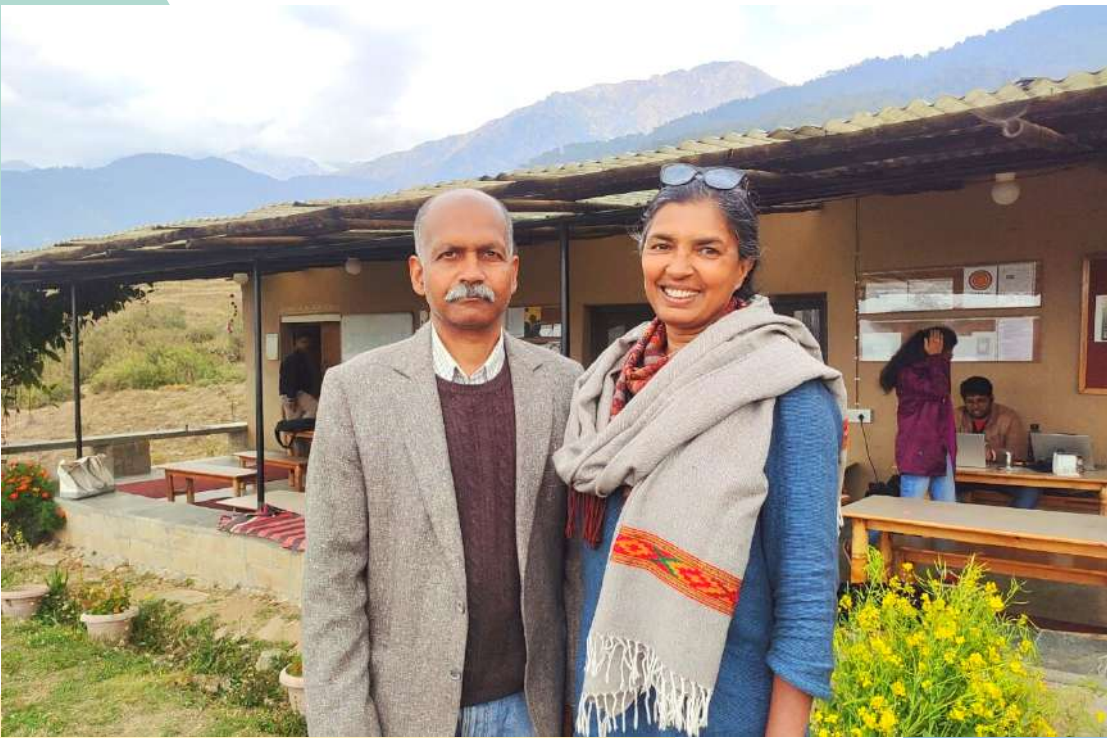


AAVISHKAAR | आविष्कार

CENTRE FOR SCIENCE, MATH, ART AND TECHNOLOGY

ANNUAL REPORT 2020-21





Sarit and Sandhya

FOUNDERS' NOTE

This has been a very unusual year. The world was gripped in fear. Fear of an infectious disease COVID-19 leading to isolation, mass migration, starvation, unemployment, lockdowns... shutdown of transport, markets, offices, colleges and schools.

No school. No classes. No fun with school friends. Kids could relax at home with parents. This was great for some, and not so great for others. Teachers too were home.

This called for creative changes to interact with the community we serve - students and teachers. We moved from visual, hands-on thinking classrooms that Aavishkaar was known for to an online visual platform rather swiftly. By April 2020 we were fully online - engaging with students and teachers at their homes.

As a community member we reached out with food relief to migrant workers and families in Himachal Pradesh and Bihar.

Our online efforts were rewarded with the expansion of our Science and Math training work. We reached all the districts of the state in collaboration with the Himachal Government. We had this unique opportunity of creating and leading a collective of Science and Math educators from across the country.

The online world knows no borders. This transformed workspace has been a great learning opportunity for our entire team. What used to be a few training workshops in a year has now become a daily routine. So many more opportunities to transform Science and Math in our country!

ABOUT AAVISHKAAR

VISION

Aavishkaar aims to enable, equip and empower educators and students and nurture curiosity, creativity, and critical thinking through Science and Math education. We reach out to the communities that need it the most, especially girls..

PROGRAMS

Aavishkaar works with educators, teachers, and students to re-imagine and transform how science and math are taught in schools through a multi-pronged approach:

- Fellowship program for young leaders passionate about bringing change in government schools.
- Yearlong teacher training and support program
- Experiential capacity-building programs for educators & teachers through workshops.
- Residential and Online camps, and yearlong support for students.

IMPACT

Aavishkaar has reached out to more than 10,000 students and teachers in India through its hands-on training in science and math during the year 2020-21. We aim to provide experiential, effective and efficient ways of learning science and math in our classrooms and make quality education accessible to all irrespective of their social or economic background. Organization works with all learning groups, but our focus has been on rural areas, girls, dalit communities and low income families.

A HELPING HAND IN TIMES OF NEED- COVID RELIEF



Aavishkaar provided immediate food relief in the neighbourhood to 30 families in Kandbari.

Aavishkaar organized a fund-raising drive in collaboration with The Rotary International to provide month-long food packets to 1100 families in Musahar Dalit communities of Bihar.



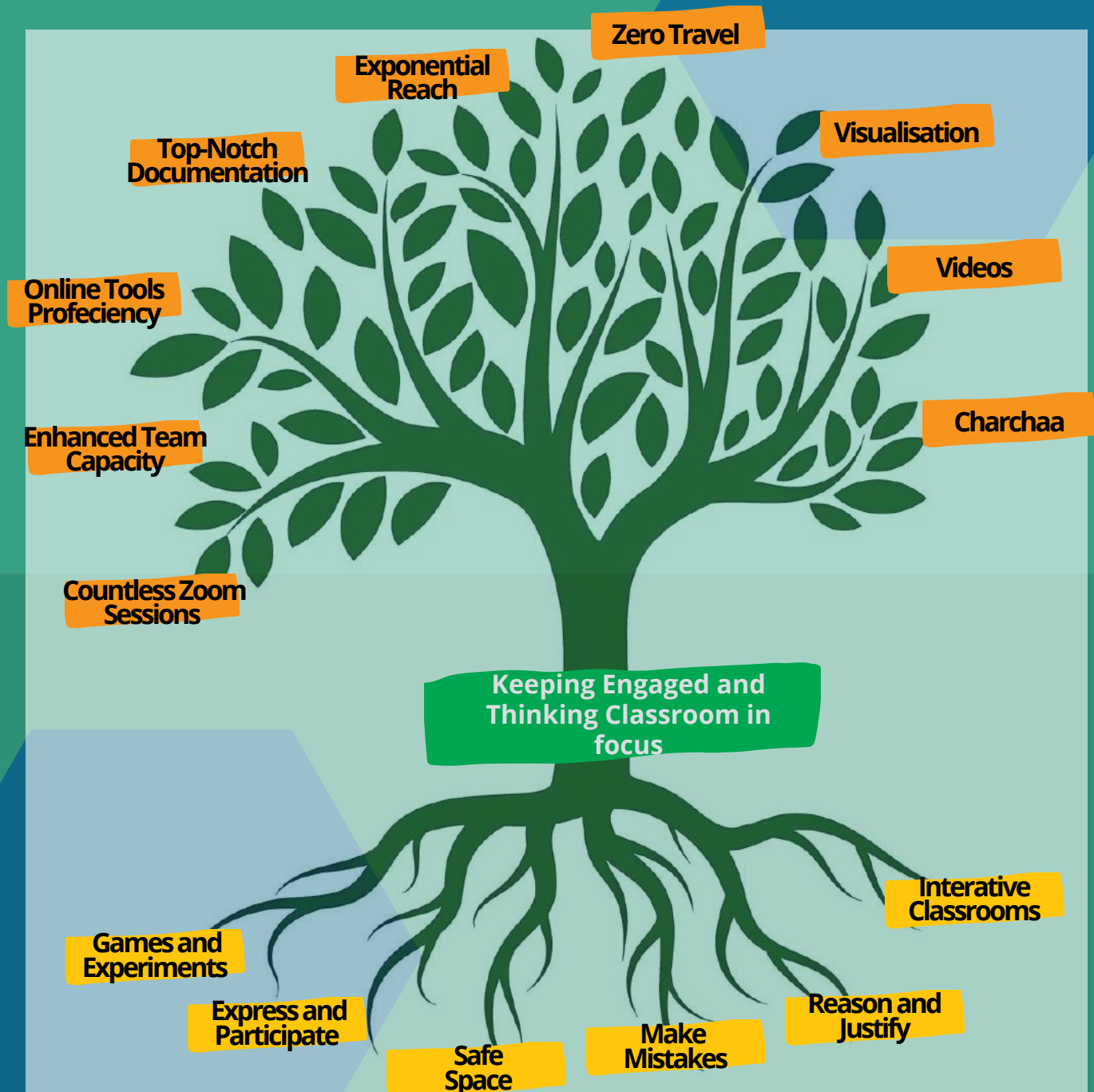


ADAPTING TO THE VIRTUAL WORLD



ADAPTING TO THE VIRTUAL WORLD

Change is inevitable but so is innovation. In this unexpected year, we made some transformational work to adapt to the eLearning platform.



Our tree has grown new branches and leaves but our roots remain firm as ever.

ADAPTING IN THE FIRST 3 MONTHS OF COVID

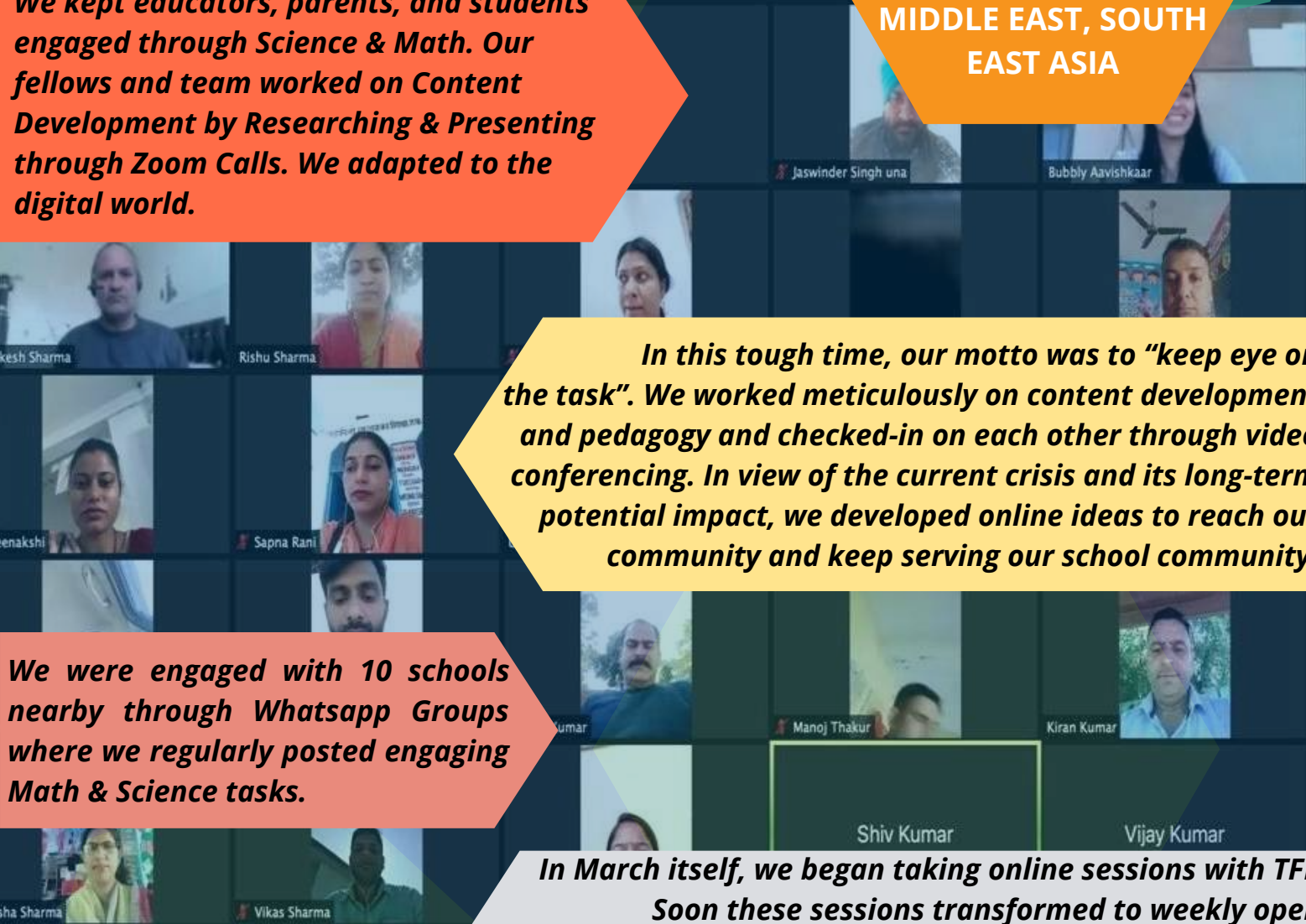
- 50+ SESSIONS
- 350+ STUDENTS
- 700+ TEACHERS
- PARTICIPANTS FROM
 - ACROSS INDIA
 - AUSTRALIA, USA, MIDDLE EAST, SOUTH EAST ASIA

We kept educators, parents, and students engaged through Science & Math. Our fellows and team worked on Content Development by Researching & Presenting through Zoom Calls. We adapted to the digital world.

In this tough time, our motto was to “keep eye on the task”. We worked meticulously on content development and pedagogy and checked-in on each other through video conferencing. In view of the current crisis and its long-term potential impact, we developed online ideas to reach our community and keep serving our school community.

We were engaged with 10 schools nearby through Whatsapp Groups where we regularly posted engaging Math & Science tasks.

In March itself, we began taking online sessions with TFI. Soon these sessions transformed to weekly open sessions conducted on a first come first serve basis. This program was for teachers and students across the country. Topics covered during the session ranged from primary to high school mathematics and science. During the pandemic Aavishkaar converted its content into digital format.



YEAR AT A GLANCE

2500+

Teachers trained in Math and Science, Designing and Nurturing Thinking Classrooms, Conducting Charchas, and more

Conducted Math and Science Sessions, Open Sessions and Specialised Sessions for

500+
Students

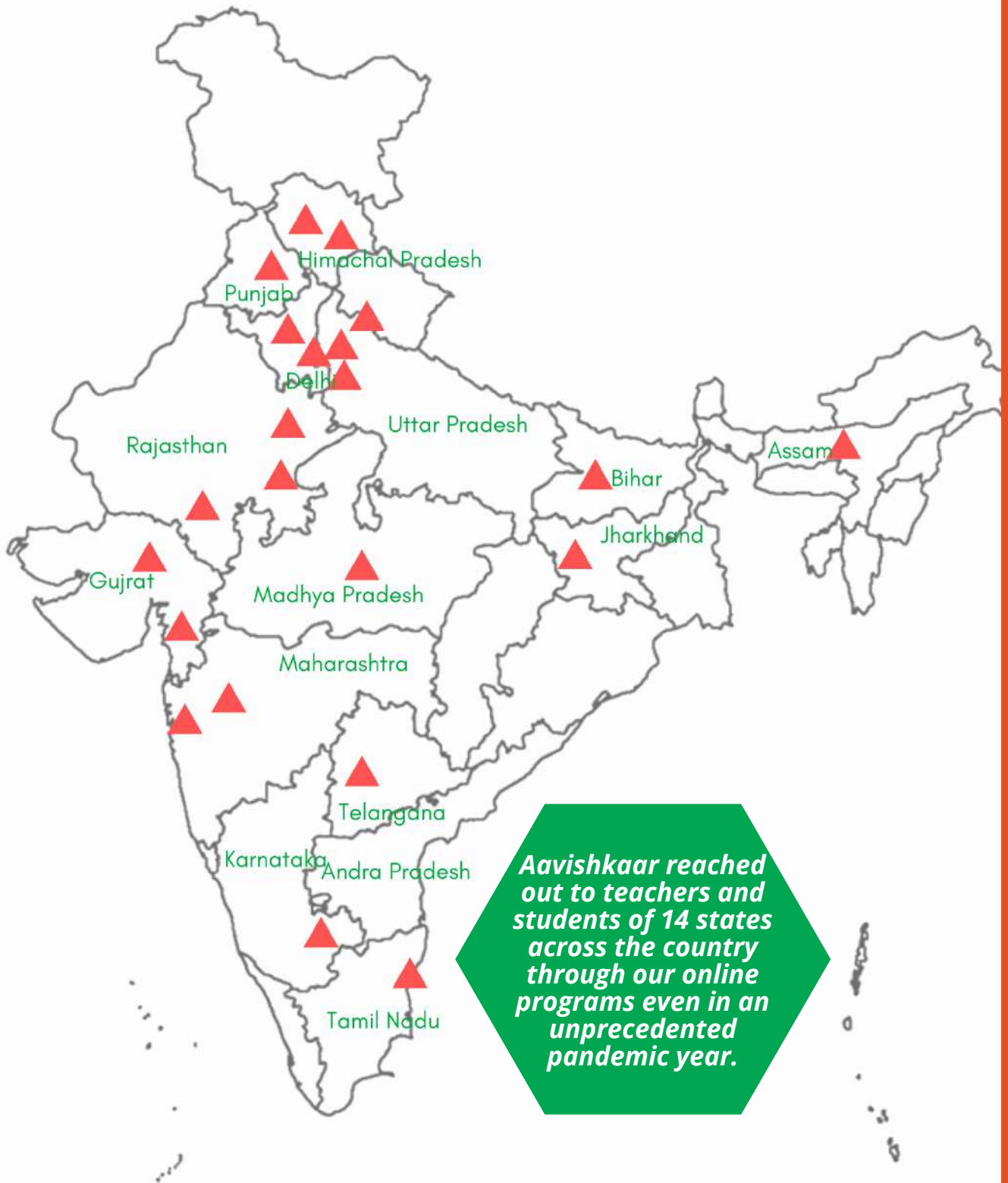
1500+

Hours of Online Training Sessions Conducted

29

Organizations reached through Student and Teacher Trainings

REACH 2020-21



HIGHLIGHTS

DrishtiCONE

Through a very successful partnership with the H.P. Govt and respective DIETs, Aavishkaar reached across all 12 districts and conducted science and math training for 1600 teachers.

Science and Math Collective

Aavishkaar is the training lead of a Science & Math Collective of 14 grassroots organizations that started during Covid and has conducted online yearlong science and math training for the teachers and students. Many of the organizations are supported by Emerging Markets Foundation. Many of the organizations are now entering the second year of the training program.

Incubating a New Organization

Aavishkaar incubated a new all-women nonprofit, Sajhe Sapne on its campus in August 2020. This young organization aims to upskill young rural women to ensure they have a choice of thriving careers. Sajhe designs and delivers modern-day skill development programs through its residential program. Since then we have also partnered and started the primary Math Educator program for young women.

Primary Math Educator Program

Aavishkaar in collaboration with Sajhe Sapne and Ashvattha has come together to start a new program to train young women from rural India to become Math Educators. It is a year-long residential program piloted in Kandbari, Himachal Pradesh with 10 girls from different areas of the country.

NUMBER OF TEACHERS IMPACTED DIRECTLY

During this time of transition, when mode and method of teaching and learning saw a huge shift, we gave more emphasis on training the trainers and conducted extensive teachers training programs online



PROGRAM	NUMBER
DrishtiCONE	1600
Open Sessions	700
Designing Thinking Classrooms	20
Science and Math Collective Orgs- NEEV, KarmMarg, SAATH, GSK, CHIP, Oscar Foundation, Universe Simplified, Asaadharan, CYDA, Vidyodaya Foundation (supported by EMpower)	41
2nd batch of Science & Math Collective (CHIP, CYDA, Josh, FAT, Sahyog)	56
JNV teachers teachers through UNESCO MGIEP	66
TFI a) TFI Delhi Team content training of fellows b) TFI Hyderabad c) Nurturing Thinking Classrooms	60 9 7
Ibtada, Alwar, Rajasthan	18
Kshamtalaya, Kotra, Rajasthan	30
Aga Khan Rural Support Program, Bihar	15

Students Impacted

Online Now,
Oncampus Later



Numbers of Students	Programs
350	Open Sessions
24	Science and Maths Collective
75	Hamaari Picycle
25	Math Masala
10	Primary Math Educator Program
50	Agastya Foundation
15	Karm Marg
14	DGL Nunnery

SCIENCE AND MATH COLLECTIVE

We worked with 10 grassroots organizations i.e, Neev, Karm Marg, Saath, Gramin Shiksha Kendra, Chip, Oscar, Universe Simplified, Asaadharan Foundation, CYDA and Vidyodya Foundation, supported by Emerging Markets Foundation (EMpower).

65 TEACHERS
15 STUDENTS
250+ HOURS

Experienced Teachers

- 41 teachers of primary and middle schools
- 3 tracks (June - Dec 2020)
 - Primary Math
 - Middle School Math
 - Middle School Science

Young Teachers

- 24 teachers of primary and middle schools
- 3 tracks (June - Dec 2020)
 - Primary Math
 - Middle School Science

Students

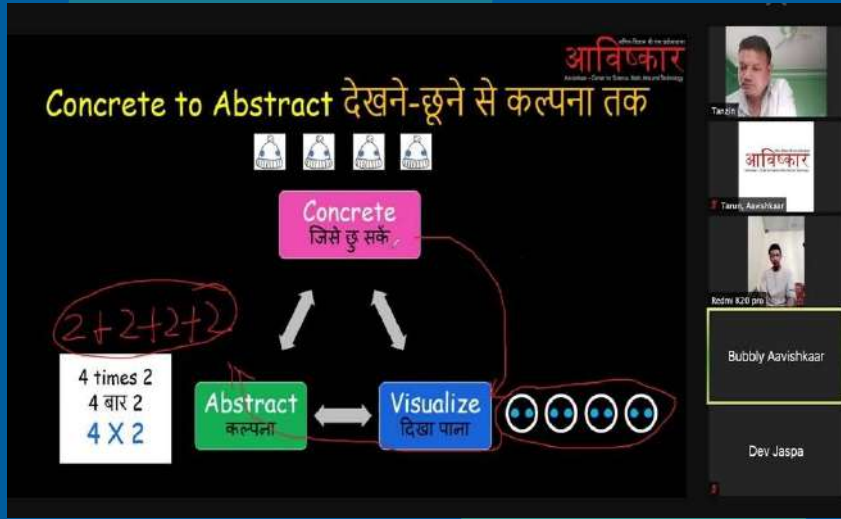
- 15 students of Karm-Marg
- The year focused on
 - Primary Math
 - Nurture mathematical mindset
 - Remove fear of math through games & activities



DRISHTICONE

Pre COVID-19

Aavishkaar has worked with government schools across some districts of Himachal Pradesh through the program named DrishtiCONE, with the aim to transform science and math education. We worked with 45 schools of Panchrukhi Block through sessions like Ganit Mela, Ganit Setu, Vigyan Mela, Ganit Vigyan Utsav, and regular weekly engagement with 7 schools to develop deeper relationships with students, teachers, schools administration and parents.



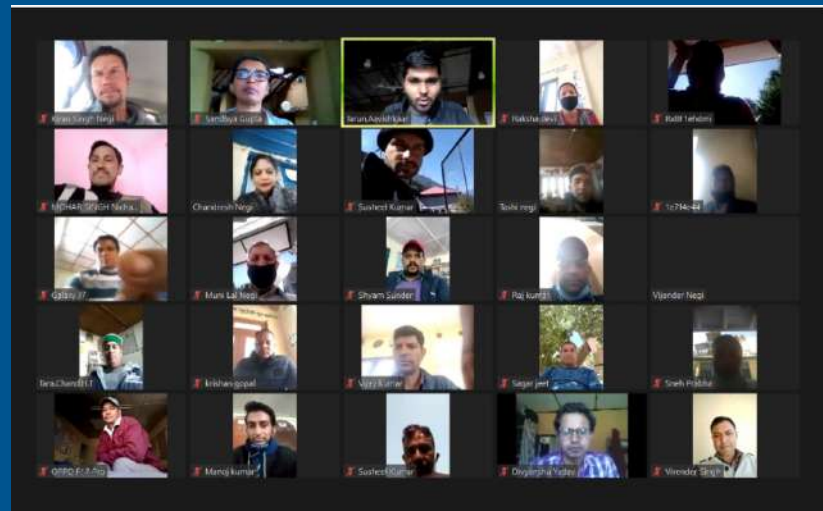
Post COVID-19

Aavishkaar reached out to the Himachal Pradesh Govt. and DIETs (District Institute for Education and Training) to conduct online training. We converted our existing learning content into an online format to reach out to maximum students and teachers through a partnership with H.P. Govt. and respective DIETs. This difficult situation where teachers were not able to reach students effectively was utilized as capacity-building time. We worked with Himachal Govt. and trained teachers in every district of H.P.

Organization	Aavishkaar Yaatraa
Number of Teachers	1600
Week- Long Camps	12 Districts (120 Middle, 60 Primary)
Frequency	180 Sessions
Timeline	March- December 2020
Grades	1- 8

"Every method to teach every topic in the whole session is very effective and innovative."

-A Govt school teacher



"It was no doubt a well-organized workshop. Resource Persons were well prepared and done their job perfectly. They delivered their content very efficiently, effectively, and with perfection. I would like to attend such an interesting workshop again in near future. ."

- A Govt school teacher

INCUBATION- SAJHE SAPNE

Aavishkaar is offering this young team not only regular mentoring for organizational growth and program design but also sharing any resources in campus or residential hostel to ensure smoother operational implementation. Their team and the first cohort of young women from various villages are based out of Aavishkaar Campus in Kandbari.



Primary Math Educator Program

Aavishkaar along with Sajhe Sapne and Ashvattha have also come together to launch a skill-development program in helping women in villages become mathematics educators. Aavishkaar's rich expertise in teachers' training and subject matter would help Sajhe Sapne in diversifying their offerings to young women in villages as well as learn refine program design and management skills.

TEACH FOR INDIA

During lockdown, in the months of March, April and May we collaborated with TFI and started online sessions for their fellows. These sessions gave way to many **OPEN SESSIONS**



TFI Delhi

Hamaari Kakshaa Science

Sessions were designed in a way that they practiced their learning simultaneously through reason and logic. Teachers were interactive throughout the sessions and responded well.

Hamaari Kakshaa Math

While participating and observing how we can bring 21st century skills into the classroom through Ganit Charcha, consistent interaction and justification. Sessions were aimed at making mathematics visual for all.

Aadhar Ganit

The Foundational Math camp was aimed developing conceptual understanding of primary topics in mathematics and providing visual tools to make thinking visible for all.



TFI Hyderabad

In our mission to nurture mathematical mindsets we conducted Ganit Charchaa to demonstrate how discussion spaces can be created around a mathematical concept in classrooms of any grade level with TFI Hyderabad team during city orientation of the Fellows in summer 2020.

TFI National Level

We conducted 6 sessions of Training with Training Leads of seven TFI cities, on nurturing Thinking Classrooms. The workshop focused on the 5 Es Framework comprising Engage, Explore, Explain, Extend, and Essence. The Exploration sessions provided a safe space to learn and make mistakes and passed on the same culture for the participants to follow in their classrooms- be it online or offline.

MATH MASALA

Primary Math Enrichment Camp

A new camp was launched in June 2020 for primary school students (10-12 yr olds). This camp aimed at nurturing mathematical mindset in students and nurturing love for mathematics.

June 1st-6th 2020

Content for Students

- Most students are first generation learners
- Need Content that Builds confidence and is easy to understand.
- Learning connected to real life.
- In the language of learner (Hindi & English)

Nurturing Mathematical Mindset in Students

Number of students: 15
Total Session : 6
Session Focused on

- Primary Math
- Nurturing mathematically mindset
- Removing fear of mathematics

This was done through games and interactive activities

HAMAARI PICYCLE

Middle School Science and Math Enrichment Camp

An online camp for middle school students (11-14 years old) who are fascinated by math & science, and dream to become scientists and mathematicians of tomorrow.

MATH TOPICS

- History of Number System
- Fractions
- Exploding Dots
- Patterns
- Estimation

Duration- 10 Day

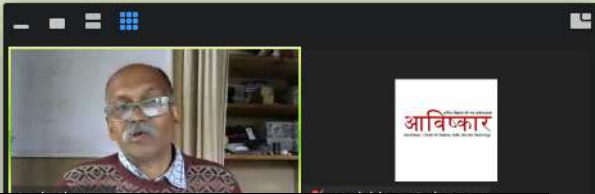
June 9th-13th 2020- Pi-Cycle Math
June 15th -19th 2020 - Pi-Cycle Science

SCIENCE TOPICS

- Chotu
- States of Matter
- Air
- Water
- Springs

SPECIALIZED PROGRAMS

हवा – जो बन्द है।



Kshamtalaya Foundation

Number of teachers- 30

Number of sessions- 5

Number of hours- 10

The workshop consisted of 5 sessions on Mathematics for Primary School.

Topics covered included Number Sense, Place Value, Addition, Subtraction, Multiplication and Division.

It concluded with a session on games that can be played with the students.

Ibtada Foundation

Number of teachers- 18

Number of sessions- 18

Hours- 36

Aavishkaar trained Ibtada's team members and tutors to develop deeper understanding of science concepts taught in classes 6th to 8th through visualization of everyday life experiments.

Sessions were conducted virtually from Dec 2020 to Feb 2021. We introduced molecules, states of matter, temperature, air and water among other topics.

DGL Nunnery

Number of Hours- 12

Total Nuns - 14

Aavishkaar conducted online sessions for Dongyu Gatsal Ling Nunnery (DGL Nunnery) in primary math. The goal was to have fun with mathematics using games and puzzles that develop mathematical life skills in them.

Aga Khan Foundation

Number of hours- 14

Number of teachers- 15

Topics covered include Properties of Chhotu (molecule), State of Matter, Air, Water, Spring and Solids.

SPECIALIZED PROGRAMS

Agastya Foundation

Number of hours- 8
Number of students- 50

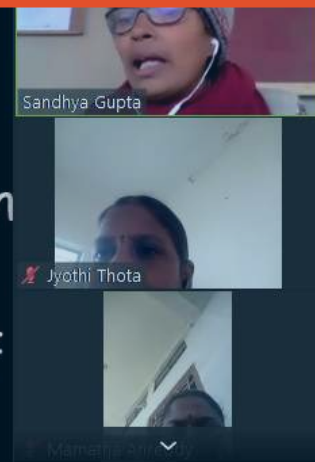
हमारा सफ़र

गणित चेतना (1)

गणित चर्चा (2)

We conducted 2-days workshop with 2 batches of gifted secondary school students across the country. We understood the behavior of COVID growth, designed a mathematical model for it, understood various parameters, and how they influence the growth. We worked on visualizing the growth, importance of modeling and predicting its behavior with time. Next batch is scheduled for first week of April.

Ganit Charchaa (2)



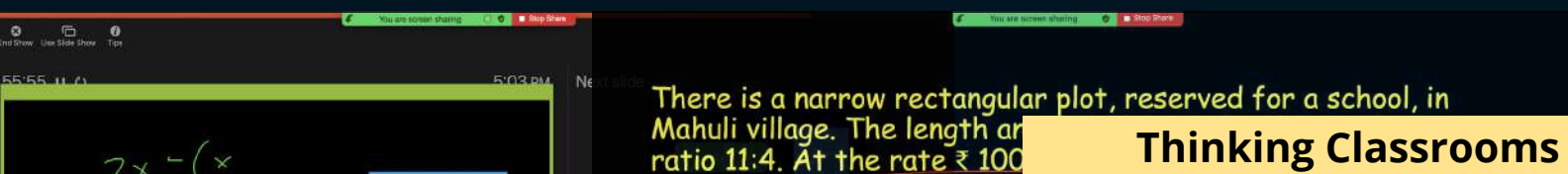
UNESCO MGIEP

Number of hours- 12
Number of Teachers- 66 from 33 Schools

Aavishkaar, in partnership with the United Nations Educational Scientific and Cultural Organization (UNESCO), conducted a workshop, covering difficult to teach topics for teachers of Jawahar Navodaya Vidyalayas across the country.

त खोज: Exploration

कार: Essence of



Thinking Classrooms

Number of Sessions- 6
Number of Participants- 20
Number of Hours- 10

Aavishkaar conducted a Workshop on nurturing Thinking Classrooms. Participants associated with various development organizations, schools and individual educators joined the workshop. The sessions focused on the 5 Es Framework. Sessions gave a safe space to learn and make mistakes and inculcated the same culture for the participants to follow in their classrooms be it online or offline. Hands on tools and techniques were provided to make complicated topics simple and fun. The component of 'charchaa' or discussion enhanced peer learning to another level.

CAPACITY BUILDING

Capacity building through Content and Teaching Learning Materials (TLMs)

SAATH

Content Created for the Camps

- Most students are first generation learners
- Need Content that
- Builds confidence that "it's possible to understand"
- Learning connected to real life
- Shows relevance of learning
- In the Language of the Learner (Hindi & English)

Camp Preparation Support

- On-site Student Camps in Science & Math
- Content Development
- Lesson Plans in Hindi & English
- "How to implement?" Videos for Games
- Online Teacher Support for every lesson

Supported SAATH to set up a Science & Math Lab in Ahmedabad

With Rotary Club, Assam

We provided training in 7 schools in Assam in the last few years. To continue and strengthen the learning we delivered TLMs to the teachers.

TTWREIS and TSWREIS

We provided training and consistent content support to teachers in Telangana Tribal/ Social Welfare Residential Educational Institutions Society

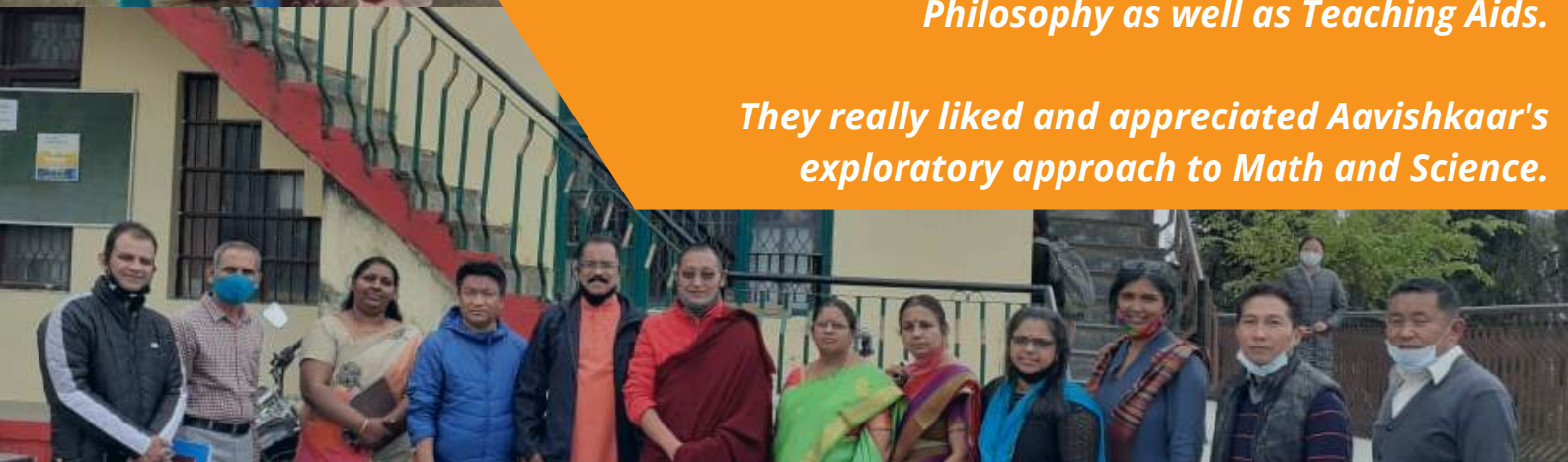
TELANGANA TEACHERS' VISIT TO AAVISHKAAR

Teachers from Telangana Tribal and Social Welfare Residential Educational Institutions Society (TTWREIS and TSWREIS) came to Aavishkaar for an educational visit in March 2021.



They met with our team and students from Sajhe Sapne's Rural Development and Management Program and Primary Math Educator Program. We shared with them Aavishkaar's Programs, our Learning Philosophy as well as Teaching Aids.

They really liked and appreciated Aavishkaar's exploratory approach to Math and Science.



They also met with some government partners that we work with.

We have worked with Telangana teachers for many years now. It was great having them in our campus. We are looking forward to strengthening our association with them further.

MONITORING AND EVALUATION

Response and Rating

Based on the feedback form shared at the end of each sessions

93%

Participants said the session was extremely
USEFUL

92%

Participants thought the sessions were
EASY OF UNDERSTANDING

92%

Participants thought that the session were
INTERESTING & ENGAGING

MONITORING AND EVALUATION

Teachers' Quotes

"Thank you for this :) I felt like a curious exploratory kid myself in the space today and brought back childhood memories where I used to look for patterns in everything and anything and never realized that I was learning so much. To simple regular things that bring so much learning and perspective!!"

-TFI City Training Lead

"Very informative and inspiring session. The trainers presented everything very well and coherently. I came to know about a very interesting and simple way of clear the concept. Looking forward to a more valuable session in the coming days. Indeed very fruitful."

- Govt. School Teacher, Himachal

"Very good presentation of methods and models of multiplication and divide and very interactive session."

- Kshamtalaya Fellow

"By this session, I can see maths everywhere around me better than before. thanks alotfor this session."

- A Teacher at Neev, Gurgaon

"The visual approach taken and the way existing knowledge was utilized in unprecedented ways to invoke curiosity and understanding 😊"

- Kshamtalaya Fellow

"GANIT CHARCHA, Number flexibility & how beautifully Maths concepts can be taught without stress"

"संख्याओं को आसानी और सहजता से बच्चों तक रोचक तरीके से प्रस्तुत करने के आसान तरीके। "

"यह कार्यक्रम हमें क्या से क्यों की तरफ लेकर जाता है यह हमें यह बताता है हम जानने से समझने की तरफ बढ़ें | हमारी क्लास सोच विचार , जिज्ञासा, वैज्ञानिक दृष्टिकोण ,खुद करके देखने आदि के लिए हमें प्रेरित करती है |"

MEDIA TALKS

Azim Premji University



ShareEd

Create Net Program
Addressed 100 Educators on Innovations
at the time of COVID-19

Anajoree Foundation

Innovations in Teachings
at Aavishkaar

..., Strings, Games and Math

Kavya Varsha

Sarit gave a talk about Innovations
in Teachings at Aavishkaar

Teach For India

Addressed Fellows in TFI Induction
2020. Talked about the journey as
teachers.

1:12:46

At Right Angles - Shapes, Strings, Games a

ConTree

A talk on New Education Policy
(NEP)

Swataleem

A talk on Aavishkaar's
Journey

Sandhya, Aavishkaar

Ashok Prasad

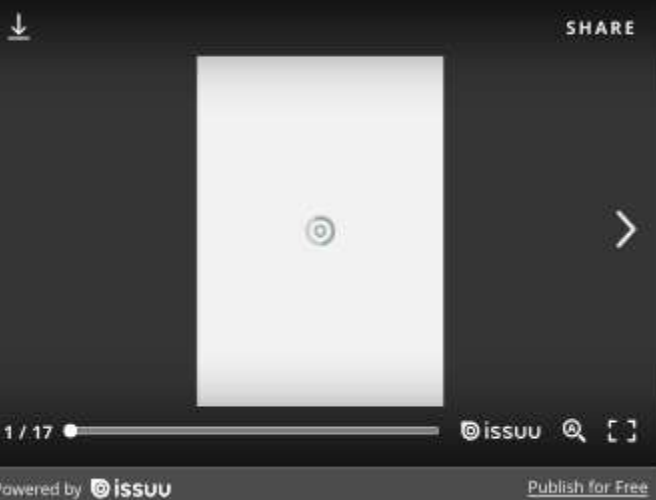
IN THE PRESS

WIPRO'S Samuhik Pahal

We published an article in Wipro's Samuhik Pahal
Volume 1, Issue 5 in the Ground Zero Section.
The article was titled- 'Learning as we go- COVID-
19 adversities are pushing nonprofits to adapt to
new processes & technology.'

uLaunch

uLaunch published an article about us
under Startup Stories titled 'Aavishkaar
- Let's Play With Numbers!'



AAVISHKAAR FELLOWSHIP

Aavishkaar is very important to me because I have experienced many changes in me. Here I have learned many things before and after Covid (lockdown) and also I got freedom to express myself freely. Aavishkaar provides me many opportunities to develop skills like management and leadership for my personal and professional development..



I have facilitated a lot of teacher training in science and maths. That is how I improved my facilitation skills, people management skills during this pandemic. Taking sessions with young teachers and students made me better in designing science sessions and in powerpoint presentation skills. This pandemic makes me better in the online world.



Babli, 2019-21

Divyanshu, 2019-21

TEAM



INDIA FELLOW

Like many other years, this year too we have partnered with India Fellow. We are hosting one fellow for 13 months in 2020-21.

GOALS

FOR 2020

Year long partnership with **5 organizations**

Building new self-learning stations for Primary School Math and Middle School Science under our new project *Prayog Bhoomi*

Year long engagement with **100 Primary and Middle School Teachers**

ACTUALS

16 Organizations

On Hold due to COVID

2600 Teachers

FOR 2021-22

On Campus Summer and Winter Science & Math Camp with 100 students

Conduct an yearlong training program with 25 government school teachers of Himachal

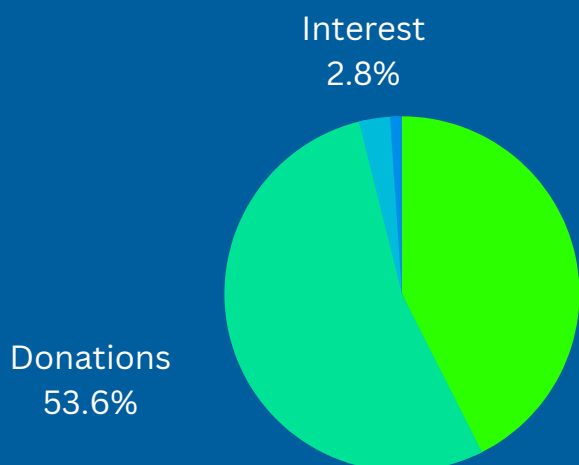
Primary, Middle and Sr. Secondary School Teacher Training with 600 Teachers

Build a Math & Science Women's Dream Team to work with schools of Himachal Pradesh encouraging young girls to join STEM fields.

Work with 60 young women to become Primary Math Educators through the year-long program.

FINANCIALS

INCOME



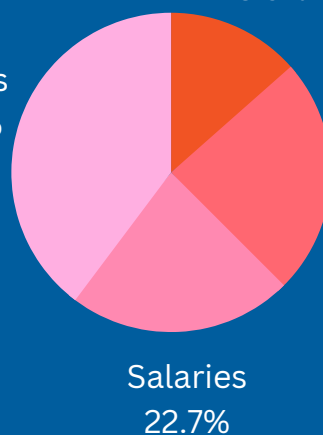
Programs
42.5%

Programs
13.5%

Others
39.8%

Establishment
24%

EXPENDITURE



Salaries
22.7%

INCOME		2020-21
PGM	Programs	4,079,048
DTN	Grants, Donations	5,135,523
BKI	Bank Interest	270,084
OTH	Others	103,490
	Program Income	9,588,145
COR	Corpus Donation	4,900,000
	Total Income	14,488,145
BKX	Non Income Txn	8,649,105
BFD	Investment Redeem	11,500,000
	Cash Income	-
	Bank Credits	34,637,250

EXPENSES		2020-21
PGM	Programs	1,375,793
EST	Establishment	2,451,529
SAL	Salaries	2,321,665
OTH	Others	4,057,928
	Program Expenses	10,206,916
CAP	Capital Expense	-
	Total Expenses	10,206,916
BKX	Non Expense Txn	8,474,385
BFD	Investment Made	10,000,000
ADV	Cash Advance	570,000
	Cash Expense	570,670
	Bank Debits	28,680,630
	Excess Income	(618,771)
	Surplus Cumulative + Corpu	15,266,098

OUR PARTNERS

