line with the Africa Climate Smart Agriculture Vision 25X25 which aims to support at least 25 million farm households in practicing CSA by 2025, in 2018, SACSAA was launched in Maputo, Mozambique. SACSAA seeks to provide a multi-stakeholder platform for facilitating peer exchange and learning, building a common understanding of contributions to CSA, and aligning and harmonizing various climate change and agriculture programmes being undertaken across the Southern Africa region and at multiple scales.

- **Established in:** 2018
- **Member Countries:** Southern Africa Development Community (SADC) Member states (Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe)
- **Hosting institution:** the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)

More specifically SACSAA seeks to

- Foster CSA partnerships, alliances and networks across the continent
- Share the latest information, research findings and new insights and innovations on CSA and modalities for its implementation
- Facilitate more rapid implementation of CSA programmes by enabling access to information on financing opportunities
- Support a more coherent approach to formulating national climate change and agriculture policy frameworks such as NAIPs, NDCs, NAPs etc.

To accelerate the scaling-up of CSA, SACSAA is guided by the following key principles:

1. *Diverse and inclusive networking and platforms*
 - Provide a neutral space for dialogue, consultations and knowledge sharing
 - Broker and catalyze partnerships for the development, scaling up and dissemination of innovative, evidence-based options for climate-smart agriculture
 - Facilitate sharing information and experience, technologies, knowledge and practices on diverse climate-smart agriculture approaches, at all levels, taking a holistic, integrated, cross-sectoral and system-based approach; that achieve measurable benefits
2. *Advocacy and communication*
 - Contributing to informed public dialogue and public opinions on agriculture-climate change nexus issues
 - Provide an inclusive and diverse multi-stakeholder platform that provides a voice for farmers, bearing in mind women, smallholder and family farmers, youth and indigenous peoples, and recognizing that smallholders, including farmers, livestock keepers, fishers and foresters are the most vulnerable to climate change
3. *Leveraging multi-institutional action on problem-solving knowledge generation*

- Brokering/commissioning multi-institutional studies, analysis and research
- Documenting best-practice experiences and lessons

West Africa CSA Alliance (WACSAA)

The West Africa CSA Alliance (WACSAA) was established in response to the development of the ECOWAS Intervention Framework for the Development of Climate-Smart Agriculture under the West Africa Regional Agricultural Policy (ECOWAP/CAADP) implementation Process, to mainstream CSA into the regional agricultural policy and the regional and national agricultural investment programs (RAIP and NAIPs).

- Established in: 2015
- Member Countries: Benin, Burkina Faso, Cape Verde, Chad, Côte d'Ivoire, The Gambia, Ghana, Guinea, Bissau-Guinea, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo
- Hosting institution: the Economic Community of West African States (ECOWAS)

The sub-regional African alliance supports the implementation of the ECOWAP/CAADP Intervention Framework for CSA, by providing a consultation, coordination, convergence, capitalization and monitoring mechanism for the initiatives of the members of the Alliance.

The regional approach to CSA has been clearly articulated through a multi-stakeholder process and documented in the ECOWAS Implementation Framework. In addition, the integration climate change, along with gender and nutrition, has since been reinforced at the strategic level in the Regional Agricultural Policy for West Africa (ECOWAP II).

ECOWAS aims to raise \$80 million to support small farmers in the sub-region over the period 2020 to 2027. The challenge: to enable them to move towards more intelligent agricultural practices that are resilient to climate change.

African agriculture must adapt to climate change in order to be more resilient. To this end, the Economic Community of West African States (ECOWAS) has decided to set up the West African Climate Smart Agriculture Initiative (WAISCSA). This financial instrument should make it possible to mobilise 47 billion CFAF, or about 80 million dollars, to support small farmers.

The money will be deployed in two ways: a financial component, on the one hand, and technical support on the other. The financing, which represents 80% of the amount, will be provided by the ECOWAS Investment and Development Bank (EBID), while the technical aspect will be managed by an ECOWAS agency. During COP25, which closes on December 13, 2019 in Spain, ECOWAS held two side events to present this financing mechanism, on one side, and its West African initiative for smart agriculture in the face of climate change, on the other hand.

For Soumaré Ndiaye, ECOWAS Climate Advisor, “this is a West African initiative for climate-smart agriculture that aims to promote the adoption of climate-smart farming practices (AIC)”. ECOWAS will also set up a pool of experts to help small farmers better identify and secure funds to finance their projects.

The challenges of smart agriculture in West Africa

In recent years, rainfall has declined considerably in West African countries due to climate change. In countries such as Liberia, Niger, and Sierra Leone, the temperature increased by 3.5°C compared to 2°C in the other countries of the sub-region. And this situation has an impact on agriculture. On the contrary. Among other things, it leads to genetic erosion, as some plants become unable to survive, threats to plants and animals, affects the physiology of crops... The productivity of some crops such as sorghum and groundnuts is seriously threatened by climate change.

These challenges underpinned the participation of African States in the Cop 25. They want more transition funds dedicated to climate-smart agriculture, which they identify as the solution to food insecurity.

SUSTAINING ALLIANCES DRIVE

GACSA recognizes that partnerships are central to success. As the sole global multi-stakeholder platform for CSA that is apolitical, the Alliance catalyzes and rallies action to accelerate the scaling up of CSA through members' initiatives, engagements, and programs. Strengthening Regional CSA Alliances' processes and facilitating regional collaboration is paramount to GACSA's focus on scaling up CSA. GACSA is a vehicle that facilitates and supports initiatives put forward by members and regional CSA processes that demonstrate readiness for such support. A range of different types of initiatives is explored, including capacity-building, knowledge-sharing and documentation, and CSA advocacy.

Convening

The GACSA network-of-alliances is an exceptionally unique and powerful organizational arrangement, bringing people and institutions together to generate or scale up action at global, regional, and national levels. However, its continued existence relies on unity around a common goal. While members may be from different types of organizations or have alternative methods of effecting change, they are held together by a shared vision and theory of change.

Working through an inter-sectoral platform, the regional CSA alliances play a central role in providing secretarial and coordination support to its members. The inter-sectoral platform provides an all-inclusive platform enabling both state and non-state actors to engage on key policy issues. These multi-stakeholder dialogue platforms are neutral spaces facilitating learning and the exchange and application of knowledge amongst stakeholder groups and countries.

The comparative advantage stems from the legitimacy and convening power of these CSA platforms and as a "network of alliances." GACSA and the Regional CSA Alliances carve their niche from two distinct characteristics; their ability to generate objective and evidence-based policy advice from its multi-stakeholder platforms from local, national, regional to global levels; and their capability to remain sufficiently independent, to the extent of retaining the trust of all stakeholders as an independent broker. All key stakeholders from government, farmers, researchers, private sector and CSOs, are equal members of the Alliance.

As CSA alliances, the strength lies in the wide network of alliances that are groups of existing like-minded institutions with technical expertise and stakeholders collaborating to address agriculture and climate action policy bottlenecks. Regional CSA Alliances facilitate linkages and access by bringing together voices from farmers, development practitioners, researchers, NGOs, policymakers, and government, and advocacy groups, private sector, including the involvement of audiences and participants in open discussions to find solutions to pressing issues and new challenges.

Connecting

One of the objectives of CSA alliances is to promote and engage in knowledge exchange and dialogue among the key stakeholders in the respective Member States and generally to promote the objectives and principles of CSA. As such, a clear opportunity exists to strengthen and influence transformations in ways that bridge sectoral, organizational, and public-private boundaries through the network of the various regional alliances. CSA alliances can play an essential role in connecting the research and policy agendas, including breaking down silos, building synergies, bridging the knowledge-uptake gap, fostering integrated approaches, brokering partnerships to ensure that actions are taken.

CSA alliances provide an inclusive forum that overcomes silo-thinking and sectoral approaches in an integrative manner, informing local, national, regional, and international media about the critical role of smart climate action in food and nutrition security within the global climate and development agenda.

The network of Alliances provides a non-partisan, credible multi-stakeholder platform for sharing information and knowledge, giving space for evidence and stakeholder voices to interface and dialogue with government at national, regional, and global levels. In 2018, GACSA commissioned a study on the global and regional alliances, networks, and processes that have been established since 2014 to support the scale-up of climate-smart agriculture, their status, strengths and weaknesses, and opportunities for future collaboration. The report highlights the following opportunities for consideration:

i. **Co-convenor:** this opportunity consists of alliances collaborating, systematically and strategically, to co-convene with other CSA actors, events at the regional level, or on specific topics. Collaboration entails building close relationships with key inter-governmental bodies to strengthen their ownership of regional CSA processes and then supporting them in convening meetings to engage the key stakeholders from all constituencies in their geography. This opportunity consists of working with GACSA's three Action Groups (Knowledge, Enabling Environment, and Investment) to identify and support specific components of their work plans that have the most significant potential to make strategic contributions to overcoming barriers CSA scale-up.

ii. **Catalyze National CSA Alliances:** working with regional bodies and CSA alliances, GACSA contributes to catalyzing the establishment of multi-stakeholder CSA platforms at the regional and national levels. Specific regional CSA Alliances or GACSA members are resourced to support such processes in countries where there is Government buy-in for such engagement. Such initiatives also contribute to accelerating the development of a pipeline of bankable CSA proposals.

iii. **Convenor and Communications:** there is an essential role for GACSA and Regional CSA Alliances in supporting a robust CSA communications platform. Maintaining a robust presence and positioning the Alliance as a "CSA Observatory" and leading repository of CSA knowledge and related information. Integral to this role is the continued development of the GACSA Annual Forum as a premier global multi-stakeholder CSA Convening, that features CSA regional input.

Knowledge generation and communicating

Generating knowledge and sharing information across multiple policy areas, horizontally across regions and vertically from local to national levels, could help produce multiple win solutions. An exchange of information is a tool for better coherence, food security, and climate change goals.

As a principle objective, GACSA fosters co-learning, co-creation, and knowledge sharing to facilitate the development of bankable sound projects. In addressing sustainability, south-south cooperation where opportunities arise is encouraged, including capacity-building initiatives through workshops, field visits, and research. As a voluntary association of members, GACSA provides access to expertise, connecting members to an international community of experts. GACSA follows a unique model to provide the services and address knowledge gaps required by members and other entities to undertake their CSA up-scaling actions and interventions. It functions as a clearinghouse mechanism on knowledge and inspires the development and dissemination of innovative, evidence-based options for climate-smart agriculture. The Alliance brings stakeholders together to discuss and promote climate-smart agriculture and food systems in an integrated manner aligned with local, national, and regional priorities.

CONCLUSION

The world food situation is presently being redefined by new driving forces. Income growth, climate change, high energy prices, globalization, and urbanization are transforming food consumption, production, and markets. The world is currently in the midst of a major interlocking challenges, which threatens to destroy years, if not decades, of advancements made in agriculture and food systems progress. COVID-19 is shaking our systems to the core, and experts warn us that the pandemic might unleash a possible [food security crisis](#) not seen since the 2008-09 Great Recession.

Prior to the COVID-19 outbreak, food insecurity was already a severe problem. And similar to the lessons from the AIDS pandemic and its interaction with food and nutrition security, COVID-19 presents significant challenges and risks for [food systems](#). The COVID-19 pandemic has occurred at a time when the world is already burdened by the impacts of climate change, especially the agriculture sector. With a compromised global food system, responding to a COVID-19 related food crisis and protecting the most vulnerable from poor health and environmental degradation are top of the agenda (FAO 2020).

As noted in the latest [edition](#) of the State of Food Security and Nutrition in the World report (the “SOFI”), global food security programmes could face additional risks if humanitarian and development resources are diverted away from them to combat COVID-19. And as we build momentum towards the 2021 UN Food Systems Summit that is expected to raise the transformation of food systems, the question GACSA is asking, could the COVID-19 pandemic reverse the gains and wins that have been registered in climate-smart agriculture and climate action, or be the catalyst for transformation towards sustainability?

The global responses to COVID-19 demonstrate that collective action is possible. For this reason, to maintain and accelerate progress on how to transform food system, GACSA, a global platform promoting Climate-Smart Agriculture and a network of CSA Alliances provide a platform for dialogue to bridge the gap and stimulate an interface between and among stakeholders to develop local perspectives on climate-proofing farming and agricultural practices. We are all key players and must act to meet the immediate needs, long term solutions, and support recovery and build resilience.

As a global alliance promoting climate-smart solutions for food and nutrition security, the Global Alliance for CSA and the network of alliances and platforms are calling for multi-sectoral cooperation; leadership to drive positive change; alignment and inclusiveness; innovation beyond agricultural production; incentives to drive positive change; and platforms for action-based approaches.

Addressing food systems transformation is a collective action; and bringing voices together into the food systems debate and strengthening them so that we serve everyone better. An opportunity exists for continuous engagement and spearheading efforts that galvanize the right commitment of stakeholders towards food systems transformation.

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