

# Collaborating to Spur Change



SEEDS Annual Report | 2019-2020



We've spread our wings and partnership scope  
Inspiring communities, families and children with new hope  
From rebuilding homes and schools to multiple DRR avenues too  
We've seeded innovation, tradition and dignity in all that we do.

Yet, around the world, disasters are morphing, intensifying and gaining scale  
For millions of the most vulnerable, the promise of 'resilience' is still pale  
Risks grow more inter-connected and complex which siloed approaches can't solve  
That's a challenge we'll help address in this new decade as ways of collaborating evolve.



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**IN MEMORIUM**

**Sunny Kumar**

**14 February 1991 - 18 February 2020**

The SEEDS family was devastated this year to lose one of our most promising young leaders. Sunny Kumar has been an integral part of the organisation over the last eight years. An urban planner by training, he joined us highly recommended by a School of Planning and Architecture professor.

His zeal and constant quest to learn set him apart from the start. Whatever hat he wore – from writing a disaster management plan to running training sessions – it was done with hard work and precision.

Sunny was the key proponent of building our climate school concept where children can experiment and map weather patterns to learn hands-on; first in Ladakh and then in Sikkim. We will forever think of them as ‘Sunny Climate Schools’.

With a great affinity for technology and GIS mapping, his last efforts were towards building up our ‘technology for good’ initiatives.

Sunny’s unexpected loss came just days after winning the employee of the year award at our annual retreat and his 29th birthday.

His memory lives on in our hearts and our work.

## Keynote by Founders

Dear Friends,

It's been a challenging and interesting year of collaborating to spur change. For as risks grow more interconnected, we too must find ways to nuance our approaches. That's why it has also been a year of strengthening our approach to using technology for social good.

Unfortunately, there was no respite in the string of rapidly normalising 'unprecedented' events. Cyclone Fani devastated Odisha. Massive monsoon rains hit a still recovering Kerala; and left wreckage in Maharashtra, Karnataka and Bihar.

As we swiftly responded to new emergencies, we continued to serve those who have faded from the headlines – including tribal families left without a home since Cyclone Gaja last year and children still studying in damaged classrooms in J&K. Our flagship school safety programmes in East Delhi continued and we expanded the highly appreciated model to Uttarakhand. It continues to re-define corporate partnerships for risk reduction as we tailor solutions to each of the 150 schools with which we are working.

Our initiatives on integrated risk management saw traction in panchayat development plans, a positive step to building harmony between people and their environment.

As we enter a new decade, SEEDS has also been evolving its strategic direction for 2030. Building on our work over the last 25 years, we seek to serve the bottom 1% of those most vulnerable to climate emergencies. To carry out this urgent task, we realise we cannot do it alone. In the last one year, SEEDS has invested in building partnerships with Government, expert institutions and grassroots organisations across the country aligned to our shared objective.

The challenges only grow increasingly vast. As this year draws to a close, we face the danger of COVID-19; a national lockdown; and the imperative to swiftly pivot our programmes to continue serving those most in need.

With warm regards,

**Manu Gupta and Anshu Sharma**  
Founders, SEEDS





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## VISION

Transforming the vulnerable into resilient and thriving communities

## MISSION

Equipping the most vulnerable with appropriate tools and technologies, sharing knowledge and skills and promoting linkages among stakeholders to prevent loss of life and suffering.

## STRATEGY 2030

SEEDS' 2030 strategy is dedicated to enabling the bottom 1% of those vulnerable to climate emergencies – helping them withstand it, secure their future potential and thereby that of the larger community. They will live in safer homes, go to safer schools and access safer health facilities. Through a growing network of partners and young ambassadors, we aim to work in 100 identified districts.

## Certifications & Alliances

### SEEDS is certified by and is a signatory to:

- The Code of Conduct for The International Red Cross and Red Crescent Movement
- Core Humanitarian Standard (CHS) - an international certification system for quality and accountability in disaster relief
- Charities Aid Foundation (CAF)
- GuideStar India
- Credibility Alliance
- Give India

### We are members of and allied to:

- Alliance for Adaptation and Disaster Risk Reduction (AADRR)
- Asian Disaster Reduction and Response Network (ADRRN)
- Active Learning Network for Accountability and Performance (ALNAP)
- Climate Action Network (CAN) South Asia
- The International Council of Voluntary Agencies (ICVA)
- The Network for Empowered Aid Response (NEAR)
- The Global Network of Civil Society Organisations for Disaster Reduction (GNDR)
- Start Network and also a member of India Hub of the Start Network
- SPHERE Global Network
- Sphere India
- Owner Driven Rehabilitation Collaborative (ODRC)
- Voluntary Action Network India (VANI)



## OUR APPROACH AND WAY OF WORKING

SEEDS enables community resilience through practical solutions for disaster readiness, response & rehabilitation - grafting innovative technology on to traditional wisdom. We empower the poorest and the most vulnerable to build a better future. SEEDS works with both disaster-affected and at-risk communities. We do this in a long-term and interconnected manner – in peacetime, before, during and after a disaster. Our attention is on the most vulnerable and marginalised families. Within our broad areas, specific programmes focus on safer housing, schools & community infrastructure; water & sanitation; the environment; health – all with an ecosystem approach.

### Education in safe learning environments

Among the most affected in disasters are children. Globally statistics reveal children getting disproportionately affected by disasters. Our work in ensuring safe societies starts by ensuring safe learning environments. As schools play a pivotal role in local communities, we support schools that enrol students from the poorest sections of the community, in ensuring their safety and securing. Much progress in India, following Honble Supreme court's judgement that has made safety precautions and preparedness compulsory for all schools in the country. SEEDS works with State Governments in carrying out the safe school measures and provide necessary training and awareness to school going children, parents, teachers and management.

### Humanitarian Response

When disasters strike, affected communities require immediate assistance. SEEDS tailors every response to the need on the ground. We help with emergency tents, early recovery housing and kits of essential items. In cases where schools are damaged, temporary learning centres are established to help continue education. Major water sources are cleaned and repaired. SEEDS also sets up roving medical camps to provide remote populations with immediate health services.

### Building Back Better

The reconstruction process is not just to restore what was lost, but to create a better and safer life than before. SEEDS partners with survivors to rebuild their homes, schools and community infrastructure; and to address ecosystems around these. The quality of those buildings is upgraded through relevant disaster reduction techniques. Sustainability lies at the heart of our design process using cultural norms, environmentally-friendly features and local materials. Where possible, buffer plantations and nature-based solutions are incorporated into the larger programme. We strive to leave behind skillsets, not just infrastructure. Our programmes incorporate the training of local construction workers on retrofitting and safe construction practices. School safety or community preparedness trainings are added. Awareness campaigns on safe water, sanitation and hygiene practices are put in place. SEEDS also works closely with local governments on larger reconstruction planning processes. Together, these varied strands embody the spirit of building back better.



### **Reducing Future Risk**

Disaster risk is not always seen or acknowledged. India has communities where disasters are an annual occurrence and others who have no collective memory of the last emergency. SEEDS works with both sets of communities to be better prepared for future disasters and reduce overall risk. It starts with assessments, planning and training. We also support governments and communities on their contingency and early warning plans.

### **Environmental sustainability and resilience**

Unsustainable environmental practices are often the root causes for both slow onset disasters or catastrophic climate related events. The poorest with high dependency on natural resources are the most impacted. Each silent risk (e.g. air pollution) or stresses such as access to clean water adds to their vulnerability. We help communities find ways to solve or better withstand their daily risks. Finally, dealing with climate emergencies requires changes in how we interact with nature. In addition to schools, we work on practical environmental and adaptation initiatives. From nature-based solutions to managing financial risk; from mitigation strategies to adapting livelihoods. Each of these is tailored to the area's ecology, needs and strengths

SEEDS is an active member of the Asian Disaster Reduction and Response Network (ADRRN) and serving as its localisation hub, this year we worked on a special publication for the ADRRN Annual General Meeting. The Face of Disasters 2020 was a practice brief for civil society. It explores the myriad changing realities in Asia-Pacific from the shifting profile of hazard risks to new hotspots and growing restrictions to civil society.

It asks the question, against this backdrop, how can civil society best bring value to at-risk communities? The brief suggests eight emerging areas of engagement for civil society and humanitarian agencies.

Face of Disasters 2020: Building a resilient and sustainable future amid changing realities in Asia-Pacific can be accessed at [www.seedsindia.org/FaceofDisasters](http://www.seedsindia.org/FaceofDisasters)





## SEEDERS Retreat 2020

Our 26th anniversary brought together 101 SEEDERS from across the country! It was a time to switch off – no wifi or cell phones. Tents, natural beauty and an endless array of outdoor activities meant no one minded much. The wilderness of Camp Kyari Syat in Nainital, Uttarakhand, provided the perfect backdrop to a special Disaster Simulation activity, a live play that brought in all the various departments and stakeholders in a post-disaster situation.

The core of the retreat centred around finalising and absorbing the new 2030 strategy. SEEDS' founders Anshu and Manu shared their collective vision and target that they foresee for the coming

decade. The extreme climate events in the last couple of years and severity of the emergency requires focussed attention on the most vulnerable communities, including migrant populations, who often do not have the knowledge and resources to deal with it. Considering this, the new strategy has a focus on enabling the bottom 1% of those vulnerable to the climate emergency.

Exemplifying Greta Thunberg and her spirit, SEEDS' young pillars of 30 under 30 were also announced, those who will take the baton forward and be the agents of change!



## BOARD OF DIRECTORS



**Dr. V. K. Sharma**  
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**Dr. Manu Gupta** Vice  
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**Dr. Anshu Sharma**  
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**Ms. Samhita Das Sharma**  
Member



**Prof. Rajesh Bheda**  
Member



# EDUCATION: SAFE AND HAPPY AT SCHOOL

Nurturing the youngest and most dynamic safety champions – school children

## Honeywell Safe Schools

Students learn better when schools are safe, secure, happy and comfortable. Honeywell Safe Schools is a holistic school safety programme that is built on SEEDS' child-first approach to risk reduction. It empowers children to become change agents for building resilience in their communities.

In a place like East Delhi where myriad daily stresses and disaster risks coincide, a holistic school safety initiative was required. One that went beyond the confines of the school compound to ensure children go to school without fear, remain safe in school and return home safely! The programme extended to Dehradun and Haridwar districts in Uttarakhand this year, areas which face high seismic and flood risk and extreme difficulties for children to get to school. Designed to bring a tailor-made approach to each school's unique challenges, the implementation differs in each of our 150 intervention schools. However, each looks at different facets of safety and security including:

- Developing detailed disaster management plans and early warning systems for each school
- Strengthening the School Management Committee and getting other key stakeholders involved
- Forming task forces for students to take the lead – on fire safety, first aid, search & rescue, and water, sanitation and hygiene (WaSH).
- Preventing loss from falling hazards: As highly earthquake prone zones, understanding and addressing non-structural mitigation was a key component
- Making the environment of the school more child-friendly through small design changes
- Running campaigns on environmental risks – particularly heat stress and air pollution
- Looking at safety on the road and other risks in the neighbourhood
- Behavioural campaigns on water, sanitation and hygiene



### Highlights from Delhi and Uttarakhand this year

In this year alone, the programme has been able to build preparedness capacities of 11,742 children, 759 teachers and 2,002 parents in Uttarakhand. In Delhi (the third year of our programme here), we reached an additional 5,908 children, 1,290 teachers and 3,011 parents/SMC members.

### Safe Schools Carnival in Uttarakhand

In October 2019, a 'Safe Schools Carnival' was organised at Shri Laxman Vidyalaya Inter College PatthriBagh, Dehradun, Uttarakhand. Children from schools across the area engaged in fun activities to expand their understanding of risk and safety through interactive games.

The event brought together over 700 participants including 500 children, 47 principals and teachers, media and 14 key government dignitaries including Mr. Mukul Kumar Sati, Additional Director School education, Mr. Sunil Uniyal Gama, Mayor Dehradun, and Mahant Dileep Singh Rawat, MLA Lansdowne. Hon'ble Trivendra Singh Rawat, the Chief Minister was particularly impressed with the efforts.



### Recognising School Safety Champions in Delhi

On 17th December, 2019, over 150 people came together in Delhi to felicitate school safety champions. The event recognised individual parents and community members who had taken a proactive role in inspiring others. It also felicitated six champion schools that have seen the most impact during the Safe Schools programme, helping transform mindsets and behaviour. The event was an occasion to recognise some of the valuable contributions in this mission of creating a culture of safety.



Developing a 360-degree understanding of disaster management is very important in our city, especially in unauthorised colonies and slum areas. The need to educate children about disaster, not just limiting to their schools, but even at homes, and in their daily lives is very important.

*Shri Manish Sisodia  
Deputy Chief Minister, Delhi*



### Child friendly-learning environments

Child-friendly learning environments (CFLE) have been developed in each of the intervention school in Delhi. These indoor and outdoor interactions vary from school to school and each game serves different purposes. For example, wave structures are helping children develop cognitive skills. An interactive carbon footprint calculator helps children understand and take measures to reduce their footprint. A tactile clay and storytelling corner tell the tale of birds and animals that have gone missing in the city. Dancing totem poles are painted with different colours, representing different emotions and allow children to engage with their emotional self. Jam Pads use plates, buckets, pedal drums and pipes of different sizes to create a space for children to create music and be creative. Other activities are enhancing geography skills and helping break gender stereotypes.

Along with installations, commonly known games such as snakes and ladders decorate the walkways and warm artwork brightens the walls. Together, these are all having a tremendous role in improving learning spaces. While workshops on the tools were conducted with each school, a user manual of each CFLE was also developed. This details how it should be used, maintained and cared for over time.



### Barometer Portal

Testing is under process on an online monitoring platform. The barometer (<https://honeywellsafeschools.seedsindia.org/>) helps to measure the growth and expansion of social and technical interventions in the schools. Based on 15 essentials of school safety, each school can see their scores on various social and technical parameters scored from 1-5.

### Vertical Gardens

Vertical Gardens have been installed in three schools in Delhi. The main purpose of the gardens are to utilise the waste products such as food, fruits and leaves. These can be decomposed in the composter which will grow plants in turn. This was a need that emerged from the customised themes of the schools.

### Making children feel protected

Initiatives around sensitisation and strengthening of child protection form a key part of this initiative. Art-based therapy, theatre and drum circle sessions are helping children overcome fear and speak up against abuse and violence. Such activities provide safe spaces to help children express themselves.



I take pride in bringing my guests and visitors to the location where SEEDS team members have installed the Snake and Ladder game (Child Friendly Learning Environment component) along with many others. The appreciation I gather from them inspires and motivates me to keep working with SEEDS Honeywell.

*Ms. Manju Shami, Principal, RSKV West Vinod Nagar, East Delhi*



### COVID 19 interventions in Uttarakhand

The COVID 19 pandemic also brought about the realities of lockdown suffering, including impoverishment, hunger and spikes in domestic violence. SEEDS began relief operations in the second half of March across Dehradun and Haridwar, reaching out to migrants, labourers and other daily wage workers with ration kits to help them cope. The team worked closely in coordination with the district administration, police department, partner organisations and the nodal COVID response officers.



## Small Act, Big Impacts: Eco-Retrofitting at Delhi Schools

How can we understand the impact that we are having on the environment? Climate change has become one of the major challenges of the 21st century. There is a vital need for adaptation of the built environment to reduce the effect of changing climatic conditions. Eco-retrofitting is essentially improving building structures and components to reduce the carbon footprint of the building.

Promoting awareness and capacity on eco-retrofitting can help change behaviour!

We worked in twelve New Delhi Municipal Council (NDMC) schools to develop a model for calculating carbon footprint based on the functions of the school. Baseline surveys were conducted on six carbon intensive areas (energy, water, waste, transportation, building and food) with the help of NDMC authorities, school staff and their eco clubs.

Carbon footprints and per capita carbon emission of each school were then calculated

with the help of global tools and emission factors. Using this model, school-specific interventions were proposed around solar energy, water purification and solid waste management. Each proposal was accompanied with a calculation of how much their carbon footprint would reduce.

This year, we implemented these interventions in two schools. Vertical garden composters are helping to reduce degradable waste. Automatic on-off sensors for water storage tanks and installation of water filters are helping reduce water wastage. In fact, just these two can reduce 2.5 kg of CO<sub>2</sub> per tap! Heat reflective paint coating were applied that can bring roof temperatures down by up to 20°C.

Some school administrations have even taken the initiative to replace all fluorescent bulb into LED lights.

School authorities and eco club in-charges have shown keen interest to integrate proposed solutions as part of their club activities. These activities have a gradation system which gets calculated in their final results. No such tool was available for Indian schools so far. It's a first step towards carbon neutral schools!



“

You don't see solar panels at an EDMC school every day. On a hot summer day when there are electricity cuts, it was hard for us to teach and even harder for students. Now that we are producing solar electricity of our own, we don't have to worry about that.

The heat reflective paint is also very helpful in reducing the heat intensity inside the class. I am considering doing this project at my house too.

*Mr. Santosh, extra-curriculum teacher  
EDMC Railway Colony, Mandawali, East Delhi*



## PIRA Project: Studying handwashing in schools

According to the World Health Organization (WHO) mortality data, South Asian countries are highly vulnerable to water, sanitation, and hygiene (WASH) -related diseases in children, with India ranking highest in the prevalence of diarrheal diseases.

Children are often targeted for hygiene behaviour as good habits carry over into adulthood. This school-based intervention was to improve hand hygiene with the main emphasis being on hand washing with soap.

It builds on a large network of public schools established via the ongoing Safe Schools Programme in East Delhi. The programme has enrolled 300 children from six EDMC schools. The selected schools have been randomly assigned to the three study groups (A, B and C) using computer generated allocation sequences. Group A schools receive educational interventions with additional input from the teachers. They are also told about bacteria risk in contaminated water and hands. Group B schools receive only risk of exposure information about bacteria, whereas group C schools will not receive any education. No changes to allocation are being made after randomisation.

This year, we have reached out around 2,786 children, 26 teachers and 300 parents through the project intervention in the four EDMC schools.

## Educating communities in disaster preparedness: Disaster Information Volunteers

Disaster data is often limited at the local level. Smaller disasters are left out and even within a large emergency, there are areas that go unheard. In fact, the lack of accurate and timely hyper local disaster information for disaster management authorities can lead to much higher loss of life and assets. The question was how do we begin bridging this gap?

SEEDS is working in partnership with National Disaster Management Authority (NDMA) on a Disaster Information Volunteers (DIV) programme. The idea is to have trained and verified volunteers in every district who provide information on the disasters occurring in their area. The data is logged in a simple and easy-to-use mobile app which goes to the NDMA officer in charge of the area with the aim that timely action can be taken, as needed. The pilot phase began this year, working across the 13 districts in Uttarakhand.

The AAPDA FI (Disaster First Information) is an application that can be downloaded by a large number of community level volunteers using their smart phone. It allows them to log first-hand information on the type of disaster, estimated losses, current relief status, along with photos and the specific time and lat/long location.

Every log is directly sent by the app to the central command centre. Triangulated together, the chronology provides a near real-time local area status for immediate intervention and help in reduction of disaster impact.

The 132 Disaster Information Volunteers (DIVs) themselves come from all walks of life. Each one has been vetted, registered by the Disaster Management Authority and comprehensively trained on using the app. This citizen-based and community-driven application is the first of its kind in the Indian disaster management sector.



## Educating local CSOs on Community-Based Disaster Risk Management

How do we support the scale out and institutionalisation of sustainable community based disaster risk management?

This programme aims to identify the enabling environment required; building the capacity of actors to work/ together to put these building blocks in place. It aims to increase commitment for scaling community-based disaster risk management.

This year, we kicked off April with a National Training Course on Institutionalised Sustainable Community Based Disaster Risk Management (CBDRM). The activity endeavoured to hone capacities on local CBDRM; and to strengthen relationships between CSOs and the local government.

In India, two national training workshops were conducted in Bihar and Uttarakhand respectively. The 29 participants in the Bihar workshop were drawn from active organisations and local governments. Officials from Bihar State Disaster Management Authority (BSDMA) also participated in the workshop. The 30 participants in the Uttarakhand workshop came from the state as well as Himachal Pradesh.

Participants were selected based on their exposure to working on community based disaster preparedness. At the end of each workshop, the group discussed next steps. The consensus was the importance of working together as a sector. The programme also promoted good practices from around the world at the sixth Session of the Global Platform for Disaster Risk Reduction (GP2019). This included SEEDS' sharing of the case study 'Trans Border Approaches: Towards Flood Risk Management'. It strongly advocates establishing cross-border community based early warning systems between communities in Nepal and India.





# RELIEF TO THE POOREST: HOPE IN THE FACE OF FLOOD AND CYCLONE FURY

Reaching further through our network on the ground

## Cyclone Fani Response

On May 3rd 2019, Cyclone Fani made landfall south of Puri district, Odisha. With wind speeds touching 200 kmph, it wreaked havoc on coastal communities of Odisha. Families have returned from cyclone shelters to find their homes destroyed (and in many cases possessions as well). Over 500,000 houses were damaged and 15 million people affected across Odisha; and over 33,000 houses damaged and 630,000 people affected in West Bengal.

### Addressing immediate needs

600 family kits were distributed with basic hygiene needs including mosquito nets and soap. SEEDS and local partner SPANDAN also supported a community kitchen that was managed by cyclone survivors themselves in the Baliapanda slum of Puri. 500 people from 123 families were able to have access to a good meal when most needed.

### Health camps

Through facilitated camps in both rural and urban areas across Puri, we reached over 2,860 people with immediate basic healthcare. This focused on skin, stomach & water-borne ailments, trauma & mental health. Free medicines were distributed and cases referred to government hospitals as needed. We also carried out WaSH awareness orientation sessions.

### Access to clean water

Water is such a crucial element after any disaster. In two villages of East Medinipur, West Bengal, we worked with local partner KJKS to impart training on safe water and chlorinate common drinking water sources. We were able to reach 190 families (910 people).



In Puri, we tried to tackle it in two ways. The first was to chlorinate and raise 15 hand pumps. The second was distributing 62 water filter devices across the most affected sites in Puri, benefitting over 2,260 people. One of these communities is Jag Jivanraji Colony in Puri. There are around 40 families in the colony; each with at least one member who is living with leprosy. The majority depend on begging, labour work or pulling of rickshaws to make ends meet. Their source of water is primarily from municipality supply and two tube wells.

After the cyclone, water supply was cut off for more than two weeks. Since they are not accepted by the neighbouring colonies, there was no way to fetch clean water. They had to make do with the tube wells where the water was affected with salinity and impurities. The two water filters installed here to cater to the colony's 200 inhabitants in June 2019 are continuing to provide safe drinking water.

#### **Transitional homes for 129 families**

A month on, media attention waned but Cyclone Fani's survivors continue the long road to recovery. A total of 129 such families were selected to be supported with 'transitional shelters' across Puri district. One of these areas was Birapadia Village in Sadar block of Puri. Located about 15 km from Puri town, this is a marginalised community, mainly with daily wage labourers and landless families. They survived the cyclone under an uprooted tree. The homes, designed and built with the help of the community were symbols of hope in a setting where there was still devastation all around. Truly local, the design incorporated salvaged timber from uprooted trees, thick bamboo mat walling that can be made locally, and coconut leaf thatch to cover the roof for thermal comfort. The tying techniques using GI wires, roof anchoring systems and veranda-roof separation all enhanced cyclone resistance.

#### **Encouraging social change**

The approach throughout the initiative was to engage youth volunteers, both to empower and to build a sense of civic engagement. In fact, issues of social change appeared through the programme, from building an understanding of land entitlements to taking collaborative action. Months after the response died down, women in the Pentakota slum (one of our response areas) continued taking matters into their own hands. They banded together to create a resilience fund, pooling in Rs. 1,24,600!





## IN FOCUS A pond saves lives

25 families of Arola Village in Puri have a huge debt to the local pond as it was the only source of shelter during the havoc created by Fani. Each community in this area has a pond which can also become an income source if given better training on production techniques and better management practice. Water from ponds can provide irrigation for crops and water for livestock. It can also have a positive effect on family nutrition through fish production. As the pond serves as the only source of water for household activities, awareness on sustainable and clean surroundings was also part of the discussions.



We all jumped into the pond for our survival and were into it until the cyclone stopped.

*Kuntala Behera, a survivor of Fani*



## Build Back Better – Powering post disaster recovery for speed, sustainability and resilience

In the wake of Cyclone Fani which hit in May 2019, coastal communities across Odisha were struggling to cope. The primary concern was that the recovery is slow. Some marginal groups may slip through the recovery nets. This means homes, schools and infrastructure may be built in ways that are again vulnerable to the next disaster. This is a systemic problem seen after every major disaster. The idea was to explore decentralised energy as a catalyst for sustainable interventions.

Safe, connected, green and off-the-grid. SEEDS is developing a roadmap where risk reduction meets sustainable energy solutions for better resilience to future disasters. Using one school and one health centre in Chandrapur block of Puri as model demonstrations, the aim was to develop an off-grid campus. Aside from the 130 children and 5 staff members who study at Biranirsinghpur primary school, the premises serves as an emergency shelter. The programme is developed to ensure that the children and community members who end up here have access to a safe space, a reliable

energy source, water, sanitation and food in case of an emergency. The Chandanpur CHC plays a crucial role in providing basic services to improve the health status of communities residing in the district. It covers 3 Public Health Centres and a Sub-centre, providing health care facilities to about 158 villages in the district.

Each building is being restored and upgraded with better water, sanitation and hygiene facilities. The model buildings will be equipped with solar panels, solar charging stations, and solar water pumps. Energy loads are also being reduced through efficient fixtures, roof insulation and wall painting.

At school, we're adding a kitchen garden, sunny weather school and outdoor shaded play space for the children. The provision of document storage lockers makes it more user-friendly. At the health centre, strategically placed vertical buffer plant screens will help improve thermal comfort and patient well-being. The buildings themselves are being complemented by planning processes done with the community.



## India Flood Response 2019

Unprecedented monsoons in 2019 resulted in floods that created havoc across various states in India. The rain led to the rise in the level of the Krishna River, causing flooding in several parts of Western Maharashtra and North Karnataka. Floods also affected parts of Bihar and Kerala.

After careful assessment, SEEDS chose to focus on Sangli and Kolhapur districts in Maharashtra; Belagavi district in Karnataka; Patna and Saharsa districts in Bihar; and Wayanad district in Kerala. SEEDS created an overall plan that focused on immediate relief with hygiene kits and footwear; and early recovery with a focus on repairing schools, and WaSH initiatives.

### Water, sanitation and hygiene interventions

A critical impending threat in the affected areas is of waterborne diseases that erupt a few days after such disasters. Water, sanitation and hygiene are areas to be addressed urgently to avoid the spread of such diseases.

SEEDS addressed this in a few ways. We distributed 1,250 hygiene kits to affected families in Maharashtra and Bihar. We're cleaning 60 wells using chlorination techniques to re-establish access to potable water for marginalised communities in Maharashtra. Finally, we also carried out awareness campaigns within the community. These focussed on sensitising people on safe water handling and sanitation practices and encouraging a community led initiative towards safe drinking water. Supported by Bata, SEEDS distributed shoes to children across 15 schools and 90 anganwadis in Belagavi district, Karnataka; and 17 anganwadis across Wayanad district, Kerala.

### Repairing and restoring nine schools and 14 damaged anganwadis

In terms of early recovery, SEEDS is looking at repairing and restoring nine schools and 14 anganwadis across the intervention districts. While the specifics vary for each school, the interventions all follow our approach of building back better; creating a more comfortable, safe and hygienic learning environment. Among others, this includes upgradation of drinking water and sanitation facilities; repair to the physical structure of the school buildings; the additions of playful child-friendly elements; and disaster risk reduction & hygiene trainings.

While identification, needs assessments and bill of quantities have been done for most of the schools, the nationwide lockdown in March brought a break to several on-ground activities. 600 student kits were also procured for students who had lost their books and stationery during the floods, and it's a wait to distribute them once the lockdown ends.



## Kerala Floods 2018 Continuing to Recover

Spells of rain in July and August 2018 caused Kerala's most severe floods since 1924. Excess water being released from dams across the state aggravated the impact. Over 300 landslides were triggered, taking away entire areas of land. The devastating floods and landslides affected 5.4 million people and displaced 1.4 million people. Our efforts began in late August 2018 with addressing basic needs. This year, the recovery efforts continued with clean water, homes and school related initiatives.

### Access to clean water

Contaminated water remained a challenge even months after the floods. SEEDS identified an additional 176 flood affected wells in the district of Wayanad. Debris was cleared from the bottom and the well rings were thoroughly cleaned. Each well was chlorinated according to the need based on tests for PH, turbidity, TDS and residual chlorine. With the two wells that were extensively damaged, wells were rehabilitated and then chlorinated.

35-year-old Kamala Chandran lives in Ward No. 7 of Kottathara Panchayat along with her husband, mother-in-law and two young children – a four-year-old son and two-year-old daughter. Her husband is a daily wage labourer and mother-in-law works as a labourer with Kottathara Panchayat under the Mahatma Gandhi National Rural Employment Guarantee Scheme.



This well was our major source of drinking water for the past two decades. Our neighbours also take water from this well whenever they require. But after the flood, things have changed. It got polluted. From then, it has been a difficult journey for us. We were helpless and struggling for safe drinking water. I am grateful to get the well cleaned and restored to give us back a safe drinking water source.



*Kamala Chandran, Kottathara Panchayat,  
Wayanad, Kerala*



“

We are a small family of three - my husband, our eight-year-old daughter and I. We work in nearby plantations. All our efforts go towards ensuring our daughter is well taken care of and educated so that she can build a better life for herself. When the floods came crashing down, our home was washed away. We were grateful that we survived, but equally distraught that most of our belongings had gone. Rebuilding our lives, piece by piece has been a very emotional experience. We now have a home, a place where we are safe, a place that we helped build. We have regained our lost strength and faith. We can now dream again.

*Anupama Krishnan, Ward No. 10, Vengapally, Wayanad, Kerala*



### Transitional shelters

Co-ordinating with the Government of Kerala, SEEDS proposed various options to address the immediate requirements of the flood affected families. Transitional shelters was one of the interventions that was suggested and gained acceptance among the community. This year, an additional 104 transitional shelters and 41 transitional toilets have been constructed in various panchayats of Wayanad district.

The unique process of design imbibed the cultural norms of traditional architecture of the state. It used low cost material, that could be re-used later. The use of material salvaged from previous constructions an option, as was of building over existing plinths. These transitional homes were built in partnership with the homeowners, and a simple smart card walked them through the construction process.

The toilets too are flood resilient, using local materials and natural filters. This nature- based solution allows waste to decompose without affecting the natural habitat.



### Schools and anganwadis full of smiles

This year, we were able to bring back smiles to 16 flood affected schools within six districts (Wayanad, Malappuram, Ernakulam, Thrissur, Alappuzha and Idukki) and three anganwadis in Wayanad. With the help of Bata, we were also able to distribute shoes to 3,324 children across schools and anganwadis in Wayanad.

The interventions were tailored to suit the needs of different schools – from complete rebuilding to just installing extra space. Damaged toilets became a key component of the restoration plan. Solar panels are helping promote renewable resources. In order to ensure scientific waste management, compost pits were also built at the schools.

The process included training and orientation for the entire school community on reducing risks. Safety elements such as fire extinguishers and evacuation maps were installed at all the blocks of our intervention. DRR and WaSH training were also given to the students and PTA members of each intervention school.

The repair and upgradation initiative went beyond safety. It was clear that the trauma of the floods had stayed with the children. Psychological counselling was initiated and the designs also took this into account. Child-friendly, playful spaces could have a major impact on their well-being. Plants were added and landscaping was done to add to the vibrance to these buildings.

Lincy Thomas has been a pre-primary teacher at Government Lower Primary School, Veliyanad for the past 13 years. This school has served as a shelter and relief camp in previous floods. However, the situation in 2018 was different. The entire school building was covered with water and mud. The walls of the building, the garden, furniture, everything was damaged as a result of sustained water inundation over days. The houses of most of the students were also inundated and all the people from the area were relocated to the nearby district of Kottayam which is at higher altitude.

The initiative has changed the face of the school. Even a week of no power (due to electrical repairs) left them unphased. Their power needs were fulfilled by the solar panels and has also cut down huge electricity bills.

### Health Matters

Public health centres (PHCs) and sub-centres are an essential need of rural communities. A lifeline for health services, severe flood damage meant a critical disruption. SEEDS worked to repair and restore three PHCs across Wayanad and Malappuram districts, improving resilience to future emergencies.

### Permanent Homes

The families chosen for permanent shelters are all extremely poor, without the resources to restore a shelter even incrementally. 9 shelters have been built and 3 restored in Puthenvelikkara panchayat of Ernakulam district. 16 more homes for tribal families are under progress in Wayanad district.



Having been a pre-primary teacher for many years, I can understand the mindset of children. Children of this age always prefer to be at a place where they have an attractive atmosphere with paintings on the walls, play equipment etc. SEEDS has provided all facilities at the school and created a children centric atmosphere here. I can see that the children are now more interested in coming to the school than before.

*Lincy Thomas, Pre-primary teacher, Government Lower Primary School, Veliyanad, Kerala*





## Homes for Cyclone Gaja Survivors

Cyclone Gaja made landfall on the coast of Tamil Nadu on 16th November 2018. It was one of the worst cyclones to hit the region. More than 1,17,000 houses, including thatched huts and tiled roof houses, were partially or fully damaged across the state. Keelaiyur panchayat in Nagapattinam was one of the most affected. Mainly from the Scheduled Caste community, the families here had received little assistance except immediate relief. They found themselves excluded from many aspects of day-to-day life including health services, economic incentives and educational establishments.

Between May and November 2019, SEEDS supported nine families to rebuild their homes. The programme was unique in that it was completely done by the community. The community representative (Mr. A Balakrishnan) took the initiative not just to mobilise people, but also manage materials, labour and ensure that the house owners could move into their completed houses. Designed through a community consultation process, the shelters were also a way to develop the skills of local artisans.

Over 90 years old, Krushnammal is a widow with no family to support her and survives on a monthly pension. She lived alone in a dilapidated house with the community checking in on her from time to time. The roof was blown away and the structure damaged, but she was managing with a tarpaulin that the community has helped secure.

“

When you are as old as I am, you are merely living day to day. You go about following a set routine. I didn't think I would survive the cyclone, let alone my house. I feel overwhelmed that my neighbours and well-wishers came together to put a roof above my head and even more indebted and grateful to the people who gave me a concrete house.

*Krushnammal*





## Jammu & Kashmir 2014 Floods Schools still recover

The unprecedented flooding of Jammu & Kashmir in September 2014 left in its wake a trail of destruction from which the state is still recovering. According to the Education Department of Jammu & Kashmir, 1,000 schools were affected across the state.

Five years hence, many school buildings still awaited restoration and classes continued to be held in unsafe temporary arrangements. We decided to help restore another three schools in Pulwama, spreading smiles and DRR knowledge among more students. Workshops also focused on the possible usage of the campus during non-school hours, for common purposes at community level. Together the three schools

- Govt. Upper Primary School BajiBagh, Govt. Girls Middle School Drangbal Pampore and Govt. Boys Upper Primary School Chatlam Lalpora - originally served 261 students. The 24 new classrooms (8 in each school) are not just brighter, safer and more child-friendly. They can now accommodate 500 students, allowing room for enrolment to grow in each school.

The buildings were designed keeping in view earthquake and flood resistance; and to incorporate fun into the school building itself. Using innovative design, the roof and window designs were the biggest hit among the students!



The school buildings were also constructed keeping in view the Green Rating for Integrated Habitat Assessment (GRIHA). GRIHA initiatives included green net fencing to reduce air pollution during construction and the use of low VOC paints to reduce allergy-causing toxins, odour and air quality impacts. Recharge pits with rain gutters help to recycle rainwater and recharge underground aquifers. Compost pits were built to allow for the recycling of kitchen scraps and creation of natural fertilizer for garden plants & vegetables. Low-energy material was used in the interiors.



The initiative in all the schools went beyond brick and mortar alone. School Management Committees were oriented on risk reduction practices. Students and teachers were given basic emergency training. Task forces on first aid, fire safety, search and rescue and early warning were created in the neighbouring community. These increased ownership, and sowed seeds for broader community disaster management planning.



## Leveraging technology to enhance our people-centric approach in disaster preparedness and response

Bihar is one of the most vulnerable states to flooding, with 74% of its geographical area severely affected by recurrent floods.

The changing course of the Ganga river and its tributaries adds to the challenge. The Jal Prahari (Water Guardians) programme attempts to forecast flood impact in the region by placing community knowledge at the centre. Can we get inundation warnings with sufficient lead time to minimise losses? The idea was to provide near real-time information on the rise of river levels through google maps.

The initiative began in February 2019 by establishing a roster of local task force volunteers called 'Jal Praharis' who keep a close watch on the water levels and pass on information in the surrounding communities for subsequent action. These 'Jal Praharis' help us to monitor and provide real time first-hand information on water level rise, during and after floods in fifteen blocks of Patna district.

Considering the need, the volunteers were selected on their knowledge of operating Smart Phones; their familiarity with google applications including maps and location sharing; and an age range of 18-45. Yuganter (SEEDS' on-ground partner) organised meetings with community leaders, mukhiyas (panchayat heads), active youth members who were also part of government flood rescue teams in the villages and at the block level. 107 youth were formally

registered and 80 volunteers were finalised post-verification. Training sessions were held at the district level to handhold and train the volunteers on data collection.

Mock tests on the ONA application encountered a few challenges in uploading the forms. With constant feedback of the 'server being down', the forms kept getting saved to the draft box. This further slowed down the process of data capturing. The learning was to explore other applications that could work in the geography and not face the server issue. Collect App run by Social Cop seemed to meet the requirements and was put to the test in June. Volunteers were able to submit responses within 60 seconds to 90 seconds. Testing went live during the monsoon season from June to September, when the Jal Praharis submitted real-time information on water levels rise status in their respective areas.

The information collected was collated and organised in pre-set templates by SEEDS. That was then added to a central damage database maintained by Google. Once added to the database the information was triangulated with other sources to provide a real and dynamic assessment of damage and losses in a disaster.

The consolidated information has proved to contribute significantly in improving effectiveness of response and recovery efforts. In this case, it helped analyse the situation and mark the flooding zone in Patna district.



## AI For Humanitarian Action

A neighbourhood does not have access to information about specific vulnerabilities that they need to fix to reduce disaster risk. They also cannot decipher from the warnings they receive what the precise extent of the impending risk is. This makes informed pre-emptive action by individuals/local communities almost impossible.

Currently, there are two data sets that a family or neighbourhood can access to be informed about their vulnerability and about immediate threats – vulnerability maps, and hazard warnings.

The Vulnerability Atlas of India and its subsets provide information about earthquakes, cyclones, and flood risks from national to district levels. In addition, landslide information is also available at a similar resolution. These however are not of much use to families and neighbourhoods as their resolution is very poor and there are very significant variations within one category of vulnerability that they identify.

Hazard warnings primarily come from the meteorological department, some new private players, and government departments that monitor specific data such as river flows. The forecasts are however very vague in nature and do not reveal the exact impact that can be expected at a particular location, such as the level of flooding or the impact of storm winds.

As a result, the vulnerability information and disaster warning are often not even taken seriously, and loss of life and property takes place. This, though applicable for all disasters, is most visible in the case of annual floods across the country.

**Sunny Lives:** AI for Humanitarian Action project will change the way neighbourhoods use disaster related information to make decisions and to act for avoiding loss of lives and assets. Information about their inherent vulnerabilities will be available with a very specific context of their region and surroundings. Disaster alerts and warnings will be in forms that will tell them exactly what is expected in their current location and when, and what immediate action they should take. This will be backed with community plans that would have been prepared in advance through a consultative process.

The proposed approach involves the processing of very large volumes of data, virtually impossible to be carried out with manual processes involved. With each house, school, and public building of the country being a pixel with specific and unique attributes, data on vulnerability and warnings need to be correlated and made available in an easy format. In particular, the warning data will need to be processed in near real-time.

Many of the attributes of location-specific vulnerability and anticipated disaster impact have to be derived from secondary information, such as the building material commonly found in a cluster/neighbourhood that tells us how it will behave in a storm or flood of a specific strength. These interpretations are based on principles that can be programmed into machine learning and can be extended over wide geographies, with improvements over successive cycles.

The project will be able to demonstrate with evidence, how better information can save lives and property, and change mindsets.



# ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE

Finding ways to adapt and live with nature

## Partners for Resilience: Strategic Partnership

What does risk mean in a broader sense? Since 2016, we've been exploring this question as part of the Partners for Resilience (PfR) programme. It takes the lens of Integrated Risk Management, a multi-disciplinary approach combining disaster risk reduction, climate change adaptation and ecosystem restoration at the same time.

SEEDS has been working across Mahishi block, located on the eastern flanks of River Kosi in Saharsa District of North Bihar. The block is inhabited by 0.2 million people who draw sustenance from agriculture and allied activities primarily within river flood plains. The focus is on water risks and a multi-sectoral approach for managing disasters.

Specific activities facilitated under the programme vary from community-based early warning systems to the development of long-term vulnerability plans. Another key aspect to the programme is the generation of strong social capital. A citizen forum was formed at the district level with members coming from all walks of life.

These activities are helping take into view the larger perspective of landscape and long-term risk analysis. For example, seven gram panchayats have developed seasonal calendars to assess climate related risks in general and livelihoods in particular. These track seasonal changes and climate-related hazards, helping plot seasonal farming activities.

The changes in mindset are visible. Individuals are establishing linkages with available developmental schemes and policies. These are being leveraged for uses from a pond construction scheme (artificial wetland) to planting trees under Krishi Vaniki Yojna (a scheme to promote agroforestry among local farmers).



Farmers have also been motivated to use Jaivik (organic) fertilizer and set up vermicomposting units. The agriculture department now provides a 40 percent subsidy to farmers engaged in vermicomposting.

The initiative continues to improve preparedness to prevent losses. It's exploring the protection of natural wetlands as buffers against floods. Ultimately, it's a step toward building harmony between people and their environment.

This year, the focus was on integrating IRM into how Gram Panchayat Development Plans (GPDP) are prepared, specifically to reduce water risk through wetlands management. Continuous engagements with the Panchayati Raj Institutions to familiarise them with the concept has borne fruit.

A fund of INR 57 crore was also leveraged for wetlands management with the collaboration of SEEDS, Wetland Management, Gram Panchayats and local CSOs. Resources have also been collated from the different line departments under various schemes for village development. 10 GPs have developed their panchayat level matrix on IRM measures and submitted it for inclusion in the GP Development Plan 2020-21.

## IN FOCUS

### Wetlands as livelihoods

Narayan Mukhiya from Narwar panchayat is the secretary of Mahishi Block Cooperation Fisheries Association (Matsya jivi Sahoyog Samiti). The association gets wetlands on lease from the government and further lease out to various groups of fishermen and farmers for fish farming and makhana (fox nut) cultivation. The association holds around 2000 acres of wetlands.

Having attended the PfR meetings, he was motivated to access benefits from government schemes. For the first time, Narayan took the initiative to apply for 13 new wetlands from Maheshi Block Revenue Department and has succeeded in the task. He has also assisted 433 fishermen to access the central government accident insurance scheme- Pradhan Mantri Suraksha Bima Yojna.



# EDITORIAL COVERAGE

## MY FIVE

Anshu Sharma  
Co-founder, SEEDS



A handshake here, a high-five there, amazing energy boosters!

- 1 A happy start to the day gets things rolling on the right note. I look out of the window, and take in the sky, trees, birds and squirrels who are already merrily at work before I am up. I wake my child up with a new fun activity each day, and things are already feeling good.
- 2 A day of focus on ideas, not people and incidents, is my kind of a day. I thrive on solutions, minimising the time I complain about problems. Usually by breakfast time I have already had a few ideas to fuel my day with. Breakfast is light, and includes some fruit and nuts in it.
- 3 Stop eating before you are full, is the mantra to eat whatever you like but still be fit. I let my mind tell me how much to eat, and not my stomach. I also limit snacks, and avoid late-night eating.
- 4 An evening walk in the park with natural sights and sounds is my favourite exercise. I like to absorb the chirping of birds and the squealing of the children at play, and have never used headphones and music with beats or simulated sounds for my walks. A handshake here, a high-five there and a greeting to some elderly neighbours sitting on the benches are all amazing energy boosters.
- 5 A good night's sleep is finally a healthy wrap-up to a day well lived, and is best ushered in with a few minutes of a good read. I aim to have at least seven hours of sleep, which is not just akin to charging batteries but is also maintenance time when the body and mind self-repair the wear and tear of the day, and get me geared up for a great tomorrow.

## Disaster management requires more than skills

Dr Anshu Sharma  
anshu@seedsindia.org



Rescue operations are among the key responsibilities

There were 3,251 reported disasters across the world over the last ten years, more than one every day. Many disasters don't make news headlines, but affected people still require assistance to survive the shocks. About 134,000,000 people across the world needed assistance last year, according to the UN. India, and in fact the entire South and South-East Asia region, is among the most disaster-prone parts of the world witnessing floods, cyclones, droughts, extreme heat, warm landslides, wildfires and earthquakes throughout the year in different regions respectively.

The much-needed humanitarian assistance to affected communities is mostly provided by UN and other international organisations, government agencies, the Red Cross and NGOs. There are dedicated teams in these organisations that comprise trained and motivated professionals, who go about helping people in certain day-and-night. It is important to understand that working in areas of post-disaster relief, rehabilitation and disaster risk reduction comes with immense stress with humans and their emotional and mental well-being.

The work of disaster managers is often most visible when they are conducting search and rescue operations or distributing relief materials to disaster victims. They, however, carry out a wide range of activities behind the scenes to make these operations successful despite the challenging environment and terrain. The only motive is to save lives, homes and schools with dignity.

The word 'management' is integral to disaster management. Management skills are

needed in each and every aspect of disaster relief, recovery, preparedness and mitigation, hospitals, people, communication, transportation, distribution and crowd keeping all have to be managed. Disaster management is not merely the study of administration of programmes and resources for responding to disaster emergency situations occurred naturally or by any human-made disaster. There are two kinds of educational entry routes into a disaster management career: a degree in disaster management or a degree in disaster management or a degree in disaster management or a degree in disaster management.

There are good employment opportunities in government as well as private organisations. The employment opportunities come from government organisations such as the NDMA, UN agencies, international organisations working in the humanitarian space and NGOs. Self-driven aspirational candidates who are passionate serve humanity and make a difference with a will to connect with those in need have a great professional prospect in the field.

Dr Anshu Sharma, Co-founder, SEEDS

## CM unveils Safety First Carnival in Dehradun

By Anshu Sharma



Uttarakhand Chief Minister Pushkar Singh Dhoti on Monday unveiled the Safety First Carnival in Dehradun. The carnival is a part of the state government's initiative to raise awareness about disaster management and safety among the people of the state.

The carnival is a part of the state government's initiative to raise awareness about disaster management and safety among the people of the state. It features various activities, including a quiz, a drawing competition, and a dance performance. The carnival is expected to attract a large number of people and will run for several days.

## Feel Good Factor

### They prepare people against nature's fury



Dr Manu Gupta (centre), co-founder of Sustainable Environment and Ecological Development Society

### Dr Manu Gupta's organisation helps create long-term resilience of communities and citizens

By Anshu Sharma  
In New Delhi

A string of disasters that hit India in the 1990s led to huge loss of lives. Among the victims, a large number were the poor and those who live on the margins of society. The unfortunate part is that many of these disasters could have been avoided. This tragic realisation set Dr Manu Gupta, then a student at Delhi's School of Planning and Architecture, thinking.

This was the trigger that made Gupta team up with his classmate Anshu Sharma to set up the Sustainable Environment and Ecological Development Society (SEEDS) in 1994.

At the onset of the 1990s, with the winds of liberalisation sweeping across the country, the organisation took some time finding its feet. But every visit to a disaster-hit area was a lesson learnt. "Visiting a couple of villages in Bihar, we discov-

### Every visit to a disaster-hit zone was a new lesson

ered how public schemes were still not reaching the people. But the 1998 cyclone in Gujarat changed things. Close to 400 salt pan workers died in the Rann of Kutch. Most of the deaths were caused coming to the roofs flying off. A small thing like a book could have saved many lives," says Gupta.

The 1998 earthquake in Gujarat was another turning point for Gupta and his team.

"We chose an area in earthquake-affected Gujarat and lived there for two years, doing reconstruction work. We provided technical support from architects and engineers and a certain amount of house repairs to get their homes built along with government compensation. For one

## Let's manage risks, not disasters

As the world's population continues to grow, the risk of natural disasters is increasing. The world is becoming more vulnerable to natural disasters, and the impact of these disasters is becoming more severe. This is due to a combination of factors, including climate change, deforestation, and population growth.

It is important to understand that disasters are not inevitable. They can be prevented or their impact can be reduced by taking proactive measures. This involves a combination of risk assessment, disaster preparedness, and disaster response.

Risk assessment is the process of identifying and evaluating the potential risks to a community or organisation. This involves understanding the hazards that could affect the community, the vulnerability of the community, and the potential consequences of a disaster.

Disaster preparedness is the process of developing and implementing plans and procedures to reduce the impact of a disaster. This involves developing a disaster management plan, conducting drills, and ensuring that the community is aware of the risks and knows what to do in the event of a disaster.

Disaster response is the process of providing immediate assistance to the victims of a disaster. This involves providing food, shelter, medical care, and other essential services. It also involves coordinating with government agencies and other organisations to provide assistance.

By taking these proactive measures, we can reduce the impact of natural disasters and protect the lives and property of our communities.

## Disasters set communities back by decades

Disasters have a profound impact on communities, often setting them back by decades. The destruction of infrastructure, loss of livelihoods, and displacement of people can have long-lasting effects. It is important to understand that disasters are not just a one-time event. They can have a ripple effect that impacts the community for years to come.

One of the most significant impacts of disasters is the loss of infrastructure. This includes roads, bridges, schools, and hospitals. The loss of infrastructure can make it difficult for the community to recover and rebuild. It can also lead to a loss of jobs and income, which can further exacerbate the economic impact of the disaster.

Disasters can also lead to the displacement of people. Many people are forced to leave their homes and communities, often with little notice. This can have a profound impact on their lives, as they lose their homes, their belongings, and their sense of community.

It is important to understand that disasters are not just a problem for the victims. They are also a problem for the community as a whole. Disasters can lead to a loss of trust in government and other institutions, and they can create a sense of fear and uncertainty. It is important to take steps to prevent disasters and to help the community recover from the impact of disasters.

## 'भूकंपरोधी होंगे स्कूल भवन'

श्रीमान् भूकंपरोधी स्कूल भवन का उद्घाटन



श्रीमान् भूकंपरोधी स्कूल भवन का उद्घाटन

The inauguration of the earthquake-resistant school building was a significant event. The building is designed to withstand earthquakes and provide a safe environment for students. The inauguration was attended by government officials, community leaders, and the local population.

The building is a testament to the government's commitment to providing safe and quality education for all. It is a step towards building a more resilient and disaster-prone community. The building is expected to serve the community for many years to come.

# OUR PARTNERS

The various activities carried out by us are made possible through the support of individuals and organisations. We gratefully acknowledge the financial, material, moral and technical support of the following partners.

1. Asian Disaster Risk & Response Network (ADRRN)
2. Bata India Limited
3. Club Mahindra
4. CRISIL
5. Deloitte
6. DXC (Xchanging Technology Services India Private Limited)
7. Friends of SEEDS and individual donors
8. Give2Asia
9. Global Network of Civil Society Organisations for Disaster Reduction (GNDR)
10. Godrej
11. Google
12. Honeywell Hometown Solutions India Foundation
13. Indiana University
14. Kryfs Power Components Ltd (KRYFS)
15. Kundan Trust
16. Microsoft
17. Ministry of Home Affairs, Government of India
18. National Disaster Management Authority
19. Oak Foundation

20. Partners for Resilience (PFR)
21. Price Waterhouse Coopers (PwC)- US
22. SDM
23. SEEDS Asia
24. Sterlite
25. United Way of Chennai (UWC)
26. United Way of Hyderabad (UWH)
27. United Way of India (UWI)
28. United Way Mumbai (UWM)
29. United Nations International Children's Emergency Fund (UNICEF)
30. United Nations Office for Disaster Risk Reduction (UNDRR)
31. Vestas
32. Wetlands International

## A Special recognition of our amazing partners on the ground:

1. Aadhar
2. Astha Sewa Sansthan
3. Amity University
4. Ambedkar University
5. North-East Affected Area Development Society (NEADS)
6. Kajla Janakalyan Samiti (KJKS)
7. Prerana Foundation
8. Purvi Delhi Aapda Prehari (PDAP)
9. Sargakshetra Charitable Trust
10. Spandan
11. Yuganter



# Administrative Expenditure Balance Sheet

SUSTAINABLE ENVIRONMENT AND ECOLOGICAL DEVELOPMENT SOCIETY  
Address:- 315, Kailash Tower -I, Mount Kailash New Delhi - 110065

BALANCE SHEET AS AT 31 <sup>st</sup> MARCH 2020			
	SCHEDULE	F.Y. 2019-20	F.Y. 2018-19
<b>SOURCES OF FUND</b>			
<b>I.FUND BALANCES:</b>			
a. General Fund	[01]	1,37,84,882	1,34,59,258
b. Project Fund	[02]	7,61,53,211	1,52,80,337
b. Corpus Fund	[03]	46,77,711	46,77,711
b. Asset Fund	[04]	38,74,319	41,24,583
b. Specific Fund	[05]	-	5,76,65,911
<b>TOTAL Rs.</b>	<b>[ I + II ]</b>	<b>9,84,90,123</b>	<b>9,52,07,800</b>
<b>APPLICATIONS OF FUND</b>			
<b>I.FIXED ASSETS</b>			
Gross Block	[06]	1,06,81,477	98,21,675
Less: Accumulated Depreciation		68,07,157	56,97,091
Net Block		<b>38,74,320</b>	<b>41,24,584</b>
<b>II. INVESTMENT</b>	<b>[07]</b>	<b>1,46,51,793</b>	<b>2,29,21,307</b>
<b>III.CURRENT ASSETS, LOANS &amp; ADVANCES:</b>			
a. Loans & Advances	[08]	26,50,950	27,65,554
b. Cash & Bank Balance	[09]	8,86,41,629	7,19,80,861
c. Other Current Assets	[10]	5,01,679	1,45,800
	<b>A</b>	<b>9,17,94,257</b>	<b>7,48,92,215</b>
<b>Less: CURRENT LIABILITIES &amp; PROVISIONS:</b>			
a. Expenses Payable	[11]	13,08,557	11,93,731
b. Other Current Liabilities	[12]	1,05,21,690	55,36,576
	<b>B</b>	<b>1,18,30,247</b>	<b>67,30,307</b>
<b>NET CURRENT ASSETS</b>	<b>[ A - B ]</b>	<b>7,99,64,010</b>	<b>6,81,61,908</b>
<b>TOTAL Rs.</b>	<b>[I+II+III]</b>	<b>9,84,90,123</b>	<b>9,52,07,800</b>

Significant Accounting Policies and Notes to Accounts [17]  
The schedules referred to above form an integral part of the Balance Sheet.

For & on behalf :  
S.Sahoo & Co.  
Chartered Accountants  
Firm No. 322952E

CA Subhajit Sahoo, FCA, LLB  
Partner  
MM No. 057426

Place: New Delhi  
Date:

For & on behalf :  
Sustainable Environment and Ecological Development Society

Manu Gupta  
Vice President

Anshu Sharma  
Secretary

SUSTAINABLE ENVIRONMENT AND ECOLOGICAL DEVELOPMENT SOCIETY  
Address:- 315, Kailash Tower -I, Mount Kailash New Delhi - 110065

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 <sup>st</sup> MARCH 2020			
	SCHEDULE	F.Y. 2019-20	F.Y. 2018-19
<b>I. INCOME</b>			
Grants & Donations	[13]	19,65,90,738	9,54,41,810
Interest Income & Other Income	[14]	39,95,046	58,31,105
<b>TOTAL</b>		<b>20,05,85,784</b>	<b>10,12,72,915</b>
<b>II. EXPENDITURE</b>			
<b>Program Expenditures</b>	<b>[15]</b>		
Relief of the poor		10,40,52,898	5,76,44,711
Education		8,68,44,621	4,97,06,118
Yoga		-	-
Medical Relief		-	-
Preservation of Environment		31,28,002	1,49,97,753
Preservation of Monuments or Places or Objects of Artistic or Historic Interest		-	-
Advancement of any Other Object of General Public Utility		-	-
<b>Administrative Expenditures</b>	<b>[16]</b>	<b>21,67,872</b>	<b>-</b>
Depreciation		11,10,066	9,55,310
Less: Transferred to Asset Fund		(11,10,066)	(9,55,310)
<b>TOTAL</b>		<b>19,61,93,393</b>	<b>12,23,48,584</b>
<b>III. EXCESS OF INCOME OVER EXPENDITURE</b>	<b>[ I - II ]</b>	<b>43,92,391</b>	<b>(2,10,75,670)</b>
Less :-Transferred to Indian Flood 2017		-	(2,46,96,485)
Less: Transferred to School Safety Project-HW		-	(4,75,90,073)
		<b>43,92,391</b>	<b>5,12,10,688</b>

Significant Accounting Policies and Notes to Accounts [17]

The schedules referred to above form an integral part of the Income & Expenditure A/c.

For & on behalf :  
S.Sahoo & Co.  
Chartered Accountants  
FRN: 322952E

CA Subhajit Sahoo, FCA, LLB  
Partner  
MM No. 057426

Place: New Delhi  
Date:

For & on behalf :  
Sustainable Environment and Ecological Development Society

Manu Gupta  
Vice President

Anshu Sharma  
Secretary







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