

Tea Board of India

Draft discussion paper for new market design for e-auction

A: Role of tea auctions in the primary marketing options for tea in India

- Public tea auctions have already played a key role as the **main vehicle** for primary marketing of tea in India for over a **century** ever since the first public tea auction centre was set up in **Calcutta** in 1861.
- Till date public tea auctions **handle** tea **only** in the **form of loose tea** in bulk packages.
- Over the years, the manufacturers of tea from tea leaf are producing packet tea (not content of tea in one such packet does not exceed one kg) for marketing to create awareness about their identity amongst consumers. Such act of value addition is beneficial to the Estate factory, Bought leaf factory and Cooperative factory.
- Public tea auction **does not** handle **such packet tea** at present.
- While **packet tea** is traded **only privately** at present, the sales of **loose tea in bulk package privately** is emerging as an important **alternative** primary marketing channel.
- The reasons for trend in **shift** from use of public tea auction route are reportedly **transaction time** and **transaction cost** related to the existing auction system.
- Other disadvantages of the existing system reportedly are
 - Accommodation for **limited number** of registered buyers in the auction hall for bidding on any **auction day** due to paucity of getting space in the auction hall.
 - Dominance of **buying agents** (commission agent) in the auction room
 - Large number of **CST buyers** (**principal** registered buyers) are not allowed to bid in the auction room particularly in **South Indian auctions**.
 - **Shorter time** for price discovery (roughly 20 to 30 seconds per lot)

B : Existing Manual Public Tea Auction System (auction process) in India

- Auction **handles** tea only in **loose form** (generally in bulk packages containing 15 to 45 kgs per pack).
- The **key stakeholders** in the auction system are
 - (a) **Auction organizers**, who organize tea auctions, designated as “Tea Auction Committees” or “Tea Trading Associations”
 - (b) Tea **producers cum sellers** – tea producers are either estate factories or bought leaf factories or cooperative factories who manufacture tea from the tea leaf. Such factories are considered as **sellers** in different tea auctions. At present **dealers**, who purchase/procure teas from such estate factories/bought leaf factories/cooperatives, **are not allowed** to sell their teas in the public tea auctions.
 - (c) **Tea brokers** – the brokers are **auctioneers** of tea, who sell tea on behalf of sellers at the auction centres.
 - (d) **Tea buyers** – tea buyers are purchasers of tea in the auction centres. Such tea buyers are not necessarily the bidder of tea in the auction centres all the time. Such tea buyers are either packeters/blenders who buy for their own brands or packets. Buyers are also buying agents who buy tea at auctions on behalf of other tea dealers.
 - (e) **Warehouse keepers** – Teas to be sold in the auction are stored in the warehouses under the supervision of warehouse keepers. Producer cum seller can store their own teas meant for auction sale in their **own warehouse**. There is no restriction in respect of **location of such warehouse** for storing pre-auction teas at present.
- There are **three** distinct different stages in the public tea auction system
 - (a) **Pre-auction sale stage**
 - (b) **Stage of tea auction sale**
 - (c) **Post auction sale stage**

- **Activities related to pre- auction sale -**

- (a) Fixation of unit based on which the teas are required to be moved from seller to the ultimate buyer. While tea is measured in **unit of kg**, tea is moved from one place to another in packs (bulk packing)
- (b) To handle large quantity of tea in number of packages the concept of **lot size** has been introduced as a unit for handling tea through auctions. Any lot consists of number of packages and such number of packages may differ from lot to lot
- (c) A number is allotted in respect of such lot for identification.
- (d) The producer cum sellers despatch tea under an invoice number consisting of number of packages of tea. Generally such invoice is in respect of one grade of tea produced by the seller. For availing benefits towards marketing of tea, one grade of tea produced by a seller may be divided into number of lots.
- (a) Despatch of lot-wise teas by the manufacturers to the warehouses approved by the concerned auction organizers
- (b) Issue of garden invoice simultaneously by the manufacturers to the concerned brokers/auctioneers by indicating information invoice number, grade of tea, number of packages, type of packages, gross tare, net weight of tea in each pack, period of manufacture, date of despatch from the garden, amount of cess paid, warranty on the standard of tea conforming to PFA
- (c) Issue of arrival & Weighment Report (AWR) by the warehouse owner addressed to the concerned broker/auctioneer but it is forwarded to auction organizers for maintaining closing date prescribed by Te Board
- (d) Auction organizer towards such AWR to brokers/auctioneers
- (e) Cataloguing of lots with detailed information like name of the manufacturers/sellers, number and type of packages, gross weight, net weight, grade of tea, date of arrival in warehouse date of despatch from garden etc.
- (f) Inspection of tea in the warehouse by he concerned brokers and drawing of samples from the lot stored in warehouse
- (g) Preparation of small packs of trade sample out of total sample drawn in a lot based on the eligibility criteria of the auction buyers
- (h) Despatch of such trade samples to different eligible buyers by the brokers.
- (i) Brokers carry out tasting of tea to assess its quality for the purpose of valuation (organoliptic)
- (j) Valuation exercise based also on the existing market trends and quality of the tea

(k) Issue of such valuation report in respect of each lot to all the auction buyers by the brokers

• **Auction Sale activities –**

(a) Offering of lot-wise tea for sale in the auction hall on the auction day by the brokers/auctioneers as per timings prescribed by the auction organizers

(b) Buyers are generally physically present in the auction hall except availing the proxy bidding channel to offer bids

(c) Selection of highest bidder for any lot and declaration of out lots in absence of reasonable bid from the buyers

• **Post auction sale activities**

(a) Issue of delivery order and tax invoices to the highest bidder by the broker

(b) In North India, two types of buyers are operating, credit buyer and cash buyer

(c) Credit buyer can take delivery of tea from the warehouse before prompt date without payment. But cash buyer is required to pay in cash before taking delivery of tea

(d) Receipt of payment towards tea price from the buyers within stipulated prompt date

(e) Payment to manufacturer by the broker within prompt date after deduction VAT/SST/CST/Warehouse charges etc.

(f) Deposit VAT/SST/CST to the Commercial Tax Department of concerned state government

(g) Payment of warehouse charges to the Warehouse owner by the broker.

C. Existing E-auction system :

- E technology has been introduced **only** in few pre-sale activities like cataloguing, sale activities like bidding process and post sale activities like delivery orders etc.
- E auction is being carried out with the requirement of presence of bidding buyers in the **auction hall** limiting the number of buyers to bid in any auction day and restricting the buyers to bid from his suitable location.
- Single user log in (single user access)
- Shorter time for price discovery due to display of limited numbers of lots for bidding at a time.

- Failed to ensure anonymity of bidding in view displaying the buyer's name in bidding process. This is not an improvement from the manual auction system.

D. Issues for consideration to re-design E-auction

- **Basic auction principles** are
 - Registered manufacturers should be **able** to sell **any** category, **quantity** and grade of tea **through** the public auction system.
 - Registered eligible **buyer** should be **able** to buy **any** category, **quantity** and grade of tea through the public tea auction system.
 - **The participation** for all registered eligible **buyer** in the tea auction process in **ensuring competition** towards fair price discovery.
 - All eligible registered **buyers** shall be **allowed** to put **bid** for buying and taking delivery of tea.
- **Issue of anonymity of buyers and sellers.** Tea shall be judged **only on** the basis of standard and quality by the auctioneer and buyer and therefore there shall not be any indication of garden name or garden mark in the catalogue. Similarly, the buyers of tea shall be **only** on the basis of the requirement of the intending buyers and shall not be influenced by the activities of other buyers on **any auction day** and therefore there shall not be any indication of the name of bidding buyers on **any auction day**.
- **The concept of lot may be dispensed with.**
- **The information in catalogue may include**
 - a) Total quantity of tea in Kg., of any particular grade
 - b) Net content of tea in one pack to allow buyers to buy any quantity of tea from the total quantity offered (which may be multiple of content of single package).
 - c) Date / week of manufacturing
 - d) Grade of tea
 - e) Name of tea garden owners
 - f) Storing place (in case of stored in seller's own storing place, the detailed address)
 - g) Invoice number and date.
- **Once catalogued, said tea shall be in the catalogue till entire quantity sold.**
- **Between the two auction days, sellers may have option to withdraw before the time of displaying catalogue to the buyer.**
- **Buyers may be allowed to offer bid from his own place subject to his membership of the concerned auction organizers.**
- **Auction rules may be framed based on agreed e-auction process.**

E. The new proposed system would have the following features:

E.1 Standard Contract Descriptors

It can be observed from the auctions that the produce that is sold in the auctions follows a set pattern. This pattern enables us to standardize the list of tea that is to be auctioned in an auction centre. The basis of formulating these standard instruments is outlined below

E.2 Unique combination of Mark, garden and Grade:

The Tea Trade Associations would, from time to time, introduce tea that is eligible to be sold in the auction at that centre. It would essentially be a unique combination of Mark, Garden and Grade. Each of the garden/mark/grade would be assigned codes and a combination of these is the unique tea that can be sold at that auction centre.

E.3 Complete list of tea available to buyers at one glance (e-Catalogue)

The auction of tea would be enabled in the trading terminals provided to the buyers and auctioneers for the unique tea. The buyers can select the teas which interest them while buying and the auctioneers can watch the market unfold as the buyers put in their bids. This can be configured on a market watch in order to view live prices and also to view the depth of the market for that particular tea.

E.4 Flexibility in Instrument Configuration

The system would provide complete flexibility in terms of addition/deletion/suspension of mark, gardens grade combinations. Thus at any given point of time, the TTA, the buyers and the auctioneers would have complete information over the types of tea sold. This concept can thereafter be further extended to giving control to the warehouse and the assaying authorities (auctioneers) in terms of introducing new grades of tea or addition of another garden in the portfolio of the auctioneers.

E.5 Member Hierarchy and Login Roles

The various entities participating in the entire auctioning process are as follows

Tea Trade Association – is a *market on its own* with unique multi – partite status consisting of Buyers, Sellers and Members. TTA provides the trading infrastructure to its members. It also facilitates the various kinds of tea that can be sold in the auctions, the members who can participate in the auctions and allied activities and also have a grievance redressal mechanism. In the e-auction system, a TTA can have a Control Workstation Login for carrying out the various administrative activities, viz.,

empanelment of members, approval of different teas for sale, if necessary defining limits for its members, defining session timings and generating reports for use by members.

Auctioneer – Has a pivotal role to play in the entire auctioning process and is in charge of not only assaying and valuing the goods but also getting the buyers interested in these goods. The auctioneer would have a **Member Admin** Login. Through that login the auctioneers would be able to expedite his/her obligations. These would include creating the auction list and assigning quantities for various instruments (unique tea) based on the assaying results, verifying prices for these auctions and prices (base price is previous day's LTP) and acceptable price for these auctions and carrying out other post sale activities. The minimum base price for an instrument and its operating range will accept bids within the range only and thereby not allow out of the market orders to enter the system. The acceptable price of an instrument will facilitate in automatic matching of the bids without any action on the part of the auctioneer.

Buyer – Is the entity, which bids for the various auctions held by auctioneers. They can enter bids online after reviewing all the instruments that are available. The Buyer would have a member Admin login using, which he can set trading limits for his **Dealers & Clients**. The dealer terminal can be used for placing bids, view the market in real-time and also transact online.

Once the bidding time period is over for the instrument these bids would get matched within the system and appropriate messages would be sent to the relevant market participants. When bids get accepted, they would be referred to as trades and would result in an obligation on part of the buyer to Pay-in funds and take delivery of the auction quantity allocated to that particular buyer from the designated warehouse.

E.6 Risk Management

Risk management within the tea-auctioning network will be available at various levels in the member hierarchy.

Each of the auctioneers can designate their clients in the system, they can provide online information to their clients if they so desire.

Each of the buyers can also designate different dealers so as to enable them to fully participate in the auctions. It will also be possible for the buyers to designate their clients to participate in the auctions. The buyers can also stipulate controls in transacting for the dealers / Client, which will automatically limit quantities which they can bid for. The

system would also provide additional validations in terms of a limit on the maximum quantity that the Dealer / Client can bid for in a particular auction.

The **limits for the members can also be set by the auction organizers** if they feel the need to do so.

The system would also have an auto-bidding feature (optional) wherein the system would automatically better all the existing bids as and when a better bid is placed into the system until the upper cap is reached. In the case of bids with **auto-bidding feature** selected, there would be option for an overall cap on the limit to which the system can auto-bid for that particular auction. In addition there would be regular alerts to the buyers whenever the auto-bid is invoked by means of a better bid and also a final alert when the auto-bid cap is reached.

E.7 How would people participate in the proposed e-Auction system

Currently the entire supply of tea from a garden for a grade is broken up into lots of convenient denominations and is then put up for auctions. Due to this practice, considerable time is spent in administration and introduction of lots serially for auction for every auctioneers and may result in lesser time spent in bidding for these lots.

E.8 Consolidated Quantity for particular combinations as One Auction

In the new e auction methodology the entire quantity for a particular tea i.e. there will be only one auction for an instrument, instrument being the combination of mark, garden and grade. Bidding shall take place for the entire quantity wherein the bidders may bid for the entire quantity or part of the quantity put up for auctions, subject to a minimum quantity and in multiples thereof. The **price quotation** would be per Kilogram. **Quantity** to be bid will be completely at the choice of the buyer subject to a minimum quantity, say Market Lot and thereafter in multiples of such a market lot. This will avoid fragmentation of the same tea being sold multiple times and thereby invite focused attention from buyers for that tea.

E.9 Phasing out the need for printing of catalogues

As the total tea available for auctions can be seen on the terminals the process of printing of catalogues by auctioneers and mailing it to the potential buyers can be done away with. This would facilitate the operations of auctioneers and ease their process in participating in auctions.

E.10 Concurrent Auctions with Flexible Timings

As discussed in the section above, currently considerable time is being spent in holding auctions for individual lots and various auctioneers participate in a serial manner one after another. In order to optimize the auction time and invite better participation in the auctions from all the participants all auctions for all tea can be held concurrently. This would imply that buyers would be able to place bids for all available auctions by all auctioneers at the **same point of time and from any location in India.**

This has a distinct advantage of the buyer being in a position to revise his/her bids in an auction based upon the prices of another and improvements in prices will enhance the price discovery mechanism. This would also integrate the e catalogue and auctioneering processes thereby increasing their operational efficiency.

Apart from operational ease, this would also provide **transparency** of information. All bidders and auctioneers alike will have equal access to information at the same time.

E.11 Flexible Session Timings

Since the auctions would be concurrent, then system would be a session-based system. These sessions would be within a trading day for a finite period of time. The session timings would be for each standard tea that is brought to the auctions. The system would be flexible enough to have a single start and end time for all the tea within the trading system. Each auction session would be of a fixed duration say half an hour, with auction in instruments starting sequentially and subsequently ending in the same sequence. The timings can be modified if required.

E.12 Anonymous Usage

One of the key features of the proposed system would be the anonymity with which the members would be to transact on the system. The information that is available is through the central auction engine for all participants and no counterparty information, viz auctioneer, buyer will be visible. This protects the privacy of the transacting parties and enhances the process of price discovery.

E.13 Competitive Bidding and Fair Price Discovery

In the proposed solution, the members would not know who their competitive bidders area and neither would they come to know about the details of the auctioneer. The details of the auctioneer could be made available in the instrument descriptor if the need arises, but the details of the rival bids barring the price and quantity will not be available to the market thereby ensuring total anonymity. All the participants will be able to view the

bids by price points, by quantity etc. This will enable participants to take a better view on the market and thereby enhance the process of price discovery.

E.14 Price Discovery Mechanism

The system would provide transparent efficient prices for the auctions conducted. One of the two auction methodologies (*Respective Price Methodology* and *Single Price Methodology*) could be used for the purpose of automatic matching of bids. The illustration for these is as shown below.

E.15 Respective Price Methodology

Illustration

- The auctioneer puts up the total quantity of tea up for sale along with the reserve Price. The reserve price is the price below which no bids will be accepted by the system. This reserve price may be displayed to the market so that the participants will be able to transact with speed and efficiency.

Reserve Price (Rs.)	Total Quantity (Kgs)
10	10,000

- Once the total quantity is set up, the bidders start entering their bids specifying the price and the quantity at which they are willing to buy.

Order No.	Price	Quantity
T0001	15	500
T0002	9	1000

- Bidders keep on entering their bids with their price and quantity till the session is active for that tea.

Order No.	Price	Quantity
T0001	15	500
T0002	9	1000
T0003	11	1500
T0004	14	1500
T0005	11	2000
T0006	13	2500
T0007	12	100

- Once the session time is over for that tea, the *final order book* at the end of session would appear as follows

Sell Side		Buy Side		
Reserve Price	Quantity	Price	Quantity	Cumulative Quantity
10	10,000	15	500	500
		14	1500	2000
		13	2500	4500
		12	100	4600

		11	1500	6100
		11	2000	8100
		9	1000	9100

The system will automatically match the bids and conclude transaction as follows –

Price time priority in matching – the bid price and time of entry of bid are critical to matching of the bids.

In this methodology, the buy orders are traversed from top to bottom and matching is done at the respective prices subject to the condition that either the sell quantity is exhausted or the reserve price is reached. The quantity available for sale in this given case is 10000 and the price acceptable to the auctioneer is Rs 11 or more, this minimum acceptable price can be modified by the auctioneer based on the market conditions until the closure of auction session for that tea. So, in the above illustration, last buy order (Price = 9) is not considered for matching.

The **resultant trade set** would look as follows

Order No.	Clearing Price	Quantity	Cumulative Quantity
T0001	15	500	500
T0004	14	1500	2000
T0006	13	2500	4500
T0007	12	100	4600
T0003	11	1500	6100
T0005	11	2000	8100

In the above scenario, the total quantity put up for auctions was 10,000 Kgs., the total bid quantity was 9,100 Kgs., but the total acceptable bid quantity was only 8,100 Kgs.

Another possibility could be that the quantity bid for is in excess of the auction sale for that tea, thereby resulting in acceptance of highest price orders because of the price time priority.

E.16 Single Price methodology

Illustration

1. The auctioneer puts up the total quantity of tea ups for sale along with the reserve Price. The reserve price is the price below which no bids will be accepted by the system. This reserve price may be displayed to the market so that the participants will be able to transact with speed and efficiency.

Reserve Price (Rs)	Total Quantity (Kgs.)
11	10,000

2. Once the total quantity is set up, the bidders start entering their bids specifying the price and the quantity at which they are willing to buy.

Order No.	Price	Quantity
T0001	16	500
T0002	9	100

3. Bidders keep on entering their bids with their price and quantity till the session is active for that tea.

Order No.	Price	Quantity
T0001	16	500
T0002	9	100
T0003	11	1500
T0004	14	2500
T0005	11	2000
T0006	13	2500
T0007	12	3500

4. Once the session time is over for that tea, the *final order book* at the end of session would appear as follows

Sell Side		Buy Side		
Reserve Price	Quantity	Price	Quantity	Cumulative Quantity
11	10,000	16	500	500
		14	2500	3000
		13	2500	5500
		12	3500	9000
		11	1500	10500
		11	2000	12500
		9	100	12600

Since in the above case, the total bid quantity is 12,600 Kgs which is more than the total quantity up for sale (10,000 Kgs), only those buy side orders shall be considered for matching till the cumulative demand quantity = Net quantity up for sale. Then lowest price out of those selected buy orders is taken as the single clearing price of the auction. Clearing price here becomes Rs 11 as it is the lowest price of all the considered buy orders.

The *resultant trade set* would look as follows

Order No.	Clearing Price	Quantity	Cumulative Quantity
T0001	11	500	500
T0004	11	2500	3000
T0006	11	2500	5500
T0007	11	3500	9000
T0003	11	1000	10000

In the above scenario, the total quantity put up for auctions was 10,000 Kgs., but the total bid quantity was more than 10,000 Kgs. In the above case, clearing price

is Rs 11. The third last buy order gets partially matched and the last two buy orders are not picked at all for matching.

E.17 Online Interfaces

The strength of the auction system would largely depend on the speed at which information is disseminated to the participants and in its capacity and capability to process the orders. The auction system will provide online information to the market participants who are logged in to the system, will give bid confirmations with a split second response, automatically match the bids and give out acceptance confirmations within a couple of seconds of closure of session time for that tea etc. The system will be designed to be capable of giving out information like price tickets and full Market depth. This information could be used for display in the tea portal, price feed to information vendors like Reuters etc., digital display boards at the tea trade associations or at the participant offices, information kiosks at various locations etc. Sample screenshots of information display are given below .

F. Back Office Functioning

F.1.1 Centralized back-office

After the completion of bidding and matching, the clearing and settlement cycle would commence. The system would provide a centralized back-office for clearing and settlement of trades to the members (both buyers and auctioneers).

F.1.2 Contract Note Generation

At the end of the trading day, the system would generate an aggregated obligation report for each member instrument wise giving details of the quantities and the amounts payable. This information would be in the form of a *contract note* informing the buyer/auctioneer regarding the trades and their incidences. Since this contract note is generated centrally it eliminates multiple points of data capture, seamless electronic communication interface across the parties, error free information interchange etc.

F.1.3 Bill Generation

After generation of contract notes, the auctioneer shall compute *sales tax* values for the trade and enter this information into the system. Thus a total payable figure is arrived at which is generated in the form of a *bill* and is sent to the buyer.

F.1.4 Payment

This bill can be viewed online from the terminal and payments can be made accordingly. The system will provide the capability to integrate with bankers for the purpose of facilitating electronic payments which will speedup the process of settlements. Once the auctioneer receives the *payment*, he/she would update the status of the trade as “*Paid*” which would be reflected at the warehouse for delivery purposes.

F.1.5 Clearing

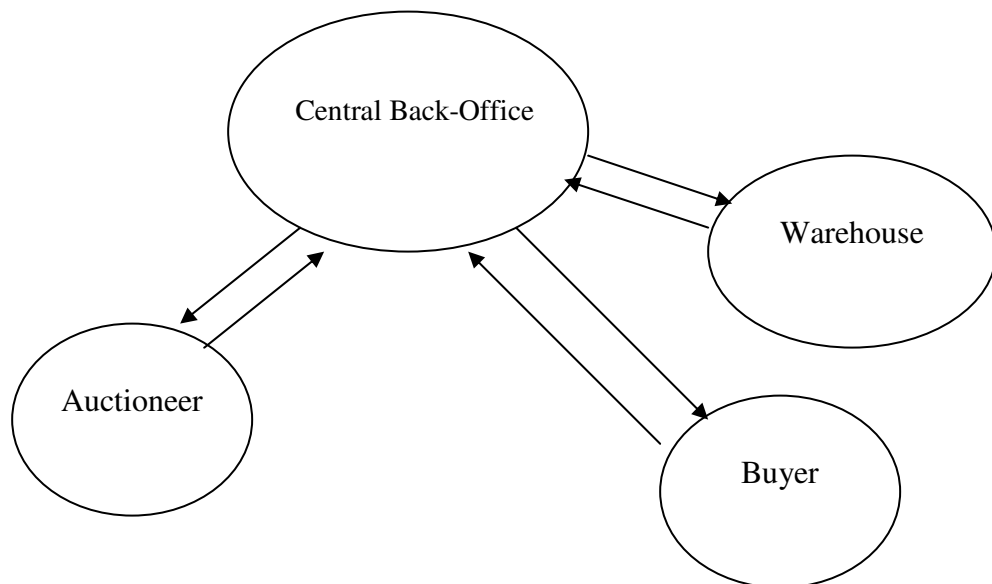
Based on the payment status, the warehouse shall release the goods to the buyers upon receiving suitable instructions, electronically, after satisfying the identification requirements of the buyer. On final delivery, the status of the trade would be updated to “*Cleared*” by the warehouse and this bring the entire cycle for a transaction.

F.2 Back Office

The back office system is envisaged to streamline the flow of information across the various entities involved in the completion of the transaction and also eliminate discrepancies and delays in the clearing and settlement process. For this purpose, in addition to the TTA, the auctioneer and the buyer, the warehouse would also have a **C&S** Login to process delivery instructions electronically.

F.2.1 Back Office Process Flow

Proposed Back Office Flow



1. Contract note to buyers
2. Bill for buyers to pay
3. Delivery Order
4. Issue Memorandum of sale & 5. Download data

1. Buyers to pay funds
2. Take delivery from warehouse
3. Download data

F.2.2 Back Office Work Flow

Proposed Back Office Work Flow

