

## Advancing Climate Smart Agriculture Across the World

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In 2015, in Paris, at the Conference of Parties of the United Nations Climate Change Conference (UNFCCC), COP21, WBCSD Climate Smart Agriculture (CSA) Working Group (WG) members put forward a shared Statement of Ambition on CSA for 2030 which built on the WBCSD's broader Action Plan to 2020. The overall ambition is to:

Make 50% more food available and strengthen the climate resilience of farming communities whilst reducing agricultural and land-use change emissions from commercial agriculture by at least 3.7 Gt CO<sub>2</sub> eq/year by 2030 (50%). By 2050, the target is to achieve a 65% emissions reduction. These efforts cannot be achieved alone and WBCSD works together with a number of global partners to realize its ambition.

CSA is critical for realizing that limiting global temperature increases to 1.5 degrees can only be achieved through effective partnerships and an improved enabling environment. The level of ambition across the private and public sectors needs to increase and governments and companies should increasingly look to set quantified science-based targets for the land use sector to drive progress and finance.

WBCSD's Statement of Ambition is expressed according to the three pillars. A stocktake of historical progress from 2010 to 2015 was measured by combining company-level measurement and monitoring efforts with data from external sources, such as Sustainable Development Goal (SDG) indicators. The purpose of this is to assess where progress stands under each of the three Pillars, and to inform collective and individual country action going forward.

- *Productivity*: trends indicate that we are on track to produce enough food to meet the demand for 50% more food by 2030. More holistic data is needed on the inputs, throughputs and outputs of the food supply chain to properly assess the sustainability of the increased food production.
- *Climate change resilience, incomes & livelihoods*: the most widely reported indicator is total water use, which grew on average from 2010-2015. Companies need to work towards collecting more quantitative information on resilience to allow for the better assessment of this pillar, including activity data (e.g. training) and outcome indicators (e.g. incomes).
- *Climate change mitigation*: global direct agricultural emissions and company Scope 1 & 2 emissions both increased during the 2010-15 period, although companies did demonstrate some progress in reducing the intensity of their own operations. Harmonized indicators and further reporting is needed for Scope 3 emissions and data on post-production activities.

To support this, the CSA WG prioritized four action areas to address the most critical issues, and which most need collaborative action to address. These sit alongside actions taken individually by members, and incorporate key cross-cutting themes like gender equality:

1. Building smallholder resilience

2. Scaling-up investment in CSA
3. Improving Businesses' Ability to Trace, Measure and Monitor CSA progress
4. Implementing Agriculture-driven Zero Deforestation and Land Use Commitments.

## The plan to 2020

Each of these Action Areas has identified milestones for 2018, 2019 and 2020 to drive progress against the Statement of Ambition. These provide a 'direction of travel' but are likely to evolve as the work progresses:

- Action Areas 1 & 4: milestones have been identified for each road-test region. In 2018, the West Africa and ASEAN WGs will be looking to submit donor funding proposals for scaling up their activities. In all instances, the aim is that partnerships will be established and full-scale implementation will be underway by 2019 (building on pilots in both West Africa and Brazil in 2018). This will allow for an initial evaluation in 2020 and the development of 2025 plans.

### Important Milestones at Action Area 2 Scaling-up investment in CSA

#### 2018 milestones

Continue the development of the Rabobank financing collaborations in road test countries  
Large donor funding application made in support of larger scale road test region implementation

#### 2019 milestones

Rabobank road test financing collaborations reach maturity  
Secure donor funding for larger scale road test region implementation and program implementation begun

#### 2020 milestones

Evaluation of Rabobank road test financing collaborations  
Plan for 2020-2025 developed

### Action Area 3:

Improving businesses' ability to trace, measure and monitor CSA progress

#### 2018 milestones

Identify synergies with the International Centre for Tropical Agriculture (CIAT) and harmonize efforts with the road map on metrics being developed by the Global Alliance for Climate Smart Agriculture (GACSA).  
Identify opportunities to better collect confidential company level data for WBCSD CSA monitoring, linking with LCTPi-wide efforts on collecting data from companies.  
Initiate a work program of training workshops to enhance companies' capacity to do monitoring & evaluation, including through sharing of best practice.  
Second business measurement and monitoring reporting period in late 2018.

#### 2019 milestones

Identify means to better measure the

resilience pillar of the Action Plan and introduce additional indicators for nutrition. Ongoing work program of training workshops to enhance companies' capacity to do monitoring & evaluation, including through sharing of best practice.

2020 milestones

Companies' capacity for monitoring and measuring CSA progress is enhanced. A coherent approach to CSA monitoring and measurement, linking with GACSA wide and LCTPi wide efforts. Third business measurement and monitoring reporting period in 2020.

- Action Area 3: two further progress assessments will be undertaken in late 2018 and 2020. In the meantime, training workshops will be delivered to the WBCSD CSA WG membership in 2018 and 2019 to enhance companies' capacity for monitoring and evaluation. This will be combined with work to improve the metrics and to harmonize these monitoring efforts with those of the International Centre for Tropical Agriculture and the Global Alliance for Climate Smart Agriculture

Our efforts to measure progress can be improved over time by: encouraging and building the capacity of companies to integrate CSA metrics into regular monitoring and evaluation protocols; sharing these monitoring and evaluation efforts across value chains and landscapes; facilitating transparent disclosure; and helping the uptake of decision-support tools for CSA to help boost CSA. A set of five road-test regions were selected by the CSA membership in March 2016. These road-test regions provide an opportunity for member companies and partners to pilot partnership approaches to implement Action Areas 1 and 4. If these pilot approaches prove successful the working group will look to scale these up further.

Current progress includes:

India: The WG began by identifying a set of existing business solutions in agriculture that are already being implemented in India but that have the potential to scale-up and create impact at a regional/state level. For example, smart crop varieties, drip irrigation and post-harvest storage solutions. Each of these solutions were assessed for their impact on crop yields, farmer incomes and water use efficiency (given agriculture consumes nearly 90% of the available water in India) in partnership with the Alliance for Water Stewardship and the 2030 Water Resources Group.

2018 milestones

Further partnerships among member companies established to expand implementation. Partnership initiated with IWMI to provide guidance on mid/long term science-based. Partnership with 2030 Water Resources Group (WRG), Alliance for Water Stewardship and government-led smart-Agriculture projects (e.g. in Maharashtra)

2019 milestones

Develop and deliver training products as an enabler to scaling-up through companies. Partnerships between companies reach full-scale implementation. Partnerships with IWMI, WRG and Alliance for Water Stewardship fully established

2020 milestones

Continue to organize peer training between companies  
Review of partnership implementation results  
Plan for 2020-2025 developed

Outcomes / Targets by 2020

140,000 smallholders adopting CSA practices by 2020

Ghana & West Africa: WBCSD has produced a Ghana Collaboration Note to help identify potential collaboration models for working with the Climate Smart Value Chain Initiative in Ghana to leverage existing smallholder value chain interventions to translate climate science into actionable strategies for farmers and supporting actors. Weather station coverage is currently poor in Ghana and this intervention aims to enable farmers to adapt their practices to short term weather patterns and variability. The working group is installing weather stations and systems for the provision of weather information to farmers.

2018 milestones

Implementing WBCSD and member-funded pilot project  
 Form partnerships and submit larger scale funding proposal at the national or regional level for the supply chains of member companies  
 Engage successfully with broader initiatives in the region such as the deforestation-free supply chains

2019 milestones

Receive funding and begin implementation of larger scale national or regional level program  
 Begin working with governments to help address enabling environment barriers e.g. land tenure

2020 milestones

National/regional level program reaches full scale  
 Progress starts to be made with actions to improve the enabling environment along the supply chains  
 Plan for 2020-2025 developed

Outcomes / Targets by 2020

30,000 smallholders adopting CSA practices by 2020

Asia: Climate smart and sustainable rice production efforts were identified as a specific area where WBCSD can make a significant impact. The main action to date has been the formation of a collaboration between WBCSD member companies, the Sustainable Rice Platform, UN Environment, the Climate Resilience Network, GIZ, and CCAFS. This collaboration has a broad geographical scope with a focus on Thailand, Vietnam, and Indonesia as the largest sources of GHG emissions and where enabling conditions are strongest. Collaboration targets include introducing climate smart rice and applying the Sustainable Rice Platform and/or Better Rice principles; supporting enhanced spatial planning for rice; and reducing pre- and post-harvest losses. It is anticipated that the partnership will be broadened to include civil society organizations and national governments as it progresses towards implementation.

2018 milestones

Submit large scale funding proposal at the regional level for the ASEAN-wide sustainable rice-inclusive landscapes program  
 Continue engagement on other priority CSA issues in the region, particularly on the implementation of deforestation-free supply chains

2019 milestones

If funding proposal is successful, begin implementation of this regional program  
 Continue engagement on other priority CSA issues in the region, particularly on the

implementation of deforestation-free supply chains

2020 milestones

ASEAN sustainable regional program reaches scale  
Progress starts to be made with actions to improve the enabling environment alongside governments  
Plan for 2020-2025 developed

Outcomes / Targets by 2020

150,000 smallholder farmers adopting CSA practices by 2020

North America: A foundation for a detailed work program has been established with North America Climate Smart Agriculture Alliance (NACSAA) and, in parallel, the working group is advancing Midwest Row Crop Collaborative (MRCC) and Soil Health Partnership (SHP) on the ground with over 100 farmers in 12 states across the US. SHP is a farmer-led initiative with a strong scientific base that aims to leverage farmer relationships and knowledge to drive real change within the agricultural industry. Both public, private, and non-profit organizations come together to collaborate under SHP.

*Target outcomes*

2018 milestones

Hold strategy meetings with NACSAA Co-Chairs to assess progress and define regional priorities going forward  
Organize field visits between member companies and partners to learn about new CSA enabling tools and programs being implemented  
Begin developing financial product to support row crop farmers to adopt cover cropping

2019 milestones

Roll out of financial product with farmers  
Implement agreed collaborative actions with NACSAA Co-Chairs  
Continue regular field trips

2020 milestones

Evaluate uptake and impact of financial product roll out  
Continue collaborative activities with NACSAA Co-Chairs  
Plan for 2020-2025 developed

Outcomes / Targets by 2020

Targets TBD during 2017 / early 2018

Brazil: The Brazilian Business Council for Sustainable Development (CEBDS) has been supporting WBCSD to develop the CSA WG in Brazil, advancing partnerships towards collaboration. Some examples are Matopiba2020 with Conservation International, Climate Smart Farms (Climate Smart Group and Tocantins government), Brazilian Coalition for Climate, and Forest and Agriculture (with government, non-profits and companies). The main role of these collaborations is to articulate and

facilitate actions for the country to promote a new, low-carbon economic development model and, consequently, respond to the challenges of climate change.

#### 2018 milestones

In the Matopiba region begin piloting a model for CSA expansion with farmers involving financial mechanisms, technical support, agricultural inputs and GHG monitoring. The objective is to have a replicable model that can be scaled-up throughout the country  
Together with Rabobank finalize the financing mechanism to support farmers to adopt CSA  
Continue updating the 2015 CSA financing guide in partnership with the National Bank Federation FEBRABAN, capturing a comprehensive range of financing opportunities for those seeking to invest in CSA in Brazil. The content will be inserted into a digital platform for easy access, search, update and insertion of new content;  
Continue developing the GHG Monitoring White Paper in partnership with IMAFLORA, which will be used for advocacy purposes to encourage data sharing in order to make it viable for institutions such as EMBRAPA (Brazilian Agricultural Research Corporation) to produce reports on GHG captured by CSA.

#### 2019 milestones

Matopiba pilot project reaches full scale  
Potential sites for replication of Matopiba pilot identified  
Roll out of financing mechanism to support farmers to adopt CSA  
Begin implementation of the GHG monitoring approach in partnership with IMAFLORA

#### 2020 milestones

Evaluation of Matopiba pilot project progress  
Discussions started with partners in site for replication of Matopiba pilot  
Continued roll out of farmer CSA financing mechanisms  
Plan for 2020-2025 developed

#### Outcomes / Targets by 2020

30% of the total number of farmers working with Monsanto (~50k) are targeted

: Cross-cutting themes within the Action Areas

#### Regional perspectives

We strongly acknowledge that the priorities for CSA, and the role of business to participate and contribute, will differ significantly between regions depending on:

Predominant forms of agricultural production and biophysical constraints;

Levels of economic development and industrialization;

Profile of smallholders, medium and large farmers within the farming population;

Social and cultural characteristics of the population engaged with agriculture and agribusiness; and

The broader economic and climate change planning goals of local and regional government, amongst other factors.

We place priority emphasis on the views of farmers' groups both in developing the Action Plan and during implementation. In the development of the Action Plan member companies have been bringing forward views given to them during field engagement (e.g. Olam's consultations with sugar farmers in India, Kellogg's consultations with Bolivian quinoa growers on what social investments are needed, and Monsanto's farmer engagement process as part of their landscape level conservation programs with farmers in Brazil and Indonesia). As the Action Plan Working Paper evolves, additional consultation with farmer organizations, the private sector, government, civil society organizations, NGOs and research institutes is needed.

#### Loan characteristics that support CSA adoption

For farmers:

Having interest rates that are below market rate and repayment periods that are longer. As farmers make investments in their farm to become more climate smart they may not receive direct returns in a typical repayment period.

Using non-conventional collateral (e.g. cash flow data) or donor finance to guarantee loans, recognizes that farmers often do not have the credit history to get a conventional loan.

Helping farmers to aggregate into cooperatives to access loans that they may not be able to access as individuals. Can also help to de-risk loans by having a selective process for member farmers.

For agribusiness:

Offering preferential interest rate loans to agribusiness (e.g. input providers) that offer climate smart training to the smallholders that they purchase from.

#### Equity characteristics that support CSA adoption

For farmers:

Helping aggregate smallholders into cooperatives, recognizing that individually they are too small to be attractive to equity investors.

Allowing for dividends to be paid out in the form of offtake of raw produce (crops) or environmental benefits (carbon credits).

Longer term equity & patient capital financing needed for some CSA activities e.g. agroforestry establishment.

For agribusiness:

Using stock financing allows for capital to be released against the value of the stock, this reduces storage losses for farmers e.g. warehouse receipts financing- the warehouse operator issues the receipts as evidence that a quantity of the commodity has been deposited.

Providing preferential equity investments terms for agribusiness that support CSA adoption in the smallholder farms that it purchases from.

#### Insurance characteristics that support CSA adoption

For farmers:

Providing additional services to the insurance reduces losses for the farmer and pay-outs for the insurer e.g. insurers can offer weather-related forecast information to farmers via SMS.

Providing technical assistance can help farmers to access insurance products, recognizing that many smallholders will have limited financial product understanding.

Reducing premiums for farmers who have implemented CSA best practices recognizes that the likelihood of damage has been reduced.

Encouraging the rebuilding and rehabilitating land using CSA best practice after an insurer has had to pay-out recognizes that this will reduce likelihood of future pay outs.

Having weather index linked insurance can help make farmers more resilient against extreme weather events and can make pay outs easier than traditional insurance.

### Gender and vulnerable groups

Research shows that women in many places are more vulnerable to climate impacts than men, for many reasons, including their greater dependence on natural resources for livelihoods; responsibility for securing food, water and fuel for their households; more limited assets, and social, cultural and political barriers that restrict their decision-making power, access to information, and even mobility<sup>50</sup>. Gender inequality can also hinder adaptation to climate change, including the adoption of climate smart strategies. For example, the TerrAfrica partnership found that insecure land tenure, lack of capital and limited farm inputs – all common problems for women farmers – were all major barriers to the adoption of conservation agriculture in sub-Saharan Africa.<sup>51</sup>

Vulnerable groups including youth, the elderly, disabled and ethnic or religious minorities also face additional barriers to adopting climate smart agriculture. Typically, they do not have access to decision-making power, but for some groups such as youth, they make up substantial portions of the farming population in developing countries. In developing countries 60% of the population is under 25 years of age<sup>52</sup>. However, migration trends show a preference for young people to move away from rural to urban areas, and by 2030 60% of the world's population is projected to live in urban areas<sup>53</sup>. Therefore, it is vital that the Actions included in this Plan seek to engage with young rural people and consider how to make these Actions attractive for them in particular.

This issue is made more pressing considering that the global average age of a farmer is 60 years old<sup>54</sup>, and as farmers get older they are less likely to make significant changes to their production methods or make significant new investments. Older farmers are likely to hold substantial knowledge on adapting to climate changes and traditional farming techniques which align with CSA, and the Actions promoted within this Plan should make sure this knowledge is leveraged.

Disabled community members can be limited in their ability to contribute the physical labor necessary for CSA activities at farm level, but may be equally able to engage in processing and other value-adding activity to agricultural products, as well as transport and marketing.

Ethnic and religious minorities frequently face further challenges due to insecure land rights, discrimination in public policy and lower levels of government service provision, amongst other challenges. Please see Appendix 4.4 for further information on how we propose to address insecure land rights issues via the implementation of the UN Global Compact's Food and Agriculture Business principles.

All the issues outlined above should be taken into account during the design and implementation of CSA Actions to 2020, in order to help address rather than exacerbate them. To this end a rights-based approach should be taken, whereby the duty bearers (e.g. member companies) empower the rights holders (e.g. women and vulnerable groups) during the implementation of this Action Plan.<sup>75</sup>

## Linking to other Low Carbon Technology Partnership Initiative groups

The WBCSD CSA Working Group recognizes the connections and potential areas for collaboration with other LCTPi Working Groups – in particular the Forests and Forest Products as Carbon Sinks and Advanced Biofuels groups:

**Forests and Forest Products as Carbon Sinks:** We will seek to complement and support the objectives and policy recommendations of this group, in particular under Action Area 4: Implementing Agriculture-driven Deforestation and Sustainable Land-Use Commitments. Wherever appropriate we will combine to amplify our influence in making public policy recommendations.

**Advanced Biofuels:** We will take a similar approach as above, and also work with this group to help 'Climate Smart' agricultural bio-fuel production and share our analytical work and lessons to help maximize the GHG mitigation potential of agricultural biofuels.

## Social and environmental principles

The WBCSD CSA WG apply the UN Global Compact's Food and Agriculture Business principles<sup>55</sup> when implementing the Actions detailed below. These are selected as a result of a broad stakeholder engagement process comprising over 20 consultations globally and including over 1,000 businesses, UN agencies and civil society organizations. These incorporate the following principles, further detailed in Appendix 4.4 from the UN Global Compact Sustainable Agriculture Business Principles White Paper.

1. Aim for Food Security, Health and Nutrition

Businesses should support food and agriculture systems that optimize production and minimize waste, to provide nutrition and promote health for all people.

1. Be Environmentally Responsible

Businesses should support sustainable intensification of food systems to meet global needs by managing agriculture, livestock, fisheries and forestry responsibly. They should protect and enhance the environment.

1. Ensure Economic Viability and Share Value

Businesses should create, deliver and share value across the entire food and agriculture chain from farmers to consumers.

1. Respect Human Rights, Create Decent Work and Help Communities to Thrive

Businesses should respect the rights of farmers, workers and consumers. They should improve livelihoods, promote and provide equal opportunities.

1. Encourage Good Governance and Accountability

Businesses should behave legally and responsibly by respecting land and natural resource rights, avoiding corruption, being transparent about activities and recognizing their impacts.

1. Promote Access and Transfer of Knowledge, Skills and Technology

Businesses should promote access to information, knowledge and skills for more sustainable food and agricultural systems.