

ZZG/CLAB-KSPCB/04/
05-09-2013

Speed Post with AD

Environmental Officer,
Karnataka State Pollution Control Board,
Regional Office, "Parisara Bhavan",
LIG-11b – 217, Near Hari Om Trust,
Habbuwada - KARWAR.

Gentlemen,

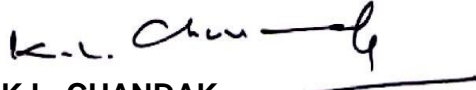
Sub: Environmental Audit statement for the year ending 31st March, 2013.

We are forwarding here with the Environmental Audit statement of our mills in prescribed format – "Form V" along with relevant annexures for the financial year ending 31st March, 2013.

We trust you will find the same in order.

Thanking You,

Very truly yours,
For THE WEST COAST PAPER MILLS LIMITED, DANDELI.


K.L. CHANDAK.
EXECUTIVE DIRECTOR.

Encl: Report in duplicate.

CC: **Member Secretary,**
Karnataka State Pollution Control Board,
49, Parisara Bhavan,
4th & 5th floor,
Church Street,
BANGALORE - 560 001.

CC: V.P. (Fin) & C.Scy.
CC: V.P.(Ops) –Shri B.H.Rathi.
CC: Shri Venugopal – D.G.M. Liaison, B'lore Office
CC: D.G.M. (TS)
CC: Shri Giriraj – P.R.O. deptt.
CC: Asst. Supdt. (IPC)

ANNEXURE

ENVIRONMENTAL STATEMENT FORM-V

(See rule 14)

Environmental Statement for the financial year ending with 31st March -2013

PART-A

1. Name and address of the owner/occupier of the industry / operation or process.	Shri K.L.Chandak, Executive Director, The West Coast Paper Mills Ltd., Bangurnagar, Dandeli.
2. Industry category Primary-(STC Code) Secondary- (STC Code)	
3. Production category Units.	3,20,000 MT/A
4. Year of establishment	1955
5. Date of the last environmental statement submitted.	05-09-2012

PART -B

Water and Raw Material Consumption

		2011-2012	2012-2013
(I)	Water consumption, m³/d		
	Process	42,781	41,634
	Cooling	36,159	33,628
	Domestic	7,750	8,094

Products	Process water consumption per unit of products	
	During the previous financial year	During the current financial year
	2011-2012	2012-2013
Paper & Paper boards	102	96

(II) Raw material consumption:

Name of Raw materials	Name of product	Consumption of raw material per unit of output	
		2011-2012	2012-2013

Attached as ANNEXURE -I

PART-C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (Mass/day)	Concentration of Pollutants discharged (Mass/volume)	Percentages of variation from prescribed standards with reasons
(a) Water	Attached as ANNEXURE -II		
(b) Air	Attached as ANNEXURE -III		

PART-D

HAZARDOUS WASTES:

(as specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous Wastes	Total Quantity (Kg)	
	2011-2012	2012-2013
1. From process	WCPM as such doesn't generate any Hazardous Waste from processes. The used oil & furnace oil sludge used in machinery & DG sets respectively are covered under Sl. No. 5.1 & 3.3. Details given in ANNEXURE – V .	
2. From Pollution control facilities		

PART E

SOLID WASTES:

SOLID WASTES	Total Quantity (Kg)	
	2011-2012	2012-2013
1. From Process.	Attached as ANNEXURE -IV	
2. From Pollution control facilities.		
3. Quantity recycled or re- utilised within the unit.		

PART F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

PLEASE REFER ANNEXURE – V

PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

PLEASE REFER ANNEXURE – VI

PART H

Additional measures/investment proposal for environmental protection including abatement of pollution.

PLEASE REFER ANNEXURE VII & VII A

PART I

Any other particulars in respect of environmental protection and abatement of pollution.

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THE WEST COAST PAPER MILLS LIMITED, DANDELI.
CENTRAL LABORATORY
Raw material work sheet

			<u>2011-12</u>	<u>2012-13</u>
1	Paper Production	MT	308,230	317,808
	A) Writing and Printing	MT	254,854	261,550
	B) Duplex Board.	MT	53,376	56,258
	Pulp Production		232,366	233,874

LIST OF RAW MATERIALS

Sl No	Raw material	Principle	<u>2011-12</u>	<u>2012-13</u>
			Qty/T	Qty/T

I RAW MATERIALS

A)	Wood	Pulp manufacture	2.979	2.869
B)	Bamboo	Pulp manufacture	0.020	0.002
C)	Imported Pulp	Paper making	0.010	0.012
D)	Waste Paper	Paper making	0.113	0.096
E)	Indigenous Pulp	Paper making	-	-

II MAJOR CHEMICALS & DYES CONSUMED.

1	Caustic Soda,***	MT	Cooking chemicals & for bleaching of pulp	0.028	0.032
2	Salt Cake,	MT	Make up chemical	0.018	0.017
3	Burnt lime,	MT	For preparation of white liquor from green liquor & for bleach liquor preparation.	0.325	0.305
4	Chlorine,***	MT	ClO ₂ preparation	0.013	0.014
5	Alum / PAC	MT	Sizing of paper	0.028	0.029
7	Rosin,	MT	Sizing of paper	0.0012	0.0014
8	Talcum Powder / PCC / GCC	MT	Filler	0.140	0.152
9	Soda ash,	MT	For preserving pulp properties.	0.00041	0.00011
10	Sulphamic acid,***	MT	Sizing of paper	0.00017	0.00012
11	Sulphuric acid,	MT	Paper/Pulp Chem	0.0144	0.0144
12	Hydrochloric acid,	MT	Additive for paper making	0.0068	0.0058
13	Starch,	MT	Additive for paper making	0.0241	0.0257
14	Sodium Silicate	MT	Additive for paper making	0.0002	0.0001
15	Glue	MT	Additive for paper making	0.000026	0.000022
16	Sodium Sulphite	MT	Sizing of paper	0.0000004	0.0000014
17	Common Salt	MT	Additive for paper making	0.0003	0.00039
18	Optical Whitening agent	MT	Additive for paper making	0.0042	0.0044
19	Dyes	MT	Additive for paper making	0.00017	0.00020

III FUEL CONSUMPTION ,

1	Coal tonnes ,	MT	-	1.0160	0.9967
2	Furnace oil./LSHS KL ,	KL	-	0.0138	0.0037

IV GREASE & OIL CONSUMPTION

1	ARGINA X 40 LUBE OIL	BRL	-	0.1103721	6.293E-05
2	SERVO MESH SP 320	BRL	-	-	0.00010
3	SERVO SYSTEM 150	BRL	-	-	0.0001133
4	SERVO SYSTEM 220	BRL	-	-	0.0002643
5	SERVO PLEX LC 2	KG	-	-	0.0045814
6	SERVO GEM EP -2 GREASE	KG	-	-	0.0080143
7	SERVO GEM 3	KG	-	-	0.0123549
8	SERVO PRIDE 40	LTR	-	-	0.0039851
9	MOBIL DTE 10 EXCEL	LTR	-	-	0.0052359
10	SERVO PRIME 46	LTR	-	0.2019466	0.005947
11	SERVO HYDREX 68	LTR	-	-	0.0085901
12	SERVO MESH SP 220	LTR	-	-	0.0099116
13	SERVO PRIME 46T	LTR	-	-	0.0138763
14	MOBIL GEAR 600 XP150	LTR	-	-	0.0196345
15	MOBIL GEAR 600 XP220	LTR	-	-	0.0255248
16	SERVO SYSTEM 68	LTR	-	-	0.0512102
17	GREASE	KG	-	0.0321578	0.001331

STATEMENT OF POLLUTION DISCHARGED TO ENVIRONMENT - WATER (2012-2013)

ANNEXURE - II

Sl.No.	Pollutants (as specified in consent issued)	Stipulated Std. (as specified in consent)		Pollutants discharged		Percentage Variation from prescribed std. With reason.
		Tolerance Limit of pollutants concentration.	Quantity kgs/d.	Pollutant concentration	Quantity kgs/d	
1	Flow,	m ³ /day	85,885	-	72,154	No Variation
2	Colour & Odour		All efforts to remove colour & odour as far as practicable	-	Light Brown and odourless	No Variation
3	Suspended solids	mg/l	50	4,294	33	No Variation
4	Particle size of suspended solids		Shall pass through 850 microns IS sieve	-	<850	No Variation
5	Dissolved solids [inorganics]	mg/l	2,100	180,359	763	No Variation
6	Temperature	°C	Shall not exceed 40° in any section of the stream within 15 Mts. down stream from the effluent outlet	-	33.0	No Variation
7	pH value		7.0 to 8.5	-	7.3	No Variation
8	Oil & Grease	mg/l	10	859	Nil	No Variation
9	Total residual Chlorine	mg/l	1.0	86	Nil	No Variation
10	Ammonical Nitrogen [as N]	mg/l	50.0	4,294	Nil	No Variation
11	Total Kjeldhal Nitrogen [as N]	mg/l	100	8,589	1.6	No Variation
12	Free Ammonia [as NH ₃]	mg/l	5.0	429	Nil	No Variation
13	BOD ₅ at 20°C	mg/l	30.0	2,577	23	No Variation
14	COD	mg/l	250.0	21,471	157	No Variation
15	Cadmium [as Cd]	mg/l	2.0	172	-	No Variation
16	Chloride [as Cl]	mg/l	350	30,060	164	No Variation
17	Dissolved Phosphate [as P]	mg/l	5.0	429	Nil	No Variation
18	Sulphate [as SO ₄]	mg/l	1,000	85,885	66	No Variation
19	Sulphide [as S]	mg/l	2.0	172	Nil	No Variation
20	Phenolic compound [as C ₆ H ₅ OH]	mg/l	1.0	86	Nil	No Variation
21	Bio assay		Not less than 90% of the test animal shall survive in 96 hrs test. The test shall be conducted as per IS 6582.	-	-	No Variation
22	AOX	kg/T	1.5	1,310	0.099	No Variation

**STATEMENT OF POLLUTION DISCHARGED TO ENVIRONMENT -AIR FROM
APRIL 2012-MARCH 2013**

Sl.No.	Stack	Pollutants	Rate of Discharge, Nm ³ /d		Pollutants Concentration, mg/Nm ³		SPM Quantity, kgs/D		% Variation from Prescribed Std.
			Tolerance Limits	Achieved	Tolerance Limits	Achieved	Tolerance Limits	Achieved	
1	Chemical Rec. Boiler-I	SPM	3,000,000	2,813,406	150	89	450	250	No.Variation
		H ₂ S	-	-	10	0.7	30	2.0	No.Variation
2	Chemical Rec. Boiler-II	SPM	5,417,280	5,194,154	150	90	813	467	No.Variation
		H ₂ S	-	-	10	0.8	54	4.2	No.Variation
3	Rotary Lime Kiln -I	SPM	480,000	431,138	150	81	72	35	No.Variation
4	Rotary Lime Kiln -II	SPM	950,400	866,286	150	73	143	63	No.Variation
5	Smelt Dissolving Vent I	SPM	1,56,000	394,940	150	76	23	30	No.Variation
6	Smelt Dissolving Vent II	SPM	-	461,828	150	74	-	34	No.Variation
7	F.B.C. boiler -I	SPM	2,208,000	Shut	150	Shut	331	Shut	No.Variation
		SO ₂	-	-	-	Shut	-	Shut	No.Variation
8	F.B.C. boiler -II	SPM	2,973,888	2,401,068	150	77	446	185	No.Variation
		SO ₂	-	-	-	737	-	1,770	No.Variation
9	F.B.C. boiler -III	SPM	-	3,536,292	50	44	-	156	No.Variation
		SO ₂	-	-	-	707	-	2,500	No.Variation
10	F.B.C. boiler -IV	SPM	3,458,592	2,958,328	150	87	519	257	No.Variation
		SO ₂	-	-	-	735	-	2,174	No.Variation
11	3.8 MW DG Set	SO ₂	1,320,000	-	-	-	-	-	No.Variation
12	4.0 MW DG Set	SO ₂	1,320,000	-	-	-	-	-	No.Variation
13	4.04 MW DG Set	SO ₂	1,320,000	-	-	-	-	-	No.Variation

Note: All the DG sets are under nominal run.

Part -E

Annexure - IV

SOLID WASTE

Sl. No.	Particulars	Total Quantity generated,		Quantity Recycled /Sold,	
		MT/Annum		MT/Annum	
		2011-2012	2012-2013	2011-2012	2012-2013

A From Process

1	Saw Dust	14,965	24,239	14,965	24,239
2	Lime Sludge	157,891	150,814	157,891	150,814
3	Classifier Grit	2,959	3,206	2,959	3,206
4	Plastic waste from Duplex Machine	3,600	3,600	3,600	3,600

B From Pollution Control Facility

1	Dust from CRP boiler	44,466	48,579	44,466	48,579
2	Ash from Power House	85,427	78,661	85,427	78,661
3	Sludge from P.Mill ETP	262	170	262	170
4	Sludge from P.M/c ETP	9,764	9,869	9,764	9,869

- Note:**
1. The RLK have ESP as APC equipment and the dust generated is entirely recycled back, hence not considered .
 2. Hypochlorite sludge, Metso Rejects & Dregs is not being generated as new Fiber line & recovery plant is running & old bleaching sequence is replaced with new one.

THE WEST COAST PAPER MILLS LIMITED, DANDELI.

The mill does not generate any Hazardous Waste but the used oil & oil sludge are considered under Sl. No. 5.1 & 3.3 .The details of characteristics & disposal of solid waste / Hazardous waste are given here.

SL. NO	DESCRIPTION OF SOLID WASTE	Qty MT./d 2012-13	Characteristics	DISPOSAL PRACTICE.
1	Saw dust	50-60	Dry wood dust	Used in Boilers
2	Classifier grit	8-10	Silica, 25-30%, CaCO ₃ , 60%, CaO, 1% - 2% and Na ₂ O, about 1%.	Used as Land fill
3	Ash from Power House.	200-250	Silica, Al ₂ O ₃ , Fe ₂ O ₃ etc.	1. Eco ash sold to bricks manufacturers. 2. Fly ash is supplied to cement and bricks manufacturers.
4	Sludge from effluent treatment plant [P.Mill]	0.5-1.0	Fibres, 95% Ash, 5%.	Used in filler layer of multilayer board machine.
5	Sludge from effluent treatment plant [P.M/c]	25-30	Fibres, 50% Ash, 50%.	Being sold to Board /egg tray manufacturer.
6	Plastic Waste from Duplex machines.	8-10	Plastics	At present, stored in yard. Party has been identified to take the plastic waste material for recycling.
7	Generated garbage of colony	4 - 5	Kitchen waste.	Presently collected & stored at ear marked area inside the mill. The project of converting it in to manure is under progress.
8	Lubricating Waste Oil	0.04-0.05 KL	-	Taken by the Party having necessary approval from KSPCB, Bangalore, for reprocessing.
9	Waste Oil Sludge	<0.1 KL	-	Burnt in Rotary lime kiln

Note:

The solid wastes from the causticizing plant, ESP from CRP, have not been considered as they are being recycled back in to the system. The new RLK has an ESP as APC equipment and the dust generated is entirely recycled back, hence not considered.

PART - G

ANNEXURE - VI

Impact of Pollution Control Measures on conservation of natural resources and consequently the cost of production.

- I Two Rotary Lime Kilns works to reburn the lime sludge and reuse the lime in process there by eliminating the land pollution problem caused in the disposal of lime sludge. This has also reduced the demand of Lime stone / Sea shell by around 1,52,402 MT worth Rs. 4,921 Lakhs for the year 2012-2013.
- II To recover the cooking chemicals from the spent liquor, recovery Boilers (2 nos) are in use. The recovered cooking chemicals are re-used in the process for pulping purpose. The Recovery Boiler efficiently utilises the heat generated during the combustion of spent liquor in to steam and minimises the environmental pollution problem. The Steam generation from the Chemical Recovery Boiler in the Year 2012-2013 was 15,91,417 MT which has reduced the Coal demand by 3,70,097 MT worth Rs.15,300 Lakhs.
- III The ESP provided to CRP boilers collect particulate matter from emission consisting of Sodium Sulphate & Sodium Carbonate, which are used as make up chemical. The quantity of ESP dust so collected corresponds to 48,579 MT which is equivalent to Rs. 4,660 lakh in the year 2012-2013.
- IV Installation of FFE has reduced steam requirement by approximately 26,268 T/month equivalent to 6,109 MT/Month of Coal. The annual saving works to Rs. 3,030 lakhs for the year 2012-2013.

THE WEST COAST PAPER MILLS LTD. DANDELI.

RAW MATERIAL AUGMENTATION

Our country has 100 million (mn) hectares (ha) of wasteland and 32 mn ha of degraded forestlands. It offers a great opportunity for sustainable development through appropriate land use policies and technology based plantations. To transform the wastelands into productive assets, time bound action is required to halt further degradation and speed-up reclamation and restoration lest these lands should degrade to the point of no return. Reclamation and restoration will create vast employment opportunities for the rural poor, help conserve precious soil and water resources, strengthen agricultural productivity and life support systems. Technology based plantations on suitable parts of these lands can meet our country's growing fuel-wood and industrial wood requirements and simultaneously contribute to greening of India and conservation of bio-diversity rich natural forests.

The National Forest Policy, 1988 envisaged to bring 33% of land area under forest and tree cover, and emphasises upon the necessity of mobilising stakeholders' participation and adequate financial support in the forestry activities. The Planning Commission of India has prepared a time-bound programme to achieve the targeted forest and tree cover by the end of Eleventh Five Year plan, i.e., 2012 by involving all the key stakeholders in the Greening India Programme.

In India, almost the entire 76 mn ha recorded forest area is owned and managed by the State Governments. Nearly, 32 mn ha of forest area has less than 40% crown density (Anon, 1998). The forests are poorly stocked, with average growing stock estimated at 61.5 m³/ha. This is because the forests are under intense biotic pressure leading to degradation of forest resources. This resulted into a situation that the per capita forestland available in the country at 0.08 ha, down from 0.2 ha in 1951 is one of the lowest in the world with the world average being around 0.64 ha. To improve the per capita availability of forests and for environmental and economic reasons, it is therefore, necessary to regenerate the forests.

It is the appropriate moment to consider direct involvement of other key stakeholders in this crucial area. Based on trust and reciprocity, the West Coast Paper Mills Ltd. is ready to invest in resources, expertise and attention in promotion of the forest resource development. In view of this, Company has come out with an innovative project for utilising the degraded land available with the farming community.

The Company has envisaged an afforestation project within a radius of 250 Kms. of Dandeli, wherein all the Statutes are taken care of and there is a win-win situation for the Company and community including Scheduled Castes and Scheduled Tribes people. Providing of lands for cultivation of pulpwood is without any transfer of title of the lands.

The Company has developed and demonstrated a technology wherein barren lands can be effectively brought under economical forestation. The Company has already afforested over 3000 acres of leased land where the productivity is around 40 MT per acre under rain fed

conditions in five years rotation. This became possible because of superior genetic material coupled with adequate scientific soil management measures.

The Company has surveyed and identified the under-utilised / degraded / barren lands within the targeted area. These lands have all the potential for organised & systematic cultivation of pulpwood species, thereby

- Providing employment of nearly 450 man days / ha / yr to the local population in Nursery, tending to saplings, planting, weeding, watch & ward etc. and in addition another 250 man days / ha at the time of harvesting.
- Providing lops & tops as fuel wood free of cost to the local people consequently reducing pressure on naturally grown forest for fuel wood etc. In fact, the volume of such fuel wood would eliminate the need to raise separate forests for this purpose.
- Providing free high protein fodder grown in the plantation area.
- Regenerating the ground water levels of these degraded wastelands.
- Preventing soil erosion.
- Enhancing the productivity of these lands.
- Ensuring enrichment & sustainability of ecology, environment, flora & fauna.
- Earning precious carbon credits on account of Carbon sequestered.
- Substituting import of pulp thereby saving huge foreign exchange.
- Ensuring perennial supply of quantity & quality of pulpwood to industry.
- Reducing the distance of raw material haulage to the Mills to 200 Kms. resulting in conservation of precious national resources.
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Presently, Company is receiving around 4.00 Lac MT of Pulpwood per annum from various sources on sustained basis. With the expansion programme, the raw material requirement will go upto 7.70 Lac MT per annum. In order to meet the enhanced pulpwood requirement of the Company on sustained basis, following initiatives have been taken up by the Company.

1. **Contract for Farming:**

The Company has embarked on a programme wherein 20,000 ha of unproductive agricultural land within a radius of 250 Kms. of Dandeli will be taken under hi-tech plantation of pulpwood trees such as Eucalyptus, Casuarina, Acacia & Subabul in the next five years, which will yield around 2.50 Lac MT of pulpwood per annum from the year 2011 onwards. The material will be of uniform size and superior quality. Till date we have received around 80 lac MT of Pulp wood from our plantation.

The Company takes up such hi-tech plantation on these fallow /barren / unutilized agricultural lands at its own cost and assures a minimum yield of 40 MT per acre in a rotation of five years. The farmers do not have to invest anything directly or indirectly for growing pulpwood plantation on their lands and therefore there is no burden of debt on them whatsoever. The Company provides ready market for the harvested product at pre-determined price. The entire society gets advantage of employment in their own locality and enjoys the hassle free earnings from their lands with nil encumbrances.

The local farmers have actively co-operated with the Company and provided around 300 ha of land for taking up such hi-tech plantation during 2006 rains in the Ramnagar area of Joida Taluka of Uttara Kannada District as a pilot project. Having been encouraged and motivated by the success of this operating model in Ramnagar, the farmers / land owners of remaining lands in Ramnagar and adjoining Khanapur Taluka have already offered over 1200 ha of their land under this project for plantation during 2007 rains. Additionally, around 18,000 ha has already been identified & covered under plantation in adjoining districts substantially 2,000 ha area will be covered this year. All the plantation area is duly certified with Forest Stewardship Council – Forest Management certification for “**Well Managed Group Plantation**” since 2011.

Hi-tech Plantation in Leased Lands:

The Company has been holding around 2400 ac. of leased land since 1960s where pulpwood plantations were taken up as per the prevailing scientific techniques from time to time. However, since last seven years these lands have been put into research on site management for the development & propagation of scientific high yielding, genetically superior clonal planting stocks as well as pulpwood.

3. **Subsidised Distribution of Seedlings:**

The Company's activity of raising seedlings in its various Nurseries for subsidised distribution has been enhanced from the present 150 Lacs seedlings per annum to 250 Lacs

seedlings per annum, which will increase the availability of pulpwood to around 9.8 Lac MT per annum in the States of Karnataka, Tamil Nadu, Andrapradesh, Kerala & Maharashtra.

The Company is committed to always procure 60% of the raw material requirement from the farmers and balance of 40% from captive plantation.

4. Research and Development in Forestry:

Company is continuously taking up research work on increasing the productivity per unit area and has got remarkable success in developing 39 Eucalyptus clones, 28 Acacia hybrid clones and 6 Subabul clones; thereby the productivity has gone up from 25 Cum/ha/annum to 32 to 35 Cum/ha/annum. Apart from this, there is an increase in unbleached pulp yield from 46% to 52%. This effort will reduce the land requirement for captive plantation and wood requirement.

5. Propagation of Planting Stock:

In the financial year 2006-2007 Company added two new mist chambers, thus bringing the total number of mist chambers are now four. Simultaneously, low cost mist chamber technology was also adopted to propagate high yielding clonal planting stock of different species. Specialised Nurseries were established to raise Eucalyptus Pellita seedlings for high rainfall area.

Advantages to the Local Community of Dandeli Region:

Apart from the additional employment opportunity and economic activities that are being initiated with the expansion of production capacity within the mills, the raw material augmentation activity itself would further add various advantages to the local community.

The Research Gardens / Clonal Orchards, Nurseries, Mist Chambers / Green Houses which are being established within 10 Kms. radius of Dandeli would enhance direct and indirect employment opportunity for the local community. The pulpwood plantations would itself emerge as a self-contained agro-industrial activity having all the potential for providing high value opportunities similar to bio-tech and large plantation estates. The development & maintenance of infrastructure and allied activities such as transport etc. would boost the local economy. Thus, the raw material augmentation efforts itself have the potential to ignite a multifaceted economic cycle, which can arrest the present trend of decline in the population of Dandeli.

Plantation Activities carried out inside and around factory area.

Year	Inside Factory Area (Numbers)					Around Factory Area (Numbers)					
	Eucalyptus	Acacia	Casaurina	Subabul	Others	Total	Eucalyptus	Acacia	Casaurina	Subabul	Total
1996	5,850	3,490	1,485	240	379	11,444	987	8,445	-	-	9,432
1997	1,070	4,530	-	240	183	6,023	2,424	6,960	-	-	9,384
1998	-	2,600	-	-	14	2,614	1,770	4,395	-	-	6,165
1999	-	1,802	50	302	32	2,186	2,315	27,007	975	-	30,297
2000	-	4,667	-	-	-	4,667	116	13,694	-	-	13,810
2001	1,044	-	-	-	-	1,044	15,794	6,301	104	-	22,199
2002	-	-	-	-	-	-	9,473	1,856	443	-	11,772
2003	-	-	-	-	-	-	8,462	2,444	135	4,632	15,673
2004	-	-	-	-	-	-	22,537	5,904	200	-	28,641
2005	-	-	-	-	-	-	63,887	3,817	-	-	67,704
2006	-	-	-	-	-	-	36,939	1,252	420	-	38,611
2007	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-
Total	7,964	17,089	1,535	782	608	27,978	164,704	82,075	2,277	4,632	253,688

Notes: No plantation done in & around mill area from the year 2007. The damaged/failed plants are replaced by new one from time to time.