

Dear All,

We welcome you to the April 2023 issue of the WIN Newsletter: Innovation for Social Impact.

As the summer draws near, our attention focuses on "shortage of water" in several parts of the country, ironically also including parts Events and Programs where we have substantial rainfall during monsoon. On a seemingly

unrelated issue, our country faces frequent waterborne epidemics, which affect the poor more due to their physical living conditions.

A common connecting factor in both is the challenge of wastewater management. Poor wastewater management leads to water stagnation and then contamination in several areas, and in turn leads to deterioration of our water bodies like ponds, lakes and rivers. This affects the health as well as water availability, which becomes acute in summer. To add to the problem, our way of stormwater management is also becoming increasingly dysfunctional. Our stormwater systems try to carry the rainwater, falling on roofs or ground, over large distances, with stagnation, leakages and mixing with sewage water, at many places along its journey. Thus we inadvertently manage to contaminate and pollute nature given pure rainwater and then feed that to our water bodies.

This issue focuses on the challenges of wastewater management. While many technologies have been developed for this, adoption in a cost effective manner and regular maintenance remain a challenge.

The government's laudable goal of bringing water to the tap for every household will require further development of wastewater management at different decentralised levels. In turn, effective localised wastewater and stormwater management, and then reuse will help us increase water availability. Our science in action series has articles on this topic.

WIN Nutrition projects continue to explore new avenues and areas. Our women nutri-gardeners have started their journey of putting more nutrition on the family table and then on to the market for additional income. Our nutri-preneurs continue to make steady progress. Mr. Ron Mehta, President, WIN Foundation, visited them in Sanand taluka, Ahmedabad district, and Abdasa, a remote taluka in Kutch. To empower them, we bring increased knowledge and technology in a practice oriented manner from nutrition groups at IIT Bombay and IIT Gandhinagar, as well as from the Treewalk group in Ahmedabad.

WIN Nutrition documentary screened and won the award `Best Healthcare Excellence CSR Fim' at 2nd Socio CSR Film Festival, India's largest CSR Film Festival on18th March, 2023 at Pune.

We welcome more collaborative efforts in these domains and look forward to your comments and suggestions.



Contents: Latest Updates Science in Action Series Waste Water Treatment - An overview - Case Study- Wastewater treatment and management in India

NBEC 2022 winners

# **Latest Updates**

## Nutrition - Mother and Child Health



We are happy to share that WIN Foundation's Nutrition documentary, **WINning against Malnutrition**, was awarded the "**Best Healthcare Excellence CSR Film**", at the 2nd Socio CSR Film Festival, "India's largest CSR Film Festival" organised by Socio Corpo India Pvt. Ltd.

The documentary depicts our nutrition projects, based on Local Market Creation strategy and approach for Sustainable Nutrition for Community using a dual Push (Supply) and Pull (Demand) approach. The film can be viewed at : <u>https://win-f.org/WINNutritonFilm</u>

**Sanand Nutrition Projects:** Sustained efforts by our partners Samerth Charitable Trust and microentrepreneurship training expert Nikesh have helped 25 women nutri-preneurs to reach an accelerator mode and are introducing their products in the communities as well as market.

A new Central Kitchen has been set up in the Sari village of Sanand District, Ahmedabad, Gujarat for their use for production and new product trials, in their quest to make their products more nutritious.

The Kitchen Nutrigarden project launched in Rapar district, Kutch, Gujarat, with over 350 nutrigardeners, shows promising progress. Parallely Nutrition awareness training and programs are also being carried out for the longterm sustainability.

**Saath Nutrition Projects :** With rigorous efforts and help from Saath and Nikesh, 25 Nutripreneurs from Vasna centre (Ahmedabad District, Gujarat) have reached advanced level and are independently selling the nutritional products with the help of Saath and they are being trained for FSSAI certification.

The 60 new nutri-preneurs in projects launched in 2 more areas, Danilimda and Sabarmati in Ahmedabad District, Gujarat, and one in Jaipur, Rajasthan are undergoing Micro Entrepreneurship training and progressing fast. In each area Central Kitchen facilities have been provided.

In addition, our nutri-prenerus are getting exposure to technology and nutrition analysis knowledge from



Child Nutrition Lab, IIT Bombay and Nutrition Group of IIT Gandhinagar. Parallelly, they are also being trained and made aware on Nutri-gardens through guidance and support from Mr. Lokendra Balasaria, an eminent architect who has taken many social initiatives which include organic farming, particularly for plants with high nutritional value

WIN Nutri-preneurs participated and put-up their stalls to sell the nutritious products in the exhibition - Science Carnival 2023

organised by Gujarat Council of Science City for 4 days 28th Feb'23 to 3rdh March 23

### Water and Sanitation

#### Participatory Groundwater Management

With Samerth, we are launching a new water conservation project in the area of Rapar District of Kutch covering nearly 8 villages



Jaldoots under Samerth have undergone training for PGWM activities in their respective villages.

Our various PGWM projects with Arid Communities and Technologies in the areas of (i) Mandvi- Kutch, (ii) Khambhaliya, Dwarka District, (iii) Abdasa-Kutch, (iv) Little Rann, Surendranagar, (v) Mehsana District, (v) continue to make progress, with greater focus sustainability alongwith community empowerment through the training of men and women Bhujal Jankars and

activities led by these village level leaders.

WIN has facilitated setting up an advanced laboratory to test water and soil quality reliably and accurately, at the Arid Communities and Technologies centre at Bidada, Kutch and train the Bhujal Jnakars to operate the lab. Prof. Chandramauli Subamaniam, IIT-Bombay, provides technical support and training. During his visit to Kutch in Feb'23, Prof. Subramaniam trained ACT staff on EC Meter and Spectrophotometer setup and operations.



Mr. Ron Mehta, President, WIN Foundation, visited our project areas in Sanand taluka, Ahmedabad district, and Abdasa, a remote taluka in Kutch during his visit to India on 20th - 26th January 2023.

WIN Foundation was a partner for Water Bank Foundation Trust, in organizing "Water Action for Sustainable Development", under the UN 2023 Water Conference, held from 23rd March to 24th March at New York.



WIN Foundation was invited to present in Climate Dealshare Showcase organised by AVPN, Singapore, to share on projects in its first Climate Pathfinder Cohort on 14th March 2023.

### **Innovation and Microentrepreneurship Support**

WIN Foundation again a Co-Sponsor for the Maker Bhavan's **Vishwakarma Award for Engineering Innovation 2023**, a national contest. The competition has a thematic focus each year and the

themes for 2023 are in the area of Water & Sanitation, Clean Technology, and Smart Mobility.

# Science in Action Series - 5 Waste Water Treatment - An overview

### Waste-water management, and overview of challenges and opportunities:

Every human should have the idea of taking care of the environment, of nature, of water. So using too much or wasting water should have some kind of feeling or sense of concern. Some sort of responsibility and with that, a sense of discipline." -Dalai Lama

### Wastewater Management is an integral part of managing the water cycle effectively.

![](_page_2_Picture_9.jpeg)

Traditionally, the water cycle took care of the supply of fresh water to the living world on land, including its purification by natural means. However, increase in population and industries have led to huge increase in water demand and also created massive water pollution. Nature's water cycle is grossly insufficient to meet these needs. This puts pressure on our water sources, while at the same time degrades them. Waste water management is a critical need, alongwith water conservation, to meet these challenges.

Grossly inadequate wastewater management has led to stagnant water in our localities, leading to their contamination. In turn, such water has degraded a large number of our water bodies.

A related problem is stormwater management, which manages the vast amount of water brought by rainfall during the monsoon months across the country. It is becoming increasingly clear that the current system of trying to collect and carry the stormwater over large distances is dysfunctional. Isn't

it ironical that, in most places, due to stagnation on ground for many hours or days, as well frequent mixing with sewage water, we manage to convert the pure rainwater given by nature into contaminated and polluted water and then we add it to our water bodies? We are all aware of the diseases this brings on every monsoon. The solution is actually available in the Rainwater Harvesting technology. RWH systems have been traditionally used over centuries, and modern adaptations can easily enable us to use such systems to collect a major part of rainwater from roof as well as surface

![](_page_2_Picture_14.jpeg)

Distinction Between Storm water and Waste water

and recharge groundwater. In addition to the well known increase in water availability, RWH is a better way of managing "stormwater", before it becomes dirty. RWH systems can vastly reduce the water overflow on ground, and thus reduce the substantial stormwater drain capital and operational expenses of our local government bodies.

Some major negative effects of inadequate wastewater and stormwater management are:

1. Stagnant water in our localities, which further flows into our water bodies, has led to waterborne epidemics due to the resultant water contamination and pollution, often impacting the poor more due to their physical proximity to such stagnant water. For children it can mean poor mental and physical growth

2. Degraded water bodies reduce the water available for humans and other living systems. In most such water bodies, aquatic life is severely impacted.

3. Women, particularly in rural areas, may need to travel farther to fetch potable water, or pay a high price for purified water.

4. Government has to deploy much higher resources to treat water and transport the same to households over longer distances.

The government's excellent scheme to bring water on tap for all households in progressive manner will remove some of the last mile problems. However, in turn, it will make the need for wastewater management at local levels, including in rural areas, even more acute.

![](_page_3_Picture_1.jpeg)

Several technologies have been developed by institutions and industry, including in India. WIN Foundation, for example has supported the School of Environmental Science and Engineering, IIT Kharagpur, to develop a multi-stage modular plant for wastewater treatment to bring it to near potable level at very reasonable cost. This plant is already functioning on IIT Kharagpur campus. Methods of natural root zone treatment of wastewater have also been implemented showing potential of natural methods to treat wastewater.

In an article in this issue, Dr. Seema Sukhani, founder of Tellus Habitat, a startup with packaged modular products, talks about wastewater treatment at decentralised levels of varying sizes, features and cost.

Similarly, there are several techniques for RWH. in the following picture-poster, Mr. Lokendra Balasaria, describes one such technique, called "Khambhati Kuva" in Gujarat, which can carry down vast amounts of rainwater to the aquifers, vastly reducing the on surface stagnation, and stormwater volume to be carried horizontally.

An important challenge in wastewater management systems is competency to install, operate and maintain such systems. This requires large-scale skilling in each of these areas, in urban and rural areas, to manage the vast variety of systems which may be deployed. This can, in turn, provide better quality livelihood opportunities to lakhs of our youth, in urban as well as rural areas.

#### Conclusion:

An integrated approach to wastewater and stormwater management will provide multiple benefits of better water availability and quality, reduced contamination, cleaner water bodies, reduction in water borne diseases, with lower capex and opex.

It can also vastly increase good quality water available for humans and all living systems. It further reduces the energy and cost of treating polluted or contaminated water.

As the Slovakian proverb says: "Pure Water is the World's First and Foremost Medicine."

## Khambhati Kuva

- Mr. Lokendra Balasaria. (Mr. Balasaria is an architect, and is actively promoting water conservation and natural farming, in urban and rural areas in Gujarat).

# KHAMBATI KUVA FOR SURFACE RUNOFF

![](_page_4_Picture_1.jpeg)

- A technically fine tuned soak pit modified and designed for percolation of higher quantity of rainwater run off, long operational life and better safety.
- This is best suited for largely paved urban areas where surface run off has low turbidity. In tight spaces, these can also be easily made under the drive ways.
- This can be effective in regions with absorbent sand layers at shallow depths and deeper water table. Fractures in impermeable layers can allow for larger absorption of water below ground.
- Khambati Kuva of larger diameter have been observed to have higher absorption rate and also longer active life. A 25 feet diameter at Bimanagar, Ahmedabad has been operation now for almost 2 decades with little maintenance. This society has also reported lower TDS in ground water over the years and also higher water table compared to nearby areas.

### FOR AHMEDABAD'S GEOLOGY, PROBABLY ONE OF THE MOST EFFICIENT, MINIMAL MAINTENANCE AND ECONOMICAL SOLUTION TO RAINWATER HARVESTING

IN MOST PLACES, A 10 DIAMETER AND 30 FEET DEEP WELL CAN ABSORB BETWEEN 35 TO 45 THOUSAND LITERS OF RAIN WATER EVERY HOUR

### Case Study- Wastewater treatment and management in India

Author- Mrs (Dr.) Seema Sukhani (<u>https://in.linkedin.com/in/seema-sukhani-41a6b9152</u>) Director, Tellus Habitat Pvt Ltd. (<u>http://www.tellushabitat.com/</u>)

![](_page_4_Picture_10.jpeg)

Wastewater management is a critical issue in India, where rapid urbanization, population growth, and industrialization have resulted in the generation of large quantities of wastewater. In this context, discharge of untreated wastewater into water bodies or groundwater contamination poses a significant threat to public health. Wastewater contains harmful pathogens, which can lead to waterborne diseases such as cholera, typhoid, and dysentery. Current estimates

show about 70 percent of India's water supply is already contaminated and nearly 1 million people die each year from water, sanitation and hygiene-related diseases which could also be reduced with access to safe water and sanitation. Some of the key challenges and needs for wastewater management in India include:

1. Lack of infrastructure: to treat and dispose wastewater. Many cities and towns lack proper sewerage systems, and wastewater is often discharged directly into water bodies.

2. Industrial pollution: Industrialization has led to the discharge of toxic chemicals and heavy metals into water bodies, posing a significant threat to human health and the environment.

3. Agricultural runoff: Agricultural practices such as the use of pesticides and fertilizers result in significant runoff into water bodies, leading to water pollution and soil degradation.

But the most significant challenge is the mental stigma around wastewater. The lack of ownership and accountability from us as a community for handling our own waste is the fundamental issue. Wastewater management is a global issue, but can only be treated locally. Instead of transferring responsibility to the government and larger conglomerates, treatment at the point of discharge should be adopted and encouraged.

There are other factors associated with managing our wastewater properly apart from public safety and equitable water distribution. Our planet is drying out. Every day, more and more people are experiencing water stress. Humanity is facing a water crisis like never

![](_page_5_Picture_2.jpeg)

before and in a few years' time, there simply won't be enough water available for all of us. According to the estimates, around 40% of the world's population will be living in seriously water-stressed areas by 2035. In Indian context, our country is home to 18 percent of the world's population, but only 4 percent of its water resources, making it one of the most water-stressed countries in the world. Nearly 600 million Indians face high to extreme water stress, with about 2 million people dying each year as a result of inadequate access to safe water. If we continue doing what we are doing today, there will simply not be enough water to quench the thirst of the world population.

### **RECYCLE WATER TODAY, HAVE DRINKABLE WATER TOMORROW**

We must act quickly, swiftly and locally. Every drop of used water needs to be recycled.

Water is considered to be a cheap resource around the globe and wastewater is often thought disposable. One key differentiator is associated "waste" with water which automatically bring a different response in the society. Instead, we can refer it as "used" water which can be "re used". This change in terminology and mind-set is necessary to ensure long term sustenance and water security.

![](_page_5_Picture_7.jpeg)

Efficient and compatible technology and water practices should be implemented across habitable spaces to ensure that "used" water is treated before it is discharged into water bodies or reused for domestic or commercial applications. There are several technologies available for wastewater treatment, each with its unique benefits and drawbacks. The most common wastewater treatment technologies are biological in nature, few of the most popular ones are Activated Sludge Process, Moving Bed Biofilm Reactors, Sequencing Batch Reactors, Oxidation Ponds etc.

There are two major outputs from a wastewater treatment system - the treated water and sludge. Both of these can be used in a variety of ways in both rural and urban areas. Treated water can be

used for non-potable applications like flushing, gardening, irrigation, industrial processes and recharging ground water. In rural areas treated water can be completely used in agriculture and recharging water bodies. This can help to conserve freshwater resources and reduce the demand for water. Treated water can also be used for aquaculture or fish farming. The nutrients in the treated water can provide a food source for fish, while the fish can help to remove nutrients from the water.

The sludge produced during the wastewater treatment process can also be used in a variety of ways. In rural areas, sludge can be used as fertilizer for agriculture, while in urban areas, it can be used as a soil amendment for landscaping or as a source of energy. Some wastewater treatment plants even use sludge as a source of biogas, which can be used to generate electricity or heat.

The selection of appropriate "used" water treatment technology depends on several factors such as the nature and concentration of contaminants, the volume of wastewater to be treated, the desired quality of the treated water and the re-use application of treated water. Most of these technologies requires extensive energy, trained manpower and are not economical. They are also not suitable at lower scales (<75 KLD), which essentially means one family (0.5KLD) to group of 150 families (75KLD) do not have an economical, feasible "used" water treatment technology. A large contributor of "used" water has been ignored by the technology giants of this space.

### IT TAKES A LOT OF BLUE TO STAY GREEN

Tellus Habitat was founded with the vision to bridge the gap of the under-served market and be a one stop water solution for the world's increasing water needs and depleting resources. We offer technologically advanced, compact, portable, affordable and automated systems of scales ranging from a nuclear family to a community of 1000 families for urban areas. We also offer passive nature based systems (NBS) for rural areas that treat water with the help of algae and consume negligible electricity. By recycling at the source, we can solve the worldwide water crisis.

### An Interview with NBEC 2022 winner under WIN Sponsored category `Water and Sanitation'

Start-Up Name: Tellus Habitat Pvt.Ltd., (Wastewater Treatment Solution)Founders: Dr.Seema Sukhani, Mr.Naveen Janardhana

### 1. Your vision behind Tellus Habitat?

![](_page_6_Picture_4.jpeg)

Tellus Habitat, literally translates to "Earth is your home" and thus, keeping it clean and tidy is our moral responsibility. When we founded Tellus back in

2021, our vision was to develop state of the art, affordable and innovative products and services which can equip every individual to recycle natural resources such as water in the comfort of their own home or community with minimal civil intervention. Since then, our family has grown and we have been able to create and install prefabricated smart STP solutions for villas, hostels, resorts, hotels and commercial establishment. We have a bold ambition to position Tellus Habitat as global leader & "one stop solution" for all your waste management needs.

# 2. What is the current status of Tellus Habitat? What are major challenges and opportunities? What range of customer do you address?

![](_page_6_Picture_8.jpeg)

Tellus Habitat is at the early stages of revenue generation and expansion. Currently we are operating majorly out of Karnataka and a couple of other states of India. Our customers range from independent houses, gated communities and college hostels to resorts and hotels, even commercial establishments. Our biggest success has been the tremendous support and word of mouth marketing done by our existing customers. In addition, we have also been receiving several recognitions like Invest

India-SISF 2022, NBEC'22, Best Start-up Award in the sustainability by IFCCI, start-up India, ForbesMarshal accelerator award amongst others.

Like any start-up, we are facing our fair-share of market penetration challenges and finding the right product-market fit. On the strategic level, we are trying to find ways to work with government bodies and larger conglomerates to scale sustainably. On an operational level, we are trying to hire the right people and grow our team to provide our customers with the best experience possible. On the Product front, we are trying to change the way the industry looks at water treatment systems and create better versions of technology to suit urban and rural areas.

# 3. How do you view support by a non-profit foundation like WIN Foundation for Tellus Habitat?

Apart from the validation of our product and business model at NBEC-2022, WIN foundation has been actively involved in helping our team with networking opportunities. The market access they have provided will accelerate growth for Tellus in the years to come while also providing an experiential learning opportunity for the team. WIN foundation has helped us solve strategic problems around marketing and positioning, business processes validation and partnership building. We are thankful for the support and look forward to our collaboration.

![](_page_6_Picture_14.jpeg)

#### 4. User's Voice -

'Tellus R3H20 system has been a fantastic addition to our institute. The system is very quiet, efficient, consumes less electricity, does not produce any foul odour and the output water quality is consistent and suitable for gardening and re-flushing. We wish Team Tellus lot more years of innovation.' - Mr Rajaguru, Sponsor/Alumni, STP at Bengaluru Institute of Technology

### An Interview with NBEC 2022 winner under WIN Sponsored category `Nutrition - Maternal and Child Health'

Start-Up Name : Dhriti Bio Solutions

Founders : Rani T.C, Founder & Chief engineer

Dr.Anudeep Sandanamudi, Co-founder & Chief Scientist

### 1. Your vision behind Dhriti BioSolutions? and how it addresses some critical nutrition

#### challenges.

Although progress has been done towards eradication of hunger and malnutrition, considerable innovations are required to respond to growing population and its emerging nutrition challenges. The innovations include identifying a sustainable source for nutrition and also developing a scale-up technology

![](_page_7_Picture_2.jpeg)

that is economical and carbon neutral to isolate the phyto-nutrients. Dhriti Bio Solutions (DBS) was established in response to this highly complex need: an integrative approach to health, nutrition & environment optimization. At DBS, we envision a carbon neutral, sustainable and nutritionally secured world.

# 2. What is the current status of Dhriti BioSolutions? - challenges and opportunities? Range of your products and range of customers it can address ?

Dhriti Biosolutions is currently incubated at PURSE laboratory, Vijnana bhavana, University of Mysore, Mysore. DBS established 3 production units along with partners Potential Health Development Pvt Ltd.

DBS is involved in cutting edge research and is a recipient of 6 best innovation awards. DBS product portfolio are as follows:

- Bio plastics: replacement to single use plastics; established 10 tons per day production facility at Hunsur, Karnataka. Partnered with Phitons Bioengineering Pvt Ltd (<u>https://phitons.com/</u>)

![](_page_7_Picture_8.jpeg)

![](_page_7_Picture_9.jpeg)

- Smart bio plastics: compostable polymer to improve shelf life of fruits and vegetables by 3x at room temperatures. Partnered with Peelon Inc, USA (https://www.peelon.co/).

- Nutritional flour: Shelf-stable nutritional flour without added preservatives; established 1ton/month production capacity at Hubli, Karnataka. Partnered with Going Meta Foods Labs LLP.

- Moringa composite proteins: de-ordered and de-bittered moringa leaf and seed powder; established 5tons/month production capacity at Erode, Tamilnadu. Partnered with Moringa Ingredients LLP.

![](_page_7_Picture_13.jpeg)

### 3. How do you view support by a non-profit foundation like WIN

Foundation for Dhriti Biosolutions - as sponsor of NBEC award and for linkage to social impact markets?

The collaboration between the WIN Foundation and Dhriti Bio Solutions in promoting Moringa protein as a means of creating social impact markets has the potential to bring about significant positive outcomes. By working together, the two organizations can support the development of value-added Moringa protein products by women micro-entrepreneurs and farmers, which could improve their economic opportunities and livelihoods.

Moreover, this collaboration can facilitate the production of vegan protein using sustainable and environmentally friendly technologies, such as Dhriti Bio Solutions' innovative organic process. By

utilizing these cutting-edge technologies, the production of Moringa protein can have even more significant environmental and health benefits.

Overall, the collaboration between the WIN Foundation and Dhriti Bio Solutions can be a powerful tool for driving social and environmental impact, both for the individuals and communities involved and for society

![](_page_7_Picture_20.jpeg)

as a whole. Through their joint efforts, they can help to promote a more sustainable and ethical food system while supporting the empowerment of women entrepreneurs and farmers

#### 4. User's Voice -

`DBS has developed a practical framework for creating environmental friendly products. Their sustainable products are designed to meet both functional and nutritional requirements, making them ideal for addressing the current needs of consumers- Dr Taraka Ramji, CEO, Peelon Inc, USA

For more details,visit <u>https://dhritibiosolutions.com/</u> Contact Email id : <u>anudeep@dhritibiosolutions.com</u>

# WIN Foundation - Events and Programs

## Socio CSR Film Festival

WIN Foundation's Nutrition documentary film, **WINning against Malnutrition**, won the **Best Healthcare Excellence CSR Film**` award at the **2nd Socio CSR Film Festival**, "India's largest CSR Film Festival", organised by Socio Corpo India Pvt. Ltd., at Pune on 18<sup>th</sup> March 2023.

![](_page_8_Picture_2.jpeg)

The documentary describes the WIN project to tackle malnutrition, through Local Market Creation Approach - using Dual Push (Supply) and Pull (Demand) Approach'.

WIN Nutrition documentary Link : https://win-f.org/WINNutritonFilm

![](_page_8_Picture_5.jpeg)

We thank all our project partners, for their contribution towards achieving our objectives of the nutrition projects and continuing efforts for sustainable results. We dedicate this award to our women nutri-preneurs and nutri-gardeners, who have shown amazing creativity, determination and perseverance in taking nutritious food to their families and the community.

## UN 2023 Water Conference

WIN Fondation was a partner for Water Bank Foundation Trust, in organizing "Water Action for Sustainable Development", under the UN 2023 Water Conference, held from 23rd March to 24th March at New York.

For details on "Water Action for Sustainable Development" program. please refer to: <u>https://drive.google.com/</u> <u>file/d/18zj6KLOva1D5yfBhhHCqHxGPQXYbdxZm/view?usp=share\_link</u>

For details of the UN 2023 Water Conference, visit https://sdgs.un.org/conferences/water2023

Mr. Ruyintan Mehta, WIN President, participated in the conference, representing WIN Foundation as an accredited organization to UN. At the conference, WIN, with WHEELS Global Foundation as a co-funding partner, signed an agreement for 8 plants for arsenic removal in rural Eastern India, with VAS Bros. Ent. Pvt. Ltd. VAS has developed the plants, licensing a technology pioneered at IIT Kharagpur, it uses a media processed from laterite material, abundantly available in soil.

![](_page_8_Picture_12.jpeg)

Please click to have glimpse of the conference - <u>https://win-f.org/WINatUN2023WaterConf</u>

![](_page_8_Picture_14.jpeg)

## VISHWAKARMA PRIZE - 2023

WIN Foundation again joined Maker Bhavan Foundation as a Co-Sponsor, in Maker Bhavan's **Vishwakarma Award for Engineering Innovation 2023**, a national contest. The themes for 2023 are: (i) Water & Sanitation, (ii) Clean Technology, and (iii) Smart Mobility.

IIT Delhi will host the finale for the **Vishwakarma Awards 2023**, on Jan 6th 2024, with an illustrious final jury panel to judge and motivate the teams.

The Award is open to student teams from all science and engineering students across India. Over an 8-month period, they will develop and demonstrate a working physical prototype and highlight the impact and novelty of their work.

please visit: https://www.winfoundations.org/vishwakarma-award-for-To Apply and for more details, engineering-innovation-2023/

### Climate Dealshare Showcase by AVPN (Asian Venture Philanthropy Network)

AVPN, Singapore invited WIN Foundation to give a presentation on its projects in its first Climate Pathfinder Cohort on 14th March 2023.

The session was held to share regionally relevant climate initiatives that have the potential to scale and generate lasting impact.

### Science City Carnival 2023

A Science Carnival was organized by Gujarat Council of Science City at Gujarat Science City, Ahmedabad from 28<sup>th</sup> Feb' 23 to 4<sup>th</sup> March'23.

![](_page_9_Picture_7.jpeg)

WIN Foundation facilitated our nutri-preneurs to put up a stall in the exhibition to sell their nutritious products. Nutri-preneurs received good response and also got a good exposure and learning experience on branding and marketing. Overall they generated revenue of appx. 15,000 in 4 days.

### WIN Nutri-preneurs Exposure Visits

1. Nutrition Lab, IIT Gandhinagar : An exposure visit was organised for WIN Nutri-preneurs with Prof. Bhaskar Datta and his team at Nutrition Lab, IIT Gandhinagar on 16th February 2022. The session included good cooking practices, Safety instructions, do's and don'ts to follow, standard operating procedures for using electronic appliances, etc. The session also covered practical cooking to show the trial samples like nutritious Palak Nachos/chips and shared recipes with the participants.

![](_page_9_Picture_11.jpeg)

The WIN Nutri-preneurs learn from such sessions adopt to professional practices for safety and quality.

2. Treewalks - Visit and session on Nutri-garden : WIN Foundation organised sessions for WIN nutri-

![](_page_9_Picture_14.jpeg)

preneurs on 11th Feb'23 & 18th Feb'23, with Mr. Lokendra Balasaria, founder of Tree walks. Mr. Lokendra Balasaria is an eminent architect who has taken many social initiatives which include organic farming, particularly for plants with high nutritional value.

The session covered importance of growing plants, soil nutrients and highlighted on wellness plants like Poi, Moringa, Nagod, Tandaljo, Red Hibiscus, etc. which have high nutritional value and / or natural medicinal and ayurvedic properties.

WIN nutri-preneurs were also given seeds of Poi, Tandaljo, Palak to grow in their homes and at their WIN sponsored Central Kitchens.

### WORLD WATER DAY - 2023

Arid Communities and Technologies, with WIN as a partner, organised a District Level Awareness on Participatory Ground water Management on the occasion of World Water Day on 21st March 2023 on the topic Accelerating Change to solve the water and sanitation crisis at Bhuj.

![](_page_9_Picture_20.jpeg)

The chief guests of the event were Shri Nimesh Fadke -M.D. FOKIA (Federation of Kutch Industries Associations), Shri Dilip Rana (IAS) Dist. Collector Kutch, Shri D.K.Dobariya - IEC Expert Atal Bhujal Yojana - State Project Management yojana, Shri

![](_page_9_Picture_22.jpeg)

![](_page_9_Picture_23.jpeg)

Edited by: Shanti Menon, Paresh Vora - For feedback and suggestions write to: info@winfoundations.org