

**Lynn Frederick Dsouza**  
National President, Aviation Council

30<sup>th</sup> March, 2025

Hon'ble Minister of Civil Aviation - Shri Kinjarapu Rammohan Naidu Ji,  
Ministry of Civil Aviation Headquarters,  
Rajiv Gandhi Bhawan, Block B, Safdarjung Airport Area,  
New Delhi - 110003, India.

Subject: Aviation Security Policy Recommendations from WICCI National Aviation Council

Dear Shri Kinjarapu Rammohan Naidu Ji,

Greetings from WICCI National Aviation Council!

I am honoured to introduce myself as the National President of the Aviation Council at the Women's Indian Chamber of Commerce and Industry. At the WICCI National Aviation Council, we collaborate for mutual benefit and shared goals with corporates, governments, universities, NGOs, UN and other regulatory authorities to help in sustainable gender inclusive disarmament governance in aviation, and advance strategic policy frameworks for the Indian aviation and aerospace sectors as well as define an inclusive regulatory framework for the future Indian aviation industry. We look forward to your support for better coordination of industry and government needs, harmonizing regulation of our Indian Aviation Industry and governing and facilitating aviation systems to make aviation more inclusive in India, keeping in mind safety, security and on-time-performance as our key priorities.

We are dedicated to building a more inclusive and sustainable future for Indian women in aviation, by influencing more women aviators to drive economic growth, increase employment opportunities and generate impact. We are uniquely positioned to gather insights from experienced Aviation Professionals and Businesswomen and organizations from all over India and make recommendations that mitigate the safety and security risks and represent the interests of a broad array of aviation stakeholders to generate safe, secure and sustainable outcomes which benefit the nation and future generations.

Our Mission, Vision and Value Proposition are as below;

- **VISION: To create a sustainable and thriving aviation ecosystem for Indian women in the Aviation Industry for their greater representation and leadership, with engagement and collaboration with government, corporate and other stakeholders.**
- **MISSION: To empower an ecosystem where women in India can aspire and be inspired to step into the Aviation sector with education, access, innovation, solidarity and empowerment.**
- **VALUE PROPOSITION: Broadening the scope and possibilities of the Aviation sector to make it more inclusive, equitable and accessible to Indian women.**

We have a robust National Council which represents women professionals from the Aviation sector and industry from across India. I am privileged to introduce the Aviation Council members;

1. Lynn Frederick Dsouza, National President - Global Strategist & Governance Expert, AI & Aviation Policy Specialist & Futurist, Founder & Director - ESPIRIDI, Consultant - UN. Ex. Associate Director/Aviation SME – PM Gati Shakti National Master Planning, MoCI, GoI.
2. Bharti Singh, National Vice President - Strategy Manager - Emirates. Ex. Aerospace/Aviation Consultant and Trainer at University of Petroleum and Energy Studies.
3. Rakhee Biswas, Council Member - International Aviation Lawyer, Co-Managing Partner - Spaviatech Law.
4. Nandita Bhatt, Council Member -IAP+, Airport Architect Planner, ICAO CD Instructor Airport Master Planner, Aviation Trainer, Executive Director Planning at Airports Authority of India.
5. Wg Cdr Namrita Chandi (Retd.), Council Member - Aviation Expert, Former Sales Manager for India and South Asia at Airbus, Ex IAF.
6. Parul Aghi, Council Member -Innovation Project Network, Former Airbus Product Manager & Co-Founder of AeroLogiks, Ex. DRDO
7. Shalaka Bhardwaj, Council Member - Head Cabin Appearance – Air India. Ex. Business Head Aviation with Krystal Group of Companies
8. Swati Ketkar, Council Member - Editorial Contributor – Aviation Week Network. Ex. Assistant Editor at MRO BUSINESS TODAY.
9. Sandhya Nair, Council Member - Founder of Tailwind Aviation.
10. Sudha Bhasker, Council Member -Senior Manager Training - Ground Operations - Air India Express / Disaster Management Associate.
11. Vijaya Gavhane, Council Member - Asset Management | Aircraft Induction & Redelivery, Planning & Records – Aero Inspection.
12. Dr Rikkee Mishra, Council Member - Research Supervisor & Assistant Professor – SRM Institute of Science & Technology. Former General HR Manager at AirCrews Aviation Pvt. Ltd.
13. Sonali Bindiya, Council Member - Senior Executive - HR (Aviation & IoT).

**Lynn Frederick Dsouza**  
National President, Aviation Council

30<sup>th</sup> March, 2025

14. Rupali Avaghade, Council Member - Aeronautical Engineer R&D.
15. Arbeena Khanum, Council Member - Former Technical officer CAMO and Nodal Officer for Flight Safety Department at Deccan Charters.
16. Nilofar Thaarig, Council Member - Director at Aldebaran Aero and Engineering Services Pvt. Ltd.
17. Hemangi Kadam, Council Member - Aircraft Maintenance Engineer (B2) at Vistara, Ex. InterGlobe Aviation Ltd.
18. Alina Usmani, Council Member - Aerospace Engineer & UAS Professional, Head Business Development - DroneAcharya Aerial Innovation Ltd.
19. Lakshmi Shree Vijayakumar, Council Member - Systems Engineering Consultant, Digital Transformation Expert.
20. Capt. Poonam Devrakhyan, Council Member - Independent Director by MCA | Aviation Expert | AI & IoT in Aviation | Flight Ops Inspector | Safety & Compliance | Aviation Law & Policy | Data-Driven Aviation Leader | Aerospace Innovation & Optimization
21. Pearlita Mendez, Council Member - Sr. Manager - Flight Safety – Air India
22. Barkha Negi, Council Member - QA Officer at Jet Airways
23. Neha Dhole, Council Member - Aero Engines FE Analysis at Capgemini
24. Wg Cdr Jaya Tare, Council Member - IAF Retd. CEO Newrizon Space & G100 Space Technology and Aviation Wing

## Policy Recommendations for Mitigating Existential Risks in Aviation Disarmament Foresight

Aviation security and governance in India require a multi-stakeholder approach with strategic oversight from the Directorate General of Civil Aviation (DGCA) and the Bureau of Civil Aviation Security (BCAS). This document provides targeted policy recommendations to ensure regulatory efficiency, security preparedness, and inclusive representation within the aviation sector.

### 1. Policy Recommendations for Ensuring 50% Representation in Aviation Security and Governance

- Implement a mandate for 50% gender representation in leadership roles within DGCA and BCAS.
- Ensure equal representation in aviation security policy advisory boards.
- Develop PPP joint initiatives with women-led aviation security firms and academia.
- Amend the Civil Aviation Requirements (CAR) to incorporate gender-balanced hiring policies.
- Implement data-driven oversight mechanisms to ensure adherence to security compliance.
- Mandate security and risk assessment training for all aviation personnel, with a focus on diversity-driven threat analysis.
- Develop specialized certification programs for women professionals in aviation governance.
- Enhance AI-driven surveillance and cybersecurity measures.
- Promote adoption of biometric and AI-assisted security checks with human oversight.
- Update National Civil Aviation Security Program (NCASP) to ensure 50% representation in decision-making bodies.
- Strengthen threat assessment methodologies with gender-sensitive security perspectives.
- Increase recruitment of women in aviation security roles.
- Develop leadership programs focused on security risk mitigation and governance.
- Partner with ICAO and global security organizations to adopt best practices (in line with ICAO Annex 17 - Security).
- Engage in joint exercises with allied nations to enhance strategic aviation security preparedness.

### 2. Policy recommendations for mitigating existential risks in aviation disarmament foresight based on Human Security Clusters

- Reduce dependency on military aviation contracts by incentivizing the growth of civil aerospace industries through Make in India and Atmanirbhar Bharat initiatives.
- Encourage dual-use aviation technology development for both civilian and defense applications, reducing reliance on arms exports and imports.
- Develop alternative economic hubs in states like Karnataka, Maharashtra, and Telangana to transition from military-focused aviation production.
- Strengthen aviation-enabled agri-supply chain monitoring to prevent food shortages due to aerial transport disruptions.
- Mandate AI-based risk assessments for aviation-related food supply dependencies, especially for perishable exports like fruits, seafood, and dairy.
- Create an Aviation Agri-Supply Chain Task Force with FSSAI, MoCA, and WTO representatives.
- Develop India's first AI-driven Food Supply Chain Resilience Index to assess risks from aviation-based disruptions.
- Implement ICAO-WHO Pandemic Preparedness Frameworks for biosecurity at all major airports like Delhi, Mumbai, and Bangalore.
- Deploy AI-driven early detection systems for bioterrorism and pandemic threats at Indian aviation hubs.
- Enhance biosecurity screening at cargo terminals handling international shipments.
- Establish National Biosecurity Aviation Centers at major Indian airports under the Ministry of Health & Family Welfare.

**Lynn Frederick Dsouza**  
National President, Aviation Council

30<sup>th</sup> March, 2025

- Accelerate the adoption of sustainable aviation fuels (SAFs) and electrification of ground handling equipment.
- Enforce aviation-climate risk modeling under India's National Action Plan on Climate Change (NAPCC).
- Develop an India-specific Green Aviation Taxonomy under MoEFCC & MoCA.
- Mandate carbon-neutral airport infrastructure for upcoming projects in Jewar, Navi Mumbai, and Bhogapuram airports.
- Create India's first AI-Governed Airspace Security System to monitor AI-powered drone swarms and autonomous aerial threats.
- Strengthen India's National Counter-Terrorism Aviation Framework by integrating AI-driven predictive intelligence for aviation-related terrorism.
- Develop a Drone Threat Prediction AI System in collaboration with DRDO and ISRO.
- Harden aviation security infrastructure at strategic airports (Jammu, Leh, Port Blair, and Guwahati).
- Extend India's Outer Space Treaty Commitments to include aviation-linked aerospace militarization.
- Strengthen ISRO's role in aerospace arms monitoring and engage IAF in space governance dialogues.
- Establish an Aerospace Arms Control Division under the Ministry of Defence.
- Deploy AI-powered surveillance satellites for aerospace security monitoring.
- Strengthen India's position in UN aviation disarmament forums by leading non-aligned coalition efforts on aviation security treaties.
- Use AI-driven policy analytics to forecast aviation-related geopolitical risks.
- Establish a Global Aviation Governance Partnership between MEITY, MoCA, and think tanks (ORF, IDSA, ESPIRIDI).
- Develop a National Aviation Disarmament White Paper for submission to ICAO & UNODA.
- Establish a national AI governance framework for aviation and defense, ensuring human-in-the-loop protocols.
- Invest in AI ethics and accountability mechanisms under the Ministry of Civil Aviation & Ministry of Defence.
- Develop AI-powered but human-supervised UAV operations for national security.
- Implement quantum-encrypted communication systems for aviation and space networks and infrastructure.
- Strengthen coordination between CERT-In, AAI, and private airlines for real-time cyber threat intelligence.
- Establish a national aviation cybersecurity research center to tackle cyber vulnerabilities.
- Strengthen multilateral collaborations with ICAO and UN bodies for aviation-space security regulations.
- Create an integrated Aviation-Space Security Policy aligning ISRO, MoCA, and defense sectors.
- Develop India-led regional governance frameworks under BIMSTEC/SAARC for aerospace risk management.
- Define national policies on AI in civil and defense aviation, ensuring ethical oversight.
- Mandate AI-human interaction protocols for commercial and military aviation.
- Establish India's own AI Aviation Ethics Council under MoCA & DGCA.
- Ban self-replicating autonomous drone technology to prevent military escalation.
- Develop counter-swarm AI defense capabilities through DRDO and private defense-tech firms.
- Initiate international treaties with QUAD and ASEAN partners for drone warfare regulation.
- Strengthen national regulations on climate engineering projects to prevent misuse.
- Establish India's Aerospace Climate Security Council under the Ministry of Environment & ISRO.
- Invest in geoengineering verification technologies for monitoring foreign interventions.
- Implement aggressive space debris removal strategies in collaboration with ISRO & international agencies.
- Enforce strict sustainability protocols for satellite launches and aerospace activities.
- Develop India's own Space Traffic Management System integrating AI-based debris tracking.
- Expand the existing Navigation System to provide nationwide coverage and reduce dependency on GPS.
- Enhance the existing Weather Prediction Center with real-time forecasting tools.
- Mandate Geomagnetic Shielding for Power Grids by requiring protective transformers in high-risk regions.
- Conduct Space Weather Simulation Exercises jointly for power, telecom, and aviation sectors.
- Accelerate the Renewable Energy Transition to achieve at least 500 GW non-fossil fuel capacity by 2030.
- Invest in battery storage & power grid Modernization to ensure stable renewable energy integration.
- Develop Green Hydrogen Corridors with subsidies and incentives for production.
- Enhance the National Oil Reserve Program to cover at least 90 days of consumption.
- Expand the existing production incentive schemes for semiconductors, pharmaceuticals, and rare earths, in order to encourage setting up of companies and fabrication facilities
- Digitize India's Logistics Network with AI-driven predictive supply chain models.
- Develop Strategic Reserves of Critical Materials like lithium and rare earth elements in order to be prepared for material shortages
- Establish Free Trade Warehousing Zones (FTWZs) to facilitate rapid trade movement.
- Expand India's Vaccine R&D Ecosystem through collaborations with global biotech firms.
- Upgrade Public Health Surveillance by integrating AI and real-time genomics tracking.
- Mandate Stockpiling of Critical Medical Equipment at central and state levels.
- Conduct National Pandemic Preparedness Drills every two years.
- Develop India's Long-Range Air Traffic Management System to handle future traffic growth.
- Invest in Secure Cloud-Based ATC Networks to protect against cyber warfare threats and to improve accessibility.
- Strengthen Bilateral Airspace Agreements with key trading partners/countries to ensure uninterrupted air routes.
- Deploy AI-Powered Flight Optimization Tools to minimize dependency on contested airspace.

**Lynn Frederick Dsouza**  
National President, Aviation Council

30<sup>th</sup> March, 2025

- Elevate Runways & Critical Infrastructure at main coastal airports in states Maharashtra, Goa, Tamil Nadu and Kerala.
- Mandate Climate Resilience Assessments for all coastal airports by 2030.
- Implement Sustainable Aviation Fuel Incentives to cut down aviation emissions.
- Develop AI-Powered Weather Monitoring Systems to better predict and mitigate disruptions.
- Enhance Space Debris Management to ensure sustainable airspace operations.

### 3. Policy recommendations based on the AI applications and risks in aviation security

- Establish regulatory frameworks for AI-driven predictive maintenance to balance cost efficiency and workforce retention.
- Develop economic impact assessment models to forecast AI-driven job shifts in aviation and create upskilling programs.
- Enforce AI-driven food supply chain monitoring standards for aviation logistics to prevent contamination and shortages.
- Integrate predictive analytics into aviation food security policies to mitigate risks in supply disruptions.
- Develop international AI regulatory frameworks for aviation food logistics to ensure fair trade and ethical AI use.
- Mandate AI-powered food safety systems in airport catering operations to enhance compliance with global food safety standards.
- Establish AI governance guidelines for biosecurity monitoring in airports to prevent privacy violations and bias.
- Collaborate with WHO and ICAO to standardize AI-based health screening technologies and interoperability in aviation.
- Develop AI-based pandemic response strategies in aviation security protocols to improve crisis readiness.
- Invest in AI-driven health security zones in airports to enhance passenger safety and disease containment.
- Develop AI regulatory frameworks for aviation carbon footprint monitoring and sustainability enforcement.
- Integrate AI-enhanced climate modeling into global aviation emission reduction policies.
- Strengthen international collaboration for AI-driven sustainable aviation initiatives, including energy-efficient infrastructure.
- Mandate AI-based environmental monitoring in aviation operations to meet carbon neutrality goals.
- Regulate AI-enhanced surveillance and biometric security to prevent bias and ensure ethical deployment.
- Establish global AI governance frameworks for aviation security technologies, balancing efficiency and privacy.
- Implement risk assessment protocols for AI biases in security decision-making to ensure fair and transparent AI use.
- Enhance AI-powered passenger screening systems while upholding human rights and legal safeguards.
- Create regulatory guidelines for AI-powered smart aviation hubs that promote inclusive community growth.
- Mandate AI impact assessments for aviation projects to mitigate risks of displacement or socio-economic disparity.
- Establish international cooperation on Responsible AI governance in air traffic management and aviation cybersecurity.
- Develop geopolitical risk assessment frameworks for AI in aviation security to address cyber threats and warfare risks.
- Strengthen AI-driven cybersecurity standards for aviation infrastructure protection against emerging threats.
- Promote global AI policy harmonization to ensure consistency in aviation security and compliance mechanisms.

### 4. Policy Recommendations for Drones

- Establish a legal doctrine where responsibility for wrongful drone strikes or operational failures can be attributed to either Military or Law Enforcement Commanders (in defense/security applications), Civil Operators (in commercial or private applications) and/or Autonomous Drone Developers & AI Engineers (if failure is due to AI misjudgment).
- Enforce strict liability provisions where the operator, developer, or manufacturer is held accountable in case of autonomous drone failures.
- Adopt clear Rules of Engagement (ROE) for military drones to ensure compliance with International Humanitarian Law (IHL) regarding distinction, proportionality, and necessity.
- Align with Global Best Practices (such as the UN Convention on Certain Conventional Weapons (CCW) and emerging guidelines on AI ethics) to regulate the use of armed drones.
- If drones used by military or law enforcement cause wrongful harm, a state compensation mechanism should be in place for victims.
- Strengthen the Unmanned Aircraft System (UAS) Rules, 2021, ensuring accountability in security operations.
- Mandate insurance coverage for drone operators to cover third-party damages.
- Develop an independent Drone Accountability Board (DAB) to investigate drone-related incidents.
- Enforce consent-based filming policies for commercial drone operations.
- Regulate autonomous targeting systems to prevent wrongful engagements and mandate Human in the Loop (HITL) for Lethal Operations with Human Oversight.
- Implement algorithmic transparency requirements for AI-driven drones (XAI).
- Ensure AI-driven drones undergo certification & fail-safe testing before deployment.
- Establish a National Drone Safety Authority (NDSA) to oversee compliance.
- Enforce encryption & cybersecurity protocols to prevent drone hacking or unauthorized use.
- Engage in Bilateral & Multilateral Treaties on drone security and accountability frameworks.
- Enforce strict reporting requirements for AI developers to disclose datasets, training models, and risk mitigation strategies.
- Develop a traceability system for AI-driven decisions in aviation security and military applications, ensuring clear accountability.

**Lynn Frederick Dsouza**  
National President, Aviation Council

30<sup>th</sup> March, 2025

- Introduce legislation prohibiting the development and deployment of autonomous lethal drones in civilian spaces without explicit government oversight.
- Require human-in-the-loop safeguards for AI-based defense systems to prevent unintended engagements.
- Strengthen AI export controls to prevent unauthorized transfer of dual-use AI technologies to hostile nations or non-state actors.
- Require strict end-user verification for AI-driven cyberwarfare and surveillance technologies.
- Establish secure AI development zones with controlled access to critical AI research and defense technology.
- Enforce strict background checks and data access controls to prevent research leaks and technology theft.
- Require mandatory penetration testing and threat modeling for AI-powered security tools to identify vulnerabilities.
- Develop AI-powered tools for real-time detection of deepfake videos and misinformation, especially in aviation security and diplomatic communications.
- Establish mandatory labeling requirements for AI-generated content in public and official communications.
- Criminalize the malicious use of deepfakes for election interference, diplomatic manipulation, and aviation security threats.
- Strengthen cross-border legal cooperation to track and dismantle disinformation networks leveraging AI.
- Implement a multi-layer authentication system for critical aviation communications, ensuring deepfake-resistant transmissions.
- Require manual verification of emergency communications involving flight operations and air traffic control.
- Mandate that all AI-driven aviation systems comply with global cybersecurity standards (e.g., ICAO, IATA, ISO 27001, ISO 42001).
- Conduct regular AI stress testing and penetration testing to identify cyber vulnerabilities.
- Require redundancy protocols for AI-driven air traffic control systems to prevent over-reliance on automated decision-making.
- Develop crisis response frameworks for cyberattacks targeting AI-controlled aviation networks.
- Strengthen UAS (Unmanned Aerial Systems) governance frameworks to prevent unauthorized AI-powered drone deployments with a secure AI identification system to track and authenticate drones operating in regulated airspace.
- Advocate for global AI non-proliferation treaties to prevent the uncontrolled spread of autonomous weapons and cyberwarfare AI.
- Establish multilateral AI verification mechanisms to oversee compliance with AI security regulations.
- Implement joint AI incident response protocols for cyberattacks and aviation threats.
- Engage with UN disarmament bodies to define ethical boundaries for AI in security and aviation governance.
- Support international AI governance frameworks for tracking the development and deployment of high-risk AI systems.
- Have proper safety protocols and SOPs as well as Confidence Building Measures and Early Warning Systems for drones.
- Have proper risk assessment checking likelihood and impact on safety and loss of life involving drones.

## 5. Policy Recommendations for Gendered Impact of Aviation Security Risks

- Women and children are disproportionately affected by aviation-related crises, including armed conflicts, cyber threats, bioterrorism, and environmental disasters linked to aviation activities.
- Ensure Women's Representation in Disarmament Negotiations (aligned with UN Security Council Resolution 1325, on Women, Peace & Security).
- Mandate at least 50% representation of women in aviation security policymaking (MoCA, DGCA, ISRO, and defense sectors).
- Conduct Gender Focused Impact Assessments in Aviation Security Policies.
- Establish a National Women in Aviation Security Network for knowledge exchange and leadership training.
- Develop aviation-crisis response frameworks focusing on women and child trafficking prevention and priority emergency evacuations during aviation security threats.
- Enforce strict surveillance at airports and cargo hubs to detect women and child trafficking through AI-driven monitoring.
- Ensure ethical AI development in aviation security that prevents gender biases in surveillance and risk assessment as well as ensure accountability.
- Strengthen privacy laws to protect women and children from AI-driven mass surveillance in aviation security operations.
- Strengthen aviation data protection laws to prevent misuse of biometric and personal data of women travelers.
- Implement cybersecurity education for women in aviation and security sectors.
- Mandate gender-neutral AI security algorithms in aviation screening and border control.
- Establish an Ethical AI Policy for Aviation Security with a focus on women's digital rights.
- Develop a Gender-Responsive Climate Resilience Strategy for aviation-induced environmental disasters.
- Fund research on climate-resilient aviation infrastructure with a focus on vulnerable populations.
- Implement gender-sensitive aviation disaster evacuation policies for women and children.
- Establish safe air corridors and aviation hubs for displaced women in climate-affected regions.
- Ban autonomous drones from targeting civilian zones, ensuring compliance with international humanitarian law.
- Introduce Aerospace Security & Civilian Protection Guidelines to safeguard women and children in aviation-militarized conflict zones.
- Align India's aviation security policy with UN Women's recommendations on disarmament.
- Train women in aviation security operations, ensuring gender-inclusive defense and disarmament dialogues.
- Establish aviation-health crisis response teams with a gender-focused approach under WHO-ICAO collaborations.

**Lynn Frederick Dsouza**  
National President, Aviation Council

30<sup>th</sup> March, 2025

- Invest in AI-driven pandemic surveillance for airports, ensuring pregnant women and children receive priority in outbreak responses.
- Develop guidelines for safe air travel for pregnant women and children in emergency health crises.
- Ensure affordable, accessible emergency medical aviation services for women in remote areas.
- Implement occupational therapy programs focusing on stress management, post-trauma rehabilitation, and resilience training for women in aviation security.
- Establish peer support networks and mental health resources tailored for women professionals in high-stress aviation security roles.
- Incorporate ergonomic workplace designs that support physical and mental well-being for women in high-pressure security environments.
- Develop mandatory training modules on gender sensitivity, trauma-informed care, and psychological first aid with a focus on women's security and well-being.
- Promote R& D, mentorship and career development programs for women in aviation security and space disarmament, ensuring equitable opportunities for leadership and advancement.
- Establish a dedicated advisory board to monitor and evaluate gender inclusivity and occupational therapy initiatives for women in aviation security.
- Collaborate with international organizations, regulatory bodies, and industry stakeholders to align policies with global standards on women's security and occupational health.
- Ensure data collection and reporting mechanisms to assess progress and address gaps in gender equity and occupational health support specifically for women.
- Mandate that all airports and airlines provide adaptive vehicles with universal design principles to accommodate women with disabilities.
- Ensure that adaptive vehicles are incorporated into airport transit pathways, boarding bridges, and emergency evacuation routes.
- Introduce security protocols that respect the privacy and dignity of women using adaptive technologies, including non-invasive screening methods.
- Ensure that adaptive vehicles are equipped with medical emergency features such as first aid kits, distress signaling, and real-time communication with medical personnel.
- Implement sanitation and hygiene measures in adaptive vehicles to prevent infectious disease transmission in high-risk travel periods.
- Align policies with ICAO Annex 9 and Annex 17 to ensure health security measures are embedded in aviation operations.
- Require airlines to provide accessible fare structures, ticketing assistance, and priority services for women with disabilities.
- Encourage hiring women with disabilities in aviation security and safety roles by ensuring adaptive workspaces and transportation support.
- Incentivize the aviation industry to invest in research and development of adaptive mobility technologies.
- Ensure that aviation security policies align with the UNCRPD and UNSCR 1325 to uphold mobility rights for women.
- Integrate gender-sensitive approaches into national aviation security policies, emphasizing the rights of women with disabilities.
- Establish independent monitoring bodies to ensure compliance with human security standards in aviation mobility.
- Implement campaigns within airports and airlines to promote social inclusion and awareness about adaptive mobility for women.
- Require that all airport emergency response strategies incorporate provisions for safely evacuating vulnerable women in conflict zones or disasters.
- Establish a dedicated support system for women with disabilities, including on-ground assistance teams trained in human security principles.
- Promote the development of eco-friendly adaptive vehicles using sustainable materials and energy-efficient technology.
- Encourage the adoption of adaptive transportation solutions that contribute to reducing the aviation sector's carbon footprint.
- Provide incentives for airlines implementing sustainable adaptive vehicle programs to support environmental security initiatives.
- Strengthen STEM education initiatives to increase women's participation in aviation foresight, cybersecurity and disarmament governance.
- Provide financial and policy incentives for women-led initiatives in aviation security and peace-building.
- Invest in post-conflict aviation recovery programs that prioritize women and children's reintegration into affected communities.
- Establish gender sensitive disaster relief strategies to support displaced populations due to aviation related crises.
- Ensure that disarmament policies account for climate security risks, prioritizing protection for women and children in affected regions.
- AI-powered drones patrolling airport perimeters, taxi zones, and transit areas to detect threats.
- Automated tracking of unattended children and rapid response to suspicious behavior.
- AI-powered emotion recognition to detect distress signals in passengers and trigger rapid security responses.
- Augmented reality (AR)-enabled wayfinding systems in airports that highlight safe routes, emergency zones, and help desks.
- AI-powered voice assistants guiding women and children to designated security areas when needed.
- Have proper safety protocols and SOPs as well as Confidence Building Measures and Early Warning Systems for mitigating the impact on women and children especially in conflict zones.

We look forward to your kind attention and support on the requests that have been proposed.

Lynn Frederick Dsouza  
National President, Aviation Council

30<sup>th</sup> March, 2025

Deeply Appreciated,  
Yours Sincerely,



Lynn Frederick Dsouza  
National President, Aviation Council - WICCI.  
Country Advisory Member (India) - G100 Security & Defense Wing.  
Founder and Director - ESPIRIDI LLP

## **ANNEXURE - 1: Responsibilities of DGCA & BCAS in Implementation**

The National Aviation Council would like to propose the recommendations / policy interventions in the area of Aviation for Women, with respect to Aviation Security, International Security and Disarmament.

In India, aviation security governance is primarily overseen by the **Directorate General of Civil Aviation (DGCA)** and the **Bureau of Civil Aviation Security (BCAS)**. Their roles in integrating human security for women into aviation security can be delineated as follows:

### ◆ **Responsibilities of DGCA (Regulatory and Policy Level)**

#### **1. Policy Formulation and Regulatory Oversight**

- Amend **Civil Aviation Requirements (CARs)** to include gender-sensitive security provisions aligned with **ICAO's Gender Equality Policy (Resolution A39-30)**.
- Ensure compliance with **ILO Convention 190** on harassment-free workplaces in aviation.
- Require **gender-based violence (GBV) prevention and crisis response** training as part of the licensing process for pilots, cabin crew, ground staff, and security personnel.
- Make gender-sensitivity training a **mandatory part of safety and security audits** for airlines and airports.

#### **2. Monitoring and Compliance on Women's Safety in Aviation**

- Implement **gender audits** at Indian airports to identify risks for women travelers and aviation staff.
- Work with **UN Women's Safe Cities initiative** to enhance security infrastructure.
- Conduct **gender pay gap assessments** for women in aviation security and airport management.
- Enforce **transparent career advancement frameworks** for women in aviation governance.

#### **3. Integration of Technology for Women's Safety**

- Implement **AI-driven behavioral analytics** to detect harassment and GBV incidents in real time.
- Ensure **safe biometric authentication practices**, allowing female travelers to opt out of facial recognition if needed.
- Fund R&D in **AI-powered travel safety apps, biometric "She-Check" lanes, and IoT-based panic alert systems** through **Make in India and Startup India** initiatives.

#### **4. Universities and Workplace Harassment**

- Require all universities, airlines, airport operators, and aviation security agencies to adopt **zero-tolerance policies against harassment and GBV**.
- Enforce **ILO Convention 190** on violence and harassment in aviation universities and workplaces.
- Impose **strict penalties** on non-compliance (e.g., fines, license suspension, and blacklisting of offenders).
- Introduce a **mandatory gender-sensitive safety certification** (like the DGCA safety audit but focused on universities and workplace security).
- Universities, airlines and airports must pass **annual compliance checks** to maintain operational approvals.
- Implement **anonymized, confidential and encrypted reporting channels** for aviation students and employees including apps.
- Introduce **legal immunity for whistleblowers** who report harassment.
- Partner with the **National Commission for Women (NCW)** and **ILO** for independent oversight.
- Mandate all aviation universities and organizations (airlines, airports, security agencies) to **establish Internal Complaints Committees (ICCs)** under India's **POSH Act, 2013** with policies and best practices.
- Ensure **at least 50% female representation** in these committees.

## ◆ Responsibilities of BCAS (Implementation & Security Operations)

### 1. Airport and Airline Security Measures for Women

- Mandate that all **pat-down searches be conducted by same-gender security officers.**
- Establish **private screening areas** for women.
- Implement **dedicated safe spaces and emergency help desks** for women and children at major airports.
- Deploy **IoT-enabled 'Guardian Surveillance' systems** to detect distress signals and unattended children.

### 2. Strengthening Security Against GBV and Human Trafficking

- Deploy AI surveillance to **detect stalking, harassment, and suspicious activities** at terminals.
- Share intelligence with **women's safety organizations and anti-trafficking units.**
- Implement **QR/NFC-based digital kiosks ('Safe QR')** at airports to allow women to discreetly seek security help.
- Deploy **IoT-enabled smart wristbands ('Guardian Bands')** for unaccompanied minors for real-time tracking.

### 3. Gender-Sensitive Security Workforce and Training

- Ensure a **minimum representation of women in airport security forces** (e.g., CISF at Indian airports).
- Create **leadership mentorship programs** for women in aviation security decision-making roles.
- Train **BCAS-certified aviation security personnel** in trauma-informed crisis response.
- Use **VR-based gender-sensitive training** for security teams to handle women-centric incidents.

### 4. Public Engagement and Awareness

- Display **airport-wide messaging on gender-based violence (GBV) prevention.**
- Promote **bystander intervention programs** for passengers and staff.
- Align **aviation security measures with global best practices** on women's security.
- Enhance **global intelligence-sharing on trafficking and security threats affecting women travelers.**

### 5. Universities and Workplace Harassment

- Operate a **toll-free, 24/7 helpline** exclusively for aviation students and employees experiencing harassment.
- Provide **multilingual support** for students, cabin crew, ground staff, and security personnel.
- Introduce **QR-based or in-app SOS features** allowing students and employees to discreetly report GBV incidents.
- Connect reports directly to **airport security (CISF), law enforcement, and crisis response teams.**
- Integrate **AI-powered CCTV analytics** to monitor harassment risks in universities, workspaces, terminals, and transit areas.
- Ensure that security teams receive **real-time alerts** for rapid intervention.
- Require **at least 50% female representation** in universities and airport security teams.
- Train female officers to handle **GBV-related security interventions and trauma-informed crisis response.**
- Partner with **National Legal Services Authority (NALSA) and NCW** to provide **free legal support** to victims.
- Establish **Airport Crisis Intervention Centers** at major universities and airports, staffed with **trained psychologists and victim support specialists.**
- Conduct **biannual audits** of airlines and airports to **ensure enforcement of zero-tolerance policies.**
- Implement strict penalties, license suspension, or blacklisting for non-compliant organizations.
- Introduce a **'Gender-Safe Workplace' ranking system** for airlines and airports.
- Publish reports on **compliance with GBV policies and whistleblower protections.**
- Require organizations to **submit reports on workplace harassment cases, resolutions, and preventive actions** to DGCA.
- Establish an **independent review board** (including women's rights organizations) to evaluate policy effectiveness.

**Collaboration with CISF, airlines, NGOs, and global partners (ICAO, UN Women, ILO) will ensure systemic integration of human security principles into Indian aviation security.**

#### Next Steps:

- ✓ Formal submission to DGCA & BCAS for policy adoption.
- ✓ Stakeholder consultation with aviation bodies, security agencies, and women's rights organizations.
- ✓ **Pilot implementation at major airports** (Delhi, Mumbai, Bengaluru) before nationwide rollout.



## Strategic Foresight & Governance Measures for India

- ✓ Aviation-Linked Gender Security Index: A national database to track the impact of aviation security threats on women and children.
- ✓ Women-Led Policy Innovation in Aviation Security: Funding & leadership programs for women in aviation cybersecurity, AI governance, and disarmament.
- ✓ Aviation-Disarmament Synergy: Integrating gender perspectives in India's aerospace diplomacy, defense, and strategic foresight policies.

**India must integrate gender-responsive foresight and governance frameworks into aviation security and disarmament to protect women and children from existential aviation risks. Collaboration with UN Women, ICAO, and global think tanks can position India as a leader in inclusive aerospace security policymaking.**

## Future Proofing Aviation Security

- ✓ Implement long-term resilience frameworks for aviation disarmament.
- ✓ Adopt global treaties for responsible AI, cyberwarfare, and aerospace security.
- ✓ Encourage public-private collaboration to enhance security measures and innovation.
- ✓ Strengthen multilateral partnerships to ensure global policy enforcement.
- ✓ Ensure gender-responsive policies in aviation disarmament by promoting the inclusion of women in strategic decision-making, technological development, and diplomatic negotiations.