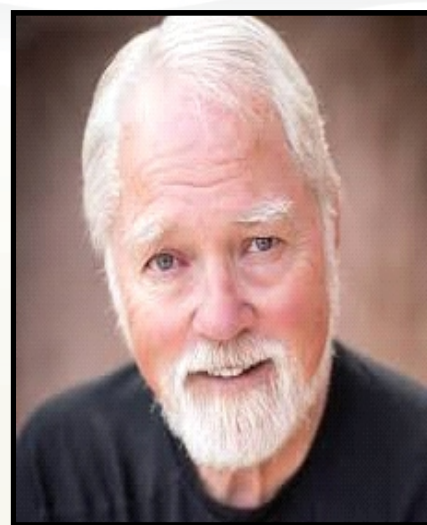




DEI MONTHLY NEWS

"The grass is not always greener on the other side of the fence. The grass is greenest where it is watered."



— Robert Lee Fulghum

SECTIONS

Section A	:	DEI	3
Section B	:	DEI-ODE (Online & Distance Education)	7
Section C	:	DEI Alumni (AADEIs & AAFDEI).....	11

CONTENTS

Section A : DEI

1. Innovation, Quality, and Valuation Day' Celebrated at Dayalbagh.....	3
2. Inter-School Science Quiz Competition Organized at DEI.....	3
3. Three-Day National Workshop on 'Learning Outcomes: Formulation, Mapping and Assessment' Organized.....	5
4. DEI Nominates Students as NEP SAARTHIs	5
Faculty News	
5. DEI Technical College.....	6
Students' Achievements:.....	6

Section B: DEI-ODE (Online & Distance Education)

6. From the Coordinator's desk.....	7
7. News From the Centres.....	8
Exhibition of Products Prepared by Alumni of DEI Centres Organized at Dayal Nagar, Visakhapatnam..	8
Celebrations of Innovation, Quality and Valuation (IQV) Day at DEI Centres.....	9
Ludhiana.....	9
Chicago.....	9
Dayal Nagar, Visakhapatnam.....	9
Murar.....	9
Chennai.....	10
Karol Bagh.....	10

Section C: DEI Alumni (AADEIs & AAFDEI)

8. From the Editor's desk.....	11
9. Feeding Twelve Billion People by 2050.....	11
Puneet Chowdhry	
10. Climate-Smart Agriculture, Agroecology and Precision Farming for a Sustainable Future.....	12
K. Usha	
11. Global Hunger Crisis: A Growing Challenge.....	13
Sonika Singh	
12. Agroecology in Dayalbagh: Nurturing Body, Soul and Mother Earth.....	14
Shikha Verma	
News Committees.....	14

Section A : DEI

'Innovation, Quality, and Valuation Day' Celebrated at Dayalbagh



Dayalbagh Educational Institute (Deemed to be University), Dayalbagh, Agra-282005, and the Ra Dha Sva Aa Mi Satsang Sabha (RSS), Dayalbagh, celebrated the 12th annual Diwali event with grandeur and reverence, marking it as 'Innovation, Quality, and Valuation (IQV) Day.' This auspicious occasion, celebrated in the Holy presence of Most Revered Prof. P.S. Satsangi Sahab, Chairman, Advisory Committee on Education (a non-statutory body serving as a think-tank for Dayalbagh Educational Institutions), Most Respected Rani Sahibaji, and other distinguished dignitaries, resonated with the essence of light triumphing over darkness and knowledge overcoming ignorance.

This year's celebration reflected on and was dedicated to the ground-breaking achievements, including two illustrious seminal publications that intertwine scientific thought with spiritual insight. The first, 'Consciousness Studies in Sciences and Humanities: Eastern and Western Perspectives' (Published by Springer Nature Global and India), co-edited by Most Revered Prof. P.S. Satsangi Sahab along with Prof. Anand Srivastav and Prof. Anna Horatschek, Kiel University, Germany brought attention to the integration of Abstract Topological Graph Theory for modelling spiritual domains. The second publication, 'The Role of Communities in Achieving Sustainable Development,' co-authored by Revered Prof. P.S. Satsangi and Dr. Arsh Dhir, detailed the Sigma Six QVA Model promoting holistic sustainability through inner and external transformations.

Another highlight of the celebration was a distinguished Panel Discussion on the theme "Education for Ushering a New World Order Based on the Dayalbagh Way of Life.", where the esteemed participants included: Shri Gur Sarup Sood, President, R.S.S. & DEI, Dr. Anoop Srivastava, Vice-President-II, R.S.S., Prof. C. Patvardhan, Officiating Director, DEI, Prof. Anand Mohan, Registrar, DEI, Smt. Sneh Bijlani, Treasurer, DEI, Prof. V.B. Gupta, Vice-Chairman, ACE, Dr. Apurva Ratan Murty, Georgia Institute of Technology, USA and Dr. Apurva Narayan, University of Western Ontario, Canada.

The event also showcased vibrant student performances in Elocution, Poetry Recitation, Bhakti Sangeet, Poster-Making & Cartooning, and a special *Nukkad Natak* act by the Sant Superman Evolutionary Scheme children. The Winners from various competitions were honoured with certificates and prizes, highlighting the breadth of talent nurtured at DEI.

Inter-School Science Quiz Competition Organized at DEI





DEI Board Schools organized an Inter-School Science Quiz Competition on 16th November 2024. Twenty-five schools participated in this event including six DEI Board schools and seventeen other schools of Agra. The competition was organized at four levels: Foundational, Preparatory, Middle, and Secondary. Before the commencement of the final oral quiz round, Professor Sukhdev Roy, HOD, Physics and Computer Science, Faculty of Science, DEI, delivered a lecture on 'Grand Challenges for Science.'

At the foundational level, students participated in a 'Fancy Dress – Show and Tell' competition centred around Science. The distinguished judges for this round were Prof. Amla Chopra, DEI and Dr. Saloni Srivastava, Raja Balwant Singh College, Agra. The winners were: First Position- Dayal Anupama of DEI PV Primary School, Agra, Second Position- Nirat of Soami Nagar Model School, New Delhi, and Third Position- Swastik of DEI Ra Dha Sva Aa Mi Saran Ashram School, Agra.

The competition at the Preparatory, Middle, and Secondary levels comprised two rounds: A Written Quiz, followed by an Oral Quiz, which also included questions from the judges and the participants.

At the Preparatory School Level, the panel of judges included Prof. D. Bhagwandas, DEI and Prof. Sandeep Paul, DEI. V. Acharya and Alakh Singh of DEI PV Primary School, Agra, and Viyan Srivastava of DEI Saran Ashram School, Agra, secured the First positions. Arnav Bartoria of Sunflower Public School, Agra, along with Alayna Khan and Yukkta Mittal of Prelude Public School, Agra secured the Second position. Aanya Sharma of Shivalik Cambridge School, Agra, Chaitnya Roy, and Dhurdhami Satsangi of Soami Nagar Model School, New Delhi secured the Third position.

At the Middle School Level, the panel of judges included Mr. Gaurav Rana, DEI, and Mr. Samyak Jain, Sand Control Specialist, Dune Front, Agra. Akshar Suri and Priyanshu Raj of DEI REI Intermediate College secured the First position. Ishan Agarwal and Tanmay Sharma of Sumeet Rahul Goel Memorial School secured the Second position. Utkarsh Yadav and Shreeja Kaushal of Delhi Public School, Agra, secured the third position.

At the Secondary level, Dr T. Senthil Subramanian, Hindustan College of Science and Technology, Farah, Mathura and Prof. Anita Lakhani, DEI, served as judges. Shreya Goyal of DEI PV Girls Intermediate College, Agra and Akshar Sahai of DEI REI Boys Intermediate College, Agra secured the First position. Akshat Raj Choudhary of Delhi Public School, Agra, and Anant Agarwal of Saraswati Vidya Mandir, Agra secured the Second position. Nakul Dubey and Priyanshu Verma of Sunflower Public School, Agra, secured the Third position. The Champions Trophy in this competition was awarded to Sunflower Public School, Agra, for securing maximum prizes (excluding the host institution, DEI).

The prizes were given by Dr. Anoop Srivastava, Vice-President II, Ra Dha Sva Aa Mi Satsang Sabha, Dayalbagh, Agra-5, Prof. Kamal Srivastava, Faculty of Science, DEI, Dr. Dayal Pyari Srivastava, Faculty of Science, DEI, and Prof. Sona Ahuja, Dean, Non-University Educational Institutions of DEI. The programme received remarkable success, effectively showcasing the students' knowledge, and fostering a deeper understanding of science.

Three-Day National Workshop on ‘Learning Outcomes: Formulation, Mapping and Assessment’ Organized



The Association of Indian Universities-Dayalbagh Educational Institute-Academic and Administrative Development Center (AIU-DEI-AADC) in association with the Faculty of Education, DEI organized a Three-Day National Workshop on “Learning Outcomes: Formulation, Mapping and Assessment” from October 26th to 28th, 2024. The Workshop aimed to equip educators, curriculum developers, and academic professionals with practical skills to design and assess meaningful learning outcomes. The participants gained insights into formulating clear, measurable outcomes aligned with course objectives, mapping them across curricula, and implementing effective assessment strategies. The sessions emphasized Outcome Based Education (OBE) principles, fostering a student-centred learning approach. The comprehensive course content featured six sessions expertly crafted by six resource persons. A total of 133 participants from diverse locations attended the Workshop in a blended mode.

During the Inauguration of the Workshop, Prof. NPS Chandel, Dean, Faculty of Education, DEI, welcomed the guests and the participants. Dr. Bajarang Bhushan, Convener of the Workshop, and Dr. Anjana Verma, Co-Convener of the Workshop elaborated on the Workshop's objectives, outlining the expected outcomes and takeaways. Prof. C Patvardhan, Officiating Director, Dayalbagh Educational Institute (Deemed to be University), Dayalbagh, Agra-282005, graced the occasion as the Chief Guest. He emphasized that education aims to develop thinkers who can fairly analyze the problems and obstacles and provide solutions rather than just preparing them for job opportunities.

The Workshop featured a talented group of resource persons, including Prof. Kavita Sharma, Department of Elementary Education, NCERT, New Delhi, Prof. Ajay Surana Professor & Head, Department of Education, Banasthali Vidyapith, Rajasthan, Prof. R.S. Pavithra, Professor & Director, Hindustan College of Science & Technology, Mathura, Prof. Gursaran, Prof. N.P.S. Chandel, and Prof. Nandita Satsangee, DEI. Prof. Lajwanti, Prof. P.S. Tyagi, Prof. Meenu Singh, Dr. Sona Dixit, and Dr. C.L. Singh, Faculty of Education, DEI, were the Session Chairs.

Prof. Kavita Sharma, Department of Elementary Education, NCERT, New Delhi delivered the Valedictory Address. The Workshop report was presented by Dr. Anjana Verma, Faculty of Education. Finally, the Vote of Thanks was proposed by Prof. N.P.S Chandel, Dean, Faculty of Education, DEI. Prof. Jyoti Gogia, the Nodal Officer for AIU-DEI-AADC, made a substantial contribution to organizing the Workshop.

DEI Nominates Students as NEP SAARTHIs



As per the UGC mandate, seven students from various faculties were nominated by the Officiating Director, DEI to act as NEP SAARTHIs (Student Ambassadors for Academic Reforms in Transforming Higher Education in India), for the year 2025, to represent the spirit of the Institute on different platforms. Prof. Anand Mohan, Registrar of the Institute, awarded badges to the students and explained the responsibilities and expectations associated with their role, emphasizing their impact on fostering the values and vision of the National Education Policy 2020. The Ceremony was held under the guidance of Dr. Sona Dixit, Nodal Officer, NEP. The newly appointed NEP SAARTHIs are now set to uphold their ambassadorial duties, bridging the commitment of DEI to NEP 2020 with the broader educational goals of the nation.

Faculty News

DEI Technical College

Students' Achievements:



Celebrating its 21st Innovation Day, Hindustan Engineering College, Farah, Mathura, organized a competition of Technical Ideas, Startups and Model Exhibitions on 15th October 2024. There were competitions in two different categories. The first category was Idea Startup presentation and the second category was Model Exhibition. There were three Cash Prizes in both these categories, the First prize was ₹6100, the Second was ₹4100 and the Third was ₹3100. In this Competition, Ritik Diwakar (Electrical Branch, 3rd year), Angel Jain (Electronics Branch 3rd year), Kaushambi (Electronics Branch 3rd year), and Radha Rathore (Electrical Branch, 3rd year) participated in the Idea Startup presentation and Ritik Diwakar (Electrical Branch, 3rd year), and Akash Kumar (Civil Branch, 3rd year) participated in the Model Exhibition. Ritik Diwakar was the leader of both teams which won the Second Prize in their categories.

A District-level Innovation Exhibition was organized by the Uttar Pradesh Council of Science and Technology, under the aegis of District Science Club, Agra, at M D Jain Inter College, Hari Parvat, Agra on 9th November 2024, in which two teams from DEI Technical College, the first team comprising Ritik Diwakar (Electrical 3rd year), Angel Jain (Electronics 3rd year) and Kaushambi (Electronics 3rd year) and the second team comprising Radha Rathore (Electrical 3rd year), Pratik Singh (Electrical 3rd year) and Akash Kumar (Civil 3rd year) participated. The first team won the Fourth prize in this Competition which was a cash prize of ₹2000.


Section B: DEI-ODE (Online & Distance Education)

From the Coordinator's desk

The number of Indian students going abroad for higher studies has been very much in the news recently.

It has been reported in The Times of India of 19th November, 2024, under the heading 'India leading source of International students in US', when in the 2023-24 academic year India surpassed China by registering a 23% year-over-year increase sending out 3.3 lakh students to the US. The report continues - the development mirrors India's performance in the UK, where it became the top source of non-European Union students in 2022-23, with a 39% increase to 1.7 lakh students, surpassing China.

In the year 2022, a total of 13, 24, 954 Indian students was studying abroad in 79 countries, the top ten being [1]:



S. No.	Name of Country	No. of Students	S. No.	Name of Country	No. of Students
1.	U.S.A.	4,65,791	6.	U.K.	55,465
2.	Canada	1,83,310	7.	Qatar	46,000
3.	UAE	1,64,000	8.	Oman	39,550
4.	Australia	1,00,009	9.	Germany	34,864
5.	Saudi Arabia	65,800	10.	Russia Federation	18,039

In the year 2024, 1.33 million Indian students are studying abroad [2].

In The Times of India of November 11, 2024, Mr. R. Jagannathan, editorial director of Swarajya magazine has highlighted the plight of undocumented Indian students in US at over 7,25,000 in an article entitled 'We can't take that much liberty.' The fate of these students hangs in the balance. Also we saw that during the conflicts in Ukraine and Bangladesh, Indian students studying in these countries had to face severe difficulties.

Against this backdrop, Mr. Jagannathan, after examining the total landscape comes to the following conclusion:

India cannot pretend this is not its problem that's being exported to the West. Something substantial is required to stem the tide of departures, especially when India's economic fortunes are on the upswing. But he feels that mindsets take a long time to change. North America and Europe may have withdrawn their welcome mats, but they've always been seen as EL Dorados by poor Indians. He continues – Add to that the poor quality of Indian higher education beyond top-tier tech and management institutes, and the lure of studying abroad and finding dollar denominated jobs remains intact. This leads the author to ask – So what can be done? And he provides the following answer:

We must prepare a plan to bring back students and undocumented immigrants the West wants to send back. They are our people, and must be brought back and helped as much as possible to continue studies and obtain livelihoods here.

Turning a blind eye in the hope it'll reduce pressure on Indian job market is not a viable option anymore in a world fretting about illegal immigrants.

Two more steps suggested by Mr. Jagannathan in his article are as follows:

- (i) In the short run some IVY League Universities can be encouraged to open campuses in India at a third or fourth the cost in US or Europe. In the long run, the solution lies in raising quality of homegrown UG/PG education, in both STEM and social sciences areas, and
- (ii) We must begin to inculcate a change of mindset among young Indians. Many are yet to shed colonised mindsets, where a 'foreign' education is seen as gold standard, when that may not always be the case.

From the available data, it appears that in the advanced western countries, the students from India pursue math / computer science (43%), engineering (25%), business/management (11%) and physical / life science programmes (5.4%).

In East and Central Asian countries, Medical Science has emerged as the primary driver of students. It has been reported [3] that in the year 2024, 24 lakh students competed for 1 lakh seats in India, which means that a lot more seats will have to be created.

(Prof. V.B. Gupta)

References

- [1] <https://www.mea.gov.in/Images/CPV/lu3820-1-mar-25-22.pdf>
- [2] <https://thepienews.com/over-1-3-million-indian-students-studying-abroad-in-2024/#:~:text=In%20a%20marginal%20increase%20from,upper%20house%20of%20the%20parliament>
- [3] Amber Habib, The Times of India, September 3, 2024

News From the Centres

Exhibition of Products Prepared by Alumni of DEI Centres Organized at Dayal Nagar, Visakhapatnam



DEI APAC, South Zone, and DEI Dayal Nagar, Visakhapatnam, jointly organized the 5th DEI APAC South Zone Self-employed (entrepreneurs) Alumni Students Exhibition at Dayal Nagar, Visakhapatnam, Andhra Pradesh. All the Centres including DEI Dayalbagh, participated in the Exhibition. The Exhibition was held on 19th and 20th October 2024 at Ushodaya Function Hall in Visakhapatnam. The participants were DEI Dayalbagh and the DEI Centres of Kakinada, Proddutur, Vizianagaram, Visakhapatnam City, Vizag Dayal Nagar, Vijayawada, and Bolarum. The products exhibited and sold were Petticoats, Frocks, Long frocks, Jute bags, Purses, Carry bags, Chunnis, Sarees, Bedsheets, Table cloth, Pillow covers, Decorative ornaments, Kurtis and Kurtas, Children's shirts etc., Shri V. Prem Swarup, Central Coordinator, DEI APAC, Dayalbagh, inaugurated the Exhibition. The DEI Coordinator of the Textile Designing and Printing Programme, Prof. Parul Bhatnagar, also visited the Exhibition. Both dignitaries appreciated the products made by the alumni students. A total of thirty-two entrepreneurs participated in the Exhibition. The local public also applauded the alumni for the quality and range of the products and enthusiastically purchased their products. The total stock of the exhibition amounted to Rs.7.80 lakh and nearly 70% of the stock was sold to the public. The Exhibition gave a lot of encouragement to the past students and invigorated the present students for considering entrepreneurship.

Celebrations of Innovation, Quality and Valuation (IQV) Day at DEI Centres Ludhiana



Innovation, Quality & Valuation Day was celebrated with active participation from students and staff of Ludhiana Centre of DEI. The event was marked by a variety of engaging activities and insightful discussions. The students and staff showcased their creativity and innovative thinking by preparing captivating posters for decorating the Centre. An educational and informative discussion was conducted on the topic, “The role of DEI in fostering a culture of total quality.” It fostered a sense of commitment towards excellence among students. Light refreshments were served to all present.

Chicago



DEI Alumni and members of the Chicago Satsang Branch along with their children celebrated ‘IQV Day 2024’ by presenting their views on values and their relevance to sustainable development. The programme started with children’s presentations and poetry recitations based on values, quality and innovation. The presentations focused on pivotal issues- the principle of better worldliness, building economy through research and frugal innovation, and achieving more with less. Centre In-Charge, Chicago Centre, read excerpts from Holy Books. The function concluded with a Qawwali recited by members of the Chicago Satsang branch.

Dayal Nagar, Visakhapatnam



Innovation, Quality, and Valuation Day was celebrated at the Dayal Nagar Centre on 31st October 2024 on the auspicious day of Diwali. The students of the Centre, faculty members and residents of the Dayal Nagar colony participated enthusiastically in this celebration. The Chief Guest of the celebration was Smt. Harshalata Chiranjeevi, the Former Director of Timpany schools, and the Former Principal of Alwar Das group of Institutions, Visakhapatnam. The programme started with the University Prayer. The Centre In-Charge, Shri V. Dakshina Murthy, gave introductory remarks including the importance of Innovation, Quality and Valuation Day. The students spoke about the Dayalbagh way of life, value-based education and quality of education. Smt. Harshalata Chiranjeevi also talked about the innovation, quality and values that are to be instilled in the students. Finally, the meeting ended with a Vote of Thanks by a staff member, Smt. A. Radha Kumari, and a rendition of the University Song.

Murar



Diwali Day was celebrated as Innovation Quality and Valuation Day at the Information Centre, Murar, on 31st October 2024. Teachers, parents and students were present on this occasion. A three-day NSS camp was conducted earlier to maintain the campus. The cultural programme started with the University prayer. The Centre in Charge delivered a speech on the importance of 'Quality Day.' Principal, Ra Dha Sva Aa Mi School, Murar, emphasised and explained the word 'Quality' with several examples. The students presented a Bhakti song and spoke about their views on the quality of education at DEI. They also participated in many competitions – sports, painting, rangoli, and an essay competition, on the 'Role of Youth in Society.' The students were awarded prizes and the programme concluded with the University Song followed by the National Anthem.

Chennai

The Innovations, Quality and Valuation Day was celebrated at DEI Chennai Information Centre on 31st October 2024. The programme commenced with the University prayer. Then a *Shabda Path* was recited by the Chennai Centre students. 'Diwali Celebration as per DEI's Way of Life'- a thought-provoking English poem, was recited, illustrating the principles of celebrating Diwali in alignment with DEI's ethos of simplicity, compassion, and wisdom. This was followed by a Talk given by a Chennai Centre student on Innovation, Quality, and Values in DEI Education in Hindi, wherein insights were shared on how DEI is weaving these principles into its educational framework and daily life, emphasizing their necessity in modern times.

The segment on the importance of Diwali in light of Innovation, Quality, and Values highlighted prominent examples, such as Shri Ratan Tata and Dr. APJ Abdul Kalam, illustrating how their contributions embody these principles and serve as a guiding light for contemporary society. Esteemed Regional Presidents (Ex and Current) of Tamil Nadu Ra Dha Sva Aa Mi Satsang Association, shared their thoughts, emphasizing the importance of innovation, quality, and values in personal growth and societal progress. This was followed by a soulful rendition of Kabir Sahib's *dohas* with harmonium accompaniment by students of DEI Chennai Centre, which brought depth and reflection, resonating with the programme's core values. An Alumnus of DEI along with the present students of Chennai Centre shared heartfelt insights on the significance of the day's theme, encouraging all attendees to uphold these values in their lives. The programme concluded with a Vote of Thanks, expressing gratitude to all contributors and attendees for their participation and engagement.

Karol Bagh



The DEI Information Centre, Karol Bagh, celebrated its Innovation, Quality and Valuation Day with great enthusiasm and community spirit. The event saw active participation from students, ex-students, and staff members, creating a dynamic platform for sharing ideas and achievements.

The programme commenced with the University Prayer, setting a reverent tone for the day. This was followed by the *Bhakti Sangeet*, featuring the *dohas* of Kabir Sahab and compositions by Tulsi Sahab, enriching the atmosphere with spiritual reflections. The celebration included a thought-provoking lecture titled '*Education and Research: Guiding Pathways for a Greener and Sustainable World Order*,' which underscored the university's dedication to global well-being through knowledge and innovation. The Branch Secretary of Karol Bagh Satsang Branch also addressed the gathering, inspiring attendees with his thoughtful remarks.

The event concluded with a heartfelt Vote of Thanks from the Centre In charge of DEI Centre, Karol Bagh, acknowledging the contributions of everyone who made the day memorable. The University Song brought the event to a close, leaving everyone united in pride for their alma mater.

Section C: DEI Alumni (AADEIs & AAFDEI)

From the Editor's desk

On October 16, 1949 Param Guru Huzur Mehtaji Maharaj was pleased to state, *"Today too many satsangi brothers, sisters, youth girls and boys and children work with great enthusiasm in fields. Those people not only have Darshan of their Lord but also do seva through tan, man and dhan."* He further stated, *"When a satsangi works in fields he is doing physical labour, with his focus at field work shows his Sumiran and that he is working with his mind and is saving money by working himself and not employing labour at work. This is how he can serve field work through body, mind and wealth".*

The Revered Spiritual Leaders of the Ra Dha Sva Aa Mi Faith found in Agricultural field work a unique combination. It could instill virtues of hard physical work, teach satsangis to till and toil with their hands, eat only that which they grow by the sweat of their brow and most important of all become the means for the cleansing of *karmas* leading to the ultimate goal of freedom from the cycle of birth death and rebirth. Thus Huzur Radhasoami Dayal made agriculture a necessary part of His programme. The work in fields which began in 1943 is continuing in the present time with the same spirit. Today with the Grace and Guidance of Ever Merciful Waqt/Present Sant Satguru, Agricultural operations at Dayalbagh have evolved into Agroecology cum Perfection oriented Precision Farming, thus presenting a model that can be emulated the world over to solve the growing problem of global hunger.

Do share your comments and contributions at aadeisnewsletter@gmail.com. Your response will be deeply appreciated!

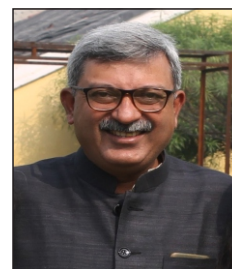
Feeding Twelve Billion People by 2050

Puneet Chowdhry

BTech, Batch 1989, DEI

Currently, General Manager, Department of Agroecology cum Precision Farming,

Ra Dha Sva Aa Mi Satsang Sabha, Dayalbagh



It is often thought that the solution to feed twelve billion population by 2050 is simple mathematics. That would have been so about two decades ago when we were thriving on intensifying agriculture through over dose of chemical fertilizers and stimulants. The world is now staring at a multitude of complex issues in addressing this serious problem. Most economists and agriculturists focus on quantity as the solution to hunger. According to their calculations, more food will lead to less hunger, more wealth means better health, because higher incomes enable people to buy more food.

But the situation is frightening because long term trends reveal a complex scenario, posing significant challenges. Whereas poverty has decreased considerably in the last few decades, global efforts to reduce hunger have not been that successful. To make the situation worse, malnutrition has emerged as a growing concern. There is a "double burden" that includes both under-nutrition and the problem of being overweight or obesity, in many countries.

Most of the practices adopted to increase food production have resulted in environmental and health issues. Intensified farming has set into motion a vicious circle, affecting both immediate and long-term food security. Expanding agricultural production often demands deforestation, harming wildlife; this leads to climate change, which in turn increases the frequency of floods, drought and storms, aggravating food insecurity.

The widespread use of pesticides and fertilizers to boost food production is another concern. Not only do they pollute land and water, causing biodiversity loss but also lead to acute pesticide poisoning, affecting 25 million people annually.

Thus, the alarming concerns are how to produce more for the teeming millions, need for more agricultural land, which often comes at the cost of deforestation, acceleration of the process of climate change, jeopardizing agricultural sustainability and depletion of soil fertility due to overuse of chemical fertilizers. All this is enough to end a civilization.

"Dayalbagh Way of Life Will Feed Twelve Billion People on Earth"

The problem that we face today is not the shortage of food. Rather, it is a problem of efficiency. We can see this throughout the production and consumption process, beginning with how land is used. About 60 per

cent of the world's agricultural land is used for livestock grazing to meet the demand for meat and dairy. One third of the food produced is lost and wasted—between farm and table, with food being purchased faster than it can be consumed. Ultimately, 1.3 billion tonnes of food is lost or wasted every year.

Dayalbagh Way of Life presents to the world a successful and time- tested model of feeding the world, despite the complex challenges that we face. It is a fact that the yields in organic farming are less. However, it is also true that if we reduce waste and shift to plant- based diets, we will be able to produce enough from the available land organically. Thus, drawing inspiration from the Dayalbagh Way of Life, the world must embrace the following principles:

1. Reduce Food Waste
2. Shift to Lacto-vegetarian, Teetotaler diet
3. Make Nature your Ally
4. Conserve Ground water
5. Restore Bio-diversity
6. Adopt Community Work for community success

Dayalbagh has been steadfastly working on the above principles, which have been propounded time and again by its Supreme Spiritual Leaders. It is for the world to see, how we sustain on a plant -based diet, grow all our crops organically, have an embargo on creating more tubewells, have an arrangement for getting treated water from Sewage treatment plants, use green energy, not use gasoline vehicles in the colony, constantly monitor the air and water quality and yet are self- sustainable for all our present and future needs. Dayalbagh is truly a Health Care Habitat which fulfils the requirements of Sustainable Development Goals of the UN.

Dayalbagh has reconceived the food systems by shifting to Agroecology cum Perfection Oriented Precision Farming and has shown to the world that the solution lies here. The world should recognize Agriculture as a solution to biodiversity loss, climate change and pollution. It should shift toward more regenerative or agroecological models that contribute to healthy landscapes and ecosystems.

Change in the behaviour of consumers is also critical towards healthy and sustainable diets and food waste preventing practices through education, awareness, strengthened urban-rural linkages and supportive food environments.

Environmental sustainability is not a luxury anymore. It should not occur as an afterthought or as a happy accident. It is critical to human survival, now more than ever. And Dayalbagh has a successful model that the world can emulate.

Climate-Smart Agriculture, Agroecology and Precision Farming for a Sustainable Future

K. Usha

Former Principal Scientist, Division of Environment Science, ICAR-IARI, New Delhi



As the world grapples with the challenge of climate change, water scarcity, and food insecurity, the strategies for sustainable agriculture have emerged as a beacon of hope for feeding a burgeoning population while safeguarding our natural resources for posterity. This approach to farming prioritizes environmental stewardship, social responsibility, and economic viability, offering numerous benefits over conventional farming. Below are several key approaches and scientific advancements that could help increase the food production while mitigating the environmental impacts of the climate change.

Agroecology takes a holistic approach to farming, designing sustainable ecosystems that integrate trees, crops, and livestock. Techniques such as agroforestry, permaculture, and conservation agriculture promote ecological balance and reduce environmental impact. Crop rotation and livestock grazing management optimize soil fertility and reduce pests. Employing an integrated pest management approach and cover cropping also minimize the use of chemical fertilizers and enhance the soil fertility. Biofertilizers and biopesticides offer natural alternatives to chemical inputs, while the livestock breed improvement can increase productivity. Carbon sequestration strategies, such as soil carbon sequestration, agroforestry, cover cropping, organic amendments, and biochar reduce the GHG emission and mitigate climate change. Effective carbon sequestration requires integrating sustainable agriculture practices, renewable energy, carbon capture, climate-resilient crops, and ecosystem-based adaptation. Techniques such as vertical farming, hydroponics, and regenerative agriculture can increase

crop yields while reducing the land use and the water consumption. Innovative practices such as urban and peri-urban agriculture, climate-smart agriculture, and genetic engineering can further enhance food production. These approaches improve the soil health, enhance biodiversity, support ecosystem services and reduce environmental degradation to facilitate sustenance of our farming system.

Precision farming leverages technology to optimize crop management and reduce waste. GPS and GIS enable precise soil mapping, while drones and satellite imaging monitor crop health and growth. Artificial intelligence (AI) and machine learning (ML) provide predictive analytics, and the Internet of Things (IoT) enables real-time soil monitoring. Precision irrigation systems optimize water usage, reduce waste and any consequential negative environmental impact. Precision Livestock Farming practices include livestock monitoring systems that tracks the animal health, behaviour, and nutrition; Automated Feeding Systems optimizes feed usage and reduces waste; Precision Breeding helps to develop disease-resistant, climate-resilient livestock; Manure Management converts waste into fertilizer to reduces its environmental impact and Livestock Insurance protects the farmers from crop failure and disease-related losses.

To enhance food security under the climate change scenario, India has developed climate-resilient crop varieties such as CR1009 rice, drought-tolerant crop varieties like Kiran wheat, chickpea (e.g., ICCV 10, India), sweet potato (e.g., Orange Flesh Sweet Potato, Africa); disease-resistant crop varieties like Arka Rakshak tomato; high-yielding crop varieties like Pusa Basmati 1121 rice; flood-tolerant rice (e.g., Submergence-tolerant rice, India), yam (e.g., TDr 93-31, Ghana); heat-tolerant lentil (e.g., LL 147, India), cassava (e.g., TMS 30572, Nigeria), pepper (e.g., California Wonder, USA); salinity-tolerant pigeon pea (e.g., Asha, India), carrot (e.g., Atlas, Australia), all of which have shown significant potential in improving crop yields and reducing environmental impact of the climate vagaries.

Conclusion

Sustainable agriculture is critical to feeding a growing global population. Modern techniques in organic farming, agroecology, and precision farming offer innovative solutions to increase food production while minimizing an environmental impact. By adopting these methods and scaling up the sustainable agriculture, we can ensure food security, promote rural development, and protect the environment for future generations.

Global Hunger Crisis: A Growing Challenge

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Despite being in the best of times in the modern history, where science has penetrated every aspect of life including agriculture to increase quality, efficiency and productivity – it is observed that globally Governments are still grappling with massive challenges to make food available to everyone.

According to UN reports a record 258 million people face “acute hunger” with some on the brink of starvation. Definitely, the population increase graph over the years has been one of the major reasons, but lately there are several crucial factors that have contributed to this deepening global crisis. Ongoing conflicts in regions like Ukraine, the Middle East, and parts of Africa not only devastate local areas but also disrupt exports and weaken global economies, driving up food prices. It’s interesting to note that the food crisis is not limited to the Global South but developed economies face a set of unique challenges of their own. The urban poor have to rely on either Govt issued food stamps and ultimately empty calories that provide no nutrition and result in acute health conditions like diabetes, hypertension etc. This creates a burden on the health care services and increased government spending.

Understanding the big picture of this emerging crisis requires attention towards finding solutions to move the needle. Economic progress is one way but the geopolitical policies in the war prone flash points always play a much bigger role here. Advanced food and agricultural technologies to increase productivity and efficiency are crucial now. At a time when a huge percentage of agricultural produce goes waste at a local level, sensitization towards Food Wastage is essential and the need of the hour. There are some apps where excess and leftover food from hotels and other sources get distributed to the underprivileged directly. Param Guru Huzur Mehtaji Maharaj considered it no less than a sin and asked all Satsangis not to waste food.

The dichotomy between gourmet meals and no meals is hidden in plain sight. There is much work to be

done by the governments, international aid agencies and philanthropic initiatives. However, identification and implementation as followed in Dayalbagh at a local level is as important as a concerted global effort to address global hunger.

Agroecology in Dayalbagh: Nurturing Body, Soul and Mother Earth

Shikha Verma

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Our body is a sacred temple, a divine vessel entrusted to us by Him to purify and guide our soul to unite with the Lord and experience Ultimate Bliss. Yet, we often neglect this precious gift. Instead of nurturing, nourishing, and cherishing it, we feed our bodies with harmful substances. This neglect disregards the care and reverence that this sacred vessel deserves.

Similarly, we fail to honour another precious gift given to us by the Lord of all creation—Mother Nature. She is not only our provider but also a manifestation of divine beauty and sustenance. However, we have abused her generosity by polluting her with chemicals, fertilizers, waste etc. depleting her ability to nourish us. Instead of nurturing her in gratitude, we exploit her resources, forgetting that our spiritual journey is deeply entwined with the health of our planet Earth.

Too often, we realize the importance of these gifts only when adversity strikes— either through illness or environmental damage.

In Dayalbagh, this sacred balance between body, soul, and nature is beautifully preserved through agroecological practices. By working in harmony with nature, we honour our provider while reaping the benefits of her pure, wholesome produce. These practices nurture both physical and spiritual health and go beyond agriculture, fostering virtues like humility, teamwork, gratitude and reverence for creation and the creator. They remind us of the boundless Grace and Mercy that unfold when we honour the gifts bestowed upon us.

There is an urgent need to educate future generations about the interconnectedness of body, spirit, and nature. If more can follow the Dayalbagh way of life across India and the world, humanity can heal the planet, nourish its people, and build a harmonious, sustainable future.

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