

Tea Board of India
Ministry of Commerce & Industry
Government of India.

Date: 29.03.2017

Seminar on the "Impact of Climate Change on Tea and Ameliorative Measures"

The relationship between tea yield and climatic factors implies that long term climate change will impact the key physiological and developmental processes that determine the yield of tea. As yield is directly associated with revenue, changing climate is also likely to impact economic structure of those reliant on tea, particularly small holdings given their increased vulnerability to changes in the system.

A Seminar on the "Impact of Climate Change on Tea and Ameliorative Measures" was organised by Tea Board of India at the Auditorium of Tocklai Tea Research Association, Cinnamara, Jorhat on 25.03.2017. The seminar provided an opportunity to discuss the various issues pertaining to climate change and its impact on tea and the way forward to counter the problems. Experts from the research institutes, academicians, representatives from the tea industry and the Director of Tea Development, Tea Board expressed their views regarding the issue. The seminar was graced by Shri Kamakhya Prasad Tasa, Member of Parliament, Jorhat, Smt. Rita Teotia, Commerce Secretary, Govt. of India, Shri Alok Vardhan Chaturvedi, Additional Secretary, Ministry of Commerce & Industry, Govt. of India, Shri K. K. Dwivedi, Commissioner & Secretary, Ministry of Commerce & Industry, Govt. of Assam, Shri S. K. Sarangi, Chairman, Tea Board and Shri Sanjio Kumar, Executive Director, Tea Board Guwahati. Shri Sarangi, Chairman Tea Board welcomed the dignitaries and set the tone for the seminar by briefing on the challenges confronting tea Industry and how climate change is significantly impacting the productivity & quality.

Tea growing areas have been witnessing long rainless spells or high intensity rainfall of short duration in recent years, resulting in water logging and soil erosion in tea gardens as per IIT-Guwahati conducted study.

Study conducted by Tocklai Experimental station of Tea Research Association was presented by Dr Bhagat and he discussed the impact of climate changes on the tea sector, too, had revealed similar details. The study had found that the average minimum temperature in Assam had risen by one degree Celsius in the past 90 years, besides, the region lost around 200mm rainfall because of climatic changes. A more serious problem is the increased incidence of new pest and diseases that attack tea bushes.

Some of the issues that tea estates have had to deal with in recent years include:

- Erosion of top soil due to uncharacteristic heavy rainfall patterns, which has a negative impact on production ;
- Increased use of fertilizers to maintain soil fertility ;
- Increased usage of pesticides, particularly during dry season, as tea gardens are increasingly being damaged by pests that were dormant in the past; and
- Addressing longer dry seasons and heavier rains, some tea estates have begun using irrigation systems to increase yields.
- The increased use of fertilizers and pesticides, as well as building and maintaining irrigation systems have significantly increased cost of production.

The increased cost of mitigating climate change has begun to impact social facilities in estates raising some serious socio-economic issues related to working conditions. These include:

- Low wages and low quality housing;
- Health and safety;
- Declining work force;
- Regular workers are re-employed on a casual or short-term basis;
- Diminishing representation of workers.

Measures to be adopted for mitigating climate change on tea :

- Planting drought and stress tolerant cultivars ;
- Intercropping tea with other food crops;
- Organic cultivation ;
- Water conservation through efficient artificial irrigation and drainage systems, as well as water harvesting.

Sri S.Soundararajan, Director of Tea Development stated that dependence on irrigation in the tea sector has increased over the last 20 to 30 years, partially to offset the changes in weather patterns. Tea Board has funded for Irrigation upto 40,343 Ha in last 5 years. He informed that industry may also avail financial assistance under PMKSY, Green Climate Fund, and National Adaptation Fund for Climate Change.

Shri P. K. Bezboruah, Chairman, TRA, told that Irrigation has become a necessity. However focus should be on rainwater harvesting and drip irrigation as a way to counter the problem.

Sri K.P.Tasa Honbl'e MP of Jorhat stressed the need of more Central Government attention and support for survival and betterment of the tea industry, specifically by adequate funding to TRA and strengthening Tea Board. He has suggested to set up of one-man commission on tea to study the problems of STGs, to be chaired by the Union Commerce Minister. Skill development programmes should be taken up by Tea Board for capacity building of the tea garden workers. Publication of research findings and steps to be taken on climate change will help the tea growers for creating awareness.

Shri K. K. Dwivedi, Commissioner & Secretary, Ministry of Commerce & Industry, Govt. of Assam, explained the various financial assistance extended by the State Govt. for the development of the Small Tea Growers. He pointed out that a revolutionary step has already been taken by the Govt. of Assam for the STGs, i.e. granting ownership rights to such growers who have planted tea / crop on Govt. lands, simply by paying a premium of Rs. 1000/- per Bigha. Landholding certificate will facilitate the growers to obtain bank loans.

Smt. Rita Teatota, Commerce Secretary, Govt. of India, stated that the Seminar presented an opportunity to understand the changing contours of the tea industry and inputs would be taken into consideration in formulating and fine-tuning policy requirements and executing those through Tea Board. Knowledge transfer and capacity building programmes for the small tea growers should be a focus area of Tea Board to equip the STGs technically to counter problems like climate change. Besides marketing and organic conversion of gardens, what is even more important is sustainability of cultivation. Integrated and comprehensive efforts are necessary to solve the problems of the industry.

The representatives from the industry acknowledged that the seminar was a timely initiative from Tea Board which would facilitate them to counter the various problems in a better manner.

The Secretary Commerce released the Tea Garden Atlas, for the benefit of the growers during the course of the seminar. 'Tea Garden Atlas - Based on Remote Sensing Data' is one of the outcome under Tea GIS-MIS project of all tea growing areas of entire North Bengal and Assam using high resolution satellite data and has been carried out by Regional Remote sensing Centre – East (RRSSC-E), Kolkata, funded by Tea Board. It depicts detailed inventory of tea gardens, present land use, shade tree density and primary information pertaining to the gardens. The structured geo spatial database will also serve as a management tool for extreme events of flood, drought etc.

Sri K.P.Tasa Honbl'e Member of Parliament launched the bulk SMS service for the benefit of the small tea growers by sending first batch of SMS to the small tea growers on minimum benchmark price of green leaf for the tea growing districts of Assam for the month of March 2017. Every month the minimum benchmark price of green leaf for each district of Assam will be sent to the small tea growers through SMS. This is also a step forward to strengthen the knowledge base of the small tea growers, so that they are able to get a fair and just price for their produce.

On 26th March, 2017, the Commerce Secretary, Additional Secretary (Plantation), Chairman, Tea Board, Director Tea Development and Executive Director, Tea Board Guwahati visited Mezengah at Jorhat District, Assam for interaction with the small tea growers and self help groups. The interaction was held at the factory premises of M/s Mezengah Tea Producer Company Ltd. which is under construction. Office bearers of the producers company presented the evolution of the society from individual small growers to potential tea manufacturers. The team also had direct interaction with local small tea growers and discussed various issues like simplification of procedures for grant of land ownership, increasing the rate of financial assistance under Boards schemes, remunerative pricing of green leaf etc.



Dr A K Barooah, Director TTRI Felicitating Smt Rita A Teatota, Commerce Secretary, Govt of India at TRA Guest House Jorhat



Opening remarks by Shri S K Sarangi, IAS, Chairman, Tea Board



Dignitaries at the dias in the seminar on “Effects of Climate Change on Tea and Ameliorative Measures” at TRA Auditorium, Jorhat



Audience in the seminar on “Effects of Climate Change on Tea and Ameliorative Measures” at TRA Auditorium, Jorhat



Address by Hon'ble member of Parliament, Jorhat LS Shri K P Tasa in the seminar on Climate Change at TRA Auditorium, Jorhat



Address by Smt Rita A Teotia, Commerce Secretary, Govt of India at Seminar on Climate Change at TRA Auditorium, Jorhat



Presentation by Mr S Soundararajan, Director of Tea Development, Tea Board on “Impact of Climate Change on tea productivity and Alternate options”



Dr R M Bhagat, Addl Director, TTRI making a presentation on “Climate Change Impact on Tea Ecosystem: trends and Future Projections”



Dr A K Sarma, IIT Guwahati , making a presentation on “Sustainable Approach of Rainwater Management and Application for Mitigating Adverse impact of Climate Change”



Presentation by Dr D Dutta of ISRO about the Tea Atlas



Release of Tea Atlas by Smt A Teotia, Commerce Secretary, GOI at TRA Auditorium



Launching of Bulk SMS by Hon'ble MP Jorhat at TRA Auditorium



Visit to TRA Lab by Smt Rita A Teotia, Commerce Secretary, GoI in Jorhat



Smt Rita A Teotia, Commerce Secretary addressing an interactive meet with small tea growers at Mezengah, Jorhat on 26th March 2017



Smt Rita A Teatia, Commerce Secretary, Govt of India, interacting with small tea growers at Mezengah area