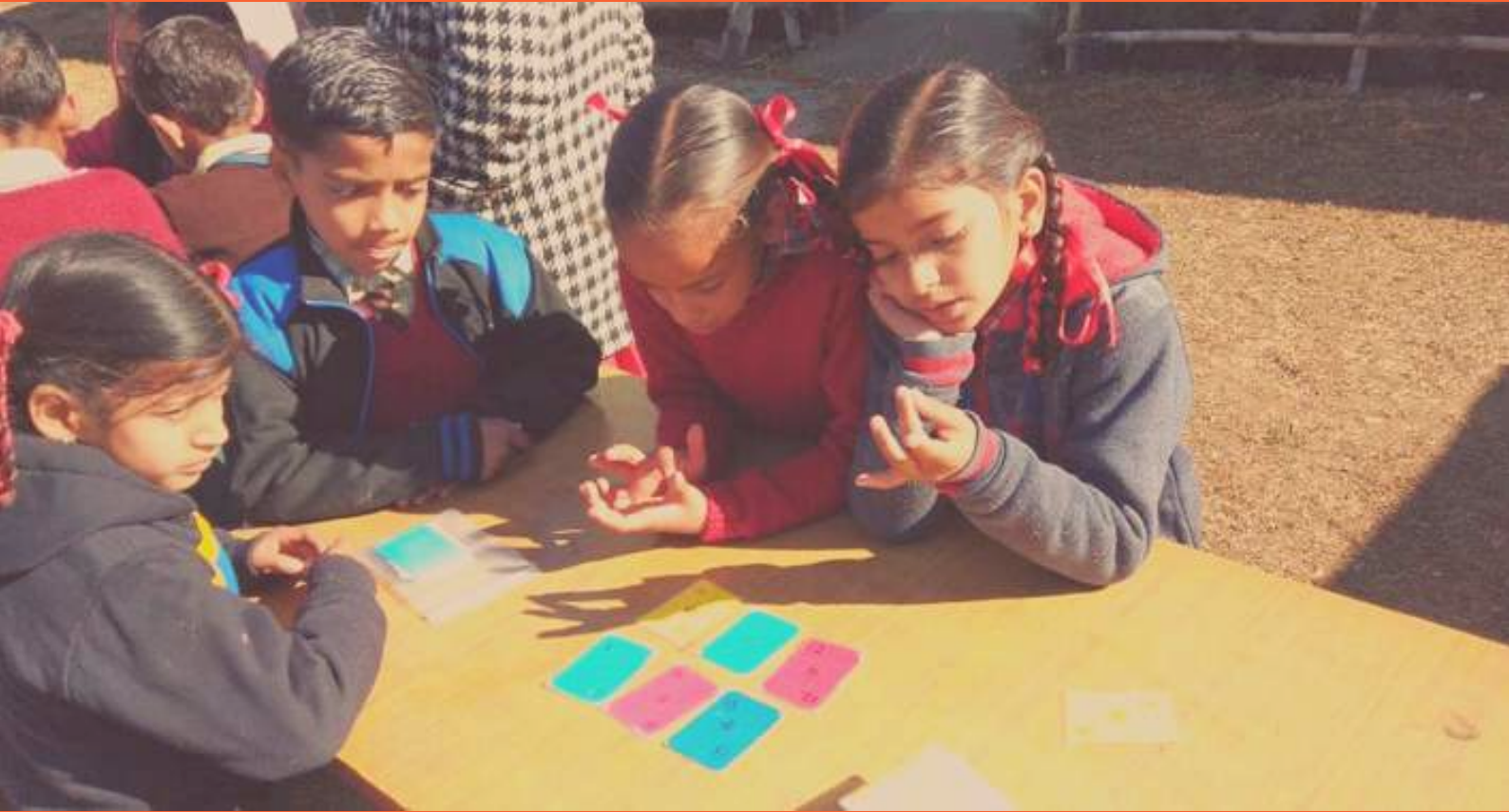


आविष्कार AAVISHKAAR

Centre for Science, Math, Arts and
Technology



ANNUAL REPORT

2019-20

Kandbari,
Palampur, Himachal
कंडबाड़ी, पालमपुर, हिमाचल
78070-71348

www.aavishkaar-palampur.org
[www.fb.com/AavishkaarPalampur](https://www.facebook.com/AavishkaarPalampur)
aavishkaar.palampur@gmail.com

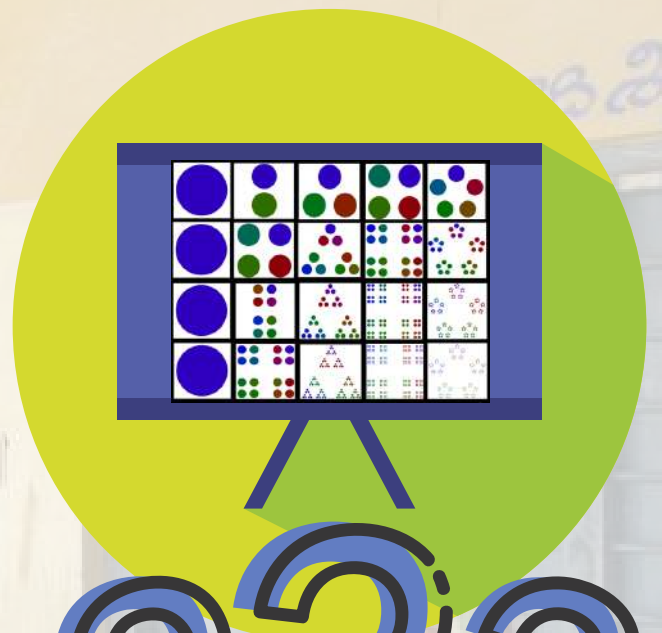
OUR STORY



Aavishkaar was founded to address the problem of quality education in India and to work towards inculcating scientific temper and evidence-based thinking in kids. The founders, Sandhya and Sarit (both IIT/NIT alumni & Ph.D.'s in Electrical Engineering (USA), worked as parent - support at the government school where their daughter was enrolled for 4 years. Through that journey of teaching and self-learning, they found the idea of Aavishkaar. Looking for better ways to teach led them to in-depth research on various concepts of Maths and Science.

Aavishkaar today is a center where motivated teachers and young thinkers find a platform to unlearn topics they had studied long ago in school through the traditional method of teaching and learn a creative, curious and critical thinking approach to education. Students struggle to understand the fundamentals and shy away from science and math, a problem that is magnified in rural and poor communities. Further, there is zero free-thinking space available to kids. The freedom to ask questions encourages curiosity and lays the foundation for future rational thinkers, innovators and problem-solvers. In the last five years,

Aavishkaar has become a pioneer in delivering high-quality Science and Math education through various teaching methods and pedagogies, reaching out to some of the most remote schools and communities in the country.



How Why Why Not

VISION

To nurture curious, creative and critical thinking citizens of tomorrow.

- **Curiosity:** We love when children question to understand the world around them. But somehow, it fades with time. We want them to be curious about life!
- **Creativity:** Curiosity and interest often lead to the creation of new ideas. We want students to never stop exploring and not be afraid to make mistakes.
- **Critical thinking:** Analyzing and questioning leads to critical thinking. We want children to be observant and justify their opinions with evidence.

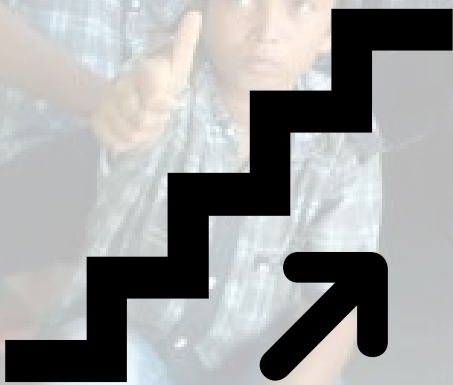


MODEL

Aavishkaar works with educators, Teachers and students to re-imagine and transform how Science and Math is taught in schools through -

- Fellowship Program for young leaders passionate about bringing change in Government schools.
- Experiential capacity building Programs for Educator & Teachers through workshops.
- Residential camps for students to stimulate curiosity, creativity & critical thinking in Science and Math.

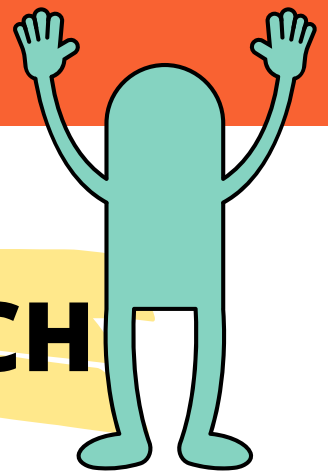
We adopt various pedagogic strategies & develop content at our campus to achieve this mission.



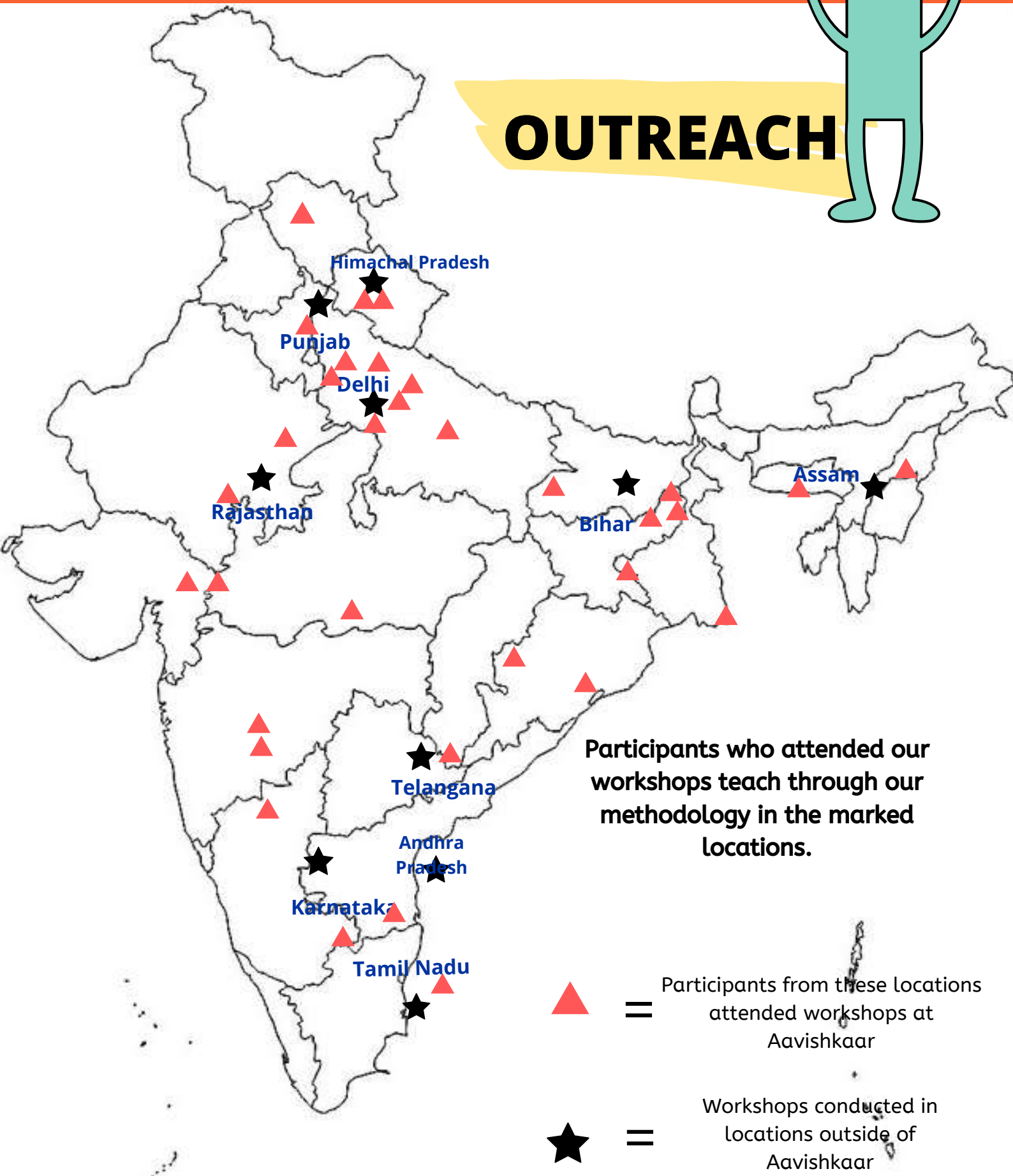
MISSION

Aavishkaar's mission is to enable, equip & empower educators and students to rekindle their creativity, curiosity and critical thinking in Science and Math. We endeavor to make Science and Math experiential, hands-on, engaging, immersive and accessible to all. Our core belief is that evidence-backed content that is rigorous and relevant can fundamentally transform the classroom experience for the child.







OUTREACH



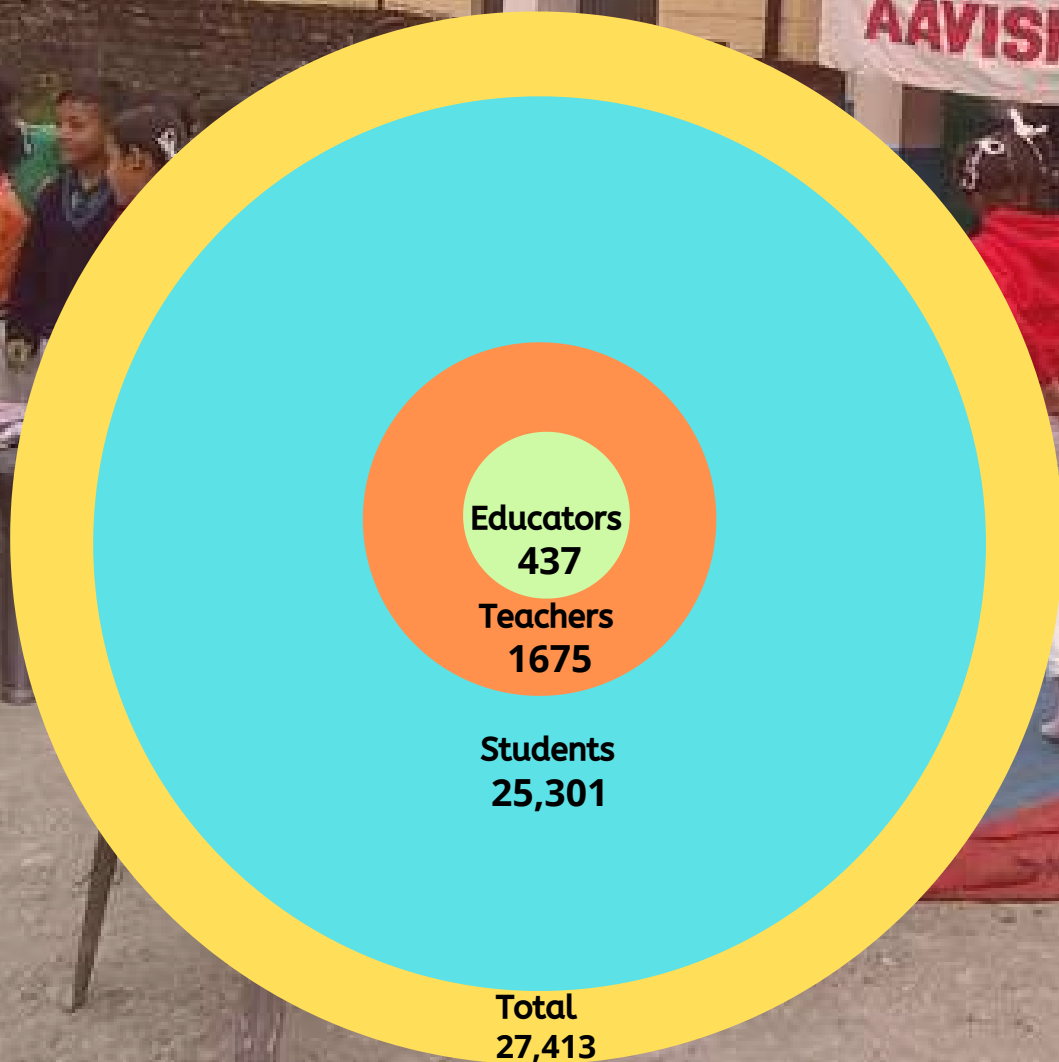
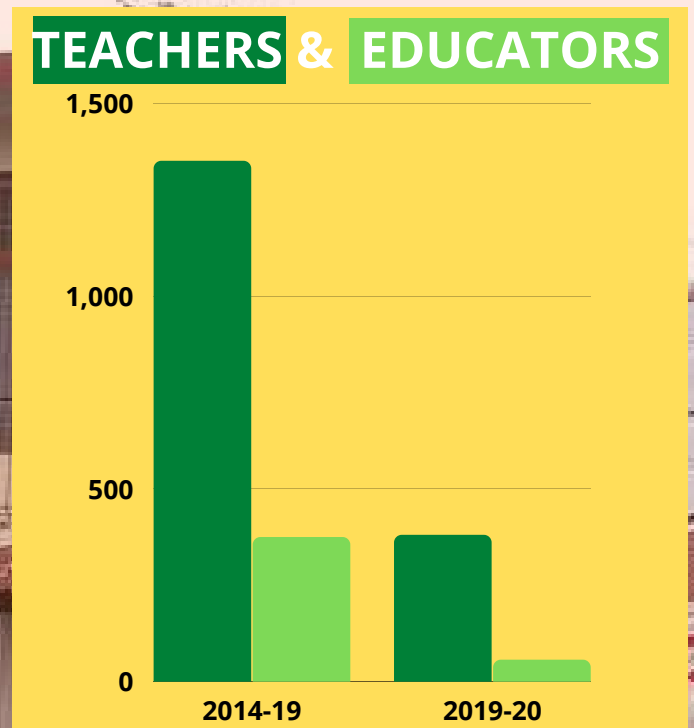
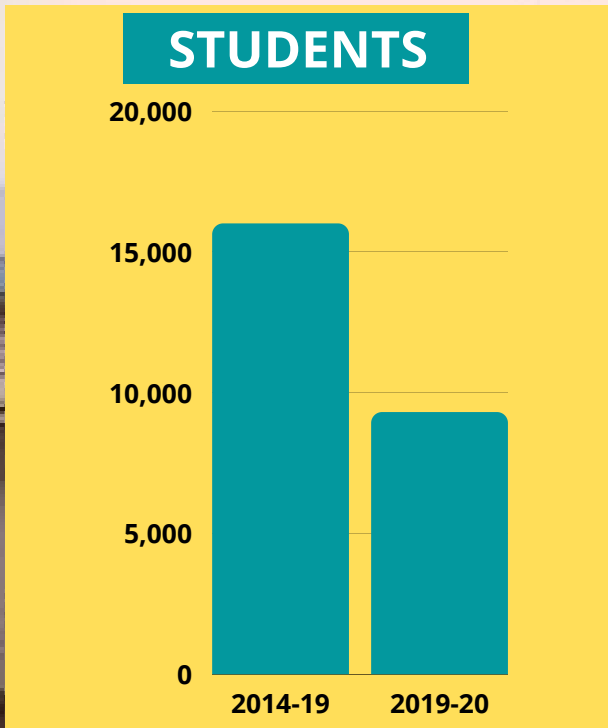
Participants who attended our workshops teach through our methodology in the marked locations.

-  = Participants from these locations attended workshops at Aavishkaar
-  = Workshops conducted in locations outside of Aavishkaar

OUR BENEFICIARIES

In the past 6 years, Aavishkaar has worked towards spreading its idea of education throughout the country. Our goal to nurture curious, creative and critical thinking citizens of tomorrow has been realized by working with more than 27,413 individuals across the country.

25,301 students, 1675 Teachers, 437 Educators





INSPIRATION



The activities that the organization started were based on interactions with students through classroom sessions on various topics of math and science. The idea was to develop an attitude of learning which enabled an open atmosphere in the classroom, encouraged students to continuously ask “WHY” and dive deeper into everything they learned.

The first two years were spent on building a strong foundation for all the content developed in these two subjects. Going forward, a need to work with middle school students on a long term basis was realized. A new program, DrishtiCONE, was introduced in 2019 and implemented in 2019-20 in the Panchrukhi block of Kangra district in Himachal Pradesh. Through this program, Aavishkaar started working with a smaller number of students for a longer duration. The entire academic year was utilized in demonstrating all the content developed so far and assisting the teachers in the adopted schools to use the same content and materials. Further, we extended our initiative to work directly with teachers and added 800 teachers to the to the three C’s cadre - creative, curious and critical thinking citizens of tomorrow.

The reason for this shift of focus was the growth of the organization in understanding the Indian education landscape. This built Aavishkaar’s capacity to train the teachers better by addressing their daily challenges within the classroom. The government of Himachal Pradesh invited Aavishkaar to train its teachers and honored the organization as a National Resource for training teachers countrywide.

DRISHTICONE

DrishtiCONE

is our flagship program where we have regular classroom engagement with students of primary (2nd, 3rd, and 4th) and upper primary grades (5th, 6th, 7th, and 8th) in 6 schools of Panchrukhi Block, Kangra District, Himachal Pradesh.

The aim of this programme is to build conceptual understanding in students through content developed at Aavishkaar. The content is constantly modified to make it more classroom-friendly.

We work on making student-centered classrooms through different pedagogies of Math and Science addressing the needs of each student according to his or her abilities. We focus on inculcating the ability to Self Explore problems and think of solutions Critically and Creatively.

Three activities that are a part of DrishtiCONE are:

- **Classroom Engagement**
- **Teacher Engagement**
- **Science and Ganit Melas**



IMPACT STORIES

In 2019 - 2020, we worked with 95 students regularly 4 times a week delivering our content of Math & Science to the classroom through various activities, games and discussions.

Here are stories of a few students we worked with...



Vishal, the only boy in the 5th grade of Spairu school was very shy and when asked a question he would simply look down. He would not talk to other students in class and did not even show interest in games. To encourage him to participate in the classroom, Babli started forming groups of children and asked them to discuss amongst themselves so that they would hear and understand each other's views. Babli motivated Vishal to talk as much as possible. Every day the group used to be different so that he would talk to everyone. Through this process, he slowly started to get along with everyone, showed interest in games and started participating in class.

In Nanhar School, a student Kanika never dared to speak up in class. She didn't speak due to a fear of the teacher or that if she says something wrong others might start laughing. Gradually, as everyone was given a fair chance to speak, her fear reduced. An atmosphere was created, where she felt that one should not hesitate to ask questions, even if others laugh, an atmosphere where asking questions and making mistakes was encouraged. Divyanshu, made efforts to build a personal relationship with all students which helped Kanika feel comfortable talking and sharing. Over time, Divyanshu noticed major change in Kanika as she evolved from a shy student to an active participant in class. She would ask lots of questions until all her doubts were clarified.

Vanshika of Kandbari school did not get along with rest of the students in her class. She considered herself superior, in a way that other children were not intimidated by her but they did not want to interact with her. She never paid attention in the class. For this, Aanchal never treated her like rest of the teachers. She used to keep other children in the group with her, started focusing on her individually, developing a personal bond with her, and motivating her to participate in activities. Vanshika slowly opened up, started sharing, listening, questioning & answering in the class.



HIGHLIGHTS

Students of Aweri school learned about Mushrooms along with traditional knowledge of ecosystem through a "MUSHROOM HUNT" activity.

Rajeshwar & Ankush of Kandbari School designed a Model with the help of Aavishkaar Team that was recognized at the Science Congress in Palampur Block as the MOST INNOVATIVE MODEL.

Students and teachers from the Government Middle School Nanhar came for a field trip to Aavishkaar and explored "THE INVISIBLE WORLD" through the microscope.

We conducted this workshop in various other schools, engaging students and teachers to explore the world not visible to the naked eye.


The Aavishkaar team helped girls of Grade 12 of Kandbari school in preparing a NUKKAD NATAK ON DRUG ABUSE AWARENESS

Aavishkaar team went to KISHORI MELA in Daulatpur, Kangra and shared math puzzles and games with the girls attending the fair.

A SUR AND TAAL WORKSHOP was conducted that discussed various styles of music, from classical and folk. Music that is hundreds of years old to the latest mainstream film songs. The purpose of the session was to create appreciation for music beyond its composition and lyrics.

Aavishkaar designed 3 different methods of teaching Science & Math

- Learning Stations
- Market Place
- Investigation Approach



A Kandbari School teacher, Rakesh, showed great interest in teaching children in a fun way . He loves the experiential way of learning, where children can experiment and grasp well. He also attended a workshop at Aavishkaar to better his understanding on how to teach children through these methods.

Spairu School teacher always tries to teach something new to children, but because of the urgency to finish syllabus, he doesn't get enough time to do it. So, he asked our team to teach students using new games and concepts beyond syllabus. If there is something in the school that he has never seen, he asks us of ways how we can show it to the children and use it for teaching.

Within the Panchrukkhi block, Aavishkaar engages with 7 schools regularly and with 42 schools, which are not part of DrishtiCONE, through Science and Math Melas in these schools, in community festivals or in the school's annual functions. These Melas and Game Festivals (Utsav) allow all students in the school to experience the Aavishkaar Culture for 2 days. In these two days, many topics get covered from their syllabus. This experience helps students understand the concepts better through experiential learning and also aids the development of critical thinking and creativity.

This year we conducted 45 Melas & Utsavs in different parts of Himachal Pradesh.

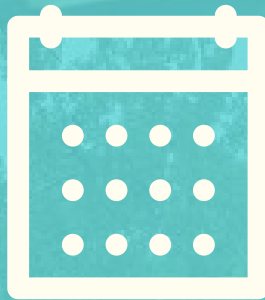


**ASSAM
GOVERNMENT**

NeeV

**DGL
NUNNERY**

**YEAR- LONG
ENGAGEMENT**



**TEACH
FOR INDIA**

**TELANGANA
SOCIAL
WELFARE**

**TIBETAN
GOVERNMENT**

**TELANGANA
TRIBAL
WELFARE**

**NAARI
GUNJAN**





NARI GUNJAN

Nari Gunjan is an organization in Bihar that works for upliftment of women of the Dalit Musahari Community. Aavishkaar has been working in collaboration with the organization since 2015. This engagement has been in the form of student camps within Aavishkaar campus or visits of Aavishkaar team members to the student hostels of Nari Gunjan in Bihar.

Total Visits in 4 Years
22

2019 - 2020

No. Of Visits - 4

No. of Session Held - 150

**No. Of Girls Worked
With - 400**

Topics Explored

- Science and Math
- Gender Education
- Women Empowerment
- Social Science Skills

TFI develops leaders committed to educating every child, in every corner of the country. Through a year-long incubation program and a life-long community of support, TFI creates a space for regional development by empowering the youth who in turn invest and leverage other stakeholders in the system to work towards educational equity. Aavishkaar engages with TFI through teacher training, workshops and conferences. We frequently conduct Hamaari Kakshaa & Adhaar Ganit camps with the fellows of TFI at our campus and at their center as well. This year we trained around 100 TFI fellows.

TFI

NeeV is a learning center for the underserved in Gurgaon. They are providing NCERT based education to children and young adults. Additionally, they also teach students employment-based computer programs, soft skills and English for better fluency. Aavishkaar conducted a Primary Math workshop With 20 teachers at their campus & shared ideas on how to create fundamental shifts in science and math classrooms. We also conducted a Math & Science Mela with the students of their school.

NeeV

**TIBETAN
GOVERNMENT**

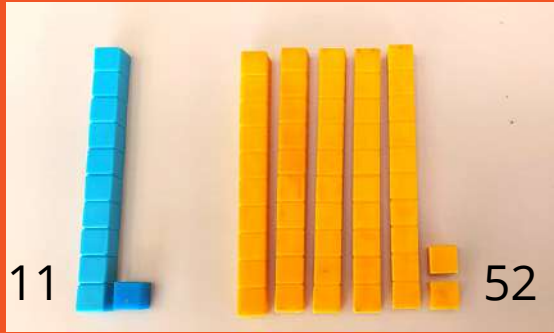
The organization is responsible for "establishing, managing and assisting schools in India for the education of Tibetan Children living in India while preserving and promoting their culture and heritage". We regularly engage with their schools & teachers through Teacher Training & Students Camps. Aavishkaar held multiple sessions with 60 Teachers & 50 Students of their Schools.

**TELANGANA
GOVERNMENT**

We work with the Telangana Tribal Welfare Residential Educational Society through Teacher Training and Science & Ganit Mela. Here, we train Telangana Government School teachers. This year Aavishkaar team conducted 3 workshop on science and math teaching and trained 220 teachers. The workshops helped teachers in taking these different methods of teaching to the classroom, thereby aiding development of creativity and critical thinking in their students.

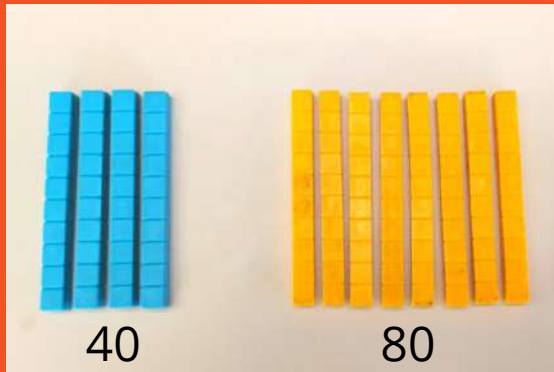


Workshop Count

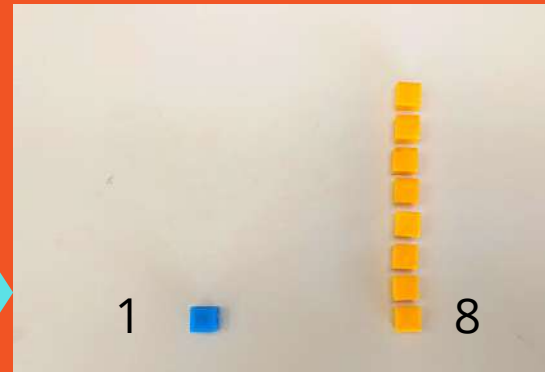


Teacher Training

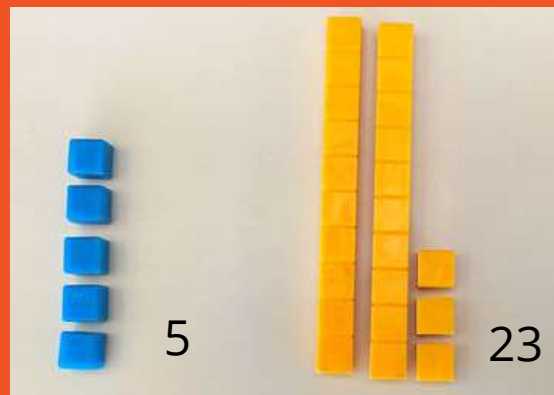
 No. of workshops in year 2019-20
 No. of workshops from years 2014 to 2020



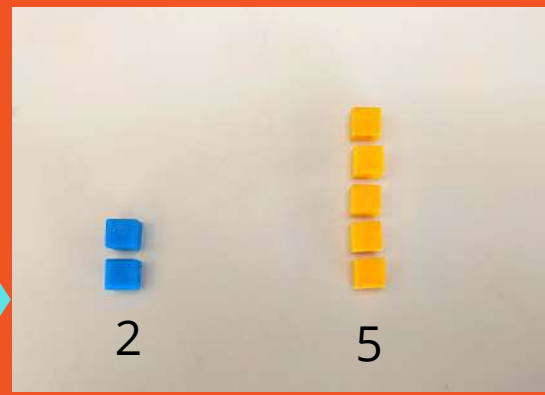
Math & Science Mela



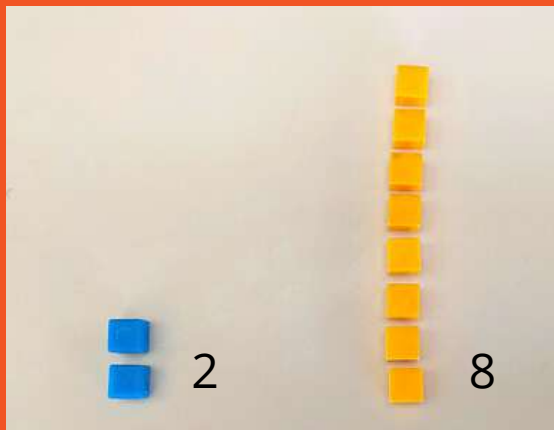
Hamaari Kakshaa



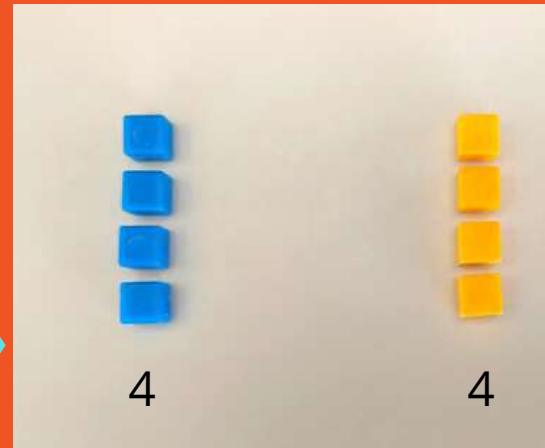
Nari Gunjan



Pi - Cycle



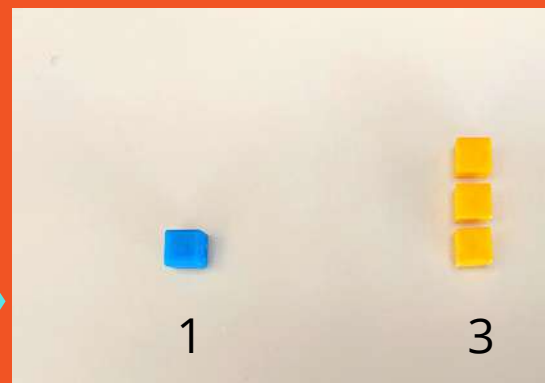
Hamaari Shiksha



Ganit Setu



Aadhaar Ganit



Pi - Safari



TEACHER TRAINING

17

Training Workshops

510

Teachers Trained

The workshops include our in-house training camps - Hamaari Kakshaa, Aadhar Ganit & out station training workshops for Teachers of government school in Himachal Pradesh, TFI , Telangana Tribal and Social Welfare Association, NeeV, government school in Assam and Tibetan Government School.

What Do We Do In Camps?



**Demonstrate
what should be
taken to
Classroom**

**Deliver specific
teaching learning
strategies for Math
and Science**

**Have
Fun**

"After the workshop change has been from pedagogical skills to content, jargon to simpler language, shallow knowledge to deep knowledge and from what to why,"
says Hitesh,
Fellow at Teach For India



STUDENT CAMPS

3
Camps

90
Students
Attended

We conduct our residential student camps- PiCycle and PiSafaari, bianually.

EDUCATOR CAMPS



2
Camps

Hamaari Shikshaa is a workshop aimed at instilling a deeper understanding of the current education landscape, of the different avenues of change possible, and of the ways one can be a part of this journey.

60

**Delegates Attended
Hamaari Shiksha
Workshop**





AAVISHKAAR FELLOWSHIP

Shubham (Fellow 2019-21) - "For me, this place is a city of inventors where my learning has sharpened. Aavishkaar is the best place to understand theories, I read in textbooks, through practicals and real-life examples. This has changed my perspective of looking at any subject."

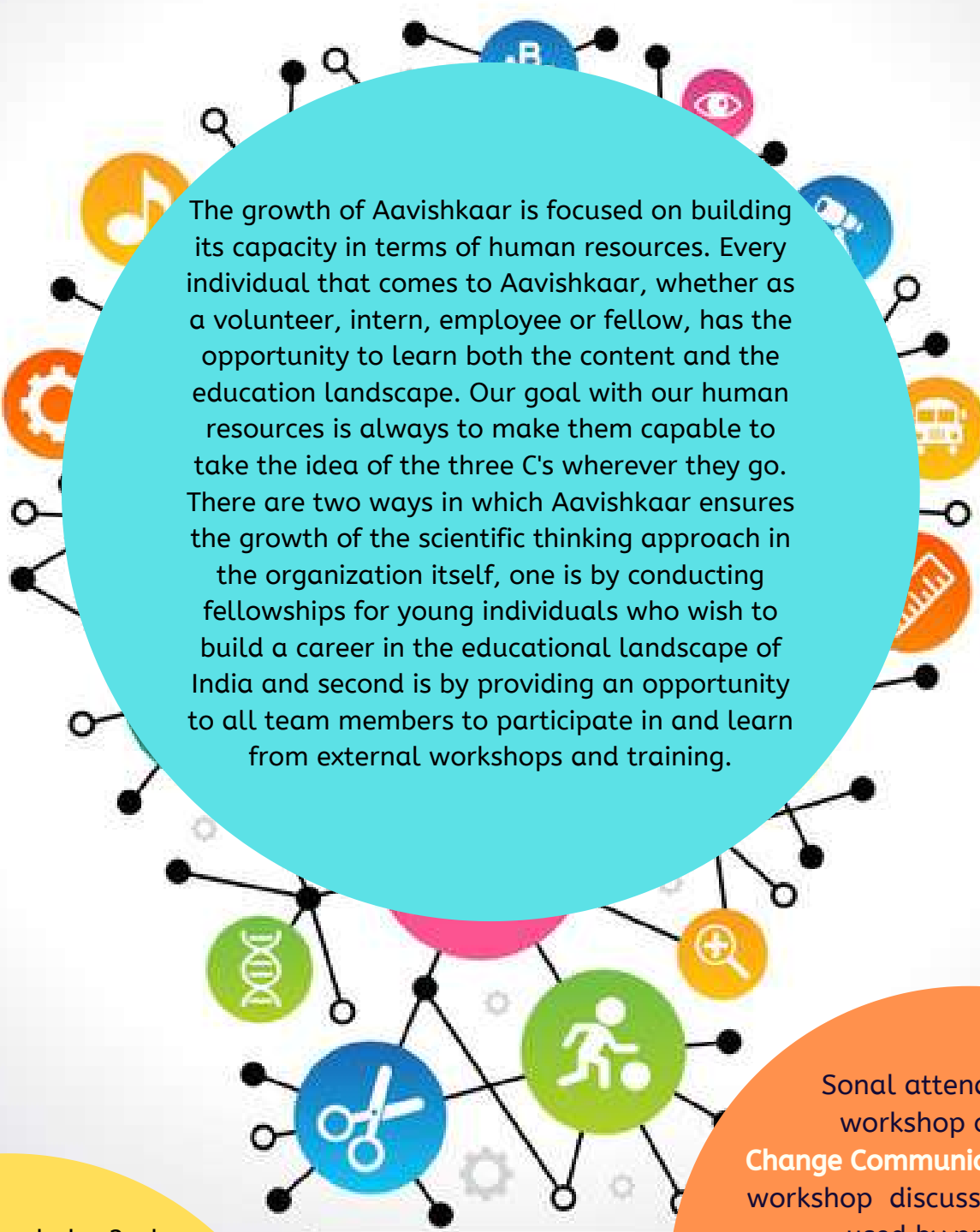
Aavishkaar introduced a 2-year Fellowship programme in 2018. In the first year, the fellows work with schools and deliver Science and Math programs developed by Aavishkaar.

Fellows get to understand Aavishkaar's innovative content deeply, share it with students and teachers in the school and communities. For the second year of the fellowship, fellows work with other organizations in the field of education. Working with Aavishkaar helps the fellows to bring quality contribution to these organizations.

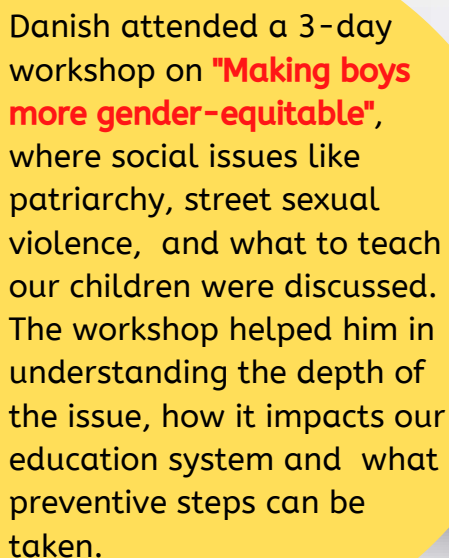
Babli (Fellow 2019-21) - "Aavishkaar is very important to me because I have experienced many changes in me after coming here. I was a girl who never used to ask questions. There was no confidence in me. Probably because no one ever gave me a chance to speak but here I was always given the freedom to speak, due to which now I can speak in front of others, and I have a lot of confidence in myself."

Divyanshu (Fellow 2019-21) - "Aavishkaar is not only the centre of science and maths but it also provides opportunities to develop and carve skills like communication, management and leadership for your personal and professional development. Group discussion leads me to think critically. Here I learnt to ask questions and express myself freely. Preparing for sessions in class or at Aavishkaar force you to be able to explain your thoughts explicitly."

CAPACITY BUILDING



The growth of Aavishkaar is focused on building its capacity in terms of human resources. Every individual that comes to Aavishkaar, whether as a volunteer, intern, employee or fellow, has the opportunity to learn both the content and the education landscape. Our goal with our human resources is always to make them capable to take the idea of the three C's wherever they go. There are two ways in which Aavishkaar ensures the growth of the scientific thinking approach in the organization itself, one is by conducting fellowships for young individuals who wish to build a career in the educational landscape of India and second is by providing an opportunity to all team members to participate in and learn from external workshops and training.



Danish attended a 3-day workshop on **"Making boys more gender-equitable"**, where social issues like patriarchy, street sexual violence, and what to teach our children were discussed. The workshop helped him in understanding the depth of the issue, how it impacts our education system and what preventive steps can be taken.



Sonal attended a 2-day workshop on **"Behavior Change Communication"**. This workshop discussed the tools used by profit-making organizations for scaling up their capacity and how non-profit can use it for development. This workshop will help in designing the project by identifying good and bad nudges.



GOALS 2019 - 2020

GOALS IN BLUE COLOR HAVE BEEN ACHIEVED AND IN ORANGE HAVE NOT BEEN ACHIEVED

Starting a year long Adhaar Ganit workshop for Primary Teachers

Upscaling Teacher support programme customized 5 different Partners

Recruiting more Aavishkaar Fellows

Taking Picycle & Pisafari to other locations



GOALS 2020 - 2021

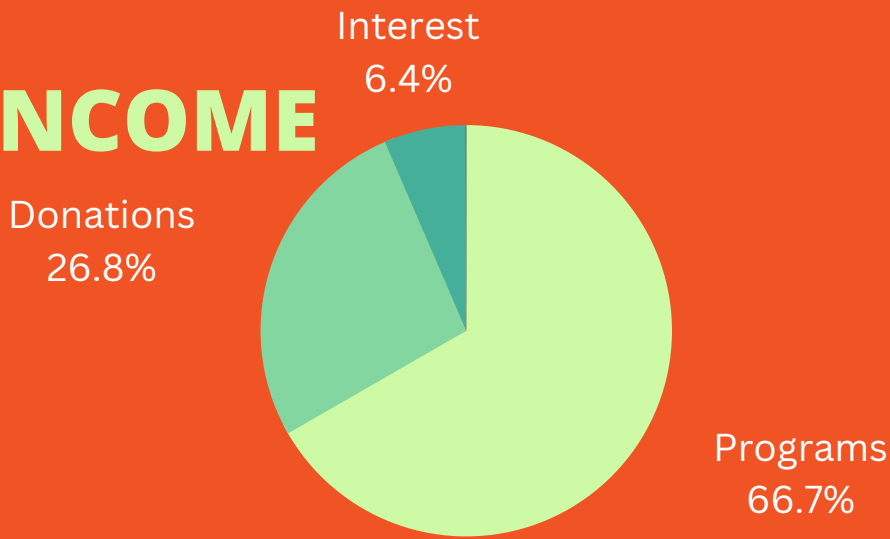
Year long partnership with 5 Organisations

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

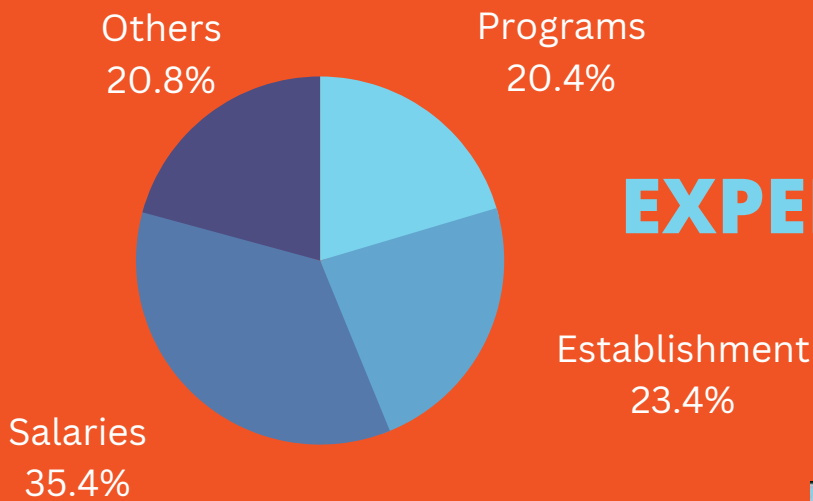
Year long engagement with 100 Primary & Middle school Teachers.

FINANCES

INCOME



EXPENSES



INCOME		2019-20
PGM	Programs	5,831,873
DTN	Grants, Donations	2,348,008
BKI	Bank Interest	561,269
OTH	Others	5,000
	Program Income	8,746,149
COR	Corpus Donation	550,000
	Total Income	9,296,149
BKX	Non Income Txn	63,940
BFD	Investment Redeem	7,500,000
	Cash Income	-
	Bank Credits	16,860,089

EXPENSES		2019-20
PGM	Programs	1,664,167
EST	Establishment	1,909,825
SAL	Salaries	2,889,255
OTH	Others	1,694,970
	Program Expenses	8,158,217
CAP	Capital Expense	-
	Total Expenses	8,158,217
BKX	Non Expense Txn	72,288
BFD	Investment Made	10,000,000
ADV	Cash Advance	815,000
	Cash Expense	794,053
	Bank Debits	18,251,452
	Excess Income	587,933
	Surplus Cumulative + Corpu	10,984,869

OUR COLLABORATORS

Rotary



Asha
for Education
Bringing hope through education

bharti

Bharti Foundation



Earth
Just



HIMACHAL PRADESH
GOVERNMENT



wipro



DONGYU GATSAL LING SUNNERY

Nari Gunjan



MALALA
FUND