CONTENTS

From the Director In-Charge’s Desk .................................. 1
Indian Pulp & Paper Industry – A Brief Profile ................. 3
Management ........................................................................ 5
Major Achievements During 2015-16 .................................. 12
R&D Activities .................................................................. 19
Projects Sponsored by Pulp, Paper and Allied Industries .... 34
Technical & Consultancy Services ..................................... 39
Meetings During 2015-2016 .............................................. 47
National Days & Other Important Days Observed by CPPRI .... 51
Training Programme
Organised / Training Rendered ......................................... 55
Participation in Seminar, Workshop and Training Programme .... 61
Papers Presented and Lectures Delivered ....................... 68
Representation in External Committees ......................... 71
Publications ......................................................................... 73
Reports Prepared ............................................................... 74
Visit to Pulp & Paper Mills and Other Organisations ........... 78
Visitors to CPPRI .......................................................... 82
M.Sc. (Cellulose & Paper Technology) .............................. 84
List of Staff ......................................................................... 108
It is my pleasure to present the progress and achievements of CPPRI during 2015-16 through this Annual report.

Among the major achievements during the year is the award of UNIDO (IC-ISID) Project on Development & Adoption of Appropriate Technologies for Enhancing Productivity in the Paper and Pulp Sector to CPPRI. The objective of the project is to strengthen the global competitive position of the Indian Paper & Pulp Sector and to facilitate development and adoption of technologies for waste management and improving energy efficiency in the pulp and paper sector.

The project was initiated with successful organization of four stake holder consultation meets at Kashipur, Chandigarh, Vapi and Coimbatore which was well attended by officials from industries, government agencies, R & D institutions, academia and other stake holders.

Another achievement was the publishing of Compendium of Census Survey of Indian Paper Industry prepared by CPPRI which was released during Paper’ex 2015. The compendium is a useful ready reckoner for industry, students, academia and various stake holders in context of global paper industry trends as well as status of the Indian Pulp & Paper Industry. The compendium includes inventory of over 813 Pulp & Paper mills compiled through survey carried out by CPPRI along with details related to their current installed & production capacities, paper grades produced, issues and challenges etc. CPPRI also participated actively in Paper’ex 2015 as co-sponsor.

The institute has been executing 9 plan projects and 10 Cess funded projects in the area of Raw Material and Product Development, Process Optimization, Cleaner Production Technologies, Energy Conservation, Environmental Management, Skill Development etc to address the various issues of India Paper Industry.

CPPRI provided technical services, consultancy and developed process like currency paper through indigenously available fibrous raw material, effective product processing and recycling of high strength waste paper like post consumer tetra pak cartons, commercialization of liquor heat treatment technology for improved efficiency of chemical recovery system, application of tertiary treatment system for compliance with environmental norms etc. Under the second phase of Charter for Water Recycling and Pollution Prevention for Pulp and Paper Industries in Ganga River Basin CPPRI continued its assistance as a third party in monitoring and verification of the progress of charter implementation.

Two Memorandum of Understanding (MoU) between CPPRI and Institute of Chemical Technology (ICT), Mumbai and Uttarakhand Technical University, Dehradun, Uttarakhand were signed during this year.
In addition to four UNIDO workshop mentioned above, CPPRI successfully conducted four training programme on Energy and Environment Management, Calibration and Quality Evaluation of Pulp and Paper Products, Physical & Optical Properties of Different Grades of Paper and Printing and Surface Properties Evaluation of Paper during 2015-16. The feedback received from the trainees has been quite encouraging and satisfactory.

Dedicated efforts made by the Institute in rendering technical, testing and consultancy services to various agencies has resulted in Internal Revenue Generation (IRG) of ₹ 260.40 Lacs during 2015-16.

With an objective to maintain corruption free and transparent work culture, CPPRI has been strictly complying with the directives of Right to Information Act, Central Vigilance Commission, Ministry of Culture National Archives of India etc. The Hindi Cell also continued its efforts for further increase in use of Hindi in official work.

CPPRI as usual, observed with great fervor national and other important days during the year like Independence Day, Republic Day, World Environment Day, Hindi Diwas, and Vigilance Awareness Week etc., through organization of meetings and functions for creating awareness among the staff and their families on the related issues.

CPPRI would like to place on record the guidance and encouragement extended by Shri Amitabh Kant, IAS, Secretary (IPP), Ministry of Commerce & Industry, Govt. of India and President, Council of Association (CoA) of CPPRI. The institute would also like to place on record the guidance and professional leadership provided by Shri Shailendra Singh, IAS, Joint Secretary (IPP), Ministry of Commerce & Industry, Govt. of India and Chairman, Chairman Cess Committee and Research Advisory Committee (RAC) of CPPRI.

The valuable guidance and support extended by the Hon’ble Chairman and Members of Development Council for Pulp, Paper and Allied Industries (DCPPAI), Council of Association (CoA) of CPPRI and Research Advisory Committee (RAC) of CPPRI is also sincerely acknowledged.

CPPRI also thank Indian Paper Manufacturers Association (IPMA), Indian Newsprint Manufacturers Association (INMA), Indian Agro and Recycled Paper Mills Association (IARPMA) and Indian Recycled Paper Mills Association (IRPMA) as well as all our valued clients from pulp, paper and allied industries for their continued support in various activities and projects being executed by CPPRI.

I also thank CPPRI’s scientific, technical, administrative and accounts staff for their dedicated and sustained team work which has been a driving force for CPPRI’s growth and progress.

Dr. R.K. Jain
Paper Industry

India continued to rein as one of the fastest growing paper market in the world. The growing knowledge base coupled with synergistic contributions from flagship schemes of the government, namely, Saakshar Bharat, Skill India, Beti Bachao Beti Padhao, Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), Inclusive Education for the Disabled at Secondary School (IEDSS), Adult Education, Right to Education and Central Government Scholarship & Education Loan Scheme, assured a robust demand for paper and paper board. The industry was delicensed in July, 1997. As per the present policy, FDI up to 100 per cent is allowed on the automatic route for the pulp and paper sector. There are around 850 units which manufacture pulp, paper, paper board and newsprint with an installed capacity of nearly 24 million tonnes out of which 3 million tonnes are lying idle. The total operating capacity is around 20 million tonnes. The Indian paper industry is in a fragmented structure, consisting of small, medium and large paper mills having capacity ranging from 10 to 1500 tonnes per day. These units use wood and agro residues as well as recovered paper as raw material. The production share of these units is around 20%, 10% and 70% respectively.

Paper & Paperboard Segment

Indigenous paper and paper board segment produces all the main varieties of paper that are in demand in the market viz writing and printing (38%) packaging grade paper (53%), newsprint (8%) and speciality paper (<1%). However, certain speciality paper such as coated paper, security papers and cheque paper, etc., are being imported in the country.

The production of paper and paper board in the year 2015-16 stood at around 17 million tonnes (estimated figure) as compared to 16.63 million tonnes in the previous year (2014-15). During the year 2015-16, 1.48 million tons of paper and paper board was imported whereas in the previous year (2014-15) this figure stood at 1.36 million tons. On the other hand about 0.64 million tons of paper and paper board was exported in the year 2015-16, up from a figure of 0.60 million tons in the year 2014-15.

Newsprint Segment

The newsprint sector in the country is governed by the Newsprint Control Order (NCO), 2004. The mills listed under the schedule of this order are exempt from excise duty, subject to actual user condition. At present, there are 123 mills registered under the Schedule to the NCO. However, only 64 are producing newsprint making the operating installed capacity 2.52 million tonnes per annum. 23 mills have closed operations since being listed in the NCO and 36 mills have discontinued the production of newsprint. The domestic production of newsprint dropped from 1.44 million tons in 2014-15 to 1.02 million tons (Estimated figures) in year 2015-16. Nearly half of the newsprint demand in the country is met by imports. 1.50 million tons of newsprint was imported in 2015-16,
which is higher from a 1.33 million tons for the previous year. The export of newsprint from the country is negligible.

**Raw Material Scenario**

The raw material consumption pattern has drastically changed in the recent years with the pulp & paper industry witnessing a rise in the use of waste paper. This shift has been mainly brought about for purpose of environmental compliance.

Presently, the consumption of wood, agro and waste paper is 20%, 10% and 70% respectively. Till about a few years ago, the consumption of wood, agro and waste paper was 31%, 22% and 47% respectively. Fig.1 illustrates the changing raw material consumption pattern of the Indian Paper Industry.

![Fig.1 - Changing Raw material Consumption Pattern in Indian Paper Industry](image)

**Production Trends for Different Grades of Paper**

The Indian Paper Industry produces writing and printing, newsprint as well as packaging grade of paper. Writing and printing paper, packaging, newsprint and speciality paper contribute to 38%, 53%, 8% and <1% respectively.

The domestic production trend follows the global trends in writing & printing paper, packaging grades & newsprint accounting for 26%, 51% & 7% respectively. However, global production of speciality grades like tissue paper is higher at around 8% of total global production.
MANAGEMENT

Council of Association (CoA)

The Council of Association of Central Pulp & Paper Research Institute (CPPRI) is the supreme body consisting of 18 members having representation from Ministry of Commerce & Industry, Department of Science & Technology (DST), Council of Scientific and Industrial Research (CSIR), Indian Council of Forestry Research and Education (ICFRE), Indian Institute of Technology (IIT), Roorkee etc. The President of Council of Association of CPPRI is appointed by Government of India. At present, Shri Amitabh Kant, IAS, Secretary to the Government of India, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion (IPP) is President CoA. Shri Shailendra Singh, IAS, Joint Secretary to the Govt. of India, Ministry of Commerce and Industry (IPP), was also closely associated with the affairs of the Council.

<table>
<thead>
<tr>
<th>Composition of the Council of Association</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>President</strong></td>
</tr>
<tr>
<td>Secretary to the Government of India,</td>
</tr>
<tr>
<td>Ministry of Commerce &amp; Industry (IPP)</td>
</tr>
<tr>
<td><strong>Vice-President</strong></td>
</tr>
<tr>
<td>Joint Secretary to the Government of</td>
</tr>
<tr>
<td>India, Ministry of Commerce &amp; Industry</td>
</tr>
<tr>
<td>(IPP)</td>
</tr>
<tr>
<td><strong>Member Secretary</strong></td>
</tr>
<tr>
<td>Director, Central Pulp &amp; Paper</td>
</tr>
<tr>
<td>Research Institute</td>
</tr>
<tr>
<td><strong>Members from Government</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td><strong>Members from Academic Institutions</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td><strong>Members from Scientific Institutions</strong></td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td><strong>Members from Paper Industry</strong></td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>
MEMBERS OF COUNCIL OF ASSOCIATION OF CPPRI

1. **Shri Amitabh Kant, IAS**  
   Secretary,  
   Government of India  
   Ministry of Commerce & Industry  
   Department of Industrial Policy & Promotion

2. **Shri Shailendra Singh, IAS**  
   Joint Secretary,  
   Government of India  
   Ministry of Commerce & Industry  
   Department of Industrial Policy & Promotion

3. **Director**  
   IF Wing - IPP  
   Govt. of India  
   Ministry of Commerce & Industry,  
   Department of Industrial Policy & Promotion

4. **Chairman**  
   Development Council for Pulp, Paper and Allied Industries

5. **Dr. G.S. Goraya,**  
   Deputy Director General (Research)  
   Indian Council of Forestry Research and Education (ICFRE)

6. **Dr. Sanjay Mishra**  
   Scientist G,  
   Department of Science & Technology  
   Ministry of Science & Technology

7. **Director,**  
   Indian Institute of Chemical Technology

8. **Professor Y.S. Negi**  
   HOD  
   IIT Roorkee (Saharanpur Campus)

9. **Shri R.C. Rastogi**  
   President,  
   Indian Recycled Paper Mills Association (IRPMA)  
   and CMD- Khatema Fibres Limited

10. **Shri Pramod Agarwal**  
    President,  
    Indian Agro and Recycled Paper Mills Association (IARPMA)  
    and CMD- Rama Paper Mills Limited
11. **Shri Sanjay Singh**  
   President  
   Indian Paper Manufacturers Association (IPMA)  
   and Divisional Chief Executive, ITC Ltd (PSPD)

12. **Shri P.S. Patwari**  
   President,  
   Indian Newsprint Manufacturers Association (INMA)  
   and Executive Director - Emami Paper Mills Limited

13. **Shri Neehar Agarwal**  
   President,  
   Indian Pulp & Paper Technical Association (IPPTA)  
   and Senior Vice President Operations BILT

14. **Shri Basant Khaitan**  
   Managing Director,  
   Wires & Fabriks (S.A.) Limited

15. **Shri S.K. Jain,**  
   Chairman-cum-Managing Director  
   Hindustan Paper Corporation Limited

16. **Shri Pradeep Dhoebale**  
   Executive Director  
   ITC Limited

17. **Shri Anil Kumar**  
   Executive Director and CEO  
   Shreyans Industries Limited (Unit: Shreyans Papers)

18. **Dr R.K. Jain**  
   Director (In-charge)  
   Central Pulp & Paper Research Institute
Research Advisory Committee (RAC)

The Research Advisory Committee (RAC) of Central Pulp & Paper Research Institute (CPPRI) comprises of prominent scientists and technologists and also representatives from Department of Industrial Policy and Promotion, Ministry of Commerce & Industry, Govt. of India, Deptt. of Science and Technology (DST), Council of Scientific and Industrial Research (CSIR), Indian Council of Forestry Research and Education (ICFRE), Indian Institute of Technology (IIT), Roorkee etc. The RAC monitors the progress of various Five Year Plan Projects of the Institute periodically. Shri Shailendra Singh, IAS, Joint Secretary (IPP), Ministry of Commerce and Industry, as Chairman of RAC took keen interest in the R&D programmes of the Institute. Valuable suggestions and guidelines given by the Chairperson and members of the committee from time to time enabled the Institute to design R&D programme focusing on thrust areas of Indian Paper Industry.

### Composition of the Research Advisory Committee

<table>
<thead>
<tr>
<th>Chairman</th>
<th>Joint Secretary (IPP), Ministry of Commerce &amp; Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Secretary</td>
<td>Director, Central Pulp &amp; Paper Research Institute</td>
</tr>
<tr>
<td>Members from Government</td>
<td>3</td>
</tr>
<tr>
<td>Members from Academic Institutions</td>
<td>1</td>
</tr>
<tr>
<td>Members from Scientific Institutions</td>
<td>3</td>
</tr>
<tr>
<td>Members from Paper Industry and other organizations</td>
<td>10</td>
</tr>
<tr>
<td>Consultants / Technologists</td>
<td>3</td>
</tr>
</tbody>
</table>
MEMBERS OF RESEARCH ADVISORY COMMITTEE OF CPPRI

1. **Shri Shailendra Singh, IAS**  
   Joint Secretary,  
   Government of India  
   Ministry of Commerce & Industry  
   Department of Industrial Policy & Promotion

2. **Director**  
   IF Wing - IPP  
   Government of India  
   Ministry of Commerce & Industry  
   Department of Industrial Policy & Promotion

3. **Mohd. Zakaria Khan Ysufzai**  
   Senior Development Officer (Engg)  
   Government of India  
   Ministry of Commerce & Industry,  
   Department of Industrial Policy & Promotion

4. **Shri K.K. Sinha**  
   Industrial Advisor (IPP)  
   Government of India  
   Ministry of Commerce & Industry  
   Department of Industrial Policy & Promotion

5. **Chairman-cum-Managing Director**  
   Hindustan Paper Corporation Ltd.

6. **Professor Y.S. Negi**  
   HOD  
   IIT - Roorkee (Saharanpur Campus)

7. **Shri P.S. Patwari**  
   President,  
   Indian Newsprint Manufacturers Association (INMA)  
   and Executive Director - Emami Paper Mills Limited

8. **Shri R.C. Rastogi**  
   President,  
   Indian Recycled Paper Mills Association (IRPMA)  
   and CMD - Khatema Fibers Limited

9. **Dr. N.V. Satyanarayana,**  
   Chief Scientist and  
   Head, Business Development  
   Indian Institute of Chemical Technology

10. **Shri R. Vardhan**  
    Consultant
11. **Shri Sandeep Bhalla**,  
   General Manager (Development)  
   J.K. Papers Ltd.

12. **Dr. Sanjay Naithani**  
   Head (C and P Division)  
   Indian Institute of Wood Science & Technology

13. **Dr. A. B. Akolkar**  
   Member Secretary  
   Central Pollution Control Board

14. **Shri N.K. Jain**  
   Director  
   Valmet Technologies Co. Pvt. Limited

15. **Shri Neehar Agarwal**  
   President, Indian Pulp & Paper Technical Association (IPPTA) and  
   Senior Vice President Operations BILT

16. **Shri Pawan Agarwal**  
   Chairman Kumaon Garhwal Chamber of Commerce  
   and Industry (KGCCI: Paper Unit Chapter) and  
   JMD - Naini Group of Industries

17. **Dr. H.D. Kulkarni**  
   Vice President (Plantations)  
   ITC Ltd – PSPD

18. **Shri Tushar Shah**  
   Director  
   Daman Ganga Group

19. **Shri Anil Kumar**  
   Executive Director and CEO  
   Shreyans Industries Limited (Unit: Shreyans Papers)

20. **Shri Pavan Khaitan**  
   Managing Director  
   Kuantum Papers Limited

21. **Shri Arun G. Bijur**  
   Managing Director  
   SPBPC Limited

22. **Dr R.K. Jain**  
   MEMBER SECRETARY  
   Director (In-charge)  
   Central Pulp & Paper Research Institute
STAFF

As on April 1, 2015, CPPRI’s core team includes Scientists (21), Technical Staff (30) and Administrative & Finance Staff (18). CPPRI staff is dedicatedly engaged in providing quality services, support and assistance to Pulp, Paper & Allied Industries. The scientific staff is highly qualified and have vast experience in various areas of paper making like Raw Material Preparation, Pulping and Bleaching, Stock Preparation and Paper Making, Paper Testing, Chemical Recovery, Energy Conservation, Environmental Management, Biotechnology, Product Development, Quality Control etc. The list of staff along with qualification is annexed with this report. In addition to permanent staff, Research Associates, Senior / Junior Research Fellows, Computer Assistants & Field Assistants are also recruited periodically on temporary basis under various projects.
The major achievements of CPPRI during 2015-16 are summarised as under:

**Raw material upgradation**

Successful bagasse depithing pilot scale trials resulting in over 80% reduction in pith content. The studies are to be scaled up to mill scale at Tamilnadu Newsprint & Papers Limited soon.

**Paper making potential of alternate fibrous raw materials**

Preliminary studies carried out with various non conventional / alternate raw materials like lantana camara, pine needle hard wood, melia dubia etc have indicated good paper making potential of these raw materials.

**Setting up of Paper Board & Special Paper Testing Facilities**

Infrastructure being developed to provide services for Paper Board & Speciality Paper Testing.

**Paper making**

- Development of expertise in optimization of coating color formulations for target values using statistical techniques.
- Data base generated on the variation of fluting strength of commercial liner and medium collected from different suppliers and impact on load carrying capacity of corrugated board.

**Energy Management**

- Assisted Bureau of Energy Efficiency (BEE) in implementation of Perform Achieve & Trade (PAT) scheme of Ministry of Power, Government of India in pulp and paper sector.

- The pulp and paper sector has been identified as one of the energy intensive sectors under Perform Achieve & Trade (PAT) scheme by Ministry of Power, Govt. of India. 31 pulp and paper mills consuming 30,000 metric tons of oil equivalent (TOE) per anum and above were notified as Designated Consumers (DCs) and assigned 1.84% of the total National Energy saving target (equivalent to 0.123 million TOE) in the first PAT cycle from 1 April 2012 to 31 March 2015.

- These 31 DC pulp and paper industries have used the PAT-1 scheme as an opportunity to implement measures to improves energy efficiency in order to achieve the assigned specific energy reduction targets. Benefits of compliance under PAT scheme is issuance of tradable ESCerts (Energy Saving Certificates) per TOE energy saving achieved above the target set for each DC. In PAT-1, 25 pulp and paper DC’s achieved saving of 0.289 MTOE against the target of 0.119 MTOE.
Environmental Management


- Assisting CPCB in verifying the progress of implementation of Charter for Water Recycling & Pollution Prevention in Pulp & Paper Industries of Ganga River Basin in various mills on regular basis.

- Feasibility study of zero liquid discharge in a RCF based pulp and paper mill producing kraft paper.

Chemical Recovery

- Successful pilot scale trials on improving chemical recovery and energy efficiency through liquor heat treatment and desilication of agro based liquor carried out at Satia Paper Mills Limited, Muktsar, Punjab and Trident Limited, Barnala Punjab.

Book Release

Training / Skill Development


Technical and Consultancy Services

- Technical and consultancy services were rendered to various pulp and paper mills and allied industries, technology and chemical suppliers by way of evaluation of raw materials, pulp and paper samples, pulping additives, deinking chemicals, sizing chemicals, stickies control agents, evaluation of suitability of newer grades of imported waste paper, characterization and analysis of various fibrous and non-fibrous raw materials, environmental samples as well as providing assistance in trouble shooting, adequacy assessment, performance evaluation of various process operations, effluent treatment plant and pollution control equipments leading to internal revenue generation of around ₹ 260.40 Lacs.

Contract Agreement / MoU Signed

- A MoU was signed between CPPRI and Institute of Chemical Technology (ICT), Mumbai to provide higher education opportunities for faculty, support staff and students of CPPRI and ICT.
• A MoU was signed between **CPPRI and Uttarakhand Technical University, Dehradun, Uttarakhand** for joint co-operation in the area of undertaking projects for specifically identified clients working in various sectors on mutually agreed basis.

![Signing of MoU between CPPRI & Uttarakhand Technical University](image)

**Research Papers Published**

9 Research Papers were published in various journals during 2015-16.

**Reports Prepared**

• 112 Technical/Consultancy reports were prepared during 2015-16.

**Infrastructure Development/Capacity Building**

Upgradation of infrastructure and facilities through the installation of following equipments in different laboratories of CPPRI.
Infrastructure Development / Capacity Building

- Upgradation of infrastructure and facilities through purchase of:

  - Bench top Hollow Membrane Filtration Unit for Waste Water Treatment Studies on colour removal
  - TOC Analyser - For measurement of Total Carbon, Inorganic Carbon, Total Organic Carbon and Non purgable organic carbon in waste water and aqueous sample
  - Rotary Evaporator for Concentrating the Black Liquor
  - Water Bath
  - Shaking water bath
Moisture Analyser for determination of moisture in raw material and pulp sample

Brightness Tester for determination of brightness of pulp sheet

Surface Tension Analyser to study the property of liquid surface

Homozonizer for pulp uniformity
Receipts & Expenditure

During the year 2015-16, total receipts of the Institute were ₹1909.30 Lacs and total expenditure was ₹1242.55 Lacs (i.e. revenue expenditure ₹1140.37 Lacs + capital expenditure ₹102.18 Lacs).

Following are the broad heading of income & expenditure of the Institute during the year under review:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>INCOME</th>
<th>₹ in Lacs.</th>
<th>S. No.</th>
<th>EXPENDITURE</th>
<th>₹ in Lacs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Balance as on 1.4.2015</td>
<td>706.88</td>
<td>A.</td>
<td>REVENUE EXPENDITURE</td>
<td></td>
</tr>
<tr>
<td>2.a.</td>
<td>Grants from Ministry of</td>
<td>270.00</td>
<td>1.</td>
<td>Grant Refund to Ministry</td>
<td>77.74</td>
</tr>
<tr>
<td></td>
<td>Commerce &amp; Industry, DIPP,</td>
<td></td>
<td></td>
<td>Salary &amp; Allowances</td>
<td>764.53</td>
</tr>
<tr>
<td></td>
<td>Govt. of India.</td>
<td></td>
<td></td>
<td>Plant &amp; Lab Maintenance</td>
<td>52.70</td>
</tr>
<tr>
<td>2.b.</td>
<td>Base level support through</td>
<td>525.00</td>
<td>3.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development Council for</td>
<td></td>
<td></td>
<td>Electricity charges</td>
<td>75.02</td>
</tr>
<tr>
<td></td>
<td>pulp, paper &amp; allied</td>
<td></td>
<td></td>
<td>Repair of Assets</td>
<td>69.72</td>
</tr>
<tr>
<td></td>
<td>industries.</td>
<td></td>
<td></td>
<td>Miscellaneous</td>
<td>100.66</td>
</tr>
<tr>
<td>2.c.</td>
<td>Grants received from</td>
<td>147.02</td>
<td>4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development Council for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>pulp, paper &amp; allied</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>industries for Cess funded</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>projects/Core Secretariat.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Testing fees</td>
<td>155.64</td>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Membership fee / Licence</td>
<td></td>
<td></td>
<td>Miscellaneous</td>
<td>100.66</td>
</tr>
<tr>
<td></td>
<td>fee against patent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Training fees / M.Sc. fees</td>
<td>7.91</td>
<td>B</td>
<td>CAPITAL EXPENDITURE</td>
<td>102.18</td>
</tr>
<tr>
<td>6.</td>
<td>Miscellaneous receipts</td>
<td>57.22</td>
<td>C</td>
<td>BALANCE WITH CPPRI</td>
<td>666.75</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1909.30</td>
<td>TOTAL</td>
<td>1909.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Internal Revenue Generation

CPPRI in its endeavour to become self reliant continued to make concerted efforts to generate internal revenue through rendering of technical and consultancy services to pulp, paper and allied industries. The efforts have translated into generation of internal revenue worth ₹260.40 Lacs during the financial year 2015 – 16.
R&D ACTIVITIES

(A) 12th Five Year Plan Research Schemes

(a) Raw Material and Product Development

I. Utilization of Rice Straw and other Non Conventional Raw Materials for Production of Various Grades of Pulp

Objective

- Identification of papermaking potential of cellulosic raw materials viz. rice straw, jute, banana fiber, coconut fiber, areca nut husk and other locally available grasses and production of different grades of pulp to supplement shortage of raw material in Indian paper industry.

Highlights

Studies on evaluation of paper making potential of various cellulosic raw material like rice straw, Lanatana camara, Melia dubia, pine needle and coir fibers were carried out as under:

- ECF bleaching studies with rice straw and evaluation of strength and optical properties of bleached pulp.
- Optimisation of pulping conditions for soda and kraft pulping of lantana camara followed by studies on oxygen delignication and ECF bleaching of unbleached pulp.
- Proximate chemical analysis of lantana camara, melia dubia, pine needle and coir fibers.
- Optimisation of kraft pulping of melia dubia, pine needle and coir fibers followed by ECF bleaching.

II. New Approaches in Processing and Paper Making of Recycled Fibre to Improve the Quality of End Product

Objective

- To improve the quality of recycled paper products such as packaging paper, newsprint and tissue paper employing selective approach i.e. dry and wet strength improvement of packaging paper, brightness and yield improvement of newsprint and softness improvement of tissue paper.
Highlights

Fibre Strength improvement of indigenous raw material

- Studies conducted on biopolymer treated Indigenous Old Corrugated Cartons (OCC) furnish have shown remarkable improvement in Zero Span Tensile Strength (ZSTS) and burst factor.

- The studies also indicate that as compared to alkaline sizing, acid sizing is detrimental in improving the bonding properties. In fact, the alkaline sizing restored the bonding strength of treated pulp.

- Study also revealed that when the paper was surface sized with biopolymer, there is a remarkable improvement in bursting strength to the around of 8 to 9 units as compared to non surface sized treated pulp.

Mineral Deinking- A New Approach to Improve Quality of Newsprint

- Studies initiated on development of mineral deinking technology to improve the quality of newsprint.

- Optimization studies on flotation deinking of Old Newsprint Paper (ONP), Old Magazine Grade (OMG) and Mixed Office Waste (MOW) were carried out using mineral aided deinking formulation to study its impact on improving deinking efficiency and quality of the deinked stock for newsprint manufacture.

- An improvement up to 15% in brightness with an added advantage of increased ash up to 5% was achieved in the initial studies.

- More studies with new formulations and new additives are in progress.

(b) Energy Conservation and Environmental Management

I. Incremental Capacity Enhancement and Improved Efficiency of Conventional Chemical Recovery System in Wood and Non-Wood Based Paper Mills

Objective

- Marginal expansion of existing chemical recovery system with minimum capital cost involvement to assist mills in handling excess black liquor generated due to adoption of oxygen delignification or marginal expansion in pulp mill capacity.
Highlights

- Studies on adequacy of Low Temperature Incineration (LTI) based chemical recovery system of agro based paper mills were conducted.

- Studies on partial lignin removal from black liquor for facilitating marginal capacity expansion and improving efficiency of chemical recovery system were continued during the period.

- Studies on desilication and liquor heat treatment of black liquor to improve the rheological and combustion behaviour of black liquor were conducted at lab scale as well as pilot plant scale.

II. Implementation of Enzyme Applications in Pulp and Paper Industry

Objective

- Implementation of biotechnological applications in Pulp and Paper Industry to pursue the clean and green technology and address the issues related to energy conservation, quality up-gradation and environmental improvement.

Highlights

Development of indigenous capabilities for production of various enzymes and implementation of these enzymes in Indian Paper Industry.

- Optimization of various physical and nutritional parameters were carried out with identified microorganisms having potential for Xylanase and Laccase enzyme production. Enzyme activity was found 825 IU/gds and 6250 IU/gds for Xylanase and Laccase respectively by using wheat bran as substrate under optimum conditions.

- Mixed enzyme bleaching was carried out with indigenously produced enzymes. The effect of mediator during mixed bio-bleaching was also studied.

- Improvement in brightness by 1.5 unit with mediator and 1.0 unit improvement without mediator was obtained during bleaching.

Bioremediation of Paper Mill Effluent

- Optimization of various physiological parameters (pH, time, temperature) was carried out for enhancing reduction in COD and Colour from identified bacterial strains.

- 37% and 20% reduction was obtained in COD and Colour respectively at pH 7 and temperature 37°C after 72 hrs.
III. Water Conservation through Application of Kidney Technologies in Indian Pulp and Paper Industry

Objective

- To reduce fresh water consumption in pulp and paper mills by increased reuse and recycling of back water/ treated effluent through application of kidney technologies.

Highlights

- ETP adequacy assessment of two large integrated pulp and paper mills and two agro and 18 waste paper based mills carried out. Detailed reports with recommendations and suggestions for improving the performance of ETP was submitted to the mill.

- Feasibility of ZLD status studied at 2 waste paper based mills producing kraft paper.

- Experimental studies continued on physico-chemical treatment of agro based writing and printing paper mill’s treated effluent using ozone w.r.t to residual color & COD reduction. The preliminary results appear to be encouraging with color reduction of 80 - 85% and COD reduction of 60-70%. Further studies are under progress.

- Water audit of two waste paper based paper mills and a large integrated pulp and paper mill were carried out.

- A bench top hollow membrane filtration unit was procured and commissioned for study on color and TDS removal in pulp and paper mill effluent.
C. Infrastructure Development and Capacity Building Activities

I. Setting up of Paper Board and Speciality Paper Testing Facilities at CPPRI

Objective

- To develop complete facilities of the testing of paper board and speciality paper for benefit of manufacturers of paper board/corrugated board cartons and speciality paper.

Highlights

- The Crush Tester (L & W Make) was commissioned in newly established paper board and specialty paper testing laboratory of CPPRI.

- Samples of liner, kraft and corrugated boxes collected from paper manufacturers and converters were evaluated for different properties viz, ring crush test (RCT), edge crush test (ECT) and concora medium test (CMT), concora crush test (CCT), concora liner test (CLT), face crush test (FCT), etc.

II. Modernisation of CPPRI Library

Objective

- Modernization of library by initiating application of ICT (Information Communication and Technology) in the library, strengthening of library to provide good quality services to user community, digital preservation of past records for future use and to develop an effective information network between CPPRI and Indian Paper Industry.

Highlights

Compilation

- Four issues of Current Awareness Services (CAS) and Table of Content (TOC) for the period of April 2015 to March 2016 compiled.

New Arrivals

- 49 (Forty nine) new books on different subjects procured during 2015 – 2016.

Infrastructure Upgradation

- During 2015-16 One 3.0 KVA UPS, Two HP desktop personal computers and One Xerox photocopy machine (B&W) model no. 5945 were procured and installed.
Printing coordination

- Printing coordination for Annual Report 2014-2015 (English and Hindi version) and News bulletin

III. Strengthening of Training and Human Resource Development (HRD) in Pulp, Paper and Allied Industry

Objective

- To create infrastructure facilities for imparting training to the technical manpower of pulp, paper and allied industries across the country on sustainable basis.

Highlights

- Provided logistic support in organisation of three Cess training programme, one programme for LIC officials and four UNIDO workshop conducted by CPPRI.
- Facilitation of audio – visual aid for conducting M.Sc (Cellulose & Paper Technology) classes at CPPRI.

IV. Infrastructure and Capacity Building (Infrastructure for Civil / Electrical / Mechanical / Information Technology and Maintenance of R & D Facilities at CPPRI)

Objective

- To upgrade the infrastructure and support systems (Electrical / Mechanical / Civil / Information Technology) in the Institute in order to ensure smooth functioning of the R&D activities and support services.

Highlights

Logistic support in facilitating pilot plant trials at CPPRI and mill site for:

- Pulping and bleaching of agri fibre sponsored by ITC Limited, Bengaluru
- Pulping and bleaching trials of coir fibers sponsored by Indian Institute of Carpet Technology, Badhoi, Uttar Pradesh
- Pilot scale extraction & pulping trials of hard wood raw materials sponsored by ITC Life Science, Bengaluru
- Desilication and Liquor Heat Treatment (LHT) pilot plant trials at Trident Papers Limited, Barnala, Punjab
- Repairing and maintenance of lab equipments, pilot plant equipments, boiler, horticulture, DG sets etc
- Coordination of transportation services and communication services
- Horticulture & plantation activities
(B) Cess Funded Projects

I. Census Survey of the Indian Paper Industry

Objective of the Project

- To enumerate the basic primary data of the Indian paper Industry such as consumption pattern, installed capacity, number of pulp and paper mills, imports and exports, demand and supply gap etc.

- The data base generated will form the basis for future planning and in policy framework pattern of the government.

Highlights

- Data collection pertaining to 813 paper mill containing details of contact person/address installed capacity, production, raw material used, product etc. was completed.

- The compilation of the data was released in form a book titled Compendium of Census Survey of Indian Paper Industry during Paperex 2015. The book covers global paper Industry trends along with the status of the Indian Paper Industry, current installed and production capacities, demand/supply scenario including import/export trends and status of the newsprint sector in India were included in the book.

- The book also highlights issues related to raw material use, technological status, energy & environmental scenario & quality issues. An updated directory of 813 number Paper & Pulp Mills was also included in book which will serve as a ready reckoner for personnel looking for authentic data of mills.

II. Improvement in Selectivity of Oxygen Bleaching (Joint Project of IPMA-SPB – ACIRD – CPPRI)

Objective of the Project

- To optimise the conditions and explore additives for oxygen delignication of different indigenous raw materials with the objective to reduce cellulose degradation, pulp shrinkage during oxygen delignification stage and to perform plant scale trial using optimized conditions with identified additive.

Highlights

- Studies on oxygen delignification of kraft pulp of eucalyptus and Melic arborea using different chemical additives and polymeric additives to improve selectivity of oxygen bleaching as well as pulp properties were carried out.
Out of the different chemical and polymeric additives used to improve selectivity of oxygen bleaching, EDTA and Mg(OH)$_2$ were found the most suitable.

<table>
<thead>
<tr>
<th>Particulars</th>
<th>0.1% ETDA (%)</th>
<th>0.2% Mg(OH)$_2$ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement the pulp yield</td>
<td>0.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Improvement in viscosity</td>
<td>0.8 units</td>
<td>1.1 units</td>
</tr>
<tr>
<td>Improvement in final pulp brightness</td>
<td>0.8 units</td>
<td>0.9 units</td>
</tr>
<tr>
<td>Improvement in Final pulp yield</td>
<td>0.3%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Improvement in final pulp viscosity</td>
<td>Comparable</td>
<td>1.2 units</td>
</tr>
</tbody>
</table>

The lab scale studies with the selected additive/chemical are to be scaled up to plant scale trial at Seshasayee Paper and Boards Limited, Erode, Tamilnadu.

III. Achievement of Highest Brightness and Whiteness in Paper in a Cost Effective Manner through Selective Addition of OWA at Wet-end and Size Press (Joint Project of IPMA – TNPL – ACIRD – CPPRI)

Objective of the Project

• To provide a scientific base for understanding the interaction chemistry of OWA with different types of cellulosic fibers and wet-end chemicals, and to help paper industry in selection of appropriate OWA for wet-end and size press with an added advantage of improvement in optical properties and reduction in cost.

Highlights

• The studies with different OWAs using mixed hardwood pulp and bagasse pulp with different fillers and wet-end chemicals were completed. The intrinsic brightness of filler had significant impact on brightness of paper. Improvement in optical properties of paper was observed with split addition of different OWAs.

• Using mixed hardwood pulp and GCC filler, maximum brightness i.e. 94 %ISO, was achieved by different combinations of OWAs viz. 3 kg/t of BMKD at wet end along with 2 kg/t of ABIZT at surface sizing, 6 kg/t of BOPT at wet end and 0.4 kg/t of NPSD at surface sizing and 5 kg/t of NPSD at wet end along with 2 kg/t of NPSD at surface sizing.

• Using bagasse pulp and GCC filler, maximum brightness i.e. 101-103 %ISO, was achieved by different combinations of OWAs viz. 7 kg/t of BMKD at wet end along with 2 kg/t of ASPT at surface sizing, 9 kg/t of BOPT at wet end and 3 kg/t of SPPZ at surface sizing and 6 kg/t of NPSD at wet end along with 3 kg/t of SPPZ at surface sizing.
• Cost analysis of OWAs and application of di and tetra-sulfonic OWAs and chemicals at different proportions in wet end using optimized conditions using recycled pulp is in progress.

IV. Increase in Brightness Ceiling of Agro Residue Pulps in Cost Effective Manner Specifically for Wheat Straw (Joint Project of IARPMA-ACIRD-CPPRI)

Objective of the Project

• To study the reasons for low brightness development in agro residue pulp and carry out research on producing + 85 % ISO brightness pulp from Indian agro residues specifically wheat straw in a cost effective manner.

Highlights

• The studies in detail were carried out on effect of raw material cleaning (clarification of back water using flocculants, wash water temperature, chelating agents etc.), effect of oxidative, reductive and redox pulping additives/conditions, modifications during bleaching (pre, in-situ, post bleaching treatments) in enzymatic treatment on final pulp brightness.

• Following processes/treatments are found suitable to enhance final pulp brightness of wheat straw pulp to +85% ISO:

  Use of hydrogen peroxide activator in EOP stage of bleaching:

  Use of suitable hydrogen peroxide activators improved the final bleached pulp brightness by 1.1 unit and whiteness by 1.5 unit.

  Hydrogen peroxide pre treatment:

  • Hydrogen peroxide pre-treatment of unbleached wheat straw pulp improved final bleached pulp brightness by 1.7 - 2.1 units with substantial reduction in chlorine based bleaching chemicals and pollutants generated during bleaching.

  Study on impact of metal ions and Hexanuronic acid on pulp brightness and removal of metal ions during pulping and post pulping stages - Under progress.
V. Studies on Technological Status and Potential of Productivity Enhancement in Indian Pulp & Paper Industry under Existing Liberalization and Globalization Scenario

Objective

- To evaluate the technological status and explore potential of productivity enhancement in Indian Paper Industry, prepare a road map or action plan for implementation both by Industry as well as Government to improve the industry’s over all sustainability and competitive ability in domestic and international market.

Highlights

- A meeting of the sub-committee constituted by Cess Committee was to deliberate the technical and financial aspects as well as carry out financial negotiations with the bidder for carrying out the above project was held on November 11, 2015.

- Subsequently in context of the recent UNIDO-ICISD Project on Development and Adoption of Appropriate Technologies for Enhancing Productivity in Paper & Pulp Sector, the DCPPAI has deferred the project till the submission of UNIDO project report to avoid duplication of the efforts. The Council is of the view that subsequent to submission of UNIDO report if required, a separate study to substantiate the UNIDO study may be undertaken which may involve much less financial requirement and time.

VI. Bio-chemical Abatement of Pollution Load in Waste Water to Meet the Future Stringent Norms for Agro based Pulp and Paper Mills. (Joint Project of IARPMA-ACIRD – CPPRI)

Objective of the Project

- Improvement in the biological treatment by augmentation of attached growth of organisms and/or dispersed nature of efficient organisms and development of techno-economical process for removal of ROM with coagulants and flocculants.

Highlights

- Identification of agro based pulp and paper mill in collaboration with CPPRI.
- Collection of effluents from different streams of agro based pulp and paper mill.
- Study on removal of colour from wheat straw washing – under progress.
- Study on meeting the discharge norms by chemical method followed by biological treatment - under progress.
VII. Continuing Education (Training Programme) for Technical Personnel in Pulp and Paper Industry

Objective

- To update the knowledge of technical personnel of Indian Paper Industry which will enable them to utilize the resources, equipment & unit processes to the optimum level.

Highlights

The following training programme was successfully organised by CPPRI:

Participants of 13th, 14th and 15th Cess Training Programme at CPPRI
VIII. Development of Protocol for Deposit Control in RCF Based Mills for Better Machine Runnability (Joint Project of INMA & CPPRI)

Objective

- To develop / establish a methodology for measurement of Dissolved Colloidal Matters (DCM) to control deposition on paper machine and to study the affect of variation such as water hardness, furnish blends, paper making chemistry, white water clarity etc. on paper machine deposition.

Highlights

- Total Organic Carbon (TOC) Analyser was purchased & installed successfully.
- Studies initiated to develop / establish a methodology for measurement of Dissolved Colloidal Material (DCM) to control deposition on paper machine and to study the affect of variation such as water hardness, furnish blends, paper making chemistry, white water clarity etc. on paper machine deposition.

IX. Pilot Scale Studies on Efficient Depithing of Bagasse: a Process Developed by CPPRI (Joint a project of Tamilnadu Newsprint & Papers Ltd., (TNPL) Tamilnadu & CPPRI)

Objective

- To develop and design depithing equipment for efficient depithing of bagasse based on technology developed by CPPRI in order to help the paper industry to get high fibre content and to improve the quality of paper produced from bagasse.

Highlights

- Depithing studies on bagasse, collected from a sugar mill, were conducted. Demonstration of existing pilot plant was given to officials from TNPL. Bagasse, before and after depithing, was characterized for pith content. Pith content was reduced to less than 7% w/w from 35% w/w after depithing.

Objective

- To reduce water consumption and waste water discharge from pulp and paper mills located in Ganga river basin through implementation of water conservation measures, process upgradation and ETP upgradation and ultimately reducing the overall impact on Ganga river quality.

Highlights

- CPPRI as third party continued to play an active role through verification of action plan for Charter compliance submitted by mills, quarterly Charter implementation progress verification, ETP adequacy assessment, etc in over 100 pulp and paper mills of Uttar Pradesh & Uttarakhand as well as West Bengal and Madhya Pradesh.

- CPPRI also provided assistance to mills in technology identification, water conservation and ETP upgradation to achieve Charter norms.

II. Development and Adoption of Appropriate Technologies for Enhancing Productivity in Pulp & Paper Sector (UNIDO project)

Objective

- The objective of the project is to strengthen the global competitive position of the Indian Pulp & Paper Sector and to facilitate development and adoption of technologies for waste management and improving energy efficiency in the pulp and paper sector.

Highlights

- Under this recently initiated project, detailed questionnaire for generation of data base related to technological and environmental status of pulp and paper mills in the selected clusters viz, Kashipur, Vapi, Coimbatore & Punjab were prepared, CPPRI scientists were deputed to collect the data and information from mills and mill associations in the selected cluster.

- Further four stakeholder consultation meeting were organized at Kashipur, Chandigarh, Vapi and Coimbatore to sensitize the mills in the selected clusters mill associations and other stakeholders about the objectives and deliverables of the UNIDO project as well as seek inputs on the challenges and technology gaps faced by the sector and suggest the way
forward to address such challenges or gaps. The purpose of the meeting was also to identify suitable paper and pulp units for detailed diagnostic under the project. The meeting attracted active participation from pulp and paper mills, government agencies, R&D institutions, academia and other stakeholders.

- International UNIDO experts Mr Jani Mannikko, University of Helsinki & Mr Ovind Erickson, Paper & Fiber Research Institute, Norway visited CPPRI to get acquainted with facilities and expertise available at CPPRI as well as identify the areas and scope for further capacity development and improvement in capability/expertise.
PROJECTS SPONSORED BY PULP, PAPER AND ALLIED INDUSTRIES

Raw Material Preparation, Evaluation, Pulping and Bleaching

Efficient Depithing of Bagasse Through Disc Mill
- Tamilnadu Newsprint & Papers Limited, Kagithapuram, Tamilnadu

Additive Pulping of Acacia Wood Chips
- Solenis Singapore Private Limited, Indonesia

Laboratory and Pilot Plant Pulping and Bleaching Trials of Agrifibres
- ITC Life Sciences and Technology Centre, Bengaluru, Karnataka

Laboratory and Pilot Plant Extraction of Pulping Trials of Hardwood
- ITC Life Sciences and Technology Centre, Bengaluru, Karnataka

Ozone Bleaching of Unbleached Hardwood Pulp
- ITC-Life Sciences & Technology Centre, Bengaluru, Karnataka

Laboratory and Pilot Plant Trials for Producing High Alpha Cellulose Pulp from Coir Fibers
- Indian Institute of Carpet Technology, Bhadohi

ECF Bleaching of Hardwood Pulp
- BITS Pilani - Hyderabad Campus, Telangana,

Oxygen pretreatment followed by CEpHEpD and DEopHEpD bleaching of hardwood pulp
- Grasim Industries Limited (Unit: Harihar Polyfibers) Kumarapatnam, Karnataka

Evaluation of additive pulping of mix hard wood sample
- Paras Bio Sciences Pvt. Limited, Bengaluru, Karnataka

Additive pulping of hardwood sample
- Novecare India Technical Specialty-IF Business, Thane (W), Maharashtra

Lab Scale Floatation Deinking of OCC & NCC Furnish
- Arab Paper Manufacturing Company, Dammam, Kingdom of Saudi Arabia

Effect of Refining on development of Fiber Properties of Used Tetra Pak Cartons (UTPC)
- Tetra Pak India Private Limited, Gurugram, Haryana

Evaluation of Impact of Dry Strength and Wet Strength Resin Samples to Improve Physical Strength Properties of Different Grades of Paper
- Ion Exchange (India) Limited, Hyderabad.

Reuplability of Waste Paper / Paper Adhesive Tape.
- Grippo Solutions (India) Private Limited, Mumbai, Maharashtra
- Sri Laxmi Exports, Chennai, Tamilnadu

Evaluation of Choked Material Collected from a Mill for Percentage Fiber & Hemicellulose Content
- Goodrich Agrochem Private Limited, Karnal, Haryana.

Evaluation of Oxidised Starch Sample
- Bindal Paper Mills Limited, Muzaffarnagar, Uttar Pradesh
- Gayatri Shakti Paper & Boards Limited, Unit – II, Mumbai, Maharashtra

Evaluation of Card paper (White board paper) & Dissolving grade pulp
- Intertek India Private Limited, Mumbai, Maharashtra

Evaluation of Pulp Sample for Pitch Content in the Pulp
- Century Pulp & Paper, Lalkua, Uttarakhand

Evaluation of Market RCF Pulp/ Moulded Tray for Fiber Quality
- Everest Industries Limited, Hardwar, Uttarakhand
- Archana Traders, Chennai, Tamilnadu
- Kuantum Papers Limited, Sailakhurd, Punjab
- Universal Engineering Corporation, Saharanpur, Uttar Pradesh
- Tradecom International Limited, New Delhi
- DFE Pharma, Tamil Nadu
- Century Rayon, Thane, Maharashtra

Analysis of GCC powder for chemical composition and Abrasion value
- HPC - Nagaon Paper Mill, Kagajnagar, Assam

Evaluation of Softwood/ Acacia wood Pulp for brightness
- Regent Exim International Limited, New Delhi
- Seascope Pulp & Papers Private Limited, Mumbai, Maharashtra

Analysis of Paper Board for OBA BMK / Sulphur Content
- Ruchira Papers Limited, Sirmour, Himachal Pradesh
- Khanna Paper Mills Limited, Gurgaon, Haryana

Analysis of Fibre Quality of Market/ Wood Pulp
- Tradecom International Limited, New Delhi
- DFE Pharma, Tamil Nadu
- Century Rayon; Thane, Maharashtra

Evaluation of Softwood/ Hardwood for Moisture, Brightness & Strength properties
- Avantha Centre for Industrial Research & Development (ACIRD), Yamuna Nagar, Haryana
- Kuantum Papers Limited, Sailakhurd, Punjab
Environmental Management

Adequacy Assessment / Performance Evaluation of ETP

- The International Paper APPM Limited, Rajahmundry, Andhra Pradesh
- Sandeep Papers (P) Limited, Noida, Uttar Pradesh
- Sidharth Paper (P) Limited (Unit –II), Kashipur, Uttarakhand
- Meenu Paper Mills (P) Limited, Muzaffarnagar, Uttar Pradesh
- Deoria Paper Mills Limited, Deoria, Uttar Pradesh
- Nikita Papers Limited, Shamli, Uttar Pradesh
- Shree Mahavir Straw Board Mills Private Limited, Mainpuri, Uttar Pradesh
- Vishwanath Paper & Boards Limited, Jaspur, Uttarakhand
- Katyayini Paper Mills Private Limited, Kashipur, Uttarakhand
- Bilt Unit Shree Gopal, Yamunanagar, Haryana
- Shree Badri Kedar Papers Private Limited, Bijnor, Uttar Pradesh

Evaluation of Zero Liquid Discharge (ZLD) Status

- Aristocraft Papers Private Limited, Muzaffarnagar, Uttar Pradesh

Feasibility of Lime Kiln to Incinerate the Lime Sludge Generated

- Naini Paper Industries Limited, Kashipur, Uttarakhand

Fresh Water Consumption Water Audit

- Dev Priya Industries Private Limited (Unit I) Meerut, Uttar Pradesh
- Dev Priya Industries Private Limited (Unit II) Meerut, Uttar Pradesh
- Gangotri Paper Mills Limited, Narsan Kalan, Uttarakhand
ETP Performance Evaluation

- Bilt (Unit Shree Gopal), Yamunanagar, Haryana

Audit Assessment of Hazardous Waste

- Century Pulp and Paper, Lalkua, Uttarakhand
- Chandpur Industries Limited, Noorpur, Uttar Pradesh
- Khatema Fibers Limited, Khatima, Uttarakhand

Chemical Recovery Trouble Shooting

Improved Chemical Recovery and Energy Efficiency through Liquor Heat Treatment in Combination of Desilication

- Satia Paper Industries Limited, Muktsar, Punjab
- KR Pulp & Papers Limited, Shahjahanpur, Uttar Pradesh
- Trident Papers Limited, Barnala, Punjab

Adequacy Assessment of LTI Based Chemical Recovery System

- Garg Duplex Private Limited, Muzaffarnagar, Uttar Pradesh
- Bindals Duplex Private Limited, Muzaffarnagar
- Rayana Paper Mills Limited, Khalilabad, Uttar Pradesh
- Mohit Paper Mills Limited, Bijnor, Uttar Pradesh
- Tehri Paper Mill Limited, Muzaffarnagar, Uttar Pradesh
TECHNICAL & CONSULTANCY SERVICES

• Technical and Consultancy services were rendered to the following mills and organizations by analyzing various samples of fibrous and non-fibrous raw materials, pulp, paper, black liquor, lime, lime sludge, rice husk, green liquor, white liquor, effluents, ground water, solid waste, etc:

  • Acro Ventures Private Limited., Meerut, Uttar Pradesh
  • Agarwal Duplex Board Mills Limited, Muzaffarnagar, Uttar Pradesh
  • Agarwal Zarda Factory Private Limited., Saharanpur, Uttar Pradesh
  • Alok Printers & Publishers, Agra, Uttar Pradesh
  • Anand Duplex Limited, Meerut, Uttar Pradesh
  • Anand Triplex Board Limited, Meerut, Uttar Pradesh
  • Anandeshwar Industries Private Limited, Kanpur, Uttar Pradesh
  • Anna University, Chennai, Tamilnadu
  • Antardeshiye Container Depot, New Delhi
  • Anupam Prakshan, Mathura, Uttar Pradesh
  • Archana Traders, Chennai, Tamilnadu
  • Arcoy Biorefinery Private Limited, Gujarat
  • Arham Technochem, Sahibabad, Uttar Pradesh
  • Asad Rehman, Saharanpur, Uttar Pradesh
  • Avantha Centre for Industrial Research & Development, Yamunanagar, Haryana
  • Axom Sarbha Siksha Abhiyan Mission, Guwahati, Assam
  • Baba Saheb Bhimrao Ambedkar University, Lucknow
  • Bahl Paper Mill Limited, Kashipur, Uttarakhand
  • Ballarpur Industries Limited, Yamunanagar, Haryana
  • Bank Note Paper Mills India Private Limited, Mysore, Karnataka
  • Banwari Paper Mills Ltd., Kashipur, Uttarakhand
  • Batra Art Press, New Delhi
  • Bennett Coleman & Company Limited, New Delhi
  • Bhagwat Printing Press, Mathura, Uttar Pradesh
  • Bhagwati Kripa Paper Mill Private Limited, Jaipur, Rajasthan
  • Bhupendra Narayan Mandal Vishvvidyalaya, Bihar
  • Bihar Lok Prashashan Avam Gramin Vikas, Patna, Bihar
  • Bihar State Text Book Publishing, Patna, Bihar
  • Bihar Vidyalaya Pariksha Samiti, Patna, Bihar
  • Bihar Sanskrit Shiksha Board, Patna, Bihar
  • Bindals Papers Mills Limited, Muzaffarnagar, Uttar Pradesh
  • BITS Pilani, Hyderabad, Telangana
  • Board of School Education Haryana, Bhiwani, Haryana
  • Brown Group, Mumbai, Maharashtra
  • Burda Druck India Private Limited, Greater Noida, Uttar Pradesh
  • Chaudhary Charan Singh University, Meerut, Uttar Pradesh
  • Central Board of Secondary Education, Delhi
  • Central Excise, New Delhi
• Central Pollution Control Board, New Delhi
• Centre For Environmental Studies, Chennai
• Century Pulp and Paper, Lalkuan, Uttarakhand
• Century Pulp and Paper, New Delhi
• Century Rayon, Thane, Maharashtra
• Chacha Printers & Publisher, Lucknow, Uttar Pradesh
• Chamunda Paper Private Limited, Hapur, Uttar Pradesh
• Chandpur Enterprises Limited, Bijnor, Uttar Pradesh
• Cheema Papers Limited, Kashipur, Uttarakhand
• Chhattisgarh Madhyamic Shiksha Mandal, Raipur, Chhattisgarh
• Chhattisgarh Pathya Pustak Nigam, Raipur, Chhattisgarh
• Commissioner of Customs (Import), Chennai, Tamilnadu
• Commissioner of Customs, Erode, Tamilnadu
• Coral News Prints Limited, Erode, Tamilnadu
• Currency Note Press, Nashik, Maharashtra
• Deepak Printers & Publishers, Gazraula, Uttar Pradesh
• Delhi Bureau of Text Books, New Delhi
• Delta Paper Mills Limited, Vendra, West Godavari, Karnataka
• Deoria Paper Mills Limited, Deoria, Uttar Pradesh
• Dev Priya Fibres Private Limited, Meerut, Uttar Pradesh
• Dev Priya Industries Private Limited, Meerut, Uttar Pradesh
• Dev Priya Papers Private Limited, Meerut, Uttar Pradesh
• Dev Priya Industries Limited (Unit I), Meerut, Uttar Pradesh
• Dev Priya Industries Limited (Unit II), Meerut, Uttar Pradesh
• Dev Priya Product Limited, Meerut, Uttar Pradesh
• Devrishi Papers Private Limited, Kashipur, Uttarakhand
• Directorate of Printing Stationery & Publication, Orissa
• Directorate of Publicity & Public Relation, New Delhi
• Directorate of Revenue Intelligence, Surat, Gujarat
• Disha Industries Limited, Muzaffarnagar, Uttar Pradesh
• Dr. Hari Singh Gauri Vishvavidalaya, Sagar, Madhya Pradesh
• Durga Brick Field, Sahibabad, Uttar Pradesh
• Durgesh Printing Press, Mathura, Uttar Pradesh
• Dynamic Text Books Printers Private Limited, Jhansi, Uttar Pradesh
• Electropulse, Roorkee, Uttarakhand
• Elementary Education Haryana, Panchkula, Haryana
• Emkay Enterprises, New Delhi
• Employment News, New Delhi
• Enmas Andritz Private Limited, Chennai, Tamilnadu
• Everest Industries Limited, Bhagwanpur, Uttarakhand
• Fibremarx Papers Limited, Jaspur, Uttarakhand
• Galaxy Papers Private Limited, Muzaffarnagar, Uttar Pradesh
• Ganga Pulp & Papers Private Limited, Chandauli, Uttar Pradesh
• Gangotri Paper Mills Private Limited, Haridwar, Uttarakhand
• Garg Duplex & Paper Mills Private Limited, Muzaffarnagar, Uttar Pradesh
• Gayatri Paper & Boards Limited, Unit-II, Mumbai, Maharashtra
• Genus Paper & Boards Limited, Moradabad, Uttar Pradesh
• Genus Paper Products Limited, Moradabad, Uttar Pradesh
• Godawari Biorefinery Limited, Mumbai, Maharashtra
• Good Luck Publisher Limited, Saharanpur, Uttar Pradesh
• Govt. Printing & Stationery, Gandhinagar, Gujarat
• Grasim Industries Limited (Unit Harihar Polyfibers), Kumbharpatnam, Karnataka
• Grippos Solutions India Private Limited, Mumbai, Maharashtra
• Gujarath Offset Private Limited, Ahmedabad, Gujarat
• Gujarat State Board of School Text Book, Gandhinagar, Gujarat
• Guru Gobind Singh Indraprastha University, New Delhi
• Hariom Industries Limited, Kanpur, Uttar Pradesh
• Harsh Enterprises, Kanpur, Uttar Pradesh
• Harsh Enterprises, New Delhi
• Haryana School Shiksha Pariyojna Parishad, Panchkula, Haryana
• Himalaya Bricks Field, Saharanpur, Uttar Pradesh
• Hindustan Paper Corporation Limited, New Delhi
• Hi-Tech Printers & Publishers, Mathura, Uttar Pradesh
• Holy Faith International Private Limited, Ghaziabad, Uttar Pradesh
• Holy Faith International Private Limited, New Delhi
• Huhtamati Paper Product Limited, Thane, Maharashtra
• The Institute of Chartered Accountants of India, Noida, Uttar Pradesh
• Indira Gandhi Open University (IGNOU), New Delhi
• International Paper India Private Limited, Hyderabad, Andhra Pradesh
• Intertek India Private Limited, Mumbai, Maharashtra
• ITC Life Science, Bangalore, Karnataka
• ITC Limited, Coimbatore, Tamilnadu
• ITC Limited, Bangalore, Karnataka
• ITC Limited, Bhadrachalam, Andhra Pradesh
• ITC Limited, Khammam, Andhra Pradesh
• J.B. Daruka Papers Limited, Sitapur, Uttar Pradesh
• J.K. Paper Limited, New Delhi
• J.K. Paper Limited, Rayagada, Orissa
• Janak Education, Bhakhtapur, Nepal
• Janki Newsprint Limited, Meerut, Uttar Pradesh
• Jawahar Navodaya Vidyalaya, Saharanpur, Uttar Pradesh
• JMJ Paper Products, Roorkee, Uttarakhand
• K.R. Pulp & Papers Limited, Delhi
• K.C. Printing & Allied Works, Mathura, Uttar Pradesh
• K.R. Pulp & Paper Limited, Unit I, Shahjahanpur, Uttar Pradesh
• K.R. Pulp & Paper Limited Unit II, Shahjahanpur, Uttar Pradesh
• Kailash Printing Press, Bhopal, Madhya Pradesh
• Kamakshi Paper Private Limited, J.P. Nagar, Uttar Pradesh
• Kamakshi Papers Private Limited, Gazraula, Uttar Pradesh
• Kangaroo Industries, Ludhiana, Punjab
• Karaliya Collector Avam Zila Nirvachan Adhikari, Indore, Madhya Pradesh
• Karaliya Collector Avam Zila Nirvachan Adhikari, Jabalpur, Madhya Pradesh
• Karaliya Madhyamic Shiksha Mandal, Bhopal, Madhya Pradesh
• Katayinini Paper Mills Private Limited, Kashipur, Uttar Pradesh
• Kawatra Papers Private Limited, Dadri, Uttar Pradesh
• Kazmi & Associates, Allahabad, Uttar Pradesh
• Khanna Paper Mills Limited, Gurgaon, Haryana
• Khatema Fibers Limited, Khatima, Uttarakhand
• Kota University, Kota, Rajasthan
• Kuantum Papers Limited, Hoshiarpur, Punjab
• Lalji Board India Private Limited, Firozabad, Uttar Pradesh
• Life Insurance Corporation of India Zonal Office, Kanpur, Uttar Pradesh
• Lovely Professional University, Phagwara, Haryana
• Lucknow Printers & Publishers, Lucknow, Uttar Pradesh
• Madhya Pradesh Shram Kalyan Mandal, Bhopal, Madhya Pradesh
• Madhyamic Shiksha Board Rajasthan, Ajmer, Rajasthan
• Madhyamic Shiksha Mandal Madhya Pradesh, Bhopal
• Magnum Ventures Limited, Sahibabad, Uttar Pradesh
• Mahadev Pulp Products Private Limited, Kanpur, Uttar Pradesh
• Mahalaxmi Kraft & Tissue, Bhopal, Madhya Pradesh
• Mahesh Pustkalaya, Mathura, Uttar Pradesh
• Manohar Printing Press, Mathura, Uttar Pradesh
• Maruti Papers Limited, Shamli, Uttar Pradesh
• Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal, Madhya Pradesh
• Meenu Paper Mills Private Limited, Muzaffarnagar, Uttar Pradesh
• Mehali Paper Private Limited, Dahej, Gujarat
• Mohit Paper Mills Limited, Bijnor, Uttar Pradesh
• Mudran Avam Lekhan Samigri Vibhag, New Raipur, Chattisgarh
• Mudran Mahal Printers and Publisher, Agra, Uttar Pradesh
• Multiwal Duplex Private Limited, Kashipur, Uttarakhand
• Multiwal Pulp and Board Mills Private Limited, Kashipur, Uttarakhand
• MWV India Paperboard Packaging Private Limited, Pune, Maharashtra
• N P Enterprises, Meerut, Uttar Pradesh
• N R Agarwal Industries Limited, Unit-5, Vapi, Gujarat
• Nagaon Paper Mills, Nagaon, Assam
• Naini Papers Limited, Kashipur, Uttarakhand
• Naini Tissues Limited, Kashipur, Uttarakhand
• National Book Trust of India, New Delhi
• National Health Mission, Panchkula, Haryana
• National Institute of Open Schooling, Noida, Uttar Pradesh
• National Insurance Company Limited, Chandigarh
• National Printers, Ranchi, Jharkhand
• Navodaya Vidyalaya Samiti, Bhopal, Madhya Pradesh
• Nehru Yuva Kendra Sangthan, Lucknow, Uttar Pradesh
• New Bonanza India Limited, Meerut, Uttar Pradesh
• Nikita Papers Limited, Shamli, Uttar Pradesh
• National Institute of Open Schooling, Noida, Uttar Pradesh
• North Bihar Power Distribution Company Limited, Patna, Bihar
• Nove Care India, Thane, Maharashtra
• Office of the Assistant Commissioner of Customs, Ahmedabad, Gujarat
• Office of the Commissioner of Customs, Cochin, Kerala
• Office of the Assistant Commissioner of Customs, Chennai, Tamilnadu
• Office of the Deputy Commissioner of Customs, Gandhinagar, Gujarat
• Office of the Additional Commissioner of Customs, Bangalore, Karnataka
• Office of the Assistant Commissioner of Customs, Gandhinagar, Gujarat
• Office of the Commissioner of Customs, Gautam Budh Nagar, Uttar Pradesh
• Office of the Deputy Commissioner of Customs, Surat, Gujarat
• Orient Packaging Limited, Saharanpur, Uttar Pradesh
• Orient Paper Industries Limited, Amlai, Madhya Pradesh
• Oyster Printers & Publishers Private Limited, Mathura, Uttar Pradesh
• Paras Biosciences Private Limited, Bangalore, Karnataka
• Parijat Paper Mills Limited, Muzaffarnagar, Uttar Pradesh
• Paswara Papers Limited, Meerut, Uttar Pradesh
• Pathya Pustak Adhikari, Lucknow, Uttar Pradesh
• Pellet Energy Systems Private Limited, Bhagwanpur, Uttar Pradesh
• Pioneer Printers & Publishers, Kanth, Uttar Pradesh
• Pitambra Books Private Limited, Jhansi, Uttar Pradesh
• Pragati Papers Industries Limited, Delhi
• Pragya Publication Private Limited, Mathura, Uttar Pradesh
• Pratibha Printing Press, Mathura, Uttar Pradesh
• Premier International, Saharanpur, Uttar Pradesh
• Prime Pulp & Paper Private Limited, Muzaffarnagar, Uttar Pradesh
• District Institute of Education Training, Bharatpur, Rajasthan
• Printex India Printers & Publisher, Allahabad, Uttar Pradesh
• Printing & Stationery Department Haryana, Chandigarh
• Prolific Papers Private Limited, Kashipur, Uttarakhand
• PSB Papers Limited, Bazpur, Uttarakhand
• Punjab National Bank, Noida, Uttar Pradesh
• Punjab State Lotteries, Chandigarh
• Queensland University of Technology, Australia
• R.P. Printers, Noida, Uttar Pradesh
• R.D. Papers Limited, Kanpur, Uttar Pradesh
• Raj Chemicals Limited, Ahmedabad, Gujarat
• Raj Enterprises, Haldwani, Uttarakhand
• Rajasthan Rajya Pathya Pustak Mandal, Jaipur, Rajasthan
- Rajasthan State Open School, Jaipur, Rajasthan
- Rajasthan State Road Transport Corporation, Jaipur, Rajasthan
- Rajaya Swasthya Avam Parivar Kaliyan, Lucknow, Uttar Pradesh
- Rajeev Prakashan, Allahabad, Uttar Pradesh
- Rajlakshmi Paper & Board Limited, Bazpur, Uttarakhand
- Rajya Kendriya Mudranalaya, Jaipur, Rajasthan
- Rama Shyama Paper Limited, Bareilly, Uttar Pradesh
- Ramesh Publishing House, Mathura, Uttar Pradesh
- Ramraja Printers & Publisher, Jhansi, Uttar Pradesh
- Ravi Offset Printers & Publisher Private Limited, Agra, Uttar Pradesh
- Rawat Prakshan Mandir, Hathras, Uttar Pradesh
- Rayana Paper Board Industries Limited, Unit II, Sant Kabir Nagar, Uttar Pradesh
- Rayana Paper Board Industries Limited, Sant Kabir Nagar, Uttar Pradesh
- Regent Exim International Limited, Delhi
- Rohdia Speciality Chemicals India Limited, Thane, Maharashtra
- RPEE Industries (India), Meerut, Uttar Pradesh
- Ruchira Papers Limited, Sirmour, Himachal Pradesh
- S.G. Technologies, Roorkee, Uttarakhand
- Sahota Papers Limited, Jaspur, Uttarakhand
- Sainsons Paper Industries Limited, Pehowa, Haryana
- Sakshar Bharat Mission, Lucknow, Uttar Pradesh
- Sandeep Paper Mills Private Limited, Noida, Uttar Pradesh
- Sangal Papers Limited, Mawana, Uttar Pradesh
- Sangal Papers Limited, Meerut, Uttar Pradesh
- Saraswati Press, Mathura, Uttar Pradesh
- Satia Industries Limited, Muktsar, Uttar Pradesh
- Seshasai Business Forms Private Limited, Mumbai, Maharashtra
- Sh. L. Muthupalaniappram, Chennai, Tamilnadu
- Sh. R. S. Shah, Surat, Gujarat
- Shah Devji Shivji & Co., Mumbai, Maharashtra
- Shakti Kraft and Tissues, Muzaffarnagar, Uttar Pradesh
- Shakumbhri Pulp & Paper Mills Limited, Muzaffarnagar, Uttar Pradesh
- Shaskiya Mudran Avam Lekhan Samigri Vibhag, Bhopal, Madhya Pradesh
- Shaskiya Mudran Avam Stationery, Bhopal, Madhya Pradesh
- Sheel Printers, Mathura, Uttar Pradesh
- Shree Badri Kedar Private Limited, Najibabad, Uttar Pradesh
- Shree Luxmi Exports, Chennai, Tamilnadu
- Shree Mahaveer Straw Board Private Limited, Mainpuri, Uttar Pradesh
- Shree Nageshwar Papers Limited, Kanpur, Uttar Pradesh
- Shree Sidhali Paper Mills Limited, Muzaffarnagar, Uttar Pradesh
- Shree Venktesh Paper Mills Limited, Meerut, Uttar Pradesh
- Shreyans Industries Limited, Ahmednagar, Gujarat
- Shreyans Industries Limited, New Delhi
- Shri Bhageshwari Papers Limited, Muzaffarnagar, Uttar Pradesh
• Shri Bhageshwari Papers Limited, Unit-I, Muzaffarnagar, Uttar Pradesh
• Shri Bhageshwari Papers Limited, Unit-II, Muzaffarnagar, Uttar Pradesh
• Shri Kela Gee Books Private Limited, Agra, Uttar Pradesh
• Shriram Institute for Industrial Research, Delhi
• Shyam Paper Mart, Kanpur, Uttar Pradesh
• Siddheshwari Industries Private Limited, Muzaffarnagar, Uttar Pradesh
• Siddheshwari Paper Udyog Limited, Kashipur, Uttarakhand
• Sidharth Papers Limited, Kashipur, Uttarakhand
• Sidharth Papers Limited, Unit II, Kashipur, Uttarakhand
• Silverton Pulp & Paper Private Limited, Muzaffarnagar, Uttar Pradesh
• Singhal Agencies, Lucknow, Uttar Pradesh
• Skylark Printers & Publishers Private Limited, Mathura, Uttar Pradesh
• Solenis Chemicals India Private Limited, Pune, Maharashtra
• Sonex Print Pack Private Limited, New Delhi
• South Bihar Power Distribution Company Limited, Patna, Bihar
• South Eastern Railway, Kolkata, West Bengal
• Sripathi Paper & Boards Private Limited, Sivakasi, Tamilnadu
• SSUPSW, Kanpur, Uttar Pradesh
• Star Kraft Papers Private Limited, Meerut, Uttar Pradesh
• Star Paper Mill Limited, Saharanpur, Uttar Pradesh
• State Bank of Patiala, Patiala, Punjab
• State Educational & Training Center Chhatisgarh, Raipur, Chattisgarh
• State Election Commission Haryana, Panchkula, Haryana
• State Health Society Bihar, Patna, Bihar
• State Society For Ultra Poor and Social Welfare, Patna, Bihar
• Suchi Paper Mills Limited, Noida, Uttar Pradesh
• Suchna Avam Jan Sampark Vibhag, Patna, Bihar
• Suyash Kraft and Paper Limited, Muzaffarnagar, Uttar Pradesh
• Suyash Paper Mills, Basti, Uttar Pradesh
• Suyash Paper Mills, Ganeshpur, Uttar Pradesh
• Swaroop Papers Private Limited, Saharanpur, Uttar Pradesh
• Tamilnadu News Print and Papers Limited, Kagithapuram, Tamilnadu
• Tamilnadu Text Book & Educational Corporation, Chennai, Tamilnadu
• Tehri Pulp & Paper Limited, Unit-I, Muzaffarnagar, Uttar Pradesh
• Tehri Pulp & Paper Limited, Unit-II, Muzaffarnagar, Uttar Pradesh
• Tenny Jose & Associates Limited, Chennai, Tamilnadu
• Tetra Pack India Private Limited, Gurugram, Haryana
• The Oriental Insurance Company Limited, Chandigarh
• The Sandesh Limited, Ahmedabad, Gujarat
• The Tribune Trust, Chandigarh
• The West Coast Paper Mills Limited, Dandeli, Karnataka
• The West Coast Paper Mills Limited, New Delhi
• Tirupati Balaji Fibers Limited, Muzaffarnagar, Uttar Pradesh
• Tirupati Stationery Private Limited, Kanpur, Uttar Pradesh
• Tradecom International Limited, Mumbai, Maharashtra
• Trident Limited, Barnala, Punjab
• Universal Engineering Corporation, Saharanpur, Uttar Pradesh
• Uttar Pradesh Zila Nirvachan Adhikari, Sahajahanpur, Uttar Pradesh
• Upkar Printers & Publishers, Agra, Uttar Pradesh
• Vardhman Industries, Meerut, Uttar Pradesh
• Ved Cellulose Limited, Hapur, Uttar Pradesh
• Veer Bahadur Singh Purvanchal University, Jaunpur, Uttar Pradesh
• Veer Bundelkhand Press, Jhansi, Uttar Pradesh
• Vikram Vishvvidyalaya, Ujjain, Madhya Pradesh
• Visaka Industries Limited, Nalgonda, Telangana
• Vishvakarma Paper & Boards Limited, Kashipur, Uttarakhand
• Vishwa Pariwar, Raipur, Chattisgarh
• Vishwanath Paper & Boards Limited, Kashipur, Uttar Pradesh
• Yash Papers Limited, Faizabad, Uttar Pradesh
• Yojana Avam Vikas Vibhag, Patna, Bihar
• Zila Gramin Vikas Abhikaran, Baksar
• Zila Gramin Vikas Abhikaran, Muzaffarpur, Bihar
• Zila Gramin Vikas Abhikaran, Sitamadi, Bihar
• Zila Gramin Vikas Abhikaran, Supaul, Bihar
• Zila Swasthya Samiti, Betia, Bihar
MEETINGS DURING 2015-2016

Meeting of Cess Committee

The first meeting of reconstituted Cess Committee was organized at Udyog Bhawan New Delhi on July 29, 2015 under the Chairmanship of Shri Shailendra Singh, Joint Secretary, Ministry of commerce & Industry (IPP). Members of the Council as well as special invitees from DIPP, IARPMA, INMA, CPPRI etc attended the meeting. The agenda of the meeting was to discuss the progress of ongoing projects and new project proposals for approval of the Cess Committee. The Chairman Cess Committee constituted different sub-committees to review the new project proposals as well as progress of ongoing projects.

Meeting of Council of Association of CPPRI

A meeting of Council of Association of CPPRI was held on February 23, 2016 at Udyog Bhawan, New Delhi under the Chairmanship of Shri Shailendra Singh, Joint Secretary DIPP. Various issues related to CPPRI were taken up for discussion during the meeting.
Meeting of Technical Sub-Committee

In its meeting held on July 29, 2015, the Cess Committee constituted a technical sub-committee to review the progress of various on going Cess projects and new projects proposals. The committee constituted included:

1. Dr.B.L. Bihani, Consultant - Chairman
2. Shri Anil Kumar, VP, IARPMA - Member
3. Dr.Dharam Dutt, IIT Roorkee, (Saharanpur Campus) - Member
4. Dr. Suresh Panwar, Sc F, CPPRI - Member
5. Dr.R.K. Jain, Director In Charge, CPPRI - Member Secretary

In the same context the meeting of sub-committee was held under the chairmanship of Dr. B.L. Bihani at CPPRI Base Office, New Delhi on December 23, 2015. The meeting was also attended by senior scientists from CPPRI and officials from Avantha Centre for Industrial research & Development (ACIRD), Indian Paper Manufacturers Association (IPMA), Indian Agro & Recycled Paper Mill Association (IARPMA), Indian Rubber Manufacture & Research Association (IRMRA), International Paper - APPM, JK Paper Ltd.
Other Meetings Attended by CPPRI Scientists during 2015-16

- Dr. R.K. Jain and Dr. M.K. Gupta attended the meeting of Empowered Committee chaired by the Secretary DIPP related to subsidy claim of Cent Ply Pvt. Ltd., Distt. Kamrup, Assam under CCIS Scheme 2007 at Udyog Bhawan, New Delhi on April 6, 2015.

- Dr. S. Panwar attended a meeting organized by UKPPCB & CPCB on April 17, 2015 at Dehradun related to Implementation of Charter for Water Recycling & Pollution Prevention in Pulp & Paper Industries of Uttarakhand.


- Dr. S. Panwar and Dr. Nitin Endlay attended meeting at CPCB, New Delhi on June 17-18, 2015 to review of action plan submitted by various pulp and paper mills under Charter for Water Recycling & Pollution Prevention in Pulp & Paper Industries (Specific to Ganga River Basin).

- Dr. R. K. Jain & Dr. B.P. Thapliyal attended a meeting with UNIDO (IC–ISID) officials for preparation of project document for submission to DIPP at New Delhi on July 6 - 9, 2015.

- Dr. Sanjay Tyagi, attended a purchase committee meeting at Printing and Stationary Department, U.P. Govt. Lucknow on July 23, 2015.

- Dr. B. P. Thapliyal and Dr. Sanjay Tyagi attended the IPPTA Nomination Committee meeting at Ahmedabad on August 5, 2015.

- Dr. B. P. Thapliyal, attended a meeting on varnishing of Indian bank notes for increasing its life on August 19, 2015.

- Smt. Rita Tandon attended meeting with Joint Secretary at DIPP, Udyog Bhawan, New Delhi on August 14, 2015 regarding revival of Ashok Paper Mill, Darbhanga (Bihar).

- Dr. B. P. Thapliyal attended a meeting of Technical Committee for review on revival of Ashok Paper Mills, Bihar on August 21, 2015 at Udyog Bhawan New Delhi.

- Dr. M. K. Gupta attended a meeting organized by UPPCB & CPCB at Kanpur on August 22, 2015 to review the progress of Charter Implementation by Pulp & Paper mills of Kanpur and near by Cluster.

- Dr. S. Panwar, Dr. S. Mishra and Dr. Nitin Endlay attended a meeting at Bilt (Unit Shree Gopal) on August 27, 2015 to discuss the mill’s action plan related to compliance with requirements of Charter for Water Recycling & Pollution Prevention in Pulp & Paper Industries (specific to Ganga River Basin).
Dr. S. Panwar attended a meeting organized by UPPCB & CPCB on September 15, 2015 at Meerut related to Implementation of Charter for Water Recycling & Pollution Prevention in Pulp & Paper Industries of Meerut Cluster.

Dr. M. K. Gupta attended a meeting at Uttarakhand Environment Protection & Pollution Control Board, Dehradun on September 16, 2015 to discuss the Zero Liquid Discharge Status claimed by Gangotri Paper Mills Pvt Ltd., Roorkee.

Dr. R. K. Jain and Dr. Nitin Endlay attended a meeting on Designing an Industrial Cleaner Production Program for Hindon Rejuvenation at Embassy of Sweden, October 12, 2015.

Dr. B. P. Thapliyal, to attend the meeting on Indigenisation of Indian Currency on October 28, 2015 at RBI Mumbai.

Dr. B. P. Thapliyal attended the meeting at the office of Controller Printing and Stationary, Haryana at Chandigarh on November 4, 2015.

Dr. B. P. Thapliyal attended a meeting at BEE, New Delhi on December 15-16, 2015 to review Monitoring & Verification reports of paper sector.

Dr. M. K. Gupta attended a meeting organized by UPPCB at Kanpur on March 12, 2016 to review the progress of charter implementation by pulp & paper mills of Eastern UP.

Dr. S. Panwar attended meetings organized by UPPPCB at Meerut (March 17, 2016), Moradabad (March 23, 2016) & Muzaffarnagar (March 29, 2016) to review the progress of charter implementation by pulp & paper mills in respective clusters.

Dr. Nitin Endlay and Dr. Shivaker Mishra attended a meeting on River Hindon rejuvenation at Saharanpur Municipal board Office on January 18, 2016.

Dr. Sanjay Tyagi visited IGNOU for participating in tender opening Committee as a Technical expert on January 25, 2016.

Dr. B. P. Thapliyal, attended the meeting at BIS, New Delhi for discussion of upcoming CHD-15 meeting of Agenda Points on January 28, 2016.

Smt. Rita Tandon and Dr. B. P. Thapliyal attended Bureau of Indian Standard (BIS)- CHD 15 meeting for Pulp, Paper & Allied products for review of Indian Standards at Manak Bhawan, New Delhi held on February 9, 2016.
Independence Day

CPPRI observed the Independence Day on August 15, 2015 and with usual fanfare and gaiety. After the guard of honour from CPPRI security staff, the Director Incharge Dr. Vimlesh Bist unfurled the national flag followed by singing of national anthem. She addressed the staff and their family, remembering the sacrifices of our national leaders, highlighting the activities of achievements of CPPRI and unveiling the future plans for growth of CPPRI. Meritorious students of CPPRI staff were rewarded for their excellent performance in Class X & XII examinations.

Republic Day

CPPRI observed the Republic Day on January 26, 2016. After the guard of honour from CPPRI security staff, the Director Incharge Dr. R.K. Jain unfurled the national flag followed by singing of national anthem. Greeting the staff and their family on this auspicious occasion Dr. Jain paid homage to the freedom fighters and the makers / architects of the Constitution of India. He highlighted the achievements being made by CPPRI in addressing the technological and environmental issues of Indian Paper Industry.
Glimpses of Independence Day Celebrations
Glimpses of Republic Day Celebrations
Rajbhasha Hindi Month

Hindi Pakhwada was observed at CPPRI from September 1 to 30, 2015 to promote the use of Hindi in all official work including Scientific & Technical work. To summarize the progress of work in Hindi a meeting chaired by Dr. Vimlesh Bist, Director-in-charge, CPPRI was convened on September 14, 2015. Senior Officers of the Institute attended the meeting. The progress of the use of Hindi in Official work was reviewed and some guidelines were issued. It was informed that efforts are being made to translate the scientific articles and course manuals in Hindi for their wide use by technical personnel of paper mill located in Hindi speaking regions of the Country.

- Dr. R.K. Jain attended the meeting of Hindi Advisory Committee of Deptt. of Industrial Policy and Promotion on May 21, 2015 chaired by Hon’ble Minister of State for Commerce and Industry, Smt. Nirmala Sitharaman in Udyog Bhawan, New Delhi.

- Shri K.P. Sharma, Deputy Director, Ministry of Home Affairs, Department of Official Language visited the Institute on October 16, 2015 for inspection of progress of Hindi in official work in CPPRI.

Vigilance Awareness Week

As per the directives of Central Vigilance Commission, the Institute observed Vigilance Awareness Week from October 26 -31, 2015. The theme of observing the Vigilance Awareness Week for year 2015 was Preventive Vigilance as a tool for Good Governance. To mark the occasion the Vigilance Pledge was administered to the employees & students of the Institute to fight against corruption by Dr. R.K. Jain, Director Incharge & Chief Vigilance Officer (CVO). The message of His Excellency, President of India, Shri Pranab Mukherjee and Hon’ble Prime Minister, Shri Narendra Modi were read out by Shri Anil Kumar, Administrative Officer. Posters and banners carrying anti corruption motivational slogans were displayed at the various prominent locations in the institute to create an awareness and promote transparency & integrity among the officials. Competitions related slogans, poster making and debates were organised to mark the occasion. The programme was coordinated by Shri. M.P. Sharma.

Administration of Pledge on Vigilance Awareness Week

The objective of the training programme was to create an awareness on the Energy and Environmental issues like - Condition based diagnostic technique, Implementation of PAT, Normalization of specific energy consumption, Energy conservation opportunities and technologies, Strategies and technologies for Water conservation, Pollution reduction, Basics and fundamentals of efficient ETP operation management, Charter for Water Recycling and Pollution Prevention etc. Around 49 participants from various mills, institutes and organisations attended the training programme.

14th Cess Training Programme on Calibration and Quality Evaluation for Pulp and Paper Products, CPPRI from July 30-31, 2015

The objective of the training programme was to disseminate information and provide hands-on training on calibration of paper testing equipments and methodology for quality evaluation of pulp and paper products. Around 31 participants from various mills, institutes and organisations attended the training programme.


A One day Training Programme was conducted at CPPRI Saharanpur for around 26 officials of Life Insurance Company of India (LIC) to create an awareness on the quality evaluation of physical characteristics of paper, different grades of paper and their properties, optical properties of paper, effect of environmental conditions on quality of paper, general defects in paper and provided training in the area of paper testing.


The objective of the training programme was to disseminate information and provide training on evaluation of printing & surface properties of paper. Around 40 participants from various mills, institutes and organisations attended the training programme.
In addition, in-house training of one week to one-three month duration was provided to various officials nominated by their mills and students from following universities/colleges in the various area of pulp and paper making, biotechnology, environmental management and chemical recovery:

- Sam Higginbottom Institute of Agriculture Technology & Sciences, Allahabad, Uttar Pradesh
- Banasthali University, Banasthali, Rajasthan
- Guru Jambheshwar University of Science and Technology, Hisar, Haryana.
- Maharishi Markandeshwar University, Mullana, Haryana
CPPRI scientists attended various seminars, workshop & training programme during 2015-16 to disseminate the information about the findings of various projects being executed by CPPRI as well as to update the knowledge about the latest developments on various aspects of pulp and paper technology. A brief summary of the seminar / workshop / training programme attended during 2015-16 is as under:

- **Conference on Indigenization of Currency**, Vigyan Bhawan, New Delhi, June 1, 2015 - Dr. B.P. Thapliyal

- **Solar power Workshop**, Vigyan Bhawan, New Delhi July 7, 2015 – Dr. B.P. Thapliyal

- Workshop on **Advances in Packaging Technology**, IIT Roorkee (Saharanpur Campus), October 6-7, 2015 - Dr. S. Panwar, Dr. B.P. Thapliyal, Dr. R.D. Godiyal, Dr. Nitin Endlay, Dr. Sanjay Tyagi and Ms Prachi Kaushik

- **Paperex 2015 Conference**, Pragati Maidan, New Delhi. – Dr. R.K. Jain, Mrs. Rita Tandon, Dr. S. Panwar, Dr. B.P. Thapliyal, Dr. M.K. Gupta, Dr. Kavaljeet Singh, Dr. R.D. Godiyal, Dr. A.K. Dixit, Dr. S. Mishra, Dr. Priti S. Lal, Mrs. Anuradha Janbade, Dr. Nitin Endlay, Shri Alok Goyal, Dr. Sanjay Tyagi and Shri Satya Dev Negi.
• **IPPTA Workshop on Technological Advancement in Manufacturing Packaging Grades of Paper**, Kashipur, Uttarakhand, 10-11 December 2015 - Dr. R.K. Jain, Smt. Rita Tandon, Dr. S. Panwar, Dr. B.P. Thapliyal, Dr. Nitin Endlay and Dr. Sanjay Tyagi.

• **IPPTA Seminar on Resource Conservation as Key to Competitiveness**, Kolkata, West Bengal, March 10-11, 2016 - Dr. R.K. Jain and Dr. S. Panwar,

![Participation of CPPRI Scientists at IPPTA Seminar at Kashipur & Kolkatta](image)

• **National Workshop on Contemporary Surfacing Trends in analytics: Applications in Engineering and Management**, February 12-13, 2016 at Department of Management Studies, National Institute of Technology, Hamirpur, Himachal Pradesh – Shri Kumar Anupam and Shri Pankaj Goley.

Stakeholders Consultative Meeting on UNIDO Project: Development and Adoption of Appropriate Technologies for Enhancing Productivity in the Paper and Pulp Sector

• **Kashipur, February 18, 2016**

Dr. R. K. Jain, Smt. Rita Tandon, Dr. S. Panwar, Dr. B. P. Thapliyal, Dr. Kanwaljeet Singh, Dr. Nitin Endlay and Dr. Sanjay Tyagi.
• Chandigarh, March 5, 2016

Dr. R. K. Jain, Smt. Rita Tandon, Dr. S. Panwar, Dr. B. P. Thapliyal, Dr. Kanwaljeet Singh, Dr. R. D. Godiyal, Dr. A. K. Dixit, Dr. S. Mishra, Dr. Priti S. Lal, Smt. Anuradha Janbade and Shri Alok Goyal

• Vapi, March 12, 2016

Dr. R. K. Jain, Smt. Rita Tandon, Dr. S. Panwar, Dr. B. P. Thapliyal, Dr. Kanwaljeet Singh, Dr. R. D. Godiyal, Dr. A. K. Dixit and Shri Satya Dev Negi

• Coimbatore, March 19, 2016

Dr. R. K. Jain, Smt. Rita Tandon, Dr. S. Panwar, Dr. B. P. Thapliyal, Dr. M. K. Gupta, Dr. Kanwaljeet Singh, Dr. R. D. Godiyal, Dr. A. K. Dixit
Glimpses of First Stakeholders Consultative Meeting on UNIDO Project: Development and Adoption of Appropriate Technologies for Enhancing Productivity in the Paper and Pulp Sector, Kashipur, February 18, 2016
Glimpses of Second Stakeholders Consultative Meeting on UNIDO Project: Development and Adoption of Appropriate Technologies for Enhancing Productivity in the Paper and Pulp Sector, Chandigarh, March 5, 2016
Glimpses of Third Stakeholders Consultative Meeting on UNIDO Project: Development and Adoption of Appropriate Technologies for Enhancing Productivity in the Paper and Pulp Sector, Vapi, March 12, 2016
PAPERS PRESENTED AND LECTURES DELIVERED

4th National Conference on Role of Technology and Management in Technocracy at Dev Bhoomi Group of Institutions, Saharanpur, April 5, 2015


- Black liquor heat treatment to improve rheological and combustion behaviour – Dr. Tarun

- Optimization of dilute acid pre-treatment conditions for efficient recovery of xylose from rice straw - Shri Vipin Gupta


- Poster presentation : Bagasse pith - a valuable source of bio-energy – Shri Dharmendra Kumar

- Cellulase production under solid state fermentation and it’s application in hydrolysis of lingo cellulosic biomass for 2nd generation bio-fuel - Ms Priyanka Jain


- Status of Indian Paper Industry – Dr. B.P. Thapliyal

- Application of IR Thermography as a Condition Based Preventive Maintenance Technique for Energy Conservation in Pulp and Paper Industry– Dr. B.P. Thapliyal

- CPCB Charter – An Overview of Challenges & Efficient ETP Management for Achieving Environmental Compliance – Dr. Nitin Endlay

- Air Pollution, Control Equipments & Their Health Impact – Dr. Shivaker Mishra

- Latest Developments in Pulping and Bleaching Technologies to Reduce Water Consumption & Pollution Load Generation – Dr. Priti S. Lal

- Efficient Black Liquor Management Techniques to Reduce Pollution Load – Dr. A.K. Dixit

- Energy saving opportunities in Compressors & compressed air systems. – Dr. Sanjay Tyagi

- Energy Savings in Motors Mr. N. K. Naik

- Status of Indian Paper Industry - Dr. R. K. Jain
- Laboratory Evaluation of Pulps for Physical and Strength Characteristics of Paper - Smt. Rita Tandon
- Importance of calibration and suitable methodology for pulp and paper mills – Dr. B.P. Thapliyal
- Optical properties of paper and their importance and measurement. – Dr. B.P. Thapliyal
- Fiber furnish analysis - Dr. R.D. Godiyal
- Effects of environmental conditions on testing of paper properties – Dr. R.D. Godiyal
- Quality evaluation of Optical characteristics of paper – Dr. R.D. Godiyal
- Quality Evaluation of Physical Characteristics of paper - Dr. Sanjay Tyagi
- Methods of evaluating the Dynamic surface characteristics - Dr. Sanjay Tyagi
- Determination of kappa number and viscosity of pulp and their calibration - Dr. Arvind Kumar Sharma

IPPTA Zonal Seminar on Waste, Water & Air Management with Focus on Recycled, Ahemdabad, Gujarat Uttarakhand, August 6-7, 2015 2015

- Water pinch innovative approach towards water conservation in pulp and paper industry – Dr. B.P. Thapliyal

Workshop on Advance in Packaging Technology, DPT of Paper Technology, IIT Roorkee, Saharanpur Campus on October 7, 2015

- An innovative nano coated packaging material – Dr. B.P. Thapliyal

Training Programme on Paper Properties, CPPRI, October 13, 2015

- Importance of calibration and suitable methodology for pulp and paper mills – Dr. B.P. Thapliyal
• Optical properties of paper – their importance and measurement – Dr. B.P. Thapliyal
• Fiber furnish analysis - Dr.R.D. Godiyal
• Effects of environmental conditions on testing of paper properties – Dr. R.D. Godiyal
• Quality evaluation of physical characteristics of paper – Dr. Sanjay Tyagi

**IPPTA Workshop on Technological Advancement in Manufacturing Packaging Grades of Paper, Kashipur, Uttarakhand, December 10-11 2015**

• Reducing environmental footprint through holistic approach – a case study of pulp & paper mills in Kashipur cluster - Dr. Nitin Endlay
• Performance evaluation of corrugated packaging-a key to success for paper makes and corrugators – Dr. Sanjay Tyagi


• Development in surface characterization of paper and paper board - Dr. B.P. Thapliyal
• Demonstration on optical and microscopic evaluation of paper - Dr. R.D. Godiyal
• Facilities for testing of dynamic paper properties at CPPRI – Dr. Sanjay Tyagi

**IPPTA Seminar on Resource Conservation as Key to Competitiveness, Kolkata, March 10-11, 2016**

• Innovative Approach for Improved Energy & Chemical Recovery Efficiency in straw Based Paper Mills - Dr. R.K. Jain
REPRESENTATION IN EXTERNAL COMMITTEES

Ministry of Environment and Forests, New Delhi

- Member Environmental Impact Assessment Committee, Ministry of Environment and Forests - Dr. R.K. Jain
- Expert Member Committee for Import Policy for Waste Paper Ministry of Environment and Forests – Mrs. Rita Tandon

Ministry of Commerce & Industry / Ministry of Finance

- Member of Technical Committee constituted by DIPP, Ministry of Commerce & Industry for inspection/verification of plant and machinery at Cent Ply Pvt Ltd, Assam and preparation of the inspection and assessment report related to subsidy claim of the mill under Central Capital Investment Subsidy Scheme 2007 – Dr. R.K. Jain and Dr. M.K. Gupta.
- Member of Technical Subcommittee of the Monitoring Committee constituted for Implementation of Revival Scheme of Ashoka Paper Mill, Dharbhanga - Dr. M.K. Gupta and Shri S.D. Negi

Kumarappa National Handmade Paper Institute (KNHPI), Jaipur

- Member Council of Association - Dr. R.K. Jain

Bureau of Indian Standards (BIS), New Delhi

- Member Sectional Committee CHD 15 of Bureau of Indian Standards (BIS), New Delhi for Development of Standards of Different Paper and its Products – Mrs. Rita Tandon, Dr. B.P. Thapliyal and Dr. Sanjay Tyagi (Alternate Member)
- Member Sectional Committee on Water Quality for Industrial Purposes, Bureau of Indian Standards (BIS), New Delhi – Dr. S. Panwar
- Alert Panel Convener Paper and its Product Sectional Committee CHD 15, Bureau of Indian Standard – Dr. B.P. Thapliyal and Dr. Sanjay Tyagi (Alternate Member)

Bureau of Energy Efficiency (BEE), New Delhi

- Expert Member of Committee for Normalization of Specific Energy Consumption in Pulp and Paper Sector – Dr. B.P. Thapliyal
Indian Pulp and Paper Technical Association

- Member Executive Committee - Dr. R.K. Jain
- Member Technical Committee – Smt. Rita Tandon
- IPPTA Coordinator – Dr. B.P. Thapliyal

Avantha Centre for Industrial Research & Development, Yamuna Nagar Haryana

- Member RAC Committee – Smt. Rita Tandon

External Examiner

- Department of Paper Technology, IIT Roorkee – Smt. Rita Tandon, Dr. S. Panwar, Dr B. P. Thapliyal, Dr. R.D. Godiyal, Dr. Nitin Endlay and Dr. Sanjay Tyagi (M.Tech Examiner)
- University of Petroleum and Energy Studies, Dehradun – Dr. Nitin Endlay (Ph.D Examiner)

Others

- Member Technical Advisory and Paper Purchase Committee (TAAPC) of IGNOU, New Delhi. – Dr. Sanjay Tyagi
- Member of Technical Committee for purchase of paper for Printing and Stationary Department, UP. Govt, Lucknow - Dr. R. D. Godiyal and Dr. Sanjay Tyagi
- Member Technical Committee for Purchase of Paper, Haryana Government - Dr. Sanjay Tyagi
Kumar; Anupam, Swaroop; Vinay, Deepika, Lal; Priti S., and Bist ; Vimlesh Turning Leucaena leucocephala bark to biochar for soil application via statistical modelling and optimization technique; Ecological Engineering Vol. 82 (2015)

Kaushik; Prachi, Tyagi; Sanjay, Thapliyal; B.P., Kumar Anupam; An approach for selection of coating color formulation using TOPSIS multi criteria decision making design; TAPPSA Journal 6 (2015)

Thapliyal; B.P. and Tyagi ; Sanjay, Water pinch innovative approach towards water conservation in pulp and paper industry IPPTA, 27 (3), 2015

Tyagi; Sanjay, Thapliyal; B.P., Godiyal; R.D. Kaushik; Prachi and Manoj, Performance evaluation of corrugated packaging a key to success for paper makers and corrugators, IPPTA, 27 (4) 2015

Endlay; Nitin, Mishra, Shivaker, Panwar; Suresh, Mohd. Salim, Vidyarthi; A.K and Agarwal; Pawan, Reducing environmental footprint through holistic approach – a case study of pulp & paper mills in Kashipur cluster, IPPTA , 27 (4), 2015

Kamoga; Omar L.M., Byaruhanga; J.B., Godiyal; R.D., Kumar; Anupam, Characterization and evaluation of pulp and paper from selected Ugandan grasses for paper industry; Cellulose Chemistry and Technology 50 (2) (2016)

Kumar; Anupam, Sharma; A.K., Lal; Priti S., Dutta; Suman, Maity and Sudip Preparation, characterization and optimization for upgrading Leucaena leucocephala bark to biochar fuel with high energy yielding; Energy , Vol. 106 (2016)
REPORTS PREPARED

Pulping and Bleaching

- Laboratory and Pilot Plant Pulping & Bleaching Trials of Agrifibres (project sponsored by ITC-Life Sciences & Technology Centre, Bengaluru, Karnataka)
- Laboratory and Pilot Plant Trials of Coir Fibers (project sponsored by Indian Institute of Carpet Technology, Bhadohi)
- Oxygen Pretreatment followed by CEopHEpD and DEopHEpD Bleaching of Hardwood Pulp (project sponsored by Grasim Industries Ltd., (Unit: Harihar Polyfibers, Kumarapatnam, Karnataka)
- Evaluation of Additive Pulping of Mix Hard Wood Sample (project sponsored by Paras Bio Sciences Pvt. Ltd., Bengaluru, Karnataka)
- Additive Pulping of Hardwood Sample (project sponsored by Novecare India Technical Specialty-IF Business, Thane, Maharashtra)
- ECF Bleaching of Hardwood Pulp (project sponsored by BITS Pilani-Hyderabad Campus, Telangana)
- Laboratory and Pilot Plant Extraction of Pulping Trials of Hardwood (project sponsored by ITC-Life Sciences & Technology Centre, Bengaluru, Karnataka)

Waste Paper Processing

- Evaluation of Wood pulp (sponsored by DFE Pharma, Tamil Nadu).

Environmental Management

Charter Progress Verification Report

- Magnum Ventures Limited, Ghaziabad, Uttar Pradesh
- Star Kraft Papers Private Limited., Meerut, Uttar Pradesh
- Janki Newsprint Limited., Meerut, Uttar Pradesh
- Chandpur Enterprises Limited, Bijnor, Uttar Pradesh
- Kanav Papers Limited, Meerut, Uttar Pradesh
- Paswara Papers Limited, Meerut, Uttar Pradesh
- Sandeep Paper Mills (P) Limited, Gautam Buddh Nagar, Uttar Pradesh
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohit Paper Mills Limited</td>
<td>Bijnor, Uttar Pradesh</td>
</tr>
<tr>
<td>Rama Paper Mills Limited</td>
<td>Bijnor, Uttar Pradesh</td>
</tr>
<tr>
<td>Dev Priya Product Private Limited</td>
<td>Meerut, Uttar Pradesh</td>
</tr>
<tr>
<td>Maruti Papers Limited</td>
<td>Shamli, Uttar Pradesh</td>
</tr>
<tr>
<td>Nikita Paper Limited</td>
<td>Shamli, Uttar Pradesh</td>
</tr>
<tr>
<td>Sangal Papers Limited</td>
<td>Meerut, Uttar Pradesh</td>
</tr>
<tr>
<td>Shree Badri Kedar Papers Private Limited</td>
<td>Najibabad, Uttar Pradesh</td>
</tr>
<tr>
<td>Naini Tissues Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Naini Papers Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Siddheshwari Paper Udyog (P) Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Sidharth Papers (P) Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Bindals Duplex Limited</td>
<td>Unit-I &amp; Unit-II, Kashipur Uttar Pradesh</td>
</tr>
<tr>
<td>Parijat Paper Mills Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Meenu Paper Mills (P) Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Shree Sidhbalic Paper Mills Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Shri Ramchander Straw Products Limited</td>
<td>Moradabad, Uttar Pradesh</td>
</tr>
<tr>
<td>Shree Bhageshwari Papers (P) Limited</td>
<td>Unit-I &amp; Unit-II, Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Sahota Papers Limited</td>
<td>Jaspur, Uttar Pradesh</td>
</tr>
<tr>
<td>Prolific Papers (P) Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Cheema Papers Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Vishwanath Paper &amp; Boards Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>PSB Papers Limited</td>
<td>Udham Singh Nagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Rajlakshmi Paper &amp; Board Pvt. Limited</td>
<td>Jaspur, Uttar Pradesh</td>
</tr>
<tr>
<td>Magnum Ventures Limited</td>
<td>Sahibabad, Uttar Pradesh</td>
</tr>
<tr>
<td>Shree Sidhbalic Paper Mills Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Shree Bhageshwari Paper Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Silverton Pulp &amp; Paper Private Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Garg Duplex &amp; Paper Mills Private Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Star Paper Mill Limited</td>
<td>Saharanpur, Uttar Pradesh</td>
</tr>
<tr>
<td>Bilt (Unit Shree Gopal), Yamunanagar, Haryana</td>
<td></td>
</tr>
<tr>
<td>NS Paper Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Garg Duplex &amp; Paper Mills Private Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Sidharth Paper Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Siddheshwari Paper Udyog Limited</td>
<td>Kashipur, Uttar Pradesh</td>
</tr>
<tr>
<td>Shakti Kraft and Tissues Mill Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Sahota Papers Limited</td>
<td>Jaspur, Uttar Pradesh</td>
</tr>
<tr>
<td>Suyash Paper Mills Ltd</td>
<td>Basti, Uttar Pradesh</td>
</tr>
<tr>
<td>Rajlakshami Paper &amp; Board Limited</td>
<td>Bazpur, Uttar Pradesh</td>
</tr>
<tr>
<td>Suyash Kraft and Paper Limited</td>
<td>Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Shree BadriKedar Papers Private Limited</td>
<td>Bijnor, Uttar Pradesh</td>
</tr>
<tr>
<td>Gangotri Paper Mills Limited</td>
<td>Narsan Kalan, Uttar Pradesh</td>
</tr>
<tr>
<td>Sainsons Paper Industries Limited</td>
<td>Kurukhestra, Haryana</td>
</tr>
<tr>
<td>Shree Bhageshwari Paper Limited</td>
<td>Unit-I, Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Shree Bhageshwari Paper Limited</td>
<td>Unit-II, Muzaffarnagar, Uttar Pradesh</td>
</tr>
<tr>
<td>Genus Paper &amp; Boards Limited</td>
<td>Moradabad, Uttar Pradesh</td>
</tr>
</tbody>
</table>
• Sandeep Paper Mills Private Limited, Noida, Uttar Pradesh
• Tehri Pulp and Paper Limited, Muzaffarnagar, Uttar Pradesh
• Multiwal Pulp & Board Mills Private Limited, Kashipur Uttarakhand
• Cheema Papers Limited, Kashipur, Uttarakhand
• Chamunda Papers Private Limited, Hapur, Uttar Pradesh
• Dev Priya Papers Private Limited, Meerut, Uttar Pradesh
• New Bonanza India Limited, Meerut, Uttar Pradesh
• Sangal Paper Limited, Mawana, Uttar Pradesh
• Mahalaxmi Craft & Tissues Private Limited, Muzaffarnagar, Uttar Pradesh
• Tirupati Balaji Fibers Limited, Muzaffarnagar, Uttar Pradesh
• Shakumbhari Pulp & Paper Mills Limited, Muzaffarnagar, Uttar Pradesh
• Silverton Pulp & Paper Private Limited, Muzaffarnagar, Uttar Pradesh
• Parijat Paper Mills Limited, Muzaffarnagar, Uttar Pradesh
• Galaxy Papers Pvt. Limited, Muzaffarnagar, Uttar Pradesh

Adequacy Assessment / Performance Evaluation of ETP

• The International Paper APPM Pvt. Limited, Rajahmundry, Andhra Pradesh
• Sandeep Papers (P) Limited, Noida, Uttar Pradesh
• Sidharth Paper (P) Limited (Unit –II), Kashipur, District Udham Singh Nagar, Uttarakhand
• Meenu Paper Mills (P) Limited, Bhopa Road, Muzaffarnagar, Uttar Pradesh
• Deoria Paper Mills Limited, Deoria, Uttar Pradesh
• Nikita Papers Limited, Shamli, Uttar Pradesh
• Shree Mahavir Straw Board Mills Pvt. Limited, Mainpuri, Uttar Pradesh
• Vishwanath Paper & Boards Limited, Jaspur, Uttarakhand
• Katyayini Paper Mills Pvt Limited, Kashipur, Uttarakhand
• Bilt Unit Shree Gopal, Yamunanagar, Haryana
• Shree Badri Kedar Papers Pvt. Limited, Bijnor, Uttar Pradesh

Evaluation of Zero Liquid Discharge (ZLD) Status

• Aristocraft Papers Pvt Ltd, Muzaffarnagar, Uttar Pradesh

Feasibility of Lime Kiln to Incinerate the Lime Sludge Generated

• Naini Paper Industries Ltd., Kashipur, Uttarakhand

Verification report of Action Plan for Charter Compliance

• Bilt (Unit Shree Gopal), Yamunanagar, Haryana
Fresh Water Consumption Water Audit

- Dev Priya Industries Private Limited. (Unit I) Meerut, Uttar Pradesh
- Dev Priya Industries Private Limited. (Unit II) Meerut, Uttar Pradesh
- Gangotri Paper Mills Ltd, Narsan Kalan, Uttarakhand

ETP Performance Evaluation

- Bilt (Unit Shree Gopal), Yamunanagar, Haryana

Audit Assessment of Hazardous Waste

- Century Pulp and Paper Ltd, Lalkua, Uttarakhand
- Chandpur Industries Ltd, Noorpur, Uttar Pradesh
- Khatema Fibers Ltd, Khatima, Uttarakhand

Adequacy Assessment of Chemical Recovery

- Shree Bhageshwari Paper Mill Limited, Muzaffarnagar, Uttar Pradesh
- Bindal Papers Limited, Muzaffarnagar, Uttar Pradesh
- Bindal Duplex Limited, Muzaffarnagar, Uttar Pradesh
- Garg Duplex and Paper Mill Private Limited, Muzaffarnagar, Uttar Pradesh
- KR Pulp and Papers Limited, Shahjahanpur, Uttar Pradesh
- Mohit Paper Mills Limited, Bijnor, Uttar Pradesh
- Naini Papers Limited, Kashipur, Uttarakhand
- Shree Sidhbali Paper Mills Limited, Muzaffarnagar, Uttar Pradesh
- Silverton Pulp and Papers Private Limited, Muzaffarnagar, Uttar Pradesh
- Sidharth Papers Limited, Kashipur, Uttarakhand
- Siddheshwari Paper Udyog Limited, Kashipur, Uttarakhand
- Tehri Pulp & Paper Limited, Muzaffarnagar, Uttar Pradesh
- Vishvakarma Paper & Boards Limited, Kashipur, Uttarakhand
- Yash Papers Limited, Faizabad, Uttar Pradesh

Improved Chemical Recovery and Energy Efficiency through Liquor Heat Treatment in combination of Desilication

- Satia Industries Limited, Muktsar, Punjab
VISIT TO PULP & PAPER MILLS AND OTHER ORGANISATIONS

During 2015-16 CPPRI scientists visited various pulp and paper mills to provide technical and consultancy services and well as in connection with various RAC and Cess projects as well sponsored projects activities. The scientists also visited various academic and scientific institutes and organizations, regulatory bodies, ministries etc in connection with various collaborative activities, meetings and discussions etc. The summary of visits undertaken by CPPRI scientists during 2015-16 is as under:

Raw Material Collection / Evaluation, Pulping and Bleaching Trials and Project Studies

- Forest Research Institute, Dehradun, Uttarakhand - Shri Kumar Anupam
- Bindal Paper Mills Ltd., Muzaffarnagar, Uttar Pradesh - Dr. Priti S. Lal, Dr. Arvind Kumar Sharma, Shri Vinay Swaroop and Shri Ajay Kumar

UNIDO Project : Development & Adoption of Appropriate Technologies for Enhancing Productivity in the Paper and Pulp Sector

- Collection of data base of pulp and paper mills of Kashipur Cluster – Dr. M.K. Gupta and Dr. Sanjay Tyagi
- Collection of data base of pulp and paper mills in Vapi Cluster – Dr. M.K. Gupta and Shri Satya Dev Negi
- Century Pulp & Paper Limited, Lalkuan, Uttarakhand - Dr. Nitin Endlay


- **Quaterly Charter Progress Verification of over 66 Pulp & Paper Mills of Uttar Pradesh & Uttarakhand** - Dr. S. Panwar, Dr. M.K. Gupta, Dr. Shivaker Mishra, Dr. Nitin Endlay, Mohd. Salim, Shri Raj Pal Singh, Shri Abhishek Tyagi & Shri Amitabh Raj
- **ETP adequacy assessment** - Dr. S. Panwar, Dr. M.K. Gupta, Dr. Shivaker Mishra, Dr. Nitin Endlay and Mohd. Salim
  - Deoria Paper Mills Limited, Deoria, Uttar Pradesh
  - Nikita Paper Limited, Shamli, Uttar Pradesh
  - Rama Shyama Papers Limited, Bareilly, Uttar Pradesh
  - Ved Cellulose Limited, Hapur, Uttar Pradesh
  - Suchi Paper Mills Limited, Chapraula, Uttar Pradesh
- Kamakshi Papers (P) Limited, Gajraula, Uttar Pradesh
- Chandpur Enterprises Limited, Chandpur, Uttar Pradesh
- Coral Newsprints Limited, Gajraula, Uttar Pradesh
- Shri Nageshwar Paper Limited, Kanpur, Uttar Pradesh
- Anandeswar Industries (P) Limited, Kanpur, Uttar Pradesh
- Genus Paper & Boards Limited, Aghwanpur, Uttar Pradesh
- Dev Priya Industries Private Limited, Meerut, Uttar Pradesh
- Sangal Papers Limited, Mawana, Uttar Pradesh
- Naini Paper Mills Limited, Kashipur, Uttarakhand
- Naini Tissues Limited, Kashipur, Uttarakhand
- Banwari Paper Mills Limited, Kashipur, Uttarakhand
- Goraya Straw Board Mills Pvt. Limited, Kashipur, Uttarakhand
- Katyayini Paper Mills Pvt. Limited, Jaspur, Uttarakhand
- Maruti Papers Limited, Village-Sikka, Uttar Pradesh

**Evaluation of Zero Liquid Discharge Feasibility**

- Gangotri Paper Mills Private Limited, Narsan Kalan, Uttarakhand – Dr. Shivaker Mishra & Dr. Nitin Endlay

- Aristocraft Papers Private Limited, Muzaffarnagar, Uttar Pradesh – Dr. S. Panwar, Dr. Shivaker Mishra, Dr. Nitin Endlay and Mohd. Salim

**Environmental Monitoring / Technical Services**


- Bilt (Unit Shree Gopal) Yamuna Nagar, Haryana – Dr. Nitin Endlay & Shri Mohd Salim

- Shreyans Industries Limited, Ahmedgarh, Punjab - Shri Raj Pal Singh and Shri Mohd. Farid

- International Papers Limited, Rajahmundry, Andhra Pradesh Dr. M.K. gupta, Shri Raj Pal Singh and Shri Mohd. Salim

- Star Paper Mills Limited, Saharanpur, Uttar Pradesh - Shri Raj Pal Singh, Shri M.S. Bhandari and Shri Mohd Salim

- Sandeep Paper Mills Limited, Noida, Uttar Pradesh - Dr. Nitin Endlay and Shri Mohd. Salim

**Hazardous Waste Audit**

Salim

**Water Audit / Calibration of Flow Meter**

- The West Coast Paper Mills Limited, Dandeli, Karnataka - Dr. S. Mishra and Shri Mohd. Salim
- Devpriya Industries Limited Unit–I, Meerut, Uttar Pradesh - Dr. Nitin Endlay and Shri Mohd. Salim
- Devpriya Industries Limited Unit –II, Meerut, Uttar Pradesh - Dr. Nitin Endlay and Shri Mohd. Salim
- ITC Tribeni, West Bengal - Dr M.K. Gupta and Shri Mohd. Salim

**Process Evaluation**

- Bhagwati Kripa Paper Mills Limited, Jaipur, Rajasthan - Shri Satya Dev Negi

**Energy Audit / Assistance to BEE / Collection of Energy Consumption Data**

- Bureau of Energy Efficiency, New Delhi – Dr. B. P. Thapliyal & Dr. Sanjay Tyagi

**Chemical Recovery - Troubleshooting / Adequacy assessment Consultancy / Mill trials / Project Studies**

- Trident Papers Ltd., Barnala Punjab - Dr. R.K. Jain, Dr. A.K. Dixit, Shri Kumar Anupam, Shri Pankaj Goley and Dr. Tarun,
- Godawari Bioreneries Ltd., Karnataka Dr. R.K. Jain and Dr. A.K. Dixit
- Chemical Recovery Adequacy Assessment of over 16 agro based pulp and paper mills of Uttarakhand & Uttar Pradesh - Dr. R. K. Jain and Dr. A. K. Dixit

**Scientific / Academic Institutes & Other Organisations**

- UNIDO - ICSD, New Delhi - Dr. R. K. Jain, Dr. S. Panwar & Dr. B. P. Thapliyal
- Central Pollution Control Board, Delhi – Dr. S. Panwar and Dr. Nitin Endlay
- Kumarappa National Handmade Paper Institute, Jaipur, Rajasthan–Vipin Gupta
- Science & Technology Council, Chandigarh, Punjab- Dr. R. K. Jain and Dr. A. K. Dixit
• Printing & Stationary Department, Uttar Pradesh Government. Lucknow, Uttar Pradesh – Dr. Sanjay Tyagi

Collection of Newsprint Samples
• Katyayini Paper Mills Private Limited, Kashipur, Uttarakhand - Dr. Sanjay Tyagi and Pankaj Goley
• Sripathi Paper & Boards Ltd; Sivakasi, Tamilnadu – Shri Satya Dev Negi and Shri N.K. Naik

Joint Inspections under Hon’ble National Green Tribunal (NGT) Order
• Khatema Fibers Limited, Khatima, Uttarakhand – Dr. Nitin Endlay, Dr Shivaker Mishra, Dr Sanjay Tyagi and Shri S.D. Negi
• Chadha Paper Mill, Bilaspur, Uttar Pradesh - Dr. Nitin Endlay and Shri S.D. Negi

Industrial Visits of M.Sc (Cellulose & Paper Technology) Students
• Bindal Papers Limited, Muzaffarnagar, Uttar Pradesh - Dr. S. Panwar, Dr. Nitin Endlay and Shri Amitabh Raj Tripathi
• Siddeshwari Industries (P) Limited, Muzaffarnagar, Uttar Pradesh - Dr. S. Panwar, Dr. Nitin Endlay and Shri Amitabh Raj Tripathi

Others

Inspection of Paper Mills using Wet Strength Paper under National Green Tribunal Order
• Khatema Fibres Ltd; Khatema, Uttarakhand – Dr. Nitin Endlay & Shri Satya Dev Negi
• Chadha Paper Mill; Bilaspur, Uttar Pradesh – Dr. Nitin Endlay & Shri Satya Dev Negi

Visits for Verification of Plant and Machinery for subsidy claim under Central Capital Investment Subsidy (CCIS) Scheme 2007 as a part of North East Industrial Promotion Policy (NEIPP) 2007.
• Ecotech Papers Limited, Kamalpur & Dalma, Distt. Kamrup, Assam - Dr. R.K. Jain & Dr. M.K. Gupta
• Brahmaputra Papers Ltd., Tezpur, Distt. Sonitpur, Assam - Dr. R.K. Jain & Dr. M.K. Gupta for
VISITORS TO CPPRI

During 2015-16 CPPRI was visited by various international / national technocrats, scientists, academicians, officials from various pulp, paper and allied industries for consultation, technical services and training. Some of them are mentioned as under:

International

- Dr. Øyvind Eriksen, Laboratory Manager, Paper and Fibre Research Institute, Norway
- Shri Jani Mannikko, University of Helsinki, Finland
- Shri Miikka Lievonen, Häggblom and Partners Limited, Finland
- Shri Andre. M. Verhoeven, Area Manager, IGT Netherlands
- Dr. Rekha Bharti, Application & Business Development Manager, Solenis Singapore Pte. Ltd. Singapore

National

- Shri Pawan Kumar, District Magistrate, Saharanpur, Uttar Pradesh
- Dr. Basudam Adhikari, Polymer Division, Materials Science Centre, IIT Kharagpur, West Bengal
- Dr. Y.K. Negi, Dr. A.K. Ray, Dr. Pradip K. Maji, Dr Vivek Kumar IIT Roorkee (Saharanpur Campus), Saharanpur
- Shri Vikas Kumar, UNIDO- IC- ISID, New Delhi
- Shri M.K. Gupta, Dr Kashikar & Shri H.K. Madan, Bilt Group
- Dr. N.K. Bhardwaj & Dr. Sunil Kumar, ACIRD, Yamunanagar
- Shri Vikash Ranjan, Senior Technical Expert – GIZ, New Delhi
- Shri Soumya Garnaik, Head-Energy Efficiency, ICF International, New Delhi
- Shri Suresh Kr, Cochin Minerals & Rutile Limited, Kerala
- Shri Naresh Kumar, Century Pulp & Paper, Lalkuan, Uttarakhand
- Dr. Mohan Lal, Khatema Fibers Ltd., Khatima, Uttarakhand
- Shri D.K. Singhal, Chandpur Enterprises Ltd., Chandpur, Uttar Pradesh
- Shri Laxmi Prasad & Shri Piyush Shah, International Paper, New Delhi
• Shri A.K Atri & Shri A.K. Rai, Orient Paper Mills Ltd., Amlai, Madhya Pradesh
• Shri G.P. Veerbhadraswamy & Shri R.Nagaraj, Mysore Paper Mills Ltd., Bhadrawati, Karnataka
• Shri Himanshu Marwal, Sidharth Papers Ltd., Kashipur, Uttarakhand
• Shri Anubhav Gupta, Modinagar Paper Mills Ltd., Modinagar, Uttar Pradesh
• Shri Reyaz Ahmad Bhat, Doon Group of colleges, Dehradun, Uttarakhand
• Prof. Rekha Chaudhary & Dr. Veena Gupta, National Bureau of Plant Genetic Resources, New Delhi
Activities

The final year classes of the students of the fourth batch (2014-16) of M.Sc. (Cellulose and Paper Technology) were conducted at CPPRI. Both theoretical and practical knowledge on various aspects of pulp and paper making i.e. raw material handling and preservation, pulping and bleaching, stock preparation and paper making, chemical recovery, environmental management and biotechnological applications were imparted to the students by CPPRI scientists and guest faculty.

The students of M.Sc (Cellulose & Paper Technology) went on a industrial tour along with Dr. S.Panwar & Dr.Nitin Endlay to Star Paper Mills Ltd., Saharanpur, Bindal Papers Limited, Muzaffarnagar and Siddeshwari Industries (P) Ltd, Muzaffarnagar to get conversant about the technologies and process adopted by wood based, agro based and waste paper based pulp and paper mills for paper making as well as effluent treatment systems adopted by the mill.

The students also undertook a two month compulsory industrial training at various pulp & paper mills, companies and research institutes as a part of curriculum.

The students attended the training programme on Cess Training Programme on Energy & Environmental Management in Pulp & Paper Industry.

The students observed Teachers Day on September 5, 2015 and organised a cultural programme in honour of CPPRI faculty.

The students also participated in the debate and poster competition organised to commemorate Vigilance Awareness Week 2015.

List of Students

Abhishek Rawat, Abhishek Verma, Atul Kumar Maurya, Bhumika Chhabra, Deshpal Singh, Kewal Kumar Sinha, Pankaj Kumar Pahal, Priyanka Pandey, Sanchit Maharia, Sandhya Devi SM, Saurabh Joshi, Vikas Kumar
Glimpses of Vigilance Awareness Posters Prepared by M.Sc (CPT) Students
Felicitation of Winners of Poster & Debate Competition on Vigilance Awareness Day
CENTRAL PULP & PAPER RESEARCH INSTITUTE
An autonomous organisation registered under societies Act under the administrative control of the Ministry of Commerce & Industry (Govt. of India)

POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR (U.P.)

AUDITOR’S REPORT TO THE MEMBERS OF THE CENTRAL PULP AND PAPER RESEARCH INSTITUTE, SAHARANPUR (U.P.)

We have audited the attached Balance Sheet of CENTRAL PULP AND PAPER RESEARCH INSTITUTE, SAHARANPUR (U.P.) as on 31.3.2016 and Income and Expenditure account & Receipt & Payment Account for the year ended on that date, which is in agreement with the books of accounts maintained by the Institute. These financial statements are the responsibility of the auditee’s management. Our responsibility is to express an opinion on these financial statements based on our Audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit include examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of audit. In our opinion proper books of accounts have been kept/maintained by the Institute.

In our opinion and to the best of our information and according to the explanation given to us, the said account reads with notes thereon; give a true and fair view in conformity with the accounting principles generally accepted in India:

i) In case of Balance Sheet, of the state of affairs of the Institute as at 31.03.2016, and
ii) In the case of Income & Expenditure Account of the deficit for the year ended on 31.03.2016.

For SANJAY MISRA & CO.
Chartered Accountants

Date: 7.9.16
Place: Saharanpur.

(SANJAY MISRA)
F.C.A., ISA (DISA)
**CENTRAL PULP & PAPER RESEARCH INSTITUTE**
An autonomous organisation registered under societies Act under the administrative control of the Ministry of Commerce & Industry (Govt. of India)

POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR (U.P.)

BALANCE SHEET AS AT 31.3.2016

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>Schedule</th>
<th>Current Year 2015-16</th>
<th>Previous year 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPITAL FUND AND LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPITAL FUND</td>
<td>1</td>
<td>120950688.74</td>
<td>123648944.40</td>
</tr>
<tr>
<td>UN-UTILISED SP. PROJECT &amp; CONSULTANCY</td>
<td>2</td>
<td>14148.51</td>
<td>14148.51</td>
</tr>
<tr>
<td>UNUTILISED GRANTS</td>
<td>3</td>
<td>25069753.64</td>
<td>24956418.50</td>
</tr>
<tr>
<td>CURRENT LIABILITIES AND PROVISIONS</td>
<td>4</td>
<td>77370734.90</td>
<td>76618559.15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>223405325.79</td>
<td>225238070.56</td>
</tr>
<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIXED ASSETS</td>
<td>5</td>
<td>101779252.97</td>
<td>102437717.29</td>
</tr>
<tr>
<td>CURRENT ASSETS, LOANS, ADVANCES ETC.</td>
<td>6</td>
<td>121626072.82</td>
<td>122800353.27</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>223405325.79</td>
<td>225238070.56</td>
</tr>
</tbody>
</table>

The Schedules referred above form an integral part of the Balance Sheet.

As per our separate report of even date. FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO. CHARtered ACCOUNTANTS

(SANJAY MISRA) DIRECTOR  
F.C.A., ISA(DISA) SECTION OFFICER (F&A)

Place: Saharanpur  
Date:  7.9.16
## CENTRAL PULP & PAPER RESEARCH INSTITUTE
An autonomous organisation registered under societies Act under the administrative control of the Ministry of Commerce & Industry (Govt. of India)

POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR (U.P.)

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31.3.2016

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>Schedule</th>
<th>Current Year 2015-16</th>
<th>Previous Year 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A: INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from Institutional &amp; Consultancy fee</td>
<td>7</td>
<td>22687949.00</td>
<td>18436865.00</td>
</tr>
<tr>
<td>Grants from Govt. of India</td>
<td>8</td>
<td>76370109.00</td>
<td>99353094.00</td>
</tr>
<tr>
<td>Fees/Subscription</td>
<td>9</td>
<td>534973.00</td>
<td>449000.00</td>
</tr>
<tr>
<td>Interest earned</td>
<td>10</td>
<td>5159446.00</td>
<td>3650271.00</td>
</tr>
<tr>
<td>Other income</td>
<td>11</td>
<td>743811.00</td>
<td>1041389.92</td>
</tr>
<tr>
<td><strong>TOTAL (A)</strong></td>
<td></td>
<td>105496288.00</td>
<td>122930619.92</td>
</tr>
<tr>
<td><strong>B: EXPENDITURE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment expenses</td>
<td>12</td>
<td>77595687.60</td>
<td>84525073.00</td>
</tr>
<tr>
<td>Administrative Expenses etc.</td>
<td>13</td>
<td>26930077.84</td>
<td>23362474.16</td>
</tr>
<tr>
<td>Exp. by IIP on Bagas Pith Project</td>
<td>13</td>
<td>0.00</td>
<td>2974200.35</td>
</tr>
<tr>
<td>Exp. by DBT Delhi</td>
<td></td>
<td>0.00</td>
<td>1229550.00</td>
</tr>
<tr>
<td>Depreciation for current year</td>
<td>5</td>
<td>13887134.08</td>
<td>14886433.59</td>
</tr>
<tr>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td>118412899.52</td>
<td>126977731.10</td>
</tr>
<tr>
<td>Excess of Expenditure over Income (B-A)</td>
<td></td>
<td>12916611.52</td>
<td>4047111.18</td>
</tr>
<tr>
<td>Excess of Income over Expenditure(A-B)</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The Schedules referred above form an integral part of the Income and Expenditure Account.

As per our separate report of even date.

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA)
F.C.A., ISA(DISA)

Place: Saharanpur
Date: 7.9.16
### RECEIPTS

<table>
<thead>
<tr>
<th>Description</th>
<th>CURRENT YEAR</th>
<th>PREVIOUS YEAR</th>
<th>PAYMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>By Grant Refunded to Ministry</td>
<td>750000.00</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>By Inerest on Grant refunded to Ministry</td>
<td>274339</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Salary &amp; Allowances</td>
<td>50662810.60</td>
<td>60566947.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By CPF Contribution</td>
<td>5909727.00</td>
<td>6285131.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Encashment of Leave</td>
<td>3614935.00</td>
<td>547573.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Gratuity paid</td>
<td>398457.00</td>
<td>732721.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Reimbursement of Medical Exp.</td>
<td>2479569.00</td>
<td>2585281.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Lab &amp; Plant Maintenance</td>
<td>5211381.31</td>
<td>2545051.40</td>
<td>0.00</td>
</tr>
<tr>
<td>By Cartage &amp; Freight</td>
<td>56904.00</td>
<td>8702.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Electricity and water</td>
<td>7502258.00</td>
<td>6319109.70</td>
<td>0.00</td>
</tr>
<tr>
<td>By Repair &amp; Maintenance of Assets</td>
<td>6877108.97</td>
<td>3939466.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Rent &amp; Taxes</td>
<td>624000.00</td>
<td>1023332.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Postage &amp; Telephone &amp; communication</td>
<td>689161.00</td>
<td>570391.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Printing &amp; Stationery</td>
<td>1519220.60</td>
<td>1005551.30</td>
<td>0.00</td>
</tr>
<tr>
<td>By Travelling &amp; Conveyance Exp.</td>
<td>1388607.60</td>
<td>1378923.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Training Expenses</td>
<td>41339.00</td>
<td>151345.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Hospitality Expenses</td>
<td>183106.00</td>
<td>144569.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Legal &amp; Professional Exp.</td>
<td>160604.00</td>
<td>131677.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Audit fees</td>
<td>19000.00</td>
<td>19000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Training Expenses</td>
<td>8445258.00</td>
<td>2217462.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Watch &amp; Ward</td>
<td>2577935.00</td>
<td>2217462.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Bank charges</td>
<td>36296.40</td>
<td>40474.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Advertisement</td>
<td>267846.75</td>
<td>352581.41</td>
<td>0.00</td>
</tr>
<tr>
<td>By Tax &amp; Seminar &amp; Workshop</td>
<td>20770.00</td>
<td>13135.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Membership subscription</td>
<td>10000.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Newspaper</td>
<td>52190.00</td>
<td>25451.50</td>
<td>0.00</td>
</tr>
<tr>
<td>By Staff Car Maintenance</td>
<td>364133.00</td>
<td>471769.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By PHD Fellowship</td>
<td>207000.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Service Tax</td>
<td>2170370.00</td>
<td>1776949.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Education Cess</td>
<td>12061.00</td>
<td>35549.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By H. Education Cess</td>
<td>6028.00</td>
<td>17765.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Swachh Bhart Cess</td>
<td>50943.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Interest on Service Tax</td>
<td>63010.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Penalaty on Service Tax</td>
<td>10447.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Cenvataviliment Service Tax</td>
<td>616422.00</td>
<td>585374.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Cenvataviliment Education Cess</td>
<td>2760.00</td>
<td>11698.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Cenvataviliment H. Education Cess</td>
<td>1380.00</td>
<td>5856.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Festival Advance</td>
<td>90000.00</td>
<td>86850.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By House Building Advance</td>
<td>0.00</td>
<td>819600.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Conyance Advance</td>
<td>160000.00</td>
<td>24000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Computer Advance</td>
<td>220000.00</td>
<td>210000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Security Deposit</td>
<td>601798.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Trade Tax</td>
<td>113178.00</td>
<td>83333.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Penalty on student</td>
<td>30500.00</td>
<td>10000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By SECURITY REFUNDED TO STAFF</td>
<td>3000.00</td>
<td>3000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By CIPB Training</td>
<td>102689.00</td>
<td>14440.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By UNIDIO Project</td>
<td>1143084.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Bank Balance on current account</td>
<td>28951673.06</td>
<td>3614935.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Deposit Ac.(Margin money against L.C.)</td>
<td>6154193.00</td>
<td>950410.00</td>
<td>0.00</td>
</tr>
<tr>
<td>By Deposit Accounts</td>
<td>37689376.66</td>
<td>34531428.66</td>
<td>0.00</td>
</tr>
</tbody>
</table>

### TOTAL

| TOTAL | 204561421.25 | 198677561.73 | 204561421.25 | 198677561.73 |

---

### FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE

**DIRECTOR**

(SANJAY MISRA)

(F.C.A., ISA(DISA))

**SECTION OFFICER**

As per our separate report of even dated Annexed.

FOR SANJAY MISRA & CO.

CHARTERED ACCOUNTANTS

Place: Saharanpur

Date: 7.9.16
### SCHEDULE 1 - CAPITAL FUND

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>Current Year 2015-16</th>
<th>Previous year 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance as at the beginning of the year</td>
<td>123648944.40</td>
<td>118602506.58</td>
</tr>
<tr>
<td>Add: 1. Grants towards Capital Fund</td>
<td>9112789.00</td>
<td>7003546.00</td>
</tr>
<tr>
<td>2. Cess project (Capital purpose)</td>
<td>1105566.86</td>
<td>2090003.00</td>
</tr>
<tr>
<td>Less: Balance of net expenditure transferred from the income &amp; expenditure account</td>
<td>133867300.26</td>
<td>127696055.58</td>
</tr>
<tr>
<td><strong>BALANCE AS AT THE YEAR - END</strong></td>
<td><strong>120950688.74</strong></td>
<td><strong>123648944.40</strong></td>
</tr>
</tbody>
</table>

As per our separate report of even date.

FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.16

Place: Saharanpur
Date: 7.9.16
CENTRAL PULP & PAPER RESEARCH INSTITUTE
An autonomous organisation registered under societies Act under the administrative control of the
Ministry of Commerce & Industry (Govt. of India)

POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR (U.P.)

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.16
SCHEDULE - 2 - DETAILS OF UN-UTILIZED AMOUNT
SPONSORED PROJECT/ CONSULTANCY

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>PARTICULARS</th>
<th>Current Year 2015-16</th>
<th>Previous year 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CPCB</td>
<td>13024.26</td>
<td>13024.26</td>
</tr>
<tr>
<td>2</td>
<td>DBT-Technological improvement of Process</td>
<td>1124.25</td>
<td>1124.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>14148.51</strong></td>
<td><strong>14148.51</strong></td>
</tr>
</tbody>
</table>

As per our separate report of even date. FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO. CHARtered ACCOUNTANTS

(SANJAY MISRA) DIRECTOR SECTION OFFICER (F&A)
F.C.A., ISA(DISA)

Place: Saharanpur
Date: 7.9.16
### SCHEDULE - 3 - DETAILS OF UN-UTILIZED GRANT

**As per our separate report of even date.**

**FOR SANJAY MISRA & CO. CHARtered ACCOUNTANTS**

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>BALANCE</th>
<th>1.4.2015</th>
<th>REIMBURSED</th>
<th>REFUNDED</th>
<th>NET FUNDS UTILISED</th>
<th>31.3.16</th>
<th>31.3.15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan Grant</strong></td>
<td></td>
<td>15229886.00</td>
<td>22700000.00</td>
<td>7500000.00</td>
<td>34729886.00</td>
<td>25325837.00</td>
<td>9404049.00</td>
</tr>
<tr>
<td><strong>BASE LEVEL SUPPORT (NON-PLAN)</strong></td>
<td></td>
<td>0.00</td>
<td>52500000.00</td>
<td>0.00</td>
<td>52500000.00</td>
<td>52500000.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Cess Funded project</strong></td>
<td></td>
<td>547031.50</td>
<td>0.00</td>
<td>0.00</td>
<td>547031.50</td>
<td>0.00</td>
<td>547031.50</td>
</tr>
<tr>
<td>Pilot Scale Studies on eff. Depth of Bagasse Aprocess developed by CPPRI (CPPRI)</td>
<td>4725115.00</td>
<td>24200000.00</td>
<td>0.00</td>
<td>7145115.00</td>
<td>283200.00</td>
<td>6861915.00</td>
<td>4725115.00</td>
</tr>
<tr>
<td>Continous Education for Technical Personnel in Pulp &amp; Paper Industry</td>
<td>1546769.00</td>
<td>26000000.00</td>
<td>0.00</td>
<td>4146769.00</td>
<td>3543039.36</td>
<td>603729.64</td>
<td>1546769.00</td>
</tr>
<tr>
<td>Ozone Treatment on Indigenous Paper</td>
<td>547031.50</td>
<td>0.00</td>
<td>0.00</td>
<td>547031.50</td>
<td>0.00</td>
<td>547031.50</td>
<td>547031.50</td>
</tr>
<tr>
<td>Setting up of a Statistical Data Collection Cell for Indian Pulp &amp; Paper Industry</td>
<td>1598677.00</td>
<td>3368000.00</td>
<td>0.00</td>
<td>4966677.00</td>
<td>2159714.00</td>
<td>2806963.00</td>
<td>1598677.00</td>
</tr>
<tr>
<td>Increase in Brightness ceiling of agro residue Pulp in cost effective......Wheat Straw</td>
<td>706025.00</td>
<td>1200000.00</td>
<td>0.00</td>
<td>1906025.00</td>
<td>219397.50</td>
<td>168627.50</td>
<td>706025.00</td>
</tr>
<tr>
<td>Study on technological status and potential of Productivity</td>
<td>167635.00</td>
<td>0.00</td>
<td>0.00</td>
<td>167635.00</td>
<td>0.00</td>
<td>167635.00</td>
<td>167635.00</td>
</tr>
<tr>
<td>Development of Protocol for deposit control in RCF base mills for better machine runability</td>
<td>157091.00</td>
<td>1830000.00</td>
<td>0.00</td>
<td>1987091.00</td>
<td>785749.00</td>
<td>1201342.00</td>
<td>157091.00</td>
</tr>
<tr>
<td>Improvement in selectivity of Oxygen Bleaching</td>
<td>278189.00</td>
<td>810000.00</td>
<td>0.00</td>
<td>1088189.00</td>
<td>471528.00</td>
<td>616681.00</td>
<td>278189.00</td>
</tr>
<tr>
<td>Achievement of highest brightness &amp; whitness in Paper in cost effective</td>
<td>278189.00</td>
<td>273800.00</td>
<td>0.00</td>
<td>273800.00</td>
<td>0.00</td>
<td>273800.00</td>
<td>278189.00</td>
</tr>
<tr>
<td>Core Secretariate for DCPPAI</td>
<td>0.00</td>
<td>1300000.00</td>
<td>0.00</td>
<td>1300000.00</td>
<td>0.00</td>
<td>1300000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Biochemical abatement of Pollution load in Waste-water</td>
<td>0.00</td>
<td>900000.00</td>
<td>0.00</td>
<td>900000.00</td>
<td>0.00</td>
<td>900000.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24956418.50</td>
<td>94201800.00</td>
<td>750000.00</td>
<td>11668218.50</td>
<td>86588464.86</td>
<td>25067953.64</td>
<td>24956418.50</td>
</tr>
</tbody>
</table>

**FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE**

(SANJAY MISRA)  
F.C.A., ISA(DISA)  
Place: Saharanpur  
Date: 7.9.16
## SCHEDULE - 4-CURRENT LIABILITIES AND PROVISIONS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>CURRENT LIABILITIES AND PROVISIONS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>CURRENT LIABILITIES:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Other Liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Retention Money received</td>
<td>32792.00</td>
<td>32792.00</td>
</tr>
<tr>
<td>2</td>
<td>Security Received from Contractor</td>
<td>103629.00</td>
<td>101629.00</td>
</tr>
<tr>
<td>3</td>
<td>Earnest money received</td>
<td>113900.00</td>
<td>113900.00</td>
</tr>
<tr>
<td>4</td>
<td>Advance received for services</td>
<td>214855.00</td>
<td>214855.00</td>
</tr>
<tr>
<td>5</td>
<td>Security received from students</td>
<td>37500.00</td>
<td>44000.00</td>
</tr>
<tr>
<td>6</td>
<td>Security Received from Staff</td>
<td>20000.00</td>
<td>23000.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL (A)</strong></td>
<td>522676.00</td>
<td>530176.00</td>
</tr>
<tr>
<td></td>
<td><strong>PROVISIONS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Expenses payable</td>
<td>538347.75</td>
<td>511428.00</td>
</tr>
<tr>
<td>2</td>
<td>Amount Payable(others)</td>
<td>163904.15</td>
<td>148998.15</td>
</tr>
<tr>
<td>3</td>
<td>Pro.for gratuity &amp; encashment of leave</td>
<td>76013228.00</td>
<td>74998856.00</td>
</tr>
<tr>
<td>4</td>
<td>Audit fee payable</td>
<td>28750.00</td>
<td>19000.00</td>
</tr>
<tr>
<td>5</td>
<td>Performance Bank Gurantee</td>
<td>56529.00</td>
<td>53112.00</td>
</tr>
<tr>
<td>6</td>
<td>Fellow Ship payable</td>
<td>10000.00</td>
<td>10000.00</td>
</tr>
<tr>
<td>7</td>
<td>Provision for CPCB</td>
<td>37300.00</td>
<td>139989.00</td>
</tr>
<tr>
<td>8</td>
<td>Phd Fellow Ship payable</td>
<td>0.00</td>
<td>76848058.90</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL (B)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL (A+B)</strong></td>
<td>77370734.90</td>
<td>76618559.15</td>
</tr>
</tbody>
</table>

As per our separate report of even date.

FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA) DIRECTOR (SANJAY MISRA)
F.C.A., ISA(DISA)

Place: Saharanpur
Date: 7.9.16

ANNUAL REPORT 2015-16
## SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.16

### SCHEDULES 5 - FIXED ASSETS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A  FIXED ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Land</td>
<td>16872204.10</td>
<td>0.00</td>
<td>16872204.10</td>
<td>16872204.10</td>
<td>0%</td>
<td>0.00</td>
<td>16872204.10</td>
</tr>
<tr>
<td>2</td>
<td>Land Table</td>
<td>487684.45</td>
<td>0.00</td>
<td>487684.45</td>
<td>487684.45</td>
<td>0%</td>
<td>0.00</td>
<td>487684.45</td>
</tr>
<tr>
<td>3</td>
<td>Building</td>
<td>116233639.69</td>
<td>99083490.98</td>
<td>215317080.67</td>
<td>17150098.71</td>
<td>10%</td>
<td>17150098.71</td>
<td>1435088.84</td>
</tr>
<tr>
<td>4</td>
<td>Office Equipment</td>
<td>14653011.50</td>
<td>9685759.06</td>
<td>4967252.44</td>
<td>4410.00</td>
<td>0.00</td>
<td>0.00</td>
<td>4967252.44</td>
</tr>
<tr>
<td>5</td>
<td>Furniture &amp; Fixtures</td>
<td>6249660.38</td>
<td>627774.65</td>
<td>1920865.73</td>
<td>41220.00</td>
<td>10%</td>
<td>194149.95</td>
<td>176765.14</td>
</tr>
<tr>
<td>6</td>
<td>Hostel Furniture</td>
<td>4982948.80</td>
<td>390442.84</td>
<td>17845.22</td>
<td>10%</td>
<td>17845.22</td>
<td>17845.22</td>
<td>17845.22</td>
</tr>
<tr>
<td>7</td>
<td>Vehicle</td>
<td>2428160.40</td>
<td>2070346.04</td>
<td>3576516.34</td>
<td>15%</td>
<td>35672.45</td>
<td>35672.45</td>
<td>35672.45</td>
</tr>
<tr>
<td>8</td>
<td>Plant &amp; Machinery</td>
<td>396666.27</td>
<td>2862851.52</td>
<td>1883731.24</td>
<td>10%</td>
<td>1825579.03</td>
<td>180171.54</td>
<td>180171.54</td>
</tr>
<tr>
<td>9</td>
<td>Plant &amp; Machinery at HNL</td>
<td>580000.00</td>
<td>585663.91</td>
<td>114316.09</td>
<td>10%</td>
<td>114316.09</td>
<td>114316.09</td>
<td>114316.09</td>
</tr>
<tr>
<td>10</td>
<td>Lab Equipment</td>
<td>20746296.30</td>
<td>16479631.15</td>
<td>52786059.23</td>
<td>531014.00</td>
<td>15%</td>
<td>6802578.16</td>
<td>55674185.60</td>
</tr>
<tr>
<td>11</td>
<td>Equipment with NCBM</td>
<td>500000.00</td>
<td>476640.39</td>
<td>23395.61</td>
<td>15%</td>
<td>23591.85</td>
<td>23395.61</td>
<td>23395.61</td>
</tr>
<tr>
<td>12</td>
<td>Workshop equipment</td>
<td>536385.07</td>
<td>451560.47</td>
<td>8425.60</td>
<td>15%</td>
<td>8425.60</td>
<td>8425.60</td>
<td>8425.60</td>
</tr>
<tr>
<td>13</td>
<td>Instruments</td>
<td>21032.13</td>
<td>210219.04</td>
<td>813.09</td>
<td>15%</td>
<td>813.09</td>
<td>813.09</td>
<td>813.09</td>
</tr>
<tr>
<td>14</td>
<td>D.G.Set</td>
<td>209491.66</td>
<td>202151.02</td>
<td>7340.60</td>
<td>15%</td>
<td>7340.60</td>
<td>7340.60</td>
<td>7340.60</td>
</tr>
<tr>
<td>15</td>
<td>Air Conditioner &amp; Cooler etc.</td>
<td>6082632.72</td>
<td>620811.25</td>
<td>2054451.39</td>
<td>205441.39</td>
<td>15%</td>
<td>205441.39</td>
<td>205441.39</td>
</tr>
<tr>
<td>16</td>
<td>Electrical Install &amp; Equipment</td>
<td>2589407.59</td>
<td>1960250.25</td>
<td>1229157.34</td>
<td>15%</td>
<td>1229157.34</td>
<td>1229157.34</td>
<td>1229157.34</td>
</tr>
<tr>
<td>17</td>
<td>Books and Periodicals</td>
<td>992140.84</td>
<td>920849.83</td>
<td>181291.00</td>
<td>8120.00</td>
<td>100%</td>
<td>27265.00</td>
<td>136325.00</td>
</tr>
<tr>
<td>18</td>
<td>Computers</td>
<td>1453127.54</td>
<td>13263911.44</td>
<td>1267361.06</td>
<td>383703.60</td>
<td>60%</td>
<td>11145101.38</td>
<td>1085052.70</td>
</tr>
<tr>
<td>19</td>
<td>Capital work in progress</td>
<td>969125.00</td>
<td>969125.00</td>
<td>969125.00</td>
<td>0%</td>
<td>969125.00</td>
<td>969125.00</td>
<td>969125.00</td>
</tr>
</tbody>
</table>

**TOTAL OF CURRENT YEAR:** 450294746.28

**TOTAL OF PREVIOUS YEAR:** 440477157.31

**As per our separate report of even date.**

FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA) F.C.A., ISA(DISA)

Place: Saharanpur

Date: 7.9.16

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE

DIRECTOR

SECTION OFFICER (F&A)
<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A: CURRENT ASSETS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Inventories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Store &amp; Spares</td>
<td>1993047.85</td>
<td>1907269.53</td>
</tr>
<tr>
<td>b.</td>
<td>Stationery &amp; Misc. Store</td>
<td>741476.51</td>
<td>2734524.36</td>
</tr>
<tr>
<td>2</td>
<td>Cash balance in hand</td>
<td>33517.28</td>
<td>10582.38</td>
</tr>
<tr>
<td>3</td>
<td>Bank Balances/(With Scheduled Banks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Current Accounts</td>
<td>28951673.06</td>
<td>36145934.23</td>
<td></td>
</tr>
<tr>
<td>On Deposit Accounts/ margin money-against letter of credit</td>
<td>6154193.00</td>
<td>9509410.00</td>
<td></td>
</tr>
<tr>
<td>On Deposit Accounts</td>
<td>37689376.66</td>
<td>34531428.66</td>
<td></td>
</tr>
<tr>
<td>Accrued Interest on deposits</td>
<td>2031446.36</td>
<td>524904.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B: LOANS, ADVANCES AND OTHER ASSETS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan to Staff:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Non Interest bearing Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Festival Advance</td>
<td>44550.00</td>
<td>46950.00</td>
</tr>
<tr>
<td>b.</td>
<td>Medical Advance</td>
<td>37479.00</td>
<td>82029.00</td>
</tr>
<tr>
<td>2</td>
<td>Interest bearing Advances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>House Building Advance</td>
<td>1307664.00</td>
<td>1913314.00</td>
</tr>
<tr>
<td>b.</td>
<td>Advance for Purchase of Vehicle</td>
<td>436178.00</td>
<td>570168.00</td>
</tr>
<tr>
<td>c.</td>
<td>Advances for computer</td>
<td>351900.00</td>
<td>37479.00</td>
</tr>
<tr>
<td>d.</td>
<td>Accrued Interest on Advances</td>
<td>2483901.02</td>
<td>2654967.52</td>
</tr>
<tr>
<td>3</td>
<td>Advances and other amounts recoverable in cash or in kind or for value to be received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADVANCES:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Purchase of Machinery and other work</td>
<td>11567501.04</td>
<td>10007766.04</td>
</tr>
<tr>
<td>b.</td>
<td>Advance Paid to IP for Begass pith Project</td>
<td>125799.65</td>
<td>125799.65</td>
</tr>
<tr>
<td>c.</td>
<td>Advance Paid to DBT for Biological B.L. Project</td>
<td>50.00</td>
<td>50.00</td>
</tr>
<tr>
<td>d.</td>
<td>Advance to UPRRN</td>
<td>350000.00</td>
<td>350000.00</td>
</tr>
<tr>
<td></td>
<td>Amounts recoverable in cash or in kind,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Amount Recoverable</td>
<td>89435.41</td>
<td>89339.41</td>
</tr>
<tr>
<td>b.</td>
<td>T D S</td>
<td>3796740.69</td>
<td>3221397.88</td>
</tr>
<tr>
<td>c.</td>
<td>Cenvatavilment -Service Tax</td>
<td>0.00</td>
<td>44857.00</td>
</tr>
<tr>
<td>d.</td>
<td>Cenvatavilment -Education Cess</td>
<td>1560.00</td>
<td>1601.00</td>
</tr>
<tr>
<td>e.</td>
<td>Cenvatavilment - H.Education Cess</td>
<td>303.00</td>
<td>317.00</td>
</tr>
<tr>
<td>f.</td>
<td>Service Tax</td>
<td>612213.00</td>
<td>467218.00</td>
</tr>
<tr>
<td>g.</td>
<td>Education Cess</td>
<td>7274.00</td>
<td>9338.00</td>
</tr>
<tr>
<td>h.</td>
<td>H.Education Cess</td>
<td>3653.00</td>
<td>4690.00</td>
</tr>
<tr>
<td>i.</td>
<td>Swach Bharat Cess</td>
<td>11805.00</td>
<td>0.00</td>
</tr>
<tr>
<td>j.</td>
<td>Plant Equipment of CPCB</td>
<td>2694541.00</td>
<td>2694541.00</td>
</tr>
<tr>
<td>k.</td>
<td>Lab Equipment-IPMA/Dev. Council</td>
<td>1350682.00</td>
<td>1350682.00</td>
</tr>
<tr>
<td>l.</td>
<td>Earnest Money Deposit</td>
<td>175550.00</td>
<td>175550.00</td>
</tr>
<tr>
<td>m.</td>
<td>N.P.C.</td>
<td>706.75</td>
<td>706.75</td>
</tr>
<tr>
<td>n.</td>
<td>Imprint</td>
<td>43013.12</td>
<td>31588.32</td>
</tr>
<tr>
<td>o.</td>
<td>Advance for T.A.</td>
<td>194195.00</td>
<td>200790.00</td>
</tr>
<tr>
<td>p.</td>
<td>Advance for L.T.C.</td>
<td>582306.00</td>
<td>689141.00</td>
</tr>
<tr>
<td>q.</td>
<td>Advance for General Exp.</td>
<td>266774.00</td>
<td>272778.75</td>
</tr>
<tr>
<td>r.</td>
<td>Security Deposits</td>
<td>1513247.00</td>
<td>914449.00</td>
</tr>
<tr>
<td>s.</td>
<td>Telephone deposit under OYT</td>
<td>39139.00</td>
<td>39139.00</td>
</tr>
<tr>
<td>t.</td>
<td>Adv. To Commissioner workmen Compensation</td>
<td>89430.00</td>
<td>89430.00</td>
</tr>
<tr>
<td>u.</td>
<td>Unaided Project</td>
<td>1143094.00</td>
<td>0.00</td>
</tr>
<tr>
<td>v.</td>
<td>DCP RAI</td>
<td>11000.00</td>
<td>11000.00</td>
</tr>
<tr>
<td>w.</td>
<td>Accrued Testing fee &amp; Lease Rent etc.</td>
<td>14560687.37</td>
<td>27324099.45</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>121626072.82</td>
<td>122800353.27</td>
</tr>
</tbody>
</table>
**SCHEDULE - 7 - INCOME FROM INSTITUTIONAL AND CONSULTANCY FEE**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Testing fee</td>
<td>18611529.00</td>
<td>13536116.00</td>
</tr>
<tr>
<td>2</td>
<td>Consultancy fee.</td>
<td>3662920.00</td>
<td>4177249.00</td>
</tr>
<tr>
<td>3</td>
<td>Laboratory Fee</td>
<td>10000.00</td>
<td>30000.00</td>
</tr>
<tr>
<td>4</td>
<td>Library Fee</td>
<td>4000.00</td>
<td>12000.00</td>
</tr>
<tr>
<td>5</td>
<td>M.Sc. Course Fee</td>
<td>399500.00</td>
<td>681500.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>22687949.00</strong></td>
<td><strong>18436865.00</strong></td>
</tr>
</tbody>
</table>

As per our separate report of even date.

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA)                                       DIRECTOR                     SECTION OFFICER (F&A)
F.C.A., ISA(DISA)                                    PLACE: Saharanpur             DATE: 7.9.16
## SCHEDULE -8 - GOVERNMENT GRANT RECEIVED

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Government of India - Plan</td>
<td>16213048.00</td>
<td>18402718.00</td>
</tr>
<tr>
<td>2(a)</td>
<td>Government of India through Development Council for Pulp,Paper &amp; Allied Industries-Non Plan</td>
<td>52500000.00</td>
<td>80400000.00</td>
</tr>
<tr>
<td>(b)</td>
<td>Core Secretariate for Development Council PP&amp;A Industry</td>
<td>1300000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>Government of India through Development Council for Pulp,Paper &amp; Allied Industries for Cess Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>Continuous Education Training of Tech Personal</td>
<td>2909547.00</td>
<td>325415.00</td>
</tr>
<tr>
<td>(b)</td>
<td>Development of Protocole</td>
<td>667407.00</td>
<td>0.00</td>
</tr>
<tr>
<td>(c)</td>
<td>Improvement in Selectivity of Oxygen Bleaching</td>
<td>242584.00</td>
<td>81811.00</td>
</tr>
<tr>
<td>(d)</td>
<td>An Integrated approach for utilization of Begasse Pith</td>
<td>283200.00</td>
<td>110977.00</td>
</tr>
<tr>
<td>(e)</td>
<td>Statistical Data collection Cell for Indian Pulp &amp; Paper Industry</td>
<td>2159714.00</td>
<td>23323.00</td>
</tr>
<tr>
<td>(f)</td>
<td>Increase in Brightness</td>
<td>94609.00</td>
<td>8850.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>76370109.00</strong></td>
<td><strong>99353094.00</strong></td>
</tr>
</tbody>
</table>

As per our separate report of even date.

FOR SANJAY MISRA & CO.
CHARtered ACCOUNTANTS

(SANJAY MISRA)                                       DIRECTOR
F.C.A., ISA(DISA)                                    SECTION OFFICER (F&A)

Place: Saharanpur
Date: 7.9.16

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
CENTRAL PULP & PAPER RESEARCH INSTITUTE
An autonomous organisation registered under societies Act under the administrative control of the
Ministry of Commerce & Industry (Govt. of India)

POST BOX - 174, PAPER MILL ROAD, HIMMAT NAGAR, SAHARANPUR (U.P.)

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.16
SCHEDULE 9 - FEES/SUBSCRIPTION'S.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR</th>
<th>PREVIOUS YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2015-16</td>
<td>2014-15</td>
</tr>
<tr>
<td>1</td>
<td>Membership fees</td>
<td>85500.00</td>
<td>249000.00</td>
</tr>
<tr>
<td>2</td>
<td>Training fees/Registration fees</td>
<td>449473.00</td>
<td>200000.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>534973.00</td>
<td>449000.00</td>
</tr>
</tbody>
</table>

As per our separate report of even date.
FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA)                                       DIRECTOR                                  SECTION OFFICER (F&A)
F.C.A., ISA(DISA)                                      |

Place: Saharanpur
Date: 7.9.16
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.16
SCHEDULE 10 - INTEREST EARNED.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>On Term Deposit with schedule Bank</td>
<td>4911759.00</td>
<td>3357723.00</td>
</tr>
<tr>
<td>2</td>
<td>On Loan to staff</td>
<td>247687.00</td>
<td>292548.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>5159446.00</strong></td>
<td><strong>3650271.00</strong></td>
</tr>
</tbody>
</table>

As per our separate report of even date.
FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA)                                       DIRECTOR                                  SECTION OFFICER (F&A)
F.C.A., ISA(DIS)                                      

Place: Saharanpur
Date: 7.9.16
SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31.3.16

SCHEDULE 11 - OTHER INCOME.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hostel rent</td>
<td>162175.00</td>
<td>278525.00</td>
</tr>
<tr>
<td>2</td>
<td>Lease rent</td>
<td>25000.00</td>
<td>50000.00</td>
</tr>
<tr>
<td>3</td>
<td>Licence fee</td>
<td>368321.00</td>
<td>647993.00</td>
</tr>
<tr>
<td>4</td>
<td>Miscellaneous income</td>
<td>115223.00</td>
<td>58080.92</td>
</tr>
<tr>
<td>5</td>
<td>Sale of Publication</td>
<td>73092.00</td>
<td>6791.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>743811.00</strong></td>
<td><strong>1041389.92</strong></td>
</tr>
</tbody>
</table>

As per our separate report of even date.
FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA) DIRECTOR
F.C.A., ISA(DISA) SECTION OFFICER (F&A)

Place: Saharanpur
Date: 7.9.16
SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.3.16
SCHEDULE 12 - ESTABLISHMENT EXPENSES.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ESTABLISHMENT EXPENSES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Salary &amp; Allowances</td>
<td>60592497.60</td>
<td>64885737.00</td>
</tr>
<tr>
<td>2</td>
<td>CPF Contribution</td>
<td>5909727.00</td>
<td>6285131.00</td>
</tr>
<tr>
<td>3</td>
<td>Gratuity</td>
<td>4291801.00</td>
<td>5391731.00</td>
</tr>
<tr>
<td>4</td>
<td>Encashment of leave</td>
<td>4322093.00</td>
<td>5377193.00</td>
</tr>
<tr>
<td>5</td>
<td>Reimbursement of medical expenses</td>
<td>2479569.00</td>
<td>2585281.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>77595687.60</td>
<td>84525073.00</td>
</tr>
</tbody>
</table>

As per our separate report of even date.
FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA)  
F.C.A., ISA(DISA)  
DIRECTOR  
SECTION OFFICER (F&A)

Place: Saharanpur
Date: 7.9.16
<table>
<thead>
<tr>
<th>S.No</th>
<th>PARTICULARS</th>
<th>CURRENT YEAR 2015-16</th>
<th>PREVIOUS YEAR 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To Lab &amp; Plant Maintenance</td>
<td>4266243.56</td>
<td>2465541.80</td>
</tr>
<tr>
<td>2</td>
<td>To Cartage &amp; Freight</td>
<td>56804.00</td>
<td>8702.60</td>
</tr>
<tr>
<td>3</td>
<td>To Electricity and water</td>
<td>7502258.00</td>
<td>6319109.70</td>
</tr>
<tr>
<td>4</td>
<td>To Insurance</td>
<td>1140.00</td>
<td>1226.00</td>
</tr>
<tr>
<td>5</td>
<td>To Repair &amp; Maintenance of Assets</td>
<td>5671848.72</td>
<td>5869564.60</td>
</tr>
<tr>
<td>6</td>
<td>To Rent &amp; Taxes</td>
<td>736000.00</td>
<td>1149776.00</td>
</tr>
<tr>
<td>7</td>
<td>To Postage &amp; Telephone &amp; Communication</td>
<td>592803.00</td>
<td>671879.00</td>
</tr>
<tr>
<td>8</td>
<td>To Printing &amp; Stationery</td>
<td>1256513.81</td>
<td>1100794.55</td>
</tr>
<tr>
<td>9</td>
<td>To Travelling &amp; Conveyance Exp.</td>
<td>1397680.60</td>
<td>1344579.00</td>
</tr>
<tr>
<td>10</td>
<td>To Exp.on Seminar &amp; Workshop</td>
<td>15970.00</td>
<td>117906.00</td>
</tr>
<tr>
<td>11</td>
<td>To Membership subscription</td>
<td>10000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>To Audit fees</td>
<td>28750.00</td>
<td>19000.00</td>
</tr>
<tr>
<td>13</td>
<td>To Hospitality Expenses</td>
<td>184183.00</td>
<td>115844.00</td>
</tr>
<tr>
<td>14</td>
<td>To Legal &amp; Professional Exp.</td>
<td>186840.00</td>
<td>119902.00</td>
</tr>
<tr>
<td>15</td>
<td>To News Paper</td>
<td>52190.00</td>
<td>25451.50</td>
</tr>
<tr>
<td>16</td>
<td>To Training Expenses</td>
<td>858032.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>To Watch &amp; Ward</td>
<td>2994485.00</td>
<td>3161448.00</td>
</tr>
<tr>
<td>18</td>
<td>To Bank charges</td>
<td>36296.40</td>
<td>40558.00</td>
</tr>
<tr>
<td>19</td>
<td>To Advertisement</td>
<td>273238.75</td>
<td>359422.41</td>
</tr>
<tr>
<td>20</td>
<td>To Intrest on Service Tax</td>
<td>56778.00</td>
<td>0.00</td>
</tr>
<tr>
<td>21</td>
<td>To Testing Fee Paid</td>
<td>44200.00</td>
<td>0.00</td>
</tr>
<tr>
<td>22</td>
<td>To Staff Car Maint</td>
<td>419317.00</td>
<td>471769.00</td>
</tr>
<tr>
<td>23</td>
<td>Interest on TDS</td>
<td>5273.00</td>
<td>0.00</td>
</tr>
<tr>
<td>24</td>
<td>Penalty on Service Tax</td>
<td>8894.00</td>
<td>0.00</td>
</tr>
<tr>
<td>25</td>
<td>Interest Paid on Unutilized Grant</td>
<td>274339.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>26930077.84</strong></td>
<td><strong>23362474.16</strong></td>
</tr>
</tbody>
</table>

As per our separate report of even date.

FOR CENTRAL PULP & PAPER RESEARCH INSTITUTE
FOR SANJAY MISRA & CO.
CHARTERED ACCOUNTANTS

(SANJAY MISRA)
F.C.A., ISA(DISA)

Place: Saharanpur
Date: 7.9.16

ANNUAL REPORT 2015-16
Overview:
CPPRI is an autonomous organization registered under the Societies Act under the administrative control of the Ministry of Commerce & Industry (Govt. of India) vide Government of India Notification dated 7.8.1979.

Financial Accounts:
The financial statements are prepared on the basis of historical cost convention and the Accounting Policies used in preparation of these financial statements confirm with the Accounting Principles generally accepted in India. The Institute follows the accrual method of accounting.

A. Significant Accounting Policies:
1. Revenue Recognition:
   1.1 Testing fee is accounted for on accrual basis.
   1.2 Lease Rent is accounted for on accrual basis.
   1.3 Government Grant, Consultancy fee, Institutional fee, Sponsored Project, Membership fee, Training and Registration fees are accounted for on receipt basis.

2. Inventory valuation:
The inventory comprises of stores and spares are valued at cost.

3. Fixed Assets:
   Fixed Assets are stated at cost less accumulated depreciation.

4. Depreciation:
   4.1 Depreciation is provided on written down value methods, as per the rates specified in the Income Tax Act 1961.

5. Government Grants:
   Government grants received to the extent utilized for capital expenditure being added to the capital fund and to the extent utilized for revenue expenditure being treated as income in the income and
expenditure account and the un-utilized grant being carried forward. This is not as per the para no. 14 of the Accounting Standard (AS-12) relating to Accounting for Government Grants. The Institute was advised to consider the guidelines on the subject in consultation with the concerned organizations/agencies for implementation. The Institute in reply has confirmed that other similar organizations/agencies are also following the same pattern. This point was also discussed by the concerned officer in the training imparted by National Institute of Finance Management, Govt. of India during the course of training.

6. **Foreign currency transaction:**
Transactions in foreign currency are accounted at the exchange rate prevailing on the date of transaction in Indian Currency.

B. **Notes forming part of Accounts:**

1. **Information about the activities of the Institute:**
The Institute running under the Administrative control of Ministry of Commerce & Industry, Dept. of IP&I is engaged to promote Research and other scientific work connected with pulp, paper & allied industries to establish and maintain laboratories, pilot plant, workshop and to edit, print, publish and exhibit books, papers and periodicals bearing upon the said industries. Besides that the Institute also undertakes Cess funded projects and Sponsored projects from Govt. of India, government institutions and other organizations also.

2. **Retirement Benefits:**
2.1 Provision for gratuity payable on death/retirement of employees, during this year is Rs. 4291801.00 and for leave encashment is Rs. 4322093.00 payable to them based on accrual basis and as per the actuarial valuation certificate of Shri Bhudev Chatterjee.

3. **Current Assets Loans & Advance:**
Management has stated that the current assets, loans and advances have full value on realization in the ordinary course of Business.

4. Corresponding previous year figures have been re-grouped or re-arranged wherever necessary.

5. Total advances stand as on 31.3.2016 is Rs. 12043350.69 excluding advance to staff relates for advance against supply of equipments etc.

6. As per Schedule No.1 of the Balance-sheet, capital fund shows that Grant of Rs. 10218355.86 has been incurred as capital expenditure while as per Schedule No.5 of the Balance-sheet relating to fixed assets shows an addition of Rs. 13228669.76. Regarding less capital expenditure of Rs. 3010313.90, it is stated by the management that it is due to adjustment of suppliers bills and from letter of credits in the current year.
7. The management has confirmed that:
7.1 The provisions of all known income, expenditure and liabilities have been made.
7.2 No contingent liability exist on the date of Balance-sheet.
7.3 No significant event has occurred from the date of Balance-sheet and audit.

For Central Pulp & Paper Research Institute

(SECTION OFFICER) (F&A) (DIRECTOR)

For SANJAY MISRA & CO.
Chartered Accountants

Date: 7.9.16
Place: Saharanpur.

(SANJAY MISRA)
F.C.A., ISA (DISA)
# CPPRI STAFF LIST

## Director’s Secretariat

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
</table>
| Director              | Dr. Vimlesh Bist, M.Sc. Ph.D (Director-in-charge) (up to 13.10.2015)  
                        | Dr. R. K. Jain, M.Sc., Ph.D. w.e.f. 14.10.2015 |
| Private Secretary     | Shri A. Arokiadoss, B.Com., P.G. Diploma in Business Administration |
| Technician            | Shri R. K. Kapoor                          
                        | Shri Sunder Lal                            |

## Physical Chemistry, Pulping & Bleaching Division

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head (Scientist F)</td>
<td>Dr. Vimlesh Bist, M.Sc., Ph.D.</td>
</tr>
<tr>
<td>Scientist-E-I</td>
<td>Dr. Priti Shivhare Lal, M.Sc., Ph.D.</td>
</tr>
</tbody>
</table>
| S.S.A.                | Dr. Arvind Kumar Sharma, M.Sc., Ph.D. and Diploma in Pulp & Paper Technology  
                        | Shri Kumar Anupam, B.Tech. (Chemical Engineering)                          |
| Technician            | Shri D. P. Naithni (Superannuated on 30.4.2015)  
                        | Shri Mussadi Lal                                      
                        | Shri N. S. Negi                                        |


<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head (Scientist-E-II)</td>
<td>Dr. B. P. Thapliyal, M.Sc., M.Tech., Ph.D., Accredited Energy Auditor</td>
</tr>
<tr>
<td>Scientist E-I</td>
<td>Dr. R. D. Godiyal, M.Sc., D.Phil.</td>
</tr>
</tbody>
</table>
| Scientist-C           | Dr. Sanjay Tyagi, B.E. (Mech. Engg), M.E. (Pulp & Paper), Ph.D.  
                        | Accredited Energy Auditor                   |
| Technical Officer-B   | Shri Karan Singh, Certificate Course in Pulp & Paper Technology |
| Technician            | Shri. Ashok Kumar Rawat                    |

## Chemical Recovery & Bio-Technology Division

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head (Scientist-F)</td>
<td>Dr. R. K. Jain, M.Sc., Ph.D.</td>
</tr>
<tr>
<td>Scientist E-I</td>
<td>Dr. A. K. Dixit, M.Sc., Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Smt. Anuradha V. Janbade, M.Sc.</td>
</tr>
<tr>
<td></td>
<td>Dr. Vasanta Vadde Thakur, M.Sc., M.Phil., Ph.D. (on deputation)</td>
</tr>
<tr>
<td>Technical Officer-A</td>
<td>Shri Bishamber Pandey, High School (Superannuated on 31.8.2015)</td>
</tr>
<tr>
<td>Technician</td>
<td>Shri Avtar Singh</td>
</tr>
</tbody>
</table>
International Co-operation and Wet Laboratory

**Head (Scientist F)**  Smt. Rita Tandon, M.Sc.
**Scientist-E-II**  Shri P. C. Pandey, M.Sc. (Superannuated on 31.8.2015)
**Scientist-B**  Shri Satya Dev Negi, M.Sc., Ph.D., PG Diploma in Pulp & Paper Technology
**Technical Officer-B**  Shri Pankaj Kumar Goley, B.Tech. (Electrical)
  Shri Gyan Pal Singh, Certificate Course in Pulp & Paper Technology

Environmental Management Division

**Head (Scientist-F)**  Dr. Suresh Panwar, M.Sc., Ph.D.
**Scientist E-II**  Dr. M. K. Gupta, M.Sc., Ph.D.
**Scientist E-I**  Dr. Shivaker Mishra, M.Sc., Ph.D.
  Dr. Nitin Endlay, M.Sc., Ph.D., PGDIPM, (PG Diploma in Industrial Pollution Management)
**S.S.A.**  Shri Mohd. Salim, M.Sc.
**Technical Officer-B**  Shri Raj Pal Singh, Intermediate, Certificate Course in Pulp & Paper Technology
**Technician**  Shri Magan Singh

Technical Services & Co-ordination Cell (TSCC)

**Head (Scientist F)**  Dr. R. K. Jain, M.Sc., Ph.D.
**Scientist-C**  Shri Alok Kumar Goel, M.Sc., Passed National Certificate Examination for Energy Managers
**Technician**  Shri Gopal Singh

Library & Documentation Division

**Incharge**  Dr. B. P. Thapliyal, M.Sc., M.Tech., Ph.D., Accredited Energy Auditor
**Library Officer-A**  Smt. Sarita Sharma, M.A., MLISc
**Technician**  Shri N. S. Bist
  Shri Bachi Singh
  Smt. Shivkala Thapa

Cess Training Programme Cell

**Scientist E-I & I/charge**  Dr. Rajnish Tandon, M.Sc., Ph.D.
## Engineering & Maintenance Division

**Scientist E-II & Head**
Dr. M. K. Gupta, M.Sc., Ph.D

**Technical Officer C**
Shri R. S. Rawat, ITI Draughtsman (Mech.) & One year Training in Tool Designing
Shri R. C. Sharma, Diploma in Mech. Engg. (Superannuated on 31.7.2015)
Shri Brij Pal Singh, B.A., Diploma in Mechanical Engineering

**Technical Officer B**
Shri N. K. Naik, Diploma Engineering (Industrial Electronic)

**Technical Officer-A**
Shri R. L. Gupta, Boiler Attendant Certificate course

**Driver**
Shri Arvind Kumar
Shri Shri Bhagwan Sharma

**Technician**
Shri Dushyant Kumar
Shri Roop Singh,
Shri O. P. Kotnala
Shri Soban Singh
Shri Nasir Ali
Shri Gopal Dutt
Shri Sharma Kumar

## Administration Division

**Admin. Officer**
Shri Anil Kumar, M.Com., ICWA (Inter)

**Assistant**
Shri Y. K. Sharma, M.A. PGDPM and Office Management Course (ITMS)
Shri B. K. Negi, M.A., P.G. Dip. in Journalism, Passed National Certificate Examination in Supervision from N.P.C.

**Accountant**
Shri L. D. Joshi, B.A.

**Technicians**
Shri Ravinder Dutt
Shri Satya Pal Singh (Superannuated on 29.2.2016)

## Finance & Accounts Division

**Section Officer**
Shri A. K. Saxena, M.Com
Shri S. K. Chaurasia, M.Com.

**Personal Assistant**
Shri M. P. Sharma, M.A.

**Accountant**
Shri O. P. Bhatia, B.Com (Hons.)

**Jr. Assistant**
Shri Ram Bax, B.Com.
Shri B. B. Chettri, M.A.
Shri J. S. Bist, B.A.
Shri Naresh Kumar, B.Com.
Shri H. C. Pandey, M.Com.

**Technicians**
Shri Prem Singh.
Store & Purchase Division

Section Officer  Shri Roshan Lal, M.A.
Jr. Assistant    Shri Satya Pal Singh, B.A.

Industrial Co-operation & Business Development New Delhi

Scientist E-I & Officer-incharge  Dr. Kawaljeet Singh, M.Sc.Ph.D.
SUPERANNUATION
(2015-16)

SHRI R. C. SHARMA, Technical Officer C
Service Tenure: 26/07/1982 to 31/07/2015

SHRI SATYA PAL SINGH, Technician
Service Tenure: 16/06/1980 to 29/02/2016

SHRI P. C. PANDEY, Scientist E-II,
Service Tenure: 25/01/1979 to 31/08/2015

SHRI BISHAMBER PANDEY, Technical Officer A,
Service Tenure: 23/07/1976 to 31/08/2015
In Pursuit of Cleaner Production, Resources Conservation and Quality Excellence in Pulp and Paper Industry

For Further information please contact

Central Pulp & Paper Research Institute

Head Office
Director
P.O. Box No. 174, Paper Mill Road, Himmat Nagar, Saharanpur - 247 001 (U.P.)
Ph.: (0132) 2714059, 2714061, 2714062
Fax : (0132) 2714052
E-mail : director@cppri.org.in
Website: www.cppri.org.in

Base Office
Office Incharge
I-10, Jungpura B,
Near Bhogal Bus Stand,
New Delhi - 110014, INDIA
Ph. (011) 65903444, 49027213
E-mail: cppri@yahoo.com