Chapter Five

AUCTIONS AND THEIR MECHANICS IN FORESTRY

The previous chapters elaborated the Indian Forestry System and different institutional arrangements for wood production in government forests and their disposal. The Timber Market, its structure and the distribution channels were discussed. Auctions were found to be the most important activity in forest department for the release of wood from government forests to the timber market. Purpose of this chapter is to look into the auction, its kinds, and its operation in forestry. Auction needs much preparation before it is held. Many formalities need also to be completed after the auctions by both the seller and the buyer. The entire mechanics of auction will be examined with a view to understand their role in forestry marketing. We proceed with the history of auctions, auctions and their kinds; pre-requisites for successful auctions; and then discuss the operational side of auctions. Auctions are generally held at the forest sale depots. Sale depots will therefore be described in details. Conduct of an auction will be then explained with reference to Maharashtra State. We conclude this chapter with a comment on the merits and short-comings of auction vis-a-vis marketing.
Auctions in Ancient Times:

Open auctions are quite common in many trades including forestry. One cannot definitely say when the auctions were accepted as a method of sale in India, but Kautilya's Arthashastra\(^1\) throws some interesting light on the subject. In Kautilya's time private trade was generally allowed to function under certain (state) restrictions. The idea was to guarantee the traders reasonable profits, the state a decent income and the people a fair supply of goods at a fair price. The general rule of the sale of merchandize is described as follows: "Commodities shall be sold only after they were precisely weighed, measured and numbered. The price fixed was to be made known to the public .......... The merchants shall declare its quantity and price and cry out thrice 'who will purchase this quantity of merchandize for this amount of price' ........ The difference, if any, in the controlled price and the price realised in the sale by the trader, due to competition among buyers, went to the State Treasury". Above description explains today's auctions to some extent. And one may conclude that the auctions were in vogue since ancient times.

\(^1\)Readings in Kautilya's Arthashastra; BP Sinha; Agam Prakashan. Delhi: 1976; pp 97-115 Control of Market
Definition of Auction:

The word 'auction' comes from Latin 'Auctio' which means an arrangement for increasing price by exciting competition amongst purchasers. An auction usually involves open public bidding, preceded by an inspection of the goods to be sold by prospective purchasers. This inspection enables the buyers to evaluate the lots, determine their grades and quantities and arrive at a reasonable price to offer at the time of auction. The auction itself involves the offer of the goods by the seller to the assembly of buyers at an appointed place and time. The buyers reciprocate by giving bids based on their estimates of the value of the goods offered in sales. A succession of increasing prices occurs in the competition and the highest bidder gets the sale. All auctions are subject to a variety of regulations which originate in customs, common law and the statutes of a country. Seller normally reserves the right to accept or reject a particular bid. The buyer is obliged to honour his bid when the sale is knocked down in his favour.

Kinds of Auctions:

There are two kinds of auctions, viz (i) The Open Auction or the Traditional Auction; and (ii) The Dutch Auction. In the traditional auction, the seller offers his goods to purchasers and solicits their offers. A minimum or floor price

2/Encyclopaedia Britannica: Vol 2, 1970 (p.742-743); Chamber's Encyclopaedia Vol 1, 1968 (p.774-775), and Encyclopaedia Americana: Vol 2, 1970 (p.667).
is determined by the seller and is normally not disclosed. The offers above this price (called Upset Price in forestry) are only accepted. A succession of increasing bids are then called and the highest bidder in the assembly of purchasers gets the sale. Sometimes the competition is weak due to various reasons. Then sellers may disclose the floor price to encourage purchasers. Sales get postponed if offers are below this price. In case of Dutch Auction (so called because of its origin in Holland) the seller determines the highest possible price for his goods and discloses it to the prospective buyers. Knowledgeable buyers generally know the appropriate price for that good and bid as per their own judgements. A succession of lower prices is obtained. The seller decides which lower price satisfies him and offers the auction to the successful bidder. The initial higher price is the seller's list price or the current market price for that good. Strategy of the buyers in Dutch auctions lies in, (a) estimating the other bidder's interest in the item of sale, and (b) placing a bid comparatively high to avoid the risk of being outbid by others, but low enough to gain reasonable profit. Setting a higher price in Dutch auction gives an illusion to buyer of greater reduction in competition and a satisfaction of having made a bargain. These auctions are useful in disposing of slow moving items, obsolete items and in 'seasons' clearance sales. Dutch auctions are not popular in forestry.
Pre-requisites for successful auctions:

The auctions have proved to be an exceptionally rapid and effective means of disposing of goods. However, a product to be successfully auctioned should possess certain characteristics. They are (i) a reasonably constant supply of given product in season, (ii) relatively easy grading according to established standards of quality, (iii) uniform size lots or uniform packaging, (iv) consistent with the above, auction products should normally arrive at auction point in a sufficiently large quantity to permit easy handling at a relatively low cost. Auction points are normally located near transit channels. Property to be auctioned is described in writing, in a catalogue, a list or a document, called as the particulars of sale. Such document states the terms of sale and sets forth the relative rights and liabilities of the parties to the sale. In many countries including India, it is a criminal offence for bidders to take part in what is popularly known as a 'ring' or an agreement among bidders not to bid against each other in an auction, in order that one of them may obtain the sale at a low price. The resulting profit is then divided amongst those participating in the 'ring'. A sale by auction may be notified to be subject to a reserved price (Floor Price, Appraised Price (USA), or Upset Price (Scotland) ), and a right to accept or reject a bid may be reserved by the Seller.
Fictitious bidding for the purpose of inflating value of the property (called as 'by-bidding' or 'puffing'), is sometimes resorted to by the seller, to prevent sacrifice of price. This is legal provided he acts in good faith. Agreements not to bid, for the purpose of stifling competition are held unlawful and invalid. However, agreements to buy jointly or on some one else's behalf are admissible. Bidding may be done by word of mouth, a silent nod of head or a wink of an eye or at times by almost undetectable hand signals. No one can back out of sale once the bid given by him is accepted and sale knocked down in his favour. Certain persons, such as of mental affliction, bankruptcy, or underage, and known defaulters of the past sales, are not allowed to bid.

MECHANICS OF AUCTION IN FORESTRY

We have discussed what the auctions are. Auctions can be likened to a drama put up on a stage. Actual act of the drama makes or mars the show. But many activities take place before and after the show. They are behind the scene, but essential part of the show. So is the case with auctions. Auction is the final show as far as the foresters are concerned. Because, through these auctions, the forestry practice gets tested in public. It is the culmination of the tree growing efforts. It is also the time when departments earn their revenues. Auctions are also a test of the departments' pub-
It is therefore necessary to understand all the activities that are necessary prior to auctions as well as after the auction, in a forestry system. Those auctions are conducted at the Sales Depot when forests are worked by the Department, Forest Labourers' Cooperative Society or Forest Development Corporation. Auctions of standing trees are generally held at divisional offices. A comment on each of them will be made at appropriate place.

Production of Wood:

First and foremost activity is to produce the wood for auction. As mentioned earlier, what is to be grown in forest and cut is decided by the Working Plan. Depending upon the response of the forest crop and on the changed situations the prescriptions in the Plan may be continued or changed during its periodic revision. There are many reasons for felling trees in the forest under scientific management under sustained yield principle. Younger crops are tended, pole crops are thinned, midaged crops having attained certain expected growth are spaced out to encourage diameter growth for volume, and final fellings are carried out at the completion of rotation. Improvement fellings are done in badly grown crops coming under scientific management for the first time to remove dead, badly grown, damaged or hacked trees. Certain exigencies like lightening, storms or snow-fall cause
removal of fallen and damaged trees. The trees are also cut from forests for demarcating coupes, road construction, high tension electrical lines, telephone lines, clearance for agriculture, for settlement of landless people, hydro-electric projects, and so on. These are normally additional cuts to the Working Plan. The forest trees are cut for scientific purpose of improvement of crop as well as for external reasons beyond forestry. Each type of forest felling produces, a different type of and a different mix of forest produce. For example, fellings in younger stands bring more poles than timber. A mature crop finally harvested bring big timber logs and some firewood. Improvement fellings bring out more firewood - unsound, decayed, split, damaged, hollow wood - than timber. Clear-fellings bring out larger quantities of all kinds of wood at one time, and so on. In this context a few lines on Working Plan will be relevant to understand wood production.

**Working Plan And Production in Forestry:**

During the operation of a Working Plan, it becomes 'fixed' in action and brings in rigidity in its execution in a sense that its prescriptions cannot be normally changed. A war or a natural disaster like earthquakes may throw Working Plan out of gear, but such things do not occur frequently. In any case, during this Plan period demands for wood may change, some timbers will gain more importance, some form of wood will
be demanded for special purposes or technological inventions will demand a different wood altogether. Working Plan is not aimed at responding to such market changes in the short-run. Felling of trees becomes inevitable if a particular part of forest comes for felling in a particular year. If there is no demand, say, for wood that year, Forest Department does not stop the felling. Likewise foresters cannot cut more wood because there is a brisk demand in the market in a particular year. It, therefore, becomes apparent that the tree fellings under the Working Plan - which has sanction from State Governments - may not correspond to the short-term market demand in respect of quantity, quality or form. Moreover, growing trees need a time, hence wood as a product cannot be changed immediately. This is an important aspect in forestry as far as marketing of forest produce is concerned.

Activities in Forestry for Auction:

Having decided to fell a portion of forests, one has to undertake many activities to bring the wood to the market. An introduction to such activities helps understanding the whole marketing activity, as well as the philosophy, of the Forest Departments. Such activities are: the setting of the crop for felling including demarcation and marking; felling trees, logging and conversion; transportation (within the forests and/or outside to market centres); arranging material for sale
in sale depots or in forests; appraisal and price determination; advertising; arrangement and conduct of sale; delivery of the material; recovery of its value; and keeping records and accounts. Figure 5.1 shows detailed activity-flows in sale of forest products by different agencies. Some activities have a direct bearing on the auctions. A brief comment on each will be therefore relevant here. Such activities are, (a) Felling and Conversion, (b) Transportation, (c) Sales Depot Management, (d) Grading of the Material, (e) Sale Arrangements and Publicity; and (f) Conduct of Auction.

**Felling and Conversion:**

Forest working season in India is generally 6 to 8 months (October-May) in the plains. In the Himalayas working season is restricted further by snow in winter. Delay in felling causes delay in all further works hence timely felling is essential. Felling is also timed, at least by contractors, with a view to catch seasonal market-price peaks, and they try to catch the market by December. Money market is generally tight, due to agricultural harvesting season, etc as summer approaches. Last sales that fetch better prices in a year, are by the end of March. Prices fall after that. The axe is still the most commonly used tool in felling trees, inspite of the introduction of modern logging tools and methods since 1965 in India. For important timbers like Teak, saws are
Flowchart of activities involved in disposal of forest crop through different agencies

**Working Plan or Management Plan**
- Choice of area
- Decision to fell

**Standing Crop - Stumpage Sale**
- Survey and demarcation of coupe
- Enumeration and marking
- Appraisal of crop: preparation of upset price
- Preparation of terms and conditions of sale
- Declaration of sale
- Despatch of sale lists

**Auction to Contractors**
- Allotment to F.L.C.S
- Conduct of auction
- Completion of formalities
- Sanction of sale
- Execution of agreement
- Issue felling permission
- Control of extraction
- Recovery of auction price, etc.
- Issue of transit passes
- Assessment of damage
- Recovery of fine/compensation
- Coupe completion report
- Taking back the coupe
- Completion of record

**Departmental Working by F.D. and F.D.C**
- Prepare logging plan
- Organize labour and equipment
- Felling
- Field measurement and record
- Transportation to sale depot
- Receipt and record in sale depot
- Payment of haulage
- Sorting the material
- Grading the material
- Preparation of lots
- Measurement and record
- Preparation of sale list
- Declaration of sale
- Preparation of upset prices
- Scheduled rates on fixing royalty
- Auction
- Recovery of auction price
- Delivery of material
- Delivery of data
- Settlement of accounts
- Completion of record
being used now for both felling and cross-cutting. Power-chain saws, manufactured abroad proved of limited use in Indian conditions due to various reasons. Felling by axe and cross-cutting by saws is the most useful combination used, though it may not be the most efficient. It has been established that India loses about 30% of its timber by use of axe. Miscellaneous firewood billets are made by axe. In Maharashtra, teak firewood is now made by saws. According to Conway³/ "The bulk of value lost in all wood operations is lost in felling and bucking. About 40% of the loss occurs in timber felling alone, either by breakage incurred during felling or as a result of high stumps. Balance of value loss occurs during bucking operation (cutting trees into logs). The value of timber products is almost entirely set by the market. The job of bucker is not to make little logs out of big ones, but rather to produce a product to market specifications .......... cutting operations should maximise the value of raw material. If trees are cut without regard to their end use, value is lost". Conway further emphasizes that, "the main objective of a harvesting system should be to supply, at the least cost to the entire system, the raw material required, in the form required" (p 78).

³/ Steve Conway: Logging Practices. (Principles of Timber Harvesting System) p.80
Logic of Harvesting Timber in Forestry:

The harvesting of timber products can be logically classified in two ways: (i) Either it can be regarded as an end in itself, i.e. the desired result of a timber management plan. This is mostly the view of a professional forester, (ii) Or, timber production can be regarded as a part of the total manufacturing process. Harvesting operation is then an essential part of the 'timber growing business', and it then becomes the initial step in the manufacturing process. This is the view of modern management which holds that the management of a forest is a business, and the rational objective of a business is to maximize total benefits and values. Today's harvesting of trees in Government forest generally is considered as an end in itself. And therefore the emphasis is more on the product than on the ultimate market.

Sequence of felling for different woods:

In felling the trees the poles are felled and removed first. The timber is then felled, converted and then removed out. Firewood trees are felled in the end so that other material is not damaged. Firewood trees are cut into pieces of 1m length - billets - and arranged into 2x1x1 m stacks (2 m$^3$ volume stacked). Firewood stacks are serially numbered for the coupe. In Maharashtra, especially in Forest Circles of Thane and Nasik, all the firewood is transported out of
forests and arranged into bigger stacks of 10 m$^3$ or more, and sold at sale depots. It is worth noting that whereas firewood is sold by volume by the Forest Department it is sold by traders to industries or to consumers by weight. Most common units of measure being Metric Tonnes (where 1.4 stacks make 1 tonne or approx 3 stacks make 2 tonnes)* and a 'maund' (40 Kgs). Selling firewood at sale depots has advantages such as rechecking the quantity, avoiding pilferage, sorting out in different lots by species and grades, and such sales do obtain higher prices. Disadvantages are the extra costs in transportation and shrinkage due to loss of moisture. But removal from coupe, particularly in plantation areas, ensures clearance of the area in time for burning in summer prior to planting. Selling at stump site is the easiest and cheapest method but in case of delay in removal by the purchaser it affects other works. Poles are stacked into heaps and sorted out in length and girth classes. They are also numbered serially. Valuable timber logs are given earth or coal tar paint on ends or cut ends are fixed by metal braces or clamps to prevent cracks and splitting, pending disposal.

Transportation:

Transportation amounts for the major share of expenditure in wood production. Timber and firewood is transported out

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*In Chandrapur Forests of Maharashtra a 2 m$^2$ stack of firewood weighed 650 Kgs on an average with mixed species.
out of forests by different means. For shorter distances up to 20-30 Kms, bullock carts are used. Haulage by trucks is done for longer distances. In Maharashtra most of the FLCS use bullock carts of their own members. The Department and FDCM maintain fleets of trucks for the purpose. A truck with 5.5 m long deck carries 10 MT of Teak round wood, 7-8 MT of miscellaneous timber, 14-15 MT of sawn wood and 6-8 MT of firewood at a time. 20 m³ stack makes one truckload of firewood. With increasing prices of diesel the truck transport has become costly. In hilly terrain building roads is also another costly item. In such cases, particularly in very inaccessible areas, long distance gravity ropeways and cable cranes are used. At times timber haulage is done through transport agencies. Tenders are called for the rates per unit volume per kilometre or fixed rates for total distance and the lowest offer is accepted. In Maharashtra, Paratwada and Ballarshah Integrated Units have mechanized logging units under them. Paratwada Unit has 45 trucks, which transported 45000 m³ of round timber in 1978-79 with an average haul of 7.9 m³/trip/truck. There were in all 5765 trips in one year with average cost of trip of Rs 746 at the rate of Rs 0.83/m³/km. Ballarshah Unit has 41 trucks who hauled 40,000 m³ wood at an average rate of Rs 51/m³ in 1979-80, over an average load of 100 kms. In Madhya Pradesh, the MPSPDC employed haulage contractors at
rates varying between Rs 0.62 to Rs 1.50/m³/Km for the Corporation's timber. Transportation of timber and other wood accounts for approximately 55-60% of total costs of wood harvesting. Hari Kant⁴ has found that the bullock carts are cheaper for shorter distances and trucks are the cheapest for long distance transportation, on different kinds of roads, viz unmelted hill roads, unmelted plain roads and tar roads.

FOREST SALE DEPOTS

Auctions are held at Sales Depots for timber and sometimes for firewood. One of the important functions of marketing is the physical supply of goods. This includes concentration/disperation, transportation and storage. The timber sales depots of the Forest Department serve this purpose in forestry. Forest timber depots are of two kinds viz temporary and permanent. Temporary depots are established in forests for the purpose of concentration of timber pending further transport. They are also for final sale of the material that cannot bear any further costs of transport. Their life is related to the coupe activity and may extend for a couple of years only. However, permanent timber depots are important in the study of marketing of wood in forestry. Such depots are located near important-townships, railway yards or highways. It is natural that saw milling units also concentrate around such depots. Apart from accessibility,

⁴/Hari Kant: Op cit
such places must have facilities for labour, transport, banking, lodging and boarding, etc. It was seen that in Maharashtra such permanent timber depots of FD at Ballarshah, Paratwada, Wada were on an average within 80 Kms from the forests. Certain recent opened depots at Allapalli, Semadoh and Kasapalli (FDCM) were situated virtually in the heart of forests. They were opened after good roads were prepared linking them to other areas. Apart from above, other considerations like housing, medical and school facilities for the staff are also important. In Maharashtra, in most of those depots all such facilities, even sometimes including schools, are provided by the Forest Department. Recently, a hostel for purchasers - timber merchants - has been built for the lodging and boarding by the FDCM, at Ballarshah. In some cases like Semadoh and Jimalgutta, the FD & FDCM provide transport to purchasers at the time of sale. A Forest Depot needs sufficient area for handling timber in larger quantities. When material is received, it is first dumped in a dumping yard. From there, it is sorted out and made into lots conforming to different species and grades. Some material always remains unsold and occupies space. Sold lots also take time - as stipulated in terms of sale - to move. New material for next sale comes in and is made into lots. All this requires space. At Ballarshah Depot - of FD and FDCM - there is a total of 340 hectares land under sale depot and integrated unit.
Activities in a Sale Depot:

A sale depot is engaged in a variety of activities such as - sorting, grading and arrangement of lots for auctions. After the receipt of the material in the Depot, the logs are separated by species. They are further sorted into different length and girth classes and then into different grades. Detailed grading rules for Maharashtra State (FD, FDCM, FLCS all have same grading rules) are given in Appendix I. Purpose of the grading is to prepare lots of timber which have similar qualities. Homogenity of the material in a lot ensures better sale prices than a lot of mixed logs of different grades. Buyer comes to an auction with a certain aim. Graded material offers him better choice and helps him in assessing its value more correctly. This further facilitates his work and hence grading helps in obtaining better prices. Grading is important in marketing of all commodities. So is the case with timber. A perfect log has no defects. Defects lower the value. These defects are considered while grading the logs and when they exceed acceptable limits, they are assigned lower grades. In grading timber, all the defects are evaluated on the basis of 10 m length. All linear measurements of defects are corrected to one millimetre and surface area measurements are calculated correct up to 1 sq cm. Units of defects are calculated correct to the second decimal place. Incidentally
Measurements done in the forest at stump site are kept slightly more than final sale measurements by convention. For example, Guise quotes a standard practice in USA, "All logs must be cut from live, sound timber. All logs must be cut 8, 10, 12, 14, or 16 ft long unless otherwise ordered and such log must have an overrun of at least 3 inches". This is a universal practice in measurement of timber. Firewood is measured by volume. Most popular unit of measuring firewood is a stack of 2 m length, 1 m width and 1 m height which gives a 2 m³ stacked volume which in weight is approximately equal to 0.6 to 0.7 metric tonnes.

**Record of Forest Products in Depots:**

When standing trees are sold, the Department receives the value directly in the form of cash from the purchaser. There it is not concerned with the handling of resultant timber and firewood by the purchasers. When trees are converted into logs etc, the stage at which timber or wood is converted into money, is the auction in the Sale Depot. It becomes therefore necessary to maintain accounts of timber from the stage of felling to the stage of disposal and delivery to the purchaser with the same care as one would exercise with the government cash. In case of timber, each piece has to be accounted for in such a manner as to enable its identification at any stage during its handling from stump-to-sale. This
is achieved by maintaining several registers and forms in Forest Department. For example, in Maharashtra State, following registers/forms are obligatory:

i) Coupe Registers: Form No L-1

ii) Measurement Registers:
   a) Felling Register L-2
   b) Logging Register L-3
   c) Dragging Register L-4
   d) Firewood Register L-5
   e) Charcoal Register L-6

iii) Transport Register:
   Despatch Register Or Carting Challan Book L-7

iv) Sale Depot Registers:
   a) Receipt Register L-8
   b) Lot Register - Timber & Poles Firewood/Charcoal L-9 L-10
   c) Sale Register: Timber & Poles Firewood/Charcoal L-11 L-12
   d) Disposal Register

Timber logs also are numbered in a specific manner. The identification marks and numbers are deeply chiselled on the cut face of the ends of logs. The chisels are dipped in coal tar before hammering them onto logs to leave an indelible impression. Such marks include - source of identity or divisional coupe passing hammer impression; Tree number, Sale Depot Number, Lot Number, Serial Number of the piece in a lot; Relogging Number, if any; and so on. In Paratwada Depot, based on past experience a scale is worked out, where number of pieces falling into a lot of certain girth class and length class can be worked out, for example:

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5/ AR Maslekar: A Study of Marketing of Wood Products in Maharashtra: p 47
This Table helps the Depot Manager to check any lot quickly.

Preparation of sale lists and advertising the sales:

Once the logs are arranged into different lots and their measurements are recorded, sale lists are prepared. A sale list shows following details:

<table>
<thead>
<tr>
<th>SI No</th>
<th>Lot No</th>
<th>Girth Class in cm</th>
<th>Length Class in m</th>
<th>No of pieces</th>
<th>Volume in cu m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

An auction at a major sale depot like Ballarshah, may include up to a thousand lots for one sale. After the sale list is prepared each lot is given a red colour bend to denote that it is included in a sale. This facilitates the inspection by prospective buyers. Sale lists are also exhibited at
different forest offices and at times in Gram Panchayat and Zilla Parishad offices. It is customary to despatch sale lists at least fifteen days in advance of the date of sale. A programme of auction giving time, place and also the terms and conditions, is also sent with the sale list. Abstract of sale showing gross quantities of different kinds of wood such as teak round wood, miscellaneous round wood, firewood, sawn wood etc is also published in national and local newspapers. Better the publicity better is the attendance at auction and better is the competition and hence better are the prices realised. For example, in Chanda circle of Maharashtra, which accounts for 40% of the state's forest revenue, Rs 93,909 were spent by FD on publicity and sales expenses which included Rs 42,896 for timber, Rs 7,959 for firewood and Rs 18,944 for sale of standing coupes. Ballarshah Integrated Unit also spent Rs 1,070 on its sale advertisement in the year 1978-79. Forest Department advertisements are handled by the State Publicity Department only. Forest Corporations are, however, free to approach press directly. Major sales depots have been established since long time and conduct auctions periodically. Traders are therefore aware of the sales in such depots. New and temporary depots need proper and timely publicity. Local traders and Agents of timber merchants also keep the track of auction dates. They keep their customers informed. They also do some more useful work which the Department or Corporation
cannot do. For instance such local agents advise their principals about the quality of the material offered and give their opinions about its suitability and their estimate of competition expected. It is experienced that their means of communications are quicker and more effective than the formal sale lists of the Department.

**The Conduct of Auction:**

Auctions are held either on the spot, on the lots or in a special shed or a pandal. In major sales depots like Ballarshah and Paratwada permanent sheds are provided. It is generally observed that the purchasers prefer auction on the spot. Before anyone is allowed to participate, he has to pay an Earnest Money Deposit (EMD), as prescribed by the Department. He is then expected to sign on the terms and conditions of the sale, which are read before starting the auction. These are then binding on the bidder. When the auctions start bids are taken for each lot separately. A regular and official 'Bid Sheet' is used to record bids and one sheet is used for one lot only. The Bid Sheet has an office stamp and serial number and is also authenticated by the Depot Manager or higher officers. At the top of the Bid Sheet, the lot number and its details are given. Auctioneer writes the name of the bidder and the amount of his bid in his own hand. Bids come fast and from all corners of the assembly. Expe-
rienced auctioneers note some selective bids and the final bid which is the highest. The signature of the highest bidder is obtained on the spot before two witnesses. The Clerk of the auction keeps the note and promptly recovers proportionate (1/4th) sale amount from the successful bidder immediately. It is observed that in a day of auction of 8 hours, 200 to 300 lots can be sold when material is good and competition is brisk. Auctioning is a high level Public relations job and the seller has to be vigilant and tactful. Competitive atmosphere many times creates heat and tempers get frayed at the slightest provocation on either side. The atmosphere is serious and tense. In such auctions one gets an impression that the less time one gives for thinking, the better it is for all. Sold material is marked by white cross across the lot. From then onwards the material remains in the sale depot at the risk and cost of the purchaser. He has to fulfil many conditions before he can lift the material purchased by him. Appendix II gives details of the terms and conditions and form of Agreement.

**Post-Auction Activities:**

The important activities after the conclusion of auctions are - sanction of sales; publication of sale results; recovery of sale amounts; rental and taxes on sold lots; and delivery of the material. The purchaser can lift the sold lot any time after paying the sales price, taxes and other dues. It is seen during field visits that the credit facility avail-
able in timber trade is of short duration. Money supply is generally short and traders carry on their business mostly on borrowed money. The Department, Corporations and FLCS, therefore, provide for payments by instalments. The details are given in Appendix III. The purchaser has to pay 1/4th of the sale price on the spot on the day of sale. The balance is payable in one or two instalments within 30 days of sale. Beyond that time ground rent for the Depot and interest for delayed payment is charged. Beyond 180 days, generally, the auction stands cancelled at the risk and cost of the purchaser. The Department, in some cases, delivers the material to rail heads and even on FOR basis. Most of the times traders employ their agents to handle the process. The sale-result is officially declared after due sanctions are accorded by appropriate authorities. For example, a Divisional Forest Officer can sanction sales only up to certain limits (Rs 25000 in each case). Other sanctions beyond this limit are accorded by the Conservator of Forests, and so on.

**Auctions of wood in Maharashtra:**

So far the auctions, their mechanics and conduct of auctions were seen in general. It will be relevant here to see the experience of auctions in Maharashtra state. This will help in seeing them in the correct perspective with reference to their operational efficiency.
Sales Depots in Maharashtra and the scale of activities connected with Auctions:

Forests in Maharashtra are quite unevenly distributed, though they form 21.7% of the land use. Western Maharashtra with 13 districts has 15.8% geographical area under forests. Marathwada with 5 districts has only 4.4% whereas Vidarbha with 8 districts has over 36% area under forests. Major timber markets are Bombay, Pune, Dhulia in Western Region, Aurangabad in Marathwada, and Nagpur, Chandrapur, Amravati and Akola in Vidarbha. Department has 48 permanent sales depots, mostly concentrated in forest rich districts. The Forest Corporation which is allotted 7% of forest area of state for its working has two major depots in Chandrapur, one each in Thane, Nagpur and Bhandara districts. The state is comprised of 26 districts. (Two more districts were very recently created by splitting two existing districts). Thus it will be apparent that the state sales depots are away from most of the forest poor areas.

Revenue from Auctions:

In the year 1979-80, the State earned a revenue of Rs 37.40 crores from its timber and fuelwood auctions, which was roughly 82% of its total revenue. This revenue was made by following components of production of wood:
A total of 1561 coupes were worked in the state out of which 599 (39\%) were worked departmentally, 565 (36\%) were worked through FLCS and 397 (25\%) were auctioned standing to the contractors. PDCM worked in its 20 Project Divisions, each clear felling approximately 600 hectares of forests. Excepting the material produced by the contractors, almost all the material was auctioned of at above referred government sale depots. 48 depots of the Department handled on an average 1,40,000 m$^3$ of timber annually which included FLCS material. PDCM in its 5 depots auctioned 56,000 m$^3$ timber and 50,000 m$^3$ firewood. Approximately 5\% of total wood production was supplied to the government owned integrated (Saw Mill-Preservation-Seasoning) Units for processing. Most of the processed wood was supplied to other departments and public sectors units on
scheduled rates basis. A small quantity was auctioned in such Integrated Units. It was found that out of the total recorded wood production in the State approximately 65% of the timber and firewood was auctioned at various sales depots. About 13% was supplied to other departments and industries on scheduled rates and royalty basis respectively. Contractors accounted for about 20% of the removal. Balance was used departmentally for government works.

Frequency of Auctions:

The sales are held in permanent sales depots like Ballarshah and Paratwada four times in a year. FDCM depots like Kasa had a monthly frequency of auctions. In Nara Depot sales were held when 1000 m$^3$ of wood was received. The FLCS depots in general held only one or two sales in their depots. It is claimed that these depot sales are timed to suit forest working as well as the market. In reality demand for timber and firewood is highest just after rainy season. Hence October-December sales fetch highest prices. Prices decline after March. Firewood fetches lowest prices if auctioned in late summer. But many auctions were held in the state in the last week of May or even in the second week of June. Sales were more or less held to suit the administrative convenience i.e. of disposing of as much material and earn as much revenue as possible. Another feature of these...
sales in different depots is that the majority of purchasers were traders and bought the timber for export to other districts and to other states. Local consumption was small.

Bias in timber auctions:

Auctions are expected to ensure fair competition among bidders. This is true only to a certain extent. The scarcity of the wood in general and increasing demand by industries for their requirements have created a situation where purchasers of better endowment generally take a lion's share of the sales. Smaller purchasers and petty traders fail to clinch the sales in their favour. Competition among the richer buyers is so stiff in the main sales that the smaller ones are left out. Such rich buyers are either the representatives of industries who try to secure as much raw material as possible for themselves. Or the buyers are the established middlemen, the timber merchants and their local agents. In the wake of increased activities of timber harvest by the Forest Department and Corporations in the state and in neighbouring states, there are always auctions going on somewhere. At times they overlap. The merchants and other buyers cannot remain physically present everywhere. This has given a new boost to Agency System. There are regular Timber Merchants' Agents' Association at famous timber depots like Ballarshah in Maharashtra. In Paratwada, another famous depot in the state,
Maslekar (1980) found that only three agents cornered as much as 90% of successive sales. One such agent purchased 57.4% of the material offered alone. Mehta & Maslekar found that the sales depot of Madhya Pradesh at Delhi had made smaller lots to suit private individuals who required timber for their own houses. The prices were competitive till they were around in auction. When they left having secured their quota, prices declined as only a few timber merchants were left in the fray. Auction, though brought good prices to the department, indirectly deprived smaller buyers in the competitive biddings. Mead established that a negative relationship exists between the size class of buyers and the extent of competition, confirming a net power position for larger firms.

Adaptations in Auctions towards Marketing:

The state showed certain adaptations in its timber harvesting and auctions. Firstly, there are more number of sales depots than in the past. Secondly, frequency of auctions in some depots is increased. Thirdly, whole state has a uniform grading practice which sorts out timber in seven categories, based on quality and defects. Fourthly, firewood is now sorted into categories for specific markets, like carpenter's...

6/ AR Maslekar: Op cit: p 79
8/ Mead J.J. The Firm and It's Competitors: op. cit. p.4
woods, domestic consumption, sugar mills, paper-pulping mills, frames and fruit boxes, etc. Bent teak logs are sorted out for use in boats and coastal ships. Short pieces of 90 cm girth of Khair are set aside for bullock cart wheel-hubs in Thane and Nasik areas. Fifthly, since FDCM working started, sales are being advertised locally, regionally and in neighbouring states also. Sixthly, sales lists are published in time and measurements are being guaranteed in auctions. Seventhly, more and more facilities to purchasers are being offered during auctions. Hostels are built, transport is provided, snacks and tea are also supplied from government-run canteens. Eightly, there is more and more inclination to convert wood into products of better prices that can bear transportation costs. There are furniture making units at three places. Saw mills of government undertake special sawing for demands like mine sleepers. FDCM manufactures charcoal from firewood obtained in its interior project divisions. Ninethly working costs for all the different stages in logging are standardized. And lastly, contractors are being removed from direct forest working. There is more emphasis on departmental working and to encourage FLCs where possible. However, all said and done, contractors do come in the picture at the time of auctions. They are the buyers of most of the material auctioned by the department/FDCM or FLCs in the state. Some attempts are made to tap bulk industrial buyers directly by the department and FDCM but they are too few or small at present to make any impact on the market.
Conclusion:

This chapter threw light on auction and its kinds. Conduct of auction and its mechanics was explained. It was seen that auction is a highly formalized practice with Forest Department in selling its wood. There are many pre-and-post auction activities, without which an auction cannot successfully concluded. Auctions were explained with reference to Maharashtra State. The bias in auctions was noted. We thus had a look at auctions from the operational side of their efficiency. Auctions generate revenues for the State Forest Departments. It is necessary, therefore, to understand the pricing of wood in forestry. The auction prices for wood and their relation to the market prices needs to be discussed. This will help us to know how auctions contribute towards pricing efficiency. This will be the subject of next chapter.