

Strengthening Climate-Resilient Agricultural Systems in South Asia

CCAFS South Asia Regional Meeting

6-7 October 2019

Bali, Indonesia

REPORT

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Abstract

State of the art discourse on agriculture and climate change, lays emphasis on the dual role of agriculture in adapting to and mitigating climate change. Recognising the same, many countries are laying emphasis on agriculture while preparing their national adaptation plans (NAPs). In congruence with the world's agenda to facilitate sustainable agricultural practices, while reducing poverty and hunger, CCAFS has been working for last 10 years to generate innovative solutions to promote more adaptable and resilient agriculture and food systems.

South Asia regional office of Climate Change Agriculture and Food Security (CCAFS) has been: generating research based knowledge, mainstreaming climate variability and climate change issues into development strategies and institutional agendas; enhancing people's understanding of climate change issues; and facilitating informed decisions on policies and actions based on the best available information and data in India, Nepal and Bangladesh, with extended research and knowledge based services extended onto Bhutan and Sri Lanka.

With the vision of drawing learnings from the work done so far to elucidate the strategy of the coming years, a regional meeting titled “**Strengthening Climate-Resilient Agricultural Systems in South Asia**” was organised by CCAFS- South Asia in Bali- Indonesia from 6th to 7th Oct 2019. The meeting also aspired to build as well as further strengthen already existing institutional partnership. The two-day agenda included thematic sessions on topics such as developing and evaluating alternative policy and institutional models for scaling-up climate smart food system in South Asia, big-data analytics to identify and overcome scaling limitations to climate-smart agricultural practices in South Asia, capacity building for scaling up CSA via South- South collaboration among others.

The meeting culminated with an agreement on the need for revisiting CCAFS research approach to build science based evidence, to facilitate formulation of better policies and programs, for a food secure world.

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Introduction

Over the past ten years of CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) work, several research and pilots have been undertaken to generate innovative solutions to promote more adaptable and resilient agriculture and food systems; mainstream climate variability and climate change issues into development strategies and institutional agendas; enhance people's understanding of climate change issues; and ensure that decisions on policies and actions are based on the best information and data available. With this vision CCAFS has been generating research based knowledge and, developing and scaling out climate-smart agriculture solutions at national and sub-national levels in Bangladesh, India and Nepal, with extended research and knowledge based services extended onto Bhutan and Sri Lanka. With the work trajectory reaching the mile stone of a decade, it is important to review lessons learned and identify the best practices to transform food system to create a food secure world.

The review of CCAFS- SA work aims to identify models which could help in rapid scaling up of CSA options in the climatically challenged areas across the region and globe. Mechanism to support the sustainability of these models need to be identified and widely promoted among policy-makers, NARS, civil society, and farmer groups. Strategies need to be highlighted for influencing government, as well as private institutions at various levels to incorporate CSA into developmental planning and governance systems. With this vision, CCAFS-South Asia organized a regional team meeting to bring together project leaders and key stakeholders in the 5th Global Conference on Climate Smart Agriculture (8-10 Oct 2019) to exchange learnings with the CSA scientists and key stakeholders around the world. Before the conference, CCAFS-South Asia program's project leaders and national/regional stakeholders met as part of the regional meeting titled "Strengthening Climate-Resilient Agricultural Systems in South Asia" to discuss project progress, outputs and prepare a strategy for scaling out and scaling up of CSA options. Around 60 participants including CCAFS project leaders and partners, CCAFS scientists, high level government officials from Bangladesh, Bhutan, India and Nepal, along with representatives from the private sector, participated in the meeting. The meeting was organized with the following objectives:

1. Evaluation of CCAFS's flagship and regional projects in South Asia
2. Consultation with CCAFS-South Asia's key national/sub-national, private sector and bilateral partners to develop strategies for project implementation and scaling-out and scaling up climate smart agriculture in the region
3. Sharing of CCAFS-South Asia's scientific research and outputs in the 5th Global Conference on Climate Smart Agriculture; and
4. Establish ways to make CSA R4D responsive to upscaling and attract big investments in South Asia.

Proceedings of the meeting

Inaugural session

The meeting started with a welcome address by Dr. Pramod Kumar Aggarwal, CCAFS- South Asia. He highlighted outcomes, publications, and milestones (as well as failures) of South Asia in the last eight years. He pointed that South Asia's vision is to undertake large scale investment and its portfolio is all geared up to deliver the proposed



outcomes including policy action and increased private sector investment. This was followed by individual key note presentations on country strategy of climate change adaptation in Bangladesh, Bhutan, India and Nepal.

While talking about climate risks and impacts on Bangladesh, Md. Abdul Mueed from Ministry of Agriculture, Bangladesh highlighted the initiatives being undertaken to overcome climate risks such as floating agriculture technology, drought tolerant seed variety, on farm water management, multi- purpose irrigation system, vermin-compost, among others. He also mentioned that there is collaboration across stakeholders to implement adaptation interventions and build community resilience. The country's government is also implementing Information Communication and Technology (ICT) based agro advisories using bulletin, early warning system, interactive voice response, custom weather advisory, Bangladesh Agro-Meteorological Information (BAMIS) portal among others.

Presenting the country strategy of India, Dr. Ashok Kumar Singh from the Indian Council of Agricultural Research (ICAR) spoke about various government plans and schemes on adaptation & mitigation being implemented. He stressed on the importance of convergence among stakeholders in water and fertilizer industry, and highlighted the success of weather advisories in the state of Uttar Pradesh. He concluded by highlighting the importance of legislation and policy support as enabling factors for future success.

Dr. Yuga Nath Ghimire from Nepal Agricultural Research Council (NARC) highlighted the vulnerability of Nepal despite its low GHG emission. As the adaptive measures the government of Nepal has recognized 12 sectors for developing

adaptation strategies. These adaptation strategies would be paying special attention to smallholder and women led households.

While speaking on the country strategy of Bhutan, Mr. Nima Phuntsho Sherpa from Royal Government of Bhutan highlighted his country's core mandates for agricultural sector while presenting Bhutan's 5 year plan. This five year plan included programs for commercialization of organic agriculture. He also emphasised the need to increase the focus on investment in irrigation and water security.

The session concluded with a keynote presentation by Dr. Bruce Campbell from CCAFS. He pointed out the need to develop a more robust strategy to achieve the Sustainable Development Goals (SDGs). He stressed on the need of radical transformation in the food system to ensure achievement of SDGs.

Building sustainable finance to reach 750 million farmers would be the cornerstone to resolve many socio-cultural issues such as migration, gender equality among others, thereby facilitating achievement of SDGs. In addition, the significant role of change in consumption pattern with focus on low carbon diets was also much emphasised. He further added that these interventions should not be limited to the low income countries, rather it should be a pan-world campaign.



Session I- Scaling-up climate smart agriculture

The inaugural session was followed by thematic session on scaling- up climate smart agriculture. The session was jointly chaired by Mr. Ravinderjit Singh from Reliance Foundation, Maharashtra and Dr. Philip Thornton from CCAFS. Different speakers gave a brief overview of their respective CSA project, focusing on key out-scaling approaches and strategies adopted by them, in their projects. Apart from these presentations, all the speakers discussed the progress of project activities and future work plans to achieve the targets, including possible partnerships and collaborations.

The session started with a presentation by Dr. Thornton who focussed on the need for scaling CSA to transform food systems, showcasing strategies and technologies followed in different regions across the world. Thereafter, Dr Nicostrato Perez presented findings from IFPRI, on how economic modelling can help in developing scaling-up strategy for CSA, and the importance of integrating it with key institutional aspects at the local level. Mr. Balram Thapa from Li-Bird presented the findings from Nepal, illustrating a bottom-up and inclusive strategy, being followed in the region to scale-out CSA interventions. He emphasised that multiple stakeholders including farmers, NGOs and government collaborated right from inception to the implementation stage of project, which facilitated the success of the project.

During the next presentation Dr. Alok Sikka from IWMI showcased examples to highlight the approach followed by IWMI, for scaling-up CSA interventions in different parts of South Asia. He emphasised the requirement for introducing need based technology to the farmers, to ensure better adoption of technology. Carrying forward the emphasis laid on involvement of farmers, Dr. Shalander Kumar from ICRISAT-India illustrated different participatory methods such as trainings, meetings and collaborative workshops followed in ICRISAT, for science-policy engagement.

Dr. Prasun Gangopadhyay from CIMMYT shared the methodology followed by BISA to out-scale different agricultural interventions for their climate smart villages program in Maharashtra. His presentation also highlighted the role of socio-economic need assessment to customize CSA and make it context-specific. The last presentation was made by Dr. Arun Khatri-Chhetri, from CCAFS, showcasing the scaling-up activities in CCAFS climate-smart agriculture projects across India. The presentation highlighted the need for inclusive and gender neutral CSA projects in India. He also shared real life examples from India to showcase success of innovative institutional models like custom hiring centers to scale-out such activities. The session ended with summative remarks from the chair.

Session II- Climate Smart Technologies and Practices

The session focused on different approaches practiced for promoting climate smart agriculture practices. It was chaired by Mr. Bharat Kakade, BAIF-India and Dr. Ana María Loboguerrero Rodríguez, from CCAFS-CIAT- Colombia. During the session, speakers presented strategies being implemented under their respective projects to promote climate smart technologies and practices.

Setting the stage for the session, Dr. Loboguerrero started her presentation, by highlighting the need to consider different pathways to match specific needs of the farmers. She pin-pointed the importance of empowering producers, changing diets, improving supply chains, innovations, financial mechanisms, right policy and institutions, as the key elements for transforming food systems.

Drawing from country specific examples, she also elucidated country specific intervention pathways such as increasing market integration, land consolidation, climate informed shifts in farming systems, small land entrepreneurship among others. Though, the major intervention which catalysed the debate was to exit/reduce agriculture in livelihood portfolio.

Taking the session forward Dr. Tim Krupnik from CIMMYT- Bangladesh, discussed the four Vs of Big data i.e. Volume, Variety, Velocity and Value to pull information through surveys and push results in implementation. He shared his project work experience to elucidate the methodology of collecting telephone users' data for modelling via machine learning tools. As part of his project around 14000 forestry officers have been involved in the process of data collection, using tablets. Which in turn helped in real time data generation and management.



Dr. ML Jat from CIMMYT, presented deployment approach for farm design model, based on the typology, which is being implemented in collaboration with Indian Institute of Farming Systems Research. Along with Amit Mohan Prasad from government of India, he also shared the role of e-learning schools in enhancing capacity of farmers.

Dr. Sheetal Sharma from IRRI, presented strategy for scaling up Climate Smart Village (CSV) concept in Eastern India and Bangladesh. She talked about shifting the focus from cropping systems to integrated farming systems. During her presentation, she also focussed on gender empowerment through women SHGs by enhancing their capacities. This was followed by a presentation by Dr. Arun Khatri-Chhetri, from CCAFS on capacity building for scaling up CSA via South- South collaboration. He briefly highlighted the interventions being implemented in The Global South in collaboration with different CGIAR centres.

Session III- Climate Services and Safety Net

The session focused on the Climate Information Services and its management by various tools and techniques. During the session the speakers present their regional work on climate information services. The session was chaired by Shri. Vyas Ji from Govt. of Bihar- India and Stephen Zebiak from CCAFS.

The session started with the presentation on next generation of regional, seasonal and sub-seasonal forecast by Dr. Stephen Zebiak from IRI. He talked about the efficiency of forecasting, onset of rainy season and durations, wide range of predictions, flexible format approach and errors in bias & variability in forecasting. Dr. Giriraj Amarnath from IWMI presented the work on bundled solutions of index insurance with climate information and seed system to manage agricultural risks (BICSA). He emphasized on index-based insurance, and potential of remote sensing, while discussing Bihar and Odisha post flood recovery cases.



Dr. Anthony Whitbread from ICRISAT, presented the need of capacitating farmers to manage climate risks in South Asia (CaFFSA). He discussed the impact of; delivery of climate services (Odisha and Bangladesh), agro advisory services, insurance messages, challenges and coping strategies. Dr Michelle Phillips from WorldFish presented on capacitating farmers to manage climate risks in South Asia (CaFFSA). He talked on food system, aquaculture modules and research, experiments in the fields, structure and methodological framework for aquaculture and its potential impact.

Thereafter, Dr. Paresh Shirsath from CCAFS presented Crop-Loss Assessment Monitor (CAM) - a web based integrated platform to monitor yield losses for agricultural insurance. Paresh highlighted the need to redesign crop insurance scheme, public private partnership, yield index insurance to provide social security to farmers. Dr. Sofiya Huyer from CCAFS, presented her work on gender transformative approach in climate change adaptations. She discussed on gender and climate smart agriculture, gender gap, gender transformation, and roles of women self-help group in the context of climate change and agriculture. She also emphasized on agricultural information system access, leadership and decision making etc.

Technical Session IV: Thematic Meeting

Three parallel thematic sessions were organised on the topic; CSA technologies and practices, climate information services including crop insurance and scaling CSA: Policies and programs. The main objective of the session was to discuss methodologies, tools and approaches, and to explore possibility of developing cross-project collaborations.

1. CSA technologies and practices- Innovative use of tools such BigData, Digitalisation, Diffusion in synergy with participatory techniques can be instrumental in actualising CSA approach. These tools would facilitate building a participatory approach to formulate a need-based, demand driven business model. Participants also highlighted the need to have a bottom up and cross sectional approach to facilitate wider adoption of technology and practices. Though, the need to prepare easy to replicate and user friendly tools and technologies was highlighted during the discussion.
2. Climate information services including crop insurance: During the discussion work of CCAFS in promoting crop insurance as a social security mechanism for farmers, was highlighted. The discussion, reiterated the need to promote scaling up of crop insurance in South Asia. Yield based crop insurance and weather based crop insurance schemes (WBCIS), were discussed as two instrumental mechanisms in establishing the contract and providing insurance

claim to farmers. Adding to this participants expressed that a comprehensive social protection scheme would create opportunities for further rationalisation of subsidies.

3. **Scaling CSA: Policies and programs:** While discussing the ways to formulate policies and programs to scale up CSA, participants laid emphasis on the need to align the programs with local priorities. They also deliberated on the need to be persistent with policy makers in order to make necessary policy amends and institutional arrangements to scale up CSA. Efforts need to be focussed in making climate smart agriculture an integral part of the existing policies and programs, rather than being promoted under a separate policy head. Creating platforms for knowledge exchange and networking would could be the cornerstone for scaling CSA. As this would facilitate not only engagement of all stakeholders in the process, but also be instrumental in exploring the scope of private sector engagement in the process.

Technical Session V- Country Meeting

Technical session five, included three parallel country meetings i.e. of Bangladesh, India and Nepal. Project leaders working in respective regions along with their partners led the meeting. The discussion aimed to review work done under respective region's projects and develop strategy for formulating partnerships to enhance the impact of CCAFS work. The discussion also strived to ensure that the work done in each country is in congruence with national priorities.

- **Bangladesh:** Different project leaders working in the Bangladesh region convened together to discuss different project activities in detail and identify possible avenues for synergies in their projects. Major focus of the discussion was on fostering better partnerships and developing a collaborative work plan for the same. Seven different projects of different CCAFS activities in Bangladesh were listed and discussed in detail. These included CSA projects, climate risk management initiatives including; insurance, big data and fishery projects in the region. Different methodologies and cooperative opportunities were discussed among these seven projects.
- **India:** Project leaders of CCAFS along with project partners working in India discussed different project activities to explore the possibility of collaboration. The discussion focused on the need to revisit CCAFS work, to ensure that it is in-line with the INDC commitments. Participants pointed out that along with INDC commitments, thematic and geographical convergence can be the guiding force to converge projects in India. Many operational policies and programs provide the scope of integrating CSA activities with existing national programs. Possibilities of collaborating with respective government agencies by persistent efforts can facilitate the process of scaling up CSA.

- Nepal and Bhutan: The discussion started with the need to not only look into the success stories but also document what did not work, to ensure a holistic learning experience. This would help other projects to learn from each other's experience and develop a better work strategy. Dwelling further on identifying the possibility to converge effort and facilitate inter-project support, participants from Bhutan expressed the need to work together to strengthen the Climate Information Systems in Bhutan. The requisite to integrate the research work of CCAFS with the existing policy framework, for ensuring significant and tangible impacts of the project were also brought to light, during the discussion. CCAFS could also venture into unexplored areas, which fall both within CCAFS area of work and the national policy. Already existing regional organisations or joint funding mechanism for countries could also facilitate collaboration and integration of efforts.



Technical Session VI- South-South Collaboration (SSC)

With the global nature of climate change and food security, cross-country collaboration is an essential element of the solution to these challenges. This technical session focused on exploring the possibilities of collaboration among different organisations working in Global South. The session was chaired by Ms. Simrat Labana from USAID- India and co-chaired by Suryanarayan Bhaskar from ICAR- India.

Kindling the discussion on SSC, Ms. Labana highlighted the importance of SSC while mentioning that in today's world, economies are growing together. Change in a country's economy is bound to impact the economy of other countries. With developing countries facing similar challenges and issues, collaboration to find common solutions may pave way to sustainable development. She urged the group to focus the discussion on SSC for CSA related interventions and provide specific recommendations to take create a food secure world. To this Dr. Bhaskar reiterated the relevance of collaboration by saying that CSA technologies are important but equally important is how to share this knowledge among South South countries, collaborative efforts provides agencies a shared platform for the same.

Dr. Y G Prasad from ATARI, India emphasised the experience of different countries in research, technology demonstration, and ability to strategize collaboration across organisations and countries. He pointed out the need for different partners to present CSA technologies and policies on a shared platform, to facilitate integration of CSA in existing policies and programs. Studies conducted on the Indo-Gangetic plains have immense scope for knowledge and experience sharing and preparing disaster management plans for climate risk management. SAARC is one of the most significant platform that could be used for cross country collaboration in Global South.

Dr. Md. Abdul Mueed from Ministry of Agriculture, Bangladesh suggested biannual meeting platform would facilitate increased coordination between partners to achieve shared goals. For Bangladesh, development partners will implement the programs discussed during CCAFS Colombo workshop. Binod Ghimire, from Nepal presented real life examples from Province 5 and Gandaki, Nepal, where CSA technology have been implemented at different levels.

Dr. Michael Phillips from WorldFish-Bangladesh presented the role WorldFish has been playing over the past 15 years as a regional intergovernmental organization focusing on aquaculture. Based on the experience of WorldFish, he highlighted the importance of collaboration in sharing ideas and, package information on climate smart so that it is made available to a wide range to the science community and to the media. Sharing not just the success stories but also the learning from projects which did not meet the desired outcomes, is a learning worth sharing. Mix of

scientific learning with the understanding of local context can be instrumental in supporting collaboration of various stakeholders such as young scientists working across disciplines, institutes, government agencies and private enterprises.

Dr. Anthony Whitbread from ICRISAT India added to the discussion by expressing the need to have join cross regional projects. Regional programs would give us the opportunities for value adding for things that are not expensive and there needs to be more government to government collaboration. India, Vietnam, Sri Lanka are good examples of the same. With CGIAR's footprints in India and Africa, ICAR and CGIAR partnership could also be a win-win situation for all.

Mr. N.P. Sherpa from MOAF-Bhutan pointed out the opportunities for technology transfer, knowledge sharing and capacity building. As Bhutan is known for its strong environment conservation policies in the region with 70% forest coverage, climate neutrality, organic produce etc., other countries could learn from Bhutan. While, Bhutan can capitalise on technology transfer and training. Climate change issues are lesser explored in Bhutan as compared to other countries in the region, CGIAR funds can be used to further explore the possibilities of conducting exploratory research.

The session concluded with the remarks by Ms. Labana, who emphasised the need to understand geo-political, socio-economic and spatial of each region as different areas have their own possibilities. She also mentioned the need to involve other countries of the Global South in the discussion.

Technical Session VII and VIII Project Team Meeting: Work plan for 2020 and presentations

The regional meeting culminated with nine project team meetings, where project leader along with project partners examined the project pathway and dwelled upon the work plan for 2020. Key points discussed during the session were presented to the entire group after the project team meeting.

Key take away and action points from the regional meeting

1. Revisiting our research approach- progress of a country along with its farmers should be the priority of CCAFS research. Three third principal focussing on; evidence, engagement and outreach was recommended for CCAFS research
2. Projects with in-significant outcomes should be reconsidered- Strategy of the project which are not leading to significant results need to be re-evaluated and culminated, if need be.
3. Promote evidence building- Public sector needs to be inspired with the pace of fast-moving private sector in terms of evidence building. We need to spend a third of our time with change makers to promote evidence building.

4. Sustainable finance, prosperity through mobility and low carbon diets to be promoted to create a food secure world.
5. Better alignment between projects of different CGIAR centers- would help in avoiding duplication of effort, and building upon each other's strength.
6. Think beyond the box- Simply reaching millions of farmers through digital technologies isn't sufficient enough to bring about a change.
7. Creating self-sustained market- We need to pay more emphasis on involving private sector and market generation to facilitate technology adoption and its sustainable usage. Emphasising only on development of technology is only the means to an end.
8. Integrating stakeholders- Multiple stakeholders have to be integrated right from the inception and designing of the CSA project activities.
9. Customization of strategies- Scaling-out strategies have to be customized for different local conditions, there is no one-size-fits-all strategy.
10. Facilitating Institutional models- They play a key role in out-scaling CSA activities across all the projects.
11. Knowledge-sharing- among different CSA projects of multiple CGIAR centers is important for cross-learning and possible collaborations in the region.
12. Rethink and reanalyze the strategies for outcome based solutions



Agenda: Strengthening Climate-Resilient Agricultural Systems in South Asia

CCAFS South Asia Regional Meeting | 6-7 October, 2019 Bali, Indonesia

Day 1

6th October 2019

Time		Title	Resource person
From	To		
08:30	09:00	Registration	S. Saini, CCAFS- SA
Inaugural session (09:00 - 10:15)			
Chair: A. M. Prasad, Govt of Uttar Pradesh- India and Bruce Campbell, CCAFS			
Rapporteur: N. Chanana, CCAFS-SA			
09:00	09:20	Welcome and regional vision, targets and portfolio	P. K. Aggarwal, CCAFS- SA
09:20	09:30	Key Note 1: Country strategy of climate change adaptation in Bangladesh	M. A. Mueed, DAE- Bangladesh
09:30	09:40	Key Note 2: Country strategy of climate change adaptation in India	A. K Singh, ICAR - India
09:40	09:50	Key Note 3: Country strategy of climate change adaptation in Nepal	Y N. Ghimire, NARC- Nepal
09:50	10:00	Key Note 4: Country strategy of climate change adaptation in Bhutan	N.P. Sherpa, MOAF- Bhutan
10:00	10:15	Key Note 5: Transformative approaches for strengthening climate change adaption & mitigation in agriculture	B. Campbell, CCAFS, Netherlands
10:15	10:45	Tea Break & Group Photograph	
Session I (10:45-13:00)			
Scaling-up climate smart agriculture			
Chair: R. Singh, Reliance Foundation and P.K. Thornton, CCAFS			
Rapporteur: S. Vyas, CCAFS-SA			
10:45	11:00	“Blue-Skye” technologies	P. K. Thornton, CCAFS, ILRI- Kenya
11:00	11:15	Developing and Evaluating Alternative Policy and Institutional Models for Scaling-up Climate Smart Food System in South Asia	N. Perez/ B. Pal, IFPRI- India and partners
11:15	11:30	Bottom-up approach for scaling CSA	B. Thapa, LI-BIRD - Nepal
11:30	11:45	Scaling Out Climate-Smart Agriculture for Resilient Farming in South Asia	A. Sikka, IWMI- India and Partners
11:45	12:00	Science-led multi-stakeholder engagements for scaling-up climate smart agriculture in SAT India	S. Kumar, ICRISAT- India and Partners
12:00	12:15	Scaling-up Climate-Smart Agriculture in tribal areas of Maharashtra	A. Joshi/ P. Gangopadhyay, BISA- CIMMYT and M. Verma, Govt. of Maharashtra- India
12:15	12:30	Scaling-up Strategies for Climate Risk Management in South Asian Agriculture	A. Khatri-Chhetri, CCAFS- SA and Partners
12:30	12:50	Discussion	
12:50	13:00	Comments from CCAFS management	

13:00	14:00	Lunch	
Session II (14:00 - 15:35) Climate Smart Technologies and Practices Chair: B. Kakade, BAIF-India and A. M. Rodriguez, CCAFS-CIAT- Colombia Rapporteur: T. Aggarwal, CIMMYT			
14:00	14:15	Tailored approach for different kinds of households	A. M. Rodriguez, CCAFS-CIAT- Colombia
14:15	14:30	Big data analytics to identify and overcome scaling limitations to climate-smart agricultural practices in South Asia or	T. Krupnik, CIMMYT- Bangladesh and partners
14:30	14:45	Accelerating smallholder farmers' reach to climate smart agriculture solutions	M.L. JAT, CIMMYT- India and Partners
14:45	15:00	Scaling up CSV concept in Eastern India and Bangladesh	S. Sharma, IRRI- India and Partners
15:00	15:05	Capacity Building for scaling up CSA via South-South Collaboration	A. Khatri-Chhetri, CCAFS-SA and Partners
15:05	15:25	Discussion	
15:25	15:35	Comments from CCAFS management	
15:35	16:00	Tea Break	
Session III (16:00- 18:00) Climate Services and Safety Net Chair: Shri Vyas Ji, Govt. of Bihar and S. E. Zebiak, IRI, USA Rapporteur: P. Gangopadhyay, BISA-Delhi			
16:00	16:15	Recent development in climate information services	S. E. Zebiak, IRI, USA
16:15	16:30	Bundling flood insurance and post-flood recovery to agriculture	G. Amarnath, IWMI- Sri Lanka and partners
16:30	16:40	Capacitating Farmers to manage climate risks in South Asia (CaFFSA)	A. Whitbread, ICRISAT- India and partners
16:40	16:50	Capacitating Fishers to manage climate risks in South Asia (CaFFSA)	M. Phillips, WorldFish- Bangladesh and partners
16:50	17:05	Crop-loss Assessment Monitor (CAM): A Web based Integrated Platform to Monitor Yield losses for Agricultural Insurance	P. Shirsath, CCAFS- SA and Partners
17:05	17:20	Gender transformative approach in climate change adaptation	S. Huyer, CCAFS- WISAT- Canada
17:20	17:40	Discussion	
17:40	17:50	Comments from CCAFS management	
17:50	18:00	Plan for Day 2	P. K. Aggarwal, CCAFS- SA

Day 2

7th Oct 2019

Time	Title	Resource person
From	To	
Technical Session IV (09:00 – 10:15) Thematic Meeting: Three parallel sessions Objective: To discuss methodologies, tools and approaches, and to explore possibility of developing cross-project collaborations		

CSA Technologies and practices	Climate information services including Crop Insurance	Scaling CSA: Policies and programs
Convenor: Alok Sikka , IWMI-India, M L Jat , CIMMYT- India and M. R. Islam , BRRI-Bangladesh	Convenor: T. Krupnik , CIMMYT- Bangladesh, A Whitbread , ICRISAT and Giriraj , IWMI	Convenor: S.Kumar , ICRISAT-India and B. Thapa , LIBIRD-Nepal
Rapporteur: R. Joshi, BAIF-India	Rapporteur: Ramaraj AP, ICRISAT-India	Rapporteur: H. Pathak, IFPRI-India
10:15	10:45	Break
Technical Session V (10:45 – 12:00) Country Meeting- Three parallel sessions Participants: project leaders and partners working in respective countries Objective: <ul style="list-style-type: none"> To review the projects and partnerships. To ensure that activities are in congruence with national priorities. To explore the possibility of developing a joint proposal for funding. 		
India Co- Chair: A.K. Singh , ICAR-India Co-Chair A. Sikka , IWMI India 10:45 – 10:55: Short presentation by A. Padhee , ICRISAT-India on INDCs Rapporteur: S. Verma, IWMI-India	Nepal and Bhutan Co-Chair: Y N. Ghimire , NARC - Nepal Co-Chair: N.P. Sherpa , MOAF-Bhutan Co- Chair: B. Pal , IFPRI- India Rapporteur: I. Kadariya, AFU-Nepal	Bangladesh Co-Chair: M. R. Islam , BRRI-Bangladesh Co-Chair: T. Krupnik , CIMMYT- Bangladesh Co- Chair: E. Hossain , Worldfish- Bangladesh Rapporteur: P. R. Hossain, WorldFish-Bangladesh
12:00	12:30	Display posters prepared from the respective discussions of Technical Session IV and Technical Session V
12:30	13:30	Lunch
Technical Session VI (13:30 – 14:30) South South Collaboration Chair: S. Labana , USAID- India; Co- Chair: S. Bhaskar , ICAR- India Rapporteur: S. Suman , WFP-Nepal Objectives: To discuss opportunities for accelerating scaling up CSA practices, technologies, and policies across The Global South		
13:30	13:35	Remarks Y G Prasad , ATARI- India
13:35	13:40	Remarks M. A. Mueeed , DAE-Bangladesh
13:40	13:45	Remarks B. Ghimire , MLMAC- Nepal
13: 45	13:50	Remarks M. Phillips - World fish-Bangladesh
13:50	13:55	Remarks A. Whitbread , ICRISAT- India
13:55	14:00	Remarks N.P. Sherpa , MOAF- Bhutan

14:00	14:30	Discussion	
14:30	14:40	Synthesis and conclusion	Session Chairs
14:40	15:00	Break	
Technical Session VII (15:00 – 16:00) Project Team Meeting: Work plan for 2020			
15:00	16:00	Respective project team meetings (in parallel) to finalizing work plan for 2020	
		Scaling Out Climate-Smart Agriculture for Resilient Farming in India	A. Sikka , IWMI- India and partners
		Scaling-up Strategies for Climate Risk Management in South Asian Agriculture	P.K. Aggarwal - CCAFS-SA and partners
		Capacitating Farmers and Fishers to manage climate risks in South Asia (CaFFSA)	A. Whitbread , ICRISAT- India and M. Phillips , World fish-Bangladesh, and partners
		Bundling flood insurance and post-flood recovery to agriculture in improving smallholder livelihoods in South Asia	A. Giriraj , IWMI-Sri Lanka and partners
		Big data analytics to identify and overcome scaling limitations to climate-smart agricultural practices in South Asia (BigData2CSA)	T. Krupnik , CIMMYT- Bangladesh and partners
		Developing and Evaluating Alternative Policy and Institutional Models for Scaling-up Climate Smart Food System in South Asia	N. Perez , IFPRI- India and partners
		Accelerating smallholder farmers' reach to climate smart agriculture solutions through translating science based evidence, enhanced capacity and innovative partnerships	M.L. Jat , CIMMYT- India and partners
		Science-led multi-stakeholder engagements for scaling-up climate smart agriculture in SAT India	S. Kumar , ICRISAT-India and partners
		Refining and scaling the CSV concept through evidence based approaches for CSA in rice based systems of Eastern India and Bangladesh	S. Sharma , IRRI- India and partners
Technical Session VIII (16:00 – 17:00) Concluding session Chair: Bruce Campbell, CCAFS and P.K. Aggarwal, CCAFS-SA Rapporteur: M. Maske, BISA-India			
16:00	16:45	Brief presentation of work plan for 2020 (5 min each)	N. Perez, T. Krupnik, A. Whitbread and M. Phillips, A. Giriraj, A. Sikka, M.L. Jat, S. Kumar, S. Sharma, A. Khatri-Chhetri and P. Shirsath
16:45	17:00	Summary and Closing remarks	
18:00	21:00	CCAFS Dinner	

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