The North American Climate Smart Agriculture Alliance

A Platform for Knowledge Sharing and Application of Climate Science to Agriculture

2015 Formation Plan

Invitation to Join
Presented by Solutions from the Land on behalf of the North American Climate Smart Agriculture Alliance

Solutions from the land

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Solutions from the Land (SfL), a not-for-profit corporation focused on land based solutions to global challenges, is seeking partners to prepare and equip the North American Climate Smart Agriculture Alliance (NACSAA) to conduct a three-year climate smart agriculture outreach and engagement program with agricultural organizations, opinion leaders and information multipliers. The mission of the NACSAA is to generate dialogue and greater understanding within the agriculture and forestry sectors of the impacts of climate change and the steps they can take to meet the challenges that it poses. These discussions also represent a unique opportunity to engage these sectors in the near-term and discover high-value climate change adaptation and mitigation services they can deliver.

North American Climate Smart Agriculture Alliance

A diverse collection of agricultural, conservation and scientific organizations have joined together as founding partners of the North American Climate Smart Agriculture Alliance. Through the Alliance, farm leaders, along with public and private sector and industry value chain partners, are collaborating in developing ways to improve the resilience of production systems, adapt and mitigate present and future risks from changing climatic conditions.

SUMMARY:

This concept note describes how Solutions from the Land will facilitate the formation, planning and execution of the North American Climate Smart Agriculture Alliance's three-year climate change engagement program with agricultural thought leaders across the North American continent. Through the Alliance farmers, ranchers and foresters will collaborate with industry value chain, academic, government and NGO partners in sharing and discussing new adaptation practices, tools and production systems designed to improve resiliency, adapt and mitigate the current and future risks of changing climatic conditions. This new Alliance, which will interface and collaborate with the Global Climate-Smart Agriculture Alliance, provides North American agricultural and forestry leaders with several platforms for shaping an integrated approach for simultaneously pursuing the three pillars of climate-smart agriculture: 1) sustainably increasing agricultural productivity and livelihoods (i.e. sustainable intensification); 2) adapting and building more resilience; and 3) delivering ecosystem services and reducing and/or removing greenhouse gas emissions.

This concept note describes the context for why this is the right time for conversations about climate change within the agricultural community; outlines the proposed strategy, work plan and budget for equipping the Alliance to conduct a three-year, in-depth outreach initiative to generate dialogue and foster greater understanding within the agriculture and forestry sectors of climate change's impacts and the steps they can take to adapt and mitigate its impacts; and provides background on work performed by SfL leaders leading up to the formation of the NACSAA.

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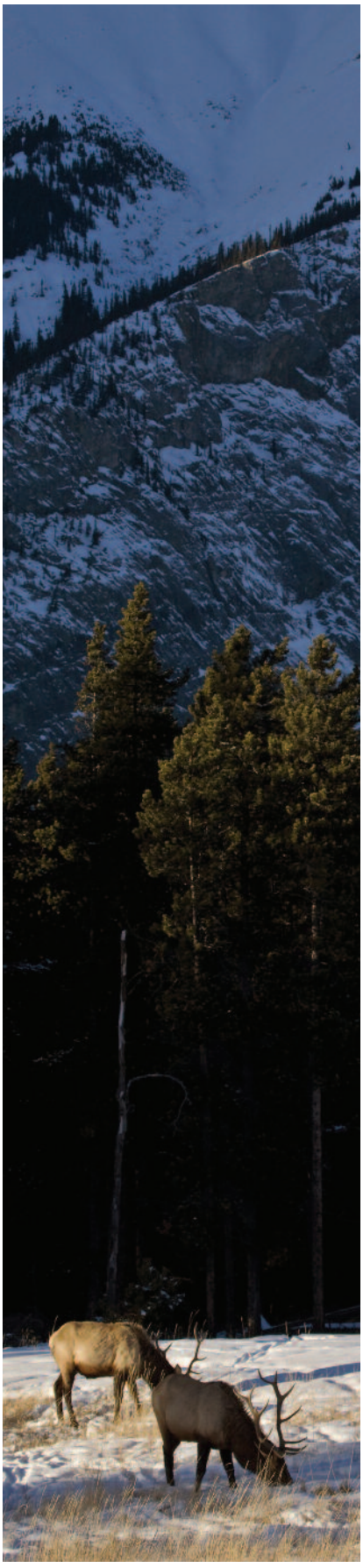


CONTEXT:

Climate impacts being felt

Over the past two decades, farmers have experienced increasingly erratic climatic conditions and weather events ranging from extreme and prolonged droughts to severe and intense rain events that have contributed to crop losses, flooding, soil erosion and water quality degradation through the leaching of phosphorus and nitrates into ground and surface water. Climate change is expected to exacerbate these conditions in the coming decades, and create new challenges in the form of increased pressure from insects, more invasive species and disruptions in pollination. Collectively these conditions will generate significant economic challenges for producers across North America and the globe.

Science affirms risks

The Intergovernmental Panel on Climate Change 2014 summary report for policy makers and the third U.S. National Climate Assessment http://nca2014.globalchange.gov/downloads clearly show that the risks posed by climate change are present and growing quickly, threatening crop and livestock production.

As outlined and documented in the 2014 National Climate Assessment report:

- Climate disruptions to agricultural production have increased in the past 40 years and are projected to increase over the next 25 years.
- Many agricultural regions will experience declines in crop and livestock production from increased stress due to weeds, diseases, insect pests, and other climate change induced stresses.
- Current loss and degradation of critical agricultural soil and water assets due to increasing extremes in precipitation will continue to challenge both rain fed and irrigated agriculture unless innovative conservation methods are implemented.
- The rising incidence of weather extremes will have increasingly negative impacts on crop and livestock productivity because critical thresholds are already being exceeded.
- Agriculture has been able to adapt to recent changes in climate; however, increased innovation will be needed to ensure the rate of adaptation of agriculture and the associated socioeconomic system can keep pace with climate change over the next 25 years.
- Climate change effects on agriculture will have consequences for food security, both in the U.S. and globally, through changes in crop yields, food prices and effects on food processing, storage, transportation and retailing. Adaptation measures can help delay and reduce some of these impacts.

Farmer and value chain partners demonstrating interest in adaptation planning

Changing and increasingly unpredictable climatic conditions and more frequent extreme weather events have not gone unnoticed by farmers, ranchers and foresters all across North America. While the causes of climate change are today still widely debated within the

agriculture sector, there is growing interest in participating in conversations about how to adapt to the changing climatic conditions and weather events producers are witnessing and experiencing. This is evidenced by the more than two dozen organizations, including notably the American Farm Bureau Federation, National Farmers Union, American Soybean Association, National Corn Growers Association, Western Growers Association, United Soybean Board, and the Ontario Farmers Federation, that have signed on as founding partners and participants in the North American Climate Smart Agriculture Alliance. Collaborating supporting partners include, among others, the American Farmland Trust, Conservation Technology Information Center, National Association of Conservation Districts, National Council for Agricultural Education, National FFA Foundation, National Institute of Animal Agriculture, Soil and Water Conservation Society, Soil Science Society of America and American Society of Agronomy and agribusiness funding partners.

Government and industry collaborating around climate challenges and solutions

The formation of USDA's Climate Hubs, the funding and deployment of multi-university climate change consortiums and new industry ventures such as The Climate Corporation are examples of recent and innovative collaborations that are occurring between public and private sector agricultural research, extension, technology, life science partners in addressing adaptation and climate challenges. Additional evidence supporting growing concerns about the negative impact that climate change will have on the agricultural economy can be found in increases in crop and property and casualty insurance premiums; changes in federal crop insurance coverage; and more recent discussions among traders and marketers about how climate change could disrupt the transportation infrastructure that producers depend on to obtain critical inputs such as seed and fertilizer and deliver commodities to domestic and foreign markets.

Laying the Foundation (2010-2014)

In 2011, the 25x'25 Alliance, a precursor to SfL, formed the **Adaptation Work Group**, an expert panel of highly respected agriculture, forestry, conservation, business and academic leaders. Under the leadership of Fred Yoder, Past President of the National Corn Growers Association, this diverse group published **a report** in February of 2012 examining the implications of climate change for agriculture and forestry.

In April of 2013, the Work Group released a second report, entitled **"Agriculture and Forestry in a Changing Climate: Adaptation Recommendations"**, that presented a prioritized set of recommendations designed to spur the planning and investments needed to help producers and land managers become more resilient to climate change.

In 2014 a subset of 25x'25 leaders and a group of collaborating partners formed a new nonprofit organization called **Solutions from the Land (SfL)**. SfL was founded to help spotlight and reinforce the multiple solutions, including ecosystem services, which sustainably managed farms, ranches and forests deliver. In discussions with 25x'25, agreement was reached to transition the alliance's adaptation work to SfL. The leaders felt SfL would be a better platform for continuing to support farmer leaders and their value chain partners who want to focus more attention on adaptation and ecosystem services.

On September 23, 2014 at the U.N. Climate Summit in New York, SfL leaders announced the formation of the North American Climate Smart Agriculture Alliance; a new three year initiative that will give farmers, ranchers and foresters the opportunity to collaborate with industry, academia, government and NGO partners in developing ways to improve production resiliency and mitigate current and future risks of changing climatic conditions. Founding members and participants in the Alliance can be found in annex one.

Mission, Objectives and Areas of Focus of the NACSAA

Mission. The North American Climate Smart Agriculture Alliance is a platform for knowledge sharing and application of climate science to agriculture. The Alliance enables farm leaders and their value chain partners to collaborate in developing ways to improve the resiliency of production systems, adapt and mitigate present and future risks from changing climatic conditions. The Alliance advocates solutions for agricultural landscapes, under variable weather and climate, to maintain sustainable productivity of food, feed, fiber and energy and ensure the integrity of our natural resource base.

Goals and Objectives. The overarching goal of the NACSAA is to improve resiliency, adapt and mitigate the current and future risks of changing climatic conditions. Towards this end the founding partners have endorsed the following objectives for the Alliance:

- Educate agricultural and forestry leaders on the potential impacts of climate change in ways relevant to their daily lives;
- Equip producers with the tools and knowledge they need to make informed decisions and manage new risks under changing conditions;
- Mobilize thought leaders to advocate for needed changes in land use practices, research, education and policy; and
- Inspire agricultural and forest sector leaders to become leaders in the broader discussion of climate change, including adaptation and mitigation.

Areas of Focus. The following have been identified as initial areas of focus for the Alliance:

I. *Leadership outreach and engagement*

- Board of Director Briefings
- Leadership Workshops
- Grower Study Groups

II. *Knowledge sharing forums*

- Presentations & Exhibitions at grower meetings
- Video Abstracts
- Webinars and other Web-based Resources
- Climate Smart Agriculture Blog and Social Media Outreach

III. *Intra-sector communication and collaboration*

- Participation in the Global Alliance for Climate Smart Agriculture
- Development of place-based adaption strategies (states and/or regions)
- Roundtables and Summits (U.S and North American)
- Collaboration with USDA Climate Hubs, SARE and NIFA Global Change and Climate program.

Organizing for Action (2015 Work Plan Highlights)

As the Alliance is still in an organizational phase of existence, its leaders have identified three initial priorities: 1) growing in size and increasing diversity by recruiting a wider cross section of U.S., Canadian and Mexican agricultural organizations into the Alliance; 2) assembling the tools and equipping the farmer leaders who will lead the producer education, planning and outreach phase of the Alliance's work; and 3) convening the participants and sharing knowledge to date and work plans via a national climate smart agriculture summit.

Component One: Building out the Alliance

(January-December 2015)

Given that the Alliance seeks to be an integrated platform and learning laboratory for all forms of agriculture- grain, oilseed, specialty crop and livestock producers; big and small; conventional and organic; local and transcontinental; efforts will first focus on identifying membership gaps and inviting additional organizations and farmer leaders to join the alliance. Membership is open to any organization or individual who embraces the mission of NACSAA and commits to collaborate with other members in advancing its goals and objectives. Groups and communities not yet involved, but targeted for inclusion include, among others, cotton, wheat and rice producers; animal agriculture groups; and organic agriculture operations. NACSAA will also reach out to agribusiness input and service providers; buyers and retailers; and value chain, academic and government partners inviting them to join. A special effort will also be made to integrate Canadian and Mexican agricultural organizations and leaders into the alliance to enhance its effective functioning as a North American continent focused entity.

In addition to broadening and diversifying membership, a Steering Committee will be seated to guide the Alliance; a three year work plan will be developed; a speaker's bureau will be organized; and a web site will be constructed to facilitate inter-partner communication, information exchange and function as a virtual learning center.

Component Two: Organizing and Equipping Farmer Led Engagement Teams

(April-September 2015)

A second area of focus during the organizational phase of the NACSAA will involve assembling the resources, tools and support materials that the Alliance's outreach teams, led by farmer leaders, will need for the implementation/engagement phase of work. A related priority will be to train and equip these leaders for their role as discussion facilitators. While experts in climate science and communication drawn from universities, industry, government agencies, USDA Climate Hubs and research collaboratives will comprise the Alliance's technical support teams, the farmer leaders who will lead Board of Director briefings, annual and special meeting learning sessions and grower study groups, will need to be supported and equipped as well. A key asset of NACSAA is that its leaders include highly respected and well networked farm organization leaders with proven organizational and communication skills.

In gearing up to begin producer outreach and engagement work, Alliance members will review and update the adaptive management recommendations that were developed in the previously described formulation stage of the project during the period 2012-2014.

SfL will also partner with Penn State Public Broadcasting to produce a series of visual communication tools. The centerpiece will be a "video abstract" capturing the key recommendations of the Adaptation Work Group. This 6-8 minute piece will include interviews with thought leaders as well as footage from real farms and forests being impacted by climate change and examples of where adaptation practices are already being successfully employed. To reflect the national scope of the issues of climate change and the potential in strategic adaptation, Penn State Public Broadcasting will collect geographically distributed footage from diverse agricultural and forestry environments.

The SfL Adaptation video will serve multiple purposes, including as a tool for Alliance members, the speakers bureau, integration into webinars, and direct streaming from the SfL web site. In addition to the complete video, the media team will begin building a library of other web-ready videos, including extended interviews and additional footage of the Adaptation showcase sites.

Funding budgeted for communication tools within this concept note will function as seed money for a larger documentary on agricultural adaptive management and mitigation strategies (60-90 minutes) for use by PBS affiliates throughout the country. This full-scale documentary will be supplemented with communications and outreach tools designed to encourage local dialogue on the issues of climate change and adaptation.

Component Three: North American Climate Smart Agriculture Summit

(4th Quarter 2015)

Planning work in support of the producer outreach and engagement phase of the project will culminate with a summit where farm, ranch and forest sector leaders along with industry value chain, academic, government and NGO partners will share and discuss new adaptation practices and production systems; research priorities; risk management strategies; and planning and decision support tools that can help producers improve resiliency, adapt and mitigate the current and future risks of changing climatic conditions. At this event, producers, researchers, technical service providers and government officials from across the North American continent will exchange information and learn about the impacts of climate change, steps that the agriculture and forestry sectors can take to adapt and the high quality, near term and lower cost climate change solution that only land managers can deliver.

The summit will also be the forum for finalizing plans for NACSAA's three-year outreach and engagement work

plan featuring **leadership outreach and engagement activities,** including Board of Director briefings, leadership workshops and grower study groups; **knowledge sharing forums** including presentations and exhibitions at grower meetings, video abstracts, webinars, web-based resources and climate smart agriculture social media work; **intra-sector communication and collaboration** including participating in the Global Climate Smart Agriculture Alliance, assistance in developing place-based adaption strategies (states and/or regions), and ways to collaborate with USDA's Climate Hubs, universities and other North American government climate change programs.

Organization

The North American Climate Smart Agriculture Alliance will be supported by Solutions from the Land, a not-for-profit corporation focused on land based solutions to global challenges. SfL will function as the fiduciary agent for the Alliance and will serve as the NACSAA Secretariat.

SfL was conceived and led by a team of respected agriculture, forestry, conservation, academic and industry leaders who came together in 2009 as an outgrowth of clean energy discussions facilitated by the 25x'25 Alliance to explore integrated land management solutions across these sectors that can help meet food security, economic development, climate change and conservation of biodiversity goals. A key area of focus for the SfL Dialogue was systems that create value and reward farmers for the full range of services they deliver from the land. The SfL was unique in that its participants undertook a comprehensive examination of how land, water and other natural resources can be managed in an *integrated* manner at the *scale* necessary to accomplish multiple societal objectives.

In 2013, in a further phase of work, the SfL Vision and **Pathway Report** was formally released and a work plan was formulated to support, inform, engage and inspire key agriculture, forestry and conservation leaders for joint action in support of SfL.

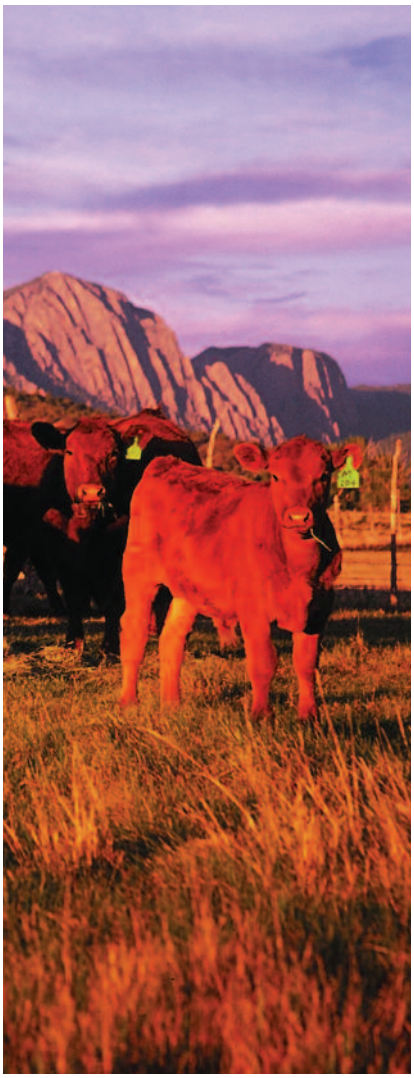
Based on the validation that was received of the SfL vision during the Dialogue phase of the initiative, SfL's leaders and founding partners agreed that a focused and sustained effort would be required to "bring the SfL vision to life". In support of this goal, Solutions from the Land, was incorporated on May 1, 2014 as a not-for-profit corporation focused on land based solutions to global challenges. Today SfL is led by a Board of Directors composed of thought leaders from the agriculture, forestry, conservation sectors and their related academic, industry and value chain partners.

For more on Solutions from the Land, click **HERE**.

WORK PLAN HIGHLIGHTS:

NACSAA Work Plan 2015

COMPONENT	DETAILS
1. Building out the NACSAA	
1a. Broaden and diversify membership	identify gaps; extend invitations; engage Canadian and Mexican partners
1b. Form and support Steering Committee	recruit and support Alliance leaders drawn from NACSAA members
1c. Develop three year implementation plan	construct strategies/action plans to reach target audiences and accomplish goals
1d. Construct and maintain web site and learning platform	design, construct, populate and maintain project web site
2. Organizing and equipping leaders	
2a. Acquire & develop tools, information and	survey to identify needs; inventory available resources needed resources and fill gaps
2b. Train and equip farmer discussion leaders	focus on communication training and recruit technical support partners
2c. Update adaptation recommendations	review previous adaptation recommendations for application to NACSAA; update as necessary
2d. Produce visual communication tool	produce 6-8 minute video abstract to support outreach and engagement work
3. North American CSA Summit	
3.a Form and support program committee audience; determine meeting format;	formulate summit objectives; identify target build program; and recruit speakers
3b. Manage logistics	secure meeting venue, manage registration, plan meal functions, secure av support
3c. Widely disseminate presentations and results	Web streaming; video clips; proceedings; social media outreach; success story placements



MONITORING PROGRESS AND MEASURING SUCCESS

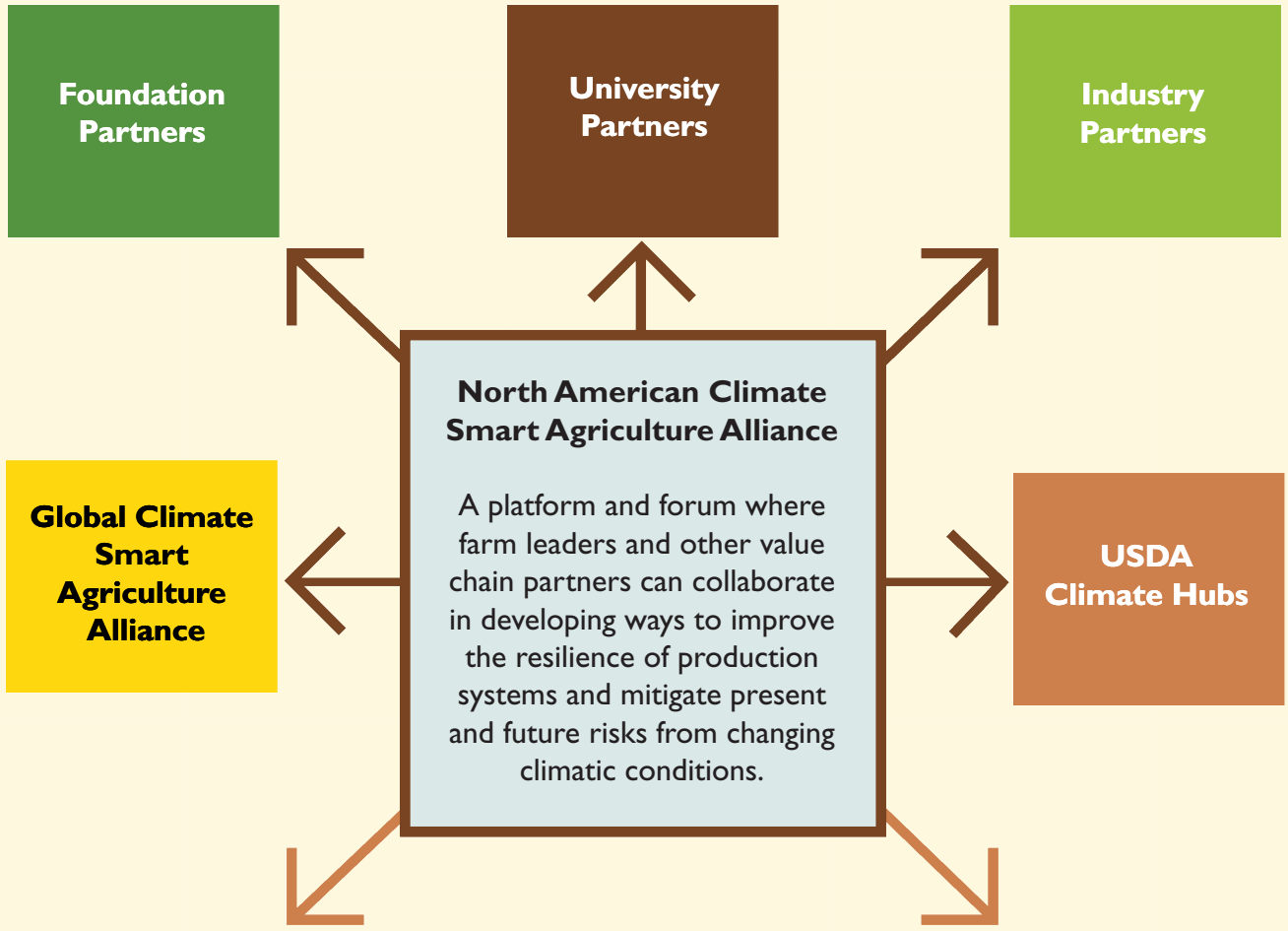
Success will be monitored and measured by the number of agricultural and forestry groups and value chain partners that participate in the Alliance and its work program; through government data which tracks productivity, net income and the adoption of climate-smart agricultural practices; the number of participating organizations, states and provinces that develop and adopt adaptive management strategies.

OUTCOMES

By the end of the launch year, the North American Climate Smart Agriculture Alliance will:

- Grow to include 100 member organizations (65 in the U.S., 25 in CA and 10 in MX);
- Train and equip 50 farmer leaders to be climate smart agriculture (csa) discussion leaders;
- Secure commitments from 10 members to develop customized csa resources and support programs for their members;
- Announce country goals for the percentage of producers that will be adopting csa practices;
- Produce an updated set of production and conservation system, research priority, risk management and infrastructure climate smart agriculture recommendations for growers, agribusinesses, universities, government agencies and policy makers;
- Hold a North American Climate Smart Agriculture Summit to obtain and disseminate information and mobilize farmer leaders and their partners to provide catalytic leadership in advancing climate smart agriculture principles, policies and practices;
- Recruit a cadre of academic and technical experts who can advise and support NACSAA members in designing and establishing climate smart agriculture programs;
- Actively participate in and constructively shape the priorities, programs and projects of the Global Alliance for Climate Smart Agriculture; and
- Have information exchange programs in place with the other regional alliances that are members of the Global Smart Agriculture Alliance.

NACSAA is a self-directed project of Solutions from the Land, which functions as the fiduciary agent and convener/ secretariat.



Core Functions

- Leadership Outreach & Engagement
  - Board of Director Briefings
  - Grower Study Groups
- Knowledge Sharing
  - Roundtables
  - Web
  - Social Media
- Collaboration & Planning
  - State Adaption Plans
  - Public and private sector partners

Membership & Governance

- Land manager led
- Open to any group interested in CSA
- Guided by a Steering Committee composed of project partners
- No financial support required to join but welcomed

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