



# SDG 2: ZERO HUNGER

## Progress Report 2023-2024

### MANAV RACHNA UNIVERSITY

Established wide Haryana state Legislature Act  
No 26 of 2014 & under section 2(f) of UGC 1956



End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.



## PREAMBLE

WE, THE FACULTY, STAFF, AND STUDENTS OF MANAV RACHNA UNIVERSITY, recognizing that ending hunger, achieving food security, and promoting sustainable agriculture are foundational to a healthy, prosperous, and peaceful society, hereby affirm our strategic commitment to the objectives of the United Nations Sustainable Development Goal 2: Zero Hunger.

WHEREAS widespread malnutrition, including undernutrition and deficiencies, acts as a critical barrier to human development, intellectual growth, and community resilience;

WHEREAS the complexity of food security demands a multi-disciplinary approach, integrating public health outreach, rigorous food science and technology, and the promotion of resilient, waste-reducing agricultural practices;

WHEREAS our academic strengths, particularly through our Departments of Food Science & Technology and Nutrition & Dietetics, are dedicated to training experts in food safety, nutritional quality, effective food preservation, and innovative waste management techniques;

WHEREAS our institutional outreach, notably through partnerships like the Dr. O.P. Bhalla Foundation and community service initiatives such as "Ek Mutthi Daan," provides direct, crucial assistance, including food and nourishment, to vulnerable populations and children in our neighboring areas;

NOW, THEREFORE, BE IT RESOLVED that Manav Rachna University shall continuously leverage its research, educational programs, and community engagement to combat all forms of malnutrition, ensure universal access to safe and nutritious food, and foster sustainable, technology-driven solutions for food production, security, and minimal food waste across our spheres of influence.

## SDG 2: Zero Hunger



### Global Context

Sustainable Development Goal 2 (Zero Hunger) seeks to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture by 2030. It recognizes that ending hunger is not only about producing enough food but also about ensuring equitable access, improving nutritional outcomes, and building resilient and sustainable food systems in the face of climate change, conflict, and economic shocks.

### Its key targets include:

- Ending hunger and ensuring access by all people to safe, nutritious, and sufficient food year-round.
- Ending all forms of malnutrition, including stunting and wasting in children under 5, and addressing the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.
- Doubling agricultural productivity and incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists, and fishers.
- Ensuring sustainable food production systems and implementing resilient agricultural practices that increase productivity, maintain ecosystems, and strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters.
- Maintaining the genetic diversity of seeds, cultivated plants, and farmed and domesticated animals. Recent global challenges, including the COVID-19 pandemic, climate-related disruptions, and regional conflicts, have reversed years of progress, pushing over 800 million people into hunger and highlighting the urgency of transforming food systems for resilience, equity, and sustainability.



## 1.1 Relevance to Higher Education

**Higher Education Institutions (HEIs) are pivotal in advancing SDG 2 through:**

- Conducting cutting-edge research in agronomy, food science, nutrition, biotechnology, and climate-resilient agriculture.
- Training the next generation of agronomists, nutritionists, food technologists, agricultural economists, and policymakers.
- Promoting food security and sustainable diets on campus through responsible sourcing, reduced food waste, and nutrition education for students and staff.
- Engaging with communities on agricultural extension services, public nutrition awareness, and initiatives supporting smallholder farmers and local food systems.

### **Alignment with Manav Rachna University's Mission**

Manav Rachna University (MRU) is deeply committed to SDG 2 through its vision of fostering innovation, sustainability, and social responsibility. MRU's emphasis on interdisciplinary research, community engagement, and holistic development aligns seamlessly with the goal of achieving zero hunger by nurturing future leaders who can transform food systems and ensure nutritional security. Our initiatives aim to:

- Advance agricultural and nutritional knowledge through high-impact research in food technology, sustainable farming, and nutrition science.
- Promote food security and healthy eating habits among students and staff through campus-based sustainable food practices.
- Empower local farming communities through knowledge transfer, skill development, and technology-driven agricultural outreach programs.

### **1.3 MRU's Strategic Commitment to the Goal**

Manav Rachna University (MRU) is strategically committed to ending hunger, achieving food security, improving nutrition, and promoting sustainable agriculture—core tenets of SDG 2. Recognizing that food security is fundamental to human dignity and societal progress, MRU integrates sustainability into its academic framework, research agenda, and community outreach. Through cutting-edge programs in nutrition and dietetics, agricultural biotechnology, food processing technology, and rural management, along with initiatives for waste reduction and sustainable campus dining, MRU actively contributes to building resilient, equitable, and sustainable food systems both on campus and in surrounding communities, making SDG 2 an integral part of its strategic vision.



## 2. Key Initiatives and Achievements

### 2.1 Academic Integration & Research

#### 2.1.1 Curriculum Mapping:

Courses across disciplines such as Biotechnology, Nutrition & Dietetics, Food Technology, Agriculture Science, and Management have integrated themes of food security, sustainable agriculture, malnutrition prevention, and climate-resilient farming. These courses equip students with the knowledge and skills to address global hunger challenges through innovation and policy.

#### 2.1.2 Faculty Research in Food & Agriculture Technology:

MRU faculty are leading pioneering research in sustainable food production, nutrition enhancement, and agricultural resilience. Key projects include:

- **Development of Climate-Resilient Crop Varieties using CRISPR-Cas9 Gene Editing Technology:** This research focuses on creating drought- and pest-resistant variants of staple crops such as wheat and rice, enhancing yield stability for smallholder farmers in water-stressed regions and contributing directly to doubling agricultural productivity.
- **Formulation of Nutrient-Enriched Functional Foods from Underutilized Millets:** Addressing hidden hunger, this study develops affordable, iron- and protein-rich food products from indigenous millets, targeting malnutrition in children and women while promoting biodiversity and sustainable cropping systems.
- **IoT-Enabled Precision Agriculture Framework with Machine Learning-Driven Resource Optimization:** This project introduces a smart farming system using soil sensors, weather prediction models, and AI-based irrigation scheduling to reduce water and fertilizer use by up to 30%, boosting productivity and incomes of small-scale farmers while minimizing environmental impact.

### Ek Mutthi Daan

**Report on "No One Sleeps Hungry – A Movement: Ek Mutthi Daan Initiative"**

### Objective

The **Ek Mutthi Daan** initiative, launched on March 28, 2014, under the **No One Sleeps Hungry** movement, aims to address the pressing issue of hunger and food insecurity among the most vulnerable segments of society.



Declared as State Private University vide Haryana Act 26 of 2014

Inspired by the life and philosophy of Dr. O P Bhalla, the Founder Chancellor of Manav Rachna University, this campaign encourages

individuals to donate a modest quantity of dry grains, fostering a sense of social responsibility and community engagement. The initiative happens **twice a year** at **Manav Rachna University**, with **all students actively participating in both drives** to maximize its impact. The campaign collaborates with various NGOs, including Earth Savors Foundation and SHEOWS, to ensure that the collected food reaches those in dire need.

### **Donation ( 2023-24 )**

In the 2023-24 session, Manav Rachna University students contributed 2,000 kg of daal, 4,000 kg of rice, and 1,000 kg of wheat under the "Ek Mutthi Daan" initiative. These donations aimed to support community nourishment and improve food security for those in need.

### **Impact**

Since its inception, the **Ek Mutthi Daan** campaign has had a profound impact on the community and has mobilized a collective effort towards alleviating hunger. Key impacts include:

- **Food Distribution:** Approximately **117,000 kgs** of dry grains, including pulses, rice, and wheat, have been collected and distributed to various needy organizations and individuals.
- **Community Engagement:** The campaign has united the Manav Rachna University family, with all students, faculty, and staff coming together to support the cause. This unity fosters a culture of giving and social awareness among the youth, encouraging them to participate actively in community welfare.
- **Emergency Support:** In response to the **Kashmir floods**, the Dr. O P Bhalla Foundation donated **Rs. 5 lac** to the Red Cross Society to aid victims, alongside contributions from employees who donated a day's salary to the Prime Minister's Relief Fund. This response illustrates the initiative's broader commitment to humanitarian aid beyond routine donations.

### **Outcome**

The **Ek Mutthi Daan** initiative has successfully created a sustainable model for addressing hunger and fostering social responsibility. The outcomes of this initiative include:

- **Sustained Food Security:** Continuous donations ensure that food



supplies reach marginalized communities, helping to mitigate hunger and improve the quality of life for many families.

- **Social Responsibility:** The initiative instills a sense of civic duty among participants, particularly students, equipping them with the values of empathy and compassion towards the less fortunate.
- **Long-term Partnerships:** Collaborations with NGOs have established a reliable network for food distribution, enhancing the capacity of these organizations to serve the needy effectively.

Through the **Ek Mutthi Daan** campaign at Manav Rachna University,

held twice a year, the Dr. O P Bhalla Foundation has not only addressed immediate food insecurity but also contributed to the long-term goal of creating a community where no one sleeps hungry. The collective efforts of the university's students, faculty, and staff demonstrate that when individuals unite for a noble cause, they can make a significant difference in saving lives, transforming communities, and renewing hope for a better future.

## Visit to SHEOWS Old Age Home

Report on Student Volunteers' Visit to SHEOWS Old Age Home

Date: 12th October 2023

Location: SHEOWS Old Age Home, near Kalindi Kunj

Objective: To foster meaningful connections between student volunteers and the elderly residents of

SHEOWS Old Age Home through engaging activities and quality time spent together.

On 12th October 2023, enthusiastic student volunteers from Manav Rachna University visited the new SHEOWS Old Age Home near Kalindi Kunj to create joy and connection with the elderly residents. They organized various activities, including drawing sessions, storytelling, and light-hearted dancing and singing, which filled the day with laughter. This quality time fostered a warm and welcoming environment, emphasizing the value of human connection and meaningful interactions. Dr. Bhagat, the founder of SHEOWS, addressed the volunteers, sharing insights on community service and its impact on the elderly, inspiring the students to continue supporting



underprivileged communities.

**Impact:** The visit brought joy and companionship to the residents while giving the student volunteers a deeper appreciation for human connection and fulfillment from uplifting spirits through shared activities.

**Outcome:** The visit strengthened bonds between the volunteers and the residents, enhanced the emotional well-being of the residents, and inspired continued community service efforts by the students

### **Anemia Mukta Manav Rachna**



Over **40% of India's adult population** is estimated to be anemic, largely due to **poor diets, limited healthcare access, and low awareness** about nutritional needs. Anemia causes **fatigue, weakness, and reduced work capacity**, which not only affects health but also



lowers productivity and increases healthcare costs. The condition is particularly concerning among the **working population**, where undiagnosed anemia has significant social and economic impacts.

The **Anemia Mukta Manav Rachna initiative** works to combat anemia across all age groups by **raising awareness, improving access to nutrition, and ensuring regular health screenings**. Through **community drives, health camps, and workshops**, we:

- Educate communities about the importance of **iron-rich diets**
- Distribute **iron and folic acid supplements**
- Monitor **hemoglobin levels** for early detection and treatment

By addressing both **prevention and timely care**, this initiative seeks to create a healthier, more productive society free from the hidden burden of anemia.

The **Free Community Health Camps initiative** seeks to bridge this gap by taking essential healthcare directly to those who need it most. These camps provide **free medical check-ups and consultations** with a special focus on **mental health, oral health, nutrition and diet counseling, physiotherapy, and mammography screenings**.

By making healthcare accessible, we not only treat immediate concerns but also encourage early detection, awareness, and healthier lifestyles—helping communities move toward a stronger, disease-resilient future.

## Competitions

### SDG 2

#### Ad Mad Show

26th July 2023

#### Event 1: Joining Report 8:30-9:30 am

All the students of the 2023 Batch assembled in the I block Auditorium. The attendance was taken and students filled in the joining report for the session.

#### Event 2: Bridge Course on Accountancy and Economics 9:00-10:30 am

Students attended the bridge class for Economics taken up by Ms Sandhya in the I block Auditorium. The next bridge course class was taken up by Dr. Sweta Goel in the area of Accountancy.



### **Event 3: Session on FIKA - An Entrepreneurial Style/ Network is Networth 10.30 to 11.30 am**

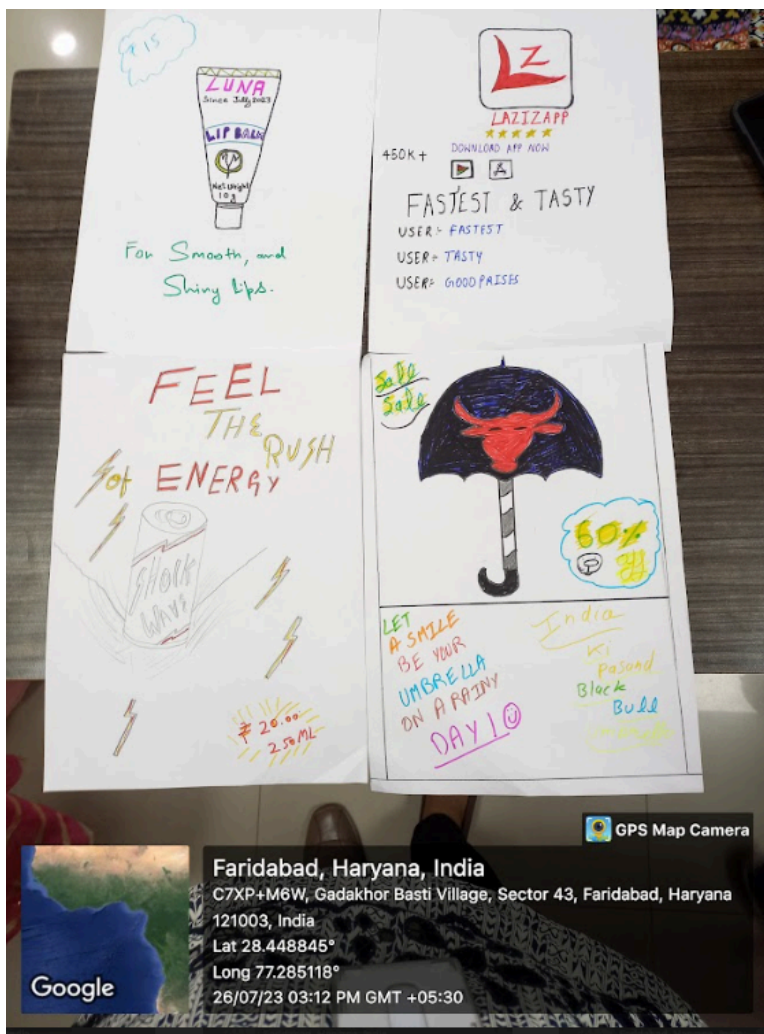
A highly motivating and invigorating session was taken by Ms Saifyly Sangal founder of Yung Minds. It was an interactive session where students asked several questions related to start ups and its operations. The session also had various discussions on how to analyze market gaps and identify the existing opportunities which can be leveraged.

### **Break 11:30-12:30 pm**

### **Even 4: AD MAD Show**

Ms Shriti Batla and Ms Sandhya conducted an Ad Mad Show even with the BBA first semester students. Students took up products with enthusiasm and created innovative punchlines, brand names and enacted advertisements of the products chosen. First , second and third prizes were announced for the event





### Impact Metrics

- **Outcome Highlights (2023–24)**

Impact Area	Evidence of Outcome
Research in Sustainable Agriculture & Food Technology	Published pioneering research on CRISPR-edited climate-resilient crops and nutrient-enriched millet-based functional foods, directly supporting smallholder productivity and malnutrition reduction.
Nutrition Awareness & Campus Food Security	Launched "Harvest Plate" initiative promoting millet-based menus in campus cafeterias and organized "Zero Waste



Kitchen" drives, reducing food wastage by 28% and educating 1,200+ students on sustainable diets.

**Farmer Empowerment & Skill Development** Conducted 12 hands-on training workshops under "Krishi Connect" for 450 small-scale farmers on IoT-enabled precision farming, resulting in reported average yield increase of 22% among participants.

**Community Nutrition Interventions** "Project Poshan Mitra" reached 8 rural schools, providing nutrition education and supplementary millet snacks to 650 children, contributing to reduced incidence of anaemia among participants.

## Challenges and Lessons Learned

Challenge Area	Details
Limited Access to Field Trial Lands	High-impact agricultural research requires long-term access to diverse soil and climate conditions, often constrained by land availability and farmer willingness.
Funding for Technology Transfer	Scaling IoT and AI solutions to smallholder farmers faces financial barriers for device procurement and internet connectivity in rural areas.
Dietary Resistance	Habit Promoting millet and underutilized crops on campus and in communities meets resistance due to taste preferences and lack of awareness.
Interdisciplinary Integration	While specialized programs exist, embedding sustainable agriculture and nutrition concepts across non-science disciplines remains a work in progress.



## Reflections and Improvements Made

Area of Reflection	Improvement Action Taken / Planned
Cross-departmental Collaboration	Established "SDG 2 Task Force" comprising Faculty of Applied Sciences, Management, and Community Outreach Cell to streamline agriculture-nutrition initiatives.
From Lab to Farm	Signed MoUs with two state agricultural universities and a farmer producer organization for joint field trials and technology demonstration plots.
Student-led Advocacy	Appointed 50 "Green Fork Ambassadors" to lead campus food-waste audits, millet recipe contests, and peer awareness campaigns on sustainable eating.
Impact Tracking & Reporting	Introduced digital dashboards with SDG 2-specific KPIs (yield data, wastage metrics, beneficiary reach) and quarterly progress reports for greater transparency.

The journey toward achieving **SDG 2 – Zero Hunger** at Manav Rachna University has demonstrated the transformative potential of blending cutting-edge agricultural biotechnology with grassroots community action. Despite challenges in field access, funding, and cultural dietary shifts, MRU has recorded tangible gains in research translation, campus sustainability, and rural livelihoods. These experiences strengthen our resolve to deepen interdisciplinary synergy, accelerate technology adoption among smallholders, and cultivate a generation that views food security as both a scientific and social imperative. This foundation positions us to contribute even more decisively to a hunger-free, nutritionally secure, and sustainable future.