Dear Readers,

The past three months have been fulfilling in terms of empowering visually impaired students in various parts of India with our tactile books. Our team visited several schools and conducted training sessions for students and special educators. We are happy to share with you few key events at RLF in the April edition of New Horizons.

**Students trained through Touch, Learn and Shine (TLS) Program**

TLS program aims to enable access to tactile books to 10000+ students in phase 1. Each student receives a set of tactile books and teaching-learning aids under this program. In the last quarter we have provided around **1100** tactile books to **360** students with the support of our funding organizations.

Due to the pandemic we were forced to conduct our training sessions online in the previous year but this year with the generous support of funding partners we were able to visit the schools and interact with the students and teachers in person which was truly an wholesome experience.

What's in this Newsletter:
- Impact of Touch, Learn and Shine
- A New Chapter
- Upgraded World Atlas
- Tactile Language Books
- SCERT Kerala Books Accessible
- Assistive Technology Conclave
- Supporters and Collaborators
<table>
<thead>
<tr>
<th>No. of students</th>
<th>No. of Books provided</th>
<th>No. of schools</th>
<th>Supported by</th>
</tr>
</thead>
<tbody>
<tr>
<td>400+</td>
<td>2000+</td>
<td>6</td>
<td>Vision Aid</td>
</tr>
<tr>
<td>160+</td>
<td>100+</td>
<td>1</td>
<td>Jiv Daya Foundation</td>
</tr>
</tbody>
</table>

RLF team visited schools in Vijayawada, Bobbili, Patna, Lucknow and Meghalaya for training. Training sessions were conducted in two sessions for each school. One session for Juniors. and the other for Seniors. The number of days for training and the number of batches were decided based on the strength of the students. Sessions were made interactive and fun by asking junior students to point to their favorite fruit. They were given time to find *an umbrella-shaped vegetable, and most of them could spot the ‘Mushroom’*. The students enjoyed taking turns identifying a particular bird or animal and mimicking its sound. *For C for Cat, we asked them to point at the tail of the cat, legs, and whiskers and asked how many legs they have.* For the coloring session, the children were given colors based on the picture each child got for coloring. They were taught how to identify the outline, different textures, how to hold a crayon and color within the outline and on various textures. The children were excited to color and many of them managed to color 2 pictures within 30 minutes.

Similar activities were done for senior students like *identifying a state in India map, finding the largest state, neighboring states and icons on the desktop.*

Students of Asian Aid School, Andhra Pradesh with our books

Students of Bihar Nettradeen Parishad proudly showcasing the tactile pictures colored by them

**A New Chapter- Onboard Project**

Technology Company Continental, IIT Delhi and Raised Lines Foundation have joined hands for the deployment of *OnBoard*, a solution for assisting visually impaired people to board public transport buses independently. OnBoard will help identify the route number of the bus and the location of the door of the bus through audio generated by the speaker on the bus. The patented technology has been transferred from IIT Delhi to RLF to scale up the solution.

Initial trial runs were done in Delhi and Mumbai which were a success. Through this project we will be Implementing the solution in 500 buses across a major city.
The team after signing the MoU (From Left to Right: Prashanth Doreswamy, President & CEO, Continental India; Prof. M. Balakrishnan, Honorary Professor, CSE Dept., IIT Delhi; Pulkit Sapra, Director, Raised Lines Foundation; Prof. Rangan Banerjee, Director, IIT Delhi; Prof. P.V. Madhusudhan Rao, Mechanical Engineering Dept., IIT Delhi)

**Upgraded World Atlas**

Based on feedback from the accessibility fraternity we have reworked on our World Atlas book. For ease of understanding we have divided the book into eight major sections - Asia, Europe, Africa, North America, South America, Oceania, Antarctica and Arctic. Each section contains overall map of the continent first followed by detailed maps. The initial map provides a complete overview of the geographical area without any labels. The detailed maps for each region have been appropriately labeled for ease of comprehension. Places are labeled with key letters based on their corresponding place names. Key pages preceding each map provide information on the key letters and their corresponding place names.
Tactile Language books
There is always a comfort and beauty in speaking, reading and writing in our own mother tongue, and it is no different for visually impaired students when it comes to Braille. During our interactions with visually impaired students and teachers, we understood the need for **tactile books in local languages**. We are designing language books in **7 languages** namely Tamil, Telugu, Kannada, Marathi, Gujarati, Bengali and Urdu. Design and proofreading for 4 languages books are done and the pilot production is in progress. The first draft is done for the other 3 languages.

![Tamil alphabets in tactile along with Tamil Braille](image1)
![Marathi alphabets with corresponding words in tactile and Marathi Braille](image2)

Making SCERT Kerala books accessible
RLF is making SCERT Kerala Books (English medium) for Science and Mathematics accessible for class 6 to 10. The books will be available on Sugamya Pustakalya (free to access library for persons with print disabilities) by July 2023 tentatively. These books will be in e-Pub format and can be read using apps like thorium reader and dolphin easy reader.

Assistive Technology Conclave Feb 2023
It was a pleasure interacting and explaining our work to VI students, special educators, government officials and other members of the accessibility fraternity at Assistive Technology Conclave Tirunelveli 2023 (Feb 24 - 26). We got to showcase our work to the Deputy Collector Mr. S Gokul, IAS whose vision is to make Tirunelveli an accessible model town. We look forward to seeing you all again in upcoming conferences.
RLF in Jharkhand
Samagra Shiksha Jharkand has purchased around 200 tactile books from RLF. The books will benefit around 70 students in Bokaro and Kharsawan. We are proud to work with the government in providing appropriate teaching learning aids for the visually impaired students of Jharkhand.

Raised Lines Foundation (RLF)
RLF is a not for profit startup from IIT Delhi with the sole mission of empowering persons with visual impairment and enabling them to pursue subjects and careers of their choice.

What We Do
- Design and produce tactile books covering all children books to curriculum books.
- Convert handwritten, printed and digital documents into accessible formats.
- Make images accessible through image descriptions and tactile diagrams.
- Manufacture teaching-learning aids and educational accessible games.
- Special focus on content related to STEM education

As the famous Helen Keller saying goes "Alone we can do so little; together we can do so much." we've experienced it first-hand with significant collaborations and supporters.

Our Collaborators

Our Supporters
Connect with Us

If you know any person with visual impairment or an organization or school who may benefit from our solutions or

If you want to support persons with visual impairment, please connect with us:

rlf@raisedlines.org, +91-8929669336

To know more about our work, please visit our website:

www.raisedlines.org

To donate for our cause