

PRICING POLICY FOR SUPPLY OF BAMBOOS TO PAPER INDUSTRIES AND WEAKER SECTIONS IN ANDHRA PRADESH

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Introduction

The State of Andhra Pradesh with about 64,000 km² of notified forest area is endowed with a wide range of flora and fauna. Bamboo occurs over an area of 9,882 km² or 15% of the forest area in the state and the two major species found are Sadanam (*Dendrocalamus strictus*) and Mullem (*Bambusa bambos*). More than 80% of bamboo production in the state occurs from the *D. strictus*. The requirement of bamboo is mostly met from the natural forests of the state in addition to the plantations raised in Government lands, A.P. Forest Development Corporation, private lands and in the form of import from the North-Eastern States. Over the years, the annual yield from the bamboo coupes in the state has reduced considerably from an average 3 lakh MT to the present 40,000 MT. The reasons for the decreasing yield over the years are less extraction from forests due to degradation, Naxal problems, non-working of sanctuary and national park areas, budgetary constraints and due to non-availability of bamboo plantations in private lands.

Bamboo Consumption in A.P.

The main consumption centres of Bamboo in the state are :

- (1) Three paper mills of the state for manufacture of paper and allied products
- (2) 380 Burrods societies having 17,000 members from the weaker sections for making Value Added Products, and
- (3) Sale in auctions for local consumption.

The Forest Department converts the inferior class bamboos and the high cuts in the bamboo clumps in the coupes to Bundles, consisting of 20 pieces of approximately 2 metres length per Bundle. Nearly 70 bundles make one Notional MT in the state. Because of less production of Bamboo Industrial Cuts (BIC), the three paper mills of the state, which used to consume BIC as their major raw material, have switched over to other hardwood species like *Eucalyptus*, *Casuarina* and *Acacia*. During 2006-07 the consumption of BIC in the three paper mills of the state has gone down to 74,000 MT. This comes to only 8% of the total raw material consumption of 10 lakh MT. The percentage of consumption of BIC in the paper mills has been reduced from 13% to 8% during the last 3 years. Out of the 74,000 MT of BIC consumption in the three paper mills, the Forest Department of A.P. was able to supply only 20,000 MT during 2006-07. Even the production of BIC by the A.P. Forest Department has reduced

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from 69,000 MT to 20,000 MT during the last 3 years.

Long (>6 m) green solid bamboos (*D. strictus*) are classified into various categories depending on its girth at its thicker end. The categories are Super class (greater than 18 cm), special class (15 to 18 cm), 1st class (12 to 15 cm), 2nd class (9 to 12 cm) and 3rd class (6 to 9 cm). The average proportions of various classes of bamboos that are harvested in the state are super class-0.2%, Special class-2%, 1st class-19%, 2nd class-25% and 3rd class-54%. The weaker sections of the society, commonly known as Burrods in the state, mostly prefer second class and above quality long green bamboos for making value added products of baskets, mats and other handicrafts items. However, the supply to Burrods also reduced from 60 lakhs numbers to the present 30 lakhs numbers during the last 3 years.

As a matter of principle, 50% of the production of long green Bamboos is sold in open auction for the consumption of the public. The production of long bamboo has been reduced from 90 lakhs numbers to the present 60 lakhs during the last 3 years. Again the proportion of 3rd class bamboo has increased over the period, which showed deterioration in the site quality, resulting in low productivity and lower quality classes.

Policy Objectives of A.P. Government

The policy objectives on allocation of forest produce to industrial units are the following :

- (1) Remove all hidden costs and allot the forest produce to the industrial units at a cost, which should not be less than the market value of the produce.

- (2) The forest produce has to be allocated in such a manner that additional funds are generated for further afforestation, while maintaining the ecological balance.
- (3) The weaker sections of the society should be provided with the forest produce at a reasonable price, so as not to affect the sustained yield of the produce in a continuous manner and without giving them much subsidy.

To achieve these policy objectives, Government of A.P. enacted the Andhra Pradesh (Fixation of Selling Prices) Act, 1989 and the AP Forest Produce (Fixation of Selling prices) Rules, 1991 (GoAP, 1991) for implementing the provisions under the Act. The following provisions of the A.P. Forest Produce (Fixation of Selling Prices) Act, 1989 and Rules, 1991, are relevant for Fixation of Selling Price of Bamboo Industrial Cuts (BICs) supplied to the paper industries.

Rule 2(c) : "Selling Price" means the price payable by the wood-based industries for the forest produce allotted by the Govt. of Andhra Pradesh and includes the royalty rate payable by the wood-based industries for the rights given to them for extraction and use of such forest produce.

Rule 2(d) : "Supply Year" means a period of 12 months commencing from the 1st October and ending with the 30th September of the next calendar year in case of bamboo.

Rule 3 : The selling price for the bamboo raw material for supply to paper and pulp industries shall be fixed based on the production costs, but not below

the market value of the produce, at the point of supply.

Rule 6 : Determination of production costs - The production costs for bamboo raw material shall be worked-out based on the projected production costs of plantation projects of Andhra Pradesh Forest Development Corporation (APFDC) using the discounted cash flow techniques to arrive at the present value.

Rule 7 : Determination of Market Value -

1. The market value of a forest produce shall be determined after taking into consideration the following factors :
 - (a) The sale prices obtained in the open and negotiated sales of such forest produce effected by order or on behalf of the State Government or the Forest Development Corporation within the State during a period of twelve months preceding six months prior to the date of commencement of the supply year: provided that, where no such sale was held in the State of Andhra Pradesh, during the said period of twelve months or number or magnitude of sales transaction that have taken place during that period is not, in the opinion of the State Government adequate for the purpose of determining the market value, the State Government shall take into consideration the sale prices obtained in such sales held during a period of twenty four months preceding the period of six months prior to the commencement of the supply year.

Provided further that, if in the opinion of the State Government, the quantity of forest produce involved in a sale is

too small and insignificant to serve as a representative instance for the determination of the market value, the State Government may, having regard to the facts and circumstances of the case, ignore such sale;

- (b) The general trend in the price of the forest produce since the date of sales referred to in Rule 7-1-a.
- (c) The weightage to be given for the following :
 - (i) Quantities involved in the sale referred to in Rule 7-1-a:
 - (ii) Proximity or otherwise of the areas, where the sale referred to in Rule 7-1-a have taken place and to the areas where the supplies are to be made;

Any other factor which in the opinion of the State Government is relevant to the determination of the market value.
- (d) Where no sale of forest produce has taken place within the State, during the period referred to in Rule 7-1-a, the market value of the forest produce, be determined by the State Government taking into consideration, the open and negotiated sales, transactions of such forest produce effected in one or more of the State/adjointing the State of Andhra Pradesh, but keeping in view as far as possible the factors mentioned in Rule 7-1.

(For the purposes of this rule “open sales” shall include in the sales effected by public auction or by inviting public or limited tenders and “negotiated sales” shall exclude the

sales in which the price or the rate for sale or supply is fixed by the supplier under a pre-existing agreement.)

Price Fixation for supply of BIC to Paper Mills

Based on the above policy objectives, each year during the month of April/May Government appoints an independent consultant (not connected with A.P. Forest Department as well as the Paper Mills) to recommend the royalty amount to be paid by the paper mills of A.P. The Consultant studies and analyses the production costs of bamboo from plantation projects of APFDC, the procurement cost of BIC by the three paper mills of A.P. from A.P. Forest Department, APFDC, A.P. private parties, other State Forest Departments, Corporations and private parties and compares with the BIC procurement cost by paper mills from the adjoining states. While comparing the procurement costs, the consultant takes into account the quantities purchased, the working costs of extraction and transport charges borne by the supplier to the supply site (Coupe or Depot or paper mill), the transport charges borne by the paper mill from the supply site, the moisture percentage in the BIC as tested in the laboratory of the paper mills and arrives at a rate for procurement of Bone Dry (BD) mill site rate from different agencies. On the basis of the average bone-dry rate received from different supply agencies, the average moisture percentage is deducted to arrive at the average mill site rate, which is the market rate of supply of BIC.

For fixing the rate of supply of BIC to the paper mills of the state, the average workings costs borne by the A.P. Forest Department and the average

transportation charges borne by the paper mill (for transporting the BIC from A.P. Forest Department coupe sites to mill site) are subtracted from the average mill site rate (at an average moisture level), so as to find out the Royalty amount to be paid by the mills for that year.

Based on the above market analysis and the supply-demand position, the Consultant recommends the royalty rate to Government. Government after examining the report of the Consultant and the remarks of the Principal Chief Conservator of Forests (PCCF) on the study report of the Consultant and after discussion with paper mills, if necessary, fixes the rate of royalty and communicates the approved Royalty rate before 1st October of each year, so that the paper mills can execute the agreement with the A.P. Forest Department (concerned Conservators of Forests or CFs).

Mode of Supply of BIC to Paper Mills

The working costs (extraction, bundling, supervision charges) of BIC to be reimbursed by the paper mills to the Forest Department (in addition to the Royalty amount), is estimated on the basis of an agreed rate per Bundle, based on the Forest Schedule of Rates of the supplying circle. The working costs are reimbursed to the department based on the number of bundles received at the mill site. The Royalty amount to be paid by the paper mills (based on Royalty per MT fixed by Government for the supply year) is calculated on the basis of actual weight of the BIC received in the paper mills in the presence of forest staff.

The extraction of BIC is carried out by the forest department either by calling

tenders or through the institution of nearby Vana Samrakshana Samithi (VSS). The Forest Schedule of Rates for the concerned circle for the relevant year is taken as the base, on which the tenders are called for extraction of BIC. Before entering into agreement with the paper mills, the Conservator of Forests of the concerned Circle after mutual discussion with the representatives of the paper mills decides on the rate of reimbursement of the working costs per bundle to be paid to the forest department.

Accordingly, in the supply agreement, the paper mills have to specifically mention the Royalty rates per MT (as fixed by Government for the supply year) and the working costs per Bundle to be paid to the Forest Department (as fixed by the Conservator of Forests of the supplying Circle). The transportation charges from the Coupe to the paper mill site is to be paid by the paper mill and the forest department only facilitates the appointment of Contractors on behalf of the paper mills, while the paper mills finalizes transport tenders.

Table 1 shows the actual Royalty amount per MT fixed by Government for the last 5 years based on the recommendations of an independent consultant. The working costs indicated in the table are the average weighted extraction, bundling and supervision charges based on the quantities and Forest Schedule of Rates of different supplying circles. The total selling price indicated in the table is for comparison with the rates of supply to the paper mills of A.P. by other agencies, so as to arrive at the market price.

At 2007-08 prices, the production costs

Table 1

*BIC Selling Price to the three Paper Mills
of Andhra Pradesh
(Rs. per Metric Tonne)*

| Year | Royalty Amount | Working costs | Selling Total Price |
|---------|-------------------|------------------|------------------------|
| 2003-04 | 1453 | 650 | 2103 |
| 2004-05 | 1453 | 700 | 2153 |
| 2005-06 | 1495 | 750 | 2245 |
| 2006-07 | 1546 | 800 | 2346 |
| 2007-08 | 1620 | 878 | 2498 |

of BIC is estimated to be Rs.547 per MT by the Consultant. This has been estimated by taking into account the yield of BIC at 3 years felling cycle from a bankable bamboo plantation project of APFDC, over 32 years life period.

Table 2 shows the method of calculation of Royalty amount for the supply year 2007-08 (01-10-2007 to 30-09-2008). The weighted average Bone Dry rate of BIC at the mill site for the supply year is found to be Rs. 3,986 per MT. The mill site rate of BIC at a weighted average moisture level of 25% is Rs. 2,990 per MT. Subtracting the weighted average working costs of Rs. 878 per MT incurred by the A.P. Forest Department and the weighted average transport costs of Rs. 690 per MT borne by the paper mills to lift the same from A.P. Forest Department Coupes, the Royalty amount comes to Rs. 1,422 per MT.

However, the Consultant has recommended a safe price of Rs. 1,620 per MT for the supply year 2007-08, assuming that the moisture level in the BIC to be supplied will be at a level of 20% or more, since the mills always try to lift the BIC

Table 2

Method of calculation of Royalty amount for the supply year 2007-08

| Period/ Supply Source | Consumer | Qty. (MT) | Av. Moisture % at Mill site | Av. Purchase Rate (Rs./MT) | Av. Extraction Charges (Rs./MT) | Av. Transportation charges (Rs./MT) | Av. Total Rate at Mill site (Rs./MT) | BD rate (Rs./MT) | Qty. x BD |
|-----------------------------|---------------|--------------|--------------------------------------|-------------------------------------|--|--|--|------------------------|--------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| April 2006 - March 2007 : | | | | | | | | | |
| APFD | APPM | 14362 | 28 | 1495 | 850 | 615 | 2960 | 4111 | 59043778 |
| APFD | SPM | 1032 | 14 | 1495 | 1215 | 525 | 3235 | 3762 | 3882000 |
| APFD | ITC allotment | 3204 | 22 | 1495 | 869 | 780 | 3144 | 4031 | 12914585 |
| APFD | ITC (auction) | 1287 | 26 | 1517 | 734 | 1175 | 3426 | 4630 | 5958462 |
| APFDC | APPM | 2181 | 27 | 2231 | | 600 | 2831 | 3878 | 8458097 |
| APFDC | SPM | 1207 | 18 | 1495 | 796 | 850 | 3141 | 3830 | 4623399 |
| APFDC | ITC | 3343 | 21 | 2260 | | 526 | 2786 | 3527 | 11789365 |
| FDC (C.G.) | APPM | 3841 | 16 | 1700 | | 1150 | 2850 | 3393 | 13031964 |
| Other state pvt. parties | APPM | 26102 | 35 | 2568 | | | 2568 | 3951 | 103122978 |
| Pvt. Party (MP) | SPM | 5057 | 15 | 1190 | 850 | 1170 | 3210 | 3776 | 19097612 |
| FDC (C.G.) | ITC | 2255 | 21 | 1680 | | 1572 | 3252 | 4116 | 9282608 |
| AP Pvt. Party | ITC | 40 | 30 | 2400 | | | 2400 | 3429 | 137143 |
| Karnataka | ITC | 403 | 30 | 3150 | | | 3150 | 4500 | 1813500 |
| Orissa | ITC | 279 | 48 | 2657 | | | 2657 | 5110 | 1425583 |
| West Bengal | ITC | 3102 | 48 | 2975 | | | 2975 | 5721 | 17747019 |

Contd...

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|---------------|-------|----|------|------|------|------|------|-----------|
| April 2007 - June 2007 : | | | | | | | | | |
| APFD | APPM | 2858 | 28 | 1546 | 875 | 630 | 3051 | 4238 | 12110775 |
| APFD | SPM | 674 | 15 | 1546 | 1278 | 525 | 3349 | 3940 | 2655560 |
| APFD | ITC allotment | 790 | 19 | 1546 | | 780 | 3306 | 4081 | 3224370 |
| APFD | ITC (auction) | 1119 | 26 | 1546 | | 1175 | 3701 | 5001 | 5596512 |
| APFDC | APPM | 1252 | 27 | 2319 | | 600 | 2919 | 3999 | 5006285 |
| APFDC | SPM | 789 | 17 | 1546 | 833 | 910 | 3289 | 3963 | 3126531 |
| APFDC | ITC | 1630 | 20 | 2412 | | 492 | 2904 | 3630 | 5916900 |
| FDG (C.G.) | APPM | 1310 | 16 | 1550 | | 1200 | 2750 | 3274 | 4288690 |
| Other state | APPM | 3672 | 35 | 2559 | | | 2559 | 3937 | 14456382 |
| pvt. parties | | | | | | | | | |
| Other State | SPM | 5100 | 14 | 1611 | | 1150 | 2761 | 3210 | 16373372 |
| Govt./FDC | | | | | | | | | |
| FDG (C.G.) | ITC | 895 | 19 | 1771 | | 2075 | 3846 | 4748 | 4249593 |
| AP pvt. party | ITC | 7 | 21 | 2400 | | | 2400 | 3038 | 21266 |
| Karnataka | ITC | 470 | 26 | 3150 | | | 3150 | 4257 | 2000676 |
| West Bengal | ITC | 1239 | 31 | 2970 | | | 2970 | 4304 | 5333087 |
| Uttar Pradesh | ITC | 58 | 26 | 3890 | | | 3890 | 5257 | 304892 |
| Total | | 89558 | | | | | | | 356992983 |
| Weighted Average Bone Dry Rate = Sum (Quantity x BD rate) / Sum (Quantity) | | | | | | | | | |
| | | | | | | | | | 3986 |

after 2 to 3 months of felling, thereby resulting in weight loss (March Consultancy, 2007).

Comparison of Royalty received by different States

Table 3 shows the approximate amount of Royalty received by different

State Forest Departments during 2006-07. The royalty amount excludes the working costs (extraction, bundling & supervision) and transport costs to Coupe/ Depot site. The method of working is described in brief in the remarks column.

From the comparison in Table 3, it is obvious that the selling price fixation rules

Table 3

Approximate amount of Royalty received by different State Forest Departments during 2006-07.

| State | Av. Sale value/ MT (Rs.) at Coupe/ Depot | Av. Working Cost/MT (Rs.) | Av. Transport Cost to depot/MT & handling at Depot (Rs.) | Av. Royalty/ MT received by FD (Rs.) | Remarks (Procedure of working, transport and delivery) |
|----------------|--|------------------------------------|--|---|---|
| Andhra Pradesh | 2346 | 800 | 0 | 1546 | BIC sold at coupe site. Working Costs paid by FD in advance, as the Deptt. carries out the extraction. The same is reimbursed by the paper mills later. |
| Orissa | 1500 | 750 | 0 | 750 | BIC sold at coupe site. Working Costs borne by the paper mills, as they carry out the extraction. Delivery is done at coupe site. |
| Chhattisgarh | 1800 | 800 | 600 | 400 | BIC sold at Depot site. Working Costs and transport to depot paid by FD. The BIC lots are sold in auction at Depot. |
| Maharashtra | NA | NA | 0 | 800 | Details not available. |
| Karnataka | NA | NA | 0 | 600 | Working Costs and transport borne by the paper mills, as they carry out the extraction. Mills carry the BIC from coupe site and they pay a royalty of Rs. 500/MT + Taxes. |

As per the statistics available, the extraction of 3rd class bamboo forms more than 50% of the total long bamboo harvest. Further, the Burrod societies do not lift the 3rd class bamboos. Sometimes, the 3rd class bamboos are converted to BIC in the depot itself, resulting in further loss to Government. Hence, there is a need to reexamine the extraction of 3rd class bamboo in Andhra Pradesh, because of the likely high price to be obtained if the same are converted to BIC and supplied to paper mills.

Pricing mechanism for supply to Weaker Sections (Burrods)

For supply of various types of Forest Produce to weaker sections of the Society Government of AP have issued guidelines in their G.O. Ms No. 165, F&RD (For. III) Dept., dt. 18.04.84. In the said order, it was stipulated to discontinue all hidden subsidies and to fix the rates based on the average market prices. As per the same orders, every year a pricing committee chaired by PCCF (Production) and comprising of representatives from Commissioner of Industries, Forest & Finance Department of Government

recommends the prices of various forests products to be supplied to weaker section of the society. Accordingly the Pricing Committee has been recommending the rates for supply of various types of forest produce every year. Table 6 shows the prices recommended by the pricing committee and approved by Government for supply of long bamboos of various classes to the weaker sections. (Burrods).

Maximum proportion of supply of long bamboos to the Burrods is in the form of 2nd class bamboos. The average market price of 2nd class bamboo is Rs.7.20, against which the Burrods gets it at a price of Rs. 6.04 (subsidy of 20%).

Table 6

Prices for supply of long bamboos to Burrods – 2003-04 - 2007-08 (Rs.)

| Year | Spl. Class | 1st Class | 2nd Class | 3rd Class |
|---------|------------|-----------|-----------|-----------|
| 2003-04 | 12.50 | 8.50 | 5.00 | 2.00 |
| 2004-05 | 13.25 | 9.00 | 5.25 | 2.10 |
| 2005-06 | 13.25 | 9.00 | 5.25 | 2.10 |
| 2006-07 | 13.25 | 9.00 | 5.25 | 2.10 |
| 2007-08 | 15.24 | 10.35 | 6.04 | 2.41 |

SUMMARY

The forest resources of all the states are dwindling and the supply of forest produce to forest based industries has to be re-examined. In this context the supply rates of Bamboo Industrial Cuts to various paper mills of Andhra Pradesh and adjoining states of A.P. have been analyzed. The existence of "A.P. Forest Produce (Fixation of Selling Prices) Rules, 1991" in the state has significantly facilitated the "price fixation policy" based on the demand and supply in the market, without affecting the sustainability of our forests. Similarly, the supply of long bamboos to the weaker sections of the society ('Burrods') has to be met at reasonable price. Hence, there is a need to rationalize the prices of supply of Bamboo Industrial Cuts to paper mills in other states, so as to maximize the revenue, as followed in Andhra Pradesh. Even in the state, there is a need to re-examine the extraction and sale of 3rd class long bamboos, as the rate fetched in open auction for the 3rd class bamboo is much less compared to the prices obtained for the Bamboo Industrial Cuts.

Key words : Bamboo, Pricing Policy, Supply to Paper Mills, Supply to Weaker Sections, Andhra Pradesh.

आंध्र प्रदेश के कागज उद्योगों और कमजोर वर्गों का बांस देने की मूल्य निर्धारण नीति
पी०के० सारंगी
सारांश

सभी राज्यों के वन संसाधन निरन्तर घटते जा रहे हैं और वनाधारित उद्योगों को वनोपज दिए जाने की पुनः जांच-पड़ताल करना आवश्यक है। इसी संदर्भ में आंध्र प्रदेश और आंध्र प्रदेश से लगते हुए राज्यों की कागज मिलों को औद्योगिक बांस के टुकड़ों की प्रदाय-दरों का विश्लेषण किया गया। आंध्र प्रदेश राज्य में “आंध्र प्रदेश वनोपज (विक्रय मूल्य नियत करना) नियमावली, 1999” बनी रहने से अपने वनों के दीर्घकालिक टिकाऊपने को कुप्रभावित किए बिना बाजार की मांग और आपूर्ति के आधार पर ष्कीमतें नियत करने की नीति बनाना काफी सुविधाजनक हो गया। इसी तरह से, समाज के कमजोर वर्गों (आंध्र प्रदेश के बुरोदों को) लम्बे बांस भी वाजिबी कीमतों पर उपलब्ध कराने होते हैं। इसी कारण से अन्य राज्यों की कागज मिलों को बांसों के औद्योगिक टुकड़े आपूर्ति कराने की कीमतों को तर्कसंगत बनाने की आवश्यकता है ताकि अधिकतम राजस्व प्राप्त किया जा सके, जैसा कि आंध्र प्रदेश राज्य में किया जाता है। यहां तक कि आंध्र प्रदेश राज्य में भी तृतीय श्रेणी के लम्बे बांसों के निष्कासन और उनकी बिक्री के पुनर्परीक्षण की आवश्यकता है क्योंकि तृतीय श्रेणी के बांसों को खुले नीलामी में जो दरें मिल रही हैं वे बांसों के औद्योगिक टुकड़ों को मिल रही कीमतों के मुकाबले में बहुत ही कम हैं।

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