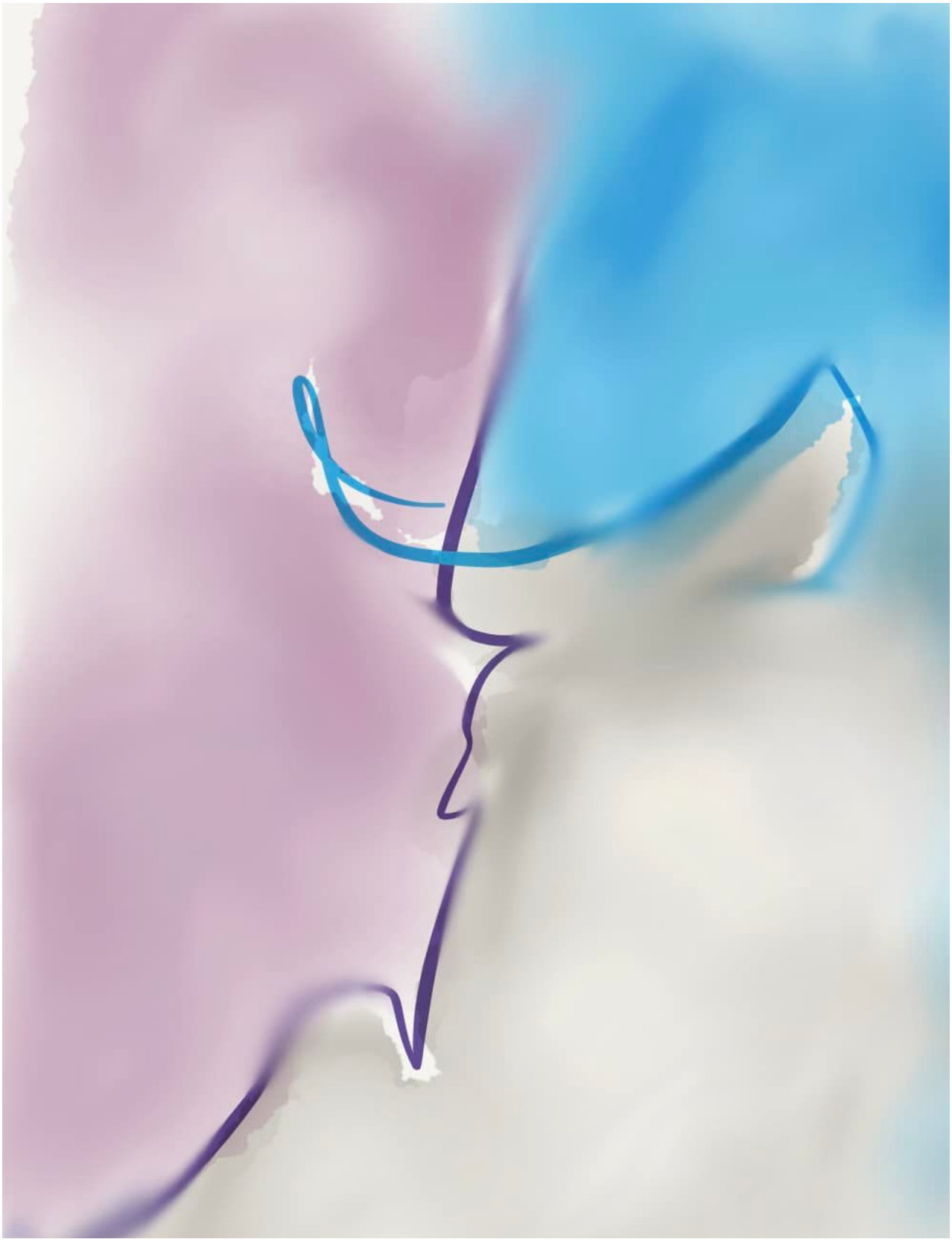
# GIAN



## Annual Report

April 2020 - March 2021

Contents

**Agenda 1: Approval of the minutes of 38th board meeting**

**-Minutes of the 38th GIAN Board Meeting held online, 1 June 2020**

Members present:

Prof Bakul Dhokaliya

Prof. Anil K Gupta

Mr.C.K.Koshy, IAS [Retd.]

Prof Vijaya Sherry Chand

Mrs. Reema Nanavaty

Mr. Sunil Parekh

Mr. Nilesh Kulkarni

Dr. Sunil Shukla

Dr. Vipin Kumar

Dr. Anamika Dey

Special invitees:

Mr. Ramesh Patel

Mr. Praveen Naher

Prof. Anil Gupta welcomed all the participants and introduced Prof. Bakul Dholakia as the new Chairman and proposed the addition of Mr. Nilesh Kulkarni as one of the Board Members appreciating his great help to GIAN in the recent past.

Agenda – 1 : Approval of the minutes

The Board approved the minutes of the 37th Board Meeting of GIAN

Agenda – 2: Issues arising out of minutes

The building committee has been guiding GIAN in drafting and issuing the tender notice for building.

Agenda --3: action taken on the minutes

The details of the implementation of building plan and proposals submitted to Industry department will be discussed under respective items.

Dr. Anamika Dey mentioned that the team's focus was to bring more CSR funds for improving financial self-reliance. GIAN has been successfully engaging with firms like Godrej Agrovet, Mahindra Finance, Honda etc., and expressed a hope to make more efforts in the future.

Agenda – 4 : New partnerships

Dr. Dey presented a brief idea about GIAN's present work, future plans, engagements, partnerships etc.

1. UNDP Innovation and Accelerator Lab has been signed up by 78 countries and Lab is operating in 60 locations. Each Lab consists of a solution mapper, Explorer and Experimenter. The role of GIAN is to mentor these labs, strengthen their hands, offer courses for different contexts and develop a tool kit and also policy papers.
2. UNDP India: A database with nearly 1500 innovations for and from grassroots will be annotated for agricultural as well as veterinary practices, waste management, energy etc., for global use.
3. SIDBI MVIF (micro venture innovation fund) project was very successful and nearly 75% of their fund was used. Its coverage is being expanded all over India.
4. MOU with National Schedule Caste Finance Corporation (NSFDC) to support the ventures of the scheduled castes and community people.
5. A forthcoming partnership with Telangana State Innovation Council may help set up GIAN Telangana.

Agenda – 5: Review of activities since the last Board meeting

GIAN identified following innovations for recognition:

1. Anti-Puncture Gel
2. Y Honk- solution to control the noise pollution caused by honking
3. Tractor operated small Stone-Picking Machine
4. Decontaminating Solar thermal Chamber
5. Modified broom for sweeper
6. Saptkrishi: Preservation for horticulture products
7. Low cost and portable toilet design for salt farmers
8. Super sweeper
9. Cow dung collecting machine
10. Mobile shredder machine

Further, Prof. Gupta mentioned about the technologies supported by SIDBI and Govt. Gujarat. He also highlighted the plans of GIAN to conduct on farm trials of farmer bred varieties across Gujarat and Maharashtra with 14 varieties of plants.

Agenda – 6 : Covid-19 related initiatives: Annapoorna- food for knowledge, culture and innovation program

- Prof. Gupta explained how GIAN took some initiatives during the pandemic like Annapoorna: food for knowledge, culture and innovation program. It was an initiative to establish that food was given as fees for the knowledge and wisdom.
- GIAN contributed Rs. 50000 to PM CARES

Agenda – 7: Future activity plan

- The future plans of GIAN included: Mapping the skills and knowledge of reverse migrants; documentation of rich cultural skills, traditional knowledge for boosting immunity, low cost high nutritional recipes, scouting innovations for CRIIA awards.
- Dr. APJ Abdul Kalam Children Creativity Awards; conducting summer school classes; webinars and seminars.

Agenda 8: Progress of GIAN building.

The Shilanayas of the building was performed at Amrapur by the former President of India, Bharat Ratna Shri Pranab Mukherjee, Nov 30, 2019

Agenda 9. Post pandemic social engagement

In addition to the provision of the food for the stuck-up migrants,

Agenda 10. Any other item

- Accounts: Mr. Koshy pointed that the funds were received later for the project expenditure already made. Many expenses had to be done before the funds reached GIAN account, which showed a significant amount of deficit in the account details. It was clarified that due permission was taken from the competent authorities from the funding agency for the same.

The meeting concluded with the vote of thanks to the Chair.

**Agenda 2 Action taken**
The tender notice was made keeping in mind the detailed specification provided by the architect.

action taken on the minutes:

Shri Paresh Shah, former Chief Engineer, Narmada project, was invited as a special invitee to the

Building committee. It met several times to review the tenders, allot the order and ensure compliance with the best ethical and legal practice**.**

**Agenda 3. New Partnerships/ Projects**

### 3.1 MOU with NIT, Srinagar, Jammu & Kashmir Cooperation in Scouting, Validating & Value-adding and Disseminating Innovations for and from Grassroots

NIT Srinagar [NIT SRINAGAR] through its IIED Centre and Gujarat Grassroots Innovations Augmentation Network (GIAN) through its Jammu & Kashmir team shall work together to deepen the cooperation between the two entities and promote Innovation, Incubation and other developmental activities in the state of India, particularly in the Union Territory of Jammu & Kashmir.

The objective of this MoU is to establish a close partnership between NIT SRINAGAR and GIAN that will Foster a collaborative environment in leveraging the collective effort of both Parties and enumerated as below:

**Scope of IIED Centre-NIT SRINAGAR**

A. IIEDC-NIT SRINAGAR shall help in identifying & Scouting innovative ideas for and from grassroots within the Union Territory of Jammu and Kashmir and neighbouring states.

B. Both IIEDC-NIT SRINAGAR & GIAN would act as knowledge partner during organizing of tech-fests, summer/winter school on inclusive innovations, hackathons, challenge awards, internships, etc., for students.

C. IIEDC-NIT SRINAGAR, shall allow access to its own workshop and other laboratory facilities for the grassroots innovators and outstanding tradition knowledge holders (henceforth, grassroots innovators will include such knowledge holders) scouted/mentored by GIAN who will work in collaboration with NIT SRINAGAR students or faculty members. IIEDC-NIT SRINAGAR shall also make its resources (available from various partners) available to the innovators identified by GIAN under a joint incubation programme.

D. IIEDC-NIT SRINAGAR shall extend outreach, publicity, and other cooperation efforts to the initiatives of GIAN, with mutual agreement. The council will encourage trial and testing of innovations from all over the country which are relevant to Jammu and Kashmir and the adjoining areas.

E. GIAN & NIT SRINAGAR shall take Prior Informed Consent from the innovators and the intellectual Property rights of Ideas and Innovations shall be filed in the name of the original innovator/s. GIAN shall help in filing patents of the innovations under this programme at a very nominal cost. DIY (Do it yourself) grassroots innovations will also be validated and value added (apart from patented solutions) if needed at NIT SRINAGAR and other collaborating institutions to expand the pool of open access solutions to the livelihood problems faced by common people.

F. In case, significant improvements are made in any existing innovation under this programme by the faculty or students of NIT SRINAGAR and a benefit is accrued due to the commercialization of such technology, then a fair share will be shared with the original innovator(s)/knowledge holders and/or their communities. A small share shall be reinvested for other grassroots technologies under the joint programme. Both the parties shall not claim any special share from the agreement. However, students and faculty can publish papers in joint authorship with the innovators and other members of GIAN.

G. Both, IIEDC-NIT SRINAGAR and GIAN will work jointly to organise workshops/trainings, courses, etc., but will also be free to take up their own independent activities.

**Scope of GIAN**

A. GIAN shall help the grassroots innovators of Innovation hub, IIEDC-NIT SRINAGAR by including them (the innovators) as beneficiaries under the purview of existing MoUs and the future MoUs that GIAN signs with external stakeholders; Inter alia, innovations mobilised by IIEDC from various sectors and segments will also be given global visibility as a part of Honey Bee Network database including techpedia.in.

B. GIAN would act as a knowledge partner for innovators of IIEDC-NIT SRINAGAR. GIAN shall extend its support in designing initiatives, evaluation of innovators, and as an execution partner on the request of IIEDC-NIT SRINAGAR.

C. GIAN shall help IIEDC-NIT SRINAGAR in vetting, validating, and in properly understanding the technical and commercial aspects of scouted Grassroots and student Innovations under mutually agreed terms. This would be done period IIEDC ally, contingent on the ideas expressed by IIEDC-NIT SRINAGAR. It will also help build capacity of the GIAN- IIEDC-NIT SRINAGAR to do prior art search, and build value chain.

D. GIAN shall allow access to its own workshop and the laboratory facility of HBN sister organizations wherever possible for the grassroots and student innovators under this programme. The cost involved in the process shall be discussed mutually or arranged through other means at the discretion of IIEDC-CUJ and agreed upon by GIAN.

E. An internal advisory body consisting of five members [GIAN, Department of Higher Education, IIEDC-NIT SRINAGAR and two members nominated by the team of GIAN and IIEDC-NIT SRINAGAR shall be constituted to mentor this partnership with periodic reviews.

### 3.2 Action on MOU with Telangana State Innovation Cell (TSIC), Telangana, support for a platform for educational innovations

Telangana State Innovation Cell (TSIC) and Grassroots Innovations Augmentation Network (GIAN) shall work together to establish GIAN-Telangana to deepen the cooperation between the two entities and promote utilization of shared resources. GIAN shall have an office in Telangana and shall deploy a dedicated shared resource for the smooth functioning of the operations. The cost of the GIAN-Telangana and support team at GIAN shall be borne by TSIC or through other means at the discretion of TSIC.

The objective of this MoU is to establish a close partnership between TSIC and GIAN that will foster a collaborative environment in leveraging the collective effort of both Parties and enumerated as below:

a. GIAN shall help the grassroots innovators of Telangana by including them as beneficiaries under the purview of existing MoUs and the future MoUs that GIAN signs with external stakeholders; Inter alia, innovations mobilized by TSIC from various sectors and segments will also be given global visibility as a part of Honey Bee Network database including techpedia.in.

b. GIAN shall help Telangana State Innovation Cell in vetting, validating, and in properly understanding the technical and commercial aspects of scouted Grassroots Innovations. This would be done periodically, contingent on the need as expressed by TSIC. It will also help build capacity of the GIAN-Telangana to do prior art search, and build value chain.

c. GIAN would act as a knowledge partner for TSIC. GIAN shall extend its support in designing initiatives, evaluation of innovators, and as an execution partner on the request of TSIC.

d. GIAN shall allow access to its own workshop and the laboratory facility of HBN sister organization for the grassroots innovators of Telangana, on the recommendation of TSIC. The cost involved in the process shall be borne by TSIC, or through other means at the discretion of TSIC and agreed upon by GIAN.

e. GIAN shall nominate one member to be part of the Committee for the Promotion of Social and Grassroots Innovation (CPSGI) in the state of Telangana. This committee, which is currently in the process of formulation, shall act as an advisory body for TSIC in nurturing and promoting social and grassroots innovations across the state of Telangana.

f. GIAN will help TSIC in creating a vernacular language version of the knowledge already existing with NIF, GIAN, other open sources of Innovations, and DIY leading to local language publications, and other learning content.

g. TSIC shall extend outreach, publicity, and other cooperation efforts to the initiatives of GIAN, with mutual agreement. The initiatives must have an objective of helping the grassroots innovators of Telangana.

### 3.3 MOU with SERP, Andhra Pradesh Government to set up innovation-based enterprises

Livelihood promotion of YSR Cheyutha- Aasara livelihoods for SHG members to develop and strengthen the livelihoods opted by SHG members, who are the Beneficiaries of Government of Andhra Pradesh and also, who are in the fold of Society for Elimination of Rural Poverty (SERP)

Target beneficiary segment Innovations for and from grassroots, farmers, women entrepreneurs, self help groups (SHGs), students from ITI, polytechnics and diplomas, start-ups, etc.

**Objectives and Activities to be carried out:**

**Objective 1 -** To strengthen innovation based entrepreneurship ecosystem in rural and semi-urban areas

**Objective 2 -** To promote outstanding Do It Yourself (DIY) technologies, low cost solutions, practices and innovation based enterprises Activities

**Objective 3 -** To help in database development of innovations and functional traditional knowledge (TK) from, and for the state Activities a. Selection of innovational and functional traditional knowledge from the HBN and other databases b. Development, deployment and hosting it on the website Milestone

**Objective 4 -** To provide training and develop skills of grassroots innovators, fabricators, students, collaborators, administrators etc.

### 3.4 MOU with Bikaner Technical University, Rajasthan For Development Innovation and Startups

**1. Purpose**

The general objective of this Memorandum of Understanding (MOU) is to stimulate and facilitate the development of collaborative and mutually beneficial programs which serve to enhance the Innovation, Startup and Entrepreneurship and to contribute to increased cooperation. The Purpose of this agreement is to encourage out-of-the-box thinking to technologically empower villages with innovative solutions and to search, spread, sense and celebrate innovations in the field of Science and Technology, Agriculture, Education, Public Services, Cultural Creativity, Governance at different levels.

**2. Types of Cooperation**

Through this memorandum both parties affirm the value of collaboration and agree to promote following activities:

1. Joint research projects in the field of mutual interest opportunities for faculty and students development in the field of research and development innovation and startup.

2. Visit of Students and Faculties to explore the common problems of society.

3. Promoting innovation and startup through providing regular exercises to versity students.

4. Mentoring students for innovation and startup through expert talks and thought provoking sessions/ series.

5. Encourage students to analyze the common problems of society to work on solutions of the problems with use of available resources.

6. Explore talents in BTU Family and provide a platform where they can share small ideas also.

7. Facilitate converting creative ideas in amazing innovation

8. Encourage students to identify innovators at grass-root level with special emphasis on farming, traditional medicines, small scale industries, etc.

9. Encourage and generate innovations / innovative ideas at different levels.

10. Facilitate interaction between the teaching / student communities and grass-root innovators.

11. Mentoring of grass-root innovators to facilitate the transfer of technology to the society.

12. Encourage students to do prior art search on finding industrial uses of surplus biomass / under-utilized or unutilized waste material in mining, textile and other sectors. This will increase the consciousness among the students about the circular economy.

### 3.5 MOU with Pushpa Gujral Science City, Punjab

**Objectives of the MoU**

Pushpa Gujral Science City (PGSC) and Grassroots Innovations Augmentation Network (GIAN) shall work together to establish GIAN-PGSC to deepen the cooperation between the two entities and promote utilization of shared resources. The cost involved if any will be borne by PGSC & GIAN

The objective of this MoU is to establish a close partnership between **PGSC** and **GIAN** that will foster a collaborative environment in leveraging the collective effort of both Parties and enumerated as below:

**Scope of PGSC**

a. PGSC shall help in identifying & Scouting innovative ideas for grassroot innovations within the state of Punjab and neighbouring states.

b. Both PGSC & GIAN would act as knowledge partners during organising of tech-fests like Inno-Tech for professional students & Science Fest for school students.

c. PGSC shall allow access to its own workshop and the laboratory facility of Innovation Hub for the grassroot innovators of GIAN. The cost involved in the process shall be borne by GIAN, or through other means at the discretion of GIAN and agreed upon by PGSC.

d. PGSC will help GIAN in creating a vernacular language version of the knowledge already existing with NIF, GIAN, other open sources of innovations, and DIY leading to local language publications, and other learning content.

e. PGSC shall extend outreach, publicity, and other cooperation efforts to the initiatives of GIAN, with mutual agreement. The initiatives must have an objective of helping the grassroot innovators of Innovation Hub , PGSC.

f. PGSC & GIAN will organise joint workshops on Intellectual property rights to protect innovations using available Intellectual Property Rights (IPR) as well as to create large public awareness.

g. Both, PGSC and GIAN will work jointly to organise workshops/trainings/tech fest's etc., but will also be free to take up their own independent activities.

**Scope of GIAN**

a) GIAN shall help the grassroot innovators of Innovation hub , PGSC by including them as beneficiaries under the purview of existing MoUs and the future MoUs that GIAN signs with external stakeholders; Inter alia, innovations mobilised by PGSC from various sectors and segments will also be given global visibility as a part of Honey Bee Network database including techpedia.in.

b) GIAN would act as a knowledge partner for innovators of Innovation hub , PGSC. GIAN shall extend its support in designing_ initiatives, evaluation of innovators, and as an execution partner on the request of PGSC.

c) GIAN shall help Pushpa Gujral Science City in vetting, validating, and in properly understanding the technical and commercial aspects of scouted Grassroot Innovations. This would be done periodically, contingent on the need as expressed by PGSC. It will also help build capacity of the GIAN-PGSC to do prior art search, and build value chain.

d) GIAN shall allow access to its own workshop and the laboratory facility of HBN sister organization for the grassroot innovators of Innovation Hub , PGSC. The cost involved in the process shall be borne by PGSC, or through other means at the discretion of PGSC and agreed upon by GIAN.

e) GIAN shall nominate one member to be part of the Committee for the Promotion of Social and Grassroot Innovation (CPSGI) in the state of Punjab . This committee, which is currently in the process of formulation, shall act as an advisory body for PGSC in nurturing and promoting social and grassroot innovations across the state of Punjab.

### 3.6 Kurukshetra University Technology Incubation Center (KUTIC) for Identifying, Scouting and Supporting innovative ideas for Grassroots Innovations

The objective of this MoU is to establish a close partnership between KUTIC and GIAN that will foster a collaborative environment in leveraging the collective effort of both Parties and enumerated as below:

**Scope of KUTIC**

a. KUTIC shall help in identifying & Scouting innovative ideas for grassroot innovations within the state of Haryana and neighbouring states.

b. Both KUTIC & GIAN would act as knowledge partners during organising of tech-fests like Inno-Tech for professional students & Science Fest for school students.

c. KUTIC shall allow access to its own workshop and the laboratory facility of Innovation Hub for the grassroot innovators of GIAN. The cost involved in the process shall be borne by GIAN, or through other means at the discretion of GIAN and agreed upon by KUTIC.

d. KUTIC will help GIAN in creating a vernacular language version of the knowledge already existing with NIF, GIAN, other open sources of innovations, and DIY leading to local language publications, and other learning content.

e. KUTIC shall extend outreach, publicity, and other cooperation efforts to the initiatives of GIAN, with mutual agreement. The initiatives must have an objective of helping the grassroot innovators of Innovation Hub or other facilities of KUTIC.

f. KUTIC & GIAN will organise joint workshops on Intellectual property rights to protect innovations using available Intellectual Property Rights (IPR) as well as to create large public awareness.

g. Both, KUTIC and GIAN will work jointly to organise workshops/trainings/tech fest's etc., but will also be free to take up their own independent activities.

h. KUTIC shall nominate a team who will regularly interact with GIAN representatives and update the concerned representatives of the progress of the partnership. This team shall meet at least once every month to ensure smooth running of the proposed partnership.

i. KUTIC, shall allow access to its own workshops and other laboratory facilities for the grassroots innovators and outstanding tradition knowledge holders (henceforth, grassroots innovators will include such knowledge holders) scouted/mentored by GIAN who will work in collaboration with the members of KUTIC. KUTIC shall also make its resources (available from various partners) available to the innovators identified by GIAN under a joint incubation programme.

j. KUTIC shall extend outreach, publicity, and other cooperation efforts to the initiatives of GIAN, with mutual agreement. The council will encourage trial and testing of innovations from all over the country which are relevant to KUTIC and the adjoining areas.

k. GIAN & KUTIC shall take Prior Informed Consent from the innovators and the intellectual Property rights of Ideas and Innovations shall be filed in the name of the original innovator/s. GIAN shall help in filing patents of the innovations under this programme at a very nominal cost. DIY (Do it yourself) grassroots innovations will also be validated and value added (apart from patented solutions) if needed at KUTIC and other collaborating institutions to expand the pool of open access solutions to the livelihood problems faced by common people.

l. In case, significant improvements are made in any existing innovation under this programme by the scientists or staff or scholars of KUTIC and a benefit is accrued due to the commercialization of such technology, then a fair share will be shared with the original innovator(s)/knowledge holders and/or their communities. A small share shall be reinvested for other grassroots technologies under the joint programme. Both the parties shall not claim any special share from the agreement. However, students and faculty can publish papers in joint authorship with the innovators and other members of GIAN.

**Scope of GIAN**

1. GIAN shall help the grassroots innovators of KUTIC by including them as beneficiaries under the purview of existing MoUs and the future MoUs that GIAN signs with external stakeholders; Inter alia, innovations mobilised by KUTIC from various sectors and segments will also be given global visibility as a part of Honey Bee Network database including techpedia.in.

2. GIAN would act as a knowledge partner for innovators of KUTIC. GIAN shall extend its support in designing_ initiatives, evaluation of innovators, and as an execution partner on the request of KUTIC.

3. GIAN shall help KUTIC in vetting, validating, and in properly understanding the technical and commercial aspects of scouted Grassroot Innovations. This would be done periodically, contingent on the need as expressed by KUTIC. It will also help build capacity of the GIAN- KUTIC to do prior art search, and build value chain.

4. GIAN shall allow access to its own workshop and the laboratory facility of HBN sister organization for the grassroots and student innovators KUTIC. The cost involved in the process shall be borne by KUTIC, or through other means at the discretion of KUTIC and agreed upon by GIAN.

### 3.7 Department of Biotechnology, GOI for strengthening bio-resource based entrepreneurship

**Scope of application indicating anticipated product and processes:** To build a platform which converges the available bio-resources, traditional and contemporary knowledge systems and aspirations of and opportunities for the creative communities of the Himalayan region.

**Project Summary:** The Himalayan region being rich in bio-resources also has a rich knowledge system around them. Although part of them are documented in the form of research articles, news articles, books, classical codified literature, much of it remains to be documented and disseminated across the states in local language. We propose to build a bilingual (Hindi and English) database of 600 innovations and knowledge of the farmers, artisans, mechanics, women, etc. Absence of a multilingual multimedia database of farmers' innovations and knowledge may lead to "reinventing the wheel" in different geographies. Many of the local practices may have commercial value as well.

Our idea is to document, disseminate, augment and trigged bio-enterprises based on socially or commercially viable technologies from and for Himalayan region. The proposed platform will have innovations and traditional knowledge related to agriculture, animal husbandry, culinary packable (pre-cooked) dried dishes of uncultivated plants/weed, etc., food and agro-processing, OTC herbal 3 formulations, vegetative dyes, fibers etc. An e-commerce platform and

a catalogue listing of the best bio products from the Himalayan states and Union territories, supplemented by local market interventions will be one of the concrete outcomes besides the bilingual database.
The platform shall also aggregate products from the other implementing agencies of the programme. While market linkages of entrepreneurial ventures of validated and value-added products will be facilitated, adoption of climate smart agriculture, resilient varieties will be facilitated through on farm trials. If successful, this platform will become a resource for a) sustainable herbal biotechnological solutions, b) innovative small farm equipment, c) nutritious recipe of uncultivated plants/weeds providing alternate source of nutrition for economically poor sections and other products of the region. Problem Statement/ Brief Background Generating economic benefits through In-situ value addition and bio-entrepreneurship linked to Himalayan biodiversity is the major focus point of the proposed project. The communities in Himalayan region have primarily acted as collector and seller of raw material to contractors and other traders fetching very low income. Exceptions apart, they have not been enabled in many cases to add value in situ in these resources and thus get higher income. This may also generate incentives for conservation of such resources through sustainable extraction of bio-resources to sustain the income flow in future. This unmet need may be solved by developing Himalayan BioShop-an eCommerce platform to connect the distant urban and rural buyers as well as other communities in the region.

Thus horizontal (among communities within the region) and vertical (between rural and urban communities) trade may help in conservation as well as income augmentation for the communities. Given low population density and also a limited market potential in Himalayan region, the connection with the outer market may help to get better earning opportunities for the communities. Thus, proactive steps are needed as proposed in this project.

Many of the women groups from Himalayan regions were invited to the Sattvik Traditional food festival held at Ahmedabad for three years (2017-2018) with the support of the Ministry of women and child development. Orientation training was given in marketing. The student volunteers were attached with each group to help them sell to urban consumers. Huge income augmentation took place in the process. An effective platform such as a mobile application is also needed in the regional language for affiliating horizontal and vertical market connections. To stem the erosion of biodiversity as well as community-based knowledge in the Himalayan region, augmentation and entrepreneurship development is needed in the region. From the point of view of climate change, the Himalayan region needs biodiversity conservation and greater climate resilience. Women empowerment and focus on women's knowledge such as the use of edible weeds and traditional nutritious food recipes of locally available weed and food need to be documented as well as popularized.

### 3.8 Partnership with Yayasan Innovasi Malaysia, Malaysian Innovation Foundation (YIM)

A mou was signed with YIM at DUBAI EXPO 2020, Dubai between CEO, GIAN and CEO, YIM to promote grassroots innovations from and for both the countries. It may be added that GIAN also contributed a chapter in a report brought out by UNESCAP in which YIM CEO was also a co-author.

## 4. Project Updates

### 4.1 Progress on Support from Gujarat Industrial Investment Corporation Limited (GIIC) for deploying and delivering sanitation solutions/benefits to Agariyas

Gujarat Industrial Investment Corporation Limited (GIIC) has supported GIAN for a project "Deploying and delivering sanitation solutions / benefits to at least 25 Agariyas (Salt Workers) families in the Little Rann of Kutch, Gujarat".

The following activities were conducted under the project till today:

1. Conducted brainstorming on the problems of open defecation, especially faced by women in the agariya community and their tentative solutions.

2. Also, pursued a survey and had discussion with the salt farming communities.

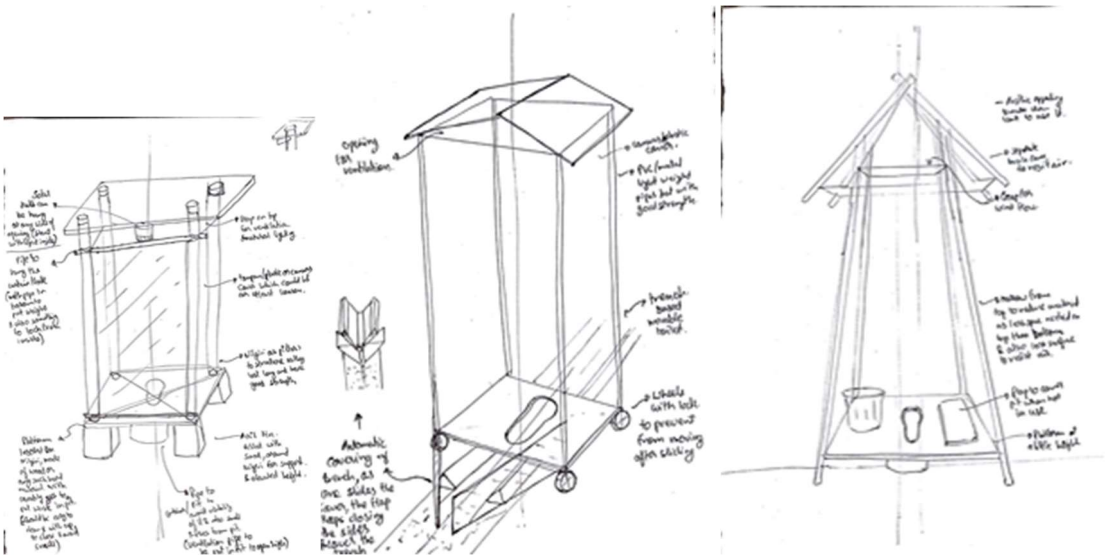
3. Simulated design iterations have been reviewed by Prof B. K. Chakravarthy, IIT Bombay, Powai and Prof. Saurabh Popali, SPA Bhopal. A student intern from IITDM, Jabalpur also developed a few prototypes after staying with the communities for a few days. He also shared the sketches with the community members under the guidance of the IITB faculty and GIAN team.

4. The field trips were pursued after agariyas returned during the off season to their main village. The lockdown due to the pandemic situation had delayed the initial planning. The structures are likely to be put up by next month. The prolonged rains this year have further delayed the start of the salt farming season.

The primary aim of the project is to come up with a solution in the form of a toilet design which is economical and feasible considering the environment conditions and lifestyle of Agariyas of The Little Rann of Kutch.

The intern from IIITDM, Meet Patel stayed at Kharaghoda for one week to collect the required data under the guidance of Prof.Anil Gupta and Dr. Anamika Dey. Observations were made and shadowing was done to experience their lifestyle and understand problems related to open defecation.

Multiple ideas were explored based on requirements and constraints of the design challenge. A desk study too was conducted to understand all the existing solutions and materials available for each of our requirements to help in the ideation. Multiple ideas for the solution were generated and put out as sketches and were sent to Prof. B. K. Chakravarthy and mentors in GIAN for their feedback before moving forward for the detailed concepts. Some of the preferable ideas are shown below.



We have started the procurement process for different components of two design variants. The prototypes will be deployed for field testing of the solutions and analysis of the same will be made to make further changes to reach to the final concept of the desired design to solve the problem of open defecation for the Agariyas

### 4.2 Technologies Supported under MVIF with the help of SIDBI during 2020-21

Gujarat Grassroots Innovation Augmentation Network (GIAN) and Small Industries Development Bank (SIDBI) came together for project "Gramin Navonmesh Protsahan" under Micro Venture Innovation Fund (MVIF). The project aimed to strengthen the innovation ecosystem and provide support to innovations from and for grassroots across the country. Selected projects get support for investment funds for stimulating commercialization. The support provided in the form of a soft loan with a 5% interest rate.

Innovation based enterprises, projects from ITI/Polytechnic/Diploma students, women entrepreneurs, social enterprises, individuals could apply for the funds. Selection criteria were novelty, innovation readiness to market, innovative technologies, social impact, affordability, inclusivity and gender sensitivity, innovations for niche markets, potential direct/indirect beneficiaries, etc. The expert screening committee was established for selection of the projects. The local committee sanctioned projects for a maximum up to Rs. 2 Lacs. In a few deserving cases, the support extended up to Rs. 5 Lac by the joint screening committee. The amount had to be returned with a 5% rate of interest within two years after the disbursement of the fund. However, due to the pandemic, the period may be extended.

Recent socio-economic stress caused by Covid19 Pandemic has necessitated re-strategization of the partnership aimed at financing innovation-based enterprises. Existing innovations in different parts of the country needing investment funds for stimulating commercialization were taken up on priority. Focus made on innovative ideas from various sectors all over the country. Online/offline workshops with a new framework, mobilising new ideas and creating new entrepreneurial networks to sustain the spirit of emerging entrepreneurs in this difficult economic situation were set as priorities.

**Scouting of Innovations Online and offline**

ITIs and Polytechnic colleges were contacted through mails and around 1200 plus ideas were submitted in the Gian Nidhi portal.

Two Internship programs were organised for scouting of the innovations. Forty students have participated from all over India for scouting of innovations specifically from UP, Bihar, Odisha, Maharashtra, Chattisgarh, Jharkhand. Students have scouted online plus offline 950 plus innovations.

**Link to the list of Innovations:**

*https://docs.google.com/spreadsheets/d/1eOqzLKg00eJmzBkHDtc4rqR2edhfyvGEcRRI8zHOr5A/edit?usp=sharing*

GIAN team has also scouted 350 innovations. Online orientation workshops were organised. Awareness was created through social media posts and sharing content on Facebook page, Facebook groups and WhatsApp groups of projects.

**Monitoring and Follow-up**

For monitoring of proper utilisation of funds the team at GIAN used to be in touch with innovators through mails, calls and WhatsApp groups. Regular discussions and updates used to be sent by innovators on the WhatsApp groups with photographs. Follow-up of the progress was done every month. Monthly progress reports for the same had been sent to the SIDBI. Innovators who have completed 6 months after receiving the funds have been contacted for starting the repayment and two of them have already started paying back.

**Innovations Supported Under MVIF**

| Sr. No. | Innovations / Project | Innovator Name | State | Approved Budget (Rs.) |
|---|---|---|---|---|
| 1 | Low-cost Irrigation water pump | Mr. Nandeshwar Sharma | Bihar | 125000 |
| 2 | Walking Stick | Mr. Akash Singh | Uttar Pradesh | 27000 |

| | | | | |
|---|---|---|---|---|
| 3 | Feed mixing machine | Mr. Yasir Arafat | Bihar | 240000 |
| 4 | Sunbird straw: Drinking straws from coconut leaves | Prof. Saji Varghese | Karnataka | 500000 |
| 5 | Foldable Cylinder Carrier | Mr. Mushtaq Ahmad Dar | Jammu & Kashmir | 157500 |
| 6 | Folded Ladder | Mr. Mohd Rafiq Ahanger | Jammu & Kashmir | 105000 |
| 7 | Multipurpose digger (Groundnut Digger/Turmeric Digger/Garlic) | Mr. Sanjaybhai Tilwa | Gujarat | 400000 |
| 8 | Mobile Groundnut Thresher | Mr. Nileshbhai Dobariya | Gujarat | 400000 |
| 9 | Innovations in production of banana fibre products | Mr. Murugesan | Tamil Nadu | 250000 |
| 10 | Toilet attached Cot | Mr. Saravanamuthu | Tamil Nadu | 350000 |
| 11 | Production of groundnut separator and coconut cutting machine | Mr. Senthil | Tamil Nadu | 137600 |

| | | | | |
|---|---|---|---|---|
| 12 | Snow remover | Mr. Aabid Rehman Dar | Jammu & Kashmir | 90000 |
| 13 | Rocket stove | Mr. Abdul Kareem K A | Kerala | 170000 |
| 14 | Innovative Agri-tech | Mr. Nishi Biswas | Madhya Pradesh | 180000 |
| 15 | Battery operated tractor | Mr. Rahul Singh | Uttar Pradesh | 180000 |
| 16 | Filter-less Air Purification Device | Mr. Divyank Gupta, Harsh Neekhra, Gagan Tripathi | Madhya Pradesh | 400000 |
| 17 | Mittidhan | Mr. Hiren Panchal | Gujarat | 200000 |
| 18 | Cycle operated Ata chakki | Mr. Ganga Ram Chauhan | Uttar Pradesh | 81500 |
| 19 | Wooden Bukhari and stove | Mr. Mohd Rafiq Ahanger | Jammu & Kashmir | 50000 |
| 20 | Adapted Electric Vehicle | Mr. Bhavesh Chanchal | Gujarat | 400000 |
| 21 | Vardan – Affordable and Sustainable Water Purifier | Mr. Abhimanyu Rathi | Gujarat | 350000 |

| | | | | |
|---|---|---|---|---|
| 22 | Low-Cost Solar Cum Electric Bicycle | Mr. Indrajeet Singh | Odisha | 236000 |
| 23 | Destoner Machine | Mr. Janakbhai Rathod | Gujarat | 305000 |
| 24 | Sanajing Sana Thambal | Ms. Tongbram Bijiyashanti Devi | Manipur | 300000 |

### 4.3 My Nutrition Garden 2020-21

GIAN started the "My Nutrition Garden" Project in June 2020 for spreading vegetable seeds to different government schools to augment nutrition of the children and help them develop green fingers. Last year GIAN distributed Traditional Vegetable seed kits to 247 different government primary schools across India. These schools were selected on the basis of forms filled by teachers and principals voluntarily. And this year, the kits were given to a thousand schools across the country. Sharing of the experience of teachers in the first year stimulated demand for these seeds five times in second year.

Due to covid19, schools didn't open in June 2020 but teachers have grown these seeds in different places including school compound, homesteads, farms or homes of the parents. In some cases, vegetables were grown on the roof due to lack of space. In a few cases, due to bad weather, heavy rain and no proper maintenance because of lockdown, the garden also failed. The teachers and Principals are willing to sow vegetables in the next monsoon season.

For motivating teachers in the second year, a Facebook based webinar was organised in which stories of the successful teachers were shared. The nutrition garden-related updates were also shared on GIAN's Social media platforms.

Mid day meals were not prepared in school due to Lockdown but vegetables were distributed to pregnant women, adult women, children, economically weak families, neighbors, and school guests. Many teachers conducted workshops to alert villagers and students about the adverse effect of the use of chemical pesticides, and to highlight the importance of traditional vegetables. Some of the schools have started their own Seeds bank in the school where anyone can borrow seeds and also can deposit the same.

Name of vegetables - String beans, Bottle gourd, Ridge gourd, Ladyfinger, Tomato, Brinjal, Lima bean, Hyacinth beans, Red hyacinth beans, Spiny gourd, and Pigeon pea

Total kits distributed – 247

Total state covered (with name) – 8 (Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Maharashtra, Odisha, Sikkim, Uttar Pradesh) Total school covered - 247.

**2021-22**

This year (2021-22) GIAN gave vegetable seeds to many more teachers who were interested in growing the nutrition gardens in the schools. With the help of Google form in a short time, we get 933 responses across India. We have successfully distributed 1000 traditional vegetable seed kits in 1000 different government primary schools from 30 states.

Like in the previous year, this year also many teachers have started the school's own "Seed Bank" in which anyone can take these valuable seeds to farmers, students, and other nearby seeds and also deposit the same or other seeds if they wish. Most teachers also holes to grow kitchen gardens. Villagers are also ready to help in terms of plowing of soil, sowing of seeds, etc.

We have organized a Facebook webinar of last year's kitchen garden teacher so that every teacher gets an idea of what is new in other schools.

Name of vegetables - Bottle gourd, Ridge gourd, sponge gourd, Ladyfinger, Cowpea, Tomato, Brinjal, Lima bean, Hyacinth beans, Pigeon pea, Cucumber, Fenugreek, Coriander, Spinach, Chilly

Total kits distributed – 1000

Total state covered (with name) – 30 (Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chandigarh, Chhattisgarh, Dadra and Nagar Haveli, and Daman & Diu, Goa, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Mizoram, Nagaland, Odisha, Panjab, Rajasthan, Sikkim, Tamilnadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand, West Bengal).

### 4.3 On-farm trials & annotated database of low cost agricultural and animal husbandry practices supported by Godrej Agrovet

GIAN has been working on a project of Rural Development & Livelihood Enhancement Programme sponsored by Godrej Agrovet Limited (GAVL).

The major objectives of the project are:

About 2500 agricultural and animal husbandry practices to be refined with proper annotation, scientific and local names, technical description of problems, photos of plants, details of the ingredients, insects and pests, etc.

1. Best practices and varieties based on the results of the 100 on-farm trials will be taken up for further development of some products/services for common use as DIY (do-it-yourself) solutions for the communities
2. Facilitate setting up of at least two enterprises in the state with a special diffusion bias in the aspirational and tribal districts.

Despite the Covid constraints, more than twelve thousand lives were touched through different activities of this project:

Kharif season [2020-21] -193 on-farm trials

274 Herbal Products

48 Seeds Treatment

- Rabi season- [2020-21] - 161 on-farm trials

On farm trials of farmer bred varieties such as Paddy (DRK), Paddy (Kudarat 1 Divya), Pigeon Pee (Richa 2000), Pigeon Pee (Kudarat 3), Hyacinth Beans (JK1), Black Gram (Bhairav 1), Groundnut (Morlo), Brinjal (Niranjan ), Cotton (Lok Jatan), Paddy (Chinar-20) were conducted at different villages in Gadchiroli, Ahmadnagar, Nasik, Narmada, and Panchmahal during kharif 2020-21.

*Image: Seed sowing of groundnut (morlo, developed by Thakershi bhai) done by Smt. Naliniji at Nasik*

-Literature dissemination of around thirty five herbal crop protection practices disseminated through various channels

-Conducted 274 trials of herbal product (Sristi Shakti, Sristi Sarvatra, Sristi Krushak) for plant protection and plant growth were conducted in Gadchiroli, Ahmednagar, Nashik, Panchmahal, Narmada, and Dahod).

*Image: Nandaben Bhavsingh from Panchmahal spraying SRISTI Shakti in paddy.*

-Also we had conducted 48 trials of seed Treatment during kharif season in Panchmahal, Narmada, Raigadh, Nashik, Gadchiroli, Ahmadnagar

-Trials of traditional seeds in the School Nutrition Garden were also conducted. Total 247 kits of traditional seeds were distributed in different schools in Gujarat, Maharashtra, Chhattisgarh, Delhi, Haryana, Himachal Pradesh, Odisha, Sikkim and Uttar Pradesh.

*Image: Nileshkumar Prajapati from Kanda Pri School, Narmada, Gujarat shared vegetables to pregnant women and aged women of the village.*

Also, different low cost practices such as the biological pest control method of putting a T shape stand in a farm so that birds can sit on that stand and eat the pests from the farm were shared with farmers.

### 4.4 Data on use of GRID.undp.org.in database developed in cooperation with UNDP India office

**November 2020 - November 2021**

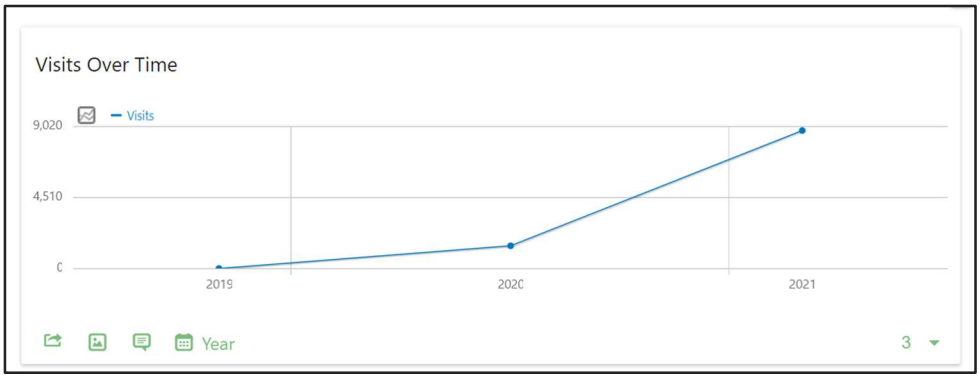



Fig. 1. Visits Over Time

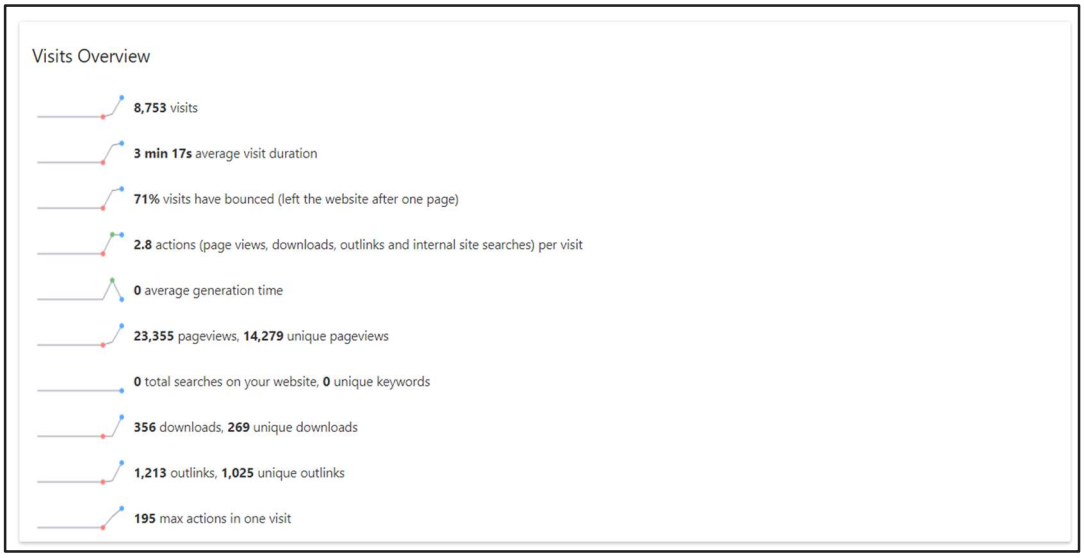



Fig. 2. Visits Overview

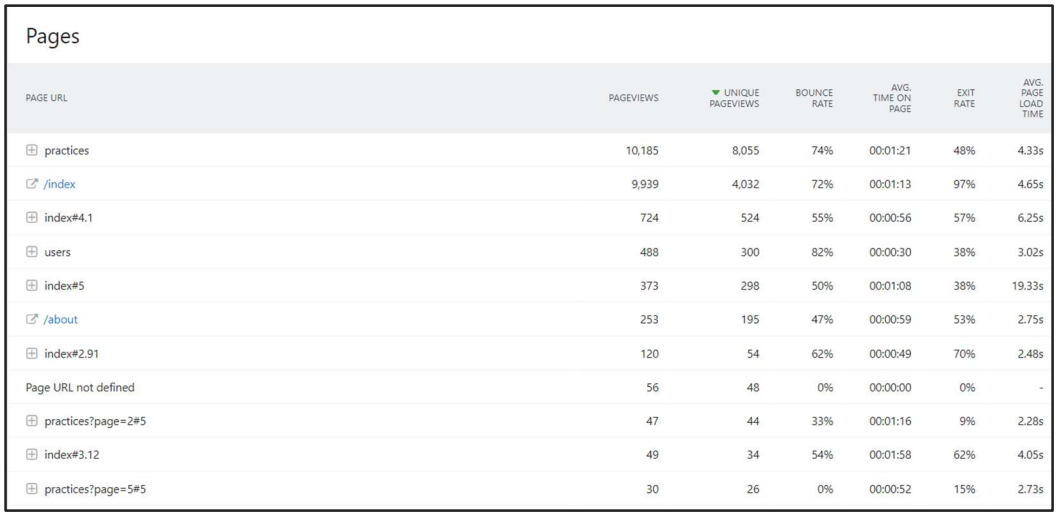
Since its launch in November 2020, there have been 8753 visits to the site to date (November 2021). The average visit duration has been 3 minutes 17 seconds. Around 71% have left after the first page and 2.8 actions have been made (visited at least 2-3 pages).

Movers and Shakers

| PAGE URLS | UNIQUE PAGEVIEWS | EVOLUTION |
|---|---|---|
| practices | +7123 | +764.3% |
| index#4.1 | +484 | +1210% |
| **PAGE TITLES** | **UNIQUE PAGEVIEWS** | **EVOLUTION** |
| grid.undp.org.in/Grassroots Innovatio... | +1012 | +697.9% |
| grid.undp.org.in/Grassroots Innovatio... | +337 | +1021.2% |
| grid.undp.org.in/Grassroots Innovatio... | +173 | +4325% |
| grid.undp.org.in/Grassroots Innovatio... | +157 | +1744.4% |
| **SEARCH ENGINES** | **VISITS** | **EVOLUTION** |
| Google | +1884 | +2943.8% |
| Bing | +196 | +19600% |

Fig. 4. Pages Accessed

A total of 14279 Unique Pageviews have been made (1884+ through Google and 196+ through Bing).



Pages

| PAGE URL | PAGEVIEWS | ▼ UNIQUE PAGEVIEWS | BOUNCE RATE | AVG. TIME ON PAGE | EXIT RATE | AVG. PAGE LOAD TIME |
|---|---|---|---|---|---|---|
| practices | 10,185 | 8,055 | 74% | 00:01:21 | 48% | 4.33s |
| /index | 9,939 | 4,032 | 72% | 00:01:13 | 97% | 4.65s |
| index#4.1 | 724 | 524 | 55% | 00:00:56 | 57% | 6.25s |
| users | 488 | 300 | 82% | 00:00:30 | 38% | 3.02s |
| index#5 | 373 | 298 | 50% | 00:01:08 | 38% | 19.33s |
| /about | 253 | 195 | 47% | 00:00:59 | 53% | 2.75s |
| index#2.91 | 120 | 54 | 62% | 00:00:49 | 70% | 2.48s |
| Page URL not defined | 56 | 48 | 0% | 00:00:00 | 0% | - |
| practices?page=2#5 | 47 | 44 | 33% | 00:01:16 | 9% | 2.28s |
| index#3.12 | 49 | 34 | 54% | 00:01:58 | 62% | 4.05s |
| practices?page=5#5 | 30 | 26 | 0% | 00:00:52 | 15% | 2.73s |

Fig.5. Page Behaviour

It can be seen that there are more page views in the practice pages, a total of about 10185 surpassing the index page views of 9939. The most number of entry and exit pages have been the index with a total of 3943 entrances and 3926 exits.

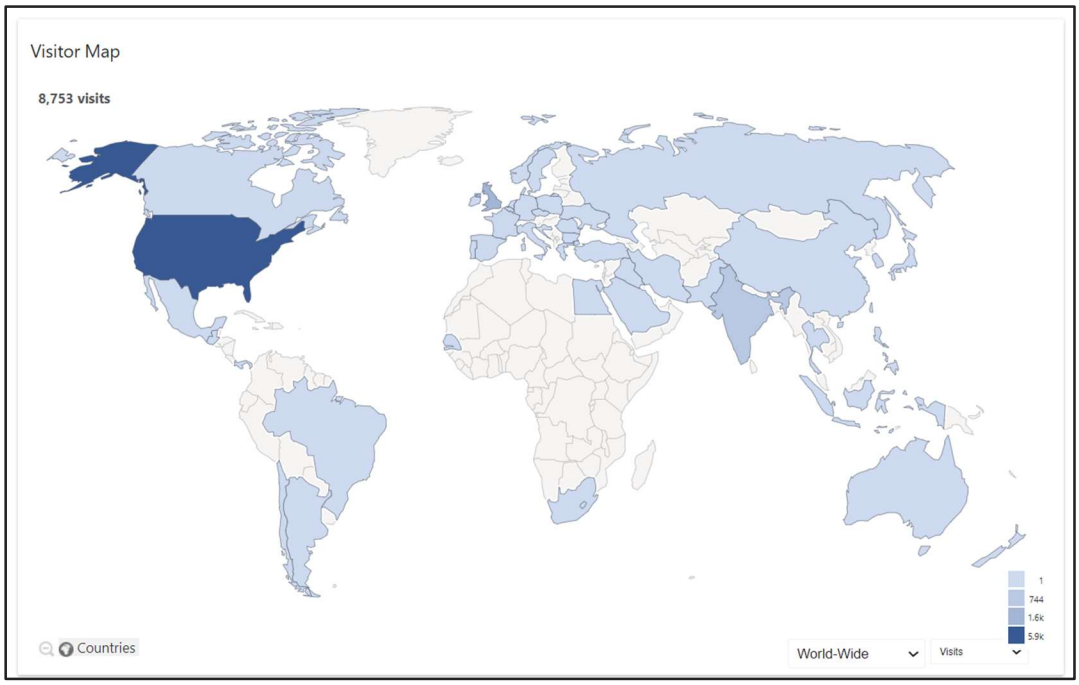



Fig. 3. Visitor Map

This map shows the places from where it has been accessed from around the world. If we take a look at a continent-wise visit, we see the following:

- The most number of visits has been from North America (the United States), a total of about 5887 visits (67.3%).
- The second highest has been in Europe (1786 visits, 20.4%).
- In Asia, there have been around 821 visits (9.4%).
- The least number of visits has been from Africa (9 visits, 0.1%.)

## 4.5 The Partnership with Norwegian University of Science and Technology (NTNU) through HBN

A partnership between NTNU and the Honey Bee Network was facilitated by GIAN. The purpose is to build the capacity of the students of NTNU by engaging them with grassroots innovators and entrepreneurs. The students were to develop growth strategies for these innovation based enterprises.

## 4.6 Capacity Building Workshops

### 4.6.1. Building SME Innovation Ecosystem in Vietnam through UNDP innovation accelerator lab

GIAN was invited to participate in a national policy level webinar organised by the UNDP Innovation Accelerator lab in Vietnam. Prof Gupta shared a possible pathway in which grassroots innovations may pave the way for entrepreneurial engagement with youth. He also shared the examples of innovations he had come across during his lectures at Huye University around two decades ago. Policy makers appreciated the golden triangle linking innovation, investment and enterprise involving the transition from micro finance to micro venture finance.

### 4.6.2. Session on Collaborative Learning Philippines through UNDP Acc Lab

The online session organised by the Philippines Acc lab, involved regional and national policy makers. The occasion was used to launch GRIND grassroots innovation for inclusive development programs. The ministry representative observed that Grassroots Innovation (GI) is still not well recognized and supported at the national level which calls for its grand scaling thus the proposed Grassroots Innovation Program in the Philippines. The Department of Science and Technology (DOST) Region XI, the Technology Application and Promotion Institute (TAPI) and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), launched the Grassroots Innovation for Inclusive Development Program and Forum on July 20, 2019 at the Hotel Jen Manila by Shangri-la, Pasay City (https://region11.dost.gov.ph/620-fostering-the-grassroots-thru-science-technology-and-innovation). Idea was to forge a network of local and international experts for the development of the GRIND program. Prof Gupta delivered an invited keynote lecture and explained the importance of learning, linking, leveraging and legitimizing the GRI in the national developmental policy.

### 4.6.3. MOOC on Management of Inclusive Innovations for Social Transformation (MIIST 1 and MIIST 2)

There were two cohorts, one had 60 labs in around 77 countries and second has 33 labs in 36 countries. in addition to the teaching, one to one mentoring was also done for many country labs. A guidebook has been developed for the labs on Ethical guidelines by Dr Anamika Dey. In addition about eight policy paper have also been developed.

Introduction

Why do people solve problems in their own way, largely through local resources, and for meeting their unmet family and community needs? In a materially constrained environment people have little choice, they should either adjust and adapt or experiment and innovate. The culture of creativity is fostered by sharing solutions, sometimes suboptimal with others openly and playfully. It is not the efficiency of solution which is celebrated at the community level but the degree of ingenuity or oddity in thinking. Not all solutions are sustainable, but many are. This course provides an understanding of the process of searching and spreading innovations but also amplifying the experimental ethic to keep the engine of innovation well-fueled. Achieving the 2030 agenda for sustainable development will require a democratization of innovation. It is possible through a blend of accessibility and affordability coupled with knowledge and action networks to ensure the widespread availability of solutions. The transaction cost of finding solutions, validating them, and diffusing them with or without value-addition will be very high in economically disadvantaged regions.

One way to reduce this cost is by creating partnerships, forming knowledge networks, and engaging with social change agents in the formal or informal sectors. In this course, we not only discuss how to map solutions but also how we create the ecosystem in which the spirit of experimentation and solving problems through innovative means flourishes. The ecosystem will include various grassroots actors such as school teachers, extension workers, farmers as well as workers' association and other civil society institutions.

Objectives of the course

1. To equip the participants from the UNDP Accelerator Labs and their partners with the skills, perspectives and conceptual understanding of the existing approach of scouting, spreading, and celebrating the grassroots innovations and sensing the unmet needs of the people. The idea is to facilitate creation of "innovation networks"

2. To encourage and socialize ethically fair and just practices (in conducting solutions mapping).

3. To discuss and develop various processes involved in inclusive innovation ecosystems such as Prior Art Search, validation and value addition, protection of Intellectual Property Rights as well as promotion and dissemination of open source/DIY technologies and practices.

4. To help in creating participatory platforms for recognizing, respecting, and rewarding grassroots innovations and outstanding traditional knowledge practices pursued by individuals and communities through a portfolio of incentives.

5. To strengthen the ability of the teams to develop policy options for scaling solutions as well as spread niche-based innovations and support institution building processes.

Pedagogy

Most of the solution mappers and other colleagues are highly accomplished professionals with a rich background in ethnography, social analysis, solution mapping, etc. However, the idea of locating and leveraging grassroots innovations may not have been part of their repertoire in the conventional roles. UNDP recognised the role such innovations can play in the achievement of SDGs and enhancing the resilience of the communities [UNCTAD 2017]. One of the key tenets of pedagogy is: Search, share & celebrate innovations by sensing unmet needs through a continued engagement and relationship with communities.

Knowledge, action, and learning networks are needed to support the spread of local solutions and grassroots innovations beyond its center of origin. Such networks for social transformation are key to ignite collective and individual action based on mutual respect and reciprocity.

The celebration of local ingenuity, including underlying traditional knowledge and institutional solutions and innovations, are essential to (re)connect grassroots and civil society to the broader ambitions and aspirations of achieving the 2030 Agenda for sustainable development.

Each session would entail a presentation by the faculty and a small exercise. The exercises may involve decision tree analysis, mind mapping, learning walks, immersive case studies, idea competition among children/youth and other participatory action learning methodologies. Greater emphasis however, will be placed on action-research by engaging with different partners/knowledge-networks to try new methods of solution scouting, mapping, and tapping. Learning from creative people will be one of the important lessons reinforced in the course. Each session will be followed by some questions for self-reflexive learning on the part of participants. Action research methodology for generating policy options will be pursued as a part of individualized learning pathways for those interested. The course will require presentations by the participants during the last session highlighting the paradoxical learning realized through community interactions.

Outcomes

- Learning about cross-pollination of ideas and how these can help in co-creating better solutions for wider diffusion?
- The ethical foundation of knowledge exchange among solution mappers and solution providers besides other community members.
- Lessons from the Honey Bee Network for attribution, appropriation, and benefit sharing.
- Designing portfolio of incentives for various stakeholders with specific reference to non-monetary incentives for individuals and communities.

- Designing specific mix of methods and metrics for mapping, mentoring and disseminating solutionS
- Identifying policy implications of different sets of grassroots innovations and solutions for pilot testing, scaling up and institutionalizing various systemic changes.
- Generate sensitivity about authenticity and accountability of the solution exchange platform.

### 4.6.4. Workshop on Promoting Grassroots Innovation: Present Situation, Challenges, and Policies in Collaboration with UNESCAP, Bangkok, Nov 2020

Grassroots innovation is a modality of inclusive innovation that enables affordable, niche-adapted solutions developed by members of informal sector at community level, like farmers, artisans, workers, mechanics, children etc., to address unmet needs or local problems, often unaided by public sector or actors in the formal sector, including firms, science and technological institutions, and nongovernmental organisations. As a bottom-up approach, grassroots innovation converts the ideas and innovations of knowledge-rich but economically poor individuals and communities into viable means of raising income, addressing social needs, and conserving the environment. In a context of growing income disparity and, especially, economic recession caused by the COVID-19 pandemic, every effort should be made to promote grassroots innovation.

A variety of policies and strategies of the public sector can serve the emergence, recognition, and diffusion of grassroots innovations. The webinar aimed to raise awareness of the significance of grassroots innovations, provide policymakers with suggestions on how to promote grassroots innovations, and exchange the experience of practitioners within and across the national borders. The webinar was mainly addressed to government officials and other decision makers from Asia-Pacific region, and researchers and civil society stakeholders relevant to the topic are also welcome to participate.

The webinar was based on the Workbook on Policies and Strategies for Promoting Grassroots Innovations published by ESCAP, the Grassroots Innovation Augmentation Network (GIAN) and the Honey Bee Network.

The objectives of the webinar were to:

1. Establish basic understanding about grassroots innovations: the definition of grassroots innovation; reasons why grassroots innovations matter and worth government support; the emergence, growth, and diffusion of grassroots innovations; different types of grassroots innovations; challenges for grassroots innovators; current policies from government or government-supported organizations to promote grassroots innovations. This part will be based on the experience of the Honey Bee Network over the past three decades of its existence.

2. Explore policies and strategies to create an enabling environment for grassroots innovations: what can be done by governments, academia, industry, NGOs, etc., to discover, recognize, protect, incubate, and promote grassroots innovations.

a. Discovery: different sources and methods for discovering grassroots innovations;

b. Recognition and protection: identifying local, regional and global innovations & traditional knowledge; protecting intellectual property right;

c. Incubation: process followed by governments and civil organizations to incubate grassroots innovations;

d. Social diffusion: approaches to diffuse grassroots innovations;

e. Financing: available financing mechanisms to support grassroots innovations;

f. Build linkages among grassroots innovators, public institutions, firms, academia, and civil society organizations.

3. Discuss and identify opportunities for regional cooperation among governments to provide a conducive environment for grassroots innovations, and the roles ESCAP and Honey Bee Network can play.

#### 4.6.5. Workshop on Session 3 – Promoting grassroots innovation at the policy level in collaboration with UNESCAP, Bangkok, Nov 2021

The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), in collaboration with Digital Pathways at Oxford, the Inclusive Business Action Network (iBAN), the Honey Bee Network, and the Gujarat Grassroots Innovations Augmentation Network (GIAN), had organized a Forum on Frontiers of Inclusive Innovation: Formulating Technology and Innovation Policies that Leave No one Behind. The forum took place through a series of six online sessions in November 2021.

This third interactive policy exchange session will enable government officials and selected stakeholders to explore the potential of grassroots innovation and how to promote it at the policy level. The conversation will feature community voices and the experiences of policymakers from India, Malaysia and The Philippines.

## 5. Partnership with global UNDP Accelerator Lab Network

### -----in 113 Countries & Support for the New Campaign for Scouting & Disseminating Grassroots Energy Solutions

The partnership with UNDP is being extended to 2022 to include an additional objective and that is to help the ACC lab Network in mapping energy solutions for improving global energy self-reliance among the disadvantaged communities.

## 6. Innovation Awards

### 6.1. The Global Honey Bee Network Creativity & Inclusive Innovation Awards (HBNCRIIA) 2020

Celebrating inclusive innovations from and for grassroots has been the prime mover of Honey Bee Network for the last almost 35 years. The Network gives voice, visibility and velocity to the creative grassroots ideas. Having pioneered the grassroots innovation movement, it is natural for the Network to recognise the innovations from around the world.

Honey Bee Network Creativity & Inclusive Innovation Awards (HBNCRIIA) 2020 were given away by Dr. Rajiv Kumar, Vice- chairperson NITI Aayog in presence of Dr R A Mashelkar, FRS, Prof Bakul Dholakia, Former Director IIMA; Chairperson GIAN, Gina Lucarelli, Lead-UNDP Accelerator Labs, Prof Anil K Gupta, Founder Honey Bee Network, SRISTI, GIAN & NIF, Visiting faculty IIMA, IIT B, Ms. Sharmila Mohammed Salleh, CEO Yayasan Innovasi Malaysia, MOSTI, Gov. of Malaysia and many eminent scientists, scholars, policy makers, teachers and grassroots innovators around the world.

Dr Anamika Dey, CEO, GIAN welcomed the guests, awardees and the hundreds of participants who gathered to encourage inclusive innovations. GIAN [Gujarat Grassroots Innovation Augmentation Network], along with the Honey Bee Network institutions like SRISTI, SEVA, Palle Srujana, Pathe pathshala, etc., organised the biennial International competition for creative & inclusive Innovative ideas or traditional knowledge practices, which solve day-to-day problems faced by society. The HBNCRIIA award accepts entries from both the formal and informal sectors. This award aims to give international recognition to the innovations which are from/for grassroots, and address unmet social needs.

The Chief Guest, Vice-chairperson, NITI Aayog Dr Kumar said, “Some of the technologies are cutting edge and may prove to be major ways of solving wicked developmental challenges. The interactive soap from Iraq encourages kids to wash hands. The Tomato shelf- Life enhancer by Duba Raju can be a boon to farmers who otherwise suffer huge losses due to overproduction of the tomatoes. I have seen personally how farmers are forced to throw tomatoes on the streets sometimes. Or they have to resort to distress sales sometimes. With this technology, they may store the tomatoes for a longer period of time and negotiate a better price. Soumita Basu from India has come up with her uniquely designed adaptive clothing for the differently abled and the elderly. Both Soumita and Andrea Mosquera from Ecuador have mastered what we call, “Sam vedana se Srijansheelta " from empathy to innovation. He sought the Network’s support in meeting three challenges : how to overcome malnutrition among children, how to get over the problem of 60 per cent women suffering from anemia and how creativity of school children can be mobilised to develop a critical and questioning mind.

Prof Anil K Gupta while welcoming the distinguished guests mentioned, “we have reviewed around 2500 entries from 87 countries. These were screened by eminent scholars/practitioners at the primary stage followed by expert jury review. The winners include 10 international awards, 4 Coping with Covid awards and 4 appreciation awards from eight countries. We recognize the efforts by thousands of innovators who sent their ideas for dealing with

COVID-19, sanitation, environmental care, agriculture, food and agro-processing, reduction in drudgery, safety, etc. He shared how the grassroots to Global movement (g2G) is being unleashed to recognise creativity worldwide.

Speaking on the occasion, Dr Mashelkar recalled how some of the grassroots innovators among the first few grantees of the TePP [Technopreneur Programme (TePP) of the Department of Scientific & Industrial Research (DSIR), Government of India, have become multi-millionaires. He was then DG
CSIR and Secty, DSIR. He particularly referred to the digital disadvantages overcome by the awarded innovative school teachers. Co-chair HBNCRIIA 2020 and Chairperson of GIAN, Prof Bakul Dholakia said, “Over the years, GIAN has stayed true to its promise, to serve the innovators at their doorsteps. Even during the pandemic where mobility was restricted, it has invested in 24 grassroots technologies under the Micro Venture Innovation Fund with the help of SIDBI without a face-to-face meeting. It has upheld the principle of the Honey Bee Network that when innovators trust us with their knowledge, ideas and innovations why we should not trust them.”

Gina Lucarelli, Team lead, UNDP accelerator Labs, “The partnership with the Honey Bee Network started in 2019 for capacity and skill building of the lab teams and providing tools for them. The HBN through GIAN has been our partner to understand the emergence and sustenance of the grassroots innovations. I am hopeful that together we can learn from the grassroots communities how to tackle the wicked or sticky developmental challenges troubling our world and the environment. It is very heartening to see that our communities are innovating not less than the formal R and D systems as well as public policy and delivery systems. Several solutions at the community level have been mapped and collected, even during the Covid times. For example, almost all the countries have innovated some form of foot operated sanitizer dispenser or sanitization channel. The need now is to take these solutions forward with the help of different partners in different geographies.

She highlighted the need for harnessing collective intelligence meeting unmet needs and also empower communities worldwide to learn from each other to seek and spread frugal innovations.

The enthusiasm of the winners was evident, the event showcased their innovations and their reactions of receiving the award.

The Members of the jury included Prof. P V M Rao (Professor and Head, Department of Design, IIT Delhi), Prof. Vijaya Sherry Chand (Professor & Chairperson, Ravi J. Matthai Centre for Educational Innovation, RJMCEI, IIM), Prof. B. K. Chakravarthy (IDC School of Design, Associate Faculty of Education Technology, IIT Bombay, Powai), Prof. Sanjay Sarma (Vice President for Open Learning and Professor of Mechanical Engineering at MIT, Boston), Dr. Chintan Vaishnav (Senior Lecturer, MIT's Sloan School of Management), Mr. Chetan Patel (National Coordinator - Shodhyatra at SRISTI), Ms Basma Saeed (Head of solutions mapping, UNDP Accelerator Labs, Sudan), Mr Nilesh Kulkarni (Director of Gharda Chemicals Ltd.), Mr Dan Kiernan (Careers Coach at Saïd Business School, University of Oxford), Wong Ada (Hong Kong Institute of Contemporary Culture), Rozita Singh (Head of Solutions Mapping, Accelerator Lab at UNDP, India), and Ms Alison Field- Juma (Executive Director at OARS Cambridge, United States).

**Main Awards**

**Innovation: One Peso Internet**
**Innovator: A collective of Computer Technicians in Quiapo, Manila**
**Country: Philippines**

Pisonets are standalone internet kiosks that operate by inserting Php1.00 coins in exchange for 5 minutes of internet use. We observed that most users access their Facebook accounts and watch YouTube videos. Pisonets are made by assembling old cannibalized computer parts, a CRT/LCD monitor, a digital coin slot & a timer. In a nutshell, these are decentralized internet cafes—the need to have affordable internet for those without a smartphone or a computer. The solution is for the general public, mainly those in the youth sector. Users usually use the solution to access social media sites and entertainment sites such as YouTube. This means that access to computers and the internet is still a great challenge for people. Like PisoWiFi, this is a basic form of the sharing economy where the poor can access a computer and the internet through affordable means. This solution is the next evolution of the internet cafe and presents how internet cafes can be decentralized by bringing it to the customers. There is widespread acceptance by the general public as the arcade game-type design can easily be mobilized and installed in remote areas where there is no access to computers and the internet. The impact is apparent and observable.

**Innovation: Dogs Against Gender Violence**
**Innovator: Andrea Mosquera**
**Country: Ecuador**

This solution was created by Andrea Mosquera, measuring, who shared her experience in the Human Library event organized by Ecuador´s Acc lab in January. Andrea is a woman with a disability (cerebral palsy) who was assaulted by a man who had followed her in a park. When she was brought down to the floor, suddenly, a dog approached them and barked insistently to the point that the attacker had to let her go. From this experience, Andrea Funded ARNV (Non-violence Rapid Action), a foundation that trains street dogs to protect battered women who have a restraining order.

**Innovation: Galah Tuis (Fruit packing/wrapping Pole)**
**Innovator: Azhar bin Ismail**
**Country: Malaysia**

This handy tool enables fruits to be swiftly and easily wrapped directly on tree branches without the need to climb up trees. The innovation protects damage to ripening fruits caused by birds, insects, and tree-climbing animals such as squirrels while also reducing the risk of accidents from falling off trees. It is easy to use with minimal maintenance costs.

**Innovation's title: Caza Mosquitos**
**Innovator's name: Joaquín Cochero**
**Country: Argentina**

Caza Mosquitos is a project where citizen scientists help report the occurrence of mosquitos, mainly Aedes aegypti, that acts as a vector for Dengue fever. Citizen scientists can send their reports through a mobile app or the project's website, and all photos of the insects get validated through a back-end server. All results are public and the distribution map of the mosquitos is updated in the website.


**Innovation: Smartphone with an inbuilt body temperature sensor**
**Innovator: SIMI Mobile Uganda/ Engo Holdings Group**
**Country: Uganda**

The phones are manufactured and assembled by SIMI Mobile Uganda in Namanve Industrial Park and were launched by Evelyn Anite, the state minister for investment. The phone has infrared temperature sensors integrated into the rear camera block, which can measure one's body temperature. The phone costs Shillings 380,000 on the open market

and it uses the Google Play Store to update itself. It does not require calibrating, as is the case with temperature guns. The in-built sensors can read one's temperature on the surface without attaching it to the body. Anite launched another product by the same company, a solar-powered feature phone with an in-built solar panel to enable self-charging. It charges itself once placed under the sun and can serve as a power bank for other phones. The phone locally known as 'Kabiriti', also has social media applications and has a battery capacity of 4,000mAh.

**Innovation: Life Shelter for the displaced population**
**Innovator: Iraq Response Innovation Lab**
**Country: Iraq**

LifeShelters answers to all the challenges, and then some: it's durable, cost-effective, affordable, and modular shelter solution made entirely with Rockwool, compliant with UN standards, with a life expectancy of 15 years+, to provide dignity to the displaced population. It is simple and easy to erect and disassemble. It is semi-permanent, safe, and resistant to fire, earthquake, and storm-resistant.

**Innovation: Modha Electro-Mechanical Attachment for Handlooms Replacing Jacquards**
**Innovator: Sivakumar Modha**
**State: Telangana, India**

This innovation could be a game-changer for handlooms across the world. Innovator brought electronics to guide the weaver on the handloom for color selection and no of threads hitherto being done by Jacquard. Easy to install, easy to operate, low cost, no maintenance, unlimited designs using a pen drive can be woven on the handloom.

**Innovation: Adaptive Clothing for differently-abled people**
**Innovator: Soumita Basu**
**State: West Bengal, India**

Design adapted to different physical needs and body types, innovating on the cuts, fabrics, and fasteners so that people with reduced mobility, specific physical needs can wear with ease, comfort, quickly, and more independently. It is particularly useful for people with disabilities, chronic pain, chronic illness, and the elderly.

**Innovation: Tomatoes Shelf Life Enhancer**
**Innovator: Smt Duba Raju**
**State: Andhra Pradesh, India**

The innovator has come up with a herbal extract made of leafy vegetables which has allowed tomatoes to be in good shape and in good condition for at least thirty days. Ingredients used are Water, Hibiscus leaves, Shikakai pods, citric acid, methylparaben, sodium carboxymethyl cellulose/guar gum powder.

**Formulation:** 20 kgs of Hibiscus leaves are boiled in two equal batches in 10 l of water each, previously boiled and mixed with Methylparaben, reducing the volume of the Hibiscus solution to half after which citric acid is being added(1 tablespoon per litre of water). Thus, 10 L of the Hibiscus solution is produced. Two litres of Shikakai solution are produced after boiling 1 kg of shikakai pods in 3l of water and adding either Sodium Carboxymethyl cellulose or Guar gum powder(1 tablespoon per litre of water). The final herbal extract is the result of the mixing of both the Hibiscus and Shikakai solution.

**Innovation: Agro-processing machinery**
**Innovator: Dharambir Kamboj**
**State: Haryana, India**

**Machine to extract kernels from fresh corn.** The innovator designed a machine that will help people to extract corn kernels and corn milk easily. One has to just put the corn into the machine and the kernels will be ready at the other end. Also, there is a grinder associated with the set up which grinds the kernels to milk if needed. One person can extract kernels from nearly 200 corns in an hour. 1 kg of kernel is capable of producing 7 litres of corn milk.

**Vacuum frying machine**

The vacuum frying machine can fry fruits and vegetables with up to $65^0$C temperature inside a vacuum chamber which keeps the color and nutrition intact. The machine is capable of frying 5Kg of fruits/ vegetables within 20 minutes.

**Covid Awards**

**Innovation: Isolated bed with enclosure structure**
**Innovator: Ashokumar Aasarani**
**State: Rajasthan, India**

It is an isolated bed designed to ensure social distancing between the covid positive patients and the health workers treating them. The main aim behind the innovation is to stop the further spreading of the virus from one patient to another. The design comprises a detachable transparent enclosure structure that can be mounted on a bed with the patient in it. It has a window for providing the patient with food and medicine. The window is also useful for accessing the patient for basic medical investigations with minimum contact. The enclosure can also be equipped with essential life-support systems. The structure itself is

capable of carrying the patient to other places maintaining the isolation.

**Innovation: Teaching Through Conference Calls**
**Innovator: Balaji Jadhav**
**State: Maharashtra, India**

The teacher started conference calling from April 2020, because students didn't have smartphones at home, they just had simple keypad phones, and the internet was a major issue in Satara. 80% of the students didn't have smartphone facilities at home. He started contacting 10 students in one call in the morning and evening for 1 hour. He had 40 students from 1st to 4th standard. At the beginning of lockdown, he used to tell stories in the morning session, and in the evening sessions, he asked the students to narrate the same stories. Now he is converting educational topics in story format and teaching through that, to make listening interesting. After that, he asked students to write down the stories narrated on the phone call. In 1.5 months, students were skilled in writing and narrating the stories. Then he went one step ahead and asked students to record the stories and now there are 500 such student-recorded stories available.

**Innovation: Cable Classroom**
**Innovator: Ashokbhai Dave**
**State: Gujarat, India**


Arranged an educational lecture series through cable network telecast in rural areas where internet connectivity is a major issue. Free services were provided by Shankheshwar Cable Network – Mayur Goswami, Krishna Studio, and Harsiddhi Computers – Mehul Goswami. Around 70 villages and 20000 children of Shankheshwar block were covered. About 350 teachers of the block delivered lectures according

to decided timetable and daily 2 hour lectures were being delivered for the last 2 months.

**Innovation: Surprise Soap**
**Innovator: Field Ready – Makerspace(Community Initiative)**
**Country: Iraq**

Surprise Soaps are small, clear soaps for children with a plastic toy visible inside. The more children wash their hands, the quicker they're rewarded with the toy. By washing their hands more often, children who use the soaps are helping to make their communities healthier. The plastic toy that is put inside the soap is made using 3D printing technology, so far Field Ready has distributed thousands of surprise soap either to children inside camps or schools.

**Appreciation Awards**

**Innovation: Cassava & Sargassum Bioplastic**
**Innovator: Kerri-Ann Bovell**
**Country: Barbados**

Bioplastic: Non-food packaging alternative made of cassava starch waste and sargassum seaweed collected from beaches in Barbados. The innovator Kerri-Ann Bovell has not started production or selling. She has developed a prototype and done testing only thus far.

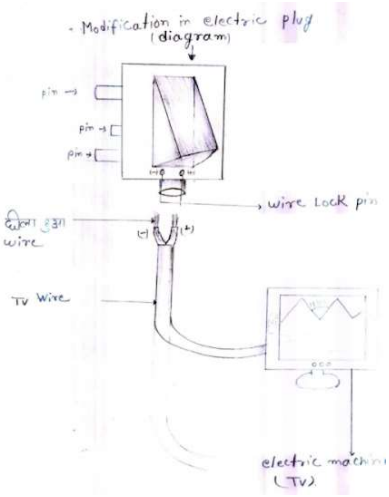

**Innovation: Drinking straws from coconut leaves**
**Innovator: Saji Varghese**
**State: Karnataka, India**

He has come up with an innovation of biodegradable straws from naturally fallen coconut leaves. They have also developed four machines for the production process which can be given to women groups in rural areas and engage them in the production of straws. The straws have received a good response globally as they are made in a chemical-free process, taking advantage of the natural wax in dry coconut leaves, making them hydrophobic and antifungal. The straw varieties range from 3mm to 13 mm diameter and customized lengths and are priced between Rs.2.80-Rs 4:70 per straw for the various dimensions for bulk purchases.

**Innovation: Modification in an electric plug**

**Innovator: Ravi Kumar Sharma**

**State: Bihar, India**




The idea is to attach a switch with the electric plug, stopping the passage of electricity to the electronic appliance connected through the plug. With this, there will be no need for the user to remove the plug from the socket after each appliance usage. Again, in case of any damage to the switch of the 'modified electric plug', there will be no harm caused to the appliance. One can simply change the switch and the plug will be in working condition again.

**Innovation: Sun Handloom (Handloom for specially-abled weavers)**

**Innovator: Kapil Vaidya**

**State: Himachal Pradesh, India**

In Himachal, all products are made on a 4-shaft or 8-shaft Handloom, which is operated by both hands and legs. During his field visits in many villages for his project, he met a few artisans who were good weavers but lost their leg or fell from a tree, due to which one leg is not functional. Because of this disability, the person finds it difficult to support his family as he can't work on a handloom. Although this person might be a great weaver, because of a disability in the leg, they cannot run a handloom and suffer financial problems as he can't go outside to find work. To solve this problem, Kapil thought to make a handloom that hands can operate, and legs are not required , who created this to solve this problem. So we came up with an idea for this Loom – called Sun Handloom because this Loom again brings sunlight (Earning) to the family of the disabled person.

### 6.2.1 Dr APJ Abdul Kalam Ignited Mind Children Creativity and Innovation Awards 2021

The Honey Bee Network, SRISTI and GIAN jointly recognize the creative talent of school going students through an annual competition of innovative ideas/products/processes for improving our life, avoiding waste, generating or saving energy, improving the environment, increasing productivity or safety, or increasing convenience. This award is given to commemorate the legacy of Dr A P J Abdul Kalam, Bharat Ratna and former President of India and a great patron and well wisher of the Honey Bee Network.

In order to promote creativity and originality among children, students up to Standard XII or the age of 17 years, in or out of school participate by sending their ideas, innovations with or without proof of concept or prototypes.

This year in 2021, The Honey Bee Network through SRISTI and GIAN received around 4200 innovative ideas from children in 24 states of India through online and offline media. A jury comprising distinguished experts evaluated the shortlisted ideas and selected 20 innovative ideas for awards and appreciation.

The Members of the Jury included:

- Prof Uday Desai, Former Director, IIT Hyderabad
- Prof P V M Rao, Professor and Head, Department of Design, IIT-Delhi
- Prof. Vijaya Sherry Chand, Professor & Chairperson, Ravi J. Matthai Centre for Educational Innovation, RJMCEI, IIMA
- Dr Vishwajanani Sattigeri, Head CSIR-TKDL
- Dr Vipin Kumar, Director and Chief Innovation Officer, NIF
- Prof Kathan Shukla, IIM Ahmedabad
- Dr Taslim Saiyed, CEO & Director C-CAMP, Bengaluru
- Dr Vinita Prasad, CEO REVY Environmental Solutions
- Dr Anamika Dey (CEO, GIAN and Visiting Faculty, IIMA).
- Prof. Anil K. Gupta, Founder, Honey Bee Network, SRISTI, GIAN & NIF, and CSIR Bhatnagar Fellow),

Eight students have been selected for the award and 12 for appreciation certificates. SRISTI will help in prototype development of these innovative ideas. Prof Anil Gupta recalled the support, guidance and encouragement received from Former President Late Dr A. P. J. Abdul Kalam for all the innovation related activities. He strongly believed that creative and inclusive minds of children will help India become self-reliant and also a developed country soon. Many of these Innovative ideas don't address only local problems but also national and in some cases global problems. Most of the students have shown a deep empathy/ "samvedna" about the unmet needs of the society. The jury was particularly impressed with the identification of the problems by the children which in some cases even the grown ups have missed. The Honey Bee Network appreciates the efforts of all those who participated in the

competition even if award and appreciation have covered only a few. The network site will share all the relevant ideas soon after seeking consent of the children.

Some of the very relevant ideas could not be recognized because someone had developed those already even if many of these were not available in the market. We did make an exception in some cases where the societal need is very high and recognizing some of these ideas may draw the attention of designers and policy makers. Help will be provided to the students in connecting them with mentors and fabricators in deserving cases.

**Main Awards 2021**

1. **Name:** Krish
   **Class:** 11th
   **Topic:** Virtual Learning for Children with special needs
   **Phone No:** 9910627905
   **Email id:** bhatnagarkrish23@gmail.com
   **School Name:** Amity International School, Sector 6, Vasundhara, Ghaziabad
   **State:** Uttar Pradesh

2. **Name:** Suba
   **Class:** 11th
   **Topic:** Easy openable door from outside to rescue patients
   **Phone No:** 9344579145
   **Email id:** sankaransiva925@gmail.com
   **School Name:** 19-L, High Ground Road, South Mutharamman Kovil Street, Palayamkottai, Tirunelveli-627002
   **State:** Tamil Nadu

3. **Name:** Yuvraj
   **Class:** 9th
   **Topic:** Overcoming communication difficulties faced by the Dumb people
   **Phone No:** 9428399467
   **Email id:** yuvrajdighe1302@gmail.com
   **School Name:** New Era Senior Secondary School
   **State:** Gujarat

4. **Name:** Shikhar/Atharva
   **Class:** 8th
   **Topic:** Avoiding accidents for people driving/walking on the road with headphones/earphones on
   **Phone No:** Shikhar: 7600004608 (7518136650)/ Atharva: 9723823254 (9924432004)
   **Email id:**shikhar.mishra@neweraschool.com/harshaladbhoraskar@gmail.com
   **School Name:**New Era Senior Secondary School
   **State:**Gujarat

5. **Name:** Avni
   **Class:** 9th
   **Topic:** Accessibility of the internet for the visually challenged and disabled
   **Phone No:** 9810290328
   **Email id:** sonalgoyal4@gmail.com
   **School Name:** Amity International School
   **State:** Uttar Pradesh

6. **Name:** Abhijeet
   **Class:** 6th
   **Topic:** Writing pen for blind people for generating feedback about the written text
   **Phone No:** 9725692784
   **Email id:** arvind1711@gmail.com
   **School Name:** New Era Senior Secondary school
   **State:** Gujarat

7. **Name:** Harsh Kumar
   **Class:** 12th
   **Topic:** Converting benches as Street home for poor people
   **Phone No:** School No. 07752 -406578
   **School Name:** Bharat Mata Sr. Sec. School (English Medium) Bilaspur
   **State:** Chhattisgarh

8. **Name:** Sandesh Pintu Chavan
   **Topic:** Odor free urinal arrangement
   **Phone No:** 9422006867

**School Name:** Sakhubai Secondary Ashram School Balsur

**State:** Chhattisgarh

**Appreciation Awards 2021**

1. **Name:** Agnij

   **Class:** 9th

   **Topic:** To avoid Wastage of beverages in Tetra Pak packages

   **Phone No:** 9910454395

   **Email:** agnijmoitra@gmail.com

   **School Name:** Birla Vidya Niketan, Sector 4, Pushp Vihar, New Delhi, Delhi 110017

   **State:** New Delhi

2. **Name**: Vaibhav

   **Class:** 11th

   **Topic:** A clearing house for linking casual labourers with potential employers

   **Phone No:** 7205193418

   Email: vaibhavkumar6131@gmail.com

   **School Name:** Kiit international school , Campus 9, patia , bhubaneswar

   **State:** Odisha

3. **Name:** S.Gaurav

   **Class:** 9th

   **Topic:** Enabling connections across telecom providers through real time payment for such connectivity benefiting the end users.

   **Phone No:** 8570868977 / 9416022630

   **Email:** sgauravsingh2805@gmail.com

   **School Name:** Army public school, shillong

   **State:** Meghalaya

4. **Name:** Shreya Devgan
   **Class:** 12th
   **Topic:** Connecting accident victims in real time with human tissue banks
   **Phone No:** 8800640648
   **Email:** shreya.dvgn@gmail.com
   **School Name:** Amity International School, Noida
   **State:** Uttar Pradesh

5. **Name:** Arka Ash
   **Class:** 9th
   **Topic:** Extendable and Bendable Broom
   **Phone No:** 9932871414
   **Email:** aarka8185@gmail.com
   **School Name:** D.A.V Model School Durgapur Paschim Bardhman, West Bengal
   **State:** West Bengal

6. **Name:** Himanshu
   **Class:** 11th
   **Topic:** Digital Weed Detection Mechanism using database of weeds and crops
   **Phone No:** 9999633455
   **Email:** himanshush290905@gmail.com
   **School Name:** Amity International School, Saket
   **State:** Delhi

7. **Name**: Ruby Gupta
   **Class:** 10th
   **Topic:** Wearable device indicating dehydration of body advising the user to drink water
   **Phone No:** 6268622996
   **School Name:** Govt Girls Higher Secondary School, Sipat
   **State:** Chhattisgarh

8. **Name:** Udey Singh
   **Class:** 12th

**Topic:** Load carrying  cap for the labourers in construction and other industries

**Phone No**:

**School Name:** Government Higher Secondary School Bilaspur

**State:** Chhattisgarh

9. **Name:** Anushka Gupta

   **Topic:** Manual turning device for digesting Kitchen Waste into Manure

   **Phone No:** 6307247938

   **Email:** pk1207569@gmail.com

   **State:** Uttar Pradesh

10. **Name:** Kanika

    **Class:** 12th

    **Topic:** A device telling blind about their surrounding

    **School Name:** Delhi Public School, Rohini, New Delhi

    **State:** New Delhi

11. **Name:** Hrishikesh

    **Class:** 6th

    **Topic:** A garbage collecting van through conveyor belt

    **Phone No:** 7745886929

    **School Name:** Vivekananda Vidyalaya Yavatmal, Maharashtra India

    **State:** Maharashtra

12. **Name:** Girish Kumar

    **Class:** 10th

    **Topic:** Toll free Number for study/coaching without access to internet and smartphones

    **Phone No:** 8305967435

    **Email:** saemsbalodabazar@gmail.com\deobalodabazar12@gmail.com

    **School Name:** Swami Atmanand English Medium School

**State:** Chhattisgarh

### 6.2.2 Dr APJ Abdul Kalam Ignited Mind Children Creativity and Innovation Awards 2020

In the memory of Dr. A.P.J. Abdul Kalam, the Honey Bee Network, SRISTI, and GIAN jointly organise a national competition of student's innovative and creative ideas with the name of Dr APJ Abdul Kalam Ignited Mind Children Creativity and Innovation Award. The competition accepts entries from students up to class 12 or children up-to 18 years of age. This award aims to develop a culture of the samvedana amongst the children to address unmet social needs. The idea is to make children aware of the problems and hardships that have been faced by the common people in their day-to-day life and with which many of us have learned to live with. Hence if children start becoming impatient with social inertia at an early age, it is likely that they will bring about more creative and compassionate changes in the society as they grow up.

Dr APJ Abdul Kalam Ignited Mind Children Creativity and Innovation Awards 2020 received around 9000 entries from 22 states and UTs across the country. Out of these, 9 awards and 6 appreciations were selected. The virtual award ceremony was held on March 11, 2021 and the awards were given away by eminent scholar Padma Vibhushan Dr RA Mashelkar, FRS.

Padma Shri Prof Anil Gupta while welcoming the guests highlighted that Late Shri Abdul Kalam had always been a great promoter that children should be allowed to think without any bias or notion implanted onto them. He also stressed that children, when left free to think and act according to their own will, look for unconventional ideas to solve unmet social needs.

Hon'ble chief guest of the function Dr Mashelkar, while addressing the children, pointed out the need to promote more such activities at national as well as local level to encourage children to work towards meeting the unmet needs of the society. He also said that even if we eventually find water on the moon, it would be of little help if we could not save water in our surrounding areas. He also mentioned when people ask him why he is such an optimistic personality, he says that it is the children of this country which gives him hope and confidence that India's future is in good hands and so the reason behind him being such an optimistic person.

For the screening and selection of the awards, the Members of the review Committee included Prof Anil K. Gupta (Founder, Honey Bee Network, SRISTI, GIAN, & NIF, and CSIR Bhatnagar Fellow 2018-21), Shri PVM Rao (Professor and Head, Department of Design, IIT Delhi), Dr Viswajanani Sattigeri (Head, CSIR TKDL), Prof Vijaya Sherry Chand (Professor & Chairperson, Ravi J. Matthai Centre for Educational Innovation, IIM Ahmedabad), Prof Ambrish Dongre (Professor, RJMCEI, IIM Ahmedabad), Prof Premilla D'Cruz (Professor, IIM Ahmedabad), Prof Navdeep Mathur (Professor, IIM Ahmedabad), Dr Vipin Kumar (Director and Chief Innovation Officer, NIF), Dr Nitin Maurya (Scientist, NIF), and Dr Anamika Dey (CEO, GIAN).

**Highlights of the awards:**

- The HBN received overwhelming response from the students despite the fact that we sent out the announcements for the ignitedmind Awards during the lockdown. Reaching out to the schools for the purpose during the pandemic was also a challenge. But nothing could dampen the enthusiasm of the students who sent their entries in huge numbers.

- We promoted this activity through social media, volunteers of Honey Bee Network [HBN], teachers and other like-minded organizations. The HBN received around 3000 entries online and 6000 from organizations associated with HBN including GIAN, InShodh, SIR Foundation, HBN Innovation Clubs of Haryana, Odisha, Himachal Pradesh, SRISTI etc. The award and appreciated consolation award winning entries were nine and six respectively. After reviewing the entries, we could see the enthusiasm of the children in addressing the unmet social needs.

- The entries were received from students of all classes from rural government schools and private schools in metropolitan areas. We received entries from even dropout children. This clearly shows that awards are not restricted to students from any particular background and their creativity cannot be limited by any constraints.

- The children from non-metro cities bagged the most awards, primarily from tier-3 and 2 cities leaving only a small pie for the children from metro cities.

- The students did not restrict themselves to submitting their ideas to solve the current problems but also chose to give solutions to deal with future problems and unforeseen issues like Covid-19. It is very evident that given an opportunity, the spirit of creativity and zeal of our children can make a positive difference in our society.

- We were also able to convert some of the award winning ideas into products for use by the common people. One such example is a sieving device to clean various grains ideated by Bodhisatva Ganesh Khanderao of Yavatmal, Maharashtra. He made nearly six different designs of the device (of which the latest one is selected for Ignited Mind appreciation award) and distributed such machines to 48 widows.

- There were also cases where we received ideas which have already been given shape in India or abroad and hence we could not accept such brilliant ideas for awards.

• These awards have reinforced a culture of innovation amongst children, their teachers and family members as well. Children don't need endorsement or mediation of their parents or teachers in sending any number of ideas to the Network institutions, including GIAN, SRISTI and all other collaborators and volunteers at ignitedmind@honeybee.org. The HBN acknowledges their help and hopes that the support from them and new volunteers will continue to scout and resolve the unmet social problems.

**Main Awards 2020**

1. **Name:** Ms. Jui Abhijit Keskar
   **Address:** The Orchid School, Baner- Mahalunge Road, Baner, Pune, Maharashtra
   **Contact No:** 9845867290
   **Title:** An Apparatus for Measuring the Tremor of a Patient affected by Parkinson's disease
   **Idea:** As described in the drawing, the wearable device will track the 3- D movement of the limb of the patent and signals thereof are received by the controller, which is connected to a database on the cloud. Web applications on the cloud can generate the tremor profiling of the patient. Charts can be directly accessed by the patient and the doctor. This will help the doctor to understand the intensity, spread, frequency, duration of the tremor and to decide upon the right kind of drug and planning physiotherapy. Further, the doctor can also get to know the anxiety level of the patient.

2. **Name:** Sejuti Sarkar
   **Address:** Jawahar Navodaya Vidyalaya , Howrah, West Bengal
   **Contact No:** 9153033152
   **Title:** TYPHA: An organic water purifier bag
   **Idea:** The roots of Typha plant are to be cleaned with water and ground to powder form. Ten grams of this powder sealed in a small bag can be put in 500ml water for 25-30 minutes to get a completely purified and potable water. This affordable method of purifying water, would benefit all sections of the society. The plant has been used in the past but not as a dip bag.

3. **Name:** Shreyas Gedam
   **Address:** Dhyaneshwar Vidyalaya, Salebhata, Thlakhni, District Bhandara, Mumbai, Maharashtra
   **Contact No:** 9623441089
   **Title:** Cycle- operated Low Cost Spraying Machine
   **Idea:** This cycle- operated spraying machine helps in ploughing as well as spraying operation with much ease minimizing the hardship. It is low-cost and user friendly.

4. **Name:** Sourav

   **Address:** GSSS Camp Yamuna nagar, Haryana

   **Contact No:** 9416377166

   **Title:** A device for laying and wrapping school mat

   **Idea:** A device designed to save time for laying the sitting mat for serving mid-day meals to children in schools in proper manner and wrapping it up after use.

5. **Name:** Parthvi

   **Address:** Mukund Lal Public School Sarojini Colony, Yamuna Nagar, Haryana

   **Contact No:** 9416892466

   **Title:** Supply of fresh air to the house through electrical fittings

   **Idea:** We keep pipes of electrical fittings with its wires inside the walls in hollow soft plastic pipe of 3 to 6 mm. All the rooms, lobby and kitchen have these wires embedded in the switchboards .We will install an electric pump /blower at the top of the roof. This pump will send air through that 6mm soft pipe to all rooms, each of which will have an air opening in each electrical switch board. Fresh air will come inside the house through this opening placed in the switch board. This method will increase the oxygen level in the house. In the event of closed windows and doors, fresh air will still continue to enter the rooms through

6. **Name**: Digantika Bose

   **Address:** Memari 3 No ward, P.O and PS- Memari District Purba Bardhaman

   **Contact No:** 9434407305

   **Title:** Reduction in Ear pressure due to the continuous use of mask

   **Idea:** Health workers, police, and users have to wear masks for a long time of the day causing constant pressure on the ears. with the help of a discarded plastic, (or any flexible. board) a design is made that will stick to the back of the head when you use the mask. As a result, there will be no pressure behind the ears.

7. **Name:** Charrni B Pandya

   **Address:** Vidhya mandir, Palanpur

   **Contact No:** 9925044838

   **Title:** A height adjustable Chair for old and physically challenged people

   **Idea:** Some people cannot sit on the ground. Many adults and physically challenged people face the problem while sitting. A chair should be made in such a manner that the person sitting on it could raise its height with the help of a handle placed on the side chair. This will make it easier for the person with disabilities to get up from the surface of the ground without any hardship

8. **Name:** Aniket Prashant Kakde
   **Address:** School of Scholars, Yavatmal, Maharashtra
   **Title:** Mobile Operated automatic sanitizing Machine
   **Idea:** A mobile operated sanitiser spraying device has been developed for various public and other spaces. A working model has been developed.

9. **Name:** Sree Samhita Gundimeda
   **Address:** Kendriya Vidyalaya No. 3 Gandhinagar Cantt, Army Cantt, Gujarat -382042
   **Contact No:** 9274908907

   **Title:** Finger crushed Detecto
   **Idea:** We start by connecting out IR (infrared sensors) which are used for detecting obstacles (a human hand or fingers) to the Arduino and feed that information to the micro- controller. The IR:sensor is arranged as, one direction ( up or down) will be transmitters and the other side will be receivers. All the IR transmitters and receivers will be connected to one Arduino. The IR's will detect any object which will go to the Arduino and glow the LED (for light indication) or can also be used for a voice message or alert. The light transmitted by the LED can be sensed by the photosensitive sensor or by programming Arduino when IR sensors detect obstacles, can be used as signals to the hinges to lock itself in place or put an obstacle in the middle. If we are using special lock hinges, these have to be designed for this purpose.

**Appreciation awards 2020**

1. Name: Yash Gokul Kshirsagar

   Address: Malojiraje Vidyalaya, Lonand Taluka Khandala District Satara, Maharashtra

   Contact No: 9860656168

   Title: Groundnut Seed thresher

Idea: Groundnut Seed thresher Seed separation of groundnut is a daily need in kitchen. The thresher is made from all waste parts of motorcycle and bicycle. First we have to pour whole groundnut in the machine. Then when we rotate its pedal, seeds and crushed ear pods fall do\l\/Il on earth and we can easily separate seed and its ear pods. It can separate one kg seeds in one minute. It does not require any fuel. It’s economical and eco-friendly.

2. Name: Sandip Biswas

   Address: Jawahar Navodaya Vidyalaya Pirnlia, west Bengal

   Contact No: 8101989021

   Title: Folding Crutches with chair

Idea: I have designed crutches with a facility for sitting for the physically challenged. In this system, two parts of a crutch shown in the diagram can be folded to form a chair. And by this the person can sit anywhere without any extra efforts. This is much more helpful for them and the existing crutches can also be modified at low cost.

3. Name: Priyanka Tarki

   Address: Holy Cross Higher Seconda1y School Chhattisgarh

   Contact No: 7748887735

   Title: A machine making fuel from co2

Idea: By using this machine, we can save diesel and petrol. Its machine uses the atmospheric C02 as an alternative for this. The C02 that is present in the atmosphere is used to collect and heat at a very high temperature by using various chemical reactions for it. While some scientists abroad have developed the technology, it is still at an experimental stage.

4. Name: Vishal Kumar

   Address: Damla Yamuna Nagar

   Contact No:

   Title: Battery Rickshaw for cleaning purpose

Idea: This rickshaw is solar- powered and battery operated. It has a roof to protect us from sun and rain. A broom attached below cleans the street wherever this rickshaw moves. The garbage is swept on one side of the road on the move.

5. Name: Busra Imtiyaz Deg

   Address: Pratbrnic Sara, Parkhet, Gujarat

   Contact No: 9727065548

   Title: Litmus kind of Paper strip test for sweetness detection in fruit

Idea: Now-a-days, the vendors inject artificial sweetener in the fruits to boost their sales and earn extra money at the cost of our health. We can use a litmus kind of paper to detect the extent of externally induced sweetness of fruit/vegetable as distinct from the natural one. When the vegetables/fruits are put to test by the paper strip test, the colour changes as indication of artificial usage of sweetness on the fruits/vegetables.

6. Name: Bodhisatva Ganesh Khanderao

   Address: Kendriya Vidyalaya

   Contact No:

   Title: Mechanical Sieve Labour Free Multigrain Cleaning Machine

Idea: The machine is used to clean a huge amount of different types of gram in every harvest season. This model is called mechanical sieve or sift. This is a very simple machine which we can use manually or electrically. This sift is kept on a firm metal stand. Just you have to move it up and down like a see- saw. Also mesh can be changed as per the size of grain.

### 6.2.3 GIAN Doot - A National Level Internship Program

This internship program focused on helping Grassroots innovators who were in the GIAN network and those innovators who needed help to develop their innovation by documenting their innovations and spreading them across India. To undertake market research, project development, provide design, IP related and entrepreneurial support and help in protection of their intellectual property protection. Timeline for the internship programme was January 25 to February 25, 2021.

The following objectives were kept in mind before starting this internship program

- ➢ Scouting and documentation
- ➢ Forms making for GIAN
- ➢ 3D Drawing of innovation
- ➢ Profile update of innovation
- ➢ Herbal practices collecting from the tribal area of Gujarat
- ➢ Traditional knowledge gathering

**Process**

The national level internship program was classified in different categories and then assessed in accordance with the parameters decided. The primary motive was to update profiles of innovators for further development and find out the new innovations by scouting. First step of the internship was planning and then making google forms for the intern's entry, after making google forms made posters for the advertisement and posted on social media, WhatsApp groups, sent email to colleges placement cells, forms link were given in the posters and pdf so it was easy for the students to apply for it. We gave 3 days time to fill the forms and we received 117 entries in google form and by email. The shortlisted candidates were informed by email and by text messages regarding their selection along with selection text, and also sent the final google form with terms and conditions.

Task for Interns:

Scouting of innovations – Daily Minimum 6 (3 from Gujarat, 3 from other states)

How to Search innovations Online:

a. Use social Media Platforms like Facebook groups of grassroot innovators
b. Websites
c. YouTube videos
d. NEWS Articles

e. Innovation cell
f. Websites
g. Blogs

What to see while scouting: Novelty, Technology, Economically Viable, Marketable, Social application

How to submit scouted innovation: Link for Submission of Scouted Innovations: http://bit.ly/scoutingsubmission

**7. Proposal for Setting up GIAN as a Global Centre of Excellence for Grassroots Innovations and Bhartiya GGIAN, (A Think Tank)**

**Project Details**

A brainstorming session held at NITI AAYOG co-chaired by Vice Chairperson, NITI AAYOG and Principal Scientific Advisor to Prime Minister advised setting up of a national think tank responsible for strategizing policy, institutional and knowledge network for supporting innovations from and for grassroots. It was also appreciated that having pioneered the model of Grassroots Innovations and Augmentation Network, India is uniquely placed to take leadership globally. Thus, Bharatiya Grassroots to Global Innovation Augmentation Network reflects a national desire to strengthen policy framework within India and influence it globally to expand the space for people's traditional knowledge and contemporary innovations. Bharatiya GIAN: a nururant ecosystem for Inclusive innovations and articulate grassroots innovations globally.

Bharatiya GIAN is a think tank which will identify the policy gap, pursue policy changes for filling those gaps, support institution building efforts at different levels, connect research scholars and doctoral students in various bio science and other institutions with the unmet social needs and thus promote a very inclusive innovation ecosystem.

The full-fledged infrastructure of Bharatiya GIAN can be built in phases. However, a team of five policy experts/analysts led by a national coordinator and supported by 15 research staff is needed to travel to build linkages and ensure that the impact is visible from the very first year.

The recently created HBNCRIIA (Honey Bee Network Creativity and Inclusive Innovation Award) award will also be leveraged by Bharatiya GIAN for situating Indian innovations for and from grassroots in a global context. Within India, Bhartiya GGIAN will pay special attention to grassroots innovations from and for UT of Jammu and Kashmir, Ladakh, North-eastern States and Aspirational districts.

**Aims and objectives of the proposal**

Four functions that Bharatiya GIAN will pursue are:

1. **National & Global think tank:** Building linkages between different programmes

2. **Education, Mentoring & Institution building:** Build capacity at different levels in the inclusive innovation ecosystem

3. **Policy advocacy:** steering changes that can empower and enhance the impact of green grassroots innovations

4. **Grassroots Innovation Accelerator:** to validate and value-add in people's knowledge; and encourage distributed entrepreneurship models through MVIF, particularly in tribal regions, North-Eastern and aspirational districts.

**Anticipated Outcome/Deliverables:**

Bridging the gaps: Bharatiya GGIAN must bridge the following gaps

i. Policy advocacy substantiated by action research will be needed on an ongoing basis for making an inclusive innovation ecosystem more and more empathetic. The role of standards in promoting local innovations has not been adequately appreciated. The report on the Innovation index developed recently did not have a single entry on this dimension of promoting innovations. Similarly, the Regulatory approval for devices using second hand valid and viable components (certified for their sturdiness by public/private testing agencies) is not possible today and yet the country genuinely wants to encourage a circular economy.

ii. It must be remembered that for every one innovation that is patented there are a thousand others which deserve to be shared as open source of DO-IT-YOURSELF solutions. Many times traditional knowledge of one community can be an innovation for others. The innovation ecosystem can thrive on a blend of IPR protected but also open source innovations. The green revolution would not have come about without such open DIY innovations. There is much lesser appreciation in the Innovation index about such open DIY innovations propagated in each state and district and the country.

iii. The institutional infrastructure like KVK (Krishi Vigyan Kendras) present in almost all the districts has not yet emerged as one point window for all social technologies and innovations to be showcased at district level whether from CSIR, DBT, ICMR and from grassroots level through NIF, Honey Bee Network or other institutions.

iv. The National Social Service (NSS) scheme may need to be supplemented with the National or Atal Inclusive Innovation service (AIIS) scheme. The NIIS clubs will pursue four goals: search, spread, elaborate innovations and sense the unmet needs. In the next few years, unmet needs and unexploited abundant resources and skills of all the 650,000 villages need to be mapped and Tapped.

v. Public procurement as a driver for promoting innovations. Most public agencies require sufficient data for estimating viability of an innovation in their institutional context. Most start-ups, and of course almost all grassroots innovators have no funding support for generating large scale multi location trial data.

vi. In situ incubation and acceleration shas to be the mantra for GRI; youth from middle or lower middle class cannot and should not abandon their parents, set up a second establishment to fulfill ex situ incubation facilities. NIF and GIAN tried the in situ model and it worked. This is a model which has to become the dominant model for nurturing GRI.

vii. The Bharatiya GGIAN will network various public, private and civil society institutions to empower the youth in India and abroad. New initiatives are needed to galvanize the potential of existing institutional platforms that NABARD has supported like the women SHGs with saving over Rs 10000 Cr. However, if we quantify the proportion of total purchasing power that millions of women have spent on products made by other groups then the

situation is not very encouraging. A GEM like platform is needed for promoting horizontal trade and also harnessing the power of public procurement and empowering the community of grassroots innovations and women entrepreneurs.

vii. CHUNAUTI: Challenges for unfolding and augmenting technological innovation for society: specific challenge awards can be issued, as Gandhi ji did on july 24, 1929 ( http://gyti.techpedia.in/announcement) at district, state and central level for wicked problems. Indicators of inclusive innovation need to be developed. To illustrate, indicators of sustainability science were developed for STI policy dialogue recently.

**8. Progress of GIAN building after Allotment of Land plot at GIDC Sanand on Concessional Terms**

The GIAN building and training centre was proposed to be built in the campus of Grambharti Amrapur for which design was finalised and vendor was chosen by the building committee after conducting all due diligence activities. However, Grambharti had reservations regarding GIAN's access from the road. So it was withdrawn and efforts were made to identify an alternative to this. Finally, GIAN has been given a plot of 1800 square meters beside the GIDC office at Sanand with 65 percent concession. The change in area and topography necessitated change in building design and hence the last tender was withdrawn. Soil testing has been done and a new design is expected to be submitted by the end of next week.

The existing Building at Satellite Complex will need to be disposed off.

## 9. Future Activity Plans

### A. Creating Social-Innovations & Entrepreneurial Opportunities for Himalayan Bio-Resources

Project Proposal Submitted for financial support to Department of Biotechnology, New Delhi, India under Himalayan Bioresource Mission

**Principal Investigators:** Prof. Anil K Gupta and Dr. Anamika Dey

**Scope of application indicating anticipated product and processes:** To build a platform which converges the available bio-resources, traditional contemporary knowledge systems and aspirations of and opportunities for the creative communities of the Himalayan region

Project Summary

The Himalayan region being rich in bio-resources also has a rich knowledge system around them. Although part of them are documented in the form of research articles, news articles, books, classical codified literature, much of it remains to be documented and disseminated across the states in local language. We propose to build a bilingual (Hindi and English) database of 1000 innovations and knowledge of the farmers, artisans, mechanics, women, etc. Absence of a multilingual multimedia database of farmers' innovations and knowledge may lead to "reinventing the wheel" in different geographies. Many of the local practices may have commercial value as well. Our idea is to document, disseminate, augment and trigged bio-enterprises based on socially or commercially viable technologies from and for Himalayan region. The proposed platform will have innovations and traditional knowledge related to agriculture, animal husbandry, culinary packable (pre-cooked) dried dishes of uncultivated plants/weed, etc., food and agro-processing, OTC herbal formulations, vegetative dyes, fibers etc. An e-commerce platform and a catalogue listing of the best bio products from the Himalayan states and Union territories, supplemented by local market interventions will be one of the concrete outcomes besides the bilingual database. The platform shall also aggregate products from the other implementing agencies of the programme. While market linkages of entrepreneurial ventures of validated and value-added products will be facilitated, adoption of climate smart agriculture, resilient varieties will be facilitated through on farm trials. If successful, this platform will become a resource for a) sustainable herbal biotechnological solutions, b) innovative small farm equipment, c) nutritious recipe of uncultivated plants/weeds providing alternate source of nutrition for economically poor sections and other products of the region.

### B. UNDP Energy Proposal: Increasing energy access: Tapping into Grassroots Innovations

**Objective**

The new UNDP Strategic Plan (2022 – 2025) sets out the ambitious objective to increase access to clean and affordable energy for 500 million people by speeding up investment in distributed renewable energy solutions, especially for those hardest to reach and in crisis context. Affordable and reliable energy access is fundamental to achieving prosperity for all.

Together with the HoneyBee Network (HBN), the UNDP Accelerator Labs will scale its investment in mapping grassroots solutions and innovative ideas to sustainable energy access; as well as support in-house capacity development for solutions mapping. This activity track repurposes part of the available resources of the existing partnership with HBN to support the global campaign for clean and affordable energy for 500 million people by 2025.

**10. Approval of Annual Accounts and Recommendation of the same for approval by GB meeting besides Appointment of the Chartered Accountant for the Year**

In annexure

**11. New Bank Accounts in IDBI for operating Projects in Sikkim**
**Name of Bank:** IDBI Bank

**Name of Account:** Gujarat Grassroots Innovation Augmentation Network

**A/C No.:** 1887104000031815

**IFSC Code:** IBKL0001887

**MICR Code:** 737259302

**Branch Name: -** GHYALSING Branch

**Branch Code: -** 001887