

# NEA WEEKLY TALK PROGRAM

## “ Nepalese Aviation Industries and Requirements of International Airports for the Air Mobility in the Context of Nepal ”

### Speaker



**ER.DR. DIPAK PRASAD BASTOLA**

**Senior Aeronautical Engineer**



**ON FRIDAY, 20 DECEMBER  
2024**



**START AT 03:30 PM**



**ENGINEER BHAWAN, NEA TRAINING  
HALL, PULCHOWK, LALITPUR**



Live on NEA Facebook page.



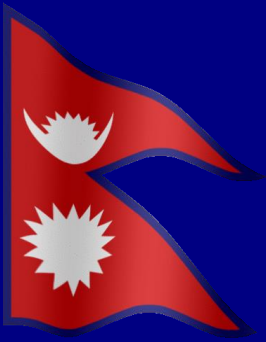
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# *Nepal Engineering Association's Talk Program*



## **Nepalese Aviation Industries &**

# **Requirements of International Airports for the Air Mobility in the Context of Nepal**

**20<sup>th</sup> December 2024**

**Er. Dr. Dipak Prasad BASTOLA**

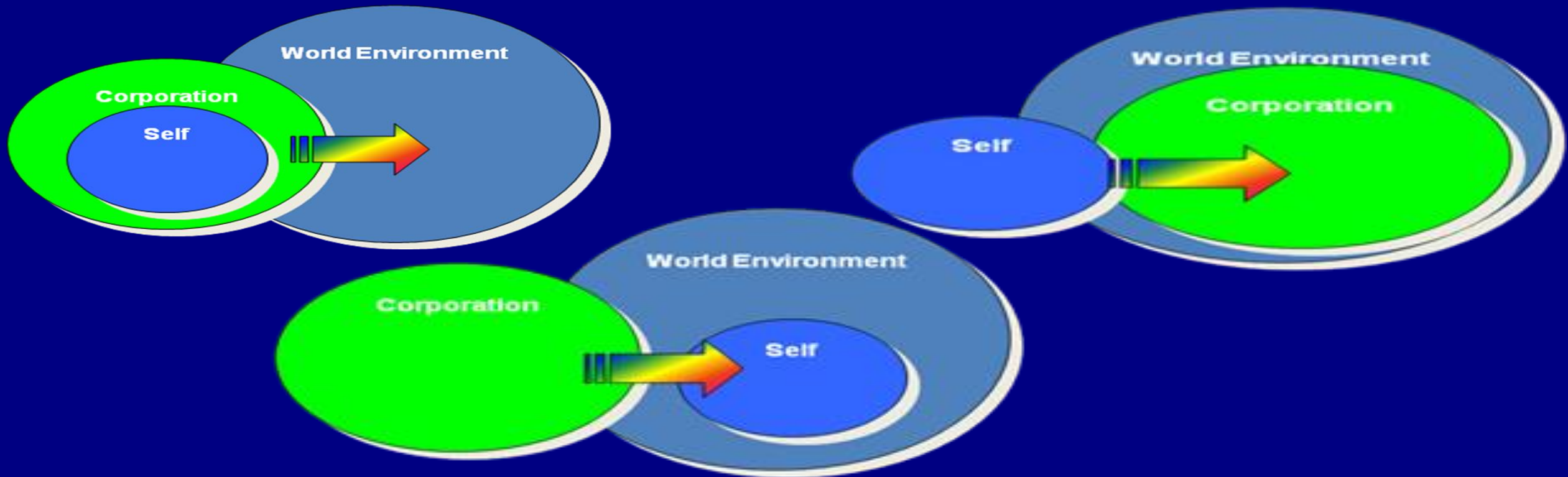
**Major General (Retd.) and Former Chief Aeronautical Engineer (Nepali Army Aviation)**

# My Mini CV



- **Aeronautical Engineer, Er. Dr. Dipak Prasad BASTOLA .I have Aviation experience of 36 years, have undergone more than 37 Aviation Professional Trainings.**
- **Flight Engineer of Mi-17 Helicopter and have flown as Flight Engineer for more than 4250 hrs, Including 250 hrs Night Flight.**
- **I have an Aircraft Maintenance Licence from CAAN (CAAN-66-219), ICAO SME of Flight Safety and Safety Management**
- **I have Chosen Aviation Industry of Nepal for the PhD Research**
- **CRM Ground Instructor Authorization from CAAN (Authorization No:466/068/69)**
- **Human Factors , CRM and SMS Instructor since 2007**
- **Visiting Professor of Aviation Engineering and Management Related Subjects.**

# World Change Process



# Main Themes



1

Nepalese Aviation Industry

2

Requirement of  
International Airport in  
Nepal

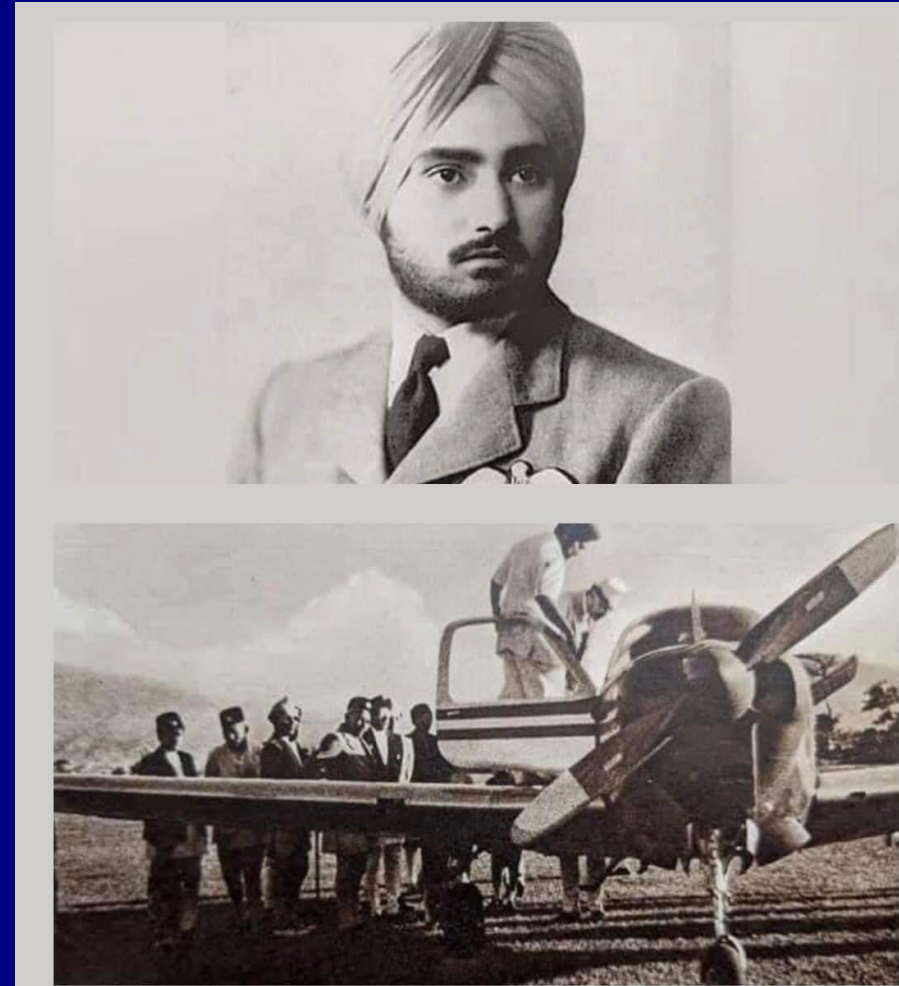
3

Way Forward

# Nepalese Aviation Industry

# Past and Present Status of Nepalese Aviation

- First Aircraft that landed in Kathmandu airport on 2006.01.11 B.S. (1949.04.23 A.D.), King Tribhuvan was at the Airport to witness the arrival!!!
- **Regulating Body:** CAAN establishment on 2014 BS (1957 A.D.) under Ministry of work, Communication and Transport



# Past and Present Status of Nepalese Aviation

- Total Domestic Airlines (9 Fixed Wing & 6 Rotary are Operational)
- 2 International Airlines



# Introduction of Aviation Industries in Nepal

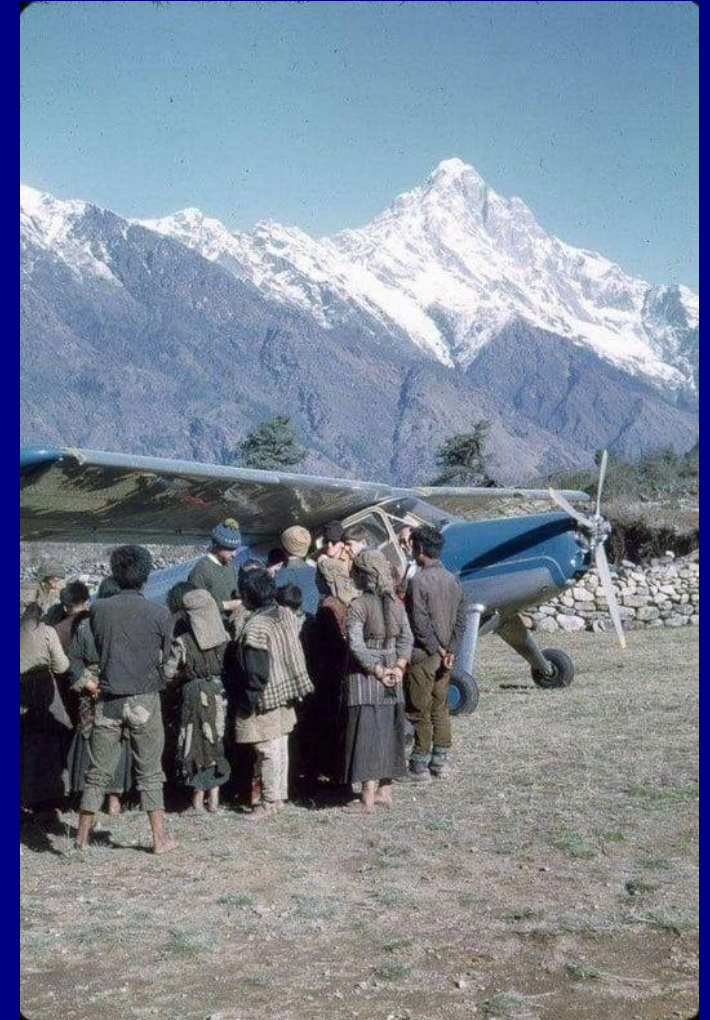
- Meaning of aviation in Nepali context is **basic transportation need**
- Whereas for other developed countries aviation is consider **fastest and safest mood of transportation** and consider one of the growth industries that can contributes National GDP.
- Understanding of aviation industries in Nepal is therefore totally different from the western prospective.

# Historical Development of Nepali Aviation Industries



# Historical Development of Nepali Aviation Industries

- Aviation History
- The 1950s and 1960s: early period
- The 1970s and 1980s: the jet age and economic boom period
- The 1990s and 2000s corruption period
- The 2010 to till date modernization period



# Historical Development of Nepali Aviation Industries

- The 1950s and 1960s ( early period): The Nepal airline was established in July 1958 as Royal Nepal Airlines Corporation with one Douglas DC-3. Nepal airline was the only airlines in the civil market of Nepal (Nepal Airlines, 2016).



# Historical Development of Nepali Aviation Industries

- The 1970s and 1990 s(the jet age and economic boom period): In 1970, NAC acquired its first Hawker Siddeley HS-748 followed by Twin Otters in 1971 and Boeing 727s in 1972. Two Boeing 757s gradually replaced the airline's Boeing 727s in 1987 (Nepal Airlines,n.d.)

# Nepal Airlines Corporation (RNAC)



- RNAC up until the late 90s was one of the most profitable companies in Nepal. But after the democracy, it became a lucrative place for political appointments due to which it suffered heavily from political mismanagement !

# Historical Development of Nepali Aviation Industries

- The 1990s and 2000s (corruption period) : The domestic air market of the country was liberalized in 1992 due to new political system of Nepal, and new competitors emerged in civil market of Nepal like : Necon Air, Nepal Airways, Everest Air, Buddha Air, Yeti Airlines, and Sita Air. By 1997( Nepal Airlines,n.d.)
- These four competitors accounted for 70 percent of Nepal's domestic air traffic (CAAN,2015).

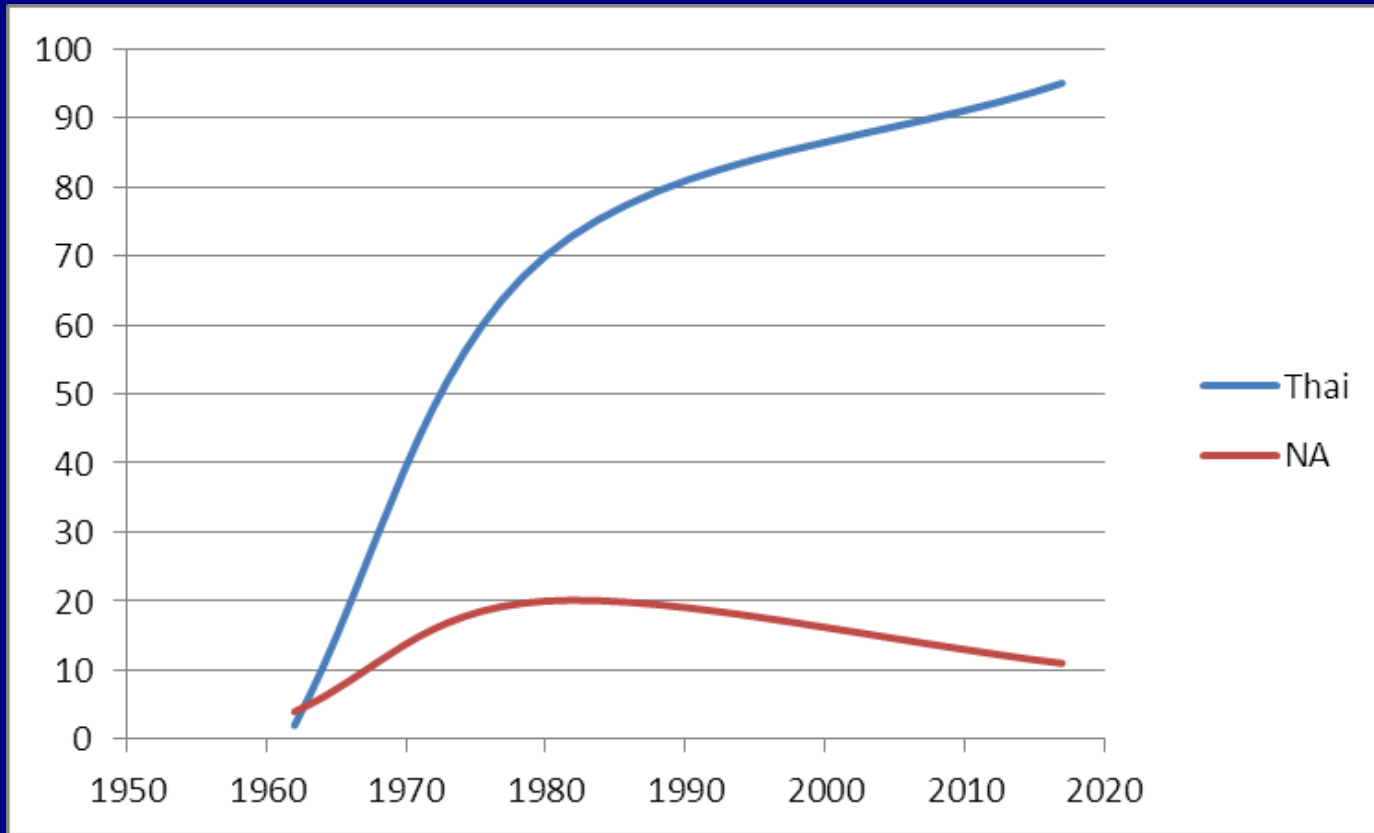
# Historical Development of Nepali Aviation Industries

- The 2010 to till date modernization period: On 30 April 2015, Nepal Airlines received its Airbus A 320. Nepal Airlines flew 253,658 travellers, up 22.87 percent compared to the previous year of 206,430 passengers (Nepal Airlines , n.d.).
- One more Himalayan Airlines started service in international sector ( Himalayan Airlines, 2014)

# Comparison of Nepal Airlines and Thai Airlines



# Comparison of International Airline



- **Comparison of Aircrafts fleet of Nepal airline with Thai airways**

# Reasons for Success of Thai Airways !

- Sound Management
- Partnership
- Leadership
- Financial discipline
- Modernization along with global need



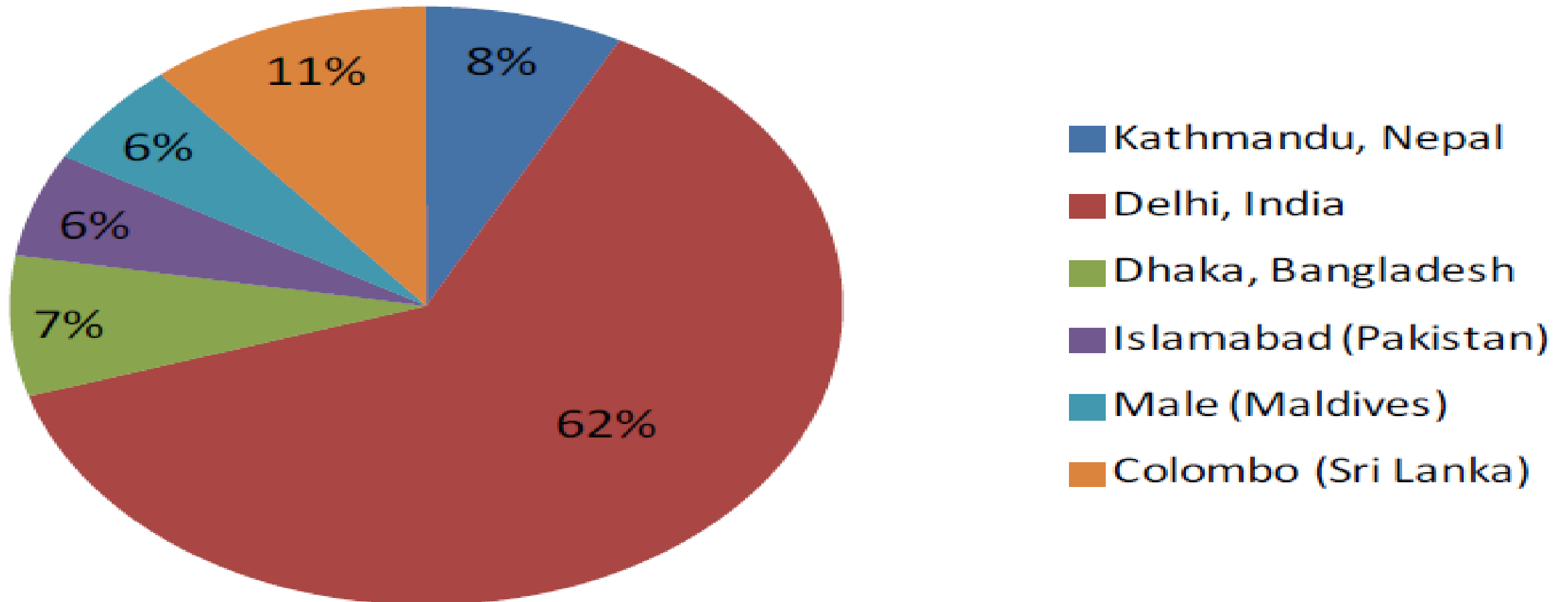
# Analysis of Worldwide Aviation Industries

## Regional aviation growth

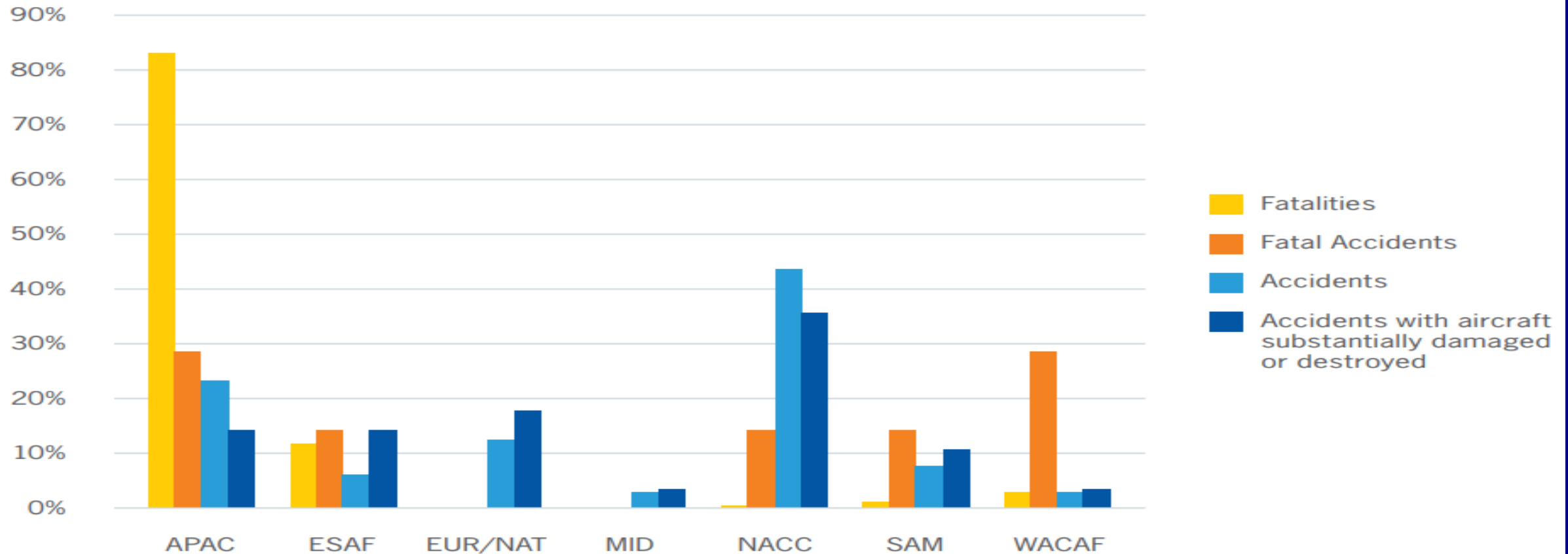
- Nepal Aviation Growth Rate is Less than 3%



# Passenger Traffic Distribution Major Airport of SAARC



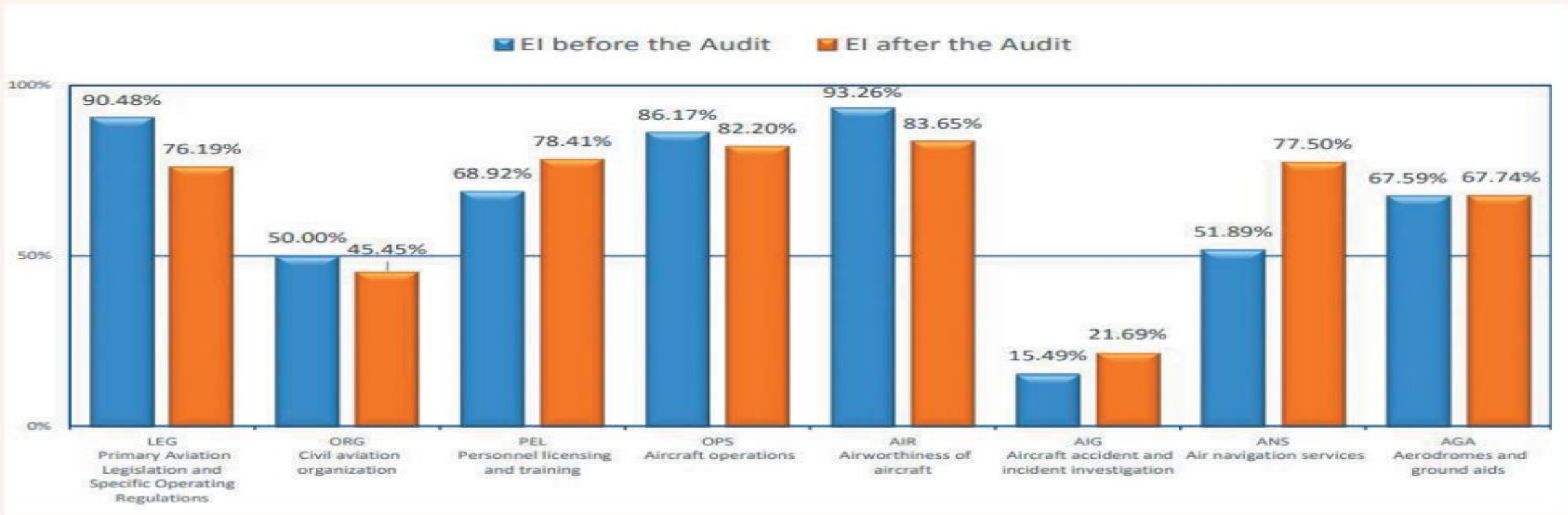
# Safety Audit Report 2022 A.D. (ICAO)



**Chart 15. | Accident overview by ICAO region in 2022**

# Safety Audit Report 2022 A.D. (ICAO)

## EI percentage according to the Audit Areas



# Safety Audit Report 2022 A.D. (ICAO)

Report Indicated in Previous Chart Shows that Nepal is Very Poor in two Critical Elements:

- 1. Accident Investigation (21.69%)**
- 2. Civil Aviation Organization( 45.45%)**

Note: Since these two area are directly related with aviation safety ! EU also highlighted these areas in their recent audit report 2023.

# Air Safety List

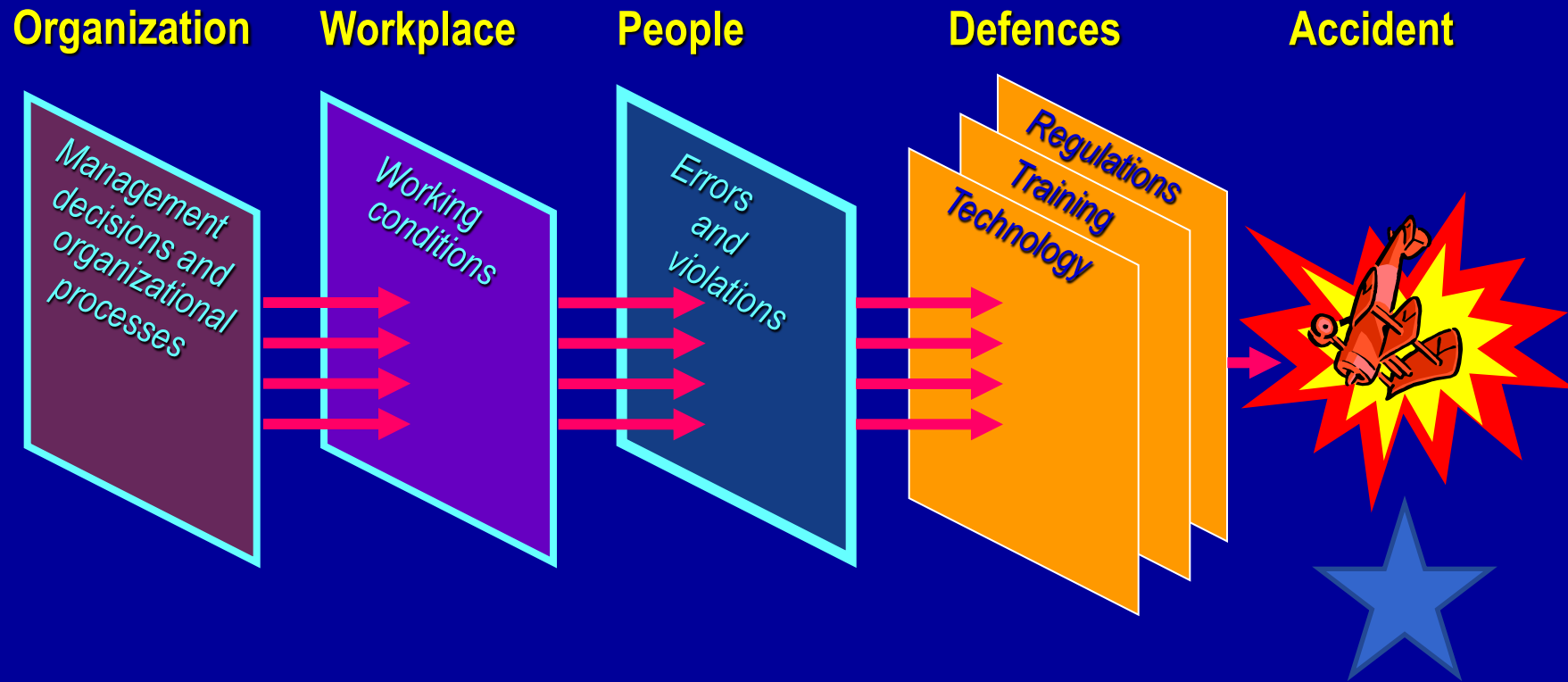
*(Airlines Banned from Operating in Europe)*

- **Total 23 Countries are in Air Safety List (Black List)**

**Nepal is in the Air Safety List (Black List) since 2013 A.D.**

Due to Air Safety List , Tourism industries of Nepal is affected (Mainly less travelers from EU Countries)

# A concept of accident causation



**Latent conditions trajectory**

# Safety Management System (SMS) Implementation



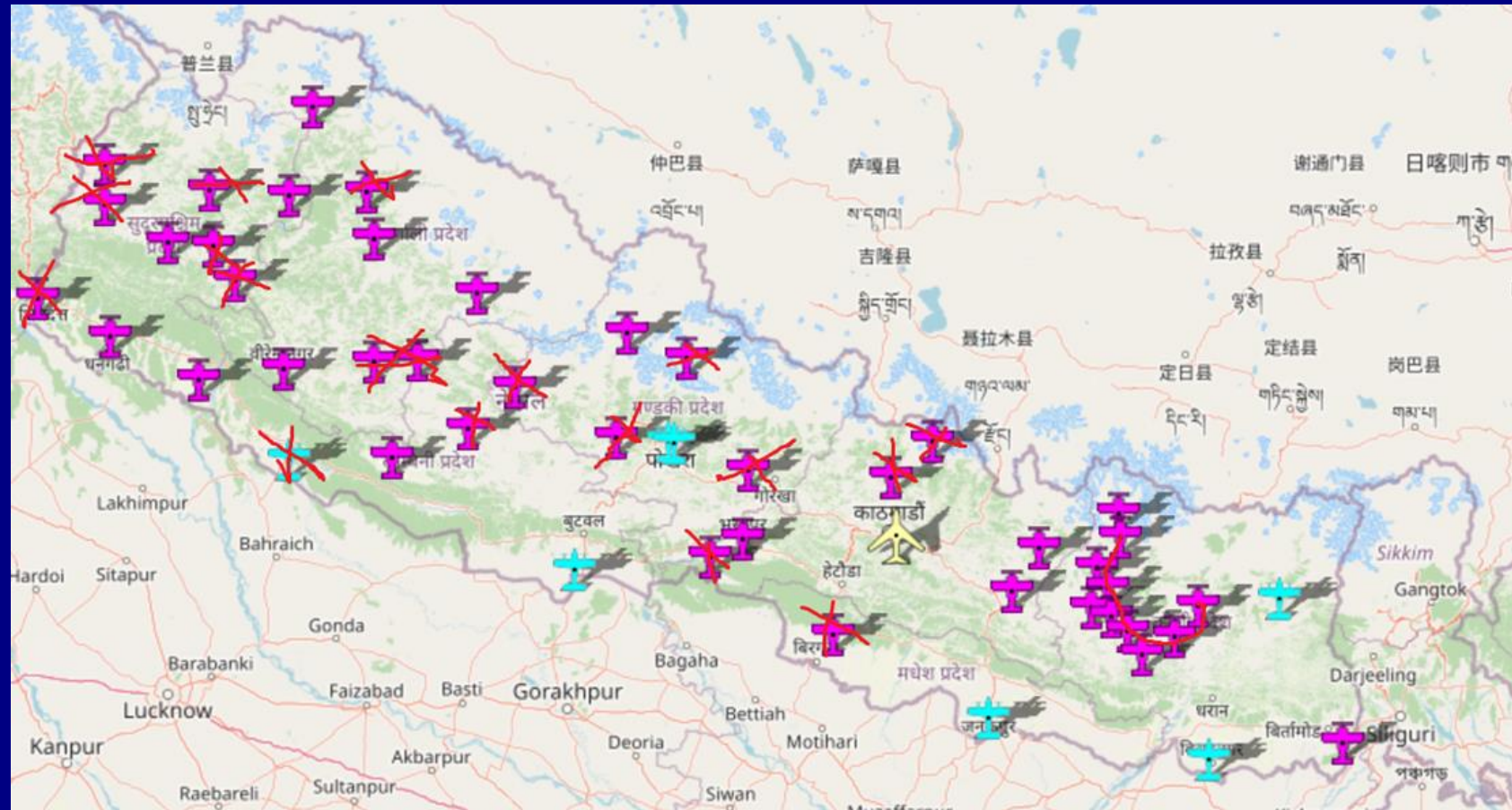
- Safety Program Gap Analysis
- Safety Policy and Objectives
- Safety Risk Management
- Safety Assurance
- Safety Promotion

***110 fatal air accidents in Nepal between 1962 A.D. to till date ; Total More than 965 People died in Aircrafts Accident in Nepal.***

# Requirement of International Airport in Nepal

# Domestic & International Airports in Nepal

- Total 52 Domestic Airports and 30 are already closed
- 3 International Airports



# Domestic & International Airports in Nepal

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# Requirement of International Airport in Nepal

- One **Everest International Airport** at Nijgadh
- **7 Domestic Airports** ( Biratnagar, Kathmandu, Pokhara, Janakpur, Bhairahawa, Nepalgunj and Dhangadi
- Heliports in Every Palika
- ***All other present Domestic Airports should be used for HADR Operations / Public Space for various Social Events.***

My Life Time Dream for Nepal

# Game Changer Project for Nepal : “Everest International Airport: Gate Way to Everest”



- Gate way to Everest !
- Fast Track to all Seven Provinces and Major Cities of Nepal
- 4 Lane High Way to Lukla from Nijgadh
- *Out of 8.1 Billion People , How Many want to see Everest in their Life Time.....*

**EVEREST  
INTERNATIONAL  
AIRPORT, NEPAL**



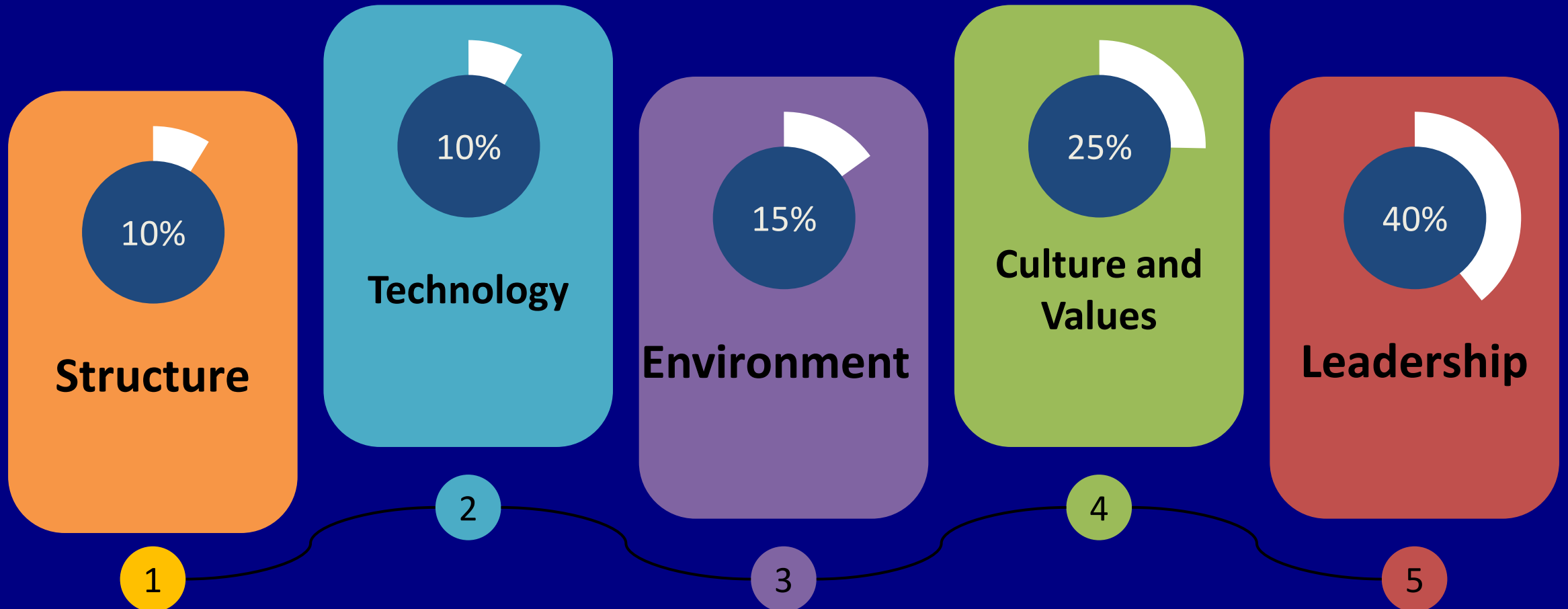
# Sustainability of Airports

- Requirements of Infrastructures
- Travelers Flow
- Surface Transports
- Hotels
- Sufficient Airspace for Holding
- Fuel Price
- Ground Handling Equipment
- **Aviation Friendly Policy**

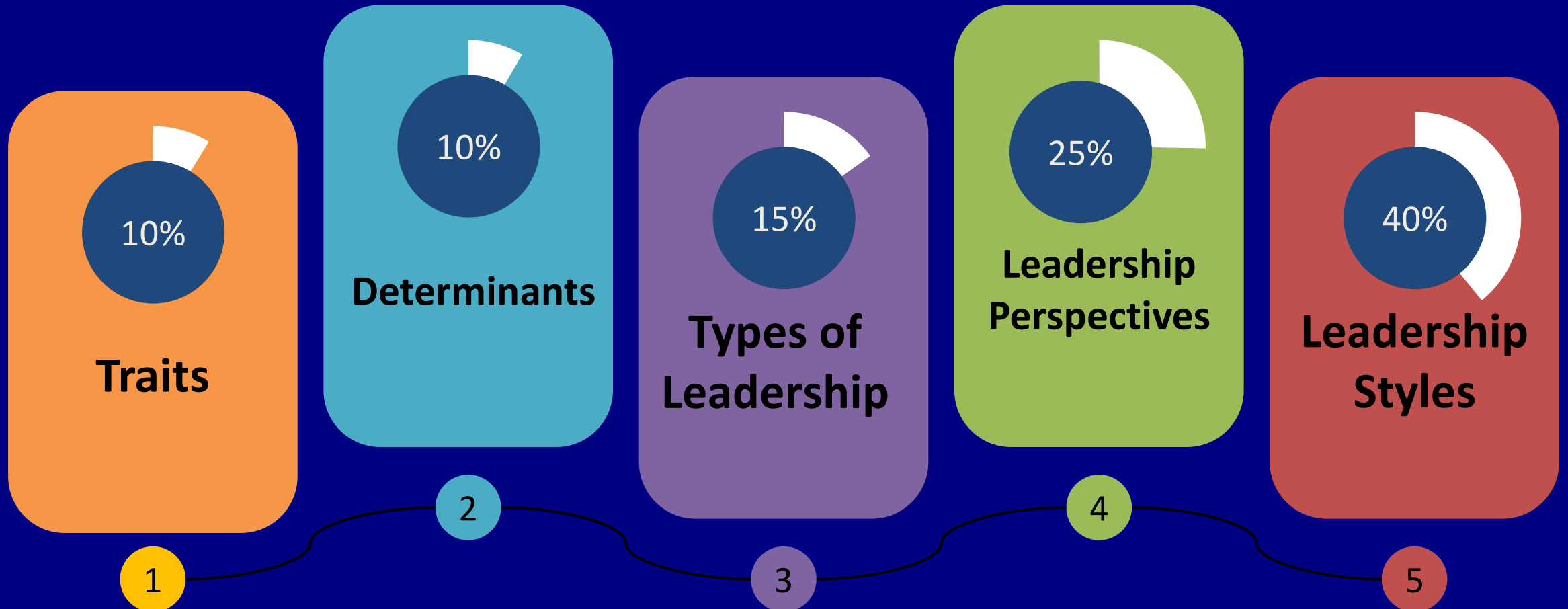


# Research Findings

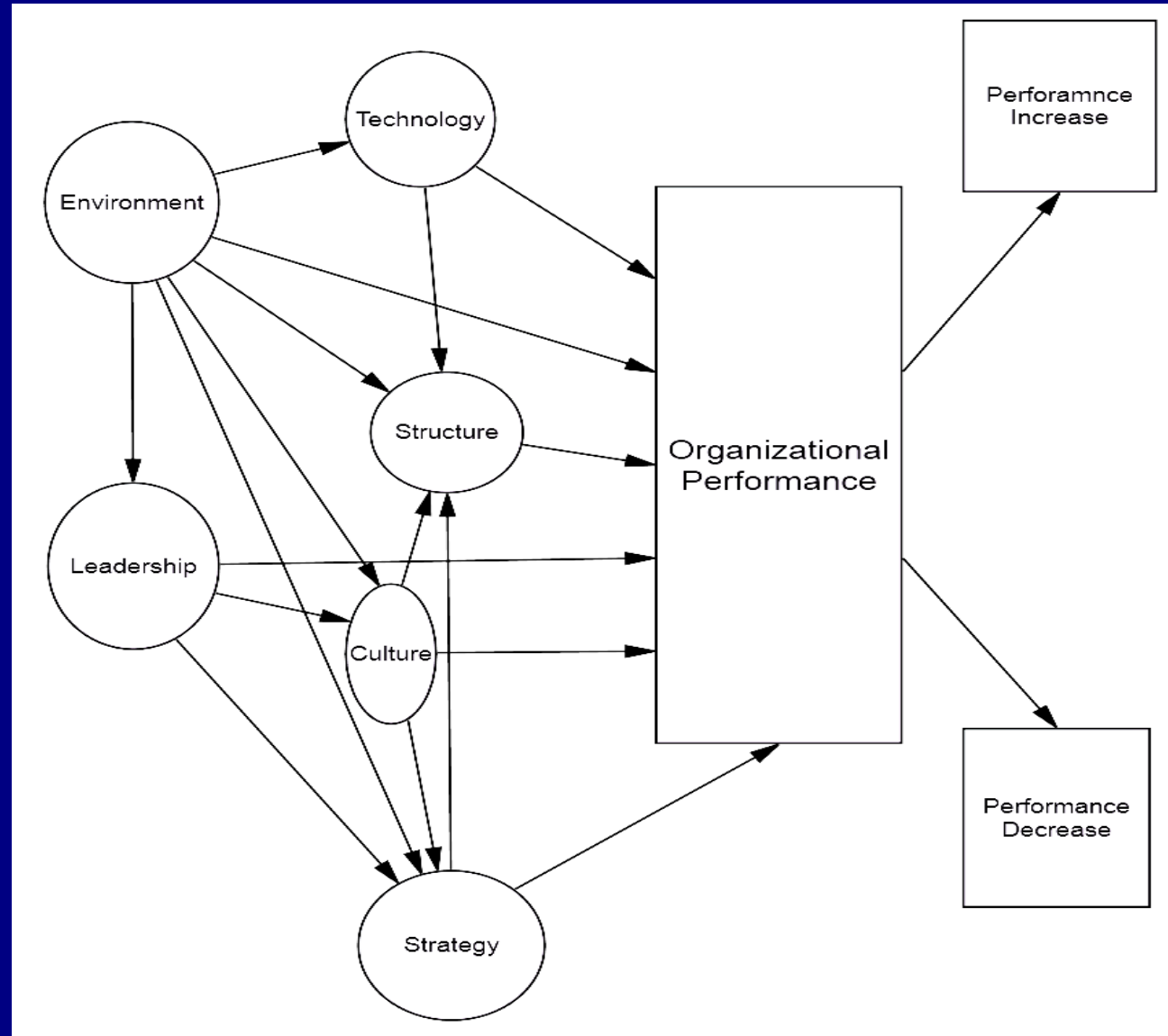
# Organizational Factors & Performance

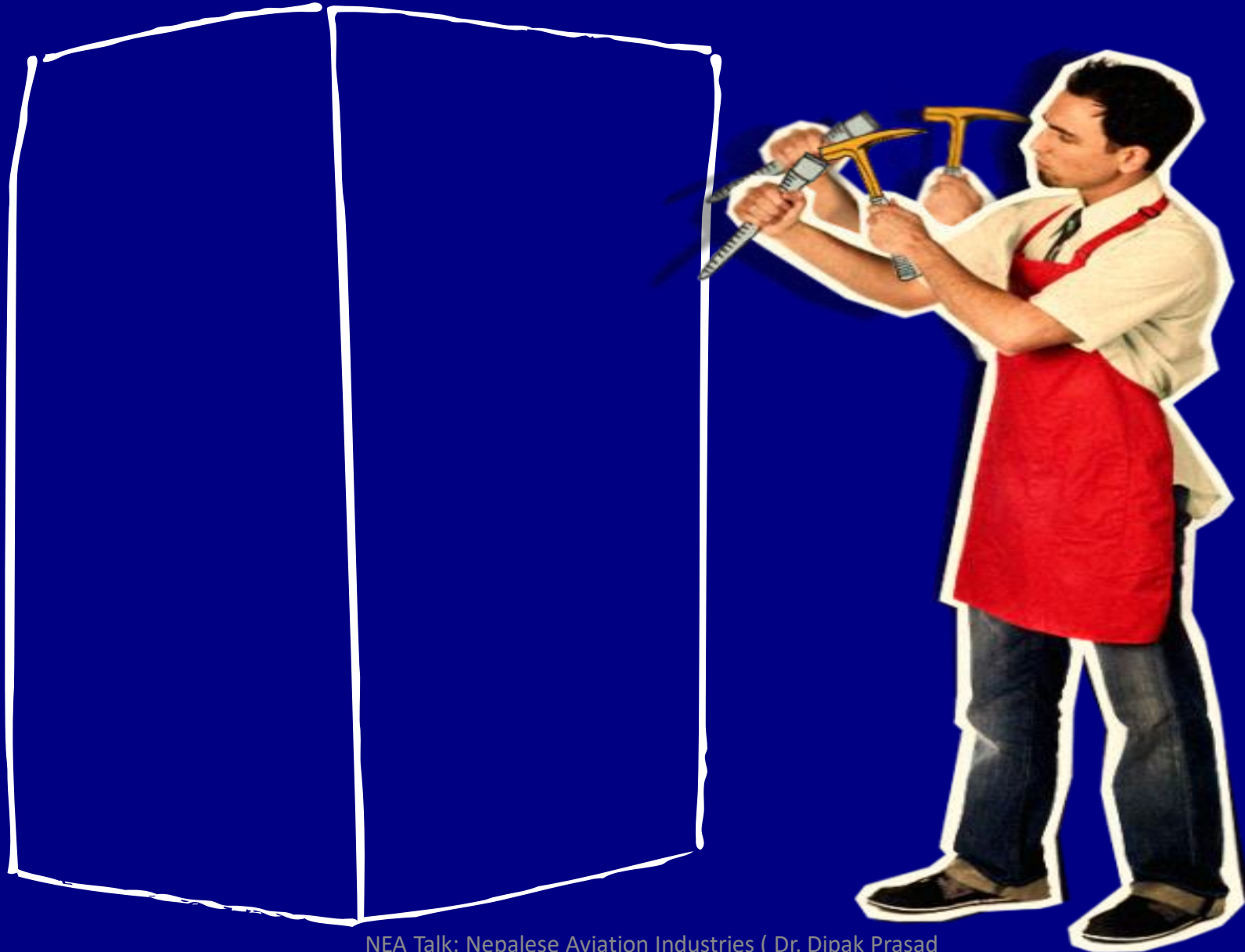


# Leadership Factors & Performance



# Organizational Performance





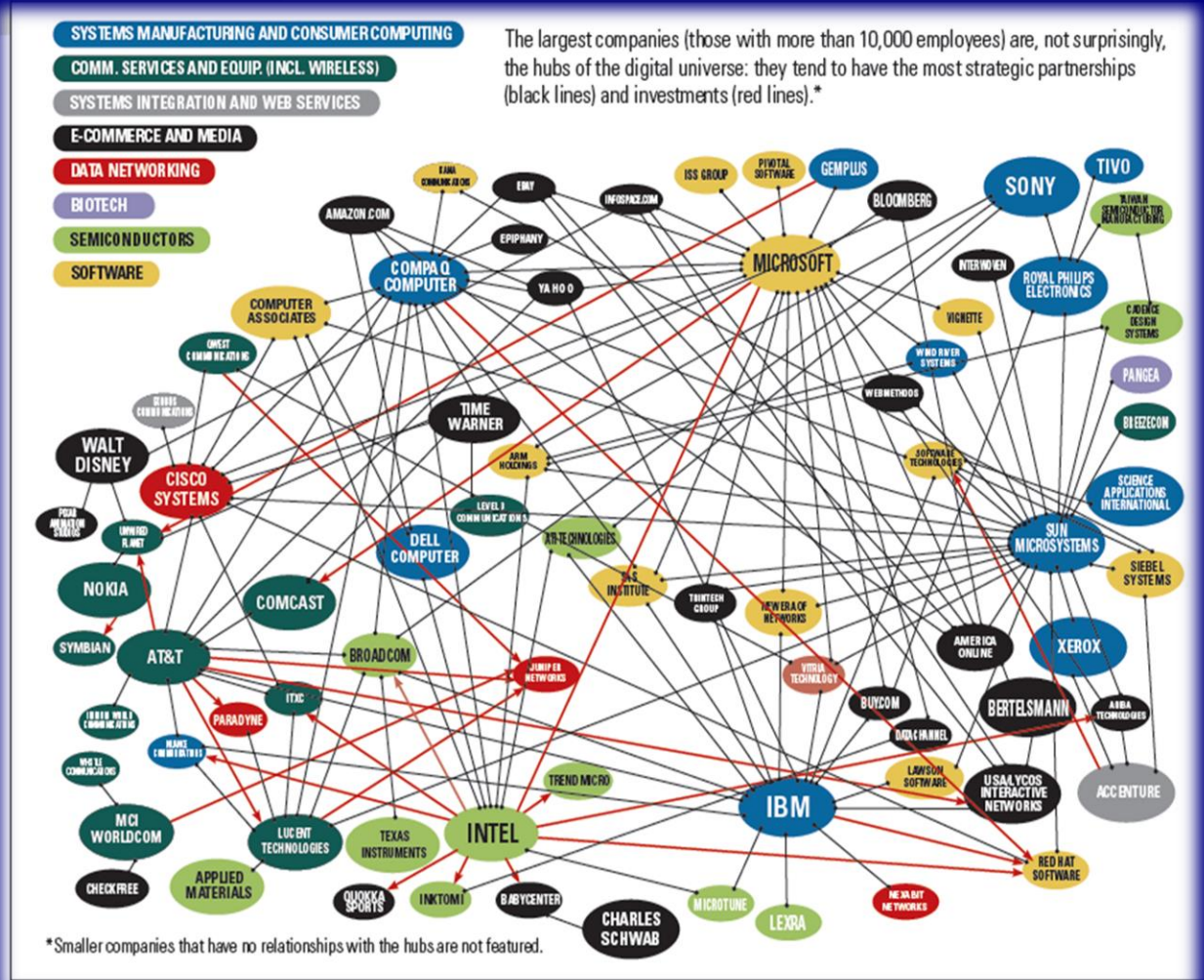
**Leader  
Can  
Change  
the  
Shape**



# Net Working Job of Aviation Leadership



**Sir Richard Branson**  
*(Virgin empire)*



# Positionship (पदारूढ)

**Positionship  
is not a  
Leadership**

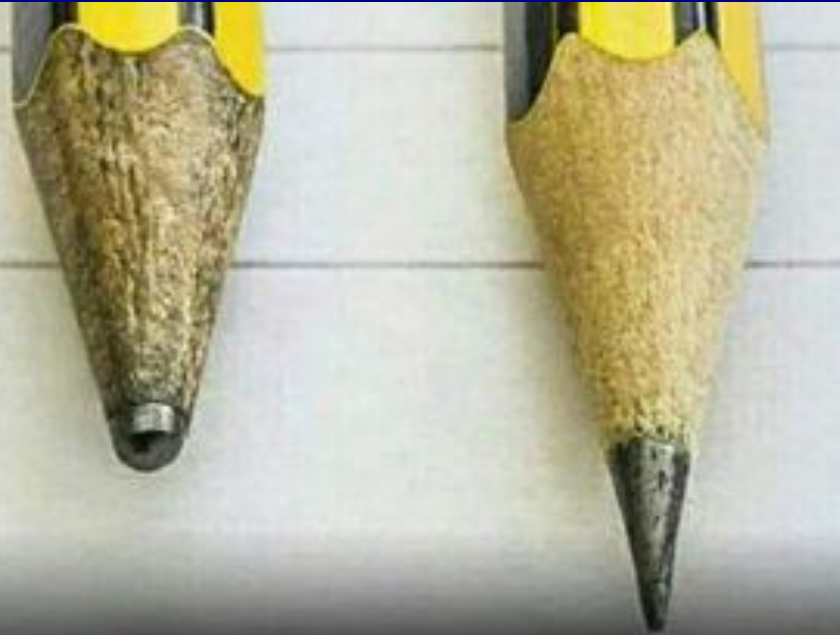


# Positionship

It doesn't matter how many resources you have...



If you don't know how to use them, it will never be enough.



IT'S EASY TO LOOK **SHARP** WHEN YOU HAVEN'T DONE ANY WORK.

**EFFORT + WRONG TOOLS  
= NO RESULTS**



# Top Heavy at Nepal Airlines Corporation

## NAC:

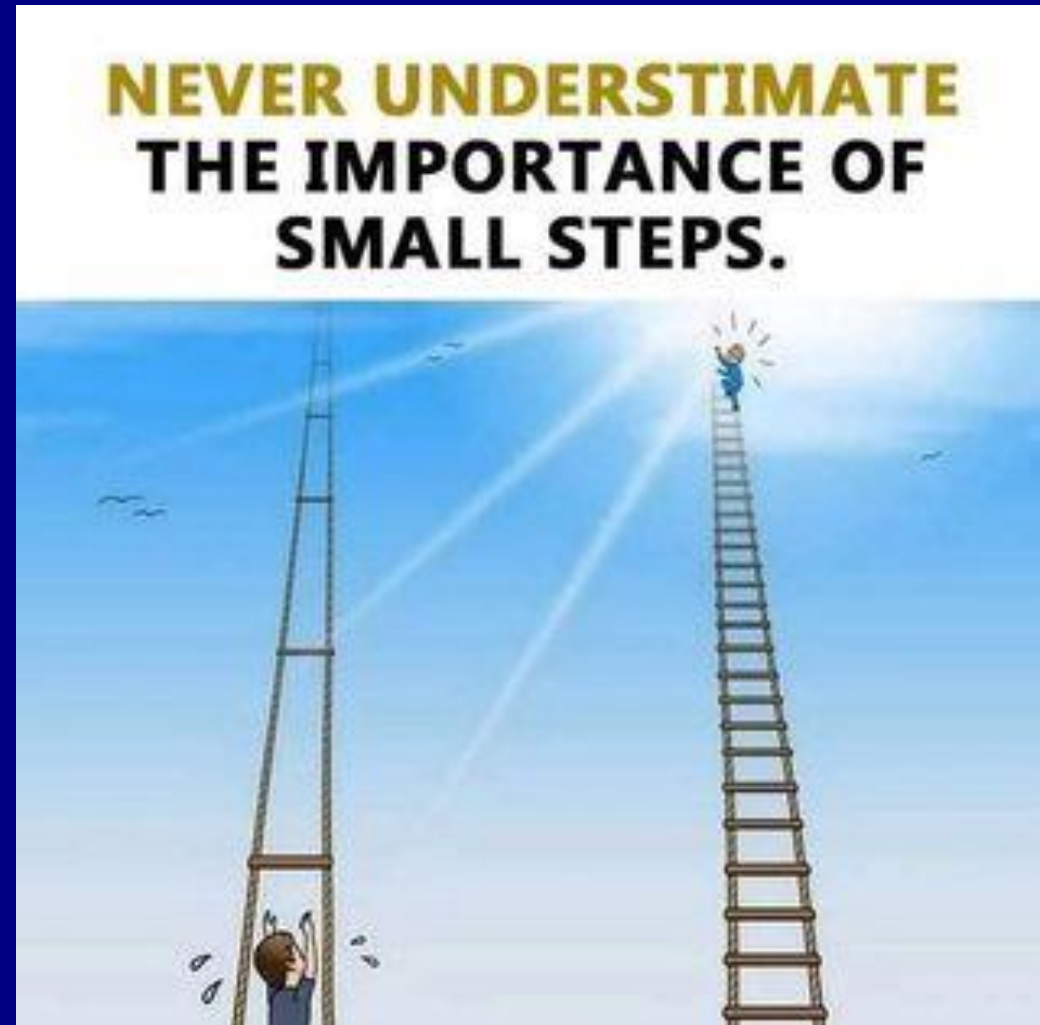
- Chairman
- MD
- 6 Board of Directors
- 15 Directors



- Singapore Airlines only 12 Directors

**Step by step....**

**Lack of  
Management  
Skills in Nepalese  
Aviation  
Industries**



# Source of Mistakes and Errors

- “When a person thinks he/she knows everything, then that is the greatest threat for his/her organization”



# Never Become Over Confidence !



# Arguments & Discussion

# Argument and Discussion

## Key Issues of Nepali Aviation Industries

- Corruption
- Political instability
- Poor leadership
- Frequency of Leadership changes
- Lack of regulatory compliance
- Unhealthy competition
- Organizational Culture
- Poor relationship among the airlines industries of Nepal
- Geo political reasons



# Argument and Discussion



Dr Garrett Harding (1968)



**Tragedy of the commons in Nepali Aviation Industries**

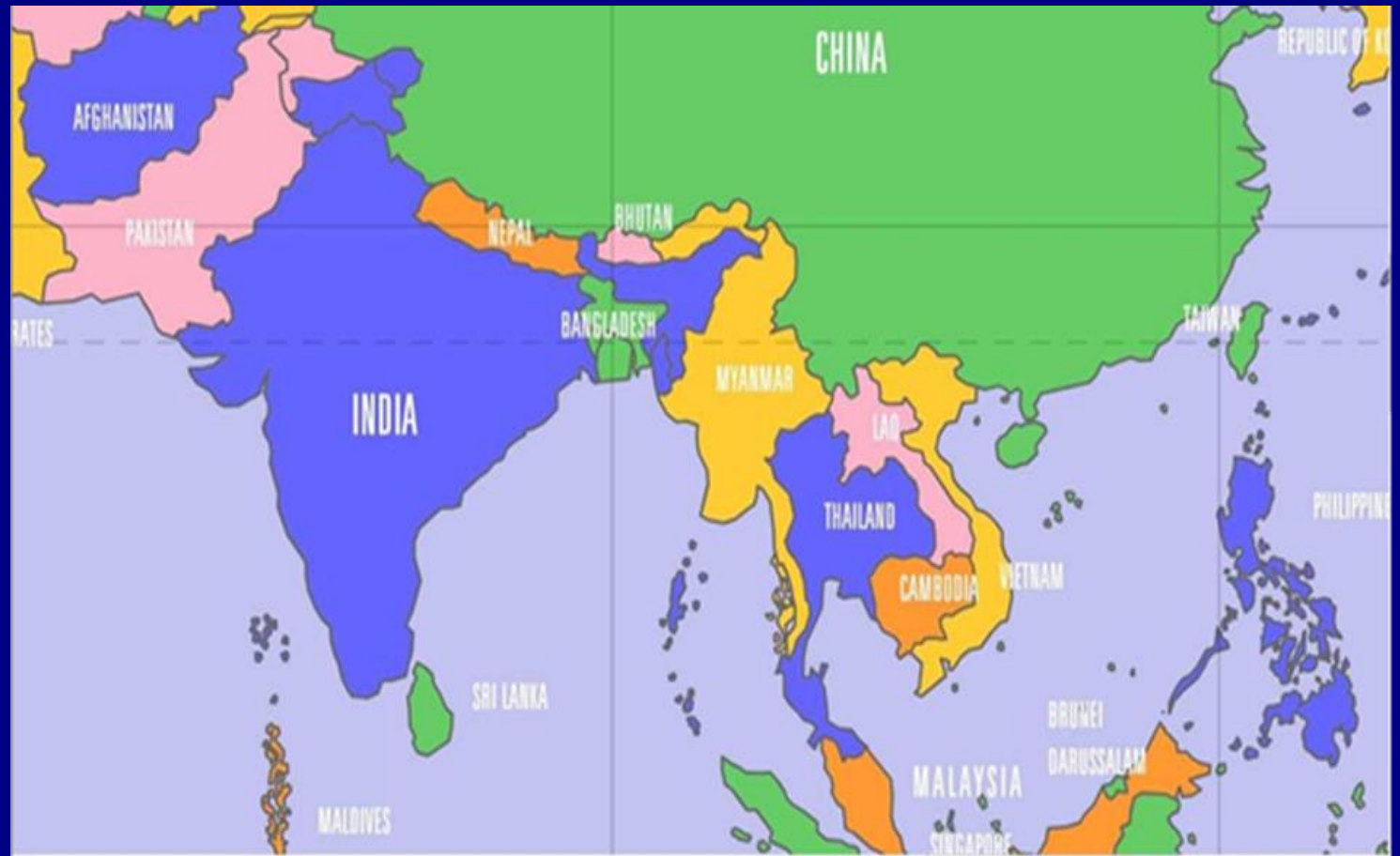
Tragedy of the commons:

- *Over-exploitation*
- *Free access/unrestricted demand for a finite resource*

# Argument and Discussion

## Geo Political Reasons

- Nepali aviation market is in the shadow of two big countries' aviation market



# Deduction & Recommendations

# Knowledge Generator

- Education (10%)



- Reasoning (10%)



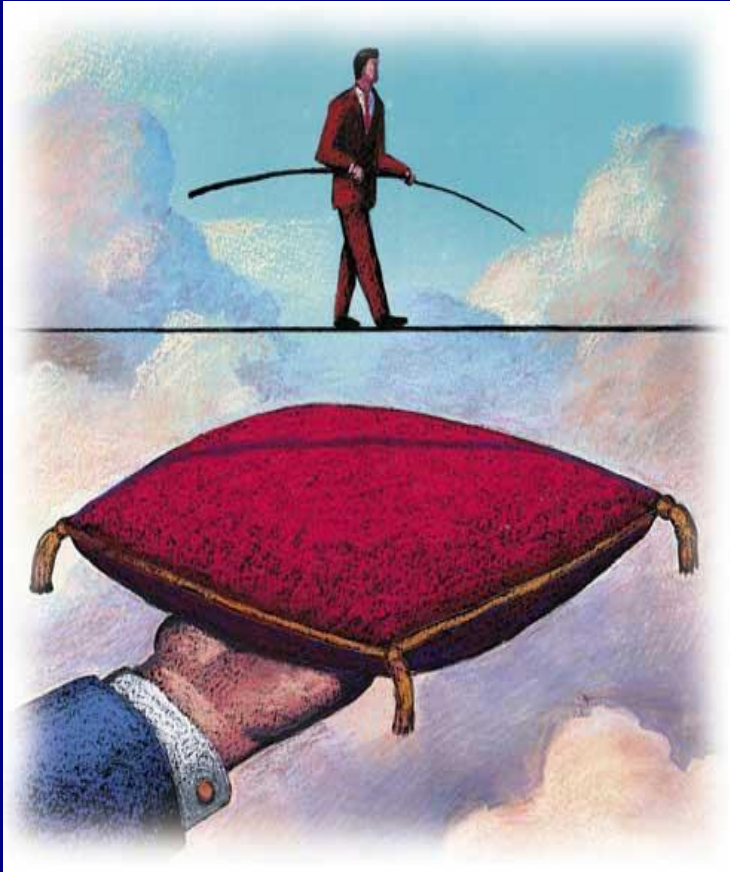
- Experiences (80%)



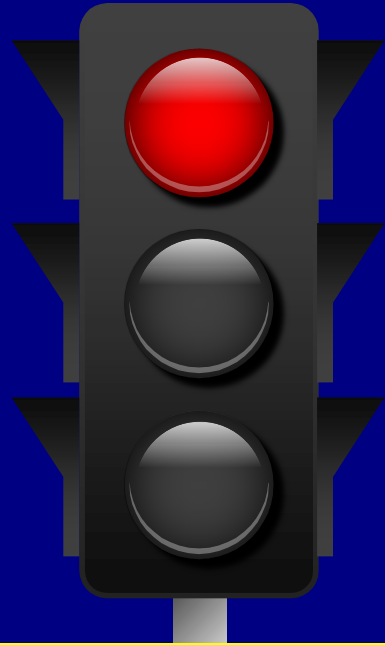
Brain Drain in  
Aviation  
Industries of  
Nepal

# Recommendations

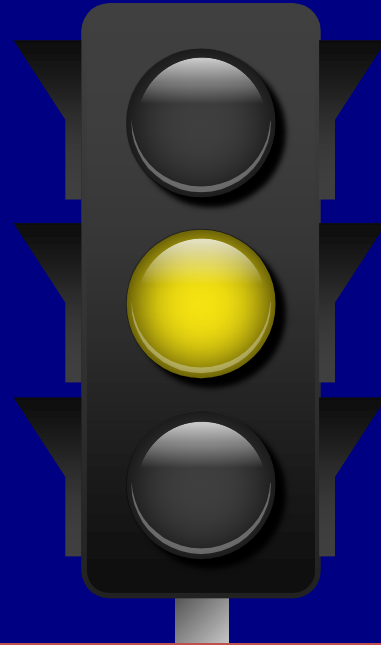
- Leadership in Aviation Industries need Team Climate
- **Team Work** and **Professionalism** are two key to Success !



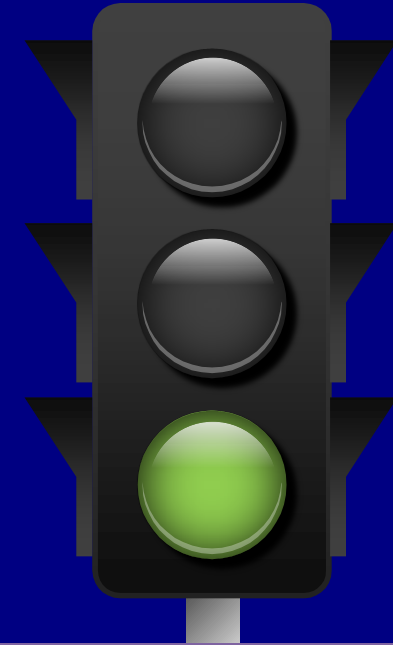
# Ideal Qualities of Aviation Leader



**Positionship**

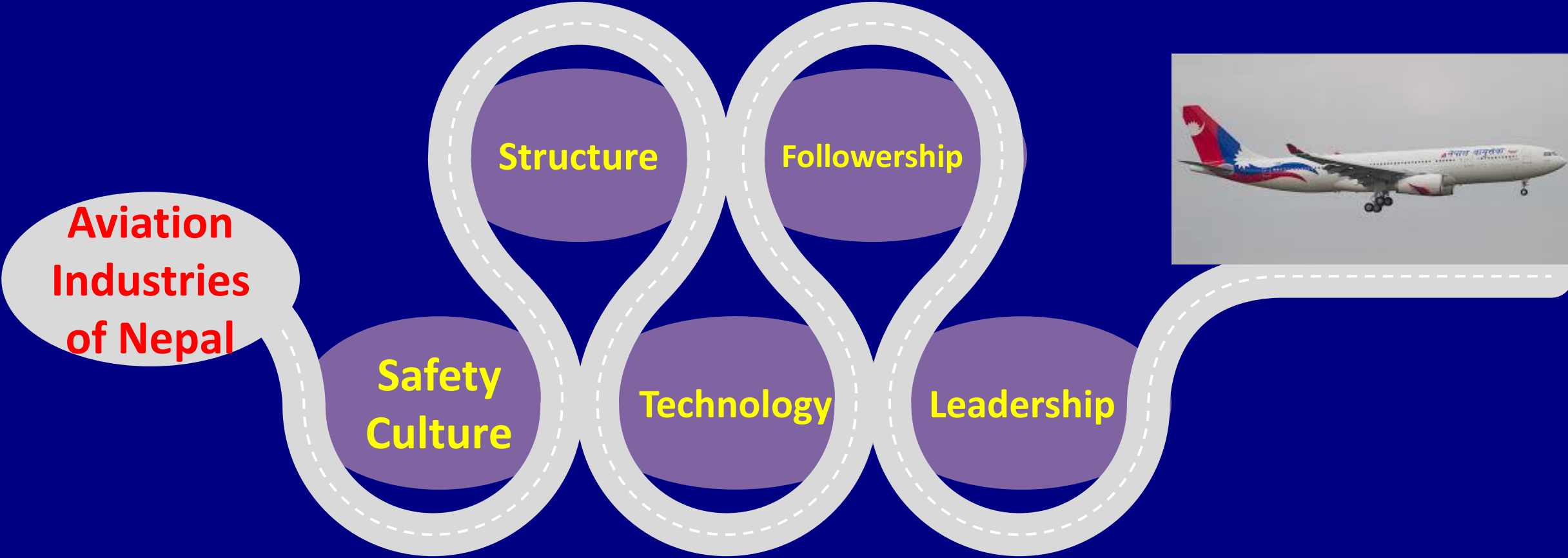


**Followership**



**Leadership**

# Future Roadmap of Nepalese Aviation Industries



# Successful Mission !



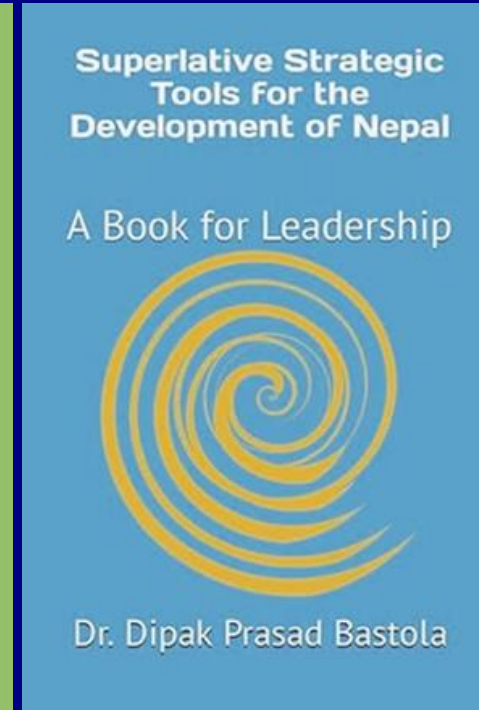
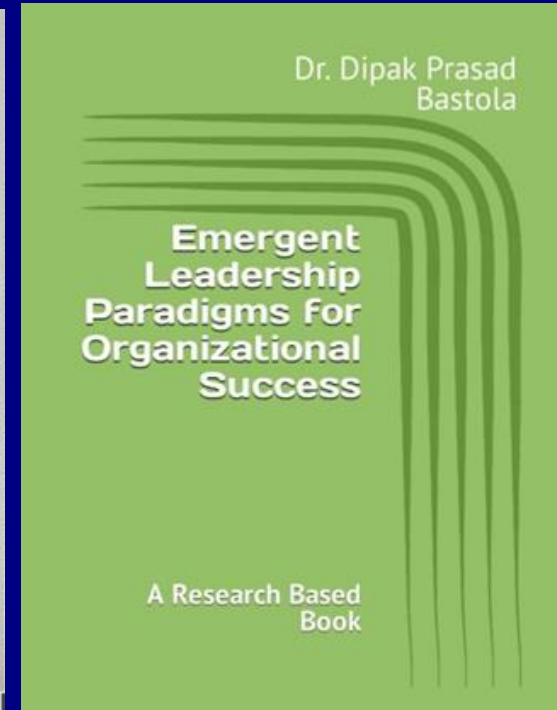
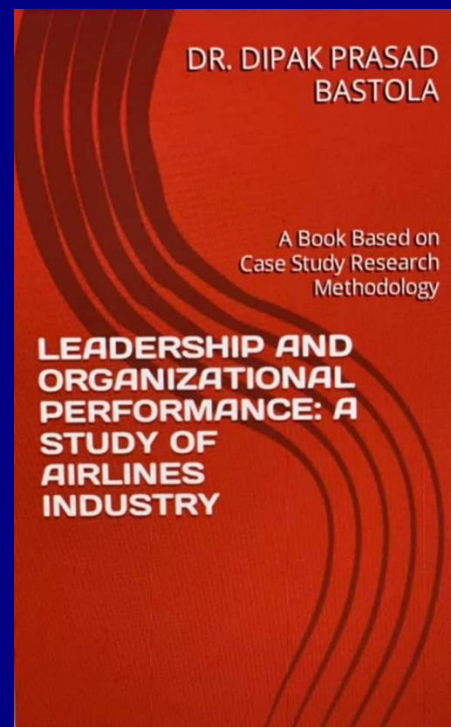
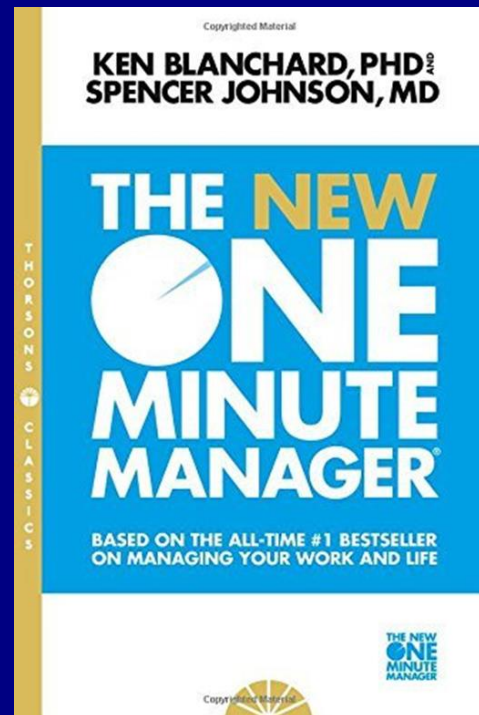
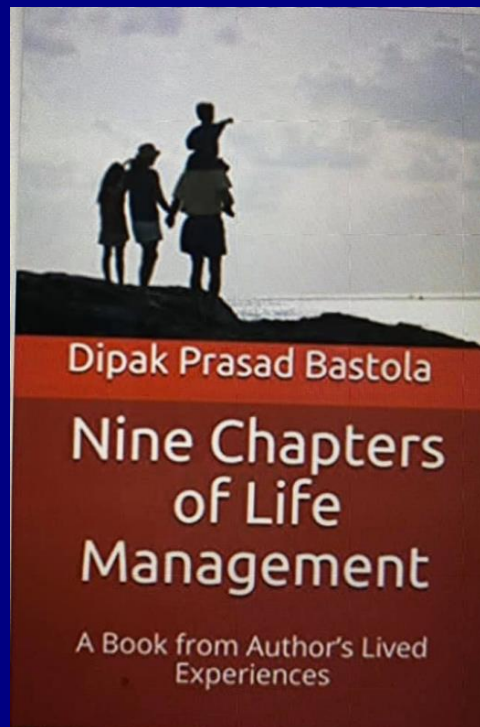
## Final Take Way.....

- *In a nutshell, proper leadership along with political stability in our country can open doors to the aviation growth in Nepal, which in turn will not only improve our economy but also will improve the quality of life of people residing in our country.*

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# Reference and further reading.....



# QUESTION AND ANSWER SESSION

# Feedback

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