

REPORT OF PARTICIPATION OF INDIAN DELEGATION IN THE PLENARY MEETING OF ISO/TC 34/SC 8 'TEA' HELD ON 23 JULY 2024 IN COLOMBO, SRI LANKA

The following Indian delegation participated in the plenary meeting of ISO/TC 34/SC 8 'Tea' held on 23 July 2024 in Colombo, Sri Lanka:

- i) Shri S. Soundararajan, Director (Tea Development), Tea Board India, Kolkata (Chairperson FAD 6) – **Leader of Indian delegation**
- ii) Dr. P. Jose David (Member of FAD 6 in personal capacity)
- iii) Mr. Arijit Raha, Indian Tea Association, Kolkata
- iv) Dr. Biplab Adhikary, North Bengal Regional R&D Centre, Tea Research Association, West Bengal (Convenor, ISO/TC 34/SC 8/WG 15 'Theanine')
- v) Dr. Bhawana, Scientist D, Food and Agriculture Department, BIS (Member Secretary, FAD 6)

The briefing meeting of Stimulant Foods Sectional Committee, FAD 6 was held on 15 July 2024 by virtual mode for participation of Indian Delegation in the ISO/TC 34/SC 8 meeting.

Report of participation of Indian delegation in the ISO meeting is as under:

A. Usefulness of Foreign Deputation with a Brief Description of Work Carried Out:

Delegations from China, Germany, India, Japan, Kenya, Sri Lanka and UK attended the meeting.

The agenda document (Doc. ISO/TC 34/SC 8 N 1050) was adopted as such without any change. Resolutions Drafting Committee was constituted comprising of Dr. Timothy Bond (UK), Dr. Bhawana (India) and Dr. Zang Yahli (China) to assist the Committee Manager in preparing the resolutions of the meeting

Indian delegation actively participated in the discussions related to the following items, brief summary of discussions, contribution of Indian delegation along with Committee's decision is given below:

1) India's Proposal for Development of ISO Standard on Tea bags specification (BIS, India)

As per the decision taken by FAD 6, a new work item proposal on 'Tea bags – Specification' is being submitted to SC 8 for development of an ISO Standard. Before the formal NWIP, the proposals are first discussed in the plenary meeting.

Powerpoint presentation and background note regarding India's NWIP on teabags was forwarded to Committee Manager SC 8, which was circulated to all SC 8 members in advance. Dr. Jose David made presentation on India's proposal. China, Kenya and Sri Lanka supported the proposal. German delegation submitted that benefit of such a standard (for the user/industry) must be clarified. Sri Lanka suggested that a survey across the producing countries is needed to receive feedback on what is used in practice. UK and Germany submitted that there are several regulations in different countries and the subject is very political in nature, especially in Europe due to the issue of microplastics. UK raised the concern whether the subject is covered under the scope of

ISO/TC 34/SC 8 ‘Tea’ or ISO/TC 122 ‘Packaging’ and availability of sufficient test methods available for the determination of the parameter to be specified. Indian delegation clarified that the main ingredient in tea bags is tea, the product is unique as the whole tea bag is dipped in hot water and the brew goes into the alimentary canal, therefore, specialized type of materials are used for making tea bags and thus the subject is more relevant to the scope of SC 8. Considering the discussions held during the meeting and concerns raised by countries, SC 8 decided to create an ad hoc group under the convenorship of India (Dr. P Jose David) to discuss and review the proposal further. China, Germany, India, Kenya, Japan, Sri Lanka, UK expressed interest to be a member of this group. It was also decided that Committee manager would consult ISO/TC 122 ‘Packaging’, for possible collaboration for this work item.

2) Report of ISO/TC 34/SC 8/WG 15 ‘Theanine’: ISO/PWI 19563, Determination of theanine in tea and instant tea in solid form using high-performance liquid chromatography

Dr. Biplab Adhikary, North Bengal Regional R&D Centre, Tea Research Association, West Bengal, India is the Convenor of ISO/TC 34/SC 8/WG 15 ‘Theanine’. A collaborative trial is being planned by WG 15 at SC 8 level for the updated method. Dr. Biplab Adhikary (Convenor WG 15) presented status update of progress of work done by WG 15 and the plan for the CT trial. SC 8 agreed to conduct the collaborative trail as per the method submitted by WG 15. TRA, UPASI and TCPL are participating in the CT from India.

3) Report of ISO/TC 34/SC 8/WG 6 “Tea classification” : ISO/CD TS 5617, Method of tea classification by chemical analysis

Following written submission was sent to ISO/TC 34/SC 8 Secretariat from BIS (India) on the report of ISO/TC 34/SC 8/WG 6 and recommendations submitted by the Convenor, prior to the SC 8 meeting:

- a. Darjeeling tea is a flagship brand of Indian tea registered under GI mark and should be adequately represented in the study schedule for Classification of Teas. Results from just 5 Samples of tea is not enough to adequately classify the teas in the Study and it is not fair to exclude Darjeeling Orthodox Black tea from the Scope.*
- b. We wish to point out that only 5 samples of Darjeeling Orthodox Black Tea were included in the study. This sample size is too small to give a statistically relevant outcome. The samples that were considered for the analysis (5 Nos) were primarily from the 1st and 2nd flush which accounts for approximately 35% of the Darjeeling production. However, samples of the autumn/monsoon flush of the year have not been considered. This merits consideration and hence we submit that more Darjeeling Orthodox Black teas representing all seasons to be included in the study.*
- c. We submit to request extension of Project for 9 months (an option suggested by Committee Manager also) to include more samples of Darjeeling Orthodox Black tea to study their characteristics.*
- d. India had nominated Dr. Biplab Adhikary to participate in the ring test for the project. In the report submitted by the Convenor WG 6, there appears to be no mention of ring test being planned/conducted. Convenor may kindly update the status of ring test. Nominated Indian expert can participate and contribute in the ring test for collection of data for the ISO project.*

- e. *Additionally, we suggest WG 6 to explore the modification of the methodology or Fisher equations to accommodate the variation of Darjeeling and also Matcha teas.*

The issue was discussed in detail during the meeting and concerns were raised by other countries also. With persuasion by Indian delegation, SC 8 decided to extend the total project duration for additional 9 months. Indian delegation committed to provide more samples of Darjeeling tea from different seasons for further analysis (*same have been provided to the Convenor WG 6 subsequent to the meeting*).

4) ISO/AWI 20680, White tea — Definition and basic requirements

India had approved the new work item proposal on white tea and submitted comments on the working draft regarding the proposed requirement of ‘Caffeine’ and ‘Theanine’ as quality parameters. Comments were accepted by WG 7. The Convenor clarified that after the manufacturing process is complete, jasmine flower blooms are removed by picking and most of the commercial samples don’t have any jasmine flowers left in tea. Some manufacturers on specific request from buyers add dried jasmine flowers (max 1.5%) to provide a visual cue to make the product more appealing to consumers.

Indian delegation again raised the concern regarding the proposed specification of crude fibre in white tea. SC 8 requested WG 7 to clarify and investigate the reason for the proposed higher level and review the level as proposed in the draft.

5) ISO/DIS 18449, Green tea — Vocabulary

SC 8 had earlier decided to take up revision of IS 18449 ‘Green tea — Vocabulary’ to incorporate pictorial representation of various terms used in the ISO Standards, as an Annexure. Committee Manager informed that DIS ballot is in preparation and is expected to be launched in August 2024. SC 8 decided that if no technical comments are received on DIS ballot, the FDIS could be skipped.

6) ISO/PWI 20254, Method for determination of anthocyanins in tea

As per the recommendation of ISO/TC 34/SC 8/WG 11 ‘Purple tea’, SC 8 agreed for conducting an international collaborative trial and use the method for “Determination of total monomeric anthocyanins content in purple tea — pH Differential Method” suggested by WG 11 in the ring test. Shipment of samples to the participating laboratories to commence in the month of August 2024. As decided by FAD 6, BIS (India) has nominated Dr. Boopathiraj, UPASI for participation in the ring test.

7) ISO/PWI TS 7820, Tea — Chemical analysis of chlorophyll

A collaborative trial is being planned by ISO/TC 34/SC 8/WG 13 ‘Matcha tea’ for ISO/PWI TS 7820, Tea — Chemical analysis of chlorophyll. As per the recommendation of FAD 6, BIS (India) has nominated TRA and UPASI to participate in the CT.

6) Review of the Scope of ISO/TC 34/SC 8 ‘Tea’

Based on the comments submitted by Indian delegation during the last meeting of SC 8 held on 30 Nov 2023 virtually, SC 8 launched a CIB consultation ballot seeking comments of member bodies on the current scope of SC 8 and suggestions regarding how to handle standardization for specialty products (e.g. tea-based beverages/products, tea-related products etc.).

Upon consultation with Indian National Mirror Committee, BIS had cast India’s vote that ISO/TC 34/SC 8 should cover only tea and tea products where different processes are involved. SC 8 should not make standards on recipe based products where tea and other ingredients are used as admixtures. It was submitted that standardization of composite/recipe based products is very challenging as huge number of combinations of different ingredients are possible due to which product composition would vary widely and it would be difficult to specify quality characteristics of such products. Further, product characteristics and preferences vary widely in different geographies. Even within same geography, similar products are hugely differentiated.

Indian delegation reiterated India’s comments submitted on the CIB consultation. Most of other SC 8 members also expressed the same viewpoint that specialty products should not be covered under scope of SC 8. We may reiterate India’s comments submitted at the time of CIB consultation.

ISO/TC 34/SC 8 decided to set up an informal task group ‘Scope clarification’ to discuss and review the scope regarding the results of the survey, how teabags and similar products can be covered under the scope of ISO/TC 34/SC 8 and to explicitly define the scope exclusions.

7) ISO/CD 22170, Masala chai/tea powder – Definition and characteristics

India had disapproved ISO/NP 22170 ‘Masala chai/tea powder – Definition and characteristics’ with comments, however, the subject got approved after meeting the criteria and WG 16 has been created for this project under the Convenorship of expert from Iran. India has nominated experts in WG 16. The Indian experts nominated in WG 16 have pointed out that the scope/contents of the ISO/WD 22160 are considerably different from the subject approved by SC 8 through e-balloting during the NWIP stage. India’s comments were submitted to the Convenor through the balloting portal and were also raised during the WG 16 meeting held on 17 January 2024. The Convenor did not attend the SC 8 meeting. The Committee considered the report submitted by Convenor. Indian delegation and other countries emphasized on the earlier mentioned challenges and that CD comments must be resolved to build consensus. Further, clarification is necessary, whether the project may be covered under scope of SC 8 or not. Due to the absence of the Convenor or an Iranian delegation, SC 8 could not take a decision on the issue and decided not to progress the project to next stage until SC 8 makes a decision on the recommendation of the ad hoc group ‘Scope clarification’ whether such products should be covered under the scope of SC 8.

8) Report of ISO/TC 34/SC 8/AHG 1 “Metal dust”

During the last plenary meeting of SC 8 held in Nov 2023 through virtual mode, with repeated intervention from Indian delegation, the Committee agreed to form a task group to review UK’s proposal on metal filings in tea instead of registering it as Preliminary work item. India has nominated experts in the task group. The Convenor gave a brief presentation on the progress made

and informed that the ad hoc group has recommended that focus should lie on the development of a harmonized determination method and not on limit level. The ad hoc group recommended to use the method given in Indian Standard IS 3633 'Black tea – Specification' for determination of iron fillings in tea. Indian delegation mentioned that the sampling method should be considered and investigated with more detail, e.g. sampling plan. More discussions will be done by ad hoc group submitting PWI proposal to SC 8.

9) Report of ISO/TC 34/SC 8/AHG 2 “Density measurement of leaf tea”

SC 8 during the last meeting decided to set up a task group (density measurement of leaf tea) to discuss and review the proposal by UK on development of ISO Standard on test method for density measurement of leaf tea. Indian delegation supported the proposal and suggested that the project may include free flow density of leaf tea along with tapped density. Indian experts have been nominated in the ISO task group. AHG 2 work is yet to be initiated. SC 8 advised Convenor AHG 2 to expedite the completion of task assigned to the group.

10) Revision of ISO 6078:1982 Black tea — Vocabulary

China made a presentation on their proposal for revision of ISO 6078 with the justification that significant changes in black tea technology and product innovations have made since publication and that ISO 6078 is not aligned with ISO 20715 : 2023 'Tea – Classification of tea types'. SC 8 agreed to the proposal. A CIB would be launched under SC 8 for formal approval for revision of ISO 6078. If approved, new WG must be set up for this work under the Convenorship of Dr. Du Yingying from China. Germany, India, Kenya, Sri Lanka, UK expressed interest to join the work.

11) Revision of ISO 6079:2021 Instant tea in solid form — Specification

China made a presentation on their proposal for revision of ISO 6079 to improve the quality characteristics of different instant tea products to accurately meet the global consumer demand for high-quality instant tea and expand the application fields and consumption scenarios of instant tea. SC 8 decided to set up an ad hoc group “Instant tea” under the Convenorship of Prof. Yang Xiufang (China) to discuss and review the proposal. Germany, India, Japan, Sri Lanka, and UK expressed their interest to join the group.

12) Any Other Business – NWIP on Good Manufacturing Practices (GMP) for Tea

Indian delegation enquired the reason from SC 8 Secretariat and Chair regarding removal of work item/project on good manufacturing practices (GMP) for tea from the programme of work of SC 8. The Chair informed that the work item was proposed by Argentina and due to lack of interest from Argentina later, the item was dropped by SC 8. Indian delegation informed that Indian National Mirror Committee is in the process of developing an Indian Standard on the subject and suggested that SC 8 may also consider to develop an ISO Standard on good manufacturing practices (GMP) for tea. SC 8 advised BIS to propose new work item on this subject and make a presentation in the next meeting on India's proposal.

B) Benefits Accrued to BIS

Indian viewpoint was represented on various agenda items to protect India's interests in the ISO Standards developed by ISO/TC 34/SC 8. Indian delegate (Dr. Bhawana) was member of resolutions drafting committee for SC 8 plenary meeting and ensured that all the decisions are appropriately recorded in the resolutions. The meeting served as an excellent opportunity to interact with the experts of different countries working in the tea sector. Main highlights of participation of Indian delegation are as under:

- a) SC 8 agreed to further discuss India's proposal for development of ISO Standard on Tea bags specification and created an ad hoc group under the Convenorship of Dr. Jose David (India) to discuss and review the proposal further and submit recommendations for consideration of SC 8.
- b) Indian expert is Convenor of ISO/TC 34/SC 8/WG 15 'Theanine' for revision of ISO 19563 ISO/PWI 19563 'Determination of theanine in tea and instant tea in solid form using high-performance liquid chromatography'. Dr. Biplab Adhikary (Convenor WG 15) presented status update of progress of work done by WG 15 and the plan for the CT trial. SC 8 has agreed to conduct a collaborative trial for the updated method submitted by WG 15. TRA, UPASI and TCPL are participating in the CT from India.
- c) India's representation on proposal of Convenor WG 6 for exclusion of Darjeeling tea from the scope of ISO/CD TS 5617 'Tea classification by chemical analysis' was discussed in detail during the meeting and concerns were raised by other countries also. With persuasion by Indian delegation, SC 8 decided to extend the total project duration for additional 9 months. Indian delegation committed to provide more samples of Darjeeling tea from different seasons for further analysis. Same have been provided to the Convenor WG 6.
- d) SC 8 has created an ad hoc group to review its scope based on the results of survey conducted by SC 8 in this regard. India has offered to participate in the ad hoc group. SC 8 decided not to progress the project on 'Masala chai/tea powder – Specification' to next stage until SC 8 makes a decision on the recommendation of the ad hoc group "Scope clarification" whether such products should be covered under the scope of SC 8.
- e) SC 8 agreed to the recommendation of ad hoc group on 'Metal dust' to focus on the development of a harmonized determination method and not on limit level. The ad hoc group recommended to use the method given in Indian Standard IS 3633 'Black tea – Specification' for determination of iron fillings in tea.
- f) Indian delegation raised the concern regarding the proposed specification of crude fibre in white tea in ISO/AWI 20680, White tea — Definition and basic requirements. SC 8 requested WG 7 to clarify and investigate the reason for the proposed higher level and review the level as proposed in the draft.
- g) India is participating in the collaborative trial for ISO/PWI 19563 "Determination of theanine in tea and instant tea in solid form using high-performance liquid chromatography", ISO/PWI 20254 "Determination of total monomeric anthocyanins content in purple tea — pH Differential Method" and ISO/PWI TS 7820 "Tea — Chemical analysis of chlorophyll".
- h) SC 8 advised BIS to propose new work item on good manufacturing practices (GMP) for tea and make a presentation in the next meeting on India's proposal.

C) Conclusion and Recommendations

Based on the discussions held during the meetings and the decision taken by the Committee, following actions points are recommended by Indian delegation:

- a) Meeting of ISO/TC 34/SC 8/WG 15 'Theanine' is to be convened to discuss further action regarding conducting the collaborative trial for revision of ISO 19563 'Determination of theanine in tea and instant tea in solid form using high-performance liquid chromatography'.
- b) Indian delegation recommended that BIS may support nomination of Dr. Jose David as Convenor of Ad hoc group on 'Tea bags' constituted under SC 8 to further review India's proposal on tea bags.
- c) Indian delegation committed to SC 8 to provide more samples of Darjeeling tea from different seasons for further analysis (*same have been provided to the Convenor WG 6 subsequent to the meeting*).
- d) Indian experts are to be nominated in ad hoc groups/working groups for Scope clarification, Tea bags, Revision of ISO 6078 'Black tea — Vocabulary and Revision of IS 6079 'Instant tea', to be constituted under SC 8.
- e) Indian delegation recommended that expert(s) from UPASI should be nominated for WG 7 'White tea' and samples from South India may be provided for analysis.
- f) Indian delegation suggested that since India has already supported revision of ISO 18449 as per the recommendation of WG 10, we may approve ISO/DIS 18449.
- g) FAD 6 is to further discuss regarding India's NWIP on Good Manufacturing Practices for Tea Sector.