

## HOW AVIATION CAREERS ARE TALKED ABOUT IN OFFICIAL DISCOURSE: A DESCRIPTIVE CONTENT ANALYSIS OF INDIA'S CAREER GUIDANCE PROGRAM

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### ABSTRACT

Over the next 10 years, India's aviation industry will need more than 34,000 pilots, 15,000 aircraft maintenance engineers, and 5,000 air traffic controllers. The Aviation Career Guidance Program (ACGP) from the Ministry of Civil Aviation (launched in April 2025) shapes what young people want to do by disseminating official messages that emphasise passion, nation-building, leadership, and technology. (Ministry of Civil Aviation Civil Aviation Minister Ram Mohan Naidu Launches Aviation Career Guidance Programme at Indian Aviation Academy Inspires Students to Dream Sky-High, n.d.). This descriptive content analysis of 184 text units from 35 documents (April–December 2025) identifies the main frames and gaps in messaging. (Ministry of Civil Aviation Civil Aviation Minister Ram Mohan Naidu Launches Aviation Career Guidance Programme at Indian Aviation Academy Inspires Students to Dream Sky-High, n.d.). The results show that aspirational messaging (68.5%) and passion-driven narratives (62.5%) are the most important, while safety responsibility (21.7%), social inclusivity for SC/ST/EWS groups (20.7%), and cost accessibility (17.9%) are the least important. There is a strong emphasis on gender inclusivity (45.7%), with women pilots being shown as role models in many places. The analysis reveals an inspiring framing strategy that turns aviation from a far-off dream into a real -career. It does this by using metaphors like "offering wings" and "not just seeing a plane but being on it." However, the lack of emphasis on occupational-realism, cost-barriers, and social-equity suggests there is room for a more balanced-approach. The findings affect aviation education policy, curriculum development, & equitable workforce development initiatives.

**Keywords:** aviation careers, framing, India's youth, career guidance, content analysis, aspirational narratives, inclusivity, aviation education policy, ACGP, discourse analysis

### 1. INTRODUCTION

#### 1.1. Background

India's civil aviation sector is at a critical inflection point of growth. The Ministry of Civil Aviation (MoCA) reports approximately 840 operational aircraft with orders for 1,700 additional aircraft over the next decade, necessitating 34,000+ commercial pilots, 15,000+ aircraft maintenance engineers, 5,000+ air traffic controllers, and thousands of ground professionals. (Arr Fear 4 MINISTRY OF CIVIL AVIATION ANNUAL REPORT, n.d.). Airport infrastructure has enlarged from 74 (2014) to

159 (2025), with plans for 120 additional destinations, catalysing employment for approximately 800,000 individuals, both directly & indirectly. Major airports like Hyderabad exemplify aviation's employment multiplier effects across regions.(Arr Fear 4 MINISTRY OF =e CIVILAVIATION ANNUAL REPORT, n.d.)

In response, the Ministry of Civil Aviation (Ministry of Civil Aviation Civil Aviation Minister Ram Mohan Naidu Launches Aviation Career Guidance Programme at Indian Aviation Academy Inspires Students to Dream Sky-High, n.d.)launched the Aviation Career Guidance Programme (ACGP) in April 2025, targeting Class 11–12 students across Indian schools, particularly government institutions and Kendriya Vidyalayas. The programme explicitly aims to: (1) meet domestic workforce requirements rather than relying on foreign professionals; (2) create aspirational narratives around aviation careers; (3) promote inclusivity, particularly for women, SC/ST/EWS groups, and rural students; and (4) position aviation as integral to India's 2047 vision.

## **1.2. Problem Statement and Significance**

While the ACGP has generated substantial official communications such as ministerial speeches, press releases, public broadcasting, parliamentary statements, and media coverage, a systematic understanding of how these communications frame aviation careers for youth remains limited. This gap is analytically critical because framing significantly influences whether youth, especially from marginalised groups like SC/ST/EWS, perceive careers as 'for people like me,' shaping aspirations and resonating with diverse audiences. Exploring this impact can inform more inclusive communication strategies.

Research on career guidance communication in Science, Technology, Engineering, and Mathematics (STEM) fields demonstrates that framing strategies critically influence career choice, professional aspirations, and inclusive representation.(DeWitt & Archer, 2015). However, parallel research on aviation career messaging in India is sparse.

## **1.3 Purpose and Objectives**

This study describes how aviation careers are framed in official communications (April–December 2025) using qualitative descriptive content analysis.

Specific Objectives:

1. What are the dominant thematic frames in aviation career communications, and with what frequency do they appear?
2. How are women and SC/ST/EWS groups represented in aviation narratives?
3. How extensively are aspirational metaphors and transformation narratives deployed?
4. Do framing patterns vary across government, public broadcasting, and independent media sources?
5. What dimensions of aviation careers receive minimal emphasis (cost, safety, psychological demands), and what are the implications?

## **2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

Framing theory(Entman, 1993; Goffman & Berger, 1986) posits that how information is presented shapes how audiences interpret it. In career communication, frames tell potential seekers what a career is, why to pursue it, who can succeed in it, and what it offers.(Entman, 1993). Career choice is

influenced not only by information but by socially constructed narratives and identity-relevant framings.

Official government communications constitute forms of power that construct "regimes of truth" about valued careers and who is positioned to pursue them. The framing of aviation careers, whether as a passionate calling, a patriotic duty, a leadership opportunity, or a technical challenge, has profound implications for youth aspirations, inclusive representation, alignment with occupational realities, and workforce development outcomes(DeWitt & Archer, 2015).

Arjun Appadurai's (Appadurai, n.d.)The concept of "aspirational capability" suggests that individuals' ability to aspire is socially distributed and cultivated through narratives and media. Career guidance communications contribute through imaginaries—emotionally resonant visions of future selves in desired careers. (Morrison & Sabates, n.d.). Metaphors such as "offering wings" activate emotional responses and create sense-making frameworks, significantly influencing whether youth feel capable of pursuing aviation careers(Lakoff & Johnson, 2003).

### **3 RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Nature of Research**

This study employs descriptive content analysis, a qualitative method designed to identify, organise, and systematically describe patterns in text-based communication. This approach enables the examination of large document volumes without primary data collection, is well-adapted to policy analysis contexts, allows both quantitative (frequency counts) and qualitative (thematic meaning) descriptions, and generates findings that inform policy without requiring causal claims.

#### **3.2 Data and Sampling**

Data Sources: All secondary, publicly available sources (April–December 2025):

- Government: Ministry of Civil Aviation, Press Information Bureau, Parliamentary documents
- Public Broadcasting: All India Radio, Doordarshan, NewsOnAir
- Independent Media: Aviation World India, Economic Times, LiveMint, aviation portals
- Social Media: Official accounts (@MoCA\_GoI, AAI, IAA)
- Academic: Edited transcripts of ministerial speeches

Sample: 35 documents, purposively sampled across source types, yielding 184 text units for analysis.

Unit of Analysis: A text unit is a single sentence or short paragraph conveying a discrete message about aviation careers.

#### **3.3 Coding Framework**

Ten binary variables (0 = absent, 1 = present) coded per unit:

##### **3.3.1 Thematic Frames:**

- PASSION: Emotional excitement, dreams, inspiration about aviation (e.g., "get excited when they watch a plane fly by")
- NATION\_BUILD: National development, economic growth, workforce needs (e.g., "34,000 pilots needed")
- LEADERSHIP: Youth as future leaders, innovators (e.g., "teach people how to lead")

- SAFETY\_RESP: Safety, responsibility, discipline, psychological resilience (e.g., "decisions affect safety of hundreds")
- TECH\_FUTURE: Emerging technologies, drones, electric aircraft, digital readiness

### 3.3.2 Inclusivity:

- GENDER\_INC: Women/girls in aviation, female pilots, role models, statistics
- SOCIAL\_INC: SC/ST/EWS groups, rural/government school inclusion, regional outreach
- ACCESS\_COST: Cost acknowledgement, scholarships, affordability barriers

### 3.3.3 Narrative:

- ASPIRATION: Aspirational language, possibilities, opportunity framing
- TRANSFORM: Transformation from observer to participant status

## 4. FINDINGS

### 4.1 Overall Frame Frequencies

Across 184 units:

**Table 1: Frame Frequencies**

Frame	Units	Percentage	Mean/Doc
ASPIRATION	126	68.5%	3.6
PASSION	115	62.5%	3.3
NATION_BUILD	107	58.3%	3.1
TRANSFORM	98	53.3%	2.8
GENDER_INC	84	45.7%	2.4
TECH_FUTURE	74	40.3%	2.1
LEADERSHIP	68	37.0%	1.9
SAFETY_RESP	40	21.7%	1.1
SOCIAL_INC	38	20.7%	1.1
ACCESS_COST	33	17.9%	0.9

Key Finding: Aspirational and passion-driven frames predominate (68.5% and 62.5%), while safety responsibility, social inclusivity, and cost accessibility receive minimal emphasis (17.9%–21.7%).

### 4.2 Framing Variation by Source Type

Central government sources emphasise NATION\_BUILD (69.0%) most; public broadcasters lead on GENDER\_INC (52.6%). Academic/edited transcripts show the highest PASSION (80%) and ASPIRATION (80%). Social media displays the lowest frequencies across dimensions, particularly SOCIAL\_INC (7.1%).

Gender Inclusivity Detail: 45% of gender-related mentions use role models, 35% use statistics (e.g., "15% Indian pilots vs. 5% globally; target 25%"), 15% discuss policy. Public broadcasters emphasise role modelling (60%).

Social Inclusivity Finding: Only 4 of 184 units explicitly mention SC/ST; 2 mention EWS. Most framing indirect—"government schools" and "Kendriya Vidyalayas" serve as proxies (70% of social inclusivity frames)—explicit geographic/rural inclusion is mentioned in only 8 units.

Cost & Accessibility: 17.9% of units address these factors. Acknowledgement (52%) appears more frequently than solutions (39%). Specific cost figures are rare (2 units); discussion of loans/government schemes is minimal (1 unit).

#### 4.3 Frame Co-occurrence Patterns

Frames cluster into two groups:

Inspirational Cluster: PASSION + ASPIRATION (78.3% co-occurrence); PASSION + TRANSFORM (68.7%); GENDER\_INC + ASPIRATION (67.9%). These frames reinforce each other emotionally.

Realist Cluster: SAFETY\_RESP + PASSION (22.5% co-occurrence); SAFETY\_RESP + ASPIRATION (17.5%). Safety messaging operates independently of emotional framing, suggesting an implicit tension between inspiration and occupational realism.

#### 4.4 Aspirational Metaphors and Language

Analysis identified recurring metaphorical language:

- "Offering wings to youth"
- "Not just seeing a plane but being on it"
- "Whole new world of possibilities"
- "Universe of possibilities"
- "Keep dreaming high, fly high"

These metaphors function as conceptual metaphors mapping abstract concepts (ambition, participation, transformation) onto concrete domains (flight, movement). They activate emotional responses and create imaginaries of achievable futures, particularly potent for school students (Classes 11–12).

### 5. DISCUSSION

#### 5.1 Interpretive Synthesis

The analysis reveals an aspirational-dominant framing strategy where the Ministry of Civil Aviation and allied agencies position aviation careers primarily through emotional engagement and possibility narratives. This strategy serves policy objectives by:

1. Transforming perception: Moving aviation from distant aspiration (watching planes) to an achievable career (being part of aviation)
2. Mobilising youth: Creating emotional investment in aviation careers aligned with workforce needs
3. Advancing inclusion: Explicitly featuring women as role models, partially normalising female aviation careers
4. Legitimising investment: Framing youth aviation careers as serving national development (2047 Vision, global hub positioning)

## 5.2 Gaps and Imbalances

### Three critical gaps emerge:

1. Occupational Realism (21.7% SAFETY\_RESP): Low emphasis on safety responsibilities, psychological demands, disciplinary requirements, and hazards associated with aviation work. This imbalance risks attracting youth whose aspirations may not align with the realities of the workforce.
2. Social Equity (20.7% SOCIAL\_INC): SC/ST/EWS groups receive minimal direct mention. Indirect framing through government schools suggests an institutional rather than a demographic approach to equity. This may inadvertently limit the reach of messaging to communities explicitly targeted by government inclusion policies.
3. Cost & Accessibility (17.9% ACCESS\_COST): While cost barriers are acknowledged, solutions remain vague. Scholarships and industry support are mentioned, but lack concrete detail. Given that pilot training costs ₹15–25 lakh+, the minimal emphasis on financial solutions may unrealistically position aviation as accessible to economically disadvantaged students

## 5.3 Framing Implications

For Youth Aspirations: The inspirational framing successfully creates emotional engagement and possibility narratives. However, separating aspirational and safety frames risks creating aspirations that are disconnected from occupational realities. Students inspired by a "whole new world of possibilities" may lack an understanding of the discipline, the responsibility, and the psychological resilience required.

For Inclusivity: Gender inclusivity framing is substantive and strategically deployed, particularly through public broadcasters' role modelling emphasis. However, social group inclusivity remains implicit and indirect. Direct messaging to SC/ST/EWS groups could strengthen inclusion of communities facing structural barriers.

For Workforce Development: The nation-building frame (58.3%) effectively legitimises aviation careers as serving India's development priorities. However, minimal emphasis on cost barriers may create a perception gap between policy aspirations and implementation realities, particularly for rural and economically disadvantaged students.

## 6. CONCLUSION

This descriptive content analysis of India's Aviation Career Guidance Programme reveals that official communications employ a sophisticated aspirational framing strategy emphasising passion (62.5%), national development (58.3%), and gender inclusivity (45.7%). Metaphors such as "offering wings" and "not just seeing a plane but being on it" effectively create emotionally resonant imaginaries of aviation careers for school youth (Lakoff & Johnson, 2003).

However, the under-emphasis of safety responsibility (21.7%), social group inclusivity (20.7%), and cost accessibility (17.9%) represents significant gaps. These imbalances suggest an opportunity for more comprehensive communication that balances inspirational messaging with occupational realism, explicitly targets SC/ST/EWS groups, and offers concrete solutions to cost barriers.

Recommendations for Stakeholders:

1. Ministry of Civil Aviation: Develop parallel messaging streams addressing safety responsibilities, psychological demands, and concrete cost solutions alongside aspirational narratives.
2. Educational Institutions: Incorporate occupational realism into ACGP implementation, ensuring students understand both possibilities and responsibilities of aviation careers.
3. Media and Public Broadcasters: Expand social inclusivity messaging beyond institutional proxies, featuring SC/ST/EWS professionals and explicitly addressing cost solutions.
4. Future Research: Examine actual effects of current framing through youth surveys; conduct comparative analysis of framing strategies across STEM sectors; investigate longitudinal changes in framing as ACGP matures.

This study contributes to understanding how official discourse shapes career aspirations and demonstrates the power of framing in workforce development policy, with implications that extend beyond aviation to other sectors prioritising youth skilling and inclusive representation.

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## 8. APPENDICES

Annexure—I: Variable Definitions & Coding-Framework

Annexure—II: Sample Coded Units (Illustrative)

Annexure—III: Detailed Frequency Tables

Annexure—IV: Comparative Framework

## ANNEXURE-I: VARIABLE DEFINITIONS AND CODING FRAMEWORK

### Complete Variable List with Operational Definitions

#### 1. IDENTIFICATION VARIABLES

Variable Name	Data Type	Codes/Values	Description	Example
DOC_ID	Numeric	1-40	Unique identifier for each document	1 = First document in sample
DOC_TYPE	Categorical	1, 2, 3, 4, 5, 6	Type of document source (see below)	2 = PIB press release
DOC_SOURCE_NAME	String	Text	Short descriptive name of document source	"MoCA speech transcript, April 2025"
DATE	Date	YYYY-MM-DD	Date of publication, broadcast, or online posting	2025-04-08
SOURCE_CAT	Categorical	1, 2, 3, 4, 5	Source category for comparative analysis (see below)	1 = Central Government
UNIT_ID	Numeric	1, 2, 3... (per document)	Serial number of text unit within each document	UNIT_ID 1-15 for Document 1
TEXT_UNIT	String (long)	Full text excerpt	Complete sentence or short paragraph comprising one unit of analysis	"Every plane is a machine, and it also offers up a whole new world of possibilities."
QUOTE_FLAG	Binary	0, 1	0 = Paraphrase/reporter narrative; 1 = Direct quote from official/minister/professional	1 = Direct quote from Minister

#### 2. Thematic Framing Variables

##### 2.1 PASSION (Binary: 0/1)

- Definition: Text emphasizes emotional excitement, dreams, inspiration, wonder, or enthusiasm about aviation careers
- Coding Indicators: "Excited," "dream," "inspire," "passion," "thrill," "get excited when they watch a plane fly by," "whole new world of possibilities"
- Non-Coding: Purely informational statements without emotional language

## **2.2 NATION\_BUILD (Binary: 0/1)**

- Definition: Text frames aviation careers in relation to India's national development, economic growth, regional connectivity, or global competitiveness
- Coding Indicators: "India's aviation growth," "34,000 pilots needed," "global hub," "make India best," connectivity, employment multiplier effects
- Non-Coding: Exclusive focus on individual benefits without national framing

## **2.3 LEADERSHIP (Binary: 0/1)**

- Definition: Text presents youth as future leaders, innovators, decision-makers, or agents of change in aviation
- Coding Indicators: "Lead," "leadership," "innovators," "creative thinkers," "take ownership," "shape the future," "drive innovation"
- Non-Coding: Job description without empowerment framing

## **2.4 SAFETY\_RESP (Binary: 0/1)**

- Definition: Text emphasizes safety, responsibility, discipline, psychological resilience, or occupational hazards
- Coding Indicators: "Safety of passengers/hundreds," "discipline," "psychological toughness," "responsibility," "high-stakes," "occupational hazards"
- Non-Coding: General workplace safety without professional responsibility focus

## **2.5 TECH\_FUTURE (Binary: 0/1)**

- Definition: Text emphasizes emerging technologies, future-oriented skills, or aviation's technological evolution
- Coding Indicators: "Drones," "electric aircraft," "urban air mobility," "unmanned systems," "future technologies," "digital readiness," "AI in aviation"
- Non-Coding: Current aviation technology without future orientation

## **3. INCLUSIVITY VARIABLES**

### **3.1 GENDER\_INC (Binary: 0/1)**

- Definition: Text addresses women's participation, female pilots, gender statistics, or role models in aviation
- Coding Indicators: "Women pilots," "female pilots," "girls," "15% Indian pilots vs. 5% globally," "25% target," women professionals featured, role modeling
- Non-Coding: General inclusion statement without gender-specific focus

### **3.2 SOCIAL\_INC (Binary: 0/1)**

- Definition: Text addresses SC/ST/EWS groups, rural students, or regional equity in aviation access
- Coding Indicators: "SC," "ST," "SC/ST," "EWS," "government schools," "Kendriya Vidyalayas," "rural," "underserved regions," "tribal regions"

- Non-Coding: General inclusion without specific group identification

### **3.3 ACCESS\_COST (Binary: 0/1)**

- Definition: Text explicitly addresses cost barriers, affordability, scholarships, or financial support mechanisms
- Coding Indicators: "Cost," "expensive," "scholarships," "sponsorships," "₹ amount," "loans," "financial support," "affordability"
- Non-Coding: General "access to opportunities" without financial dimension

## **4. NARRATIVE VARIABLES**

### **4.1 ASPIRATION (Binary: 0/1)**

- Definition: Text uses aspirational language, emphasizes possibilities, or frames careers as emotionally desirable goals
- Coding Indicators: "Possibilities," "opportunities," "aspiration," "dream," "future," "achieve," "reach," metaphors of mobility/transformation
- Non-Coding: Factual description of career requirements

### **4.2 TRANSFORM (Binary: 0/1)**

- Definition: Text describes transformation from observer to participant, awareness to action, or status change
- Coding Indicators: "Not just watching but being on," "from unaware to educated," "participant status," "transformation," "transition"
- Non-Coding: Static description without transformation narrative

## **END OF ANNEXURE-I**

## **ANNEXURE-II: SAMPLE CODED UNITS (10 EXAMPLES)**

This annexure presents 10 fully coded text units drawn from actual documents, demonstrating the application of the coding scheme (Annexure I) and providing readers with transparent examples of coding decisions.

### **SAMPLE CODED UNIT 1**

Field	Value
DOC_ID	1
DOC_TYPE	1 (Speech Transcript)
DOC_SOURCE_NAME	"Minister Ram Mohan Naidu's speech at ACGP launch, April 2025"
DATE	2025-04-17
SOURCE_CAT	5 (Academic/Edited Transcript)
UNIT_ID	1
TEXT_UNIT	"The career in aviation program is for the India's youth who get excited when they watch a plane fly by and want to be a part of it."
PASSION	1
NATION_BUILD	0

LEADERSHIP	0
SAFETY_RESP	0
TECH_FUTURE	0
GENDER_INC	0
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	1
TRANSFORM	1
QUOTE_FLAG	1 (Direct quote from Minister)

**CODING RATIONALE:**

- PASSION = 1: Text contains "get excited when they watch a plane" - explicit emotional/enthusiastic language.
- ASPIRATION = 1: "Want to be a part of it" + emotional engagement with possibility implies aspirational framing.
- TRANSFORM = 1: Implicit transition from "watching planes" (observer status) to "being part of" aviation (participant status).
- Other variables = 0: No explicit nation-building, leadership framing, safety emphasis, technology reference, gender/social inclusivity focus, or cost discussion.

**SAMPLE CODED UNIT 2**

Field	Value
DOC_ID	1
DOC_TYPE	1 (Speech Transcript)
DOC_SOURCE_NAME	"Minister Ram Mohan Naidu's speech at ACGP launch, April 2025"
DATE	2025-04-17
SOURCE_CAT	5 (Academic/Edited Transcript)
UNIT_ID	2
TEXT_UNIT	"India has roughly 840 planes right now, but it has requested 1,700 more. In the next few years, more than 34,000 additional pilots will be needed because each plane needs 15 to 20 pilots."
PASSION	0
NATION_BUILD	1
LEADERSHIP	0
SAFETY_RESP	0
TECH_FUTURE	0
GENDER_INC	0
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	0
TRANSFORM	0
QUOTE_FLAG	1 (Direct quote from Minister)

**CODING RATIONALE:**

- NATION\_BUILD = 1: Quantified evidence of India's aviation sector growth (840 → 1,700 aircraft) + specific workforce requirement (34,000 pilots) frames aviation careers in national development context.
- Other variables = 0: While the information is relevant to aviation careers, the unit is primarily informational/technical without emotional passion, explicit leadership framing, safety emphasis, or inclusivity focus.

### SAMPLE CODED UNIT 3

Field	Value
DOC_ID	1
DOC_TYPE	1 (Speech Transcript)
DOC_SOURCE_NAME	"Minister Ram Mohan Naidu's speech at ACGP launch, April 2025"
DATE	2025-04-17
SOURCE_CAT	5 (Academic/Edited Transcript)
UNIT_ID	3
TEXT_UNIT	"Getting more women involved, where India is already the best in the world (15% of Indian pilots are women, compared to 5% of pilots worldwide, and India wants to see 25% of women pilots)."
PASSION	0
NATION_BUILD	0
LEADERSHIP	0
SAFETY_RESP	0
TECH_FUTURE	0
GENDER_INC	1
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	1
TRANSFORM	0
QUOTE_FLAG	1

### CODING RATIONALE:

- GENDER\_INC = 1: Explicit focus on "women pilots" + specific statistics (15% vs. 5%) + aspirational target (25%) directly addresses gender inclusivity in aviation.
- ASPIRATION = 1: Statement positions India's 15% female pilot rate as achievement and 25% target as future aspiration; implicit aspirational messaging about women's aviation careers.
- NATION\_BUILD = 0: While gender equity is a national concern, this unit's primary focus is gender, not economic development or national growth.
- Other variables = 0: No emphasis on passion, leadership, safety, technology, social groups, cost, or transformation narrative.

### SAMPLE CODED UNIT 4

Field	Value
DOC_ID	1
DOC_TYPE	1 (Speech Transcript)
DOC_SOURCE_NAME	"Minister Ram Mohan Naidu's speech at ACGP launch, April 2025"
DATE	2025-04-17

SOURCE_CAT	5 (Academic/Edited Transcript)
UNIT_ID	4
TEXT_UNIT	"MoCA's goal is not only to teach individuals how to work in aviation, but also to teach people how to lead. These people should be able to come up with new ideas, run things, and make India the best country in the world for flying."
PASSION	1
NATION_BUILD	1
LEADERSHIP	1
SAFETY_RESP	0
TECH_FUTURE	0
GENDER_INC	0
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	1
TRANSFORM	0
QUOTE_FLAG	1

#### CODING RATIONALE:

- LEADERSHIP = 1: Explicit language: "teach people how to lead", "come up with new ideas", "run things" – positions youth as future leaders/innovators.
- NATION\_BUILD = 1: "Make India the best country in the world for flying" frames aviation careers as national objective.
- PASSION = 1: Ambitious language ("best country", "new ideas") carries emotional/inspirational tone.
- ASPIRATION = 1: "Make India the best" is aspirational language positioning youth as agents of national achievement.
- Other variables = 0: No explicit safety/occupational reality discussion, technology reference, or inclusivity focus.

#### SAMPLE CODED UNIT 5

Field	Value
DOC_ID	1
DOC_TYPE	1 (Speech Transcript)
DOC_SOURCE_NAME	"Minister Ram Mohan Naidu's speech at ACGP launch, April 2025"
DATE	2025-04-17
SOURCE_CAT	5 (Academic/Edited Transcript)
UNIT_ID	5
TEXT_UNIT	"Every plane is a machine, and it also offers up a whole new world of possibilities."
PASSION	1
NATION_BUILD	0
LEADERSHIP	0
SAFETY_RESP	0
TECH_FUTURE	0

GENDER_INC	0
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	1
TRANSFORM	0
QUOTE_FLAG	1

#### CODING RATIONALE:

- ASPIRATION = 1: "Whole new world of possibilities" is aspirational metaphor that emphasizes breadth, opportunity, and emotional appeal.
- PASSION = 1: Poetic language ("whole new world") conveys wonder and excitement about aviation careers.
- Other variables = 0: Statement is inspirational/metaphorical but does not address practical/technical dimensions (safety, nation-building, leadership role, etc.).

#### SAMPLE CODED UNIT 6

Field	Value
DOC_ID	1
DOC_TYPE	1 (Speech Transcript)
DOC_SOURCE_NAME	"Minister Ram Mohan Naidu's speech at ACGP launch, April 2025"
DATE	2025-04-17
SOURCE_CAT	5 (Academic/Edited Transcript)
UNIT_ID	6
TEXT_UNIT	"The choices that pilots, engineers, and controllers make affect the safety of hundreds of people. The students need to learn how to be disciplined, talk to other people, and be psychologically tough in addition to doing their studies."
PASSION	0
NATION_BUILD	0
LEADERSHIP	0
SAFETY_RESP	1
TECH_FUTURE	0
GENDER_INC	0
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	0
TRANSFORM	0
QUOTE_FLAG	1

#### CODING RATIONALE:

- SAFETY\_RESP = 1: Explicit emphasis on "safety of hundreds of people", occupational responsibility, and required personal attributes (discipline, psychological toughness).
- Other variables = 0: Unit addresses occupational realism/demands but lacks inspirational language, national framing, gender/social inclusivity, or technology focus.

## SAMPLE CODED UNIT 7

Field	Value
DOC_ID	2
DOC_TYPE	2 (PIB Press Release)
DOC_SOURCE_NAME	"PIB Press Release on ACGP launch"
DATE	2025-04-08
SOURCE_CAT	1 (Central Official)
UNIT_ID	1
TEXT_UNIT	"The initiative aims to inspire and educate students of Classes 11 and 12 about diverse career pathways within the aviation sector—from piloting and air traffic control to aircraft design, airport management, and beyond."
PASSION	1
NATION_BUILD	0
LEADERSHIP	0
SAFETY_RESP	0
TECH_FUTURE	0
GENDER_INC	0
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	1
TRANSFORM	1
QUOTE_FLAG	0 (Official statement, not direct quote)

### CODING RATIONALE:

- PASSION = 1: "Inspire" and "educate" language signals emotional engagement.
- ASPIRATION = 1: "Diverse career pathways" and "beyond" language implies expansive possibility.
- TRANSFORM = 1: Initiative moves students from "unaware of pathways" to "educated about diverse options."
- Other variables = 0: Official document emphasizes education/awareness over national development, leadership positioning, safety/cost specifics, or inclusivity focus.

## SAMPLE CODED UNIT 8

Field	Value
DOC_ID	3
DOC_TYPE	3 (Public Broadcaster News)
DOC_SOURCE_NAME	"NewsOnAir article: Aviation Minister Launches Career Guidance Program"
DATE	2025-04-08
SOURCE_CAT	2 (Public Broadcaster)
UNIT_ID	1
TEXT_UNIT	"An interactive session was also conducted by women pilots, during which they addressed students' queries and shared insights from their professional journeys."

PASSION	1
NATION_BUILD	0
LEADERSHIP	1
SAFETY_RESP	0
TECH_FUTURE	0
GENDER_INC	1
SOCIAL_INC	0
ACCESS_COST	0
ASPIRATION	1
TRANSFORM	1
QUOTE_FLAG	0 (News narrative)

#### CODING RATIONALE:

- GENDER\_INC = 1: Explicit focus on women pilots + role modeling (sharing professional journeys).
- ASPIRATION = 1: Women pilots as role models + student interaction = aspirational messaging for girls.
- LEADERSHIP = 1: Pilots presented as leaders/professionals sharing expertise with students; implicit positioning of women as aviation leaders.
- PASSION = 1: Interactive session and professional narrative convey positive emotion.
- TRANSFORM = 1: Students move from learner status to engaged participants (interactive session).
- Other variables = 0: No nation-building rhetoric, safety emphasis, cost discussion, or technology focus.

#### SAMPLE CODED UNIT 9

Field	Value
DOC_ID	4
DOC_TYPE	4 (Independent Media Article)
DOC_SOURCE_NAME	"Aviation World India: Emerging Technologies in Aviation Careers"
DATE	2025-06-15
SOURCE_CAT	3 (Independent Media/Portal)
UNIT_ID	1
TEXT_UNIT	"India must develop capacity in emerging technologies such as drone operations, unmanned systems, and electric aviation to remain competitive globally and meet future workforce demands."
PASSION	0
NATION_BUILD	1
LEADERSHIP	0
SAFETY_RESP	0
TECH_FUTURE	1
GENDER_INC	0
SOCIAL_INC	0

ACCESS_COST	0
ASPIRATION	0
TRANSFORM	0
QUOTE_FLAG	0 (Article narrative)

#### CODING RATIONALE:

- TECH\_FUTURE = 1: Explicit mention of drones, unmanned systems, electric aviation – emerging technologies.
- NATION\_BUILD = 1: "Competitive globally" + "India must develop" links technology capability to national competitiveness.
- Other variables = 0: Analytical article; lacks emotional passion, leadership positioning, role modelling, cost discussion, or transformation narrative.

#### SAMPLE CODED UNIT 10

Field	Value
DOC_ID	1
DOC_TYPE	1 (Speech Transcript)
DOC_SOURCE_NAME	"Minister Ram Mohan Naidu's speech at ACGP launch, April 2025"
DATE	2025-04-17
SOURCE_CAT	5 (Academic/Edited Transcript)
UNIT_ID	7
TEXT_UNIT	"It costs a lot of money to learn about flying and aviation. Students and their families used to have to pay for everything. But as demand grows, it's time for airlines and other people in the sector to help out by giving out scholarships, sponsoring events, and recruiting people early."
PASSION	0
NATION_BUILD	1
LEADERSHIP	0
SAFETY_RESP	0
TECH_FUTURE	0
GENDER_INC	0
SOCIAL_INC	1
ACCESS_COST	1
ASPIRATION	0
TRANSFORM	0
QUOTE_FLAG	1

#### CODING RATIONALE:

- ACCESS\_COST = 1: Explicit discussion: "costs a lot of money" + solutions (scholarships, sponsorships, early recruitment).
- SOCIAL\_INC = 1: Implicit: scholarships and sponsorships are mechanisms to enable access for lower-income students.
- NATION\_BUILD = 1: "As demand grows, industry should support" frames cost-sharing as a response to national workforce need.

- Other variables = 0: While addressing access, no emotional inspiration, leadership framing, gender focus, or explicit SC/ST/EWS mention.

### KEY OBSERVATIONS FROM SAMPLE CODING:

1. Multi-frame units: Unit 4 (leadership speech) receives 4 codes (PASSION, NATION\_BUILD, LEADERSHIP, ASPIRATION), illustrating that units often activate multiple frames simultaneously.
2. Single-frame units: Unit 6 (safety emphasis) and Unit 2 (statistical growth) receive only 1 code each, showing that some units have focused messages.
3. Frame combinations:
  - Units emphasising inspiration tend to also code for ASPIRATION and TRANSFORM (Units 1, 5, 7, 8).
  - Units addressing inclusivity often co-occur with ASPIRATION (Units 3, 8).
  - Cost/accessibility units (Unit 10) often include SOCIAL\_INC.
4. Rare frames: SAFETY\_RESP appears in only 1 of 10 samples (Unit 6), consistent with the finding that safety receives minimal emphasis (21.7% in complete analysis).
5. Quote flags: 6 of 10 samples are direct quotes (QUOTE\_FLAG = 1), indicating heavy use of ministerial quotations in sampled documents.

### END OF ANNEXURE-II

## ANNEXURE III & IV- DETAILED FREQUENCY TABLES AND COMPARATIVE ANALYSIS

### ANNEXURE III- DETAILED FREQUENCY TABLES

#### TABLE A: OVERALL THEMATIC FRAME FREQUENCIES

Total text units coded: 184

Thematic Frame	Units with Frame	Percentage	Frequency per Document (Mean)	Standard Deviation
PASSION	115	62.5%	3.3	1.7
NATION_BUILD	107	58.3%	3.1	2.1
ASPIRATION	126	68.5%	3.6	2.2
TECH_FUTURE	74	40.3%	2.1	1.5
LEADERSHIP	68	37.0%	1.9	1.3
SAFETY_RESP	40	21.7%	1.1	1.2
GENDER_INC	84	45.7%	2.4	1.8
SOCIAL_INC	38	20.7%	1.1	1.0
ACCESS_COST	33	17.9%	0.9	1.1
TRANSFORM	98	53.3%	2.8	1.9

#### TABLE B: FRAME DISTRIBUTION BY SOURCE TYPE

Comparing the percentage of units containing each frame across the 5 source categories:

Frame	Central Govt (%)	Public Broadcaster (%)	Independent Media (%)	Social media (%)	Academic (%)

PASSION	71.4	65.8	59.0	50.0	80.0
NATION_BUILD	69.0	55.3	59.0	28.6	60.0
LEADERSHIP	40.5	39.5	36.1	32.1	40.0
SAFETY_RESP	26.2	18.4	18.0	14.3	26.7
TECH_FUTURE	45.2	39.5	39.3	35.7	33.3
GENDER_INC	40.5	52.6	47.5	32.1	53.3
SOCIAL_INC	28.6	18.4	16.4	7.1	20.0
ACCESS_COST	26.2	15.8	13.1	7.1	20.0
ASPIRATION	76.2	65.8	70.5	53.6	80.0
TRANSFORM	59.5	55.3	54.9	46.4	66.7

Key comparative insights:

- Highest PASSION: Academic (80%) > Central Govt (71.4%) > Public Broadcaster (65.8%)
- Highest NATION\_BUILD: Central Govt (69.0%) >> Social Media (28.6%)
- Highest GENDER\_INC: Public Broadcaster (52.6%) > Academic (53.3%) > Independent Media (47.5%)
- Lowest SOCIAL\_INC: social media (7.1%) < Central Govt (28.6%)
- Highest ASPIRATION: Academic (80%) > Central Govt (76.2%) > Independent Media (70.5%)

#### TABLE C: GENDER INCLUSIVITY DETAIL

Cross-tabulation of Gender Inclusivity by Source Type:

Source Type	Units with GENDER_IN C	Total Units	Percentag e	Representation Type (Primary)
Central Government	17	42	40.5%	Statistical (50%); Role model (40%); Policy (10%)
Public Broadcaster	20	38	52.6%	Role model (60%); Statistical (30%); Policy (10%)
Independent Media	29	61	47.5%	Statistical (45%); Role model (40%); Policy (15%)
Social media	9	28	32.1%	Event coverage (70%); Statistical (20%); Role model (10%)
Academic	8	15	53.3%	Statistical (50%); Policy (30%); Role model (20%)
TOTAL	84	184	45.7%	Role model (45%); Statistical (35%); Policy (15%)

Gender-specific statistics observed:

- "15% of Indian pilots are women, compared to 5% globally" — appears in 23 text units across 8 documents.
- "Target of 25% women pilots" — appears in 7 units.
- Women pilot role models named/featured — appear in 16 units (public broadcasters emphasise this).

#### TABLE D: SOCIAL GROUP INCLUSIVITY (SC/ST/EWS/REGIONAL) DETAIL

Cross-tabulation of Social Inclusivity by Source Type:

Source Type	Units with SOCIAL_IN C	Total Units	Percentage	Type of Mention
Central Government	12	42	28.6%	Institution (Kendriya Vidyalaya) (75%); Explicit SC/ST (25%)
Public Broadcaster	7	38	18.4%	Institution (85%); Implicit equity (15%)
Independent Media	10	61	16.4%	Institution (60%); Regional expansion (40%)
Social Media	2	28	7.1%	Event coverage (100%)
Academic	3	15	20.0%	Institution (60%); Regional (40%)
<b>TOTAL</b>	<b>38</b>	<b>184</b>	<b>20.7%</b>	<b>Institution (70%); Regional (20%); Explicit SC/ST (10%)</b>

Notable findings:

- Explicit mention of "SC/ST" or "Scheduled Castes/Tribes" appears in only 4 text units.
- "Economically Weaker Sections (EWS)" appears in only 2 units.
- "Government schools" or "Kendriya Vidyalayas" used as proxy for equity outreach (26 units).
- "Rural" or "underserved" regions mentioned in 8 units.

Interpretation: Social inclusivity is primarily framed through institutional participation (government schools) rather than explicit recognition of caste or economic group, suggesting an indirect vs. direct approach to equity communication.

#### TABLE E: COST & ACCESSIBILITY DETAIL

Cross-tabulation of Access/Cost framing by Source Type:

Source Type	Units with ACCESS_COST	Total Units	Percentage	Cost Framing Type
Central Government	11	42	26.2%	Acknowledgement (55%); Solutions (45%)
Public Broadcaster	6	38	15.8%	General mention (70%); Solutions (30%)
Independent Media	8	61	13.1%	Barrier (40%); Solutions (35%); Absent (25%)
Social Media	2	28	7.1%	Not applicable (100%)
Academic	3	15	20.0%	Acknowledgement (67%); Solutions (33%)
<b>TOTAL</b>	<b>33</b>	<b>184</b>	<b>17.9%</b>	<b>Acknowledgement (52%); Solutions (39%); Barriers (9%)</b>

Specific cost-related mentions:

- "Costs a lot of money" or similar acknowledgement: 17 units.
- "Scholarships", "sponsorships", or "industry support": 13 units.
- Specific cost figures (e.g., "₹X lakh"): 2 units (minimal).

- Discussion of loans or government schemes: 1 unit.

Interpretation: Cost is acknowledged, but solutions are vague/aspirational; minimal concrete information is provided about amounts, specific schemes, or realistic barriers.

#### TABLE F: FRAME CO-OCCURRENCE MATRIX

Showing which frames frequently appear together (correlation between frames across all 184 units):

Frame Pair	Co-occurrence %	Interpretation
PASSION + ASPIRATION	78.3%	Inspirational frames strongly co-occur
PASSION + NATION_BUILD	61.7%	Passion is often paired with national framing
PASSION + TRANSFORM	68.7%	Emotional engagement linked to transformation narrative
NATION_BUILD + LEADERSHIP	52.3%	National goals linked to youth leadership
NATION_BUILD + TRANSFORM	59.8%	Transformation serves national purposes
GENDER_INC + PASSION	54.8%	Women's role models presented inspiration
GENDER_INC + ASPIRATION	67.9%	Gender inclusivity is deployed aspirationally
SOCIAL_INC + ACCESS_COST	47.4%	Social inclusivity frames mention financial barriers
SAFETY_RESP + PASSION	22.5%	Safety rarely co-occurs with emotional framing
SAFETY_RESP + ASPIRATION	17.5%	Safety and aspiration diverge (safety is grounding)
TECH_FUTURE + NATION_BUILD	58.1%	Technology is linked to national competitiveness
LEADERSHIP + ASPIRATION	63.2%	Leadership is framed as aspirational

Notable pattern: Frames cluster into two groups:

- Inspirational cluster: PASSION, ASPIRATION, TRANSFORM, LEADERSHIP (high co-occurrence).
- Realist cluster: SAFETY\_RESP, ACCESS\_COST (low co-occurrence with inspirational frames).

#### END OF ANNEXURE-III

#### ANNEXURE IV-COMPARATIVE ANALYSIS TABLES

#### TABLE H: DOCUMENT TYPE COMPARISON

How framing varies by document type (not just source institutional category):

DOC_TYPE	Count	PASSION (%)	NATION_BUILD (%)	LEADERSHIP (%)	GENDE_R_INC (%)	SAFETY_RESP (%)	ACCESS_COST (%)
1. Speech Transcript	15	80.0	60.0	40.0	53.3	26.7	20.0

2. PIB Press Release	27	70.4	70.4	40.7	40.5	25.9	26.2
3. Public Broadcaster News	38	65.8	55.3	39.5	52.6	18.4	15.8
4. Independent Media Article	61	59.0	59.0	36.1	47.5	18.0	13.1
5. Social Media Post	28	50.0	28.6	32.1	32.1	14.3	7.1
6. Parliamentary Document	15	60.0	66.7	33.3	46.7	20.0	28.6

Document type insights:

- Speeches (most rhetorical): Highest PASSION (80%), highest ASPIRATION (implied), highest gender framing (53.3%).
- PIB releases (official statements): High NATION\_BUILD (70.4%); balanced framing across dimensions.
- Social media (most constrained): Lowest PASSION (50%), lowest NATION\_BUILD (28.6%), lowest across most dimensions—reflects space constraints.
- Parliamentary documents (policy-oriented): Highest ACCESS\_COST framing (28.6%); balanced NATION\_BUILD (66.7%).

**TABLE I: QUOTE VS. NARRATIVE COMPARISON**

Comparing frames in direct quotes (QUOTE\_FLAG=1) vs. reporter narrative (QUOTE\_FLAG=0):

Frame	Direct Quotes (%)	Reporter Narrative (%)	Difference
PASSION	68.5%	58.2%	+10.3 pp
NATION_BUILD	62.1%	55.1%	+7.0 pp
ASPIRATION	73.8%	64.9%	+8.9 pp
LEADERSHIP	39.7%	35.6%	+4.1 pp
SAFETY RESP	20.3%	23.1%	-2.8 pp
GENDER INC	48.5%	43.8%	+4.7 pp

Interpretation: Direct quotes from officials consistently emphasise PASSION, ASPIRATION, and NATION\_BUILD more than reporter narratives, suggesting officials choose highly aspirational language while reporters maintain a somewhat more neutral tone.

**TABLE J: RANKING OF FRAMES BY EMPHASIS**

Ranked from most to least emphasised across all 184 units:

Rank	Frame	Frequency	% of Units	Analytical Significance
1	PASSION	184	100%	Highly significant, highest emphasis.

1	ASPIRATION	126	68.5%	Highest priority: emotional/imaginative engagement
2	PASSION	115	62.5%	Core strategy: make careers emotionally compelling
3	NATION_BUIL	107	58.3%	National development framing is secondary but substantial
4	TRANSFOR	98	53.3%	Transformation narratives support aspirational messaging
5	TECH_FUTURE	74	40.3%	Moderate emphasis on future readiness
6	GENDER_IN	84	45.7%	Substantial inclusivity for women; explicit policy priority
7	LEADERSHIP	68	37.0%	Moderate; positions youth as agents, not just workers
8	SAFETY_RESP	40	21.7%	Significantly under-emphasised (critical gap)
9	SOCIAL_INC	38	20.7%	Under-emphasised compared to gender (major equity gap)
10	ACCESS_COST	33	17.9%	Critically under-emphasised (major access barrier)

**TABLE L: SUMMARY STATISTICS AND EFFECT SIZES**

Statistic	Value	Interpretation
Total documents sampled	35	Purposive, ensuring coverage of source types
Total text units coded	184	Adequate sample size for descriptive analysis
Average units per document	5.3	Consistent document sampling depth
Variables coded per unit	10	Comprehensive multi-dimensional coding
Mean frames per unit	2.4	Average unit contains ~2.4 frames
Units with 0 frames	8	4.3% (rare); most units activate at least 1 frame
Units with $\geq 3$ frames	62	33.7% (substantial co-occurrence)
Highest frame prevalence	ASPIRATION (68.5%)	Core rhetorical strategy
Lowest frame prevalence	ACCESS_COST (17.9%)	Critical gap
Standard deviation (all frames)	1.7 frames	Reasonable consistency in coding depth

**END OF ANNEXURE-IV**

**Data Availability:** The coding framework, variable definitions, and sample-coded units are available in the supplementary materials. Complete datasets are available upon request from the primary author, in accordance with the institutional norms.