



SEEDS
25 years

Building Back Better
for 25 Years

Annual Report | 2018-19





Keynote by Founders | 25 Years of SEEDS

Dear Friends,

This year we reached our 25th year milestone of an unforgettable journey spent in developing purpose and corresponding actions for an idea that was born in a college canteen. In these twenty five years, as we turned the page to a new century, the challenges of natural environment and disasters have taken centre-stage in national and global discourse. 2018-19 has been perhaps among the worst years in India witnessing far more climate extreme events than ever before.

A spate of floods hit different parts of India, including Assam, Bihar, Gujarat, and West Bengal. The State of Kerala faced its worst floods in more than 100 years. We responded to every emergency with promptly seeking to meet the needs of the most affected communities.

In facing the challenges of increasing scale and complexity of natural hazards, we have begun developing a nation-wide alliance of local community organizations who bring in a better understanding of the local contexts and strong relationships with the local communities. Fostering local leadership and action, has been our key advocacy position in all national and global forums. Along with the Asian Disaster Reduction and Response Network (ADRRN) and United Nations Office for Disaster Risk Reduction (UNDRR), we organised the second Asian Local Leaders Forum for Disaster Resilience (ALL4DR) this year felicitating local leaders from across Asia at an inter-ministerial event.

Harnessing technology for social good – in achieving scale and inclusivity SEEDS has pioneered use of disaster maps generated by Facebook in tracing movement of people post-floods in Kerala. We also piloted in India a global initiative by Google using Artificial Intelligence for the first time ever to generate alerts for floods in the Ganga-basin in Bihar.

Humanitarian innovation too, has become an integral part of the SEEDS' practice and can be seen across our programmes this year through be it installation of terra-filters in Bihar or introduction of art therapy in our safe school programme in Delhi as part of our 'building to well-being' approach. Reflecting on our work over the years in India, we published a report called 'The Face of Disasters' which delves into the changing nature of disaster risks as we knew and looked at our common future.

Amidst these new realities of the 21st century, SEEDS has geared itself with a new organizational structure and dynamic team of young leaders. While the past 25 years have made it possible for the idea to germinate into an agile and mature organization, we hope over the next 25 years it can take the shape of a societal movement with resilient communities at the centre.

Anshu Sharma & Manu Gupta
Founders, SEEDS



VISION

Resilient 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.

GUIDING PRINCIPLES

- Prompt in our action
- Identify and reach out to the most vulnerable
- Facilitate community participation in decision making
- Adapt to local and cultural environment
- Non-discriminatory in our approach
- Focus on individual
- Promote excellence

SEEDS is a member of and signatory to:

- The Code of Conduct for The International Red Cross and Red Crescent Movement
- SPHERE Standard in Humanitarian Aid
- The International Council of Voluntary Agencies
- Asian Disaster Reduction and Response Network (ADRRN)
- Active Learning Network for Accountability and Performance (ALNAP)
- Core Humanitarian Standard (CHS) - an international certification system for quality and accountability in disaster relief.

OUR APPROACH

From our humanitarian response and early recovery programmes to reconstruction, training and innovation activities, SEEDS takes a long-term and inter-connected approach to its work. SEEDS takes a broader and integrated approach to ensure maximum impact. Our housing and school construction projects are all customised and look at key related elements. As appropriate this includes elements around clean water, sanitation access and hygiene; livelihood enhancement; behaviour change and awareness campaigns; and mason training.

We push the use of local (and where possible natural) materials and integrate modern disaster resistance techniques with traditional practices. As appropriate, this has included bamboo, wood, stone, mud, CGI sheeting, traditional grasses and often the use of salvaged material in the aftermath of a disaster. This approach of melding with the local culture, rather than importing foreign materials, helps decrease the carbon footprint and has social benefits.



RESPONDING TO AFFECTED COMMUNITIES

Asia, the most disaster prone continent, experienced more than half of the world's major disasters in the last half century. SEEDS acts with urgency to save lives and get affected communities back on their feet. We focus on emergency tents and early recovery housing as the situation demands. Related non-food items – utensils, blankets and essential hygiene items are also addressed. This is carried out with due regard for human dignity, respect for local cultures and values and accountability towards all stakeholders.

Perhaps most importantly, we aim to start the recovery and reconstruction process from the very first day. Through it all, SEEDS continues to contribute and advocate for better coordinated and improved quality of response at all levels.

BUILDING BACK HOMES

The reconstruction process is an opportunity not just to restore what was lost, but to help the community better withstand future disasters. Once the immediate humanitarian response is over and the disaster is no longer in the news, communities are mostly left to recover alone. Families cannot survive in tents alone until government schemes materialise. Rather than risking unsafe rebuilding, SEEDS' works with the most vulnerable families to create transitional shelters. These follow cultural norms, often using materials that are local. They incorporate disaster reduction techniques. These homes are the foundation towards permanent housing.

Our sustainable housing model refers to shelters that are culturally apt, environmentally suitable, safe and secure. Continuous engagement with emerging architects and engineers on indigenous designs and technologies complements this approach. Bridging the gap between knowledge and practice, SEEDS also trains local masons and construction workers on retrofitting and safe construction practices.

REBUILDING SCHOOLS AND EDUCATING FOR DISASTER PREPAREDNESS

Disasters cause disproportionately high damage to school infrastructure and re-establishing education is one of the key priorities. For a school is more than a building. It's a place for children to learn, to play, to be safe, to be inspired and to grow. In the aftermath of a disaster, it is also one of the most important ways for them to heal. Our efforts are not just to rebuild, but to upgrade school buildings. Existing school structures are strengthened through retrofitting. For safer schools mean safer communities.

This is complemented by school safety and preparedness initiatives. The programme works to ensure that the school community is better equipped to respond and involves the neighbouring communities. This includes training on life saving skills, effective response and the development of school disaster management plans. SEEDS also works with frontline workers to build their capacity to deal with and respond to disaster risks.



HELPING COMMUNITIES ADAPT FOR RESILIENCE

Often communities face multi-faceted problems that require a pre-emptive approach. Growing impacts of climate change, unplanned urbanisation and underlying risks add to this vulnerability. SEEDS is committed to empowering local communities to better withstand these risks; making them leaders in building their own resilience. This overall resilience perspective includes elements such as adapting for livelihood security; managing and mitigating financial and environmental risks; access to clean water; and advocacy for change.

Community-led forums have brought together people from various walks of life to take up neighbourhood issues and advocate with local governments for change. These forums act as a collective learning and action hub to reduce day-to-day stresses. They also create an enabling environment to strengthen government-citizen partnership.

IMPARTING SKILLS TO BUILD SAFELY

Bridging the gap between knowledge and practice, SEEDS trains local masons and construction workers on retrofitting and safe construction practices. This is done onsite during reconstruction programmes and through the SEEDS Academy. It imparts fundamental skills and knowledge of disaster-resistant techniques to construction workers. The SEEDS Masons Association, which began in Patanka after the Gujarat earthquake is slowly expanding. Members of SMA have since worked on our reconstruction projects in the Andamans, Kashmir, Bihar, Ladakh, Nepal and Tamil Nadu.

PARTNERING AND INNOVATING FOR CHANGE

Understanding local knowledge and broader trends is essential to apply fresh input to on-ground projects. SEEDS' programmes are supported by strategic partnerships and innovative action research. It cooperates and networks with allied groups for knowledge exchange and to reach out more broadly. At the same time, it conducts research and experiments with innovations.



AWARDS

- CNN-IBN Indian of the year 2010 for Public Service
- Drukpa Award 2011 (for rehabilitation work in Ladakh)
- UNFCCC 2013 Momentum of Change Lighthouse award (for community-based micro climate resilience project in Gorakhpur, Uttar Pradesh)
- 'Catalysts of Change – Ladakh' awarded best film in the Climate Change Adaptation category at Asia Ministerial Conference for Disaster Risk Reduction (AMCDRR) 2016
- GuideStar India NGO Transparency award 2016 (Gold Level)
- Recognised as Sendai Target Champion for reducing disaster mortality by UNISDR (for work on affordable and safe housing)
- Asian Broadcasting Union (ABU) award for 'Catalysts of Change Ladakh' in 2017
- Honorable mention of Resilient Homes Design Challenge, 2018

ACCOUNTING SYSTEMS

SEEDS (Sustainable Environment & Ecological Development Society) was incorporated on January 31, 1994 as a voluntary organisation under the Societies Act 1860. SEEDS is registered under Section 12A of the Income Tax Act, 1961 of India. SEEDS also receives foreign contributions and has been granted registration under Foreign Contributions Regulation Act (FCRA). The permission is valid until 2021, after which the renewal will be done again.

SEEDS undertakes various projects, so the accounting is done project wise. SEEDS maintains three separate set of books of accounts as: First set of books to comply with the requirements of Foreign Contributions Regulation Act and accounts for contributions & expenses on foreign contribution projects; second set of books for local projects and office overheads and third set of books for International Projects.

Besides compliance under various Accounting Standards issued by the Institute of Chartered Accountants of India, SEEDS also maintains its accounts as per the requirements of donor organisations. SEEDS financial year commences on April 1 of every year and ends on March 31 of the subsequent year. It follows accrual basis of accounting. We have a centralised accounting system maintained at the Head Office.

An independent auditor audits all accounts of SEEDS every year. As per law, SEEDS submits yearly statement of Foreign Contributions to the Ministry of Home Affairs. We also submit yearly Income Tax returns to the Government of India along with Balance Sheet covering all projects and activities. Close monitoring of all project budgets is done based on the monthly reporting of expenses and progress of projects.

BOARD OF DIRECTORS



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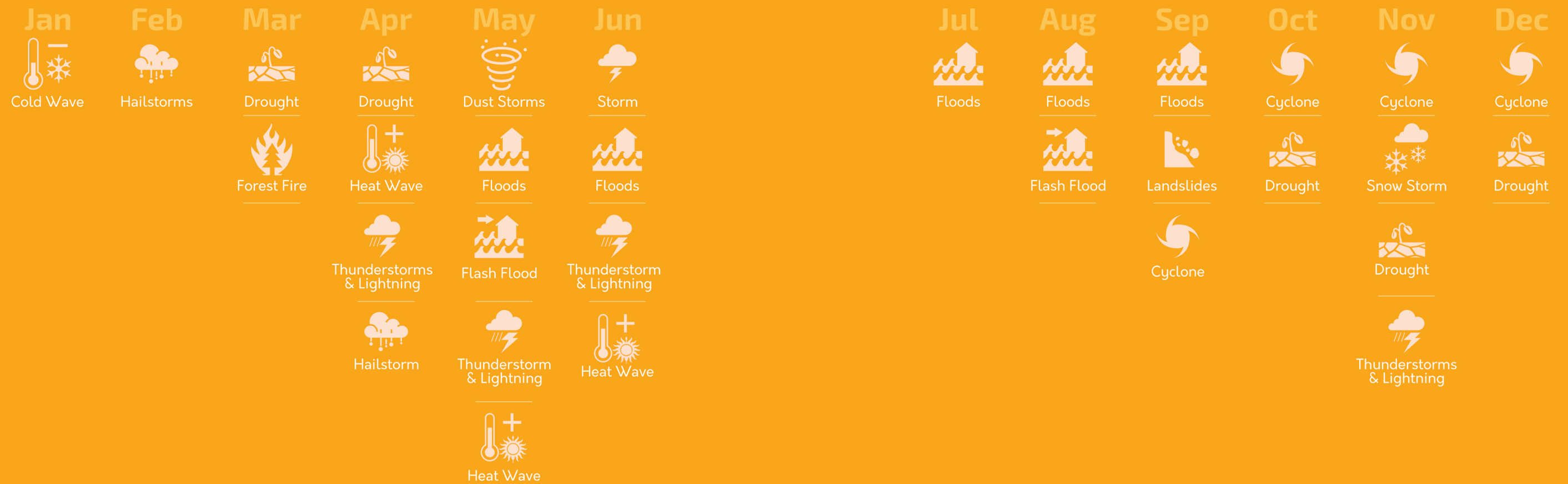


Prof. Rajesh Bheda
Member



Ms. Samrita Das Sharma
Member

A Year of Disasters in India 2018-19 | A Glance



Too much and too little water

14 depressions, **4** cyclones, devastating floods across half the country, yet a deficient southwest and northeast monsoon. **8** states had already declared drought between October – December 2018.

Changing rainfall patterns

There's been skewed distribution in rainfall. Periods are shifting, peak days are rising and the number of actual wet days have decreased. That's one of the reasons why we're seeing floods and droughts in parallel.

Growing complexity

All disasters are complex! This year saw multiple triggers for floods (extreme rainfall, landslides and dam-openings). Irretrievably damaged ecosystems will see long-term losses that far outweigh the damages calculated.

Creeping or unseen

Multiple disasters passed by ignored (think Nagaland floods or Cyclone Daye in Odisha as examples). Others are intensifying under the radar. Groundwater is rapidly depleting. Heat and air pollution are taking unseen polls.

25 Building Back Better for years Anniversary Retrospective



1994

Born out of the desire to do something of their own, SEEDS was co-founded as a college start-up by two young graduates, Dr. Manu Gupta and Dr. Anshu Sharma, of the School of Planning and Architecture (SPA), New Delhi. On the advice of their professor, Dr. Vinod Sharma, who taught them rural development, they registered as Sustainable Environment and Ecological Development Society (SEEDS) on 31 January 1994.



In the initial years of self-discovery, the co-founders travelled from the tribal villages of Madhya Pradesh, where they learnt about the plight of tribals displaced by a dam, to the 'Chipko' heartlands of Uttarakhand, where they met local eco-warriors fiercely protecting their trees and forests. They even organised cricket tournaments to raise awareness on risk reduction and undertook several projects.



1995

After the 1995 floods in Delhi, the co-founders embarked on a self-funded study to do an initial vulnerability mapping of Delhi, which became their first major study in 1996 titled, 'Delhi At Risk'. The study caught the attention of a UK-based organisation, which in 1997 funded their first ever project - undertaking urban risk reduction in Delhi and Ahmedabad.

1998

The June 1998 deadly tropical Cyclone in Kandla, Gujarat, which cost 10,000 lives and the 1999 Super Cyclone in Odisha, stirred the co-founders to action. The shocking realisation that 400 salt pan workers died merely because flying tin roofs knocked them, made them think of simple J-hooks (for holding roofs secure) that could have saved lives in Kandla. Anguished at the gap between knowledge and its outreach, they found their humanitarian calling knocking at the door.



2001

Year 2001 was defining. Upon hearing about the devastating earthquake in Gujarat, the co-founders drove into action, mobilised partnerships and resources and adopted an earthquake-affected village called Patanka. They hired two masons from Nepal and began reconstruction work with the locals. A team of five, they undertook the enormous task of rebuilding two schools, a community centre and 200 homes. A transformative experience, it convinced them about SEEDS' core identity going forward - empowering communities to become resilient in the face of disasters.



This is also when the SEEDS Masons Academy came into being. Today, it trains local masons to build disaster-resilient buildings combining traditional and modern techniques.



2004

The 2004 Indian Ocean Tsunami shook India and the world. While most organisations rushed to the affected areas covered on the news, SEEDS travelled to the remote and far-off islands of the Andamans, specifically, Hutbay Island, and worked day and night with local communities to restore lives of the Islanders.

Also in 2004, on the centenary of the deathly 1905 Kangra earthquake, SEEDS demonstrated to the local community in Kangra, Himachal Pradesh, the importance of retrofitting as an inexpensive way to make buildings disaster-resilient. It trained local masons to accomplish the same.

2005

After 2005's massive earthquake that shook Jammu and Kashmir and North India, SEEDS reached out to the most vulnerable and neglected communities residing along the Line of Control (LoC) in Poonch district, an area untouched by most other humanitarian organisations. SEEDS built 404 shelters in 40 days across 40 villages. Race against time in ensuring a roof for the families and the sensitivity of the area made humanitarian work a challenging task.



2006

In 2006, since very few were talking about risk reduction, SEEDS undertook parvat yatra (mountain treks) in the Himalayas and tat yatra (coastal treks) along the Indian coast, roaming from village to village to make vulnerable communities aware of the disaster risks they faced. With shake-table tests and wind tunnels, the team demonstrated seismic bands, traditional techniques and the importance of earthquake-and-cyclone-safety.

2006 is also the year in which SEEDS pioneered the construction of improved traditional housing systems with cylindrical, climate-and-disaster-resilient houses after the flash floods in Rajasthan's drought-prone desert region of Barmer. The high point of the project was that traditionally marginalised groups including nomadic musicians were the primary focus of the programme, and this received support across the board.



2008

In 2008, SEEDS implemented the 'bio-shield' project in Tamil Nadu, where the coastline ecosystem faces the risk of disasters ranging from cyclones, heavy rainfall flooding, water-stagnation to freshwater depletion and shoreline erosion. As the bio-shields successfully developed, they covered an area of 35,651 square metres with healthy trees and brought about a change in the perception of the communities about the necessity of bio-shields as buffers against natural disasters.

2008

The 2008 Kosi flood in Bihar was an extraordinary disaster that came unexpectedly with embankment breaches and changes in the river course, and affected millions. In the post-disaster scenario, SEEDS endeavoured to go beyond shelters to provide sustainable housing, which ensured safety, quality and livelihood enablement.



2010

In 2010, flash floods in cold desert of Leh Ladakh wreaked havoc in the region. SEEDS worked round-the-clock to rebuild locally appropriate houses before the onset of harsh winters. Houses with stabilised compressed earth blocks or rammed-earth technique were constructed with risk reduction, thermal comfort and eco-friendly features keeping in view Leh's altitude and seismic vulnerability. This won SEEDS the CNN-IBN Indian of the year Award 2010 for Public Service.



2013

The statistics and damage unleashed by the Uttarakhand cloudbursts and flash floods in 2013 were heart-wrenching. Amidst well-meaning but uncoordinated relief efforts, SEEDS identified two key areas where humanitarian assistance was urgently required. One, it provided family tents since women's privacy was being compromised in common government shelters. Second, it provided utensil sets to the most vulnerable and needy families who had lost everything.

The same year, as Cyclone Phailin ripped through Ganjam district in Odisha, SEEDS provided direct relief to 1000 of the most affected and marginalised families in Ganjam. To make the houses both affordable and acceptable for marginalised families who lost their homes, SEEDS' Ganjam Aashray Yojana facilitated shelter rebuilding in 11 villages across 4 blocks of Ganjam district; constructing 50 houses and repairing 250 homes.

2014

In the aftermath of the torrential rains and floods in Jammu and Kashmir in 2014, which were declared a national calamity by the Government, SEEDS helped restore the lives, homes, schools and dignity of the worst-affected communities in Poonch and Pulwama districts. Beating all odds, especially the harsh winters and the security lockdowns in the valley, SEEDS built-back 192 shelters and over five schools to help communities get back on their feet.



2015

After the earthquake rocked Nepal in April 2015, SEEDS, in what was its first major international humanitarian response, worked as an extended arm of the Government of India to help 2,520 of the most vulnerable families (approximately 17,640 people) across 10 districts in Nepal to build and move into a new transitional home. This was a major milestone achieved in not only building resilience across the border but also furthering Indo-Nepal ties.



2017

In 2017, in partnership with the tech-giant Honeywell India, SEEDS pioneered a school safety programme to work towards an ecosystem-approach to child-safety focused on equipping 51 schools in East Delhi and the community around it with disaster-preparedness skills such that they could take their safety in their own hands. The programme has since been nurturing safety champions and is all set to be launched in the hilly state of Uttarakhand in 2019-20.



2018

81 robust bamboo shelters constructed through owner-driven process by SEEDS in Assam's Golaghat district in 2017 stood the test of flood waters in 2018. Several elderly individuals selected as beneficiaries with no family support found their homes restored and got a new lease of life. Similarly, after the heavy rainfall-induced unprecedented floods and landslides in Kerala in 2018, SEEDS responded with heart and soul to resurrect drinking water sources and homes to build resilience among communities.



At the heart of SEEDS' 25 year journey is the inherent resilience of the vulnerable communities affected by disasters. They are the co-partners and co-travellers without whose active involvement and determination, rehabilitation efforts cannot stand. Going forward, they have helped sharpen SEEDS' focus on

'Building Back Sustainable Habitat' – a holistic, ecosystem approach that views housing in relation to health, education, sanitation, livelihoods and the environment.



India Flood Response 2018
Restoring Lives, Homes
and Schools with Dignity

01





After I retired from the tea estate, I invested my savings to build a home for myself. The floods completely destroyed my home - I saw it collapse in front of my eyes. All my life's savings got washed away. I have been grief-stricken since, a part of me has still not come to terms with it. However, I feel very fortunate that I have been given a second chance to rebuild my home. My grandson and I have been an active part of the construction process since the beginning. We helped with the land clearance and levelling process and in order to strengthen the foundation of the shelter, we filled earth bags with soil. My grandson and I are preparing to move into our new home now. I feel peace in knowing that we will have a roof on our heads again.

Krishnan K., Wayanad district, Kerala

Kerala

Krishnan K. and his grandson were among the hundreds of families left grief-struck and traumatised after flash floods and landslides triggered by extreme rainfall and dam openings in August 2018. This devastated large parts of the state of Kerala and rendered people homeless. In close collaboration with government authorities, the local community and survivors themselves, SEEDS responded swiftly to help restore the lives of the most vulnerable communities in Wayanad district of Kerala.

We first reached out with immediate relief distribution and health camps. A total of 339 food kits, and 424 family utility and hygiene kits comprising cooking utensils, toiletries, bedsheet, solar lamp and other basic utilities were provided such that families could cope with dignity. Multi-specialty health camps organised to nurse the sick and injured benefitted over 5,400 patients and proved to be a critical substitute for local health centres damaged in the floods.

To ensure that there was clean drinking water, SEEDS also initiated village-level capacity building on chlorination and restored 145 community-wells contaminated by flood waters. Over 116 toilets were repaired and restored providing safer sanitation spaces to people and the distribution of 750 children's kits and classroom supplies helped children get back to their routine. We were also a part of the team working with teachers in Kerala on revising academic curriculums to include disaster management.





At the centre of all of this work were our efforts to help families like Krishnan K. and his grandson to rebuild a house they can call home. SEEDS constructed 99 such houses reaching 1,020 people so far and 156 more are under construction. These were designed with disaster-and-climate resistant features using local materials and resources and were built in partnership with the homeowners like Krishnan K. and his grandson. The direct involvement of these families ensured that their indigenous wisdom, ideas, aspirations and skills were utilised and got reflected in the final construction. This resulted in satisfactory smiles and renewed hope.

SEEDS took a holistic approach, looking at shelters, water & sanitation, education and health, with an emphasis on long-term local resilience. In the coming year, we hope to restore several child and nutrition centres (anganwadis), primary health centres and schools that lie severely damaged. These are local lifelines that have served the communities for years and restoring them would contribute to building long-term resilience of community members.

Going beyond the response and recovery was the building of a partnership with the Kerala administration and local officials. The spirit of recovery across the state was of a 'Nava Keralam' (New Kerala) including innovative citizen education strategies and a cross-cutting theme of climate resilience. SEEDS Co-Founders Manu Gupta and Anshu Sharma became part of the team working with Kerala's teachers on revising academic curriculums to include disaster management. Rather than add additional textbooks for children, the process looks at integrating it into the existing learning material.





The response to the floods was also a flood – a flood of goodwill, a flood of materials and a flood of support. And SEEDS is one NGO, which has been at the forefront of all these reconstruction efforts in Wayanad district – be it temporary shelters in panchayats or providing school kits to children who had lost their bags and notebooks. It is because of organisations like SEEDS that Kerala’s post-flood response has been tremendous.



Umesh Kesavan, Sub-collector, Wayanad District

MENTAL HEALTH AND DISASTERS An Urgent but Neglected Area

Other than Krishnan K., the SEEDS team met several men, women and children, including a school boy who was traumatised at the sight of the raging flood waters that devoured his home. After that, the boy desired that his classroom be moved to the top floor instead of the ground floor, which could get flooded. The devastation caused by floods can leave survivors intensely shattered and shocked. Therefore, a focus on restoring mental health in the face of disasters is pivotal.





Our house got washed away in the floods. After that, since we have no support, we moved to our relative's place. It was difficult to live in a small chang (traditional bamboo house on stilts) with other relatives. But we are very grateful to have our own chang now.

Elderly couple Padma and Loharam Narah

Assam

Abandoned by their only son and daughter-in-law and struggling to eke out a daily living in the absence of any support, Padma (70) and Loharam Narah (75) were among the many elderly home owners who moved into their own new-and-improved, disaster-resilient chang or traditional bamboo home, rebuilt as part of SEEDS' response last year to the floods in Golaghat district of Assam. Supported by Godrej, SEEDS enabled 81 such bamboo homes in collaboration with local partner, North-East Affected Area Development Society (hereafter, NEADS) in December 2018.

As the rain poured down this year, these homes continued to stand tall in the midst of rising waters. For these families, they proved safe havens, protecting life and preventing them from getting caught in a recurrent cycle of devastation. The flood waters, higher than usual this year, lapped at the floor but didn't enter, thanks to the increased 5-foot height that was instituted. The concrete foundation for each bamboo column dug down deep, anchoring the house in the soft soil. Cross-bracing added to the stability. The entire structure was put together with bamboo nails that are durable without causing any damage. A balcony provided a semi-open space that other homes lack.

Each home was built through community collaboration, in a long-standing 'hariya' system that is used for processes from harvesting to community infrastructure. With materials all sourced from within a six km radius, the homes are truly local, yet safer. SEEDS adopted an ecosystem approach to housing in Golaghat district where it looked at housing in association with sanitation and education. Drinking water units like raised handpumps and community toilets were restored and local community was equipped with knowledge about better sanitation and hygiene practices to ensure holistic resilience in the long run.





1. **Raised Toilet Construction:** One raised toilet with bathroom facilities was constructed at Nikori (Higimari) village as per the need of the villagers.
2. **Chlorination of Handpumps:** A total 100 hand pumps was chlorinated by the village youth volunteers at Nikori, Na-Nikori and Maj Chapori village.
3. **Distribution of the School kits:** A total of 500 school kits was distributed in 10 different schools.





I am happy we now have a space to read and study!

Vishal Pathori, child from flood-affected Nikori village



Vishal Pathori and his peers welcomed the traditional bamboo school built-back by SEEDS and its local partner NEADS with support from Give2Asia. Standing in a flood-prone area, the original structures of three schools in Salek, Gutung and Borbam villages were damaged in the 2017 floods and had to be replaced with stronger, more robust, flood-resilient structures. To ensure that children from these villages could once again resume education, the local community, led by the village headman, were consulted on sourcing local bamboo and mobilising local masons and bamboo artisans who would help with construction. Three schools with three classes each were constructed using traditional bamboo housing wisdom to enable the return of children to schools.





Sir, thank you very much for this shelter. If you hadn't selected me as a home owner, I would have had to live on the road with my children. This shelter will ensure the safety of my children and allow them to continue with their studies.

Sarathi Patra, mother of three whose home was swallowed by the floods

West Bengal & Gujarat

Neglected in her area for belonging to a so called 'lower caste', Sarathi and her family of six were living a hand-to-mouth existence when the floods of 2017 damaged their house. Thanks to SEEDS' core principle of reaching out to the most vulnerable and selecting the most marginalised as recipients of relief and shelters, Sarathi and her family could move into their newly constructed house.

Theirs was one of the 91 shelters that SEEDS together with local partner Kajla Janakalyan Samiti (KJKS) and supported by Give2Asia built-back in West Medinipur district of West Bengal. Without the consultative selection process, where SEEDS consults village members, district authorities and even children to identify who is most marginalised, many families like Sarathi's would have remained excluded from the flood rehabilitation process.

School education is among the invisible casualties of disasters. During floods, scores of school buildings are rendered unfit for holding classes due to leaking roofs, seepage, sludge-covered classroom floors and premises, damaged walls, inoperative toilets and absence of safe drinking water provision. School authorities halt all learning due to lack of other arrangements. This sometimes costs children a whole academic year before help comes knocking.

In order to restore education as top priority after the 2017 floods, SEEDS together with Godrej sought to transform learning spaces through repair and renovation in three schools of Banaskata district, Gujarat - Bilwas Primary School, Dhanera, Khariya Char Rasta Primary School, Khariya and Runi Primary School, Runi.

The School Principal at Dhanera was so impressed by the repair and renovation work that he remarked that he had never seen such technique and quality before. This is because the work undertaken by SEEDS in partnership with the local community was aimed at building back better, such that classrooms were transformed into safe and inspiring spaces that beckoned children from afar.



Never seen this type of renovation work with technique and quality!

School Principal in Dhanera.





Since the terra filter has been installed in my village, we are drinking water only from the filter and have benefitted a lot. We have got rid of gas and stomach related-illness and ailments. My family is very happy.

Neelam, mother of four, Sirbar village

Bihar

Two of Neelam's four children underwent major surgeries for stomach ailments in the past owing to the high and toxic levels of iron content in the water they were consuming. Her family, like many others in the area, suffered from recurring stomach-related ailments like gastroenteritis, stomach upset, diarrhoea, among other illnesses, and frequent visits to the doctor took a financial toll on the family. But information about the installation of the terra filter and its benefits transformed the suffering of families like Neelam's into a blessing.

A total of 12 terra filters, were constructed by SEEDS under the Give2Asia, CRISIL aand United Way of India (UWI) supported 'Safe Water and Improved Hygiene for Flood Affected Families of Saharsa', Bihar. The programme has come as a boon in the lives of the flood-affected families of Saharsa who are used to consuming poor quality water containing high levels of iron content and pesticides-and-agricultural-chemicals. Already a victim of water-related health problems such as weight loss, fatigue, joint-pain, nausea, the community becomes doubly vulnerable during disasters, especially during annual Kosi floods, which give rise to water-borne diseases such as diarrhoea, jaundice and dysentery.

To safeguard the community against such health complications, 12 terra filters, with eco-friendly 'terra disks' that thoroughly filter highly contaminated water unlike regular filters, a technology developed by DRDO in which SEEDS has been trained, were installed to provision safe drinking water. These filters were designed with ideas and feedback from the communities. Their success has ensured that flood-affected families, like Neelam's, have access to safe drinking water and are thereby more resilient to water-related illnesses and ailments.

To ensure the sustainability of the terra filters, SEEDS trained frontline health workers (ASHA workers, anganwadi workers, NRHM staff, ANM nurses), who play a pivotal role in monitoring the community's health, water, sanitation and good hygiene practices.



Nurturing Safety
Champions with
Honeywell Safe Schools

02





We cannot foresee the future but we can certainly prepare ourselves for anything unfortunate. Disaster preparedness sessions conducted by SEEDS in my school helped me realise the importance of having an emergency 'Go Bag' at home.



Jhankar, student in grade 8th, RSKV School, East Delhi, who assembled her own emergency 'Go Bag'

One year after SEEDS launched the unique Safe Schools programme with Honeywell India in 51 government schools of earthquake-prone East Delhi, thousands of students like Jhankar have come to understand the significance of being disaster-ready in their everyday lives. When 8th grader Jhankar presented her self-assembled emergency 'Go Bag' (comprising a First Aid kit, dry foods, personal hygiene items, essential documents and ID card, emergency numbers, money, flashlight, batteries, among other things) during her school assembly, it created a ripple-effect as other children were inspired to put together their own 'Go Bags'! Of course they hoped they would never need it!



Ask these children about disaster-resilient features in their schools, and they will proudly take you on a tour - of the evacuation plans on each floor, important 'exit', 'handwash', 'place your litter here' signages, the L-brackets that secure cupboards and shelves in their classrooms and even instruct you on precautions to take to safeguard against earthquakes, floods, fire or road accidents! Such confidence and learning can be attributed to the Disaster Risk Reduction (DRR) sessions facilitated by our passionate trainers using exciting and creative Information, Education and Communication (IEC) materials and games. The disaster-risk game with relatable characters is a hit with students and makes learning fun!



The vision of the Honeywell Safe Schools programme is to prepare these students as safety champions in-charge of their own safety in the event of disasters. And while students are the entry-point, the programme adopts an ecosystem approach to instilling a culture of disaster preparedness in the entire school, its teachers and staff as well as its surrounding community of parents, local leaders and government officials. It aims to reach 57,000 children, 40,000 parents and 2,356 teachers by 2020 with tailor-made solutions for the unique risks faced by each of the 51 schools.

What is noteworthy is that the programme takes a broader view of risk and customised solutions can range from structural assessments, non-structural mitigation measures, design changes, disaster management planning, creation of task forces and awareness building in fun and interactive ways. Broader campaigns with the community and linkages to the government to raise awareness around critical issues like road safety and water, hygiene and waste management too are undertaken!

The idea of 'safety' under the programme is an evolving one and currently encompasses a 'building to well-being' approach that not only ensures safety of the school building but also cares for the child's psycho-social safety and well-being. The programme's art-therapy and drum-circle sessions have helped many children from underprivileged backgrounds and broken homes to speak up, build self-confidence and dream again. Similarly, innovative installations like the 'Carbon-footprint Calculator' and the 'Snakes and Ladders' floor-game played by children, are an attempt to go beyond textbooks and create a child-friendly learning environment (CFLE) in schools.





In a bid to sensitize a large group of people and encourage volunteerism, SEEDS under Honeywell Safe Schools Program conducted Volunteer Engagement every month. The team along with 45 Honeywell volunteers successfully managed to cover events on multiple issues such as stress and anxiety, environmental hazards, fire safety, road safety, monsoon, heatwaves and earthquake etc. Some major highlights during the year have been drone technology to identify risks and hazards around schools, painting the potholes to bring attention to road hazards, preparation of natural drinks to combat heatwave, sapling plantation to encourage green activities, Non-Structural Mitigation (NSM) in the schools and communities to minimize the fatalities during earthquakes and disasters, street plays, transect walks, Go Bag demonstration and much more.

This year, the programme team successfully completed non-structural mitigation training in 44 out of 51 schools; installed evacuation plans in 33 schools, key signages in 15 schools and CFLE components in 10 schools; and held teachers' orientation on DRR in 30 schools, parents' orientation in 29 schools and children's orientation in all 51 schools!

Given the success of the programme in Delhi, SEEDS is all set to be a catalyst to bring about a culture of disaster resilience in the populous districts of Dehradun and Haridwar, Uttarakhand. The state already faces risks from natural hazards like earthquakes, landslides, forest fires, floods and epidemics, and the vulnerability is compounded by rapid industrialisation and unplanned expansion. In the run up to the launch of the Honeywell Safe Schools programme in Uttarakhand in 2019-20, multiple road shows using interactive group discussions, short films, public quizzes have helped the team gauge the level of understanding about safety in the community as well as build awareness on child safety.





Zabardast design!

Basit Ali, a child from Drangbal village in Pulwama district, Jammu and Kashmir



Basit Ali and his peers are among the thousands of children who lost their schools to the 2014 floods that wreaked havoc in the state of Jammu and Kashmir. Back then SEEDS responded in record time before the 2015 winters to provide 192 disaster-resilient, eco-friendly shelters to families whose homes had been washed away. But since over a 1000 schools had been ravaged by the floods, many children continue to study in makeshift facilities while their schools still await restoration. This realisation encouraged a partnership between SEEDS-United Way of India towards restoring 26 classrooms for nearly 500 children across three schools in Pulwama district.

In 2018, the teams kick-started with a fun, pre-design workshop aimed at inviting ideas from children as to the kind of schools they desired! Armed with drawing sheets and crayons, with broad smiles on their faces and excitement in the air, the children poured their creativity out on paper! Kites, flower-pots, agriculture, gardening, solar panels, lakes and beautiful landscapes - all featured in their wishful drawings! Teachers too recommended boundary walls, toilets, drinking areas, play areas, among other things.

After these initial consultations with children and teachers, the teams returned to work on three-dimensional scaled-down cardboard models of potential school designs. And once the models were ready, they presented them to the children during a post-design workshop for their final inputs. "Zabardast design!" said Basit Ali, a child from Drangbal village, as he and his peers huddled over and examined with awe the cardboard designs for their school! In Drangbal villages, the children loved the model's staircase, roof and windows but requested for a garden; in Lalpora, the children adored the school's model but requested a playground; and finally, in Bajibagh, the children seemed delighted at the sight of what they perceived to be a big school but requested for a colourful building, a playground and flowers! They were also happy that the construction of the new school will not displace the trees in their school compound.



The children were also happy to learn that the schools would be among the first 'green schools' in their area and would incorporate Green Rating for Integrated Habitat Assessment (GRIHA) elements such as:

1. Reduction in air pollution during construction
2. Construction of compost pit
3. Rainwater recycling (Construction of recharge pit with rain gutters)
4. Use of low-VOC paints
5. Use of low-energy material in the interiors (Wooden doors and ceiling)
6. Construction of random steps

Besides these, the school would be equipped with school facilities like teaching and learning equipment, fire safety equipment, drinking water facility adjusted to the varying heights of children, electric facility and first-aid.

In addition to the pre-design and post-design workshops with children, the following activities were also organised to sensitise children, the school staff, parents and other community members to issues of school safety.

1. **Baseline Assessment and Orientation of Parents and Teachers:** This activity assessed children's knowledge about prevalent hazards such as earthquakes, fires, floods and road accidents, among others, and equipped them with skills they needed to safeguard themselves against such hazards. Parents and teachers too were similarly oriented about the diversity of hazards and the skills needed to act in emergency situations.
2. **Risk and Resource-mapping:** Risk and resource-mapping was undertaken with the children to help them identify the risks in-and-around the school building. Areas prone to fire, floods and falling hazards were identified within the school premises. Points of water and garbage accumulation around the school and safety of entry and exit points from the school complex were discussed with the students.



3. School Disaster Management Plan: A masterplan was created involving students and teachers where they highlighted the prevalent hazards, suggested actions to mitigate risks, listed measures to ensure sustainability of the safety initiatives, put together contact numbers of key personnels and a list of resources available. The masterplan also identified tentative points for evacuation in case of emergencies.

SEEDS-UWI hope that through these schools, they would not only be able to provide a safe and child-friendly space for children to pursue quality education but also build a culture of resilience in the Valley.



Building Community-based Disaster Resilience in Bihar

Early Warning System | Wetland Conservation
Ecosystem Services | Gram Panchayat (Sustainable)
Development Plans

04





In 1987, our village was inundated by floods. We were forced to flee our home and the whole village was evacuated and people and animals were rescued on boats.

Dev Kumar Bind, local resident, Saharsa district, Bihar



Dev Kumar Bind described this as a shocking childhood memory and shared that he grew up witnessing recurring floods in the Kosi river basin. Floods are an unwelcome but annual visitor - destroying lives, livelihoods and property - in Saharsa district's Maheshi block and its villages. Bind recalled how lack of information and preparedness would create rush and panic at the last minute for people only thought of evacuating after the waters seeped into their homes. As it is an impoverished area, annual flooding and the devastation it wreaked often plunged the residents of Maheshi block into further poverty.

To ensure that the community in Saharsa becomes resilient against recurring floods, SEEDS, under the Partners for Resilience (PFR) and Wetlands International programme, facilitated a community-led flood early warning system. River experts at SEEDS mobilised a 19-member task force of villagers, who were sensitised to the behaviour of the River during monsoons, the turns and swells in its course, the speed, velocity and time the waters would take to flood the village. They were also trained to monitor water levels using a river gauge and issue early warnings with coloured flags.

They began monitoring the river gauge four times a day - at 6 am, 10 am, 2 pm and 6 pm and maintained a daily record in the River Gauge Register. If the Kosi waters touched 120 cm on the river gauge, a level 1 warning 'to be alert' was issued by hoisting a white flag atop the bamboo pole tied to the river gauge. At 130 cm, a level 2 warning 'to prepare for evacuation' was signalled by hoisting



a yellow flag. And a final warning for immediate evacuation was signalled with a red flag and a bugle sounded by the local priest, also a member of the task force, once the water levels touched 150 cm. This indigenous warning system gave a 22 hour lead to vulnerable communities to save their lives, secure their belongings and evacuate in time, benefitting 36 villages in Maheshi Block in 2018 and institutionalising an exemplary system of community-led risk management in 7 gram panchayats of Bihar's Saharsa district.

To reduce vulnerability and build community resilience in a holistic manner, SEEDS in Saharsa adopted an integrated risk management approach that blends Disaster Risk Reduction (DRR), Ecosystem Management and Restoration (EMR) and Climate Change Adaptation (CCA). In addition to community-led early warning systems, SEEDS-PfR together with Wetlands International South Asia are also undertaking community-based wetland conservation and ecosystem services valuations to help communities understand the significance of conserving wetlands as disaster-buffers as well as valuing and recognising the lake ecosystem for its potential to build resilience, for instance, by way of providing water-based livelihoods in the event of disasters.

A praiseworthy achievement as a result of wetland and ecosystem sensitisation was the development of 7 Gram Panchayat plans that for the first time identified 'wetland management and sustainable ecosystem development' as clear goals in their development plans.





AMPLIFYING VOICES OF LOCAL CHANGEMAKERS AT A REGIONAL LEVEL

Local champions are the biggest reason behind disasters that didn't happen. The Asian Local Leaders Forum for Disaster Resilience (www.all4dr.net) is an ongoing initiative of SEEDS in partnership with the Asian Disaster Reduction and Response Network (ADRRN) and UNISDR. It works to recognise, enhance and link the power of local leadership.

In July this year, in an evening of celebration at the Asian Ministerial Conference on DRR (AMCDRR), five local champions from different walks of life were felicitated for their inspiring work on DRR in their communities. Each embodies qualities of individual achievement, passion, persistence and leadership.

The five's moving stories were an example of the critical work being done by local champions across the region – a sentiment echoed by the dignitaries in attendance. Further promoting such local leadership was clearly seen as a harbour of hope in achieving the 2030 sustainable agenda.

“By bringing up the voices of local people we felt we could make an impact at national level. We want something like the Forbes top 100 of local leaders, to showcase the outstanding work they do in developing disaster resilience within their communities,” said Manu Gupta, Co- Founder of SEEDS and Executive Board Member of ADDRN.

DESIGNING OUT OF THE BOX FOR THE RESILIENT CITIES AWARD

‘A shelter within a month and a home within a year!’ Our design for the World Bank's Resilient Cities Award won an Honorable mention. The challenge? Resilient, modular and affordable homes that cost under \$10,000. Our idea was designed for Himalayan regions with earthquake and landslide risks, with a temporary shelter that grows into an intermediate and then finally a permanent shelter. This would allow families to meet spatial needs immediately post-disaster, and then grow incrementally towards permanence. Materials are up-cycled in this process. Therefore, a flexible joinery system was developed that can accept multiple vernacular and modern materials. This joinery allows for a modular system that enables the construction of one-million houses in one-go. The design has been informed by the cultural idiosyncrasies of the Himalayas, as well as the desire to be safe, sustainable and resilient!



GLOBAL NETWORK OF CIVIL SOCIETY ORGANISATIONS FOR DISASTER REDUCTION (GNDR)

As part of the three-year project with Global Network of Civil Society Organisations for Disaster Reduction (GNDR), a workshop on 'Community-based Disaster Risk Management best (CBDRM) practice' was held in April 2018 with aim to identify critical success factors of sustainable CBDRM and identify ways in which sustainable CBDRM can be scaled out and institutionalised. The project focused on increased understanding of common success factors for scaling sustainable CBDRM, increased capacity of governments, CSOs and other actors to create an enabling environment and increased political commitments and accountability for CBDRM.

As part of the project, best practices of CBDRM available within the countries and regions were collected. From India, case studies from Poorvanchal Gramin Vikas Sansthan (PGVS), North East-Affected Development Society (NEADS), Kajla Janakalyan Samiti (KJKS), Wetlands International, Pragma and Habitat for Humanity were selected. In all, 31 case studies were submitted from India alone.

The other level of engagement was the exchange visits for institutionalising sustainable CBDRM between India and Philippines. The aim of exchange visits was to provide local actors with an opportunity for knowledge exchange and mutual learning in the area of CBDRM. The delegation from Philippines, Centre for Disaster Preparedness (CDP) and the GNDR, visited the PGVS, Lucknow from 10-14 August 2018. The main aim was to understand the Community-based Early Warning System (CBEWS) practice in the project village Dalli purva situated in Girgitti Gram Panchayat, Block Mihipurawa, District Bahraich of Uttar Pradesh in India.

PGVS has developed cross-border community-based early warning system between India and Nepal through capacity enhancement and institutional linkages. CBEWS is a people-centred system that empowers communities to act in timely and appropriate manner to reduce losses from disasters.

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.

- Asian Disaster Risk & Response Network (ADRRN)
- Bata India Limited
- Capital First
- CRISIL
- Friends of SEEDS and individual donors
- Give2Asia
- Global Network of Civil Society Organisations for Disaster Reduction (GNDR)
- Godrej
- Honeywell Hometown Solutions India Foundation
- Indiana University
- The Indian Institute of Management Bangalore Alumni Association (IIM BAA)
- Indo-Global Social Service Society (IGSSS)
- Kajla Janakalyan Samiti (KJKS)
- Kryfs Power Components Ltd (KRYFS)
- Ministry of Home Affairs, Government of India
- North-East Affected Area Development Society (NEADS)
- Partners for Resilience (PFR)
- Price Waterhouse Coopers (PwC)- US
- ROCHE
- San Diego Malayalee Association
- SEEDS Asia
- Sterlite
- The Tide Foundations
- United Way of Chennai (UWC)
- United Way of India (UWI)
- United Nations International Children's Emergency Fund (UNICEF)
- United Nations Office for Disaster Risk Reduction (UNDRR)
- Vestas
- Wetlands International



Assam Bamboo Shelters | Special Coverage in Design Boom

designboom

'with its tropical-monsoon-rainforest-climate, the valley experiences heavy rainfall and gets flooded almost every year,' explains SEEDS. 'this eastern himalayan state also falls under the highest seismic zone of india.'

'vulnerable to natural disasters, the self-reliant assamese communities have developed indigenous construction and planning techniques over the centuries, creating a built-environment exclusive to the terrain. however, due to haphazard development in the region, the traditional knowledge systems are being ignored, leading to an unsafe environment, loss of lives and livelihoods.'




Barmer Housing | Special Coverage in The Better India

Barmer

Dr Anshu Sharma, Co-founder of SEEDS tells **The Better India**, "The houses were constructed using modern technology and locally available resources. To make them more durable, their foundation was laid four feet deep. The stepped foundation of the houses ensured that the load of the structure effectively got transferred to the foundation and ultimately to the firmer ground below. The depth of the foundation was kept at four feet to provide strength to the structure to withstand future flooding or seismic activity."

The blocks have been placed in an interlocking manner instead of being fixed on top of each other.



Many cultures consider houses as living things. There is a lot of emotions and respect that people give to their houses. Thus, we tried to use a simple design and technology but in complete compliance with local environmental and cultural nuances, says Dr. Sharma.

THE FACE OF DISASTERS 2019

The Face of Disasters 2019 is a flagship publication by SEEDS, analysing the myriad changing realities of climate and suggesting eight emerging areas of engagement for civil society and humanitarian agencies. Asia-Pacific is the world's most hazard-prone continent and the impacts of climate change are only exacerbating this complexity. Disasters are increasingly unpredictable, intensities are growing and 'unprecedented' events have become the new norm. It is not just the profile of hazard risks that are changing. For at-risk communities and affected families, the interplay between dealing with poverty, climate stresses and natural hazards too is changing for the worse. Against this backdrop, how can civil society best bring value to at-risk communities?

Explore the full report at: www.seedsindia.org/faceofdisasters



Administrative Expenditure | Balance Sheet

SUSTAINABLE ENVIRONMENT AND ECOLOGICAL DEVELOPMENT SOCIETY
(Registered under the Societies Registration Act, 1860, Delhi)

BALANCE SHEET AS AT MARCH 31st, 2019

In Rupees

Particulars	Schedule	As at March 31st,	
		2019	2018
SOURCES OF FUNDS			
Funds			
Corpus Fund	1.1	46,77,711	44,92,313
General Fund	1.2	2,87,39,593	1,17,93,360
Specific Funds	1.3	5,76,65,911	9,91,41,282
Assets fund	1.4	41,24,585	18,11,822
TOTAL		9,52,07,800	11,72,38,777
APPLICATION OF FUNDS			
Fixed Assets			
Gross Block	2	98,21,674	65,53,603
Less : Depreciation		56,97,090	47,41,781
Net Block		41,24,584	18,11,823
Investments			
	3	2,29,21,307	8,07,65,769
Current Assets, Loans & Advances			
Cash and Bank Balances	4	7,19,80,862	3,41,14,296
Other Current Assets	5	29,11,354	19,82,109
		7,48,92,215	3,60,96,405
Less: Current Liabilities & Provisions			
Expenses Payable	6	11,93,731	1,55,635
Other Liabilities		55,36,576	12,79,585
Net Current Assets		6,81,61,908	3,46,61,185
TOTAL		9,52,07,800	11,72,38,777
Significant Accounting Policies and Notes	10		

Note: The Schedules referred to above form an integral part of the Balance Sheet

As per our Report of even date attached

For Rakesh B. Lal & Co.
Chartered Accountants
(Firm Regn. No.: 001884N)

Rajat Behari Lal
Proprietor
Membership No. : 082412
DIN : 13082412AAAA6855
Place: New Delhi
Date: 21st September 2019

For SUSTAINABLE ENVIRONMENT AND ECOLOGICAL DEVELOPMENT SOCIETY

Manu Gupta
Vice President

Anshu Sharma
Secretary

SUSTAINABLE ENVIRONMENT AND ECOLOGICAL DEVELOPMENT SOCIETY
(Registered under the Societies Registration Act, 1860, Delhi)

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31st, 2019

In Rupees

Particulars	Schedule	For the year ended March 31st,	
		2019	2018
A. INCOME			
Grants & Donations	7	9,54,41,810	5,68,22,931
Interest & other Income	8	58,31,105	68,88,591
		10,12,72,915	6,37,11,522
B. EXPENDITURE			
Details of Expenditure	9	5,10,17,335	3,29,13,637
		5,10,17,335	3,29,13,637
Excess of Income over Expenditure		5,02,55,580	3,07,97,885
Significant Accounting Policies and Notes	10		

Note: The Schedules referred to above form an integral part of the Income & Expenditure Account

As per our Report of even date attached

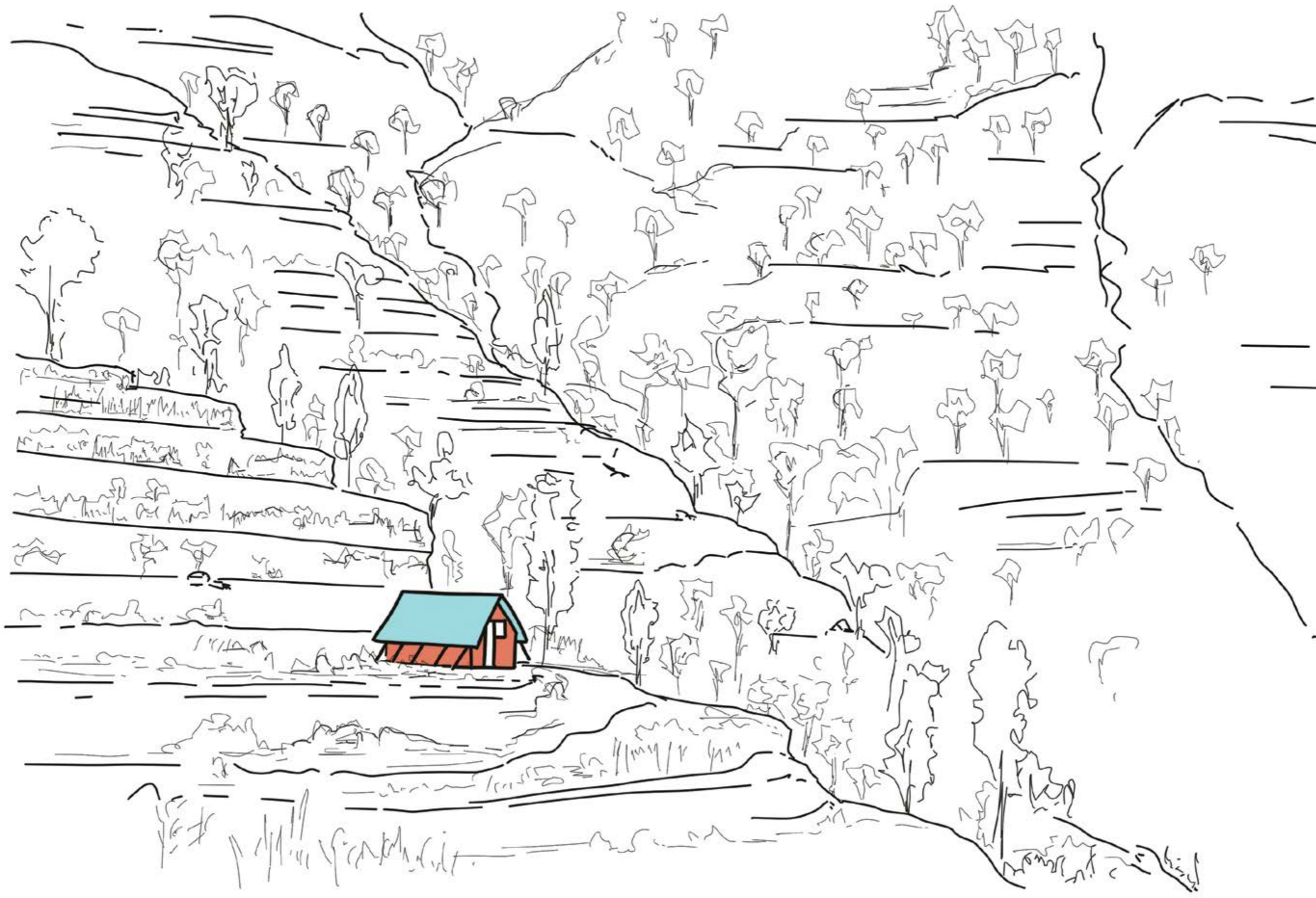
For Rakesh B. Lal & Co.
Chartered Accountants
(Firm Regn. No.: 001884N)

Rajat Behari Lal
Proprietor
Membership No.: 082412
DIN : 13082412AAAA6855
Place: New Delhi
Date: 21st September 2019

For SUSTAINABLE ENVIRONMENT AND ECOLOGICAL DEVELOPMENT SOCIETY

Manu Gupta
Vice President

Anshu Sharma
Secretary





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