



RESEARCH PROGRAM ON  
**Climate Change,  
Agriculture and  
Food Security**



**CIMMYT**<sup>MR</sup>  
International Maize and Wheat Improvement Center



# CLIMATE-SMART AGRICULTURE AS AN INVESTMENT DESTINATION FOR CSR

**Workshop proceedings**

**31 May 2018 New-Delhi, India**





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## **Climate-Smart Agriculture as an investment destination for CSR**

**Conclave organized by**

**CGIAR Research Program on Climate Change, Agriculture and Food Security  
(CCAFS)**

**International Maize and Wheat Improvement Center (CIMMYT)**

**Borlaug Institute for South Asia (BISA)**

**In partnership with**

**The Federation of Indian Chambers of Commerce and Industry (FICCI)**

**31<sup>st</sup> May 2018| New Delhi**

Climate change and its adverse impacts is a vivid reality, especially in the domain of agriculture and food security in areas like South Asia that continues to host around a quarter of the world's hungry. Climate change and its associated risks in the agrarian sector can be directly linked to a large number of socio-economic malaise ranging from- *lower productivity, food insecurity, compromised quality of agricultural produce, impeded nutrition intake especially by the marginalized, gender related distress, lowering of farm income, farmer suicide, climate induced migration* and a plethora of other such adversities. If we seek to keep the bludgeoning population of the region fed then transformative solutions need to be adopted in the sector, more particularly, agriculture which is climate-smart. Climate-Smart Agriculture (CSA) can be defined as an approach that incorporates within its ambit technologies, policies, institutions and investments aiming to: Sustainably increase agricultural productivity and incomes; Adapt and build resilience to climate change; and Reduce and/or remove Green House Gas emissions where possible (FAO). One of the crucial ways for scaling CSA is to enhance financing options to support implementation, linking climate and agricultural finance. In the case of India, CSR investments have become one of the major and most sought after moving forces to propel forward the nation's socio-economic growth while maintaining responsibility towards the environment. It is against this backdrop that CCAFS, CIMMYT, BISA together with FICCI seek to host a conclave to provide a common platform for academia, industry and development agencies to come together and discuss how best to make CSA a sought after avenue for CSR investments in the country.

### **Objectives**

- Present the case for CSA as a highly relevant and crucial space for financing.
- Drop-ship the routes and ways through which CSR can be channelized for financing resilient agricultural practices and technologies.
- Share successful outcomes of CSA in the region for strengthening convictions and assessments.
- Acquire industry perspectives from CSR representatives regarding mobilizing industrial assets for reducing the nation's agrarian distress and upscaling of climate finance.



## **WORKSHOP HIGHLIGHTS**

### **Inaugural Session:**

#### **Pramod.k.Aggarwal-**

- Climate risks are vivid and real and they are increasingly being felt in the South Asian region. Particularly vulnerable are the millions of smallholder farmers in countries like India.
  - Climate predictions of the erstwhile era are all turning into visible realities with the agricultural sector being one of the most severely affected, threatening food security for the future. Especially true in case of rain fed agricultural systems like that of India.
- There is more need now than ever for striking innovative partnerships such as with the private sector to come up with joint resolutions and solutions.
- Avenues such as the Climate-Smart Agriculture-CSR Conclave are opportunities for ideas from different sectors to come together.

#### **T.R.Kesavan-**

- Climate change is one of the biggest issues we are facing today. This is particularly problematic for the agricultural sector as it is being affected by unpredictability and uncertainties.
- There needs to be mechanisms to bring surety about judicious resource use such as water.
- Information and communication technology can bring about an element of certainty and become pathways for investments in the agriculture sector, bringing for the sector a 'new era'.

#### **Martin Kropff-**

- The CGIAR is the world's largest agricultural research network. With a local presence in over 75 countries, it is an unequalled network of more than 3000 partners from national governments, academic institutions, global policy bodies, private companies and NGOs.
- CIMMYT as one of the key centers of the CGIAR, can trace the history of its origins in India back to the 1960's with the Green Revolution post which the organization was founded.
- In 2016 CIMMYT launched its new strategy in India through the creation of the Borlaug Institute for South Asia (BISA) with a focus on nutrition and livelihoods.
- CIMMYT's mission is to utilize maize and wheat science for improved livelihoods. Its success can be gauged from the facts that 50% of maize and wheat in the developing world is based on CIMMYT's varieties, adding annual benefits of \$3.4-4 billion, while having trained more than 10,000 agricultural experts and scientists.

- In terms of CSR, CGIAR's work and targets are directly linked to CSR thematic areas in India such as- eradication of extreme hunger, poverty and promotion of health, rural empowerment through development projects, women's empowerment and others.

### **Panel discussion 1: Examining Climate-Smart Agriculture as an investment destination for CSR.**

**Pravesh Sharma:** In India, 65% of the population produces 70% of food. There is an increasing scare for a future social crisis since the population will continue to swell. Despite industrialization, the agricultural sector will continue expanding notwithstanding the challenges. Yet the sector suffers from major setbacks which leaves an imprint on various other segments of our economy. For example with regards to resource utilization. 80% of fresh water resource in the country is going to the agricultural sector. It is important to consider implementation of new strategies especially climate-smart agricultural strategies under the changing realities of the climate. There is a need to fast track technologies for such interventions to reach scale.

**Martin Kropff:** India being a hotspot for climate change, will see a rise in extreme events such as the length, frequency and/or intensity of warm spells, extreme and erratic rainfall among others. Between 1905 and 2015, the hydro-climato-meteorological disasters have increased significantly. In the present scenario itself, food security in India is seen to be vulnerable. By 2050, the best case scenario for India is still projected to incline towards food insecurity. Further complicating things is the emissions intensity from the sector in South Asia which is very high.

Under the present scenario of climate change, food prices are slated to be adversely affected. For food prices to remain constant, annual yield gains would have to increase from 1.2% to 1.7% in Maize and from 1.1% to 1.7% for wheat. There is most definitely the need for transitioning agriculture from as it is to climate-smart agriculture (CSA). The CSA approach is about solving food security issues through adaptation and mitigation efforts in food production. To achieve the common goals of attaining food security, enhancing livelihoods and ending poverty, there needs to be recurring engagement between academic/research organizations, governments and industry, with the agreement that CSA needs strengthening.

As part of its effort to address these concerns the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) was established as a global public research partnership which is very active in South Asia, particularly in India. What makes the CGIAR units (CCAFS/BISA-CIMMYT) good CSR investment destinations for CSA? Both share common goals of poverty, hunger, malnutrition eradication, rural livelihoods promotion, environmental sustainability, women's empowerment among others. The CGIAR agencies are working in multiple areas in different levels, among tribal population, women and youth farmers, government, private sector etc. Its strength lies in using new developments in global research for local development and ability to provide hands-on experience to its partners through experiential learning in its field sites. A collaboration between the CGIAR agencies and the private sector will lead to multiple returns for the latter in terms of having access to a vast body of data along with interpretation, expert knowledge, witnessing impacts on the targets measured by indicators, global recognition as well as opportunities for innovative partnerships.

**P.K.Aggarwal:** To achieve the common targets between the government, industry, developmental agencies and research organizations we need to strengthen CSA in our country. We can take specific examples, for instance eradication of hunger and poverty. What is the CGIAR-CCAFS doing to address this? One of the interventions is the Climate-Smart Village approach (CSV). CSVs are village sites where we test through participatory methods, technological and institutional options for dealing with climate change in agriculture; with the aim of scaling-up and -out the appropriate options and drawing out lessons for policy makers from local to global levels. What makes it different? Its holistic vision for climate change action, being a platform for multi-stakeholder collaboration, helping take CSA to scale, linking global and local knowledge, enhancing adaptation while checking maladaptation. Multiple interventions are clubbed within the approach. One of the most successful such intervention in India has been the farmer led solar irrigation cooperative in Gujarat which is ‘harvesting solar power as a remunerative crop’. A first of its kind farmer led model, is making possible direct benefits as not only renewable energy replaces fossil based sources, but the farmers are enhancing their incomes by selling surplus energy to the local power distribution companies.

The goal of environmental sustainability which is common to CGIAR-CCAFS and industry is being met with pollution management practices, enhanced resource use efficiency as well as reduced GHG emissions fed by research. In India, with particular focus on Punjab and Haryana, where rice residue burning is rampant, thereby polluting adjoining states, the Happy Seeder technology is being promoted. This is allowing wheat planting in rice stubble, without resorting to residue burning. As a result, not only is resource use efficiency being achieved but also GHG emissions are getting reduced.

CCAFS’s interventions are also helping meet affiliated goals of imparting education and vocational training albeit in the agricultural sector through the use of Information and Communication technology (ICT). In the CSVs as sites for evidence, ICT tools are being deployed for providing weather based agro-advisories alongside capacity building training to the beneficiaries about such mediums and their use. Such trainings are further intersecting with women’s empowerment, as women farmers are being trained on CSA technologies and practices which are gender friendly and allowing for an enhancement of their decision making as a result of access to and knowledge of the same. Further, dialogue has been established with relevant stakeholders to enhance women’s access to resources and services and a convergence of CCAFS’s interventions is being done with similar government programs. Risk mitigation in the sector is being vigorously pursued by accelerating development of high-yielding, bio-fortified, climatic-risk tolerant varieties, improving insurance products for risk management and reducing agrarian distress, pursuing innovations in land, water and nutrient management for environmental protection and analysing policies and institutional framework to support rural empowerment.





CSA proliferated through the CSV approach is being widely supported by stakeholders and is helping thousands of farmers mitigate and adapt to the effects of climate change upon agriculture in the states of Punjab, Haryana, Rajasthan, Uttar Pradesh, Bihar, Madhya Pradesh, Maharashtra, Gujarat, Andhra Pradesh and Telangana.

**P.K.Joshi:** With regards to climate finance, the most prominent sources of funding are: Government funds, International Donors and the Private Sector. In India, legal provisions made for Corporate Social Responsibility commands that 2% of profits made by companies be channelled towards social development and sustainability initiatives. Last year, approximately INR 7000 crore was spent on CSR, of which 60% went to education and health, 20% to environment conservation and sustainability. One needs to start discussions around how to channel funds towards climate-smart agriculture, given its crucial importance in the given context. Environment sustainability is already a major component of CSR and a lot of funding is already directed towards this area. Thus, CSA being a component of this, already stands on high grounds for investments. Some very commendable efforts towards sustainability is already being seen through the efforts of Asian Development Bank, Reliance industries, ITC Ltd, Tata Group among others. Tata group has developed 10 core principles for its CSR mission out of which three are very relevant to this sector- Sustainability, Partnerships and Focus on Disadvantaged Regions. Similarly ITC has a sustainability development committee for allocating resources towards conservation efforts. Axis bank's CSR initiatives are making efforts towards reducing GHG emissions. Therefore, such initiatives can be further developed, converged and linked.

One can explore different pathways for enhancing climate finance towards climate-smart agricultural initiatives within the ambit of environmental sustainability. They are:

- **CSR Green Climate Fund:** A Green Climate Fund can be established comprising of CSR funds. If even 5% of such CSR funds are pooled into this, a corpus of approximately USD 250 million can be gathered which can be utilized to fund sustainability initiatives, including CSA. However, the challenge for this lies in the lack of credible partners that would make investments towards this.
- **Mainstreaming a CSR Consortia for CSA:** For instance, the Maharashtra government invited 17 agri-business companies (seed, irrigation, fertilizers etc.) to work together in the field for alleviating farmer's distress. Such a similar initiative can be made specifically for CSA through Public-Private Partnership mode and specific regional allocations can be made for promoting CSA in them. In this modus operandi too, the challenge of credible partners remains. There is also a risk of acquiring a geographic bias as companies may focus on their own industrial areas, ignoring the needs of backward areas. Infact, even in the current scenario, only 60% of the backward areas get only 15% of CSR funding.

For CSR funds to be truly put to use of larger good, there needs to be a favourable political situation. Investments need to be honestly made towards CSR initiatives as many companies inform about CSR spending without actually having done so. Further, there still exists a lack of clarity on how best to use CSR funds that tends to slow things down.

**Harinder Sidhu:** In the domain of agriculture, the relations between India and Australia go way back to 1893. The then Prime Minister of Australia had resigned from life in Politics and visited India. It is then that he observed the agricultural scenario in India, saw a lot of challenges and wrote a book on irrigation in India and associated issues.

Agriculture is facing a lot of challenges due to the changing climate. More particularly, marginalized groups such as women are bound to suffer the most because of these changes. Both Australia and India are significant food producers and both suffer from similar climatic risks. In this situation it is essential we turn our focus to some technologies and practices that are very promising in nature. In this regard, it is important to mention the Indian Council of Agricultural Research's (ICAR) promotion of Zero Tillage farming in West Bengal, a good illustration of scaling technology in agriculture. Then there is the Happy Seeder machine which is perhaps one of the most promising interventions in agriculture. There is a provision for 1000 crore subsidy for the machine. This year, the focus will be on ways to work with the government as also with industry groups to promote these technologies further. The private sector has a particularly important role to play in terms of manufacturing and selling such technologies. The starting point for Corporate Social Responsibility is in the acceptance of such crucial roles to be played by the private sector in the discourse on development.

Australia is one of the largest food producers but without the provision for subsidy to its farmers. Yet its food products are market competitive. Climate-smart agricultural practices are already being promoted in Australia. Use of advanced technologies, seasonal forecasting, adaptive machinery among others are being used to maximize irrigation and minimize soil disruption. There are also good business opportunities in these.

Coming back to the question of agri-business in India, one needs to see how best to channel surplus funds in India towards efficient use in agriculture.



## **Panel Discussion 2: Is resilient agriculture an avenue for quality CSR investment?**

**Akhilesh Yadav:** Agriculture in India is mainly rain-fed and the huge climatic variability is making crop production unstable. There is a depletion of biomass aggravating top soil along with surface run-offs. The resulting soil erosion has lot many implications on fertility and productivity of land, rendering them unproductive in most cases. Therefore, there is an imminent need to make this sector resilient.

For ITC, there are high stakes in agriculture. ITC's overarching vision is to ensure livelihoods sustainability while creating capabilities for the future. More specifically in the area of rural livelihoods, there are both on-farm and off-farm interventions which brings us directly to the domain of agriculture. On farm interventions are planned around natural resource management and sustainable farm practices to strengthen agriculture. Off farm interventions are focused on market linkages and enhancing livelihood opportunities especially for marginalized groups like women.

In the area of climate resilience and rural livelihoods, ITC has a broad range of programs, the thematic areas being: water security, sustainable agriculture, eco-restoration of commons and tree based farming,

livestock development and social inclusion. Water security in ITCs project areas is being ushered in through watershed and water harvesting structure development, promoting sustainable agricultural practices and increasing cropping intensity while stabilizing agricultural productivity. Agriculture is being made sustainable through capacity building of farmer beneficiaries in the same, promoting small land holder friendly mechanization and agri-business centers for credit, equipment hiring and collective input procurement. Tree based farming with inter-cropping is helping provide regular and increased income for larger adaptability. Income increase is also being achieved through livestock and fodder development, the former via artificial insemination has focused on native breed conservation. All interventions target mainly the marginalized communities especially poor women who are provided with market linkage and other livelihood opportunities.

The aforesaid is testimony to ITCs commitment towards resilient agriculture. Infact, ITCs foray into CSA has happened through a collaboration with CCAFS for scaling the CSV approach in the ITC project locations. It is currently being implemented in 2000 villages across 6 states. Value addition to the model has been done by infusing it with village commons, tree based livelihood and livestock components. Such efforts are to bring positive results for ITC through stable and assured production of the finest quality agri-products, supply of finest quality of pulpwood from sustainable sources for its paper and packaging business and finally the creation of a competitive base for quality milk, boosting its food and dairy businesses.

**Lopamudra Priyadarshini:** Various data sources reveal that very inadequate amounts of CSR funds have been spent in the agricultural sector by companies though there is huge potential for investments in the sector. Agriculture cannot be seen in isolation, and CSR may be looked at in terms of “Creating Shared Value” wherein, businesses can help in the progress of agriculture and agriculture sector can help businesses to improve and flourish. Though many CSR funds of various companies are diverted towards it, a proper model must be created so companies can easily adapt to these.

According to a survey, CSR spending pattern by top 200 BSE listed companies revolved around livelihood, environment, education, healthcare and rural development. Out of the spending, rural development received the least attention. Ironically, no activity related to farming figured. Does agriculture qualify for CSR activity? Unfortunately, the words ‘agriculture’ or ‘farming’ don’t figure per se in schedule VII (Section 135, Companies Act 2013), which speaks of activities that may be included by companies in their CSR policies. Nevertheless, there is ample scope and flexibility to take CSR activities in the farming sector under ‘rural development’.

Farmers are the lifeblood of our nation and yet lie at the bottom of the pyramid. In the face of a changing climate, their adversities have only compounded. To make agriculture climate-smart and help out the farmers in these times of increased hardships, the Sonalika Group has taken a number of initiatives.

Sonalika under their Corporate Social Responsibility does extensive work on environment sustainability under SDG 13. Due to increased pollution and the change in climatic conditions adversely affecting agriculture, Sonalika has taken the multi stakeholder approach to address the issue by helping farmers and promoting climate-smart agriculture. Sonalika, in association with CIMMYT-BISA has adopted 25 villages in Haryana for creating ‘Climate Smart & Resilient Agriculture’ along with ‘Crop Residue Management’ as a pilot project. This will empower farming communities and make them aware of various climate resilient agricultural patterns. Some of the approaches and components of Sonalika group’s climate-smart agriculture initiatives include: Multi-stakeholder engagement; Community based approach (farmer cooperatives); Entrepreneurship model to empower youth; Establish viable and scalable models for continuity and sustainability of efforts; Capacity Development among others.

**Baskar Reddy:** CSR funds should not be an end but rather a beginning of something. We can create business models using CSR funds (more like kick-start funds). Business models can be focused towards Last Mile Delivery (Agri-entrepreneurs/FPOs/Aggregators). Most importantly, for true impact there is

a need to move away from pilots and focus on scaling out strategies. There is a need to explore different kinds of business model approaches for climate-smart agriculture, especially Partnerships and Consortiums.

While building any business model using CSR funds, there needs to be a clear understanding of the context which will help in finding appropriate solutions. To scale up and ensure maximum impact of the model, it is essential to rework the model based on contexts and acquire validation for commercial operation. Some examples of excellent business models in the concerned area are: solar pumps in Jharkhand, Corn Dryers in Bihar which is an Israeli start-up, Bio-formulation for enhancing seedling growth in nurseries again an Israeli start-up and AAA Drought Resistant Maize, a combined initiative by CIMMYT, Syngenta and Syngenta Foundation. CSR should therefore be mobilized creatively for infusing the agriculture sector with innovation and thereby usher in resilience while enhancing farmers' livelihoods.

**Rajiv Kumar:** Climate Change will bring a lot many issues such as desertification, increased arid zones, crop losses, food and water insecurity, inequality, starvation, health hazards and eventually war and death. This calls for a new awakening and action. Change must come starting from the policy level with focused commitment towards climate action. To build food systems, secure increasing demand while remaining profitable and sustainable in the face of climate change, we need to focus on: *increasing productivity sustainably; enhancing the resilience of producers and supply chains* and; *reducing emissions*. However, this can only be done by connecting climate change with the bottom line of farmers and food businesses.

Olam is already promoting climate-smart agriculture by: building climate information systems to enhance climate predictability; digitization and linkage of micro weather stations with ICT; water management technologies; soil testing and fertility mapping; better integrated management of natural resources and production systems; land management technologies; crop diversification; reduction of energy foot print; capacity building of growers & extension team; collaboration with national and global

institutions, NGO's, buyers, industries. Olam ascribes to the idea that resilient agriculture is imperative for business sustainability and is not simply a way for risk mitigation. Such a thought process allows for comprehensive planning and therefore it is imperative that finance is scaled towards this segment. Hence, it can be directly asserted that 'yes, resilient agriculture is an avenue for quality CSR investment'.



### **Group Discussions: Summary presentations**

#### **Group 1: Reducing agrarian distress through scaling out of climate-smart agricultural technologies and practices.**

For the purpose of effective scaling out, there is need for a common 'Green Fund' and a 'Consortium'. All interventions planned to this effect must be community based. Innovative and engaging business models should be developed and curated to deliver social development goals. There should be a two way approach towards this: pilot based and out and upscaling. Further, food research must be given enhanced visibility which will finally lead to a win-win situation for all.

#### **Group 2: Reducing agrarian distress through scaling out of improved insurance and ICT products.**

Farmers still remain largely dissatisfied with insurance in India. One of the most crucial steps forward is to enhance awareness about insurance among the farming population. Till now only 70% of the farmers are enrolled, making awareness generation very important. Can CSR funding be directed towards this? For crop insurance to be truly effective in the country, we need improved, innovative and differentiated product. One way of improving insurance as a service is through ICT as it can help make the service efficient by directly taking information about claims to farmers. Thus, technology use can be enhanced to make the insurance process smoother. One of the innovative ways through which insurance can be made more effective for reducing agrarian distress is the practice of adopting villages. If we adopt villages, we can check the applicability and use of technologies in them. CSR can be utilized for all of this. At the moment, 5 public sector companies have 50% market share and they need guidance on spending funds. It can be done so for this sector.

### **Group 3: Reducing agrarian distress by empowering gender and youth.**

Different organizations have a different take/approach on this matter but it is generally noticeable that the gender aspect is becoming strong. All such initiatives have a commonality – identifying women farmers and building skills. But for this, it is imperative that financial access is made easy for the women farmers who can become independent by having access to credit. One of the ways to reduce agrarian distress while ensuring gender inclusion is making micro-entrepreneurs out of women. The female farmers as well as rural youth must receive training in micro, mini, medium enterprises as also make it easier to back these with credit flow. Landlessness is the greatest hindrance to these processes. Companies like Olam are trying to address such issues. Youth in the rural areas is a large number but not always gainfully employed. Therefore, such marginalized sections must be identified and the integrated into agri-based micro-enterprises.



### **Closing remarks by Prof. Ramesh Chand:**



We need state of knowledge (on which technologies to use), how do we incentivize to adopt knowledge for implementation. We need more resources to evolve a different type of institutional mechanism to address climate change. This is where the private sector can pitch in. Under the existing system we can see that some rules have already been relaxed for both the farming communities and the private sector that is creating an enabling environment. Farmers are now free to grow, cut and harvest a wide variety of trees. Contract farming is being allowed. The private sector can contract with other farmers for this.

We can do something creative around the way we produce food. Private investments are still very low in agriculture. How to incentivise them? Through improved efficiency in agriculture we can address the impacts of climate change in the sector and the private sector can play a role here. What difference can the private sector make to improve agriculture efficiency? One can look at several global examples, for instance the Netherlands. There is a direct collaboration between farmers and the private sector and they make joint deals with the government. In our case, one of the biggest hurdles is subsidies which blocks technology penetration into the sector, as, farmers always prefer whatever is the cheapest. They are one of the biggest disenablers and stop mobilization of society and its resources. The private sector can be relied upon for generating new ideas and business models. Infact, it is forums such as these where new ideas and approaches emerge and therefore, it is important to engage in such deliberative platforms. For the private sector, the fact should be highlighted that it is a very good idea to combine business interests with social goals which ends up giving good results. This is the thought that needs to permeate the agriculture sector also.

#### **KEY RECOMMENDATIONS:**

- With the impacts of climate change already visible in the food production system, upscaling climate finance to the agricultural sector for mitigation and adaptation efforts is imminent.
- A **closer collaboration between the CGIAR agencies and the private sector** is recommended which will lead to multiple returns for the latter in terms of having access to a vast body of data along with interpretation, expert knowledge, witnessing impacts on the targets measured by indicators, global recognition as well as opportunities for innovative partnerships.
- To mobilize industry and policy towards mainstreaming either a **CSR Green Fund** or a **CSR Consortia**. The former can be established comprising of CSR funds. The amount can vary starting from as minimal as 5%. The latter can become an effective and focused body in the mode of a Public-Private Partnership. The Consortia partners can make regional allocations among themselves to make concerted efforts in the most backward and climate affected regions of the country.
- To **generate, document and disseminate larger evidence** of best practices and technologies such as the benefits of Zero Tillage, Happy Seeder machines etc. to the private sector for inspiring enhanced investments.
- Mobilize the private sector **to integrate sustainability in their value chains and align manufacturing priorities** towards creation of a resilient farming sector such as higher investments in farm machineries and equipment that help promote CSA.
- Utilize CSR funds to **fast track Information and Communication technologies** for effective, efficient, last mile delivery of critical services to the farming communities, such as crop insurance and weather based agro-advisories to support better risk management.
- To **create business models using CSR funds**. Business models can be focused towards Last Mile Delivery (Agri-entrepreneurs/FPOs/Aggregators).

- Through CSR funds, the private sector can play a crucial role in attaining **gender and social inclusion** within the domain of climate-smart agriculture. Entrepreneurial and sustainable business models can be promoted in the rural hinterlands to attain triple benefits of income generation, proliferation of micro and medium business enterprises in the rural areas as well as socio-economic empowerment of the marginalized sections especially women farmers.
- To continue engaging the public and private sector in **multi-stakeholder deliberative platforms** for exploring ways and means to improve service delivery in a climate affected agriculture sector through CSR financing.

## ANNEX 1

### PROGRAM

Time	Event
9:00 am to 9:30 am	Registration
9:30 am to 9:35 am	Welcome note – Pramod.K.Aggarwal, Regional Program Leader, CCAFS South Asia
9:35 am to 9:40 am	Address by T. R Kesavan, Chairman, FICCI National Agriculture Committee & President & Chief Operating Officer, TAFE
9:40 am to 9:45 am	A note on the CGIAR- Martin Kropff, Director General, International Maize and Wheat Improvement Center (CIMMYT)
9:45 am to 11:45 am	Panel Discussions
<b>Panel discussion 1: Examining Climate-Smart Agriculture as an investment destination for CSR.</b> <b>Chair: Pravesh Sharma, IAS (Retd.) Adviser, FICCI, Co-Founder and CEO of the Kamatan Farm Tech Pvt (5 mins per presentation)</b>	
9:45 am to 9:50 am	Why station Climate-Smart Agriculture as an investment destination? ( <b>Martin Kropff, Director General, CIMMYT</b> )
9:50 am to 9:55 am	Appraising CSA- success stories of Climate-Smart Agriculture from the region.( <b>Pramod.K.Aggarwal, Regional Program Leader, CCAFS South Asia</b> )
9:55 am to 10:00 am	How can one invest in Climate-Smart Agriculture-charting routes and ways? ( <b>Pramod.K.Joshi, South Asia Director, International Food Policy Research Institute</b> )
10:00 am to 10:05 am	Remarks from the Hon'ble High Commissioner of Australia ( <b>Harinder Sidhu</b> )
10:05 am to 10:20 am	Open discussions (Q&A)
10:20 am to 10:30 am	Remarks from the Chair
10:30 am to 11:00 am	<b>TEA BREAK</b>
<b>Panel discussion 2: Is resilient agriculture an avenue for quality CSR investment?</b> <b>Chair: Baskar Reddy, Executive Director, Syngenta Foundation (5 mins per presentation)</b>	
11:00 am to 11:05 am	Views from ITC Ltd.- <b>Akhilesh Yadav, Regional Manager - North (Social Investments)</b>
11:05 am to 11:10 am	Views from Sonalika Group- <b>Lopamudra Priyadarshini, AGM-CSR/ PR Head</b>
11:10 am to 11:15 am	Views from Syngenta Foundation- <b>Baskar Reddy, Executive Director</b>
11:15 am to 11:20 am	Views from Olam International- <b>Rajiv Kumar, Corporate Cane Head and Sustainability</b>
11:20 am to 11:35 am	Open discussions (Q&A)
11:35 am to 11:45 am	Remarks from the Chair
<b>Group Discussion</b>	
<b>Topic 1: Reducing agrarian distress through scaling out of climate-smart agricultural technologies and practices.</b> <b>Conveners: A.K.Singh and Arun Joshi</b>	
<b>Topic 2: Reducing agrarian distress through scaling out of improved insurance and ICT products.</b> <b>Conveners: M.K.Poddar and Paresh Shirsath</b>	
<b>Topic 3: Reducing agrarian distress through improved gender and social inclusion.</b> <b>Conveners: Simrat Labana and Nitya Chanana</b>	

<b>Concluding session: Chair: Prof. Ramesh Chand, Member, Niti Aayog</b>	
12:45 pm to 1:00 pm	Summary presentation by groups (5 mins each group)
	<b>Group 1</b> (12:45 pm to 12:50 pm) <b>Group 2</b> (12:50 pm to 12:55 pm) <b>Group 3</b> (12:55 pm to 1:00 pm)
1:00 pm to 1:15 pm	Open discussion (Q&A)
1:15 pm to 1:30 pm	Closing remarks by Chair: <b>Prof. Ramesh Chand, Member, Niti Aayog</b>

#### **KEY POINTS FOR GROUP DISCUSSIONS:**

**Topic 1: Reducing agrarian distress through scaling out of climate-smart agricultural technologies and practices:** Rise in average temperatures, changes in rainfall patterns, increasing frequency of extreme weather events such as severe droughts and floods and the shifting of agricultural seasons have been observed in different agro-ecological zone of India. In this regard, it is pertinent to transform and re-orient agricultural development under the new realities of climate change. Through this discussion an attempt can be made to draw industry attention to the details of CSA and how industry engagement in the same can help a climate affected agricultural sector and the farming communities become more resilient. Further discussions can be steered towards assessing ways to package CSA for CSR funding, whether CSA is meeting the funding criteria while identifying partnerships for scaling the same.

**Topic 2: Reducing agrarian distress through scaling out of improved insurance and ICT products:** The government of India came up with the Prime Minister's Crop Insurance Scheme two years ago, a revamped scheme that aims to reduce basis risks and therefore minimize farmer distress. However, farmer satisfaction and protection still remains inadequate due to a number of factors starting from low non-loanee farmer enrolment, slow and expensive loss assessment methodologies, delayed pay-outs, inadequate digitization of land records among others. With the ICT revolution at hand, its creative channelling can go a long way towards tightening the loose ends of crop insurance. A discussion becomes imperative to explore the opportunities for improving such serviceable products and provide the most affective risk cover and security for the farmers. It is also important to assess how these products and services can be better packaged within CSA for scaling CSR funding, whether they are currently meeting the funding criteria and how to make them more socially inclusive.

**Topic 3: Reducing agrarian distress by empowering gender and youth:** Female farmers mostly have an over-burdened work load due to household and field responsibilities, have lower access to resources (credit, market, information), compromised access to extension services due to low education as well as health hazards that indirectly result out of various inter-related factors revolving around higher work load and redistribution dynamics within the household. Youth on the other hand are meant to be the rudder behind India's growth story, now more than ever before as the nation stands to be the youngest nation in the world in terms of work force. A service sector led growth story is largely influencing the outmigration of youth from the agrarian hinterlands, leading to lopsided distribution of skills and labour. To address these aforesaid issues and harness the power of women and youth to create a boisterous agricultural system in the nation, discussions can be held to arrive at resolutions for a socially inclusive growth story for the nation. More specifically, discussions could conclude with identifying whether socially inclusive CSA practices are meeting with funding opportunities and what the avenues are, for collaborations and partnerships in this space.

## ANNEX 2

### PARTICIPANTS

<b>Sl.No.</b>	<b>NAME</b>	<b>Designation</b>	<b>Organization</b>
1.	Prof. Ramesh Chand	Member	Niti Aayog
2.	Ms. Harinder Sidhu	High Commissioner	Embassy of Australia
3.	Akhilesh Yadav	Regional Manager (North); Social Investments	ITC Ltd.
4.	Surendra Kumar Purohit	Program Manager	ICICI Bank
5.	Rajiv Kumar	Corporate Cane Head &Sustainability	Olam International
6.	Baskar Reddy	Executive Director	Syngenta Foundation
7.	Lopamudra Priyadrashini	AGM-CSR/PR Head	Sonalika Group
8.	Mahesh Gangadharaiah	Program Integrator( Food And Nutrition Security), Rural Transformation	Reliance Foundation
9.	Ajay Kumar Mishra	Executive Vice President & Head - Corporate Affairs	DFPCL
10.	T.R.Kesavan	Chairman, FICCI National Agriculture Committee & President & Chief Operating Officer	Tractors and Farm Equipment Ltd.
11.	Anoop A N	Officer on Special Duty	Tractors and Farm Equipment Ltd.
12.	M.K. Poddar	General Manager	Agricultural Insurance Company of India
13.	Pravesh Sharma	IAS (Retd.) Adviser, FICCI, Co-Founder and CEO	Kamatan Farm Tech Pvt
14.	Jasmeet Singh	Head-Agriculture	Federation of Indian Chambers of Commerce and Industry
15.	Ruchira Saini	Joint Director-Agriculture	Federation of Indian Chambers of Commerce and Industry
16.	Sarita Koli	Senior Assistant Director	Federation of Indian Chambers of Commerce and Industry
17.	Apoorva Mishra	Research Associate	Federation of Indian Chambers of Commerce and Industry
18.	A.K. Singh	DDG-Agricultural Extension	Indian Council of Agricultural Research
19.	Soora Naresh Kumar	Professor	Indian Council of Agricultural Research

20.	Nilanjan Ghosh	Technical Expert-Solar	GIZ
21.	Simrat Labana	Project Management Specialist (Agriculture)	USAID
22.	Harsha Hazarika	Economic Analyst	Embassy of Belgium
23.	Pratibha Singh	Regional Manager	Australian Center for International Agricultural Research
24.	Martin Kropf	Director General	CIMMYT
25.	Bram Govaerts	Strategy Lead Sustainable Intensification LatAm.	CIMMYT
26.	P.K.Aggarwal	Regional Program Leader	CCAFS SA/BISA-CIMMYT
27.	P.K.Joshi	South Asia Director	IFPRI
28.	Arun Joshi	Director of Research-SA	CIMMYT-BISA
29.	Nafees Meah	Representative-SA	IRRI
30.	Shalander.K	Research Program Director	ICRISAT
31.	M.L.Jat	Senior Cropping System Agronomist	CIMMYT
32.	Arun Khatri-Chhetri	Science Officer	CCAFS SA
33.	Paresh.B.Shirsath	Associate Scientist	CCAFS SA
34.	Sheetal Sharma	Scientist-Soil Science/Nutrient Management	IRRI
35.	D.S. Rana	Research Scientist	IRRI
36.	Debjani Samantaray	Core Communications Specialist	IRRI
37.	Prasun Gangopadhyay	Project Scientist	BISA
38.	Shalika Vyas	Research Associate	CCAFS SA
39.	Mansi Nagpal	Research Associate	CCAFS SA
40.	Nitya Chanana	Research Associate	CCAFS SA
41.	Seshkumar Goroshi	Remote Sensing and GIS Specialist	CCAFS SA
42.	Shehnab Sahin	Communications Specialist	CCAFS SA
43.	Rajmani Patel	Regional Sales Head	National Geographic Magazine
44.	Ankit	Regional Sales Manager	National Geographic Magazine

## ANNEX 3

### IMAGES



