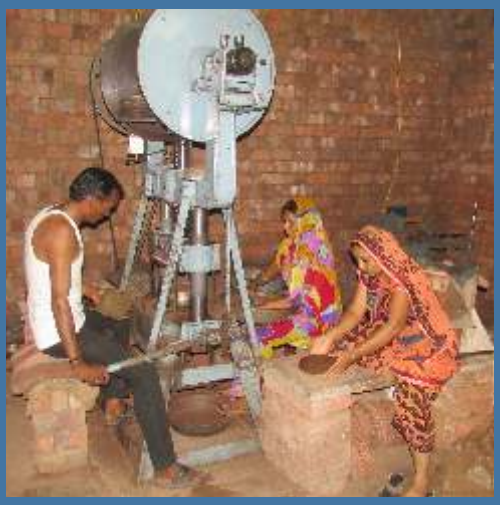
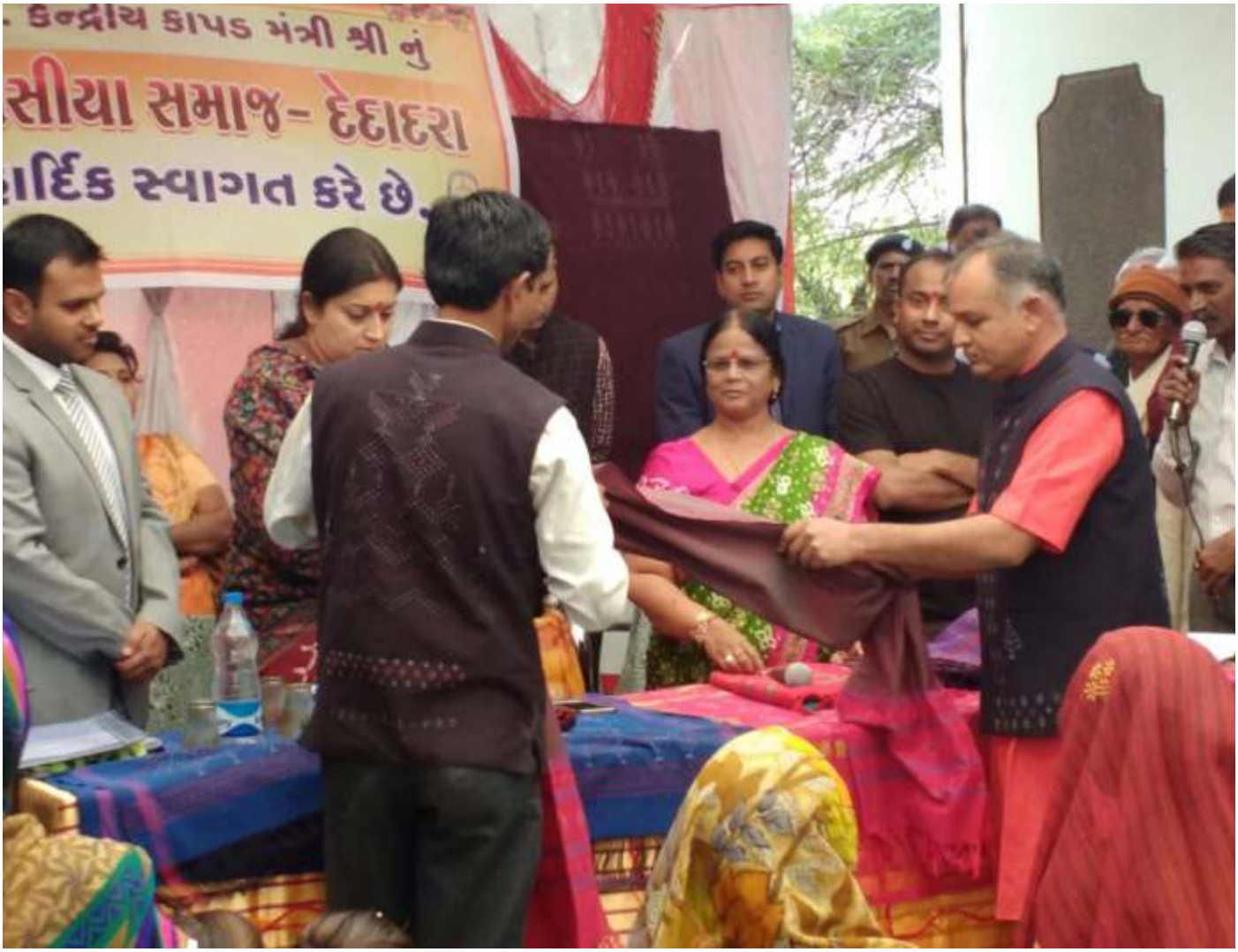


ANNUAL REPORT
2016-2017

MANTHAN EDUCATIONAL PROGRAMME SOCIETY (INDIA)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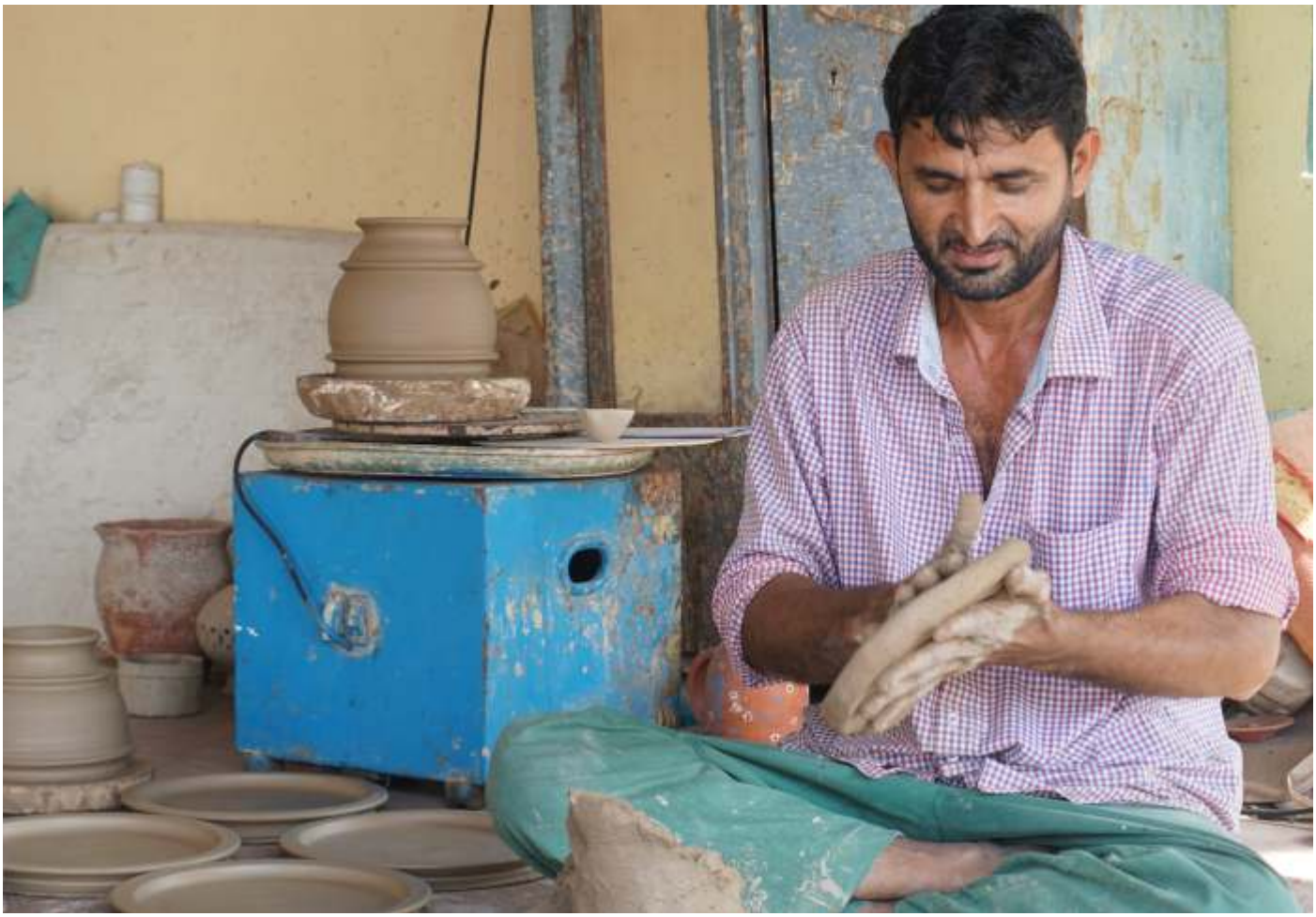


ANNUAL REPORT
2016-2017

MANTHAN EDUCATIONAL PROGRAMME SOCIETY (INDIA)

From the Director's Desk:

It is my privilege to present the Annual Report of Manthan for the year 2016-2017. This report showcases our initiatives, achievements and future plans. This year Manthan has redirected towards revival of the handmade crafts in our state of Gujarat.

We have been focussing on I-STED and our core area are textiles and leather work in the Kutch region. Through timely intervention and with the help of technology and design the Sustainable Craft Sector Programme for artisans in Kutch will uplift the lives of artisans. Our focus is on Craft Entrepreneurship and in creating small village brands. Ultimately helping the craft artisans in becoming Craft Entrepreneurs.

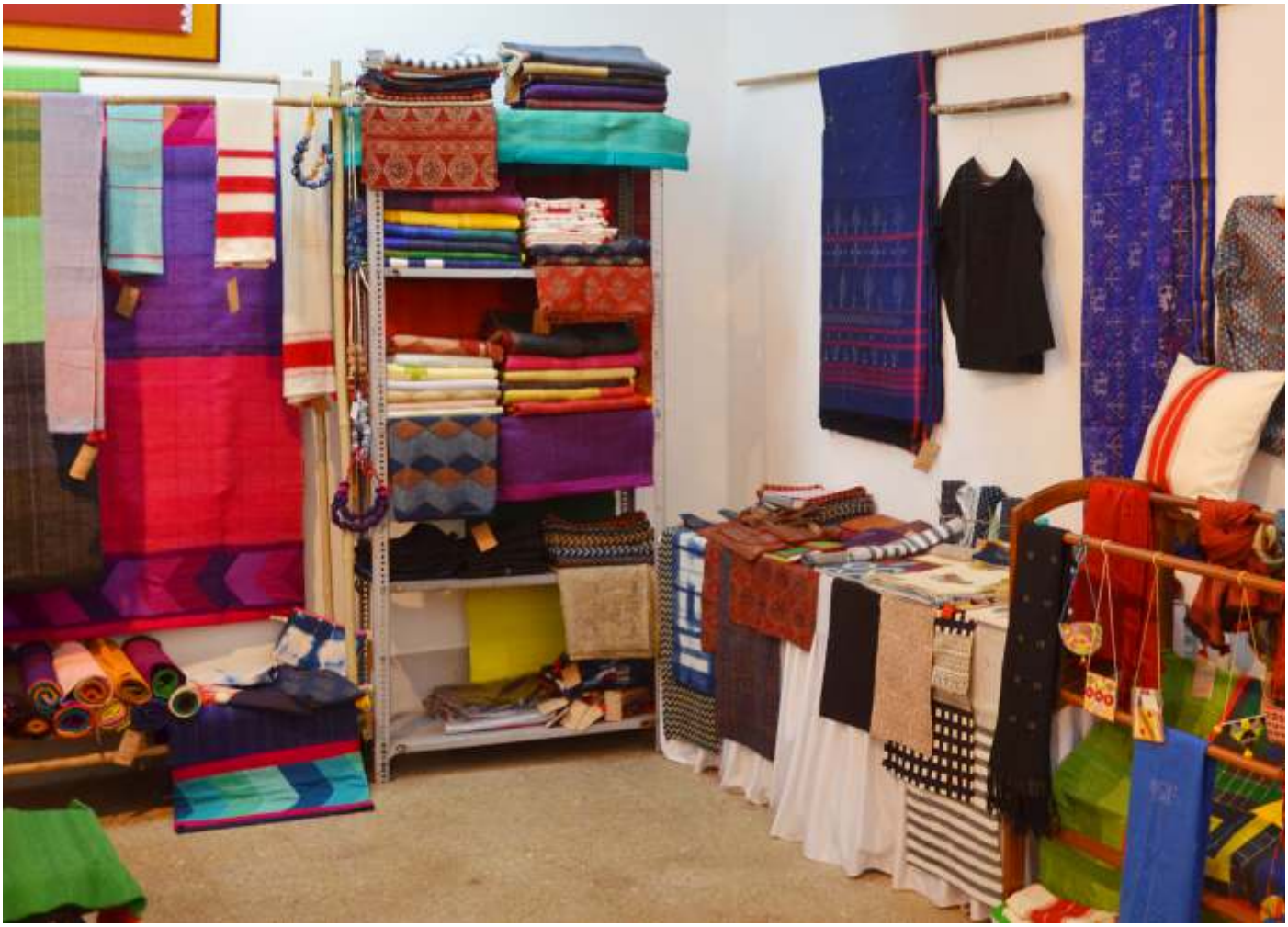
Manthan would be setting up one of its kind Village Make Labs . This would be a boost to rural crafts and artisans. It would help them to access world class mechanical and digital facilities at their villages.

This year the academic performance of the children using Vigyan Ganga mobile Van has been considerably well. We would be enhancing the activities of the Van and also would be adding more low cost hands-on science material. Children of the tribal areas and our work in the field of science communication would always remain close to my heart.

A shift from the national level to global level is being done by Manthan with the collaboration with European Union Children's Universities (EUCU.Net) for sharing knowledge on a global level. This will help the children to come together to share their ideas and innovation through a global online platform, making the world co-exist.

Abhay Kothari
Director
Manthan Educational Programme Society, India


JWELLERY MAKING WORKSHOP



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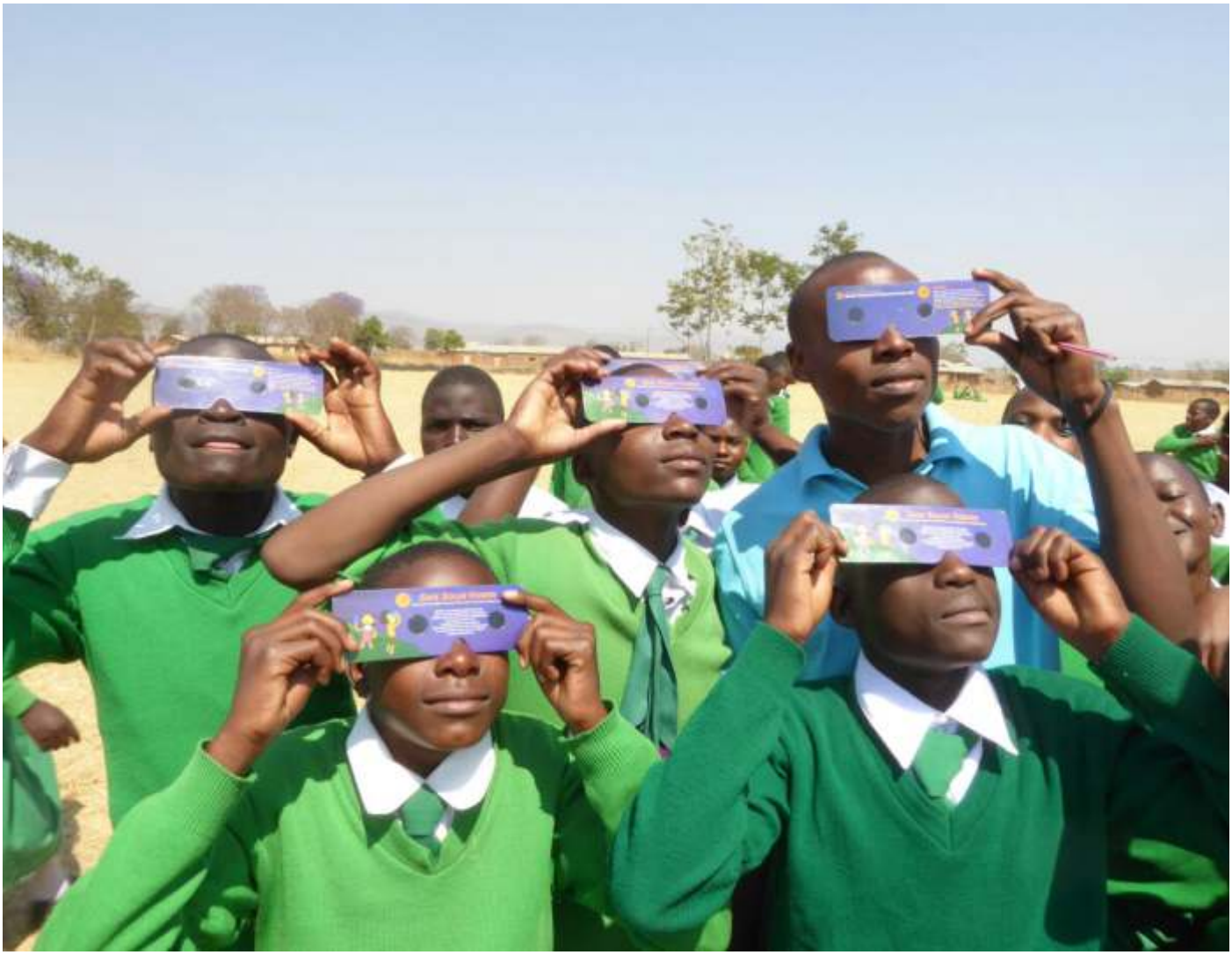
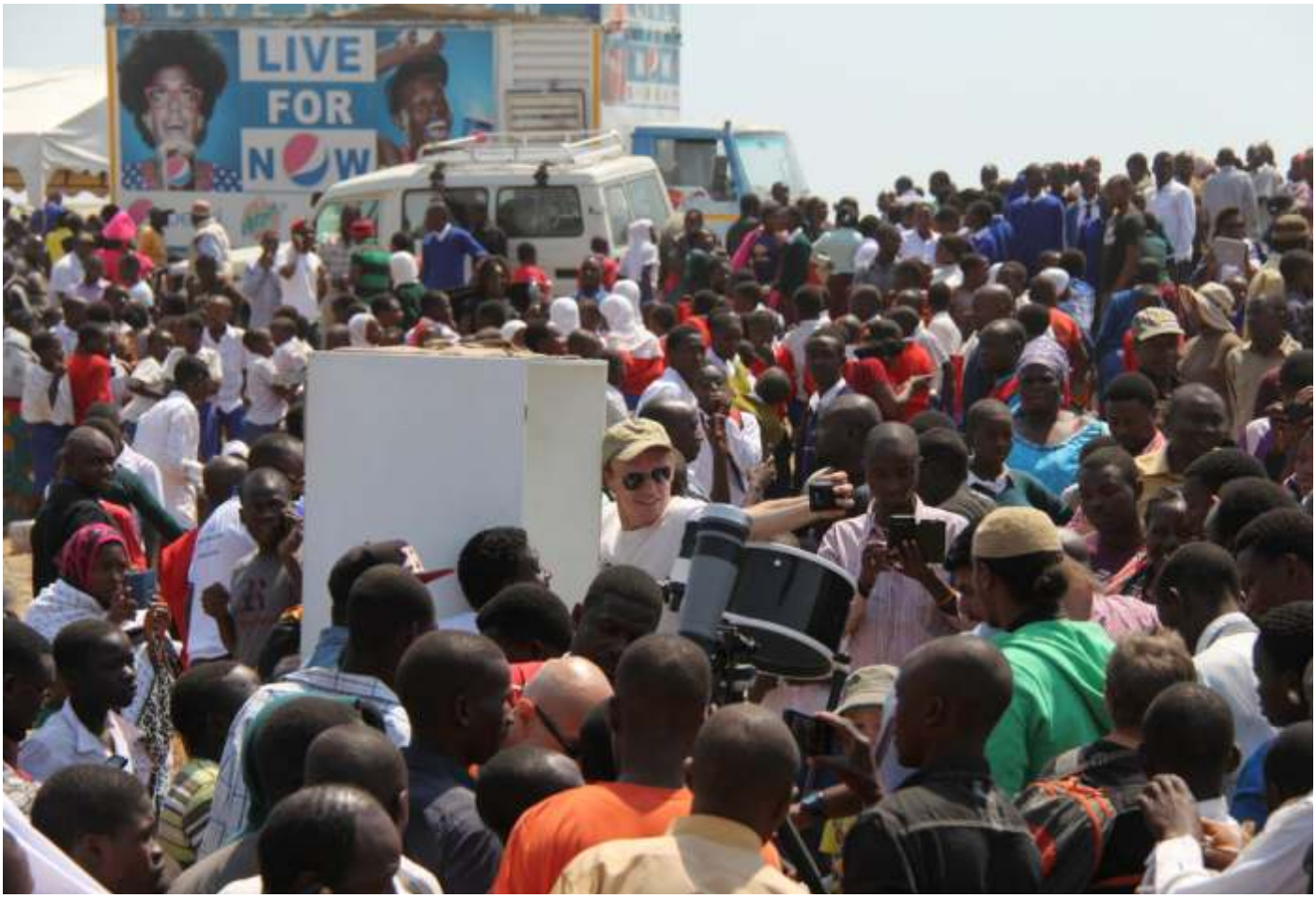


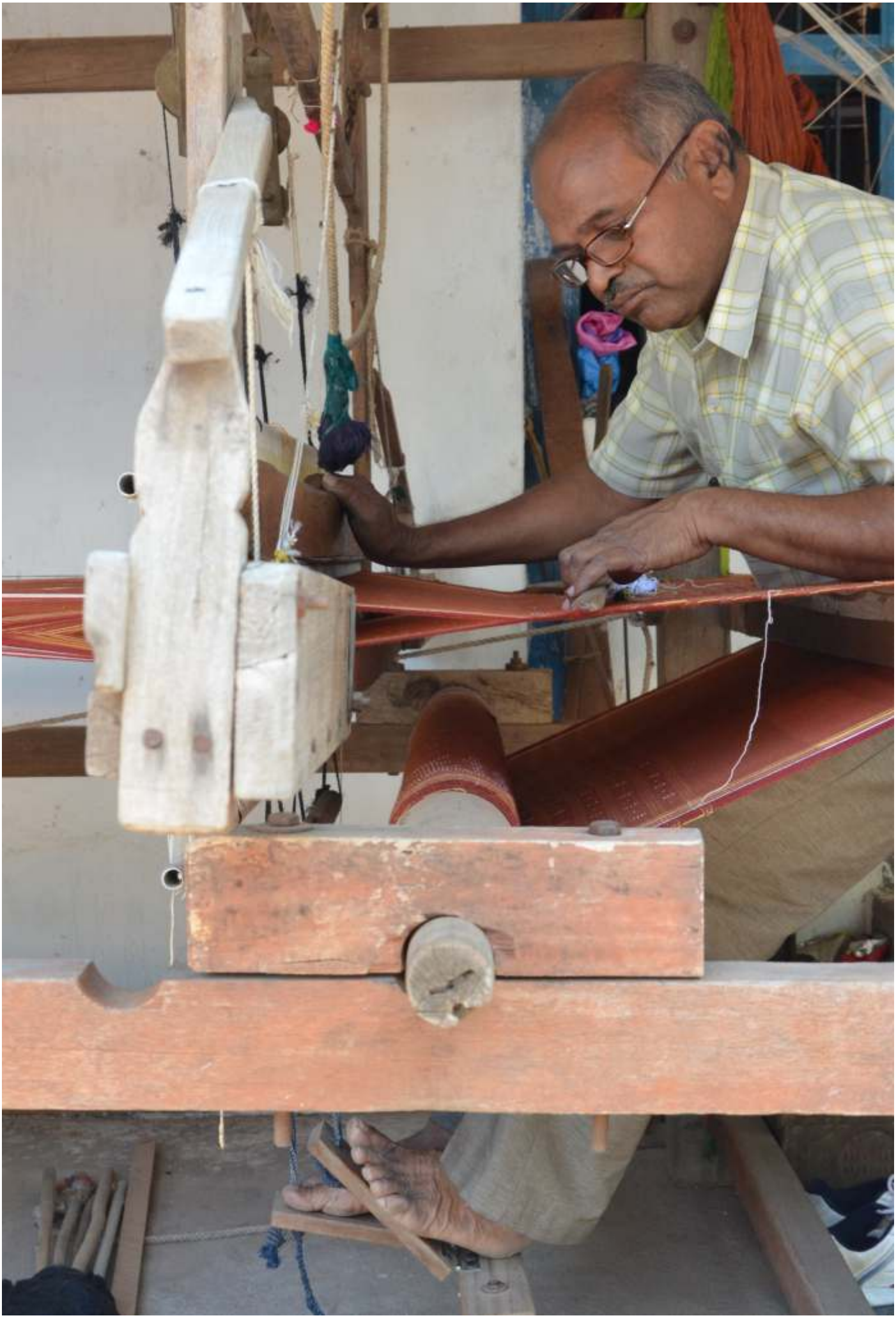

LIVE
FOR
NOW

About Manthan Educational Programme Society

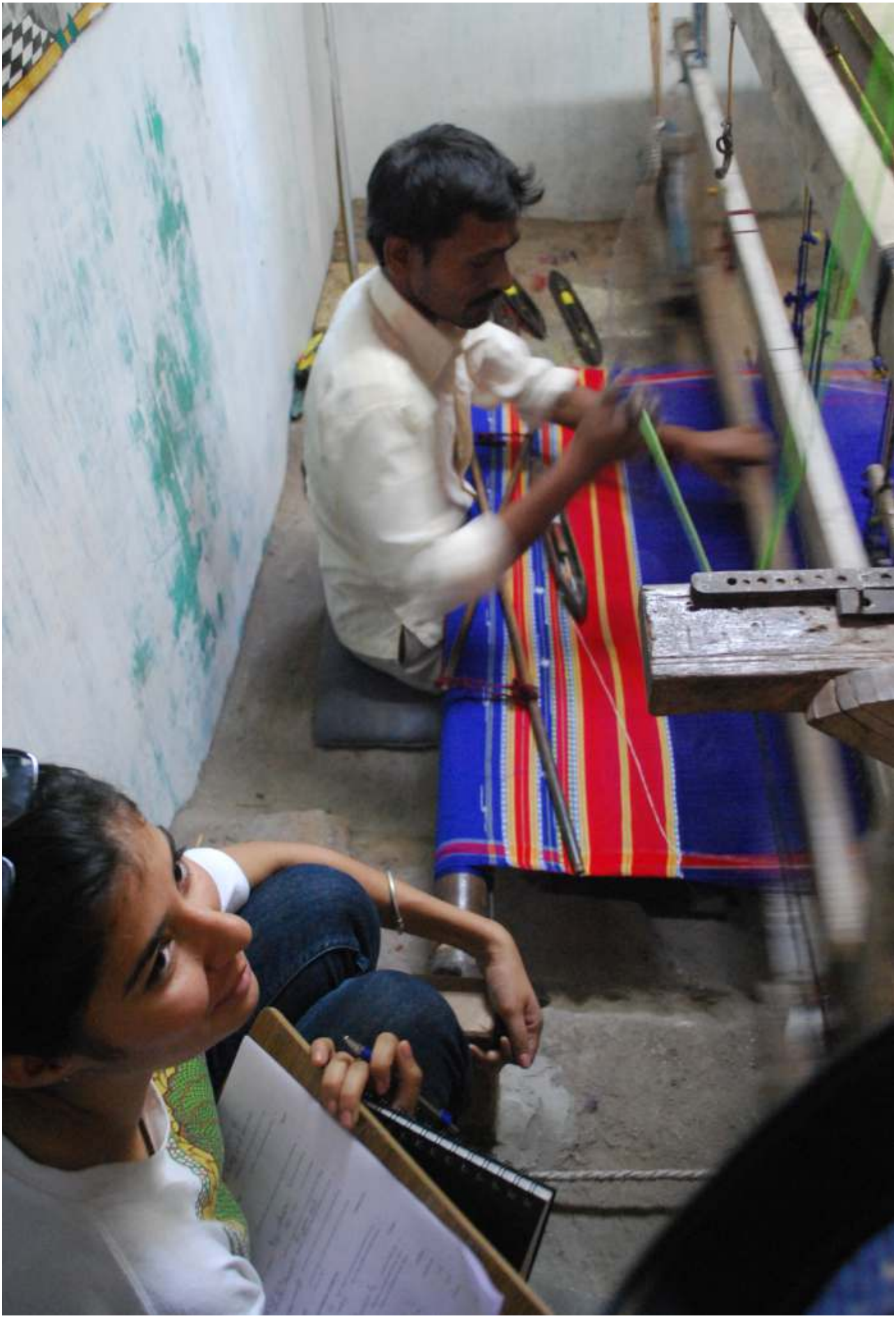
- Manthan Educational Programme Society, India is a not for profit organisation focused on transforming the lives of various rural and tribal communities. Established in 1990, Manthan believes in taking up new challenges and experimenting with science and technology along with design and innovation. For the benefit of craft artisans and revival of dying crafts the organisation has been working relentlessly for the past 10 years.
- Manthan is focused to ameliorate and instil fresh methods in science communication and entrepreneurship development amongst students and craft artisans at large. Manthan strives to apply innovatively planned and designed strategies in its projects with professional trainings and hands on outreach material.
- Manthan has been running Two Community Science Centres in the Tribal District of Narmada, Gujarat. Creating science awareness and increasing understanding of science, exploring hands-on approach towards science learning amongst children, youth and community.
- Manthan developed hands-on Activity kits on subjects like Solar Eclipse, Earthquake, Modern Physics, Bio diversity, Understanding Miracles, Adolescence, Health, Astronomy, Energy, Space, etc. that reached the doorsteps of several millions of members across the country with the support of Governmental and Non-Governmental agencies.
- Taking a step ahead, Manthan has collaborated academically with EUCU.net (European Union Children's Universities) for the benefit of the future citizens of the globe. Manthan believes in spreading its wings through global collaborations and touching the lives of the children globally.

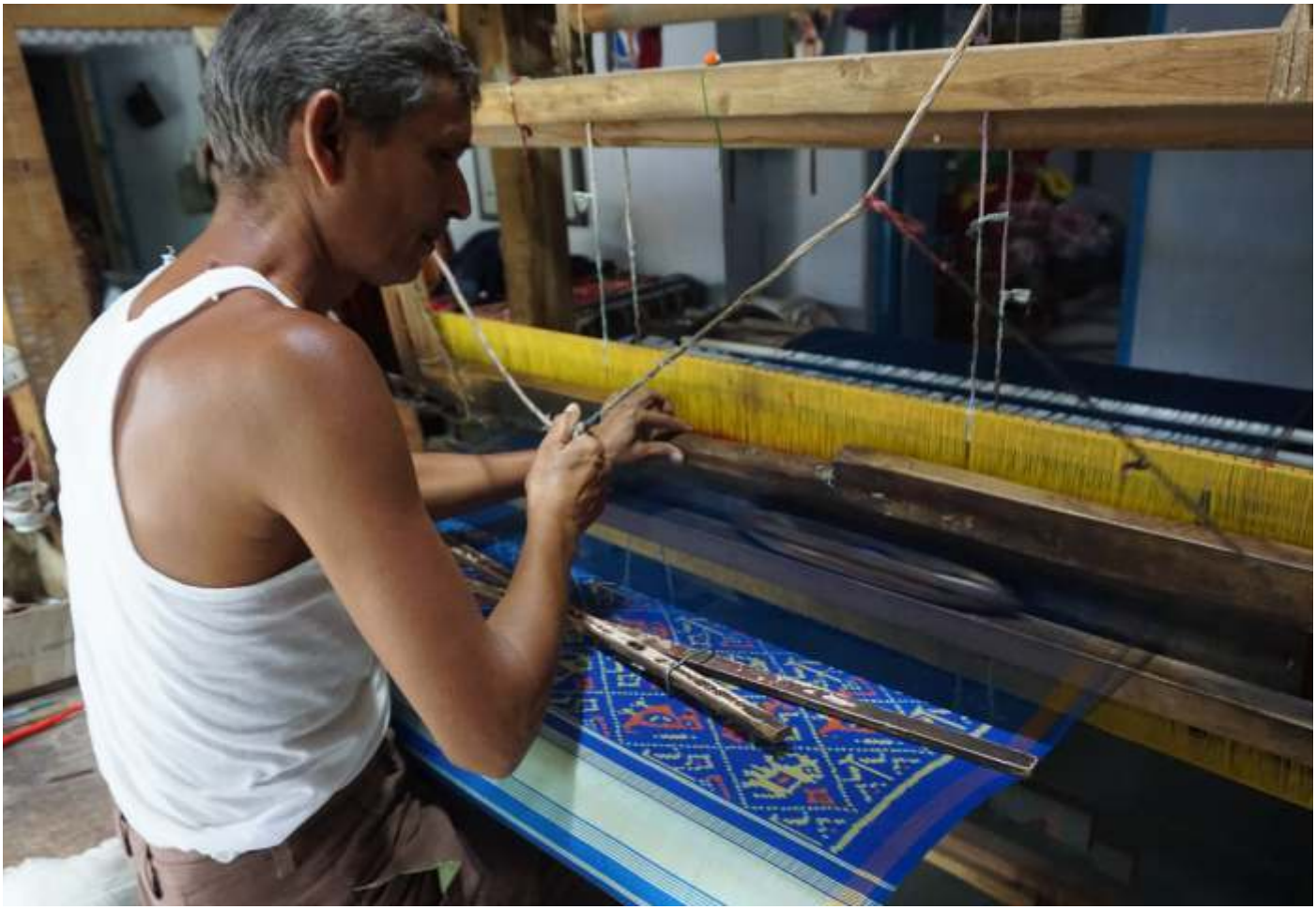
Collaborations of Manthan

- CEPT University, Ahmedabad
- District Administrative Section, Government of Gujarat, Narmada
- EUCU.net (European Union Children's Universities)
- Gujarat Energy Development Agency, Government of Gujarat
- GUJCOST, Government of Gujarat
- International Astronomical Union
- Mahila Samakhya, Gujarat
- National Council for Science & Technology Communication, DST, Government of India
- National Science & Technology Entrepreneurship Development Board, New Delhi
- The Travelling Telescope, Kenya



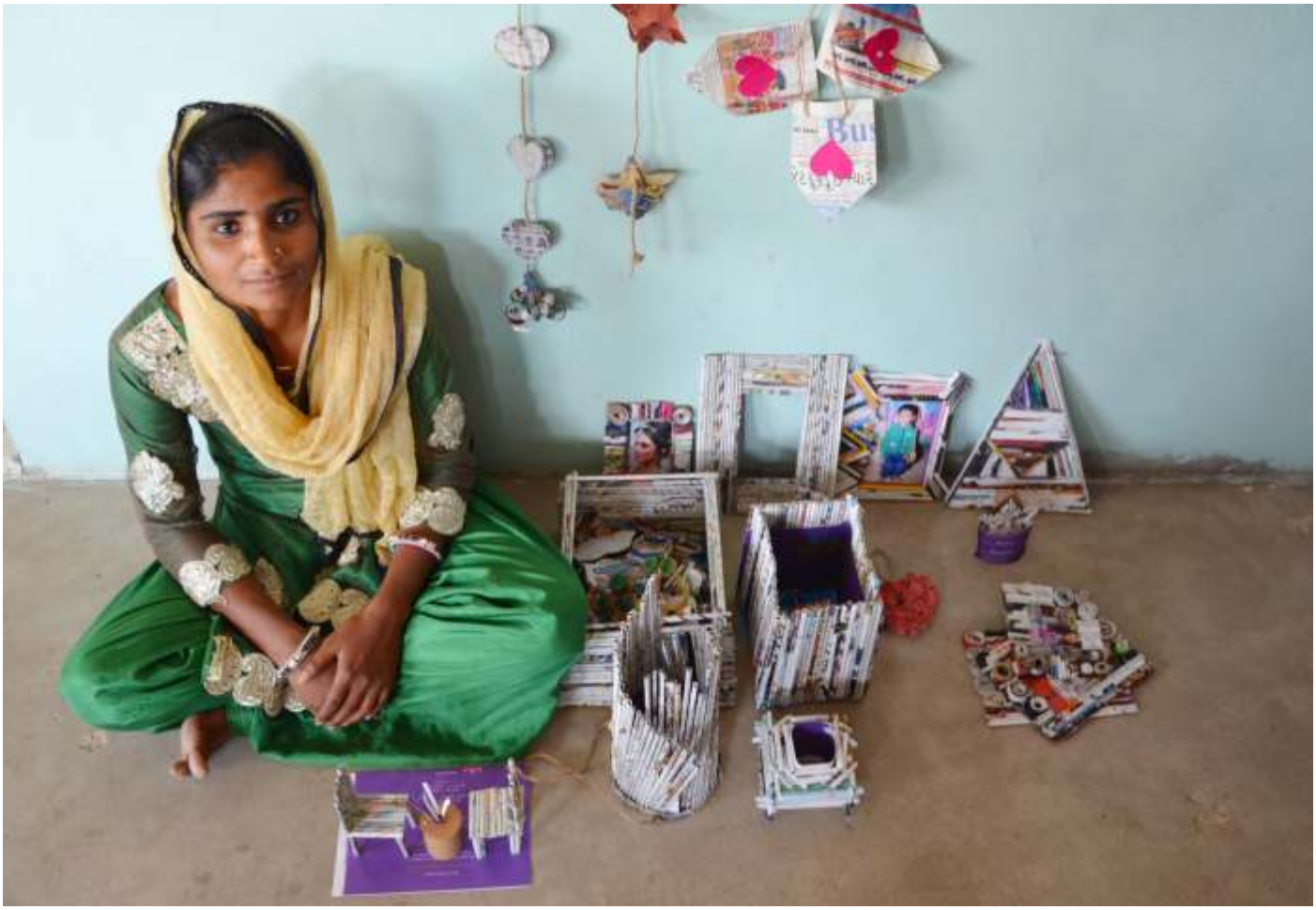
S&T BASED ENTREPRENEURSHIP DEVELOPMENT PROJECTS



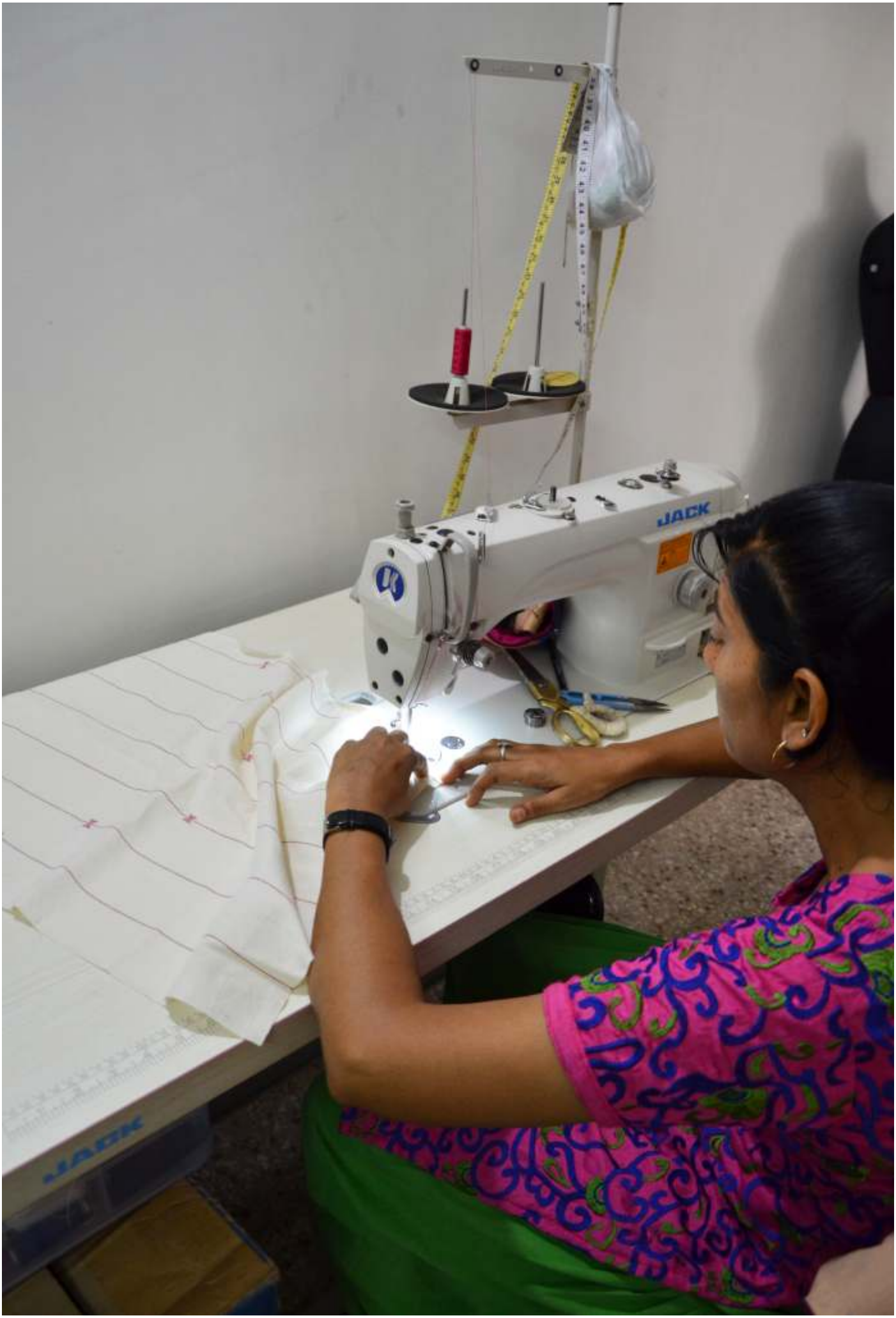


Design with Science and Technology Application for Rural Development in Surendranagar district

- Manthan has always been working with the rural and under privileged communities in Gujarat. The SEED project aims at skill development through design and entrepreneurship trainings in the remote villages of Surendranagar district. Designing market friendly products with modest investments has been one of the core areas of the project with a focus on economic development. Creating micro independent business units through networking and linkages is one of the main objectives of the project. Manthan has been successfully carrying out the SEED project for the past several years in many remote villages with simple yet modern tools and technologies to create and market products.
- Under the SEED project, trainings were conducted for rural youth, craftsmen, women, Scheduled Caste (SC) and Other Backward Class (OBC) population.
- The main beneficiaries from these trainings have been youth, craftsmen and women.
- In this year, trainings were carried out in the villages of Bajana (Patadi taluka) and Vanod (Dasada taluka) and imparted knowledge of making jewellery from waste materials and textile. This included products from waste paper, such as stationery products. More than 20 different products are launched every year in the market. The products are launched in the category of crafts, fashion, up cycled products and utility products. Till date more than 60 products have been launched in the past three years and more than 10 product systems are developed.



- So far Manthan has been able to train and launch 30 micro enterprises along with linkages. The follow up activities of the enterprises which were launched in 2015-16 were conducted in this year. Manthan has carried out five skill and design trainings, four EDP trainings, four mentoring sessions, three linkages sessions and two follow up sessions in the year 2016-17.
- Through these activities, main inputs are provided for skill development, use of upgraded technology and the know-how to work like a designer for making designs inspired from nature and surroundings. The trainings help in identifying and selecting appropriate raw material and proper usage of up cycled raw material. Whereas, jewellery making skills using waste cloth pieces, assembling jewellery, creating embroidered and patch work jewellery were the main core areas in the jewellery making training.
- Trainings were imparted to make products from waste newspaper, such as stationery items and jewellery. Small paper envelopes and pouches, paper lamps, paper jewellery, small trays, book markers, writing pages and pen stands were some of the products developed from waste newspaper. A total of three skill development, three product development and one EDP trainings were conducted in the project villages.
- The women of the project villages are greatly benefitted from the inputs provided for making products from waste material (100% Up cycled). Thirty one women from Bajana village and 38 women from Vanod village were benefitted from the training. This year 12 micro units, nine new units, three units (evolved) have been established. The trainings and subsequent hand holding activities has helped the beneficiaries to earn more income and now the average family income has increased from 25% to 40%.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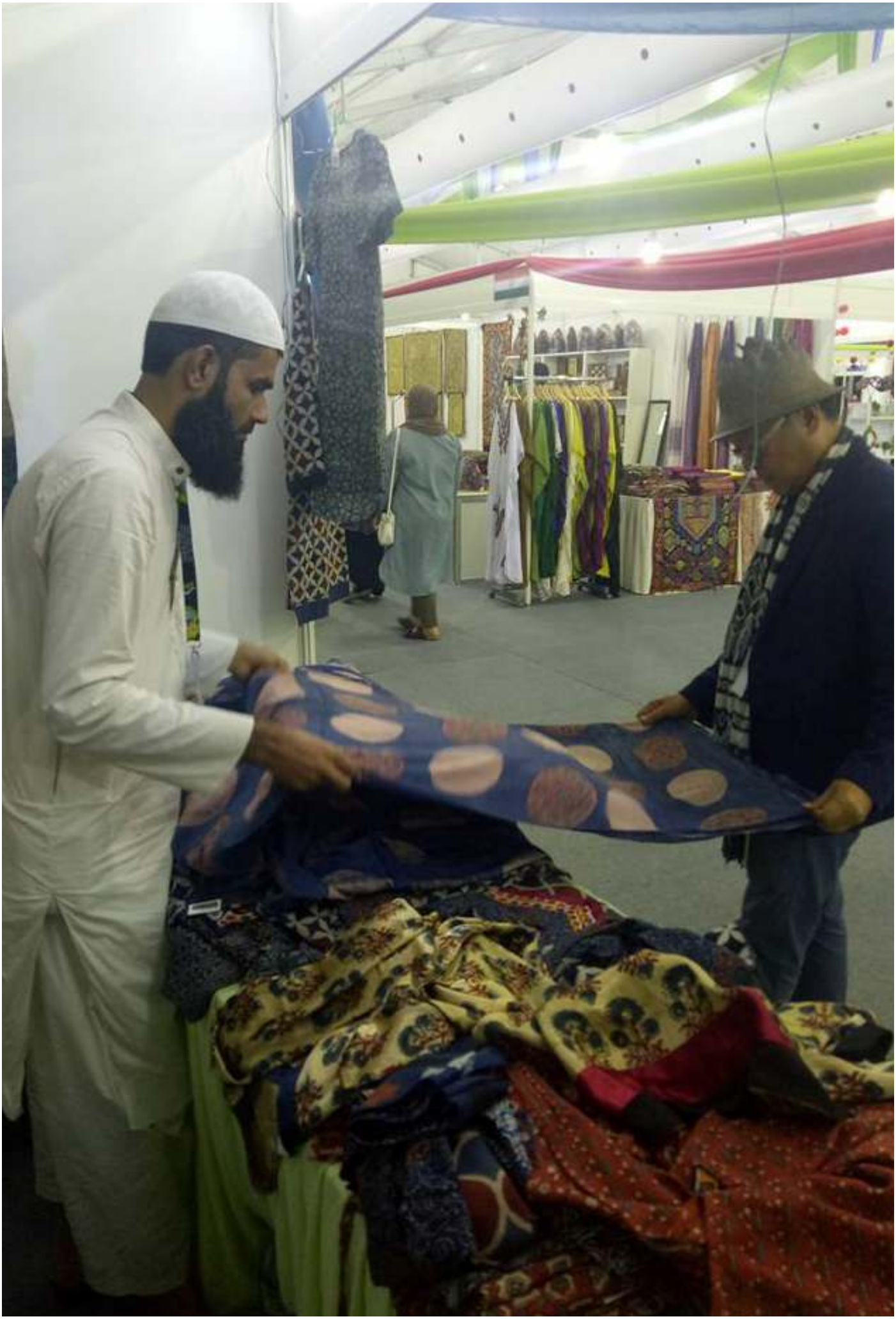
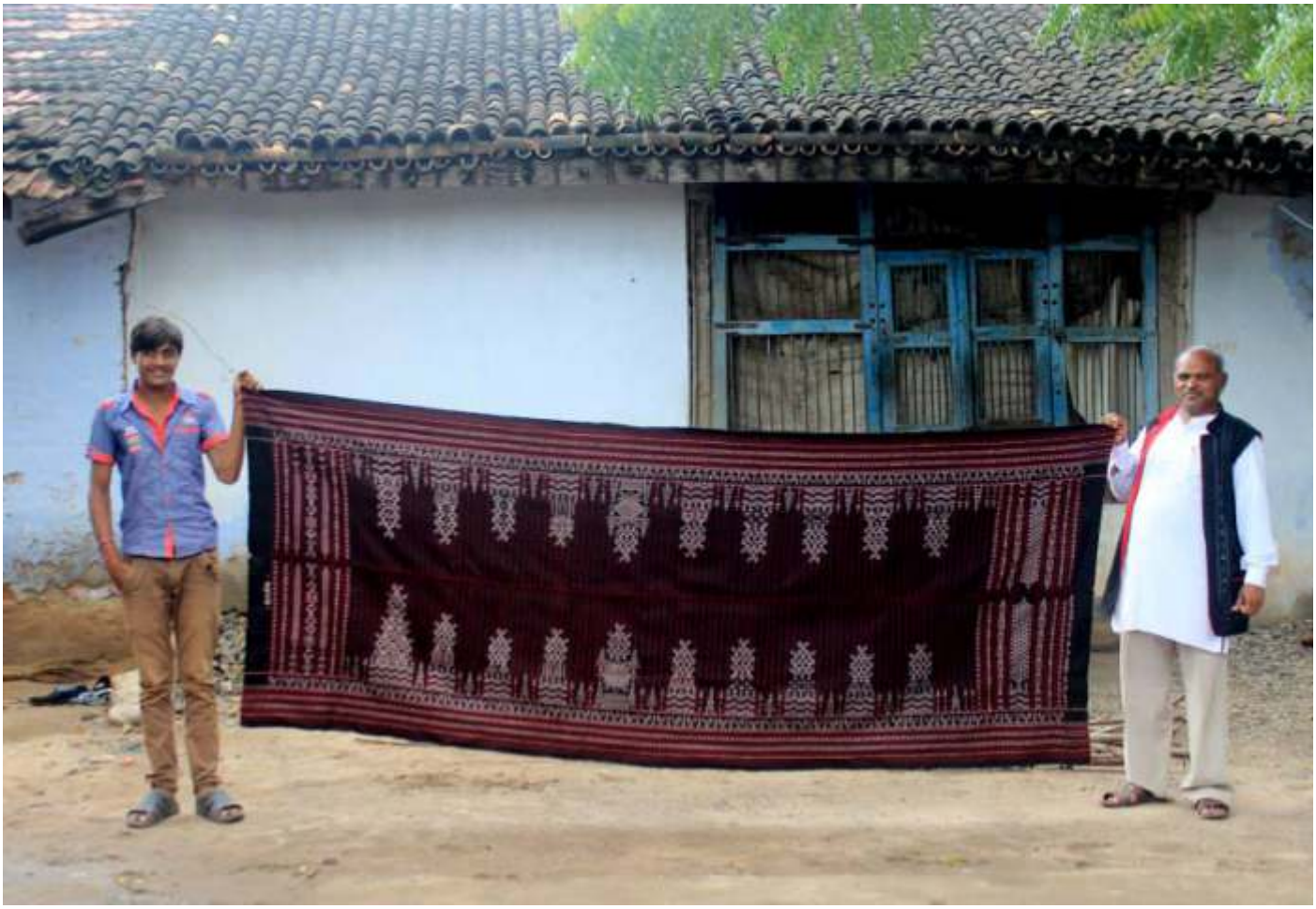
Technology & Design for Sustainable Craft Sector of Kutch and Saurashtra regions of Gujarat State (I-STED Project)

- India is rich in its history of art and crafts. However, even with knowledge and skill, many artisans are unable to touch the pinnacle of success due to lack of proper guidance and intervention. An estimated 7 million artisans in India are engaged in craft production, which is also their primary livelihood. Out of these, very few transfer the skills and knowledge to the younger generation. There is an urgent need to re-invest in India's artisans to safeguard history, culture and an important source of traditional livelihood.
- Manthan with the support of National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology, Government of India has launched Technology and Design for Sustainable Craft Sector programme for artisans in Kutch and Saurashtra region of Gujarat. This programme is a focused effort to bring about an inclusive socio-economic development by addressing the challenges associated with a specific region/industry/cluster by connecting interventions of Science and Technology and innovative solutions with entrepreneurial opportunities. The main objective of the programme is to transform a Craft artisan in to a Craft entrepreneur. It will lead to generation of employment and thereby generation of income. This in turn bring changes in the quality of lives of the people associated with the craft sector.
- Several Workshops were conducted by Manthan, including one to one meetings and field visits. Interested artisans were mentored and then selected to enhance their craft knowledge into scaling up of business or brand adding several components like technology, design, innovation, product

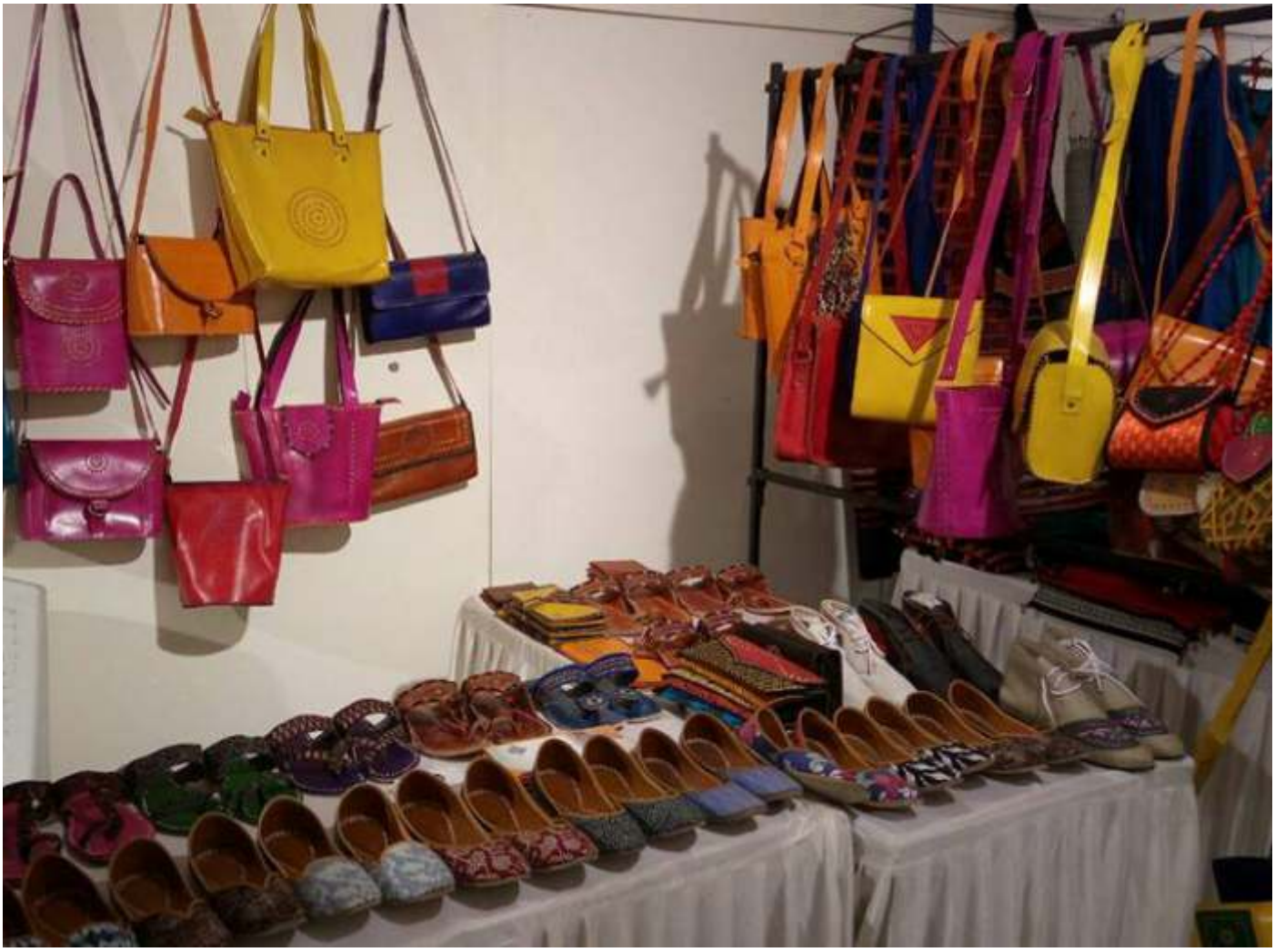




diversification into their units. Some of the units were self financed, family financed, financed through loans and with subsidy schemes of government. Specific innovative solutions were given to artisans on Textile Craft Sector, Earthern Craft Sector and Wooden Craft Sector.

Textile Craft Sector:

- Manthan has been striving to expand the impact of the project by including more villages and various crafts. A new craft sector of Batik was also selected and many changes in the field of Design and Technology were introduced. In this sector Manthan carried out block printing workshops at Dhamadka and Ajrakhpur. Whereas, batik workshops were carried out at Maska, Gundiyali and Baagh.
- Below given are some of the innovative inputs provided by Manthan:
- 1. Promoting energy efficient cloth boiling furnace as it saves fuel by almost 50% to 70%. Also it brings evenness in fabric quality while boiling. Introduced the same technology for Batik printing groups.
  2. Initiated a product development and stitching unit for women in Dhamadka, for inhouse production of apparels and products. More than 20 different products are now produced in-house.
  3. Introduced wax removal and finishing machine for batik group. It helps in creating a clean finish, almost 50% more and reduces hand work in post process.
- Total 19 entrepreneurs (14 Craftsmen nurtured and five new Entrepreneurs) in the Textile sector are created in the year 2016-17.

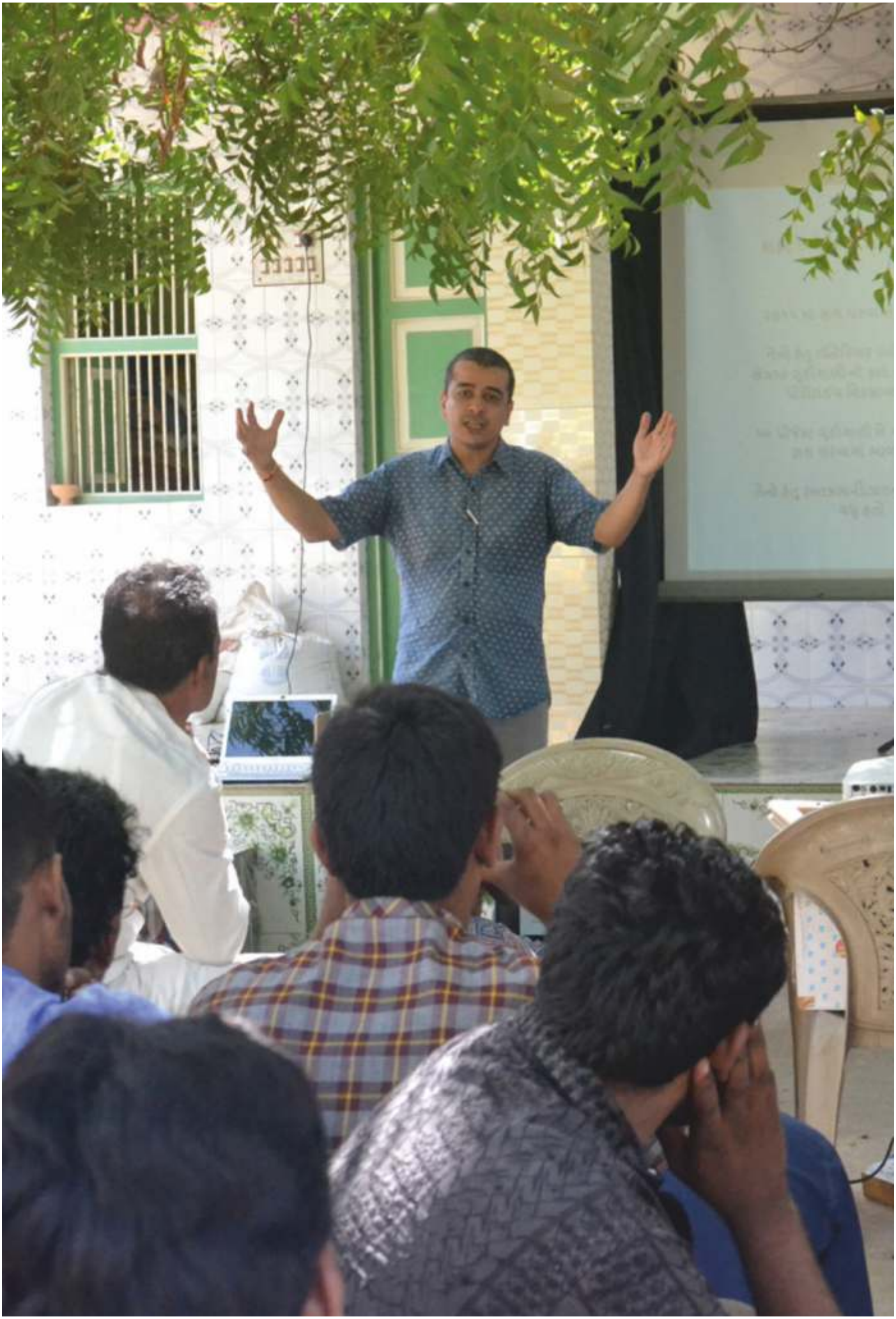


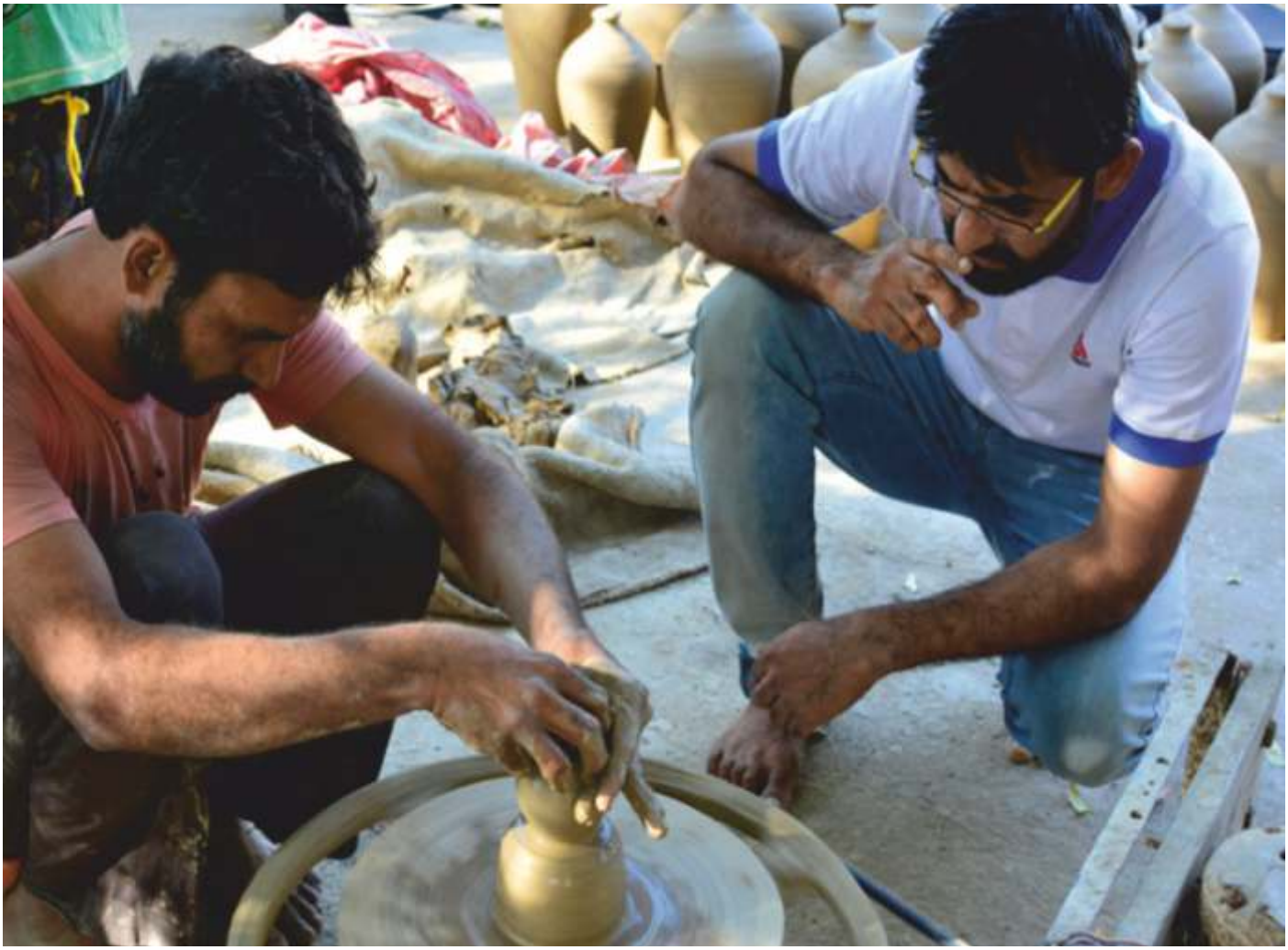
Earthen Craft Sector:

- Initiatives have been carried out by Manthan in Earthen craft (terracotta) sector in Gundiyali Village, Maska Village, Lodai Village in Kutch and Una Taluka and Rajkot Taluka of Saurashtra region. As planned in 2015-16, Manthan along with the partner organisations and supporting organization has replicated the approach of terracotta craft and adapted it in several villages of Kutch and Saurashtra along with design inputs and technology dissemination. Specific and concentrated trainings have been provided to receive better market exposure.

Following are the innovative inputs provided by Manthan:

- 1. Promotion of 18 more energy efficient kilns for terracotta pot making at 100% subsidy. Saves 90% of burning energy and reduces the damage to only 2%, which means 40% damage reduction. Also worked on modification of the kiln as per the change in clay in different regions. Along with this promotion and dissemination of electric potter wheels and electrical pugmills among 30 craft entrepreneurs at 75% subsidy was carried out.
- 2. Carrying out open innovation challenge along with designers in Gundiyali to develop market friendly products and shared the process and outcome at Maker's fest held in Ahmedabad along with a display of almost 100 different products.
- 3. Design and Development of Community Documentation Hologram System for the first time in the country where community can document, display in form of a hologram and upload their products made by just a click of a button.





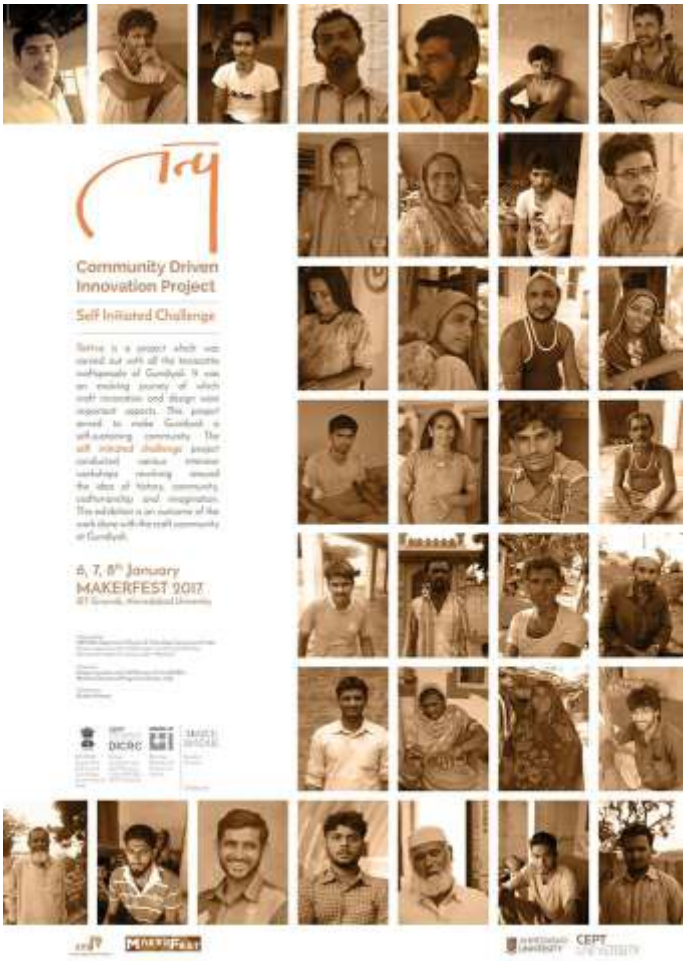
- Manthan through its various trainings and initiatives has benefitted 23 Entrepreneurs (16 Craftsmen Nurtured and seven New Entrepreneurs).

Wooden Craft Sector:

- Manthan has carried out activities in this sector in Rajkot District of Saurashtra Region in Gujarat. Through trainings and sessions, many inputs and knowledge has been shared with the artisans. Following are some of the significant inputs provided by Manthan:
- 1. Basic introduction on colour printing on wood (UV Printing) was provided.
- 2. Introduced mass colouring conveyer belt and unit for colouring and varnishing of the products made. This increases the work speed by more than 50% and enhances quality of the products.
- Along with this inputs were provided on designing of workspaces in clay sector and textile sector. Two model units are under development in Dhamadka and Gundiyali from the point of view of design, technology, tourism and marketing. Along with this online sales unit was also established along with stock management systems.
- Six Entrepreneurs were benefitted out of which three craftsmen were nurtured and three new Entrepreneurs were created.

Village Maker Lab

- Manthan has been working on the I-STED project since last three years. For the first time in Gujarat, Manthan has worked on setting up Village Maker Labs, which is a concept approved by NSTEDB. Village Maker Labs foster entrepreneurial spirit of artisans, by providing the space, equipment and help to rapidly turn ideas into working prototypes. It functions as a platform giving power to artisans to turn ideas and concepts into reality. Maker Labs in Craft villages like Dhamadka and Gundiyali would certainly give the artisans the power to make extra ordinary art. This facility would boost the rural handicrafts sector and will bring latest technology to the artisans. It would also lay emphasis on innovation and creation of a new product range for the urban market.
- The artisans would be able to access the facilities at no charge. It would help them to innovate and introduce new products in the market. The lab will have training sessions, workshops and computer facilities. A faculty from premier design school would be conducting the training sessions. The main motto behind these labs is to give artisans a dedicated common space which can bring together their creative minds and use these common facilities and create something different.



Tattva Project

- Tattva Project was implemented in collaboration with CEPT Universisty, Ahmedabad. The project stressed on brining focus on design as core of all the activities. The project initiated product development in Gundiyali village, Mandvi - Kutch.
- Under this project 'An Open Innovation Challenge' was given and people were trained in creating innovative products. They were also taught that innovation could happen on basis of history, skill and imagination. This training was provided in form of a game. Craft Entrepreneurs were asked lot of questions and activities were conducted on basis of those questions. An exhibition was displayed at Maker's fest and more than 100 products were displayed. The Craft Entrepreneurs will also be travelling to Bangalore to display their products this year. A similar Exhibition will be displayed by the Craft Entrepreneurs in a common area at their village.


વિજ્ઞાન મેળા કાર્યક્રમ
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SCIENCE COMMUNICATION PROJECTS

Manthan Narmada Lok-Vigyan Kendra, Manthan Science Centre (Rajpipla and Dediapada)

- Over populated countries like India face hurdles when it comes to educating its younger generation. Many teenagers are unable to complete their primary education and drop out of schools due to lack of interest in studies. Several children prefer to work for their family than attending schools. And this certainly makes the young population unqualified for skilled jobs. Manthan has been working in the field of science communication and education since last three decades and through its various initiatives have tried to encourage rural and tribal children pursue higher studies, so that they too contribute to the growing economy of India.
- A need was felt to create a facility for the rural and tribal children where they could get access to scientific equipment's, books and other resource materials. This led to the birth of Manthan Narmada Lok-Vigyan Kendra, at Rajpipla and Dediapada in Narmada district of Gujarat. Supported by GUJCOST, Government of Gujarat; these centres act as an additional support to the tribal children who cannot travel to cities to access reference books or for extra practical demonstrations.
- Through different methods, Manthan has pushed for an updated curriculum where needed, offering hands-on workshops, providing kits and guidebooks free of charge, training teachers and students alike. All of this is to ensure that a sound base is created in science. Thus Science Education aims not only to generate a more science-oriented youth, but it places particular emphasis on the education of girls. It also strives to have a positive impact on economic and social development by influencing teachers and curriculum planners.
- Manthan has conducted 326 activities per year and these activities have emphasized hands on approach for various activities such as astronomy, sky

observation, science posters, and science workshops, featuring interactive exhibits in the science exhibitions that encourage children to learn and explore more. There are a number of programmes like 'Vigyan safar', Sunday schools, tuitions, demonstrations, learning science while playing thorough which learning science is not only made easy but also interesting in a way to encourage more and more children. As of 2016-17, 45,083 children are benefited through this initiative and their work has been recognized at state as well as national level.

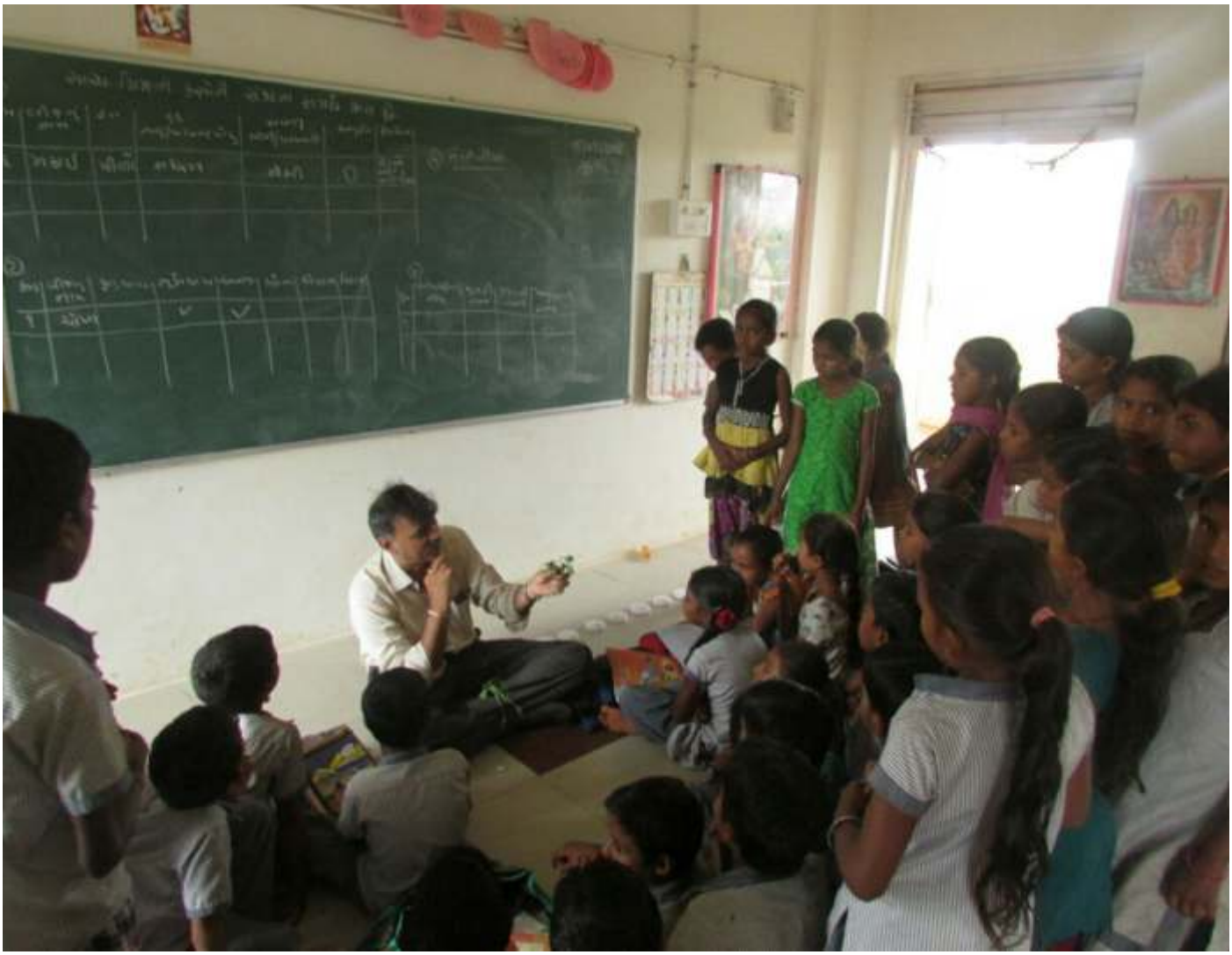
- This year several women oriented programmes related to health, gender and sanitation issues were also included. It had a positive impact on the lives of the community as well as the women residing in the areas.
- Training programmes were conducted by the centre for Science programme planning, Bio Acorn Activities, Science Drama Related training, GUJCOST Club kit and National Children Science Congress. School teachers and Principals have also benefitted from this programme.
- These areas do not have facilities for children to keep themselves occupied during summer vacations, which usually makes the children inactive and bored. In order to get them engaged and help in learning something which remains useful and knowledgeable, summer programmes are designed and conducted. Such as low cost science toys are made and children are also taught to make these science toys. A special programme was also conducted to introduce photography, photo film and Photoshop. A special exhibition was also organizes as a part of Summer programme in which Science models were demonstrated, posters were made and science toys made by children were displayed. Special Community sessions were organised for Women to update them on Technology and its use. Training sessions were also conducted for women on Solar Energy and solar equipments.

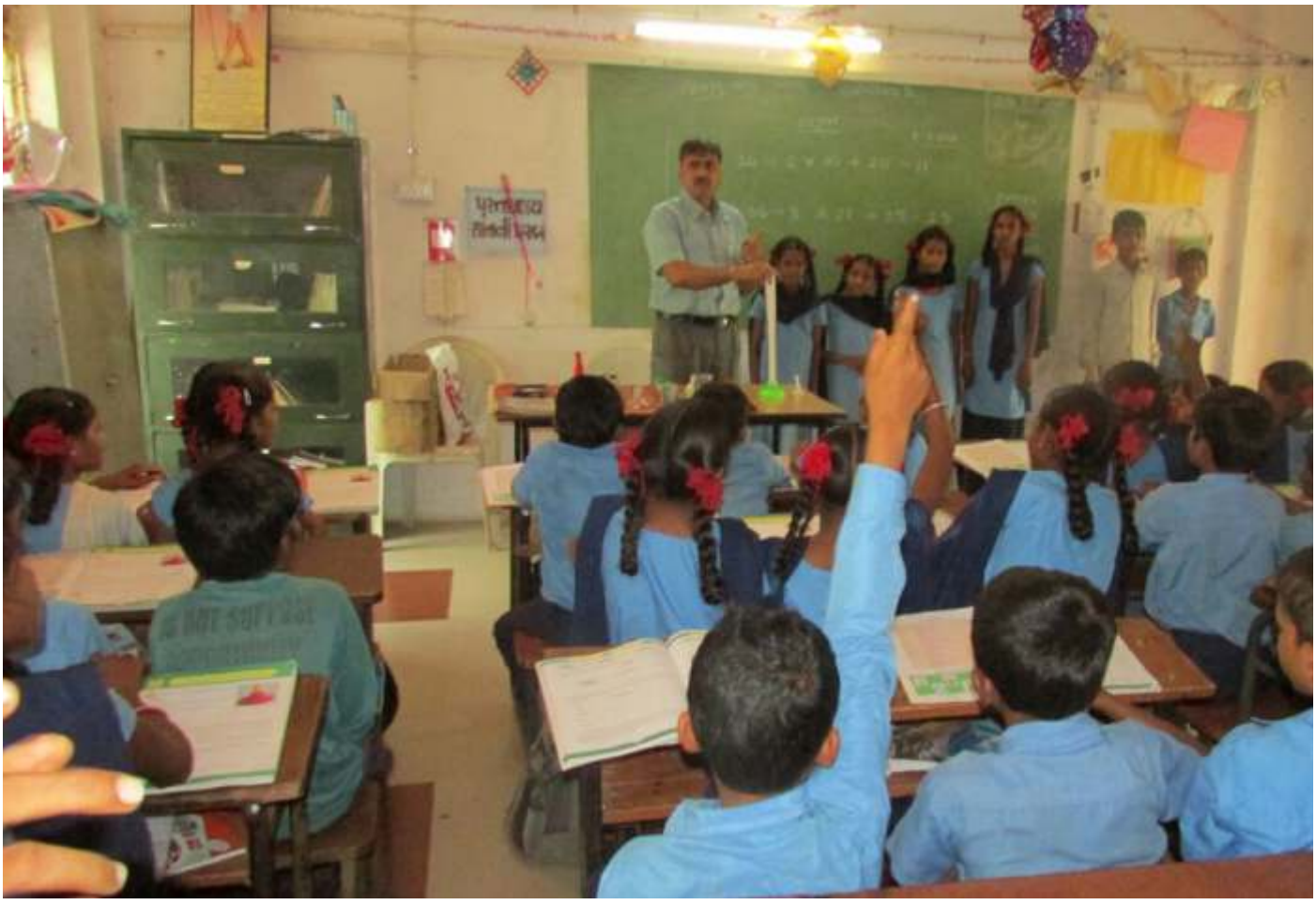

TOY JOY
Science
INTO INSANITY
Double Cone


(Dwarf Planet)

Manthan Narmada Lok-Vigyan Kendra, Manthan Science Centre (Rajpipla - Nandod Taluka)

- Several activities were carried out in the year 2016-17 for promotion of science and to cultivate scientific interest among the tribal children and rural youth. For this many experiments were demonstrated to make them understand basic science and proper usage of chemicals.
- Astronomy programmes were also promoted wherein use of telescope was demonstrated. Vigyan Safar programmes were carried out by Manthan at schools and demonstrated scientific experiments to teachers as well as children. This year the Vigyan Safar programmes were increased significantly and has helped the tribal children in achieving clarity of scientific concepts.
- Mission based programmes were conducted in the Rajpipla Centre, wherein subjects like Bio-Diversity and Swacchh Bharat were given prime importance. Children were shown videos on the campaigns of Swachh Bharat. Talks were held and suggestions were asked from the children to keep their surroundings clean.
- The government's mission of cleaning of water bodies and information about Ganga river cleaning were shared with the children. Through different programmes like talks, discussions, and videos the children were updated about various initiatives of the government. This has helped in promoting the importance of keeping the water bodies clean.



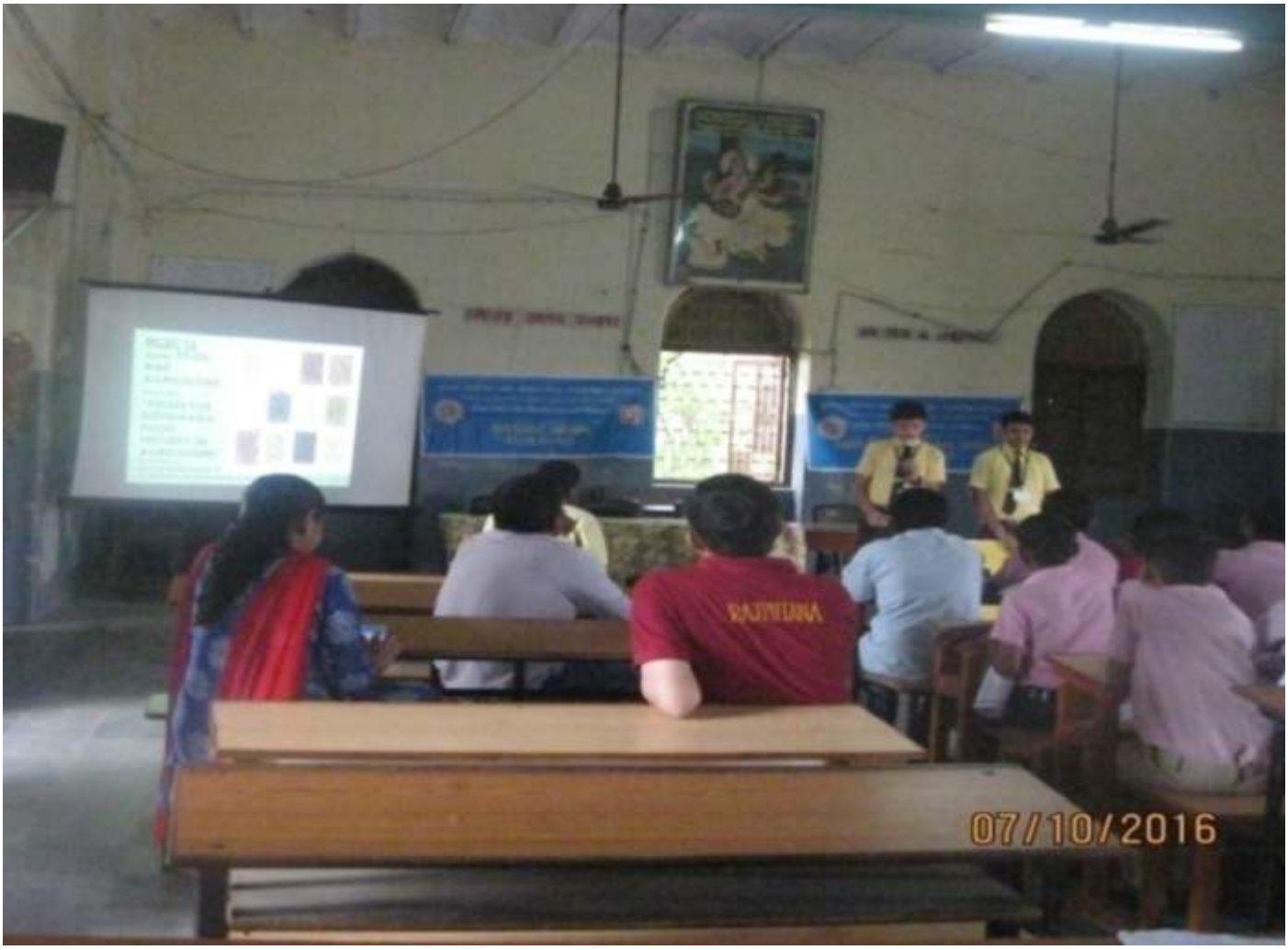


Vigyan Ganga
(An innovation based Science Outreach Van)

- Vigyan Ganga was born when it was observed that the students staying in the interior areas of the tribal belt of Narmada were academically lagging behind. A mobile science van was conceived and developed by Manthan with the support of District Administration Office, Government of Gujarat, Narmada. The van carried low-cost hands- on science activities for children from one school to another. It also has a science Communicator and demonstrated models. The Science Communicator explains the concepts of science and clarifies the doubts related to curriculum of Standard 5th, 6th, 7th and 8th State board.
- Activities like science shows, building science models with students, performing experiments, dissemination of science kits and science innovations are the key attractions. The science Communicator guides the students to develop a vision towards science as a catalyst of change.
- The van helps in cultivating an academic interest among the children in tribal areas. As the topics are curriculum based it has helped in improving the learning ability of the children. It is chapter based learning transformed into activity based learning.
- The total number of beneficiaries in the year 2016-17 was .....
- The van covers two schools every day and the main target audience for the van are the students of Std 5 to Std 8.The van travels to more than 25 schools of Dediapada on a regular basis. One of the significant achievements of this initiative has been the results of the children, which has improved up to 30% in the experimental schools as compared to other schools.

NCSC Workshop (Dediapada and Rajpipla)

- National Children's Science Congress (NCSC) is a nationwide Science Communication programme started in the year 1993 by National Council for Science and Technology Communication (NCSTC), Department of Science and Technology, New Delhi.
- It is a forum, where children of the age group of 10-17 years, both from formal school system as well as from out of school, exhibit their creativity and innovativeness and more particularly their ability to solve a societal problem/local issues with the help of science.
- The theme for NCSC in 2016-17 was Science, Technology and Innovation for Sustainable Development. The sub themes were -
  - Natural Resource Management
  - Health, Hygiene and Nutrition
  - Food and Agriculture
  - Traditional Knowledge system
  - Disaster Management
  - Energy
- Manthan has conducted teacher training workshops at Manthan Lok Vigyan Kendra to explain the concept of science, how to carry out small research projects taking into consideration local resources and problems. Post the trainings, the teachers explain it to the children and teach them to carry out small investigatory projects, data collection process and data analysis. The child is then encouraged to demonstrate whatever research s/he is doing by publishing in newspaper, submitting data to the Collector, or by conducting an exhibition for common people. In the last year, 16 students have showcased their research projects till the state level.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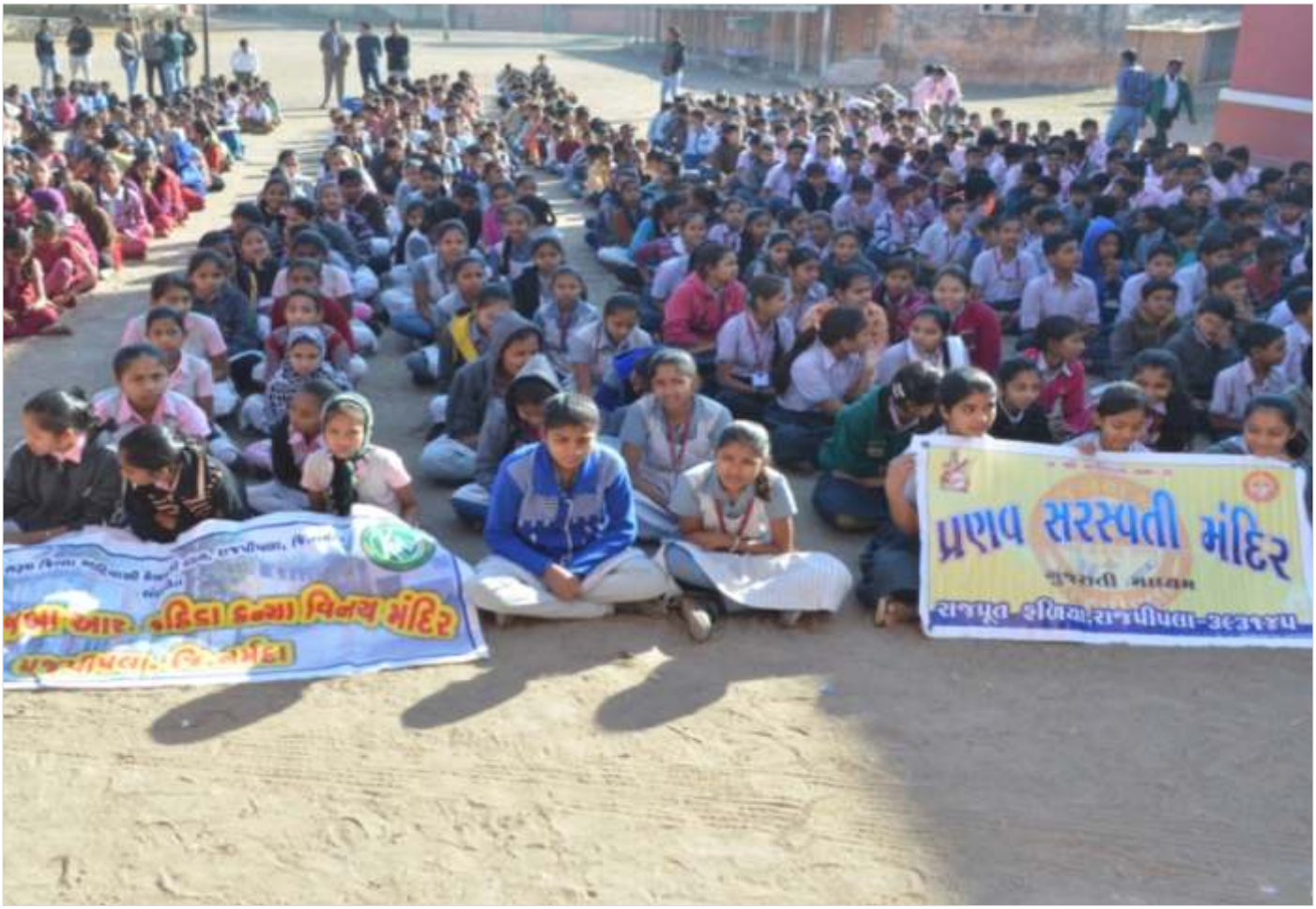


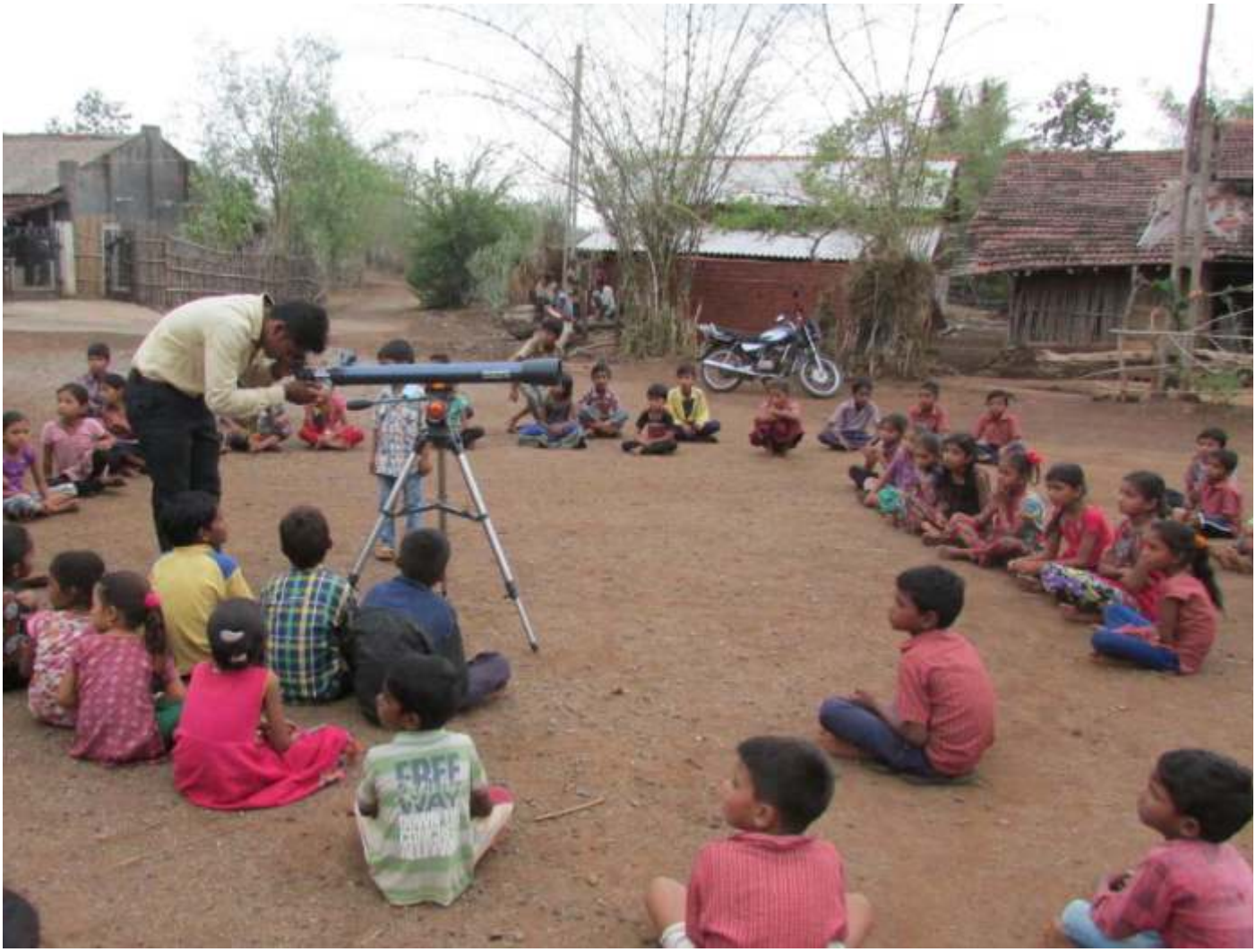
Bal Urja Rakshak Dal

- Gujarat Energy Development Agency (GEDA), Government of Gujarat has implemented a state wide School Energy Education Programme for 1800 Secondary and 1800 Primary schools in Gujarat. Bal Urja Rakshak Dal or BURD as it is popularly known, the programme is a participatory energy conservation awareness initiative. The basic motto of the programme is to conserve energy and educate the masses. The programme is being implemented across the state since 2003-04, annually motivates 50,000 School students as Urja Rakshaks and 3600 Urja Agevans to reduce energy use and spread awareness on best practices in energy conservation. The objective of the programme is to mobilize children as Urja Rakshak (energy guards), who as energy leaders will motivate others towards responsible, rational, and restrained use of energy in their homes, schools and community by encouraging right energy choices.
- The BURD programme is designed as a mass outreach that inspires young. It draws on children's potential as persuasive and powerful agents of change in their immediate community, and builds on the fact that energy values and habits that promote a sustainable future need to be inculcated in the young through experiential learning. Gujarat Energy Development Agency is the state nodal and designated agency, engaged in the promotion and popularization of renewable energy and energy conservation, is also the Nodal and Resource Agency implementing the programme in the state. The programme is facilitated by the local partnership with Community Science Centres and NGOs including in a particular area being Narmada district of Gujarat State.
- Several activities that Manthan initiated and engaged in the previous years were continued even in this year under BURD, which included some of the following:

- Celebrating the day as the energy conservation day by taking out rally which involved 70 secondary and primary schools with their teachers. This rally helped in creating mass awareness about Energy Conservation.
- Organised a drawing competition on the theme “Save Energy”. The drawing competition had a tremendous response and children drew creative ways to conserve energy. Online training was also given to the teachers involved in the BURD programme which aimed at training them on how to carry out different activities in line with “Green school.”
- Manthan also participated in the workshops on energy conservation conducted by GEDA under the BURD programme. The knowledge gained from the workshops was further disseminated to the masses through Manthan Science Centre.
- Manthan Trainers were sent to these schools to distribute the kit provided by GEDA including a cap, belt and a badge.
- Public lecture on “Save Energy” was also conducted by experts.

IAU Astronomy
(Mobile Exhibition in Narmada District)

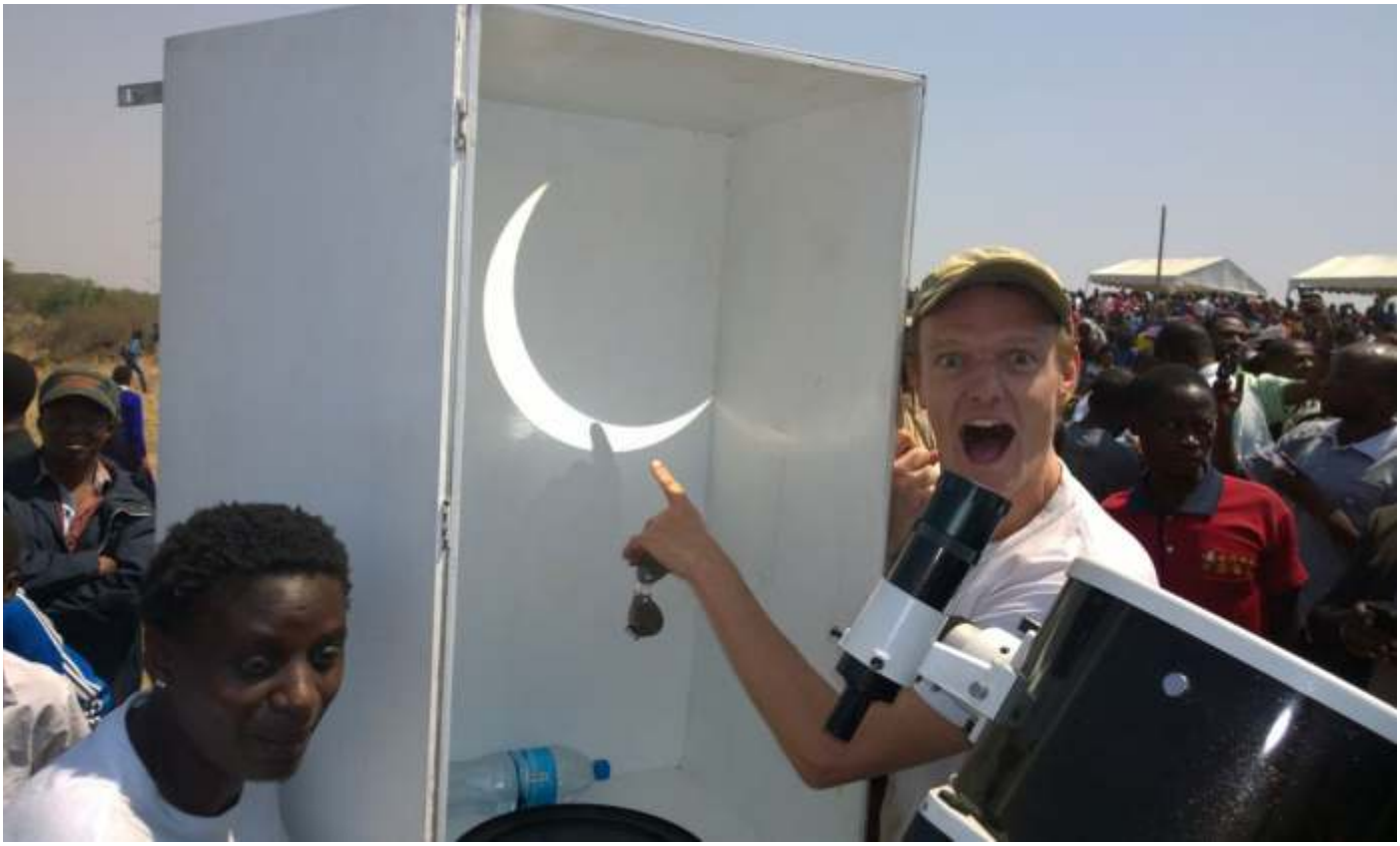
- Under the aegis of the International Astronomical Union (IAU), a camel cart exhibition was organized by the Manthan Lok Vigyan Kendra (Rajpipla) across 30 villages in Narmada district. The target audience were students of primary schools across these villages who otherwise do not have access to museums and hands-on activities related to astronomy. Several charts and models related to the universe, milkyway, panels on climate, eclipses and seasons were displayed. Manthan also organized puppet shows on several astronimical phenomena which are seen as superstition by the local villagers to dispense these myths from the community.

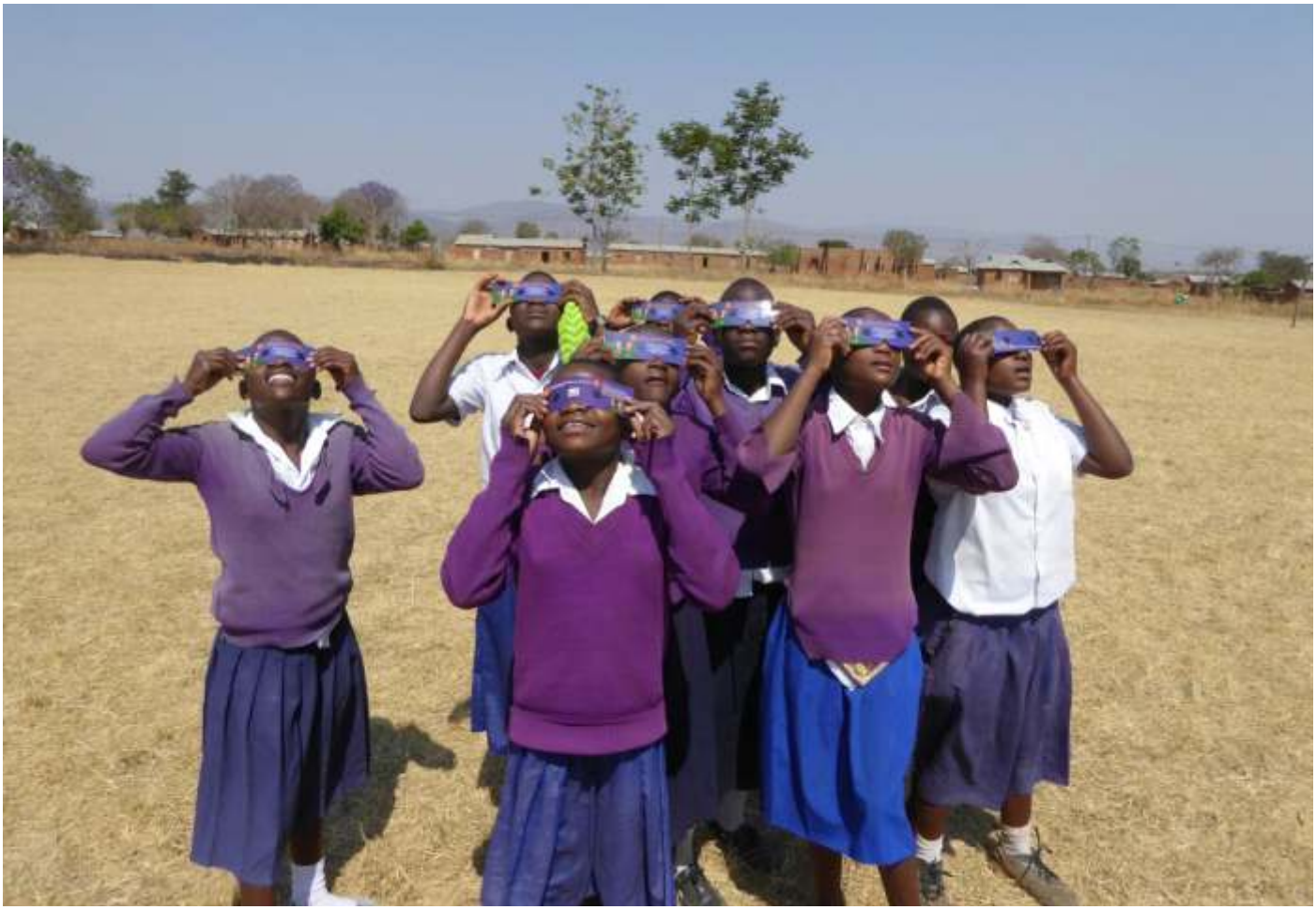

FREE
WAY

Transit of Mercury

- Manthan has experience of designing and producing safe solar viewers since last ten years. Safe Solar Viewers help the viewer to witness the astronomical phenomena without any damage to the eyes.

- During this year's rare phenomena of the mercury transit, Manthan disseminated 40,000 safe solar viewers in collaboration with GUJCOST, a network of Gujarat Science Centres and Science Communication Organisations. Manthan also organised a small session of viewing of the phenomena of Transit of Mercury for a small group.





Solar Eclipse in Africa

- An annular solar eclipse occurred on September 1, 2016. The annular eclipse appears as a partial eclipse over a region of the Earth thousands of kilometres wide. Annularity was observed in Gabon, Congo, Democratic Republic of the Congo, Tanzania, Mozambique, Madagascar and Reunion.
- As Manthan is a member of network of astronomy communication, the Director Shri Abhay Kothari was invited to Africa to conduct voluntary programme with Susan Murabana 's The Travelling Telescope in Kenya.
- The Travelling Telescope is dedicated to promote science and technology using astronomy. They believe that Astronomy has the ability to spark a sense of wonder and curiosity in people, and it proved to be an amazing platform to encourage people to pursue science.
- More than 500 solar viewers were donated and disseminated and 2000 children participated in the programme.

Mathematics
a hands-on activity kit is fun

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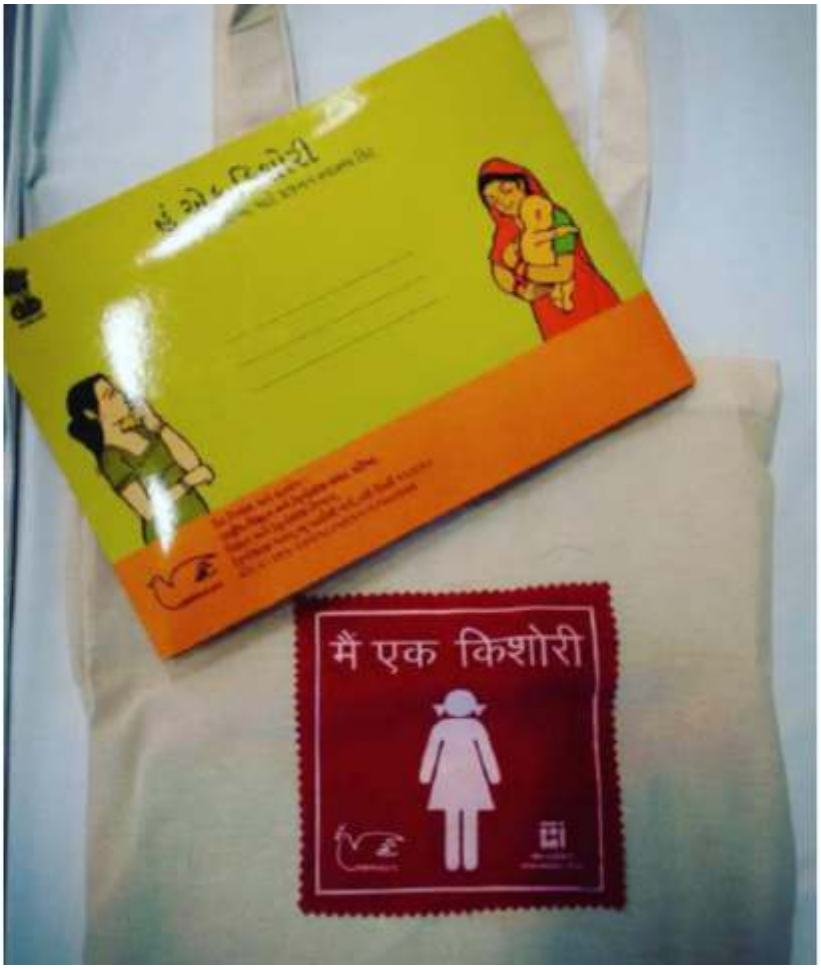
Conceptualised, catalysed & supported by:
National Council for Science & Technology Communication (NCSTC)
Department of Science and Technology, Technology Bhavan,
New Mehrauli Road, New Delhi – 110016
Telefax : 011-26864642, Web: *www.dst.gov.in*

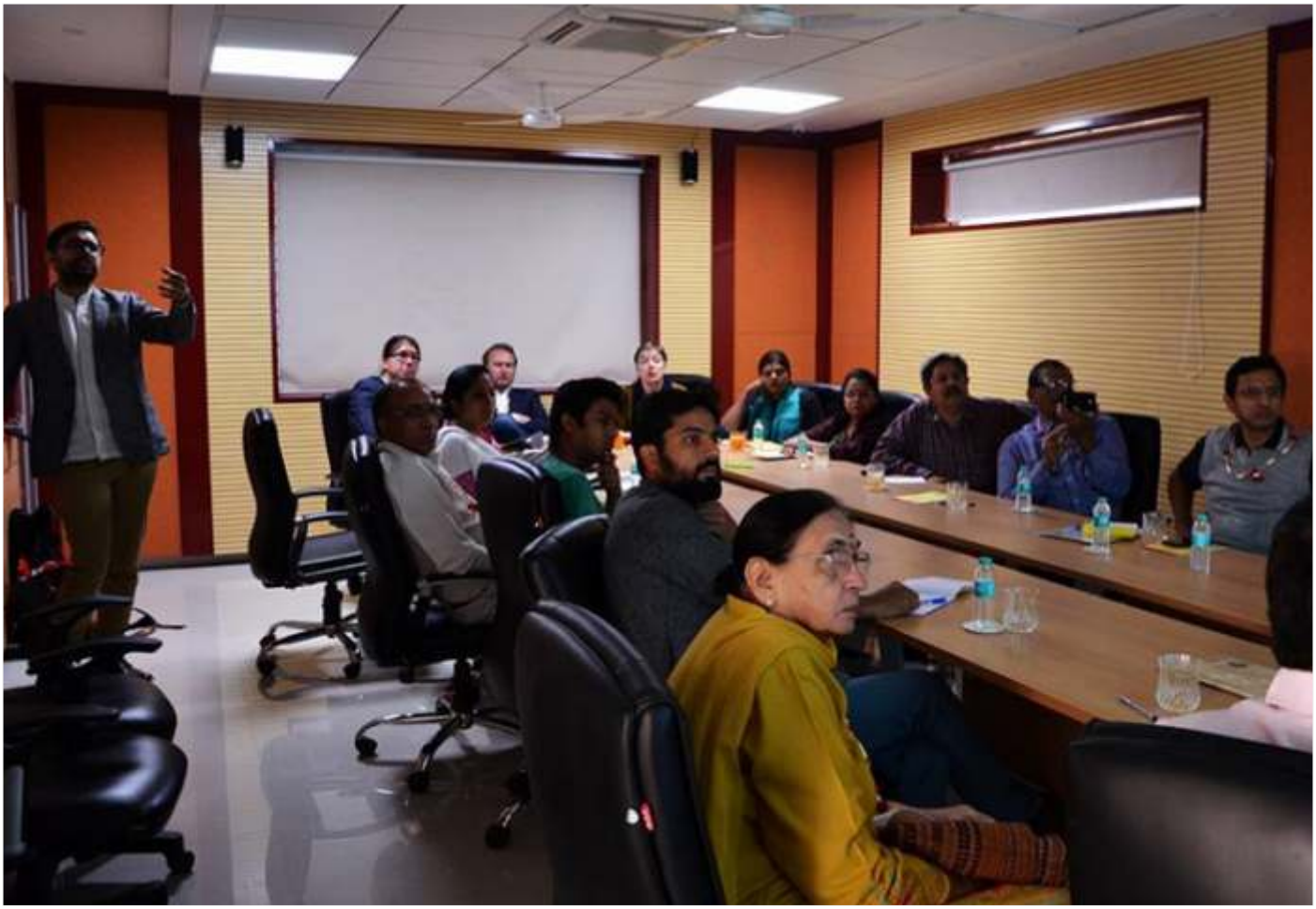
Maths Kit

- Commissioned by the National Council for Science & Technology Communication, Department of Science & Technology, Government of India, Manthan has been involved in developing and disseminating the Maths Kits since 2011. So far, 5000 kits have been distributed among the age group of 10 to 14 years old throughout India in three languages. The kits are explained through 30 activities.
- The kit has been designed to make mathematics more hands-on through colourfully designed games, puzzles and activities on arithmetic, algebra and geometry. The kit contains extremely innovative concepts like Parallax, a method of calculating distances through angular geometry of faraway objects. Then there are cut-outs used to explain polygons and Pythagoras theorem. There are different types of number games included in the activity kit like binary numbers and the Fibonacci sequence. It explains contributions of India to mathematics too.



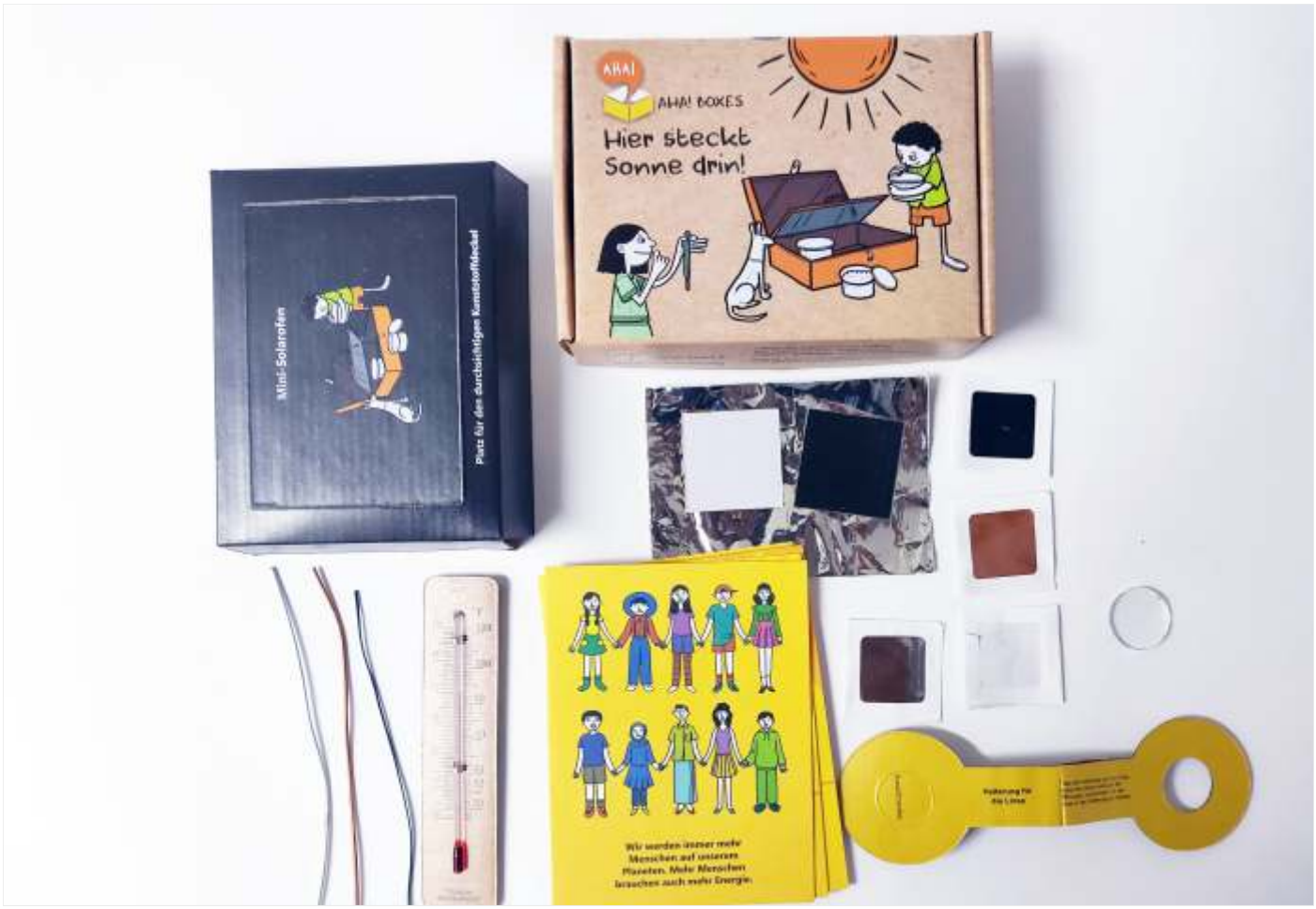
Reproductive Child Health Kit Project Training Programme

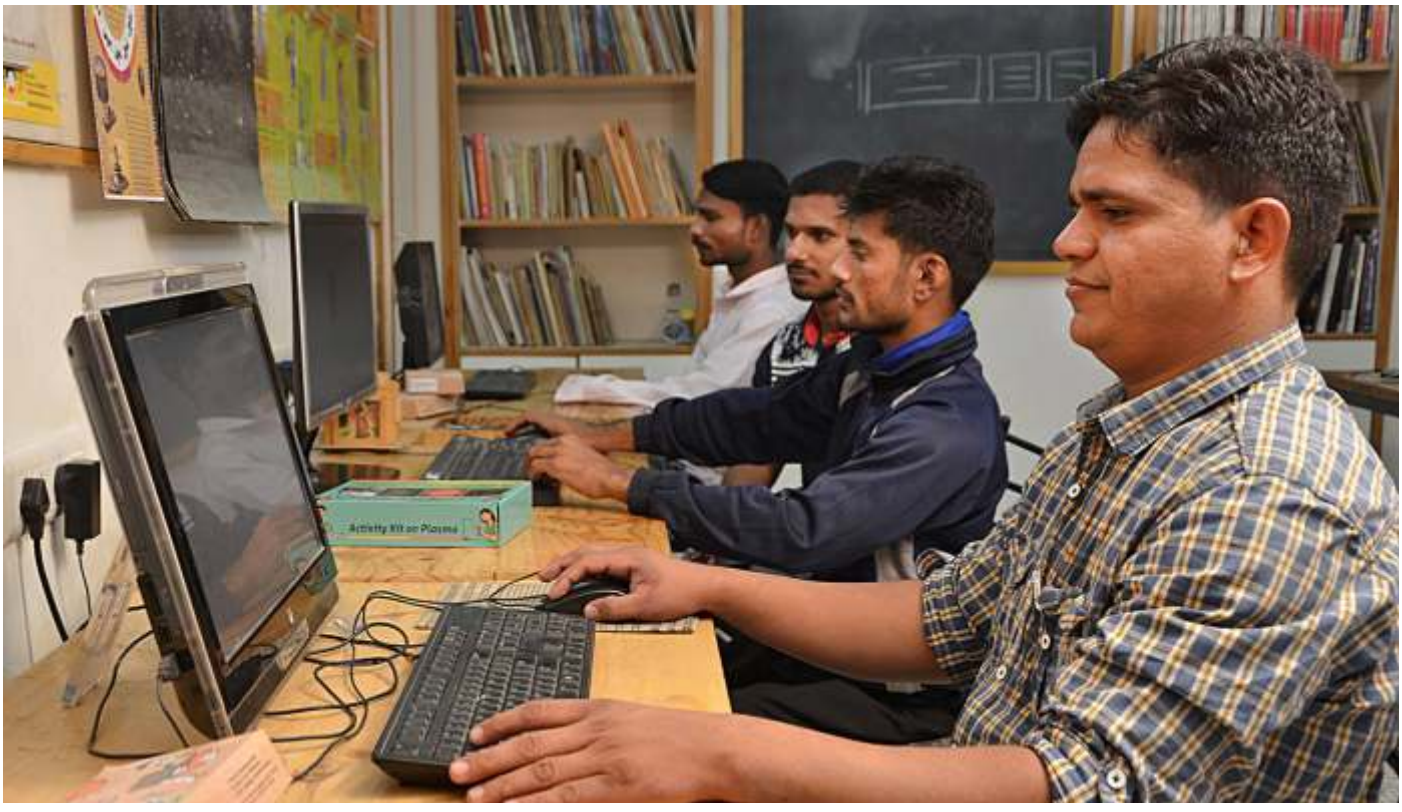
- The Reproductive Child Health Kit Project training programme was implemented by Manthan with the support of National Council for Science & Technology Communication, New Delhi. As a part of the programme, a hands-on kit for Adolescent Girls was developed by Manthan with the help of sector experts. The training programme was conducted in partnership with Mahila Samakhya, Gujarat. The kit has exhaustive information on general health, eating healthy, anatomy, reproductive organs, physical changes, reproductive system, menstruation cycle, pregnancy, care during pregnancy, Mamta Card, institutional delivery, care of baby at birth, child care and breast feeding. These subjects are covered through innovative flip charts, posters, brochures etc.
- Workshops and trainings have helped Manthan in developing resource materials for masters training, which can be replicated within the health system anywhere in the country.

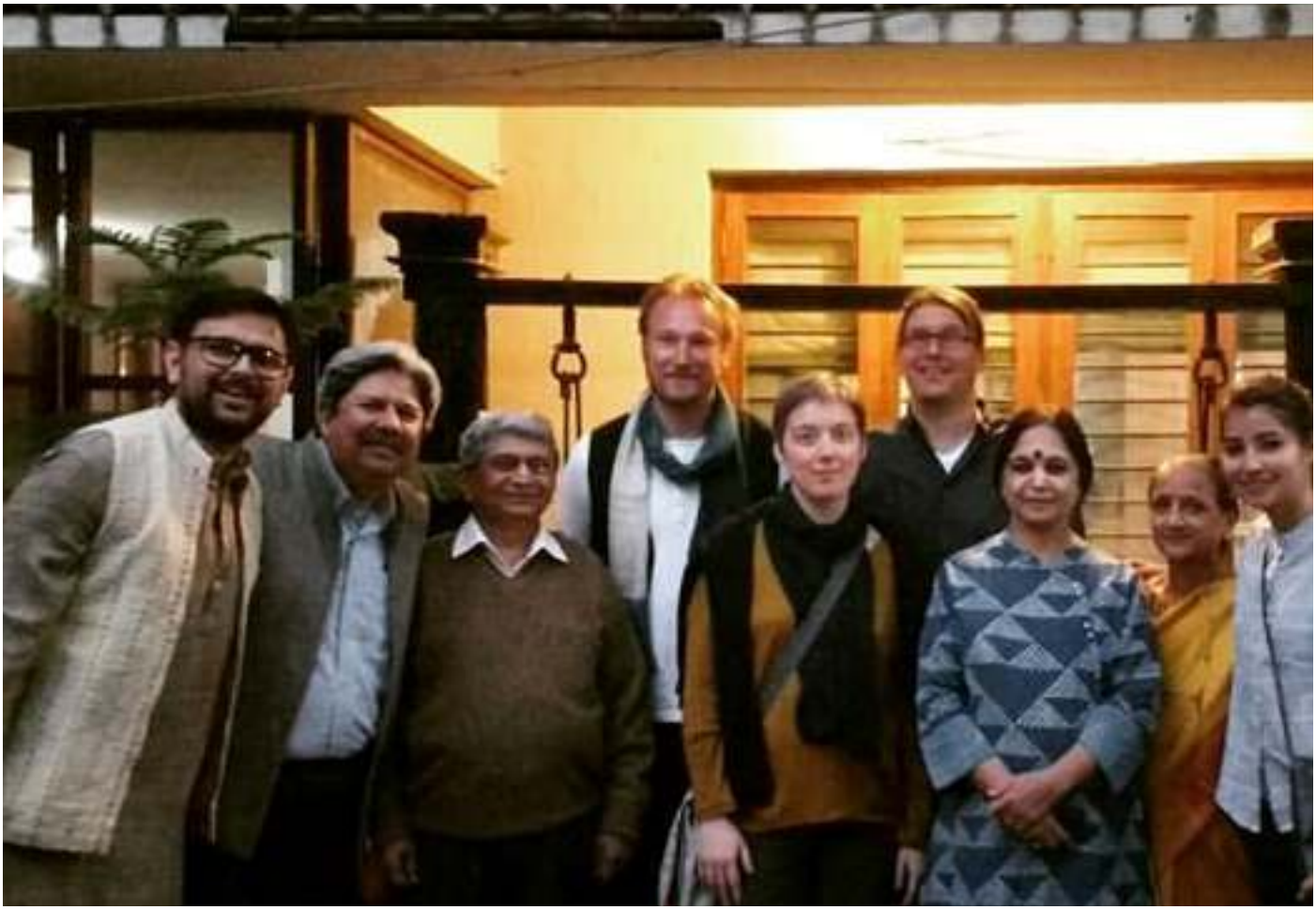


AHA Boxes Project

- Manthan has been working since several decades in the field of Science Communication and Education. The core area in which Manthan is working is developing lowcost Science kits to explain Science to the children. Manthan has till date produced more than 50 types of low cost kits for various national level organisations. With this expertise, Manthan has developed a project, in academic collaboration with EUCU.net and KinderBeuro and Hands-on Educational Resource Private Limited. The name of the project is AHA Boxes project. The Advisory and conceptual Development meeting regarding the approach of the project has taken place in January 2017 in Ahmedabad .
- The main purpose behind this collaboration is that all the partners share the same vision of bringing curiosity among children.
- The approaches for the creation of low cost science activities boxes is that the thinking and concepts should be encapsulated through the boxes. The other aim is to encourage local economy. The target group for this project is 6-10 yrs + and 11-15 yrs or more.
- The design approach of the Boxes is based on co-creation Design policy – a universal design with eco-friendly materials. Important materials necessary to conduct an experiment would be given and for other parts the child has to go out and look for from the surrounding or the child has to manage from home. Emphasis will be on craft play, sensory, interaction and provocation. The box should also have elements of Exploration, Observation and Reading. Each box will have code QR scanning and the child can check online the different versions of the box.


AHA!
AHA! BOXES
Hier steckt Sonne drin!
Mini-Solarofen
Platz für den durchsichtigen Kunststoffdeckel
Wir werden immer mehr Menschen auf unserem Planeten. Mehr Menschen brauchen auch mehr Energie.


Activity Kit on Plasma



- Subjects to be selected for the box would have a multi-disciplinary approach, subjects will be cross cultural curiosity, global warming, issues linking to global awareness, connecting the globes, health care issues and environment issues. The AHA Boxes Project would act as a cultural bridge. The hands-on box would be connected to a virtual platform. A sense of community would be given to the children who have this box. NGOs would be motivated to buy the boxes to distribute to the under privileged section of the society. These boxes would be made through Social Enterprise concept. This means that the project will help those people who are disadvantaged. Encouragement will be given to social business; local product will be produced through a value added chain. Social development is an important aspect of this project. The kits will be produced in India.

MANTHAN EDUCATIONAL PROGRAMME SOCIETY, INDIA

C1, Sukruti, Manekbag,
Ahmedabad-380015 INDIA

www.mepsindia.org