

WOOL RESEARCH ASSOCIATION

(Approved Body of Ministry of Textiles, Govt. of India, New Delhi)

P. O. Sandoz Baug, Kolshet Road,

Thane - 400 607 (Maharashtra)



56th ANNUAL REPORT AND ACCOUNTS FOR THE YEAR 2020-2021

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4. DR. S.K. CHAUDHURI, FARIDABAD, HARYANA
5. ALL OTHER ORDINARY MEMBERS OF WRA.

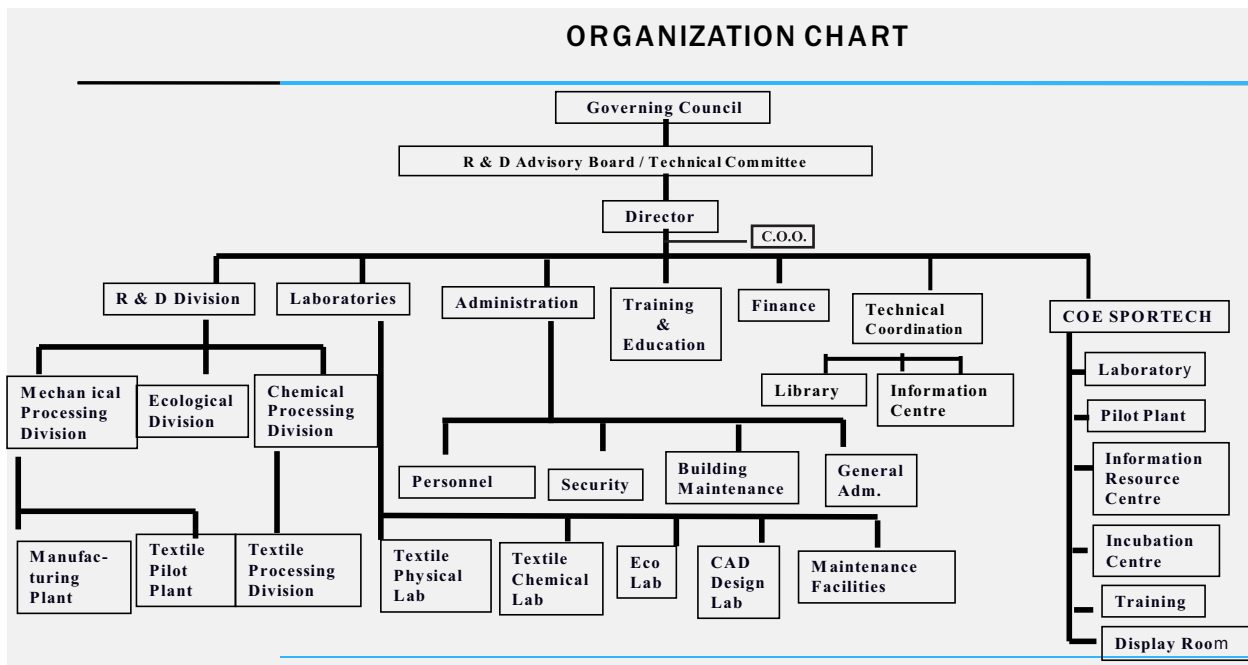
TECHNICAL CUM RESEARCH ADVISORY COMMITTEE (TRAC) (2020-2022)

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- | | |
|-----------------------------|---|
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| 25. DR. R.S.CHAUHAN | - IDST SCIENTIST,DRDE, GWALIOR |
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| 27. SHRI. M.K. BARDHAN | - MUMBAI |
| 28. SHRI.K.K. MISRA | - DIRECTOR (OFFICIATING) & C.O.O., WRA (EX-OFFICIO) |
| 29. DR. MRINAL CHOUDHARI | - JOINT DIRECTOR, WRA (EX-OFFICIO) |
| 30. MS. SEEMA PATEL | - JOINT DIRECTOR, WRA (EX-OFFICIO) |

ANNUAL TECHNICAL REPORT 2020- 2021**1.0 INFRASTRUCTURE**

Wool Research Association (WRA) is well equipped with necessary infrastructure in Research and other technical activities as expected from a TRA. The organization has its own sprawling campus of over 13 acres land at Thane.

It has its own accommodation where following infrastructure has been created over last five decades of its existence.

1. Accredited Textile Physical Laboratory
2. Accredited Textile Chemical Laboratory
3. Research & Development Division
4. Eco-testing Laboratory
5. Textile Technology Laboratory
6. Pilot Plant
7. Library
8. Training facilities with classrooms, teaching aids etc.
9. Auditorium & conference room with audio system
10. Computers, LCD projectors, Over head projectors
11. Information & Technology Co-ordination Centre
12. Administrative & Accounts Department
13. Center of Excellence – Sportech

Wool Research Association (WRA), Thane Maharashtra has been registered with the Department of Science and Industrial Research (DSIR) for the purpose of availing customs duty exemptions, the registration is valid up to March 2024.

2.0 CENTRE OF EXCELLENCE FOR SPORTECH

Under Ministry of Textiles Technology Mission in Technical Textiles, WRA has set up a Centre of Excellence in Sportech. A state of art testing facility and incubation centre has been established and simultaneous efforts have been made to attain international accreditations and collaborations. WRA has been serving user industry through its wide testing facilities and development of affordable products in India without compromising functionality and performance of our athletes.

3.0 TYPE OF ACTIVITIES

- i. Research & Development
- ii. Testing/Evaluation service to the Industry, Export Oriented Organisations, Government organizations etc.
- iii. Colour Technology
- iv. Training & Education
- v. Research in the Emerging Technologies like Technical Textiles, Plasma & Nano technology, Phase change materials, IT, Smart Textiles, Supercritical Processing etc.
- vi. Technical services to the Decentralised Carpet Industry, SMEs, Cottage/Rural industry.
- vii. Technology Development in Woollens & Manmade Textiles
- viii. Technical Survey & Audit of Industrial Units
- ix. Technical Feasibility Report Formulation
- x. Turnkey Projects
- xi. Research, training, prototype development, etc in Sportech.

4.0 TEXTILE TESTING LABORATORY

WRA has installed Two (02) new Equipment namely Synthetic Blood Penetration Resistance Tester-3 and Fluid Impact Tester for testing of PPE-Coverall. WRA has received NABL Accreditation for Two (02) Test Parameters to be conducted on the said machines.

■ Textile Testing and Analysis (2020-2021)

Detail	2019-20	2020-21
No. of Client Request received	2751	3189
No. of Samples Tested	5625	7463
Client Base	350	1050
Revenue Generation (in Lakhs)	123.77	201.11
NABL accreditation parameters	380	415

5.0 YARN & FABRIC MANUFACTURING FACILITIES – PILOT PLANT

Pilot plant is equipped with yarn manufacturing facilities for spinning worsted yarn, friction spun yarn, blends of wool with other natural and synthetic fibers.

The facilities available with pilot plant including machineries of Centre of Excellence - Sportech is as mentioned below:

Technology & Application Centre

A. For Long Staple Fibre: Fiber to Sliver conversion

1. Carding Machine
2. Gill Box
3. Combing Machine

B. Yarn Innovation Center - From Sliver/Top to Innovative /functional yarn

1. Roving frame
2. Ring frame
3. Sliver to yarn ring frame
4. Friction Spinning System (DREF 2)
5. Winding machine (Cheese)
6. Two for one Twister

The friction spun yarn manufacturing constitutes a full - fledged six spindle friction spinning machine to spin homogeneous yarn from textile wastes and special technical fibers and engineered yarn for specifically technical textiles.

C. Knitted / Weaving Centre From innovative Yarn to fabric

1. Sectional warping machine
2. Weaving Machine (Rapier Loom)
3. Circular Knitting Machine
4. Direct Warping machine
5. Warp Knitting Machine (Tricot)
6. Warp Knitting Machine (Raschel)

Knitting Facility also includes hand knitting machine, semi automatic flat bed knitting machine. Miniature handlooms for developing woven fabric samples.

D. Coating & Laminating Facility

1. Hot melt Coating and laminating machine
2. Fabric rolling machine (Fabric preparation for coating/lamination: fabric from fold to roll, roll to roll)

E. Light Weight Sport Goods Composite Center

1. Heating oven
2. Cold storage chamber
3. Degassing unit
4. Zero grade granite surface table
5. Vacuum pump
6. Braiding machine (Facility under Installation)
7. Precision winding machine

F. Other Machines

1. Compression Moulding Machine
2. Shoe Stitching machine
3. Industrial Sewing Machine
4. Ultrasonic Sealing Machine
5. RF sealing machine
6. Hank to cone winding machine

These machines are being utilized for product development related to sport textiles and other technical textiles.

Carpet manufacturing facility

Apart from the above, Pilot plant is also equipped with carpet manufacturing facility. Hand Knotted carpet can be produced.

6.0 ECO LABORATORY

WRA'S ECO laboratory is equipped with analytical instruments like HPLC, Particle size analyzer, UV-Vis Spectrophotometer, ICP-OES, FTIR, DSC. Testing such as Formaldehyde, Heavy Metals, Moth proofing, particle size of dry and liquid sample, thermal analysis, (bioassay and chemical assay) etc. can be performed in the facility.

Eco Laboratory also provides short term training and consultancy as per client's requirement.

7.0 TEXTILE CHEMICAL & COLOUR DEPARTMENT

Textile Chemical & Colour department is involved in R&D and testing related to Textile Wet Processing (Textile pre-treatment, dyeing & Finishing), advanced textile technology like Plasma treatment, ultrasonic treatment, functional finishing, coating, colour difference measurement, quality control, yellowness & whiteness index measurement. It is also involved in colour recipe prediction service for all customer specific requirements. It also has top and yarn dyeing facility up to 1 kg. Chemical & Colour department also conducts short term Advanced Courses in Colour Match Prediction for industrial users. This department also provides training and consultancy to Academic projects.

Chemical Department is equipped with Dielectric Barrier Discharge Plasma Reactor, Ultrasonic Cleaner, Ultrasonic Probe, Tube resonator, Laboratory Pad-Dry-Cure machine with IR Pre-heater, Laboratory coating Machine, Brookfield viscometer, Planetary ball milling machine, Mixer mill machine, COD meter & reactor, Research grade meter, turbidity meter, conductivity meter.

Colour department is equipped with Bench Top Spectrophotometer (i7, X-Rite), hand held spectrophotometer (I one pro, X-rite), Colour matching software, Robotic auto Dispensing System (Colour Focus 72, Dye Focus/ Daelim Starlet), Colour viewing cabinet (Spectra LUX Jr. / Paramount), Infracolour Dyeing machine, Shaker dyeing machine, Laboratory Jigger dyeing machine and HTHP top dyeing machine.

8.0 ON-GOING R & D PROJECTS

8.1 MINISTRY OF TEXTILES

(i) Design and development of Light Weight and High Impact resistance Sports Goods

Objectives:

- i. Development of low weight, high efficient cricket gears
- ii. To evaluate the performance of player using the developed products

Progress of work:

Some previous work in the light weight gears have been developed where reinforced high-density foam was used. The examples of such are Ultralite Korean PolyUrethane pad, Micro weight HDF & reinforced cane rods, Integral HDF high protection contour knee roll, Premier quality English P.U. facing light weight high density foam, Bars with cane reinforcement double layer vertical wrap around protection on both legs, ULTRALITE foam pad molded to fit any Leg perfectly and half of weight in comparison to traditional Leg guard, Made from premium quality imported Polyurethane facing, Low density foam filled/ cane reinforced construction, High density foam side wings, High density sponge bolster with low density foam sheet reinforcement.

Non- Newtonian fluids are those which changes its viscosity on application of sudden force making it harder or softer depending upon the stress applied. In sports, these are used to provide more comfortable gears to the players which are easy to handle. Overall, they are more advantageous than the existing fluids in providing better strength and are more comfortable.



Non - Newtonian Sheets

Research work which remains to be done under the project

- Development of other pads such as shin guards and chest cover using the same technology.
- Field trials for the same

(ii) Design and Development of sportswear and sports accessories having Thermo Physiological Comfort properties in order to enhance the performance assessed by using a Sweating Thermal Manikin system under different environmental conditions

Approved Objectives of the Proposal

- Designing and Development of sportswear and sports accessories having Thermo Physiological Comfort properties by assessing the performance using Sweating Thermal Manikin under different environmental conditions.
- Study and analysis of data gathered by human field trial vis-s-vis Sweating Thermal Manikin under different environmental conditions.

Literature Survey

A detailed literature survey was carried out covering major international & national journals, magazines, newsletters and web portal etc. for commercially available miniature sensors for measuring heartbeat, sweat rate and skin temperature of the wearer. The following are the list of the following literature survey:

- Every sports demands different dress depending upon low speed, high speed, indoor, outdoor games types. It is available in literature that micro filament based polyester based sports garments are better than normal polyester based sports garments in terms of moisture management properties. However, polyester based sports garments have disadvantage of having heat retention properties. It is stated in literature that in active sports like tennis and soccer demands high body movements which in turn increase the heat stress due to high level of metabolic heat generation which is in the range of 800-1200 W and this amount of heat can increase the body core temperature by 2°C. Therefore, heat release and water vapour permeability properties of sports garments is mandatory in order to control the core body temperature of the body. Hence, the main functional requirement of high active sportswear is sweat absorbing, fast drying and cooling. Therefore, thermo physiological comfort properties of sportswear are very much essential for enhancing the performance of an athlete in different environmental conditions like from. -20°C upto + 50°C, the results of thermo physiological comfort properties and performance of a sports garment and sports accessories cannot be quantify by using human perception in the field trials. Therefore, it is highly essential to design and develop the sportswear and sports accessories having Thermo Physiological Comfort properties by assessing the performance using a sweating thermal manikin system where the parameters can not only be accurately quantify but also repeatable under different set of environmental conditions for better performance.
- ❖ **Development of yarn:**
Polyester, Polyester/cotton and polyester /viscose Blended yarn were developed using different techniques. Testing such as strength, mass evenness etc were carried out for optimization of yarn blend.
- ❖ **Development of fabrics:**
Development of Polyester, Polyester/cotton and polyester /viscose Blended yarn and producing the knitted sports jersey.
- Testing for thermo-physiological comfort properties such as: quick dry, moisture management, Thermal insulation properties, breathable, high wickability, good handle properties were carried out.

Comparison of results of initial sample developed products (such as thermal insulation properties, moisture management properties) with market available products by established brands.

New Observations

- It is observed that initial developed sports garments have better heat release properties than commercially available garments.

- It is observed that initial developed sports garments have better moisture management properties, drying rate properties, wicking properties etc. as compared to commercially available garments.

9.0 Completed R&D Projects

9.1 Ministry of Textiles

- (i) **Project Title: Synthesis of optical whiteners with good photo stability and improvements in the bleaching processes to produce photo stable bright white and pastel shades woollen casual fashion knitwear, sports and leisurewear products and carpets using Indian and other cheaper imported qualities of wool.**

Objectives :

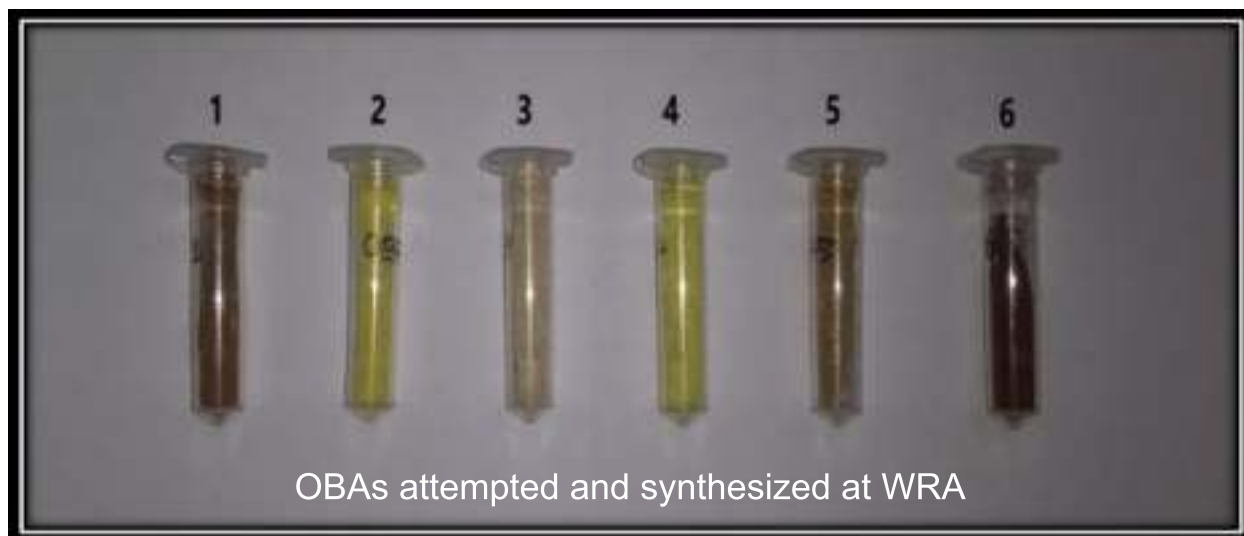
- Synthesis of optical whiteners with good photostability and Improvements in the bleaching processes to produce photostable bright white and pastel shades woollen casual fashion knitwear, sports and leisurewear products and carpets using Indian and other cheaper imported qualities of wool.

Achievement: -

The colour and photostability of fibres are important qualities, particularly for the production of brilliant white and bright pastel shade products that are essential for new and rapidly expanding casual apparel markets. The photostability of wool is poor compared with cotton and synthetic fibres. Current commercial bleaching processes for wool are far less efficient than those used on cotton and synthetics and can sensitize the wool to photo yellowing on exposure to sunlight. The use of fluorescent whitening agents (FWAs) on bleached wool improves whiteness significantly, but commercial use of FWAs on wool result into very poor photostability of FWA-treated wool, in particular when garments are wet after laundering and exposed to direct sunlight during line drying.

In this project a total of 6 OBA schemes were studied and synthesized at WRA's chemistry lab. All the OBA's were checked for their Melting point, Emission and Absorption Spectra and found the range that matches the commercial OBAs. Nuclear Magnetic Resonance (NMR) testing was done on the OBA's showing all the targeted structures achieved. Enzymatic Bleaching Process was studied and implemented on wool plain fabric. A combination of oxidative bleaching with the bleaching enzyme laccase was implemented; the results were studied and was found out to be promising. Application of all the OBA's were done on the fabric sample along with testings related to Whiteness Index (WI), Accelerated weathering using Xe Arc (UV A+ UV B), tensile strength. Tensile Strength testing results shows the amount of fiber damaged during the process was well in range with the industrial norms i.e. 2-3 %.

The above work provides information regarding developing novel routes for synthesizing Optical Brightening Agents (OBA/FWA) which would hopefully help the woollen sector in India.



- (ii) **Project Title: Development of sports gears (inner wears, socks, bands, leggings etc.) with controlled release microencapsulated natural essential, herbal oils for therapeutic benefits including protection of health, skincare and recovery of injuries and hygiene of sportsperson.**

Objectives:

- ❖ Development of sports gears (inner wears, socks, bands, leggings etc.) with controlled release microencapsulated natural essential, herbal oils for therapeutic benefits including protection of health, skincare and recovery of injuries and hygiene of sportsperson.

Achievements:

Project activities/deliverables	Achievement
Study of natural essential herbal therapeutic medicine	• Therapeutic medicinal properties Study of different natural herbal oil were studied. • Herbal oils may help to alleviate the muscle pain • Rosemary, Lemon grass oil, lavender oil, eucalyptus oil, mint oils, clove oil chosen.

Project activities/deliverables	Achievement
Development of core/sheath chemistry with identified natural essential therapeutic medicine	• Successful development of core/sheath of herbal agents based on above oils • Evaluated based on particle size, uniformity, core sheath content, release pattern • Optimization was carried out based on above evaluation parameters.
Development of suitable application methods based on durability and comfort	• Application of developed natural essential therapeutic on sportsgear comfort inner wears, Socks, Bands, and Leggings. • Evaluated based on durability, stiffness, Moisture management properties.
Optimization & standardization of the process parameters, analysis of test results	• Process parameters were standardized and optimized based on evaluation parameters. • Performance of products after application was evaluated based on physical performance such as tearing strength, GSM, Bending rigidity, Overall comfort properties.
Evaluation of developed products	Field trials for Performance Evaluation of developed products under practical conditions have been conducted

(iii) **Project Title: Development of Novel Detergent Formulation for Wool with immobilized enzymes for enhancing machine wash ability of wool fabric**

Objectives:

- i. To develop a novel detergent formulation for wool by incorporation of immobilised enzyme.
- ii. Enhancement of wool washing performance by replacing conventional detergent with advance detergent containing immobilised enzymes as effective stain removal agents.
- iii. Optimization & standardization of the immobilised enzyme synthesis and their incorporation into detergent formulation.
- iv. Optimization & standardization wool washing process with developed detergent.

Achievements :

Objective 1: To develop a novel detergent formulation for wool by incorporation of immobilised enzyme

A detail literature survey and experiment planning has been have been carried out. From literature survey and analysis of commercially available samples path for development of immobilized detergent enzyme was found and Novel Detergent Formulation for Wool with Immobilised Enzymes has been developed.

Objective 2: Enhancement of wool washing performance by replacing conventional detergent with advance detergent containing immobilised enzymes as effective stain removal agents

Based on extensive study, commercially available four detergents samples for wool have been procured and analysed for their detergent action and other physical parameters. Commercially available various enzymes such as protease, amylase, lipase and mixture of amylase, cellulase, and lipase have been procured. The activities of these enzymes have been checked. Immobilization of these enzymes has been carried out and Novel Detergent Formulation for Wool with these Immobilised Enzymes has been developed.

Objective 3: Optimization & standardization of the immobilised enzyme synthesis and their incorporation into detergent formulation

Immobilization work of commercially available enzymes was studied and elaborated by various methods using alginate, egg albumin and silica carrier. The effects of reaction parameters such as pH, temperature and detergent components on the immobilized enzymes have been studied.

Objective 4 : Optimization & standardization wool washing process with developed detergent

Commercially available wool, cotton and acrylic fabrics have been procured and various methods of stains have been studied. Washing process parameters were standardized and optimized based on evaluation parameters. Performance of developed Novel Detergent Formulation for Wool with Immobilised Enzymes and commercially available products after washing was evaluated it is observed that good results were observed for most of the stains.

Objective 5 : Evaluation of developed detergent

Performance Evaluation of developed detergent has been carried out by evaluating of physical parameters, eco-parameters, washing performance. WDD does not have adverse effect on wool material.

(iv) **Project Title: Development of Membrane Bioreactors as a solution for compact, high quality effluent treatment to achieve zero-discharge for decentralized woolen and carpet sector and common facility centres in India**

Objectives:

- i. Development of Membrane Bioreactors as a solution for compact, high quality effluent treatment to achieve zero-discharge for decentralized woolen and carpet sector and common facility centres in India.

Achievements :

Membrane based Bioreactor has been Designed, Developed. Process Optimization of Membrane based Bioreactor which is compact, with faster processing time, lesser space requirement, based on eco-friendly biological process, low operating cost and low sludge generation has been carried out.



10.0 TESTING ACTIVITIES

- During the year under review, Textile Testing Laboratory, Eco Testing Laboratories of WRA and COE Sportech earned revenue of Rs. 202 Lakhs
- During the year under review Revenue generated through Pilot Plant : Rs. 19.06 Lakhs (approx)

11.0 MAJOR ASSIGNMENTS UNDERTAKEN

- I. Memorandum of Understanding (MOU) signed between WRA & Industries:
 - i. Memorandum of Understanding (MOU) was signed with Society of Dyers & Colourist (SDC), Mumbai. This memorandum set forth the Ground for Collaboration / Educational Partnership between SDC and WRA for offering and conducting Training Programmes for Sportech and Outdoor Textiles covering Geographical scope across India, Bangladesh & Sri Lanka for Sustainable Innovation.
 - ii. Memorandum of Understanding (MOU) was signed with Sardar Vallabhbhai Patel International School of Textiles & Management (SVPISTM), Coimbatore for Joint Research Projects in Textiles including Technical Textiles and Management.
 - iii. Memorandum of Understanding (MOU) was signed with Maharashtra Centre for Entrepreneurship Development (MCED) working under the Directorate of Industries, Government of Maharashtra. MCED & WRA will jointly organize seminars, workshops, orientation programmes for Skill Development & Entrepreneurship Development training at Maharashtra.
 - iv. Memorandum of Understanding (MOU) was signed with Maharashtra Industries Development Institute (MiDi), Thane is handholding Nodal Agency for Startup India and Standup India of Prime Minister's Mission initiated by Government of India. MiDi & WRA will jointly work on new frontiers in the development and commercialization of Innovation and Patentable technologies of WRA, Imparting training to manufacturers, entrepreneurs, students, etc on various subjects as per scope and requirement.

II. Consultancy / Incubation Services rendered:

- WRA has developed anti-microbial layer for face mask which is being commercialised and bulk trials were conducted. Approx. 1.5 lac mtr fabric is processed.
- WRA has also developed elastic warp knitted fabric for Sports Application using Raschel Warp Knitting Technology.
- WRA is providing its Technical and testing services to PPE-Coverall manufacturer extensively.
- WRA has Developed Fabric using 100% Polybenzimidazole fibre (ABPBI) filament yarn. The process involved twisting of 100% ABPBI yarn, warping and weaving.
- WRA has developed prototype composite made up of 100% Knitted glass yarn and Deccani Wool having applications in fire and electrical resistant panels
- Commercialized narrow width fabric developed on Warp Knitting Machine for Vissco Rehabilitation Pvt Ltd under medical Textile Sector with an initial order of 200 Kgs.
- Developed 2D, 3D warp knitted fabric using specialized yarn such as Glass and Aramid.
- WRA has developed fabrics for Technical Textiles using Warp Knitting Technology (Tricot Types). It includes the followings:
 - ❖ Sports Apparels
 - ❖ Curtain fabrics
 - ❖ Raised Velvet Fabrics
 - ❖ Fabrics for automotive textiles
 - ❖ Seat Cover Fabrics
 - ❖ Fabrics for Home Textiles

Carpet training programme for economic upliftment of under privileged women in the rural areas with Mahila Arthik Vikas Mahamandal (MAVIM), Government of Maharashtra

Carpet Training Programme for under privileged women in the Chandrapur District of Maharashtra at Two 02 centres are undergoing. This programme is coordinated by Mahila Arthik Vikas Mahamandal (MAVIM). 180 numbers of hand knotted and hand tufted carpets were developed under these 02 centres.



MANUFACTURING PROCESS.....CONT



❖ Carpet Loom yarn Mounting



❖ Carpet Weaving



Pombhurna Centre Produced Carpet
gifted to Honorable C.M. & Honorable
Minister for Women & Child Welfare by
Honorable Chairman, MAVIM





**Pombhurna Centre Produced Carpet displayed at
Afganistan Embassy**

12.0 PAPERS PRESENTED/PUBLISHED & PATENTS APPLIED

During the year 2020-21 following Article/ write up were published by technical staff of WRA.

- Mr. Shishir Tyagi published a write up under Guidance of Shri. K. K. Misra about "Covid 19 in India: WRA designs indigenous cost effective sanitising cum disinfection chamber " in Textile value chain, dated: April 13, 2020
- Mrs. Smita Bait, Mr. Shishir Tyagi and Mr. Mayur Basuk published a write up on "Reusable Breathable PPE coverall for COVID Warriors " in Textile Value Chain, June 2020.
- Devvert Ruhela, Aniket Gajbhiye, published article on "Application of Various Optical Brightening Agents (OBA'S/FWA'S) For Value Addition of Indian Textiles", in International Journal of Creative Research Thoughts, Volume 8, Issue 7 , July 2020
- Dr. Mrinal Choudhari published article about "Detailed activates of Wool Research Association in Marathi" in Diwali special issue of Udyojag Magazine of Maharashtra Centre for Entrepreneurship Development (MCED) November 2020.
- Mrs. Smita Bait has Submitted Paper on "ESIPT core containing Benzothiazole and Benzimidazole based fluorescent acid azo dyes for protein fibre: Synthesis, spectral characteristics, and fastness evaluation" to Polycyclic Aromatic Compounds magazine
- Mrs. Smita Bait has Submitted Paper on , "Synthesis, Characterization and dyeing performance of ESIPT core containing Benzothiazole and Benzimidazole based fluorescent acid azo dyes", to Coloration Technology
- Mrs. Smita Bait has Submitted Paper on, "A study on multifunctional protein fibre with UV protection, moth repellency and antibacterial properties using ESIPT core containing benzimidazole and benzothiazole based functional acid azo dyes", to Journal of Indian Chemical Society

PATENTS APPLIED

- Ø “Water soluble fluorescent dyes for protein fibre” Indian Application No.201921045226.- Patent complete specification filled and application has been published in Indian Patent office journal
- Ø “Novel Detergent Formulation for Wool with Immobilised Enzymes”. Indian Patent Application No. 201921041169- filed complete specification for the said patent application along with request for examination.

13.0 MEETINGS ATTENDED:**Shri. K.K. Misra, Director (Officiating) & C.O.O., WRA**

- Attended 22nd Virtual Meeting of Textile Division Council (TXDC), BIS held on 28th May, 2020.
- Attended 53rd Executive Committee Meeting of CWDB through Video Conferencing on 26th June, 2020.
- Attended 30th Governing Body Meeting of CWDB through Video Conferencing on 11th August, 2020.
- Attended Webinar on Collaboration with Australia on Wool Technology of CWDB through Video Conferencing on 18th September, 2020.
- Attended 10th Annual General Meeting of Indian Technical Textile Association (ITTA) through Video Conferencing on 16th December, 2020.
- Attended Webinar on “TECHNOTEX 2021” organized by Ministry of Textiles, Government of India and FICCI from 17th March – 19th March 2021

Dr. Mrinal Choudhari, Joint Director, WRA

- Attended Meeting of Mumbai Upnagar Uddyojakta Sallagar Samiti organised By MCED , Mumbai Region on 03-11-2020 at Kokan Bhavan , CBD Belapur
- Attended Meeting of Thane Raigad Sallagar Kaksh organised By MCED , Raigad Region on 31-10-2020 at A C Patil College of Engineering , Kharghar
- Attended Webinar on “TECHNOTEX 2021” organized by Ministry of Textiles, Government of India and FICCI from 17th March – 19th March 2021

Ms. Seema Patel, Joint Director, WRA

- Attended 20th Meeting of Physical Test Method of Test Sectional Committee (TXD01), BIS through Video Conferencing held on 4th August, 2020.
- Attended Webinar on “TECHNOTEX 2021” organized by Ministry of Textiles, Government of India and FICCI from 17th March – 19th March 2021

Mrs. Smita Bait, Deputy Director, WRA

- Visited Maharashtra Centre for Entrepreneurship Development, Mumbai on 28th October 2020.
- Attended Webinar on “TECHNOTEX 2021” organized by Ministry of Textiles, Government of India and FICCI from 17th March – 19th March 2021

Mr. Shishir Tyagi, Deputy Director, WRA**List of Webinar attended**

- Webinar on “Management of Water Quality for Textile Processes” organized by The Textile Association (India), Mumbai on, 15th October 2020
- Webinar on 'Thermo-physiological comfort of clothing'. Jointly organized by SDC International along with National Engineering School of Monastir- Monastir University on 16th October 2020
- Webinar on Sustainable Materials in Technical Textile Applications” Jointly organized by SVPISTM and GIZ, Germany on 25th November, 2020
- Webinar on “Disposability of PPE kit-Impact on Environment - challenges and remedies” Jointly organized by SVPISTM and GIZ, Germany on 28 January, 2021 (Thursday)
- “TECHNOTEX 2021” organized by Ministry of Textiles, Government of India and FICCI from 17th March – 19th March 2021
- Participated in Webinar – “Safe, Efficient, Enhanced – The Archroma Way to a Sustainable World”. organized by Archroma on 30th sept 2020
- Webinar - Innovation Excellence Indicators Framework:. organized by Confederation of Indian Industry on 17 September 2020
- Webinar — 'Sustainability & Diverse Aspects of Textiles Manufacturing'. organized by U.P. Textile Technology Institute, Aug 9th, 2020
- Webinar on "Growth opportunities of Indian Technical Textile Industry in Domestic & Global Markets" organized by Alumni Association of DJFT (University of Calcutta). 4th August, 2020
- Webinar titled “A Glimpse of New Generation Textile Fibre delivered by Mr. T.K. Sinha, SVITT on 21st July 2020”.

Mr. Mayur Bauk, Deputy Director, WRA**List of Webinar attended**

- Webinar titled "Science of Clothing Comfort” delivered by Dr. V K Kothari on 17th July 2020 organized by SVVV, Indore
- Attended 20th Meeting of Physical Test Method of Test Sectional Committee (TXD01), BIS through Video Conferencing held on 4th August, 2020.
- Webinar on “Management of Water Quality for Textile Processes” organized by The Textile Association (India), Mumbai on, 15th October 2020
- Webinar on 'Thermo-physiological comfort of clothing'. Jointly organized by SDC International along with National Engineering School of Monastir- Monastir University on 16th October 2020
- Webinar on Sustainable Materials in Technical Textile Applications” Jointly organized by SVPISTM and GIZ, Germany on 25th November, 2020
- Webinar on “Opportunities for Textile Technologist in Textile and Allied Industries” organized by Centre for Textile Functions, Mukesh Patel School of Technology Management & Engineering, NMIMS – Deemed to be University, Shirpur, Dhule District, Maharashtra on 10th – 11th, December 2020
- Webinar on “Disposability of PPE kit-Impact on Environment - challenges and remedies” Jointly organized by SVPISTM and GIZ, Germany on 28th January, 2021 (Thursday)
- Webinar “Will year 2021 be a game changer for the textile industry?” organized by The Textile Association (India), Mumbai Unit on, 6th February 2021

- “TECHNOTEX 2021” organized by Ministry of Textiles, Government of India and FICCI from 17th March – 19th March 2021
- Webinar Various Aspects of Garmenting and Career Options organized by U.P.Textile Technology Institute, October 4th, 2020
- Webinar – “Safe, Efficient, Enhanced – The Archroma Way to a Sustainable World”. organized by Archroma on 30th sept 2020
- Orientation Webinar - Innovation Excellence Indicators Framework:. organized by Confederation of Indian Industry on 17 September 2020
- Webinar — 'Sustainability & Diverse Aspects of Textiles Manufacturing'. organized by U.P.Textile Technology Institute, Aug 9th, 2020
- Webinar on "Growth opportunities of Indian Technical Textile Industry in Domestic & Global Markets" organized by Alumni Association of DJFT (University of Calcutta). 4th August, 2020
- Webinar: "Circular Apparel And Textile – A Strategy For Better Preparedness "by Ms. Devyani Hari Director (Programmes) Centre for Responsible Business (CRB), New Delhi - Jul 20, 2020 03:30
- Webinar titled “A Glimpse of New Generation Textile Fibre delivered by Mr. T.K. Sinha, SVITT on 21st July 2020”.

14.0 WORK BY THE PROJECT TEAM

- Mr. Mayur Basuk visited Vissco Rehabilitation Aids Pvt. Ltd., Umbergoan for technical discussion in October 2020.
- Trials of developed sportsgear with therapeutic properties were conducted at Hiranandani College of Pharmacy, Ulhasnagar & at different schools in Navi Mumbai in Association with M/s Khanna Sports, Mumbai.
- Conducted field trials of MBR based effluent treatment plant at M/s Mahadev Woollen Mills, Sundernagar, HP.

15.0 SEMINAR/ CONFERENCES /EXHIBITIONS ATTENDED/ CONDUCTED:

- **TECHNOTEX 2020 - Virtual online platform :**

TECHNOTEX 2020 is India's premier show on technical textiles. This spectacular flagship event comprised of an International exhibition, conference, and seminars. A common platform for interaction amongst stakeholders from across the global technical textile value chain, TECHNOTEX exemplifies the immense potential for trade and investment between India and foreign countries in technical textile sector. The 8th edition of International Exhibition and Conference on Technical Textiles i.e. Technotex 2020 pooled in participants, visitors and other key decision makers from a diverse cross section of the technical textile industry with a view to provide more innovative solutions, identify new business opportunities and create an environment congenial for growth. Organized by Ministry of Textiles, Government of financial capital of India. The theme of this year's conference was “Make in India” initiative of Government of India and it chalked out a roadmap to make India a manufacturing hub for technical textiles.



WRA CoE Sportech at Technotex 2021 Virtual online platform

- Dr. Mrinal Choudhari participated as a Speaker in a webinar on “Sport tech and Testing Facilities at Wool Research Association” organized by Dr. Bhanuben Mahendra Nanavati College of Home Science, Matunga, Mumbai on 23rd July 2020.
- Dr. Mrinal Choudhari participated as a Speaker in webinar on “Safety First: Use of Personal Clothing in fight against the Pandemic” organized by Sir Vithaldas Thackersey College of Home Science an Autonomous and a constituent college of S.N.D.T. Women's University, Mumbai on 1st June 2020.
- Dr. Mrinal Choudhari participated as an Expert in a workshop Organized on “Role of TRAs and Academic Institutions in advancement of Technical Textile Industry in India” by IIT Delhi on 14th October 2020
- Ms. Smita Bait has given expert lecture on “Textiles: Advances in Research and Applications” on 3rd October, 2020 at J.D. Birla Institute, Kolkata (Virtual Mode).

16.0 TRAINING PROGRAMME CONDUCTED / ATTENDED :

- Organized “Training on Wool/Pashmina testing technology on Fiber, Yarn and Fabric aspects” at Wool Research Association, Thane From date 22nd Feb 2021 to 27th Feb 2021 for personnel from Sheep Husbandry Deptt., Leh, Ladakh



Free introductory webinar has been Organized By WRA team and MCED on 4th December 2020, at 2.00 pm on About 1. WRA and WRA's COE activities 2. Sportswear & Knitting Technology & Entrepreneurship 3. Development of PPE & Mask for Start-up Entrepreneurs, Academicians, Researchers and students from Technical Institutions.

17.0 **COUNCIL MEETINGS**

Two Governing Council Meetings and One Annual General Meeting were held during the year 2020-2021.

151st Governing Council Meeting

Wool Research Association's 151st Governing Council Meeting (Virtual) was held on 15th December, 2020 at 3.30 p.m

152nd Governing Council Meeting

Wool Research Association's 152nd Governing Council Meeting of Wool Research Association was held on 19th March, 2021 at 12.30 p.m. in the Committee Room, Indian Woollen Mills' Federation, Churchgate Chambers, 7th floor, 5, New Marine Lines, Mumbai – 400020.

55th Annual General Meeting

55th Annual General Meeting of the Members of the Wool Research Association was held on Tuesday 29th December, 2020 at 12.30 p.m. in the Committee Room, Indian Woollen Mills' Federation, Churchgate Chambers, 7th floor, 5, New Marine Lines, Mumbai – 400020.

18.0 MEMBERS OF WRA**ORDINARY MEMBERS :**

01. M/s. Bhilwara Synthetics Ltd, Bhilwara
02. M/s. Banswara Syntex Limited, Banswara
03. M/s. Cashmere Marketing Agencies, Srinagar
04. M/s. Centex International Pvt. Ltd., Ludhiana
05. M/s. G. R. Woollen Mills Pvt. Ltd., Mumbai
06. M/s. Grentex & Co. Pvt. Ltd. Mumbai
07. M/s. Gujarat Sheep & Wool Development Corporation., Gandhinagar
08. M/s. Geetanjali Woollens Pvt. Ltd., Panchmahal
09. M/s. Grasim Industries (Jaya Shree Textiles), Hooghly
10. M/s. Kusumgar Corporates Pvt. Ltd., Mumbai
11. M/s. Kapotex Industries Pvt. Ltd., Gujarat
12. M/s. Modern Woollens , Mumbai
13. M/s. Raymond Limited., Thane
14. M/s. Saravanabava Mills, Mumbai
15. M/s. Shree Ram Textile Mills Ltd., Silvassa
16. M/s. Thaker Felts Pvt. Ltd., Vadodara
17. M/s. Wooltex Associates, Mumbai

ASSOCIATE MEMBERS :

18. M/s. Indian Woollen Mills Federation, Mumbai
19. M/s. Woolmark Services India Pvt. Ltd, Thane

SPECIAL ASSOCIATE MEMBERS :

20. M/s. The Synthetic & Art Silk Mills Research Association, Mumbai
21. M/s. OCM India Ltd, Amritsar

19.0 FOUNDER MEMBERS OF WOOL RESEARCH ASSOCIATION IN 1963

1. Mr. T.N. Khaitan.
Dhruva Woollen Mills Pvt. Ltd.,
Sun Mill Compound, Lower Parel, Bombay
2. Mr. G.K. Singhanian
Raymond Woollen Mills Ltd., J.K. Building,
Ballard Estate, Bombay
3. Mr. B.M. Grover
Modella Woollen Mills,
50, Vulcan Insurance Bldg.,
Veer Nariman Road, Bombay
4. Mr. L.P. Pittie
Bombay Woollen Mills P. Ltd.
20, Hamam Street, Bombay
5. Mr. R.K. Seth
Simplex Woollen Mills
Sadhana Raymond House,
D.N. Road, Bombay
6. Mr. R.B. Kanwar Rajnath
Ahmed Woollen Mills
Amernath C. Rly.
Office : 87, Tamba Kanta
Nakhoda Street, Bombay
7. Mr. T.K. Nagpal
Nagpal Woollen Mills
Old Atlas Mills Compound,
Reay Road, Bombay
8. Mr. R.K. Birla
Shree Digjam Woollen Mills
Aerodrome Road, Jamnagar

20.0 LIST OF CHAIRMAN EMERITUS / PRESIDENTS / SR.VICE PRESIDENTS & VICE PRESIDENTS SINCE INCEPTION

PERIOD/ YEAR	CHAIRMAN EMERITUS	PRESIDENT	SR. VICE PRESIDENT	VICE PRESIDENT
1964/65 to 1968/69	-----	Mr.G..K. Singhanian Raymond Woollen Mills	Mr. T.N. Khaitan Dhruva Woollen Mills	Mr. L.P. Pittle Bombay Woollen Mills
1969/70	-----	Mr. U.M. Patel Dinesh Woollen Mills	Mr. B.M. Grover Modella Woollen Mills	Mr. B.B. Nagpal Nagpal Woollen Mills
1970/71 to 1975/76	-----	Mr. B.M. Grover Modella Woollen Mills	Mr. L.P. Pittle Bombay Woollen Mills	Mr. R.K. Seth Simplex Woollen Mills
1976/77 to 1977/78	-----	Mr. B.M. Grover Modella Woollen Mills	Mr. L.P. Pittle Bombay Woollen Mills	Mr. T.N. Khaitan Dhruva Woollen Mills
1978/79 to 1981/82	-----	Mr. B.M. Grover Modella Woollen Mills	Mr. T.N. Khaitan Dhruva Woollen Mills	Mr. B.K. Kedia Raymond Woollen Mills
1982/83	-----	Mr. T.N. Khaitan Dhruva Woollen Mills	Mr. B.K. Kedia Raymond Woollen Mills	Mr. U.M. Patel Dinesh Woollen Mills
1983/84	-----	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. U.M. Patel Dinesh Woollen Mills	Mr. K.V. Iyer Raymond Woollen Mills
1984/85 to 1993/94	-----	Mr. B.K. Kedia Raymond Woollen Mills	Mr. U.M. Patel Dinesh Woollen Mills	Mr. Ravikant Kapur Grentex & Co.
1994/95 to 1997/98	Mr. B.K. Kedia Raymond Woollen Mills	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. U.M. Patel Dinesh Woollen Mills	Mr. K.V. Iyer Raymond Woollen Mills
1998/99 to 1999-2000	Mr. B.K. Kedia Raymond Woollen Mills	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. Hari Prasad Kedia Raymond Limited	Mr. A.N. Choudhary Jayashree Textiles
2000-2002	Mr. B.K. Kedia Raymond Woollen Mills	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. V.K. Bhartia Raymond Limited	Mr. A.N. Choudhary Jayashree Textiles
2002-2004	Mr. B.K. Kedia Raymond Woollen Mills	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. V.K. Bhartia Raymond Limited	Mr. A.N. Choudhary Jayashree Textiles
2004-2006	Mr. B.K. Kedia Raymond Woollen Mills	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. V.K. Bhartia Raymond Limited	Mr. A.N. Choudhary Jayashree Textiles
2006-2008	Mr. B.K. Kedia Raymond Woollen Mills	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. S.K. Singhal Raymond Limited	Mr. R.K.Khanna Amritsar Swadeshi
2008-2010	Mr. B.K. Kedia Raymond Woollen Mills	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. K. Singhal Raymond Limited	Mr. .K.Khanna Amritsar Swadeshi
2010-2012	-----	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. S.K. Singhal Raymond Limited	Mr. R.K.Khanna Amritsar Swadeshi
2012-2014	-----	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. S.L. Pokharna Raymond Ltd	Mr. R.K.Khanna Amritsar Swadeshi Mr. R.K. Khandelwal Raymond Ltd
2014-2016	-----	Mr. Ravikant Kapur G.R. Woollen Mills Ltd	Mr. H.K. Chatterjee Raymond Ltd	Mr. Deepak Goel Geetanjali Woollens P. L. Mr. R.K. Khandelwal Raymond Ltd
2016-2018	Mr. Ravikant Kapur Grentex & Co. Pvt. Ltd.	Mr. H.K. Chatterjee Raymond Ltd	Mr. Deepak Goel Geetanjali Woollens P. Ltd.	Mr. R.K. Khandelwal Raymond Ltd
2018-2020	Mr. Ravikant Kapur Grentex & Co. Pvt. Ltd.	Mr. H.K. Chatterjee Raymond Ltd	Mr. Deepak Goel Geetanjali Woollens P. Ltd.	-----
220-2022	Mr. Ravikant Kapur Grentex & Co. Pvt. Ltd.	Mr. H.K. Chatterjee Raymond Ltd	Mr. Deepak Goel Geetanjali Woollens P. Ltd.	-----

21.0 LIST OF DIRECTOR GENERAL /DIRECTORS/ JOINT DIRECTOR /DY.DIRECTORS SINCE INCEPTION

PERIOD (YEAR)	SECRETARY	DIRECTOR GENERAL	DIRECTOR	JOINT DIRECTOR	DEPUTY DIRECTOR
1964/65	Mr. J.N. Chaudhuri	-	-	-	-
1965/66	Mr. A.C. Chaudhuri	-	-	-	Dr.M.G. Kulkarni
1966/67 & 1967/68	Mr. A.C. Chaudhuri	-	-	-	Dr. N.P. Badve
1968/69 & 1969/70	Mr. A.C. Chaudhuri	-	-	-	Dr. N.P. Badve
1970/71 to 1977/78	Mr. A.C. Chaudhuri	-	Mr. Sule Assistant Director (from 1971 to 1975)	-	-
1978/79	Mr. A.C. Chaudhuri	-	Dr.V.G. Kulkarni	-	-
1979/80	Mr. A.C. Chaudhuri	-	-	-	Dr(Mrs) Usha Nandurkar
1980/81 & 1981/82	-	-	Dr.A.D.M. Nath	-	Dr(Mrs) Usha Nandurkar
1983/84 to 1985/86	-	-	Dr(Mrs) Usha Nandurkar	-	-
1986/87 to 1987/88	-	-	Dr.(Mrs) S. Patwardhan (Offg)	-	-
1988/89 to 1998/99	-	-	Dr.(Mrs) S. Patwardhan	-	-
Jan' 2000 - 7 th Sept.2003	-	-	Mrs. G.P. Rane Acting Director (Offg)	-	-
8 th Sept.2003 - 7 th Sept.2006	-	-	Mr. S.C. Agarwal	-	Mrs. G.P. Rane
8 th Sept.2006	-	-	-	-	Mrs. G.P. Rane
2 nd July, 2007 to 2015	-	-	Mr. M.K. Bardhan	-	-
1 st March 2012-15	-	-	-	-	Dr (Mrs) Mrinal Choudhari
January,2016 onwards	-	Mr. M. K. Bardhan	-	Dr. (Mrs.) Mrinal Choudhari	Mr. P.R.Kulkarni
May- Dec,' 2016	-	-	Dr. Suman Bhattacharyya	-	-
June, 2016 onwards	-	-	-	-	Mr. Shivendra Parmar
Feb.'2017 till Sep., 2019 June,2017 onwards August,2017 onwards	-	-	Dr. A.K. Sharma	Dr. (Mrs.) Mrinal Choudhari Ms. Seema Patel Mr. Pawan Sharma	-
July, 2019	-	-	Dr. Md. S. Rahman	Dr. (Mrs.) Mrinal Choudhari Ms. Seema Patel Mr. Pawan Sharma	-
Dec., 2020 onwards	-	-	Shri. K. K. Mishra Director (Officiating) & C.O.O.	Dr. (Mrs.) Mrinal Choudhari Ms. Seema Patel	-

22.0 LIST OF DONOR MEMBERS

SR. NO.	NAME OF THE ORGANISATION	YEAR OF DONATION
1	M/s Raymond Woollen Mills	1971-72
2	M/s Modella Woollens Ltd	1971-72
3	M/s Shree Dinesh Mills	1971-72
4	M/s G.K. Nagpal Sons	1971-72
5	M/s Beekay & Sons	1971-72
6	M/s Shree Digvijay Woollen Mills Ltd.	1971-72
7	M/s Dhruva Woollen Mills	1971-72
8	M/s Wool Combers of India	1971-72
9	M/s Bombay Woollen Mills	1971-72
10	M/s Karamchand Tulsidas	1971-72
11	Shri. B.M. Grover - Chairman - Modella (For Physical & Colour Research Laboratory)	1976-77
12	Shri Gopal Krishna Singhania - Raymond (For Chemical Research Laboratory)	1980-81
13	Shri. Upendrabhai M. Patel - Chairman Shri Dinesh Mills Ltd (For Textile Research Department)	1992-93
14	M/s R. G. Deshpande and Bros.	1999-2000
15	Shri. M. K. Bardhan, Ex-Director, W.R.A.	2019-2020

23.0 EDUCATIONAL ACTIVITIES

- Smt. Smita Bait and Mr. Mayur Basuk are pursuing Ph.D.

24.0 ACKNOWLEDGEMENT

We are thankful to Ministry of Textiles, Ministry of Finance, Central Wool Development Board, Office of the Textile Commissioner, Department of Science & Technology, Indian Woollen Mills Federation for the help extended to Wool Research Association from time to time.

J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS

Registered Office :
D/401, Shantidwar C & D Wing CHS
Shantivan, Borivali (East)
Mumbai - 400066

Tel : 022 – 2897 0736
Email : jpj@jpjassociates.com

AUDITOR'S REPORT

To the Members
Wool Research Association
Thane

Report on the Financial Statements

We have audited the accompanying financial statements of Wool Research Association ("the Society"), which comprise the Balance Sheet as at March 31, 2021, and the Income and Expenditure Account for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance in accordance with the Accounting Standards and Generally accepted accounting principles. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Society's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion and to the best of our information and according to the explanations given to us, the financial statements give the information required by the Act in the manner so required and give a true and fair view subject to

- a) Note No. 3 regarding Balance Confirmations,
- b) Note No. 4 regarding Subscription
- c) Note No. 6 Non provision of diminution of Value of investment.
- d) Note No. 11 Non Provision of Depreciation.
- e) Note No. 15 Non Provision for ESIC.

in conformity with the accounting principles generally accepted in India:

(a) in the case of the Balance Sheet, of the state of affairs of the Society as at March 31, 2021;

(b) in the case of the Income and Expenditure Account, the Excess of Expenditure over Income for the year ended on that date; and

Report on Other Legal and Regulatory Requirements

a. we have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;

b. in our opinion proper books of account as required by law have been kept by the Society so far as appears from our examination of those books;

c. the Balance Sheet, Income and Expenditure Account dealt with by this Report are in agreement with the books of account;

for J.P.J. ASSOCIATES LLP
 CHARTERED ACCOUNTANTS
 FIRM REG.NO. 113012 W/W100296

Sd/-

VAIBHAV VAIDYA
 PARTNER
 MEM. NO. 157754

Date : 18th November, 2021
 UDIN : 21157754AAAAHA2810

WOOL RESEARCH ASSOCIATION, THANE.
BALANCE SHEET AS ON 31st MARCH 2021

AS ON 31/03/2020 Rs.	LIABILITIES	SCHE- DULE	AS ON 31/03/2021 Rs.	AS ON 31/03/2020 Rs.	ASSETS	SCHE- DULE	AS ON 31/03/2021 Rs.
7,08,07,121	CAPITAL FUND	A	7,73,67,225	35,30,73,155	FIXED ASSETS	E	35,81,97,083
8,29,51,668	RESERVES	B	9,92,41,757	11,56,400	INVESTMENT AT COST		11,56,400
3,58,80,489	SUNDRY LIABILITIES	C	3,23,51,085		11564/- Equity shares of Rs.100/- each		
27,06,68,678	GRANT-IN-AID FROM MOT, KVIC, AIHB, & UNDP TOWARDS CAPITAL EXPS. FOR SPECIAL PROJECTS	D	26,67,97,738		fully paid up of M/s.Gujarat Sheep & Wool Development Corpn. Ltd., (for break-up value of the shares, please refer to Note 6 the notes on Account schedule "L")		
	COE - SPORTECH						
	OP.Balance						
	Grant recd.						
	Add: Int.recd. on F.D.						
	Add: EMD & Other receipts						
26,308	Less : Funds applied/utilised		25,659	7,22,04,918	CURRENT ASSETS	F	8,52,53,423
	Design & Dev.of Light weight..						
	OP.Balance						
	Grant recd.						
	Industry's/Institute:s Share						
	Add: Other receipts			96,68,282	LOANS & ADVANCES	G	63,09,232
30,998	Less : Funds applied/utilised		28,245	2,48,35,027	PROJECTS	H	2,62,95,093
	MAVIM						
	Op. Bal.						
	Grant recd.						
	Add: Int.recd. on F.D.						
	Add: Other receipts.						
5,72,520	Less : Funds applied/utilised		13,99,522				
46,09,37,782	TOTAL		47,72,11,231	46,09,37,782	TOTAL		47,72,11,231

for J.P.J. ASSOCIATES LLP
 CHARTERED ACCOUNTANTS
 FIRM REG.NO. 113012 W/W100296

NOTE : SEE SCHEDULE 'L' OF NOTES ON ACCOUNTS AS PER OUR REPORT OF EVEN DATE ATTACHED.

Sd/-
 VAIBHAV VAIDYA
 PARTNER
 MEM. NO. 157754

Sd/-
 R.V. BHANDARKAR
 SR. ACCTS. OFFICER

Sd/-
 K. K. MISHRA
 DIRECTOR (OFFICIATING) & COO

Sd/-
 H. K. CHATTERJEE
 PRESIDENT

PLACE : MUMBAI
 DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION, THANE.
INCOME AND EXPENDITURE ACCOUNT FOR NON-PLAN A/C FOR THE YEAR ENDED 31st MARCH 2021

AS ON 31/03/2020 Rs.	EXPENDITURE	SCHE- DULE	AS ON 31/03/2021 Rs.	INCOME	SCHE- DULE	AS ON 31/03/2021 Rs.
1,91,91,494	STAFF SALARY	I	2,04,54,971	GRANT-IN-AID FROM MINISTRY OF TEXTILES, GOVT., OF INDIA TOWARDS RECURRING EXPENDITURE		1,50,00,000
1,04,51,299	ESTABLISHMENT CHARGES	J	88,91,372			
45,000	AUDIT FEES		45,000			
24,725	AGM, SEMINAR & MEETING AND CONFERENCE EXPS.		11,025	SCHEDULE - (INCOME) INDUSTRY'S CONTRIBUTION TOWARDS RECURRING EXPS.	K	1,56,19,741
11,275	CHEMICALS AND RAW MATERIAL		76,178			
10,62,688	PROJECT COST INCURRED BY WRA		11,41,195	EXCESS OF EXPENDITURE OVER INCOME CARRIED TO BALANCE SHEET		5,95,476
4,59,330	DEPRECIATION		5,95,476			
3,12,45,811	TOTAL		3,12,15,217	TOTAL		3,12,15,217

NOTE : SEE SCHEDULE 'L' OF NOTES ON ACCOUNTS AS PER OUR REPORT OF EVEN DATE ATTACHED.

for J.P.J. ASSOCIATES LLP
 CHARTERED ACCOUNTANTS
 FIRM REG.NO. 113012 W/W100296

Sd/-
 VAIBHAV VAIDYA
 PARTNER
 MEM. NO. 157754

Sd/-
 R.V. BHANDARKAR
 SR. ACCTS. OFFICER

Sd/-
 K. K. MISHRA
 DIRECTOR (OFFICIATING) & COO

Sd/-
 H. K. CHATTERJEE
 PRESIDENT

PLACE : MUMBAI
 DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**(R & D PROJECT)****INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021**

PROJECT : Development of Membrane Bioreactors as a solution for compact ,high quality effluent treatment to achieve zero-discharge for decentralized woolen and carpet sector and common facility centres (SCHEDULE - 1)

PREVIOUS YEAR (Rs.)	EXPENDITURE	CURRENT YR. (Rs.)	PREVIOUS YEAR (Rs.)	INCOME (Rs.)	CURRENT YR. (Rs.)
205025.00	Salaries/Wages	-	462196.00	Grant-in-Aid from Ministry of Textiles, New Delhi	—
1300.00	Raw material/consumables	-	(Due)		
45871.00	Promotion/Proof of Concept	-			
210000.00	Consultancy	-			
462196.00	TOTAL	-	462196.00	TOTAL	—

Note : 1. See schedule 'L' of Notes on Accounts as per our report even date attached.

2. As informed to us by the management, Rs. 4,62,196/- is still to be received as on 31st March 2021.

for J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

Sd/-
VAIBHAV VAIDYA
PARTNER
MEM. NO. 157754

Sd/-
R.V. BHANDARKAR
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DIRECTOR (OFFICIATING) & COO

Sd/-
H. K. CHATTERJEE
PRESIDENT

PLACE : MUMBAI
DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**(R & D PROJECT)****INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021**

PROJECT : Development of Novel Detergent Formulation for wool with immobilized enzymes for enhancing machine wash ability of wool fabric. (SCHEDULE - 2)

PREVIOUS YEAR (Rs.)	EXPENDITURE	CURRENT YR. (Rs.)	PREVIOUS YEAR (Rs.)	INCOME (Rs.)	CURRENT YR. (Rs.)
86445.00	Raw material/consumables	330830.00	108812.00 (Due)	Grant-in-Aid from Ministry of Textiles, New Delhi (Due)	466326.00 (Due)
60200.00	Consultancy	308500.00			
8800.00	Promotion/Proof of Concept	26850.00	46633.00	Industry's/WRA'S contribution towards project expenses	199854.00
155445.00	TOTAL	666180.00	155445.00	TOTAL	666180.00

Note : See schedule 'L' of Notes on Accounts as per our report even date attached.

for J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

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VAIBHAV VAIDYA
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H. K. CHATTERJEE
PRESIDENT

PLACE : MUMBAI
DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**(R & D PROJECT)****INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021**

PROJECT : Development of active fitness clothing like gym and yoga wear with infrared Thermal reflecting property to enhance body fitness.

(SCHEDULE - 3)

PREVIOUS YEAR (Rs.)	EXPENDITURE	CURRENT YR. (Rs.)	PREVIOUS YEAR (Rs.)	INCOME (Rs.)	CURRENT YR. (Rs.)
156246.00	Raw material/consumables	—	858438.00 (Due)	Grant-in-Aid from Ministry of Textiles, New Delhi (Due)	—
338689.00	Consultancy	—			
499461.00	Promotion/Proof of Concept	—			
231944.00	Overheads/Travelling	—	367902.00	Industry's/WRA'S contribution towards project expenses	—
1226340.00	TOTAL	—	1226340.00	TOTAL	—

Note : 1. See schedule 'L' of Notes on Accounts as per our report even date attached.

2. As informed to us by the management, Rs. 8,58,438/- is still to be received as on 31st March 2021.

for J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

Sd/-
VAIBHAV VAIDYA
PARTNER
MEM. NO. 157754

Sd/-
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SR. ACCTS. OFFICER

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K. K. MISHRA
DIRECTOR (OFFICIATING) & COO

Sd/-
H. K. CHATTERJEE
PRESIDENT

PLACE : MUMBAI
DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION
(R & D PROJECT)
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021

PROJECT : Synthesis of water soluble fluorescent colorants for high visible hydrophilic textile substrates (SCHEDULE - 4)

PREVIOUS YEAR (Rs.)	EXPENDITURE	CURRENT YR. (Rs.)	PREVIOUS YEAR (Rs.)	INCOME (Rs.)	CURRENT YR. (Rs.)
639426.00	Salaries/Wages	–	1307471.00 (Due)	Grant-in-Aid from Ministry of Textiles, New Delhi	76670.00 (Due)
219073.00	Raw material/consumables	–			
427532.00	Promotion/Proof of Concept	76670.00			
21440.00	Overheads/Travelling	–			
1307471.00	TOTAL	76670.00	1307471.00	TOTAL	76670.00

Note : See schedule 'L' of Notes on Accounts as per our report even date attached.

for J.P.J. ASSOCIATES LLP
 CHARTERED ACCOUNTANTS
 FIRM REG.NO. 113012 W/W100296

Sd/-
 VAIBHAV VAIDYA
 PARTNER
 MEM. NO. 157754

Sd/-
 R.V. BHANDARKAR
 SR. ACCTS. OFFICER

Sd/-
 K. K. MISHRA
 DIRECTOR (OFFICIATING) & COO

Sd/-
 H. K. CHATTERJEE
 PRESIDENT

PLACE : MUMBAI
 DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION
(R & D PROJECT)

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021

PROJECT : Synthesis of optical whiteners with good photostability and improvements in the bleaching processes to produce photostable bright white and pastels shades woollen casual fashion knitwear, sports and leisurewear products and carpets using Indian and other cheaper imported qualities of wool

(SCHEDULE - 5)

PREVIOUS YEAR (Rs.)	EXPENDITURE	CURRENT YR. (Rs.)	PREVIOUS YEAR (Rs.)	INCOME (Rs.)	CURRENT YR. (Rs.)
186525.00	Raw material/consumables	174160.00	354398.00 (Due)	Grant-in-Aid from Ministry of Textiles, New Delhi (Due)	194205.00
237400.00	Consultancy	—			
82357.00	Promotion/Proof of Concept	103275.00	151884.00	Industry's/WRA'S contribution towards project expenses	83230.00
506282.00	TOTAL	277435.00	506282.00	TOTAL	277435.00

Note : 1. See schedule 'L' of Notes on Accounts as per our report even date attached.

for J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

Sd/-
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Sd/-
H. K. CHATTERJEE
PRESIDENT

PLACE : MUMBAI
DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**(R & D PROJECT)****INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021**

PROJECT : Development of sports gears (inner wears, socks, bands, leggings etc.) with controlled release microencapsulated natural essential, herbal oils for therapeutic benefits including protection of health, skincare and recovery of injuries and hygiene of sportsperson

(SCHEDULE - 6)

PREVIOUS YEAR (Rs.)	EXPENDITURE	CURRENT YR. (Rs.)	PREVIOUS YEAR (Rs.)	INCOME (Rs.)	CURRENT YR. (Rs.)
291103.00	Raw material/consumables	–	129142.00 (Due)	Grant-in-Aid from Ministry of Textiles, New Delhi (Due)	–
34600.00	Promotion/Proof of Concept	–	196561.00	Industry's/WRA'S contribution towards project expenses	--
325703.00	TOTAL	–	325703.00	TOTAL	--

Note : 1. See schedule 'L' of Notes on Accounts as per our report even date attached.

2. As informed to us by the management, Rs. 1,29,142/- is still to be received as on 31st March 2021.

for J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

Sd/-
VAIBHAV VAIDYA
PARTNER
MEM. NO. 157754

Sd/-
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SR. ACCTS. OFFICER

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K. K. MISHRA
DIRECTOR (OFFICIATING) & COO

Sd/-
H. K. CHATTERJEE
PRESIDENT

PLACE : MUMBAI
DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**(R & D PROJECT)****INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021**

PROJECT : Design and Development of sportwear and sports accessories having Thermo Physiological comfort properties in order to enhance the performance assessed by using a Sweating Thermal Manikin system under different environmental conditions

(SCHEDULE - 7)

PREVIOUS YEAR (Rs.)	EXPENDITURE	CURRENT YR. (Rs.)	PREVIOUS YEAR (Rs.)	INCOME (Rs.)	CURRENT YR. (Rs.)
678214.00	Salaries/Wages	–	685995.00 (Due)	Grant-in-Aid from Ministry of Textiles, New Delhi	54002.00 (Due)
134208.00	Promotion/Proof of Concept	–	293998.00	Industry's/WRA'S contribution towards project expenses	23143.00
32421.00	Raw material/consumables	36645.00			
135150.00	Consultancy	40500.00			
979993.00	TOTAL	77145.00	979993.00	TOTAL	77145.00

Note : See schedule 'L' of Notes on Accounts as per our report of even date attached.

for J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

Sd/-
VAIBHAV VAIDYA
PARTNER
MEM. NO. 157754

Sd/-
R.V. BHANDARKAR
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K. K. MISHRA
DIRECTOR (OFFICIATING) & COO

Sd/-
H. K. CHATTERJEE
PRESIDENT

PLACE : MUMBAI
DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**PROJECT A/C - COE-SPORTECH****(SCHEDULE - 8)**

PREVIOUS YEAR (2019-20) (Rs.)	RECEIPTS	CURRENT YEAR (2020-21) (Rs.)	PREVIOUS YEAR (2019-20) (Rs.)	PAYMENTS	CURRENT YEAR (2020-21) (Rs.)
34,215.00	Opening Balance	26,308.00	22,63,357.00	Machinery/Lab Instruments	4,03,242.00
11,58,360.00	Interest on FD	8,20,564.00	1,15,794.00	TDS receivable	63,519.00
29,748.00	Accrued Interest	48,161.00	39,036.00	EMD Refund	6,31,500.00
14,28,677.00	Sundry Creditors	3,47,845.00	10,72,314.00	Fixed Deposits	7,73,491.00
8,66,207.00	TDS refund (recd.)	9,78,080.00	2,508.00	Bank Charges	649.00
58,852.00	Sundry Creditors	—	—	Sundry Creditors	3,22,898.00
			56,742.00	Forex loss	—
			26,308.00	Bank Balance	25,659.00
35,76,059.00	TOTAL	22,20,958.00	35,76,059.00	TOTAL	22,20,958.00

Note : See schedule 'L' of Notes on Accounts as per our report even date attached.

for J.P.J. ASSOCIATES LLP
 CHARTERED ACCOUNTANTS
 FIRM REG.NO. 113012 W/W100296

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 H. K. CHATTERJEE
 PRESIDENT

PLACE : MUMBAI
 DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION
PROJECT A/C - LAB UPGRADATION

(SCHEDULE - 9)

PREVIOUS YEAR (2019-20) (Rs.)	RECEIPTS	CUREENT YEAR (2020-21) (Rs.)	PREVIOUS YEAR (2019-20) (Rs.)	PAYMENTS	CUREENT YEAR (2020-21) (Rs.)
1,24,604.00	TDS receivable 15-16 (RECD)	2,25,977.00	—	Interest on FD including Interest refunded	11,34,940.00
—	Sundry Debtors	9,08,963.00	1,24,604.00	Sunday Debtors	—
1,24,604.00	TOTAL	11,34,940.00	1,24,604.00	TOTAL	11,34,940.00

Note : See schedule 'L' of Notes on Accounts as per our report even date attached.

for J.P.J. ASSOCIATES LLP
 CHARTERED ACCOUNTANTS
 FIRM REG.NO. 113012 W/W/100296

Sd/-
 VAIBHAV VAIDYA
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 MEM. NO. 157754

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 DIRECTOR (OFFICIATING) & COO

Sd/-
 H. K. CHATTERJEE
 PRESIDENT

PLACE : MUMBAI
 DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**PROJECT A/C. - Design and Development of Light Weight and high Impact resistance sports goods**

(SCHEDULE - 10)

PREVIOUS YEAR (2019-20) (Rs.)	RECEIPTS	CURRENT YEAR (2020-21) (Rs.)	PREVIOUS YEAR (2019-20) (Rs.)	PAYMENTS (Rs.)	CURRENT YEAR (2020-21) (Rs.)
7,92,868.00	Opening Balance	30,998.00	7,56,420.00	Salary Expenses	3,75,125.00
2,02,948.00	Industry/Institutes Share	—	57,054.00	Consultancy Charges	—
2,512.00	Sundry Creditors	4,65,513.00	1,52,204.00	Consumables	96,884.00
—	Consultancy Charges	5,454.00	1,652.00	Bank Charges	1,711.00
			30,998.00	Bank Balance	28,245.00
9,98,328.00	TOTAL	5,01,965.00	9,98,328.00	TOTAL	5,01,965.00

Note : See schedule 'L' of Notes on Accounts as per our report even date attached.

for J.P.J. ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

Sd/-
VAIBHAV VAIDYA
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K. K. MISHRA
DIRECTOR (OFFICIATING) & COO

Sd/-
H. K. CHATTERJEE
PRESIDENT

PLACE : MUMBAI
DATE : 18/11/2021

WOOL RESEARCH ASSOCIATION**PROJECT A/C. - Mahila Arthik Vikas Mahamandal (MAVIM)****(SCHEDULE - 11)**

PREVIOUS YEAR (2019-20) (Rs.)	RECEIPTS	CURRENT YEAR (2020-21) (Rs.)	PREVIOUS YEAR (2019-20) (Rs.)	PAYMENTS (Rs.)	CURRENT YEAR (2020-21) (Rs.)
-	Opening balance	5,72,519.00			
1,98,00,000.00	Grant from MAVIM (Govt. of Maharashtra)	1,15,50,000.00	1,01,88,315.00	Fixed Deposit	12,61,358.00
5,41,973.00	Sundry Creditors	-	23,67,691.00	Sundry Creditors	7,75,231.00
2,70,973.00	Interest earned	4,57,878.00	10,98,408.00	Fixed assets	15,32,421.00
-	Interest accrued on FD	28,669.00	3,63,281.00	LC margin money	-
-	LC margin money	10,98,408.00	38,82,744.00	Sundry Debtors	-
-	Sundry Debtors	1,39,835.00	3,23,467.00	Mandays/Salary Expenses	53,36,800.00
			11,48,947.00	Travelling expenses	2,40,249.00
			-	Raw material	15,24,438.00
			27,104.00	Testing & Inspection Charges	9,39,764.00
			-	Interest accrued	-
			2,16,480.00	TDS receivable	33,584.00
			-	Misc. exps.	4,51,750.00
			55,554.00	Processing Cost	1,88,150.00
			3,436.00	Interest Accrued on FD	-
			3,65,000.00	Bank Charges	4,700.00
			-	Designing/hardware/software	1,43,090.00
			-	Forex loss	1,252.00
			-	Web designing	15,000.00
			5,72,519.00	Bank Balance	13,99,522.00
2,06,12,946.00	TOTAL	1,38,47,309.00	2,06,12,946.00	TOTAL	1,38,47,309.00

Note : See schedule 'L' of Notes on Accounts as per our report even date attached.

for J.P.J. ASSOCIATES LLP
 CHARTERED ACCOUNTANTS
 FIRM REG.NO. 113012 W/W100296

Sd/-
 VAIBHAV VAIDYA
 PARTNER
 MEM. NO. 157754

PLACE : MUMBAI
 DATE : 18/11/2021

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 SR. ACCTS. OFFICER

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 K. K. MISHRA
 DIRECTOR (OFFICIATING) & COO

Sd/-
 H. K. CHATTERJEE
 PRESIDENT

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE "A"**

AS ON 31/03/2020 Rs.	CAPITAL FUND	AS ON 31/03/2021 Rs.
6,29,77,322	Balance as per last Balance sheet.	6,96,50,721
6,29,77,322		6,96,50,721
6,673,399	Add : Project Assets taken over during the year	6,560,104
6,96,50,721		7,62,10,825
-		-
6,96,50,721		7,62,10,825
11,56,400	a) EARMARKED CAPITAL FUND : [Being donation received from members for investment in M/s. Gujarat Sheep & Wool Development Corporation Ltd., in terms of resolution passed in 23rd G.C. meeting held on 26th August. ' 1971.]	11,56,400
7,08,07,121	TOTAL	7,73,67,225

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE "B"****RESERVES**

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
	<u>I. DEPRECIATION RESERVE A/C.</u>	
1,15,58,340	a] Depreciation upto last year	1,20,17,670
4,59,330	b] Depreciation for the year	5,95,476
1,20,17,670		1,26,13,146
	<u>II. RESEARCH AND DEVELOPMENT AND REPLACEMENT / UPGRADATION RESERVE</u>	
1,10,00,508	Balance as per last balance sheet.	1,10,00,508
—	Add : Addition during the year.	—
1,10,00,508		1,10,00,508
	<u>III. EDUCATION FUND.</u>	
3,42,230	Balance as per last balance sheet.	3,55,520
13,290	Add : Interest received during the year	11,100
3,55,520		3,66,620
	<u>IV. CORPUS FUND</u>	
5,11,33,769	Balance as per last balance sheet.	5,93,72,080
86,97,641	Add : Addition during the year.	1,62,72,237
5,98,31,410		7,56,44,317
4,59,330	Less : Excess of expenditure over income transferred.	5,95,476
5,93,72,080		7,50,48,841
	<u>V. DONATION CORPUS FUND</u>	
0.00	Balance as per last balance sheet.	2,05,890
2,00,000	Add : Received during the year	—
5,890	Add : Interest received during the year	6,752
2,05,890		2,12,642
8,29,51,668	TOTAL (I+II+III+IV+V)	9,92,41,757

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE "C"****OUTSTANDING LIABILITIES**

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
59,47,886	For the year 2017-2018	59,47,886
31,605	For the year 2018-2019	31,605
9,36,878	For the year 2019-2020	—
—	For the year 2020-2021	11,28,137
25,000	Security Deposit (EMD)	25,000
36,82,324	Gratuity provision.	36,77,578
30,44,497	Leave salary provision.	34,15,433
31,66,250	Sundry liabilities (WRA)	8,34,533
1,36,40,714	COE - Sportech	1,32,92,869
13,42,551	Amount Refundable to MOT	13,42,551
3,97,314	Duties and taxes	38,821
	<u>PROJECT LIABILITIES :</u>	
3,63,281	MAVIM Project A/c.	2,23,446
33,02,189	Lab Up-Gradation A/c (For L.C.margin money)	23,93,226
3,58,80,489	TOTAL	3,23,51,085

WOOL RESEARCH ASSOCIATION, THANE.
SCHEDULE "D"
ASSETS OF PROJECT (MINISTRY OF TEXTILES)

NAME OF THE PROJECT	PARTICULARS	AS ON 31/03/2020 Rs.	ADDITION DURING THE YEAR Rs.	TAKEN OVER DURING THE YEAR Rs.	ASSETS AS ON 31/03/2021 Rs.
SPENT GRANT					
1) COE - Sportech	Lab equipments/Machinery	21,50,47,747	4,03,242	-	215450989
2) COE - Sportech	Books& Journals	59,50,058	-	-	5950058
3) COE - Sportech	IT -Infrastrure/Web Site	11,99,237	-	-	1199237
4) DST Project Fibre Length Measurent Instrument	Lab Instruments	4,33,968	-	4,33,968	-
5) DST Project Instrumentto Determine...	Lab Instruments	7,65,763	-	7,65,763	-
6) Lab Upgdadation- Equipments	Lab equipments	3,59,36,858	-	-	35936858
7) Synthesis & Application of Solar Ultraviolet	Lab equipments	10,03,268	-	10,03,268	-
8) Innovation of Bulky yarns of woolenised Jute....	Machinery	7,05,050	-	7,05,050	-
9) To design & develop evaporative cooling textiles	Lab equipments	4,02,713	-	4,02,713	-
10) Dev.and appl.of eco friendly microencapsulated..	Lab equipments	5,06,990	-	-	506990
11) Dev.of high performance,smart sportswear...	Lab equipments	4,18,653	-	-	418653
12) Enhancement of Moisture management properties ..	Lab equipments	2,02,960	-	2,02,960	-
13) To develop light sensitive Photo-Chromic Smart	Lab equipments	57,605	-	57,605	-
14) Design & Dev.of Indian Wool based Smart Textiles...	Lab equipments	20,66,147	-	20,66,147	-
15) Design & Dev.of Indian Wool based Tech.Textiles.	Lab equipments	9,22,630	-	9,22,630	-
16) Dev. of innovative sportech products...(Hot melt)	Lab equipments	7,18,697	-	-	7,18,697
17) Development of Membrane Bioreactors	Lab equipments	5,65,921	-	-	5,65,921
18) Dev.of Novel Detergent Formulation for wool	Lab equipments	11,32,800	-	-	11,32,800
19) Dev.of fitness clothing like gym and Yoga wear with	Lab equipments	4,01,613	-	-	4,01,613
20) Development of sports gears (inner wears,socks,etc)	Lab equipments	4,18,000	-	-	4,18,000
21) Synthesis of water soluble fluroscent colorants for	Lab equipments	3,01,810	-	-	3,01,810
22) MAVIM project	Lab equipments/Furniture	5,74,491	32,21,621	-	37,96,112
	TOTAL	26,97,32,979	36,24,863	65,60,104	26,67,97,738

NOTE : 1) Grant-in-Aid due has been shown under the head of "Current Assets."
2) Balance in grant shown in liability side is as follows :

UNSPENT GRANT	CAPITAL	RECURRING	W/BACK	TOTAL (RS.)
a) Computer Aided Designing for Textiles (Interest Rs.4,154.40/-)	1,34,534	500	1,35,034	-
b) Woven design for khadi.(old)	-	30,000	30,000	-
c) Carpet weaving programme (Old)	2,102	-	2,102	-
d) Designing of wool (Old)	-	621	621	-
e) Extraction of various dyes from vegetable origins.	745	-	745	-
f) Tecno economic study of shoddy industry.	-	1,000	1,000	-
g) Study of scouring.	-	680	680	-
h) UNDP (Doller A/c.) (23638.05)	23,638	-	23,638	-
i) Sirofast (Interest Rs. 5,02,754/-)	56,424	-	56,424	-
j) Software for garment designing.	200	-	200	-
k) Development of machine tufted carpets (ICAR)	27,653	-	27,653	-
l) CAD knitwears.	2,00,000	-	2,00,000	-
m) Role of enzymes in wool processing.	5,734	-	5,734	-
n) To Improve aesthetic value.	158	-	158	-
o) UNDP angora.	3,91,631	-	3,91,631	-
p) Carpet weaving programme (Old)	1,06,127	-	1,06,127	-
q) DST Project Fibre Length Measurent Instrument	-	4,56,036	4,56,036	-
TOTAL	9,48,946	4,88,837	14,37,783	-
TOTAL OF SPENT AND UNSPENT.		TOTAL		26,67,97,738

WOOL RESEARCH ASSOCIATION, THANE.

SCHEDULE 'E' 2020-2021

			GROSS BLOCK				DEPRECIATION			NET BLOCK		
SR. NO.	PARTICULARS	RATE %	AS ON 01.04.2020	ADDITION DURING THE YEAR	DEDUC-TION DURING THE YEAR	AS ON 31.3.2021	UP TO 01.04.2020	DEPRECI-ATION FOR THE YEAR	ADJUST-MENT DUE TO SALE/ LOSS	TOTAL UPTO 31.3.2021	AS ON 31.3.2021	AS ON 31.3.2020
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1)	LAND		5,83,883	—	—	5,83,883	—	—	—	--	5,83,883	5,83,883
2)	BUILDING (Old)	2.5	26,43,986	—	—	26,43,986	16,80,823	24,079	—	17,04,902	9,39,084	9,63,163
3)	FURNITURE AND FIXTURE	15	5,68,713	—	—	5,88,713	5,29,039	8,951	—	5,37,990	50,723	59,674
4)	LAB EQUIPMENT	15	36,66,126	10,18,860	—	46,84,986	33,41,551	2,01,515	—	35,43,066	11,41,920	3,24,575
5)	OFFICE EQUIPMENT	15	6,42,590	53,172	—	6,95,763	44,9559	32,943	—	4,82,502	2,13,261	1,93,031
6)	AIRCOND. WDG. PLANT	15	1,77,025	—	—	1,77,025	1,76,929	14	—	1,76,943	82	96
7)	ELECT. INSTALLATION	15	7,13,148	3,74,628	—	10,87,776	6,97,841	30,393	—	7,28,234	3,59,542	15,307
8)	LAB FURNISHING	10	14,72,715	—	—	14,72,715	10,13,124	45,959	—	10,59,083	4,13,631	4,59,591
9)	WATER COOLER	15	12,182	—	—	12,182	8,192	599	—	8,791	3,392	3,990
10)	AIR CONDITIONER	15	3,07,543	—	—	3,07,543	2,02,765	15,717	—	2,18,481	89,062	1,04,779
11)	FIRE FIGHTING EQUIPMENTS	15	59,232	—	—	59,232	38,881	3,053	—	41,934	17,299	20,351
12)	WATER TANK	15	31,600	—	—	31,600	31,351	37	—	31,388	212	249
13)	MOPED (LUNA)	15	11,300	—	—	11,300	11,212	13	—	11,225	75	88
14)	BUILDING (New)	2.5	13,37,551	—	—	13,37,551	6,08,586	18,224	—	6,26,810	7,10,741	7,28,965
15)	BUILDING (WRA'S CONTR. FOR PILOT PLANT)	2.5	7,50,000	—	—	7,50,000	3,41,251	10,219	—	3,51,470	3,98,530	4,08,749
16)	MOTOR CAR (BUS & CAR)	15	24,82,764	—	—	24,82,764	18,12,664	96,015	—	19,38,679	5,44,085	6,40,100
17)	AIR CONDITIONING PLANT	15	14,96,477	—	—	14,96,477	9,32,082	84,659	—	10,16,741	4,79,736	5,64,395
18)	FOR COE LAB	15	2,13,325	52,405	—	2,65,730	1,11,821	23,086	—	1,34,907	1,30,823	1,01,504
	CCTV INSTALLATIONS											
	Total		1,71,90,162	14,99,065	—	1,86,89,227	1,20,17,671	5,95,476	—	1,26,13,147	60,76,080	51,72,492

Note : 1 : Rate of depreciation consistent since 1970-71.

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE "E" (1)****PROJECT ASSETS TAKEN OVER ON COMPLETION OF PROJECTS**

SR. NO. (1)	NAME OF THE PRODUCTS (2)	FURNITURE (3)	LAB EQUIPMENTS (4)	AIR CONDITIONER (5)	BUILDING (6)	TOTAL (7)
1	Dying of wool	4,156	30,628	—	—	34,785
2	Blending of wool	7,074	1,36,211	—	—	1,43,285
3	Chemical finishing of carpet	6,622	87,345	—	—	93,967
4	Designing of wool	—	4,49,307	—	—	4,49,307
5	Color Research project	—	54,637	—	—	54,637
6	Carpet Weaving programme	23,997	3,438	—	—	27,435
7	Standardisation of yarn.	—	2,85,481	—	—	2,85,481
8	Computer Aided Designing. (Old)	—	5,44,495	—	—	5,44,495
9	Evaluation of Wool Jute.	—	5,00,000	—	—	5,00,000
10	Techno Economic study of shoddy.	—	4,77,130	—	—	4,77,130
11	Development of cheap furnishing.	—	3,00,000	—	—	3,00,000
12	Software for garment designing.	—	9,34,800	—	—	9,34,800
13	Extraction of various dyes.	—	24,255	—	—	24,255
14	Cad for Textiles.	—	10,34,620	—	—	10,34,620
15	To set of norms (Siro Fast)	—	9,93,851	—	—	9,93,851
16	Pilot Plant.	—	—	—	7,50,000	7,50,000
17	Modification of reactive dyeing.	—	2,25,134	—	—	2,25,134
18	Development of Eco-friendly.	—	1,76,956	—	—	1,76,956
19	Eco-Testing Lab.	1,27,829	31,42,640	—	—	32,70,468
20	Angora Rabbit Wool	—	2,05,060	—	—	2,05,060
21	To Investigate the factors.	47,310	1,03,191	—	—	1,50,501
22	To Make the Natural dyeing.	4,400	1,70,601	—	—	1,75,001
23	To Develop the Software.	49,210	1,36,288	—	—	1,85,498
24	Development of Design for carpet.	8,743	4,56,774	—	—	4,65,517
25	Value Added.	11,257	65,112	—	—	76,369
26	Computer Aided Emproidary.	31,131	5,94,775	—	—	6,25,906
27	Development of Instrumental.	1,16,760	12,83,985	—	—	14,00,745
28	To Develop Software Prediction.	—	1,75,350	—	—	1,75,350
29	Role of Enzymes.	—	45,552	—	—	45,552
30	Study of Technical Aspects.	—	25,097	—	—	25,097
31	To Develop Different Type of Knitwear	—	66,062	—	—	66,062
32	To Improve Aesthetics Value	—	1,99,842	—	—	1,99,842
33	Textiles committee	—	64,68,437	—	—	64,68,437
34	To Dev. Innovation Yarn	—	5,50,000	—	—	5,50,000
35	To Dev. Cotton Core	—	2,75,000	—	—	2,75,000
36	Enrichment of Painting	—	2,00,000	—	—	2,00,000
37	Dyeing of Wool	—	50,000	—	—	50,000
38	Information Technology	—	2,89,550	—	—	2,89,550
39	CAD Jaquard	—	2,70,650	—	—	2,70,650
40	Design and Fabricate	—	14,22,816	—	—	14,22,816
41	To Improve Processing	—	7,38,812	—	—	7,38,812
42	UNDP -GOI project	2,25,350	1,17,82,004	1,05,000	25,02,829	1,46,15,183
43	To Develop Itch free woollen(Plasma)....	—	12,00,717	—	—	12,00,717
44	Ultra Sound assisted...	—	7,99,191	—	—	7,99,191
45	To assesas Quality norms....	—	45,39,900	—	—	45,39,900
46	Blind dyeing..	—	10,64,885	—	—	10,64,885
47	Softening..	—	3,66,593	—	—	3,66,593
48	Preloom processing.....	—	3,46,747	—	—	3,46,747
49	Dev.of Composites....	—	2,15,543	—	—	2,15,543
50	To evolve feasible...	—	51,150	—	—	51,150
51	To Synthesise wool dyes....	—	24,23,882	—	—	24,23,882
52	Dev.of Internet based...	—	37,19,940	—	—	37,19,940
53	Surface Topographical...	—	4,04,438	—	—	4,04,438
54	To Dev.cost effective ETP	—	6,04,685	—	—	6,04,685
55	Efflunet treatment system for Power generation	—	1,50,849	—	—	1,50,849
56	Upgradation of Indian wool	—	12,26,307	—	—	12,26,307
57	Dev.of Thermal Responsive HighAltitude(CWDB)	—	2,12,653	—	—	2,12,653
58	Negative ion finishing for woollen carpets...	—	12,17,367	—	—	12,17,367
59	Dev.of pollutin free and eco-friendly dry scouring.	—	6,49,624	—	—	6,49,624
60	Dev.of Multifunctional finish with anti bacterial..	—	10,63,034	—	—	10,63,034
61	To impart superwash property to Indian wool..	—	2,21,557	—	—	2,21,557
62	UNDP-Pasma Project	—	53,17,564	—	—	53,17,564
63	Dev. Effective & eco-friendly electroflocculation ..	—	8,73,285	—	—	8,73,285
64	Dev.Waterproof Breathable sports wear..	—	4,82,550	—	—	4,82,550
65	Fibre Length Measurent Instrument (DST)	—	4,33,968	—	—	4,33,968
66	Instrument to Determine...	—	7,65,763	—	—	7,65,763
67	Synthesis & Application of Solar Ultraviolet	—	1,003,268	—	—	10,03,268
68	Innovation of Bulky yarns of woolenised Jute....	—	705,050	—	—	7,05,050
69	To design & develop evaporative cooling textiles	—	4,02,713	—	—	4,02,713
70	Enhancement of Moisture management properties ..	—	202,960	—	—	2,02,960
71	To develop light sensitive Photo-Chromic Smart	—	57,605	—	—	57,605
72	Design & Dev.of Indian Wool based Smart Textiles...	—	20,66,147	—	—	20,66,147
73	Design & Dev.of Indian Wool based Tech.Textiles.	—	9,22,630	—	—	9,22,630
	Total Rs.	6,63,839	6,86,88,450	1,05,000	32,52,829	7,27,10,118
	WRA Assets.					1,86,89,227
	Project Assets taken over upto 2019-2020.					7,27,10,118
	Assets of existing projects.					26,67,97,738
	TOTAL (Rs.)					35,81,97,083

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE "F"**

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
	<u>FIXED DEPOSITS</u>	
	<u>Corpus Fund/R & D Replacement Fund</u>	
5,76,10,120	Fixed Deposits with State Bank of India	6,21,19,874
6,00,000	Fixed Deposits with Central Bank of India	56,12,642
22,52,867	Fixed Deposits with Axis Bank	23,47,941
36,24,929	Interest accrued on FD (SBI)	26,25,450
7,174	Interest accrued on FD (CBI)	19,945
	<u>CASH & BANK BALANCES</u>	
	1,51,544 Current Account with S.B.I. (A/c. 11100522024) 8,12,449	
	26,308 ESCROW A/C with S.B.I. (A/c. 32424163025) 25,659	
	8,894 Cash on hand 7,806	
	1,06,759 Ministry Project Accounts. C.B.I. (A/c. 1334639360) 80,326	
19,60,108	Central Bank Of India (WRA Income) (A/c. 1334641891) 56,40,777	
5,957	WRA Trustee's Account. C.B.I. (A/c. 1334698893) 3,951	
5,72,520	MAVIM project A/c. with SBI (A/c. 39012931052) 13,99,522	
31,220	Axis Bank Ltd. (A/c. 061020003285) 88,030	
28,94,307	30,998 Axis Bank Ltd. ((Project; Light weight..) (A/c. 918020094870444) 28,245	80,86,763
	<u>SUNDRY DEBTORS.</u>	
51,01,781	<u>Testing Fees outstanding considered good</u>	42,17,188
	<u>OUTSTANDING SUBSCRIPTION</u>	
	5,750 Considered Good for the year (2017-2018) 5,750	
	5,900 Considered Good for the year (2018-2019) 5,900	
1,13,740	1,02,090 Considered Good for the year (2019-2020) 1,02,090	2,23,619
	— Considered Good for the year (2020-2021) 1,09,879	
7,22,04,918	TOTAL	8,52,53,423

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE "G"****ADVANCE RECOVERABLE**

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
4,44,128	Deposits with MSSED/MIDC/Excise dept.etc..	4,44,128
31,14,125	Gratuity fund with L.I.C.	20,72,983
15,000	UNDP (GOI) Deposit with M.S.E.B.	--
10,300	Deposit with Gas agencies (Eco-Lab)	--
3,02,000	Other Advances	6,62,712
5,36,235	Industry contribution for project design & Dev.of light weight..	--
1,56,556	Service tax and Krishi Kalyan cess paid in advance/ GST	66,556
1,14,380	Prepaid expenses	2,14,996
1,97,498	TDS Receivable (10-11)	1,97,498
-	TDS Receivable (15-16)	--
7,29,126	TDS Receivable (16-17)	--
12,06,654	TDS Receivable (17-18)	--
12,98,237	TDS Receivable (18-19)	--
15,44,042	TDS Receivable (19-20)	15,47,324
-	TDS Receivable (20-21)	11,03,035
96,68,282	TOTAL	63,09,232

WOOL RESEARCH ASSOCIATION, THANE.
SCHEDULE "H"
CURRENT ASSETS (PROJECT)

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
	<u>GRANT-IN-AID DUE FOR RECURRING EXPENSES.</u>	
11,69,881	Dev.waterproof breathable sportswear....	11,69,881
12,27,674	Dev. effective & eco-friendly electroflocculation ..	12,27,674
12,38,790	Dev.of keratin based bio-composite fils and electro spun..	12,38,790
15,53,475	Dev.smart indigenous sleeping bag with heating property..	15,53,475
13,54,516	Synthesis & Application of Solar Ultraviolet	13,54,516
19,75,150	Dev.of high performance,smart sportswear...	19,75,150
17,34,744	To develop light sensitive Photo-Chromic Smart	17,34,744
11,95,275	To design & develop evaporative cooling textiles ,,,,,,	11,95,275
10,90,565	Development of Membrane Bioreactors as a solution for compact....	10,90,565
11,08,155	Enhancement of Moisture management properties of polyester....	11,08,155
12,46,359	Development and application of eco friendly microencapsulated moth..	12,46,359
13,42,071	Dev. of innovative sportech products...(Hot melt)	13,42,071
13,67,235	Development of sports gears (inner wears,socks,bands,leggiings ets.)	13,67,235
12,45,768	Dev.of Novel Detergent Formulation for wool with immobilized enzymes..	17,12,094
10,92,406	Synthesis of optical whiteners with good photostability	12,86,610
17,37,236	Dev.of fitness clothing like gym and Yoga wear with	17,37,236
25,75,359	Synthesis of water soluble fluroscent colorants for	26,52,029
5,80,371	Design & Dev. of sportswear having Thermo Physiology..	6,34,372
	Design & Dev. of Light weight and high impact resistance sport goods.....	6,68,864
2,48,35,027	TOTAL	2,62,95,093

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE "I"****STAFF SALARIES**

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
1,85,26,910	Salaries & Allowances (Includes PF/FPF, ADMN. charges & EDLIS premiums)	1,87,12,535
1,944	Maharashtra Labour Welfare Fund.	2,016
1,40,855	Staff Medical Expenses.	1,62,798
2,85,355	Staff Welfare Expenses	2,99,932
84,331	Staff Leave Travel Concession.	43,529
1,52,069	Group Gratuity Scheme	12,34,161
1,91,91,494	TOTAL	2,04,54,971

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE “J”****ESTABLISHMENT CHARGES**

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
2,01,350	Printing & Stationery.	1,87,403
1,86,000	Postage, Telegram & Telephones.	1,94,674
37,70,456	Electricity & Water Charges.	20,25,878
16,284	Advertisement & Publicity	26,250
16,58,276	Repairs & Maintenance	17,36,369
27,123	Rates & Taxes.	27,125
1,43,373	Insurance Exps.	2,23,186
4,70,975	Conveyance & Travelling.	1,08,134
3,921	Entertainment Exps.	14,873
28,977	Bank Charges.	17,701
2,096	Journals & Periodicals.	--
15,000	Subscription to the other Association.	15,000
5,05,983	Miscellaneous exps.	90,068
9,69,448	Security Service Charges.	8,93,899
5,82,528	Motor car exps.	3,71,858
7,66,821	Professional charges.	10,88,879
177,878	Testing charges.	8,59,128
9,19,973	Labour charges/wages to casual workers	8,12,145
2,336	Interest on delay payments / GS liabilities etc.	1,96,303
2,500	Employer's contribution to MPT	2,500
1,04,51,299	TOTAL	88,91,372

WOOL RESEARCH ASSOCIATION, THANE.**SCHEDULE “K”****INCOME**

AS ON 31/03/2020 Rs.	PARTICULARS	AS ON 31/03/2021 Rs.
3,21,117	Members Subscription.	3,21,118
1,72,09,378	Testing Fees Income.	1,95,60,643
46,02,328	Consultancy Service charges and R & D	59,96,050
13,520	Miscellaneous receipts.	2,559
–	Old Liabilities/Creditors written back	15,26,156
2,20,000	Educational & Technical Training	--
38,86,483	Interest on Fixed Deposites	42,87,687
2,31,295	Interest credited by LIC for Gratuity fund	1,97,765
2,64,84,122	TOTAL	3,18,91,978
8,697,641	Less: Transferred to Corpus Fund	1,62,72,237
1,77,86,481	Transferred to Income & Expenditure A/c.towards Industry's contr.	1,56,19,741

WOOL RESEARCH ASSOCIATION

SCHEDULE 'L'

NOTE ON ACCOUNTS

1. Significant Accounting Policies

Accounts have been prepared under the historical cost convention. The significant account policies are as under:

- a. Fixed Assets: Fixed assets are stated at cost of acquisition inclusive of expenses relating to acquisition.
- b. Depreciation: Depreciation is provided on Assts acquired by the Association, out of its own funds by the WDV method at the following rates.

Building	-	2.5 %
Furniture, Fixtures & Equipments	-	15 %
Furnishing	-	10 %
- c. Investment: Investments acquired out of donation from members are valued at cost of acquisition.
- d. Inventory: Consumable items such as Laboratory chemicals and Wool Consumables, Color Software development and computer stationery and other consumables purchased during the year are treated as consumed during the year.
- e. Retirement Benefits
 - i. Provident fund contribution is funded with Regional Provident Fund Commissioner.
 - ii. Provision of Leave Salary:
Provision of leave salary is made by the Association on the basis of leave accumulated to the credit of employee at the year end.
 - iii. Liability for gratuity is provided on the basis of calculation made by the Association as per the payment of Gratuity Act, 1972 on Balance Sheet date. However, valuation has been estimated by the WRA at Rs. 36,77,578.00 The premium paid to LIC for the Group Gratuity Trust is shown as Deposits as Rs. 20,72,984.00. The above difference needs to be checked.
- f. Foreign currency transaction: All foreign currency transaction during the year are converted at the standard rate as specified by Grant Sanctioning Authority.
- g. Grant-inAid :
 - 1) Grant-in-aid from Government authorities is accounted for on the basis of amount sanctioned.
 - 2) Grant-in-aid for recurring expenses (WRA as well as specific projects) is adjusted as and when the expenses are incurred.
 - 3) Grant-in-aid of Capital nature on WRA account is transferred to capital fund on purchase of fixed assets.

- h) a) Interest on Fixed Deposits is accounted for on accrual basis and is shown under income
- b) Subscription and testing fees are accounted for on accrual basis and consultancy service charges and other income are accounted for on receipt basis and the same is first utilized for off setting the industry's contribution to meet capital expenses as well as revenue expenses and the balance has been transferred to R & D Replacement Fund.

i) Corpus Fund :

As per Ministry of Textiles O.M. No. 20/21/98/A & MMT dated 9th September, 1998 – Minutes of the 13th Meeting of the Co-ordination Council for Textile Research Association (TRA) held on 11th August, 1998. TRAs' are authorized to retain 100 % of the earned income by building a Corpus Fund from such retained income and utilize interest from such Corpus Fund to meet their need based requirement.

j) Education Fund :

Education fund has been created out of donation received for the purpose of enhancing the educational facilities at Training Centre and improving the level of training.

k) Donation Corpus Fund :

As per the decision taken in the 148th Governing Council Meeting, Donation Corpus fund has been created from the Donation received from Ex. Director, Shri M.K. Bardhan for giving reward to the best Paper published by WRA staff from the interest earned from the fund.

- l) All expenses are accounted for on accrual basis. Allocation of various recurring expenses to the various projects is done on the basis determined by the Management.

- 2 a) In the opinion of the Governing Council, subject to these note, current assets, loan and advances, including grant receivable, have value on realization in the ordinary course of activities of the Association, not less than at which these are stated in the Balance Sheet, except subscription and testing fees of previous years which may prove irrevocable for which no provision has been made. Provision for all known liabilities has been made in the accounts and the same is not in excess of what is reasonably necessary.
- b) During the year the management has not carried out physical verification of fixed assets. However the management is in the process of conducting physical verification of fixed assets.
3. No confirmations from creditors, debtors, deposits and in respect of loan and advances have been obtained. Confirmations in respect of fixed deposits placed bank are being obtained. WRA is in the process of reconciliation of Goods and Service Tax (GST) balances as per books of accounts and as per GST returns filed.
- 4 The provision of subscription receivable from ordinary and Special associate members and the details of the installed capacity of the member mills on the basis of which calculation of subscription is made is as prepared by the management and is relied upon by the auditors without verification for want of relevant records.

- 5 The mutual adjustment of grant for capital to revenue and vice versa are made and not yet confirmed by the granting authorities for relevant years.
- 6 Investment in M/s Gujarat Sheep & Wool Development Corpn. Ltd. Rs. 11,56,400/- represent the contribution from industry through WRA in sheep breeding program of M/s Gusheel. Audited Accounts of Company are still awaited. In the absence of audited accounts, the net worth, diminution in value of investment can not be ascertained.
- 7 The apportionment of staff salaries, freight charges, raw material, traveling, spares and other overheads including testing charges between the Association and various projects is made as per the advice from the respective project-in-charge/Director in this regard.
- 8 Unspent Government Grant: As per release orders for unplanned or planned Government Grant, as one of conditions for releasing the grant, the unspent grant should be returned to the Government. No specific time period is mentioned for such refund. It is observed that the association has not returned such unspent grant of various projects.

It is explained by the Management that since the grant on various projects is due from the Government it can be adjusted provided permission from proper authorities is given.

During the year, the Association has written back unspent grant-in-aid of Rs. 14,37,783/- pertaining to old R & D projects as per the decision taken in 146th Governing Council meeting held on 29th March, 2019.

The contribution of Rs. 5,02,084.00 (As per schedule 'D') by Association towards capital expenses has been accounted for and shown as "Project cost incurred by Association" in Income & Expenditure statement.

- 9 Depreciation on fixed assets amounting to Rs.5,95,476/- for the current year (Previous year Rs.4,59,330/-) on WRA assets has been provided for and shown under depreciation reserve.
- 10 Impairment of Assets.
The carrying amount of assets, other than inventories is reviewed at each balance sheet date to assess whether there is any indication of impairment in respect of such asset or group of assets. If such indication exists, the recoverable amounts of such assets or group of assets is estimated. If such recoverable amount of asset or group of assets is less than its carrying amount, an impairment loss is reckoned by reducing the carrying amount to its recoverable amount. If there is an indication at the balance sheet date that the previously assessed impairment loss no longer exists, the recoverable amount is reassessed and the asset is reflected at the recoverable amount subject to a maximum of depreciable historical costs.

During the year, the Association has written off the amount of Rs. 25,300/- which was shown as deposits towards MSEB and Gas Agencies in the books of UNDP, GOI and Eco-Lab projects since 1994-95.

The amount has been adjusted against expenses with the approval of Director/Authorities.

- 11 Fixed Assets: The Association has purchased/taken over assets worth Rs 4.03 Lakhs, Rs.32.21 Lakhs, Rs. 14.99 Lakhs and Rs. 727.10 lakhs as on 31.03.2021 out of the Projects funded by MOT, COE Sportech Project, MAVIM and other agencies respectively. These assets are being used by

the Association to carry out the activities. However, no depreciation has been provided during the year as well as during the earlier years on such assets. The impact of depreciation is not quantified.

- 12 The Association has not identified the creditors having registration under Micro, Small and Medium Enterprises Act 2006 and the Small Scale Industries Act. Hence the disclosure as required is not made in the accounts.
- 13 During the year, excess expenditure incurred on project of Rs. 11,41,195/- has been shown as project cost incurred by WRA as expenditure of WRA.
- 14 Assets Of Bikaner and Kullu purchased by WRA : As per the sanction letter received from Central Wool Research Board, Ministry of Textiles, the WRA is implementing agency for the "Upgradation and strengthening of existing Wool Testing Laboratory of CWDB at Bikaner and Kullu". Fixed assets are purchased for this project which are not recorded as "Fixed Assets" in the Books of WRA and the same is shown under amount spent for the project.
15. The Association has obtained registration under ESIC Act. However, the Society has not provided in the books of accounts the amount to be payable towards ESIC and accordingly the impact is not quantified.
16. Previous year figures are re-grouped/re-arranged wherever necessary to make them comparable with those of current years.

SIGNATURES TO SCHEDULES 'A' TO 'L'

FOR J.P.J.ASSOCIATES LLP
CHARTERED ACCOUNTANTS
FIRM REG.NO. 113012 W/W100296

Sd/-

VAIBHAV VAIDYA
PARTNER
MEM. NO. 157754

Sd/-

R.V. BHANDARKAR
SR. ACCOUNTS OFFICER

For & on behalf of the
GOVERNING COUNCIL

Sd/-

H.K. CHATTERJEE
PRESIDENT

Sd/-

K. K. MISRA
DIRECTOR (OFFICIATING) & COO

PLACE : MUMBAI
DATE : 18/11/2021