



MONTHLY NEWSLETTER FEBRUARY 2026



CEO'S MESSAGE

**Dear Friends, Member Organizations, Donors & Stakeholders,
Greetings from the Indian Social Responsibility Network (ISRN) !**

At ISRN, our work across sectors continues to be guided by a simple vision—creating inclusive, resilient, and empowered communities.

Through our Uttam School initiative, we are transforming learning spaces into safe, engaging, and future-ready environments for children.

At the same time, Projects SHE (Sanitation, Health & Empowerment) and Project PRERANA are addressing critical gaps in adolescent health by improving menstrual hygiene infrastructure and driving awareness—ensuring dignity, confidence, and continued education for young girls.

Our efforts in strengthening Farmer Producer Organizations (FPOs) reflect our commitment to sustainable livelihoods by empowering grassroots leadership and enhancing institutional capacities. Alongside this, promoting digital safety awareness remains essential as communities navigate an increasingly connected world.

Recently, ISRN collaborated with BSES on a "सुरक्षित घर, सुरक्षित जीवन" (Safe Home, Safe Life) campaign to promote electricity safety awareness in Delhi, while our participation in key platforms like World NGO Day, AI Summit, and CyberPeace Summit reinforces the importance of innovation, leadership, and responsible technology in development.

As we move forward, we remain committed to driving meaningful change through collaboration, knowledge, and action—while recognizing that challenges like environmental sustainability and clean air require urgent and collective responsibility.

Warm Regards,
Santosh Gupta
Chief Executive Officer



Santosh Gupta

UTTAM SCHOOL

TRANSFORMING SCHOOLS INTO UTTAM SCHOOLS – A PROUD MILESTONE IN UTTARAKHAND

ISRNL marked a significant milestone in February 2026 with the inauguration of Saraswati Shishu Vidya Mandir, Laksar (Haridwar) as the 55th Uttam School under the Rahee Uttam School Initiative.

The transformation brought in upgraded infrastructure, a dedicated badminton court, well-equipped science and computer laboratories, and experiential learning spaces—creating a safe, engaging, and quality learning environment for students.



The inauguration ceremony was a vibrant celebration, featuring enthusiastic student performances and meaningful interactions with educators, reflecting a shared commitment to holistic school development. The occasion was graced by Shri Pradeep Khaitan (MD, Rahee Infratech Ltd) as Chief Guest, along with Shri Sanjay Chaturvedi ji as Special Guest, and ISRNL CEO Shri Santosh Gupta ji.

This achievement reinforces ISRNL's ongoing mission to create inspiring educational ecosystems and empower children in rural communities through quality education.



TRANSFORMING SCHOOLS INTO UTTAM SCHOOLS – A PROUD MILESTONE IN UTTARAKHAND



FORMATION AND PROMOTION OF FARMER PRODUCER ORGANIZATIONS (FPOS)

STRENGTHENING FPO LEADERSHIP THROUGH CAPACITY BUILDING

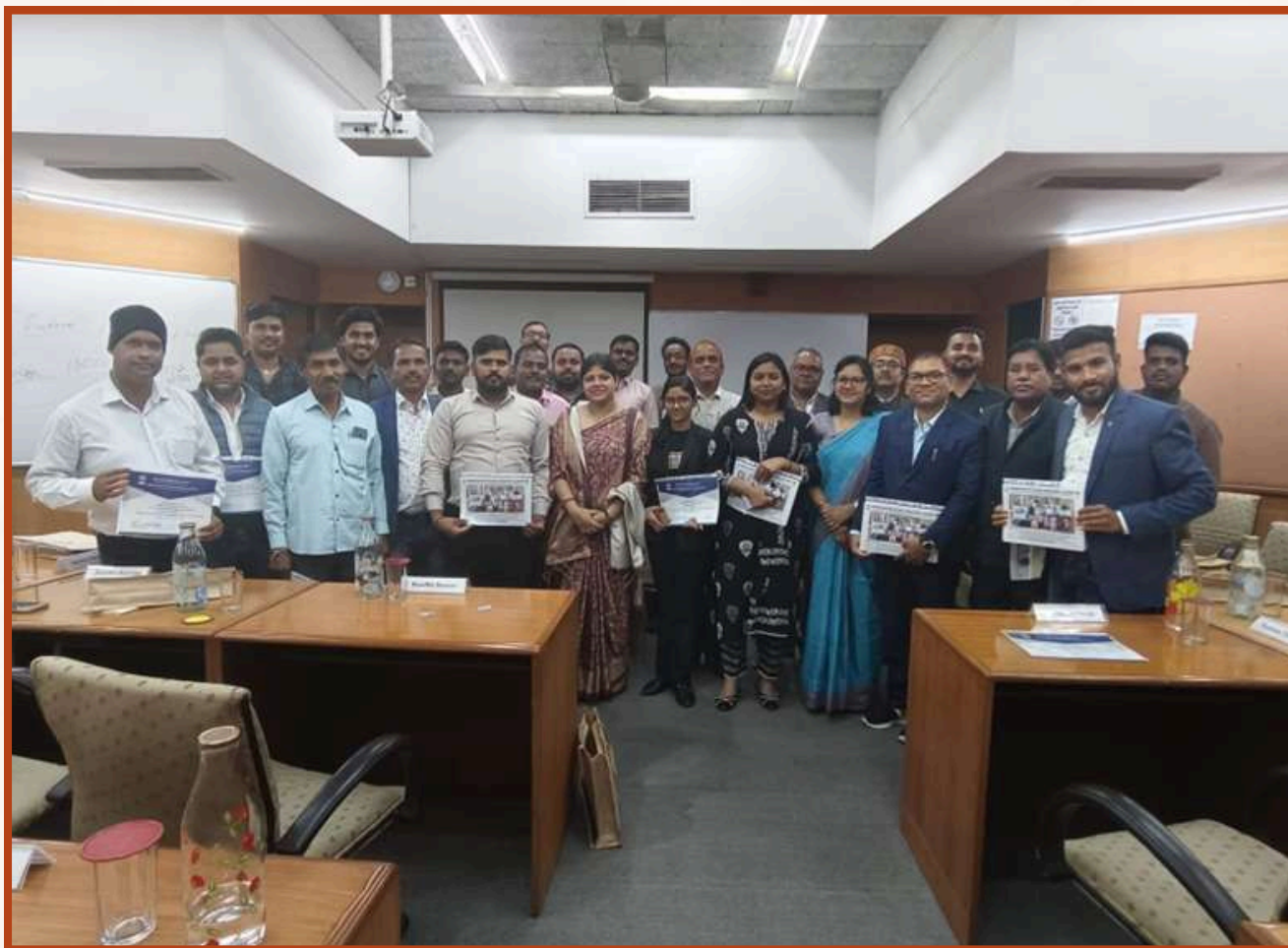
ISRN continues to strengthen Farmer Producer Organizations (FPOs) by investing in the capacity building of key stakeholders, including CEOs, Board of Directors, and Project Officers. As part of this effort, our Program Officer, along with the CEOs of our FPO, participated in a three-day residential training held from 16–18 February 2026 at the Bankers Institute of Rural Development (BIRD), Lucknow.



The training brought together FPO leaders, CBBO representatives, bankers, and NABARD officials, fostering a collaborative platform for knowledge exchange and skill enhancement. The sessions focused on critical areas such as agricultural trade, financial management, governance practices, and strategies for sustainable FPO growth.



A key highlight of the programme was the field visit to successful and self-reliant FPOs. Participants gained first-hand exposure to real-time operations including aggregation, processing, packaging, and market linkages. Interactions with FPO leaders and members provided valuable practical insights into effective management, business planning, and pathways to financial sustainability.



These experiential learnings offered replicable models and inspired participants to adopt best practices within their own FPOs. Through such initiatives, ISRN reaffirms its commitment to building strong farmer institutions by fostering leadership, promoting continuous learning, and enabling collaborative growth.



PROJECT SHE (SANITATION, HEALTH AND EMPOWERMENT)

In February, ISRN accelerated its efforts under Project SHE, implemented with the support of John Snow India Private Limited (JSIPL), to address one of the most critical yet often overlooked barriers to girls' education and well-being—menstrual health and hygiene. Across eight schools of Jhabua district in Madhya Pradesh, sanitary napkin vending machines and incinerators were installed, accompanied by the distribution of sanitary napkins to ensure immediate and dignified access for adolescent girls. By combining infrastructure with access, the initiative directly contributes to reducing absenteeism, improving retention and enabling girls to participate confidently in school activities. To ensure long-term sustainability, school staff were trained on the operation and maintenance (O&M) of the machines, fostering ownership at the institutional level.



Recognizing that infrastructure alone cannot drive change, ISRN also prioritized behavioural transformation through awareness. Sensitization sessions were conducted in five schools, reaching 261 adolescents with critical information on puberty, menstrual hygiene management, reproductive health, nutrition and anaemia prevention. Delivered with the support of an ARSH Counsellors, these sessions created safe spaces for open dialogue, helping break deep-rooted taboos, dispel myths and empower young individuals with knowledge that can shape healthier futures. The enthusiastic participation and engagement from students underscored both the need and the impact of such interventions.



ISRN National team also undertook a strategic field visit, focused on building convergence with district administration. Constructive engagements with key officials including Ms. Neha Meena, IAS, Collector & District Magistrate; Ms. Supriya Bisen, Assistant Commissioner – Tribal Affairs; and Dr. Bharat Singh Bhagel, Chief Medical and Health Officer highlighted strong institutional support and opened pathways for long-term integration with government systems. In addition, the team also undertook field visits to schools, where interactions were held with school principals, teachers, hostel warden and students to understand the ground-level context. This was followed by interactive sessions on Menstrual Health and Hygiene Management with students. The sessions witnessed active participation, with students engaging through questions, discussions and sharing of experiences, contributing to the overall effectiveness and impact of the activity.



PROJECT PRERANA

ISRN, with the support of the American India Foundation (AIF), continues to advance Project PRERANA to improve menstrual, reproductive and adolescent health among school-going adolescents in Papum Pare district, Arunachal Pradesh.



During February, sanitary napkin vending machines and incinerators were successfully installed in seven selected schools along with the distribution of bio-degradable sanitary napkins. This marks a key milestone in strengthening menstrual hygiene infrastructure in schools. To ensure sustainability, training on operation and maintenance (O&M) was also conducted for nodal teachers and school staff. Through demonstrations and practical guidance, the sessions equipped stakeholders to effectively manage the machines, promoting long-term usability and improved menstrual hygiene practices.



POWERING AWARENESS, PREVENTING INCIDENTS

BSES and the Indian Social Responsibility Network (ISRN) have signed a partnership to collaborate on a "सुरक्षित घर, सुरक्षित जीवन" (Safe Home, Safe Life) campaign to promote electricity safety awareness in West & South Delhi households.

The campaign, which includes door-to-door outreach, community sessions, and school programs, focuses on educating residents about high-tension (HT) and extra-high voltage (EHV) safety to prevent incidents. This engagement is a strong step toward safer homes and fewer incidents. With the continued support of the BSES team, this campaign is not just spreading awareness its empowering communities to take charge of their safety. Together, we move closer to a safer Delhi tomorrow.



CELEBRATING WORLD NGO DAY 2026 WEBINAR: DRIVING LEADERSHIP & IMPACT

On **27th February 2026**, **World NGO Day, India Social Responsibility Network** successfully hosted an insightful webinar that brought together more than 70+ various sector leaders, practitioners, and change-makers to reflect on the evolving development sector landscape and chart pathways for a more resilient future.

The session featured distinguished speakers who shared practical insights, strategic direction, and inspiring perspectives for NGOs navigating today's dynamic environment.

STRENGTHENING FINANCIAL RESILIENCE & CREDIBILITY

Sh. Anand Shekhar, CEO of WaterAid India, highlighted the rapidly evolving funding ecosystem, spanning CSR, philanthropy, and institutional donors. He addressed the growing challenge of financial instability and emphasised the urgent need for NGOs to:

- **Diversify funding streams**
- **Strengthen cash-flow management**
- **Build proactive risk mitigation strategies**



He underscored that **credibility is the true currency of the sector**, calling for enhanced transparency, strong governance frameworks, and compliance alignment to build long-term donor trust.

BUILDING LEADERSHIP & FUTURE-READY ORGANISATIONS

Amitabh Shah, Founder & Chief Inspiration Officer at Yuva Unstoppable, delivered an engaging session on leadership and talent development.

He emphasized:

- **Structured volunteer engagement as a growth engine**
- **Mentorship-driven leadership building**
- **Converting volunteers into long-term ambassadors**



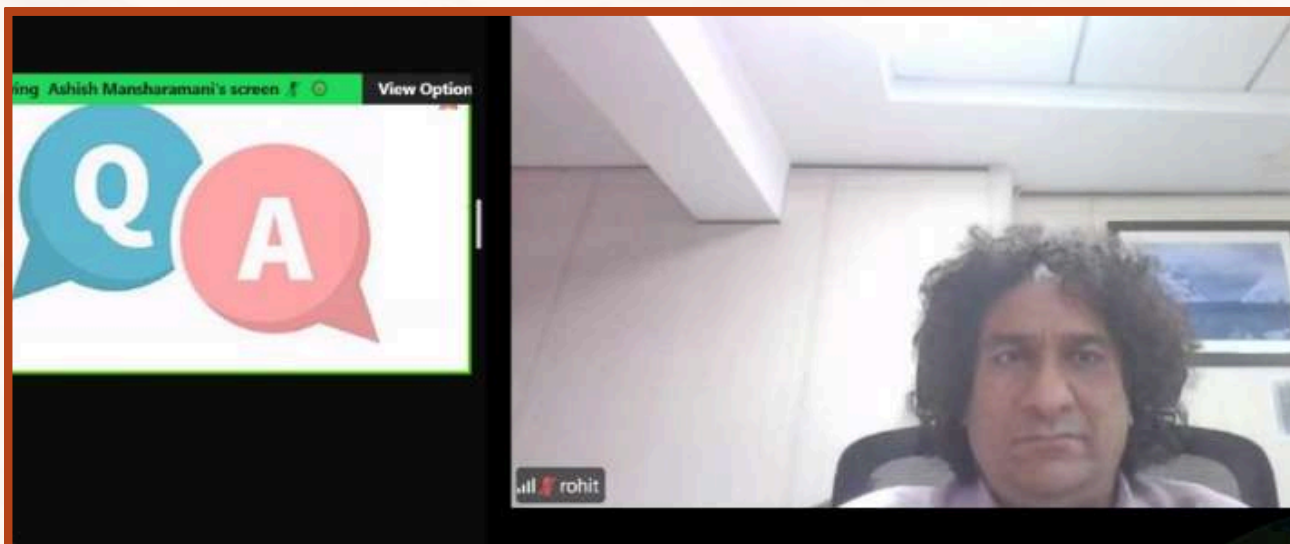
He also stressed the importance of **bridging the digital divide** in grassroots organisations by adopting affordable digital tools and creating simple, effective systems for operations and monitoring. His key message: system strengthening must go hand-in-hand with people development.

DRIVING OUTCOME-BASED ENVIRONMENTAL ACTION

Rohit Mehra, widely known as the Green Man of India, encouraged NGOs to shift from awareness campaigns to **measurable, outcome-driven environmental action**.

HE HIGHLIGHTED:

- **Tangible social, ecological, and economic benefits of structured green initiatives**
- **Cost-effective implementation through strategic partnerships**
- **Replication of the urban mini-forest model for scalable, community-led impact**

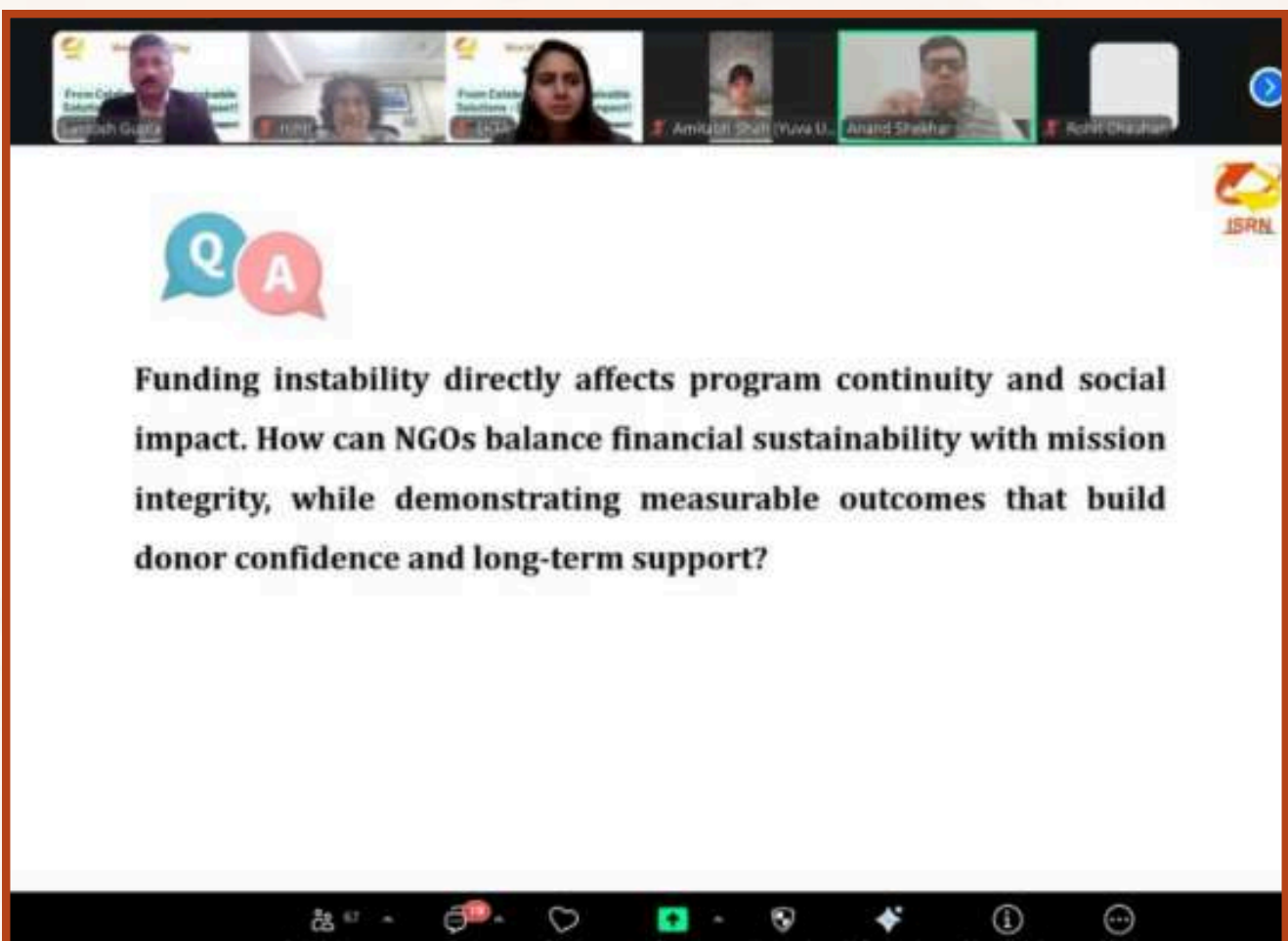


A COLLECTIVE WAY FORWARD

The webinar served as a powerful platform for dialogue, learning, and collaboration. It reinforced the need for NGOs to **adapt, innovate, and strengthen both systems and leadership** to remain resilient in a rapidly changing ecosystem.



As ISRN continues to champion knowledge-sharing and sectoral growth, this World NGO Day celebration reaffirmed a shared commitment to building **credible, future-ready, and impact-driven organisations**.



ISRN PARTICIPATION AT CYBERPEACE SUMMIT 2.0 AS A SUPPORTING PARTNER

Global CyberPeace Summit 2.0 emerged as the world's largest convening dedicated to Trust, Safety, and Digital Resilience in the digital age. Organized by the CyberPeace ecosystem, the summit brought together global leaders, policymakers, technologists, cybersecurity professionals, academia, civil society, and citizens to collectively address the evolving challenges of cyberspace. Held at Bharat Mandapam in New Delhi by Cyberpeace Foundation, ISRN's partner in cybercrime prevention and advocacy campaign, the Cyberpeace Summit served as a multi stakeholder platform focused on advancing responsible digital governance, strengthening cyber diplomacy, and building resilient digital ecosystems. The event explored critical global concerns such as AI governance, cybercrime, misinformation, platform accountability, and protection of critical infrastructure.

The summit also served as a precursor event to the IndiaAI Impact Summit 2026, contributing to the broader national and global dialogue on responsible artificial intelligence, digital trust, and secure technology ecosystems. By convening global stakeholders ahead of the IndiaAI platform, the summit helped shape policy conversations on AI safety, cybersecurity, and trusted digital infrastructure.



OBJECTIVES

THE SUMMIT WAS DESIGNED AROUND SEVERAL STRATEGIC OBJECTIVES:

- Strengthen global cooperation on cybersecurity, digital trust, and responsible technology governance.
- Advance discussions on safe and trusted Artificial Intelligence, platform accountability, and cyber diplomacy.
- Promote collaborative approaches to address cybercrime, misinformation, and online harms.
- Enhance resilience of critical infrastructure and digital ecosystems against emerging cyber threats.
- Facilitate multi stakeholder dialogue between governments, industry, academia, civil society, and digital citizens.
- Encourage innovation, capacity building, and youth participation through hackathons, workshops, and technology demonstrations.

PARTICIPATION

Global CyberPeace Summit 2.0 witnessed participation from a diverse global community including policymakers, diplomats, defence leaders, law enforcement agencies, technology platforms, industry leaders, academia, and civil society organizations.

As a Supporting Partner ISRN actively participated—contributing to key discussions and collaborative dialogues at the global platform that brought together policymakers, technologists, civil society, and industry leaders to strengthen cyber resilience, digital trust, and safer online ecosystems. The summit hosted over 1500 delegates, making it one of the largest global platforms focused on digital trust and cybersecurity cooperation. Participants represented governments, international organizations, startups, research institutions, grassroots digital communities, senior citizens, LGBTQIA+ community members, and specially-abled individuals, reflecting a strong commitment to inclusive and equitable digital engagement.

The summit also featured a large scale Trust and Safety Plenary and Netizen Townhall, enabling engagement between policymakers, experts, and everyday internet users on issues affecting the global digital ecosystem, while ensuring that voices from diverse communities and vulnerable user groups were part of the dialogue on building a safer and more inclusive digital future.

PROGRAMME HIGHLIGHTS

- The summit featured multiple high level tracks, dialogues, and collaborative platforms designed to address key challenges in cyberspace.
- Trust and Safety Plenary and Netizen Townhall: A flagship session that brought together digital citizens, experts, and policymakers to discuss the future of trust and safety in online ecosystems.
- Parliamentary and Policy Track: Discussions involving Members of Parliament, policymakers, and governance experts on cyber regulation, digital rights, and policy frameworks

- Cyber Diplomacy and Internet Governance Track: Global dialogue on norms, international cooperation, and diplomatic engagement in cyberspace.
- Law Enforcement and Cybercrime Track: Sessions focused on strengthening global cooperation in cybercrime investigation, digital forensics, and judicial coordination.
- Defence and Strategic Security Track: Exploration of cyber warfare risks, hybrid threats, and national security implications of digital technologies.
- Critical Infrastructure and Industry Track: Discussions on safeguarding key sectors such as finance, healthcare, transportation, and public utilities from cyber threats.
- Technical and Quantum Security Track: Expert discussions on emerging technologies including quantum security, AI driven cybersecurity, and next generation digital defence systems.
- CyberPeace Exhibition: A large innovation showcase featuring cybersecurity solutions, AI safety technologies, government initiatives, startup demonstrations, book launches, and technology product releases.
- Capacity Building and Innovation Activities: Workshops, cyber exercises, hackathons, and demonstrations designed to translate dialogue into practical solutions and strengthen cyber resilience across sectors.
- Along the sidelines of the summit 2 Cyber Security podcasts on women and rural penetration of cybercrime was hosted by ISRN at their head office for a global reach of the sensitive topics for a larger advocacy.



KEY TAKEAWAYS

Global CyberPeace Summit 2.0 highlighted the growing importance of Trust and Safety as a central pillar of global digital governance. As cyber threats, AI risks, and misinformation continue to escalate worldwide, the summit emphasized that securing cyberspace requires collaborative action across nations and sectors.

The discussions reinforced the need for shared norms, international cooperation, and inclusive participation in shaping the future of digital governance. Through policy dialogues, technical discussions, and innovation platforms, the summit promoted practical pathways for strengthening cyber resilience, responsible AI deployment, and citizen centric digital safety.

The summit also contributed important perspectives to the broader conversations leading into the IndiaAI Impact Summit 2026, particularly on safe AI adoption, cyber resilience, and governance frameworks for emerging technologies.



CONCLUSION

Global CyberPeace Summit 2.0 demonstrated the power of multi stakeholder collaboration in addressing the complex challenges of the digital era. By bringing together governments, industry leaders, technologists, and civil society, the summit created a global platform for shaping policies, technologies, and partnerships that support a safer and more trusted cyberspace.

As a precursor to the IndiaAI Impact Summit 2026, the event reinforced the importance of aligning cybersecurity, trust and safety, and responsible AI governance in building resilient digital societies. Through continued cooperation and innovation, initiatives such as the Global CyberPeace Summit continue to shape a more secure and trusted digital future for all.

The summit enabled rich exchanges through thought-provoking discussions, workshops, and collaborative engagements focused on cybersecurity, cybercrime prevention, and responsible technology use.

We look forward to translating these learnings into meaningful actions, strategic partnerships, and community-driven initiatives aligned with ISRN's mission.



ISRN AT AI SUMMIT 2026: ADVANCING RESPONSIBLE AI FOR SOCIAL IMPACT

The Indian Social Responsibility Network (ISRN) proudly participated in the **AI Summit 2026**, held at Bharat Mandapam, New Delhi. The summit brought together thought leaders, innovators, and practitioners to explore the transformative potential of artificial intelligence at the intersection of **social impact and sustainable development**

ENGAGING IN MEANINGFUL DIALOGUE

AT THE SUMMIT, ISRN ACTIVELY CONTRIBUTED TO DISCUSSIONS FOCUSED ON LEVERAGING AI TO:

- Strengthen grassroots ecosystems
- Enable data-driven decision-making
- Improve governance and accountability
- Accelerate progress across development sectors



These conversations reinforced the growing importance of integrating technology with human-centered development approaches.

EXPLORING AI FOR DEVELOPMENT

The event served as a valuable platform to examine how emerging AI solutions can be applied responsibly within the development and social sector. Key insights highlighted the need for:

- Ethical and inclusive AI frameworks
- Context-specific innovations for underserved communities
- Stronger collaborations between technology and development stakeholders



OUR COMMITMENT MOVING FORWARD

As the digital landscape continues to evolve, ISRN remains committed to promoting the **responsible, inclusive, and ethical use of AI**. The focus remains clear—ensuring that technology serves communities and strengthens impact, rather than replacing human agency.

FROM INSIGHTS TO ACTION

Building on the learnings from the summit, ISRN looks forward to translating these insights into **actionable strategies and partnerships** that drive meaningful, people-centered change.



KNOWLEDGE HUB

HOW CAN I KEEP MYSELF SAFE ONLINE?

INTRODUCTION

The Internet is an essential part of our daily lives, and it has made communication, entertainment, and learning easier than ever before. However, as we spend more and more time online, it's important to be aware of the potential risks and dangers associated with the digital world. Students in contemporary times need to understand these risks and learn how to protect themselves online.



USE STRONG PASSWORDS

Passwords are the first line of defence against unauthorised access to personal accounts and information. You should use strong passwords that are difficult to guess or crack. A strong password should be at least 12 characters long and include a mix of upper and lower-case letters, numbers, and symbols. One should avoid using easily guessed information, such as their name, date of birth, or phone number, as their password.

KEEP SOFTWARE UP-TO-DATE

Software and operating systems are frequently updated to patch security vulnerabilities and improve performance. You should keep your software up-to-date by regularly checking for updates and installing them as soon as they become available. This is particularly important for antivirus software, which is designed to protect against malware and other cyber threats.

BE CAREFUL WITH PERSONAL INFORMATION

Be cautious when sharing personal information online. Personal information, such as your home address, phone number, or date of birth, can be used to steal your identity to commit fraud. Adjust your privacy settings on social media platforms, limit who can see your information and avoid sharing personal information with strangers or untrusted sources.

AVOID SUSPICIOUS LINKS AND ATTACHMENTS

Malware and viruses can be spread through malicious links and attachments, infecting your computer or stealing personal information. Be cautious when clicking links or opening attachments from unknown sources, and use anti-virus software to protect your computers. Users should verify the sender's authenticity and the message's content before opening any links or attachments.

BE CAUTIOUS ON PUBLIC WI-FI

Public Wi-Fi networks are often unsecured and can be easily hacked, putting your personal information at risk. You should be cautious when using public Wi-Fi networks and avoid accessing sensitive information, such as online banking or email accounts, while on public Wi-Fi.

THINK BEFORE SHARING ONLINE

You should think before sharing any content online. Remember that once you post something online, it is difficult to erase and can have long-term consequences. One should consider the potential consequences of their posts and avoid sharing inappropriate content that could harm themselves or others.

SEEK HELP IF NEEDED

Seek help if you feel uncomfortable or unsafe online. Talk to a trusted adult, such as a teacher, counsellor, or parent, or report the issue to the appropriate authorities, such as the school administration, law enforcement, or internet service provider.

CONCLUSION

In conclusion, by being aware of online safety, you can become responsible digital citizens who can navigate the online world safely and confidently. One should adopt safe online practices and remain vigilant against potential threats and risks.

In case of cybercrime:

National Helpline: 1930 | [cybercrime.gov.in](https://www.cybercrime.gov.in)

CyberPeace Helpline: 9570000066 | Helpline@cyberpeace.net

PERSONAL BULLETIN BY ISRN ADVISORY BOARD MEMBER, DR. J. P. SHARMA



ARTIFICIAL INTELLIGENCE IN AGRICULTURAL RESEARCH AND PRACTICES: PROMISE, LIMITATIONS, AND POTENTIALS



The agriculture sector, which forms the backbone of the country's economy and nutritional security, is facing increasing pressure for more output due to the multitude of challenges like increased food demand driven by population growth, climate change, limited resources availability, crop damage due to biotic stress, significant quantum of post-harvest losses, changing dietary patterns etc. The current trend of increasing global food demand and decreasing agricultural productivity in major crop growing areas highlights the urgent need for innovative technological and management solutions to sustain the food systems. Artificial intelligence (AI) led technological innovations are one among such inventions which can address the present-day challenges in agriculture by using the application of computational techniques and algorithms such as machine learning, computer vision, and data analytics. Farmers need to take timely decisions in every step of the crop production process from sourcing the inputs till reaching the consumption stage, which primarily depends on a variety of information. Conventional strategy of obtaining the information for such decision-making process is through physically monitoring the crops by the farmers at various stages of crop development or by seeking expert opinion based on the corporal appearance of the crops or produce, which is a clumsy process requiring great data base on various parameters. By the introduction of AI driven decision-making support systems, agriculture landscape can undergo structural transformations both in the field and research by replacing the subjective process of manual information extraction through automated and computer system-based applications.

Due to the multifaceted challenges and diversity in agricultural AI has immense application in the research field. It enables faster, reliable and accurate data driven discoveries in this field of soil science, genetics, plant health climate, crop performance etc., through its fast data analytics by machine learning techniques. Computer assisted phenotyping tools also help to measure the various plant traits without human errors. Like research assistance, AI has immense practical applications in the farmer's field. AI systems process large volumes of data from sources such as sensors, satellites, weather stations, and field observations to generate actionable insights for the farmers. For example, AI-based tools are used to monitor resources requirements and their application through precision farming thus enable the resource use efficiently (eg. CropX technology). Similarly, it can also be used to monitor crop health and detect pests or diseases in early stages of any crop, allowing farmers to take timely decisions and action to reduce crop damage and income loss (EgPlantix App). Some AI-powered tools using computer vision are used very precisely to distinguish where herbicides should be applied. These systems can identify crops and weeds in real time, applying herbicides only to the weeds and reducing chemical use by up to 60% (Eg; See & Spray Technologies developed by John Deere company, Blue River Technology). At the same time, other AI-powered predictive models can be used to provide virtual advisory services on agronomy and climate by analyzing historical soil and weather data (e.g., the National Pest Surveillance System of the Government of India, Cropin, or IBM Watson from private service providers). Other areas that can harness the potential of AI include robotic harvesters to reduce labor requirements and production costs, as well as AI-driven value chain and supply chain analytics to reduce post-harvest spoilage and ensure quality control. Like this, farmers can be empowered with the real time information on different government schemes like PM Kisan Samman Nidhi scheme, PM Fasal Bhima Yojna and Kisan Credit Card through Kisan e-Mitra" a voice-based AI-powered chatbot developed for this purpose.

Although AI offers immense potential and promise in a data-driven developmental scenario, it is not devoid of limitations and challenges. The development of AI tools itself faces challenges such as high investment costs, complexity in data management and algorithm development, and limited last-mile connectivity in farmers' fields. In the research areas the AI integrated tools raise questions about the integrity, originality and novelty of the findings due to over dependence of the researchers on such automated systems. Many of the models generally operate through generalized algorithms and fail to capture the regional differences and location specific need while giving advisories. Undue dependence of AI in many field situations drastically reduces the innate creativity, analytical ability, innovations and problem-solving ability of the farmers or researchers or policy makers as independent decision-making entities. In creative fields, AI-generated content may dilute authenticity and undervalue human expression, while excessive interaction with machines can reduce emotional sensitivity, empathy, and social skills. The rapid spread of fake information, deepfakes, and manipulated media powered by AI threatens public trust, democratic processes, and informed decision-making. At the same time, the collection and processing of massive personal data at the field or farmers level raise serious concerns about privacy, surveillance, and misuse of personal information

Weakly regulated AI systems also expose individuals and institutions to cybersecurity risks, including data breaches, identity theft, automated hacking, and AI-driven cyberattacks. Hence the field of AI in agricultural research and practices must be approached with caution and balance. It should be seen as a complementary tool for data management and decision support rather than as substitute for human intelligence and expertise. A synergistic approach that combines technological innovation with domain knowledge, capacity building, robust policy frameworks, and inclusive digital infrastructure is essential to ensure that AI-driven agricultural transformation is equitable, reliable, and sustainable in the long term.



PERSONAL BULLETIN BY ISRN ASSOCIATE DIRECTOR, ASHISH MANSHARAMANI

NORMALISING TOXIC WINTERS IS, ULTIMATELY, A CHOICE—AND A HUMAN-MADE ONE

Clean air is not a luxury or an environmental ideal; it is a foundational precondition for public health, economic resilience, and sustainable development



Security personnel stand guard in front of the India Gate amidst the heavy smog in New Delhi [image by: Reuters]

India's winter air pollution crisis—most acutely experienced across Delhi and the National Capital region (Delhi-NCR), Northwest India, and the Indo-Gangetic Plain—has moved well beyond being a seasonal inconvenience. It has become a structural, recurring public health emergency. Each winter, Air Quality Index (AQI) levels routinely cross 400-500, entering the “severe” and “emergency” categories, where even short-term exposure poses serious health risks. This crisis is neither accidental nor unpredictable; it is the outcome of a persistent interaction between rising emission loads and unfavourable winter meteorology.

At the core of the problem lies a steadily increasing emissions baseline. Rapid urbanisation, construction activity, fossil-fuel-based power generation, industrial clusters, waste and biomass burning, and seasonal crop residue burning together load the regional atmosphere with pollutants well before winter sets in.

Transport remains a major urban contributor, but its role is often oversimplified. Delhi today has over 12 million registered vehicles, nearly 70 per cent of which are two-wheelers. Historically, two- and three-wheelers contributed disproportionately to hydrocarbon and nitrogen oxide emissions due to the dominance of two-stroke engines and weak emission standards. However, this emissions profile has evolved significantly over the past decade.

The phased implementation of Bharat Stage emission standards—culminating in BS-VI norms in 2020—has led to a substantial reduction in per-vehicle emissions. BS-VI standards mandate ultra-low sulphur fuels (10 ppm), advanced after-treatment systems, improved combustion efficiency, and on-board diagnostics, resulting in sharp declines in particulate matter, sulphur dioxide, and nitrogen oxides from new vehicles. Consequently, newer internal combustion two-wheelers are significantly cleaner than earlier generations. Today, a disproportionate share of transport-related pollution arises from legacy vehicles—pre-BS-IV and BS-III models—that continue to operate due to slow fleet turnover and weak scrappage enforcement.

Alongside cleaner combustion technologies, electric mobility has begun to reshape the transport emissions landscape. Delhi and several other Indian cities now report electric two-wheelers accounting for over 10 per cent of new registrations, among the highest adoption rates nationally. Electric two- and three-wheelers offer zero tailpipe emissions and are particularly well suited for dense urban environments. Yet, their impact on ambient air quality remains limited by scale. Rapid growth in vehicle ownership, rising travel demand, congestion-induced emissions, and the continued dominance of fossil-fuel electricity generation dilute the gains from electrification. More importantly, during winter, transport emissions are often overwhelmed by pollution from biomass and waste burning, coal-based power plants in the regional airshed, and agricultural residue burning, which elevate background pollution levels before meteorological trapping takes effect.



The Thames near Tower Bridge during the Great London Smog, 1952. FOX PHOTOS/GETTY IMAGES

Meteorology is the critical amplifier. During winter months, calm winds, frequent temperature inversions, high relative humidity, and a shallow atmospheric mixing layer prevent both horizontal and vertical dispersion of pollutants. Emissions that might otherwise dilute instead accumulate rapidly near the surface. This phenomenon affects not just Delhi but the entire Indo-Gangetic Plain, exposing nearly 400 million people to prolonged periods of hazardous air quality. The crisis, therefore, is not local but regional in scale, demanding coordinated airshed-based governance rather than city-centric firefighting.


History offers a sobering parallel. In December 1952, London experienced the Great Smog, caused by extensive coal burning combined with anticyclonic conditions, calm winds, temperature inversion, and high humidity. In just four days, an estimated 12,000 excess deaths occurred, and more than 100,000 people fell seriously ill. The episode fundamentally altered global understanding of the relationship between air pollution and human health. Political pressure forced decisive action, culminating in the UK Clean Air Act of 1956 and a long-term shift away from coal, supported by strict enforcement. British cities never returned to those pollution levels.

Delhi-NCR today mirrors many of these conditions: high emissions, adverse meteorology, dense population exposure, and limited adaptive capacity. While India has no shortage of policies—ranging from National Green Tribunal directives on stubble burning to central schemes allocating over Rs 1,100 crore for in situ crop residue management—their implementation has been fragmented and inconsistent. Emergency measures such as traffic rationing, construction bans, and school closures offer visibility but fail to address the structural drivers of pollution. The result is an annual cycle of crisis response rather than sustained prevention.

International experience demonstrates that transformation is possible. Beijing, which faced pollution levels comparable to or worse than Delhi's prior to 2013, reduced PM2.5 concentrations by over 40 per cent within a decade through legally binding targets, strict enforcement, energy transition, industrial relocation, and coordinated governance. India, by contrast, continues without a comprehensive, parliamentary Clean Air Act that establishes enforceable standards, clear accountability, and long-term policy coherence across sectors and states.

The public health costs of delay are enormous. Air pollution is among India's leading risk factors for premature mortality, contributing to millions of lost life-years annually, alongside rising healthcare expenditure and productivity losses. Expecting sustained public pressure for clean air in a context of economic precarity and limited adaptive capacity is unrealistic. The responsibility for action must therefore rest squarely with the state.





History's lesson is unambiguous: when air pollution reaches crisis proportions, incrementalism fails. The London smog of 1952 catalysed systemic reform because the costs of inaction became undeniable. India stands at a similar inflection point today. A strong, legally binding Clean Air Act—grounded in science, insulated from vested interests, and implemented with long-term vision—is no longer optional. Hence, clean air act by the central government in the next parliament session with relatable action like (NGT)'s action for Beas Kund in the Rohtang area should be drawn up. Clean air is not a luxury or an environmental ideal; it is a foundational precondition for public health, economic resilience, and sustainable development. Normalising toxic winters is, ultimately, a choice—and a human-made one.

Ashish Mansharamani is the Associate Director at Indian Social Responsibility Network

Views expressed are the author's own and don't necessarily reflect those of Down To Earth.

ISRN believes that having a right to live in equality is something each human deserves and with support from esteemed people like you, we are transforming the lives of thousands of fellow citizens. We have held workshops and training sessions for more than 800 member organisations, fostering a symbolic growth system

We genuinely appreciate all of your help, love, and support for ISRN.

We humbly ask that you continue to provide us with support, advice, and invaluable assistance that will enable us to ensure that each and everyone is empowered to grow and flourish in their own unique way.

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