

**Integrated Disaster Risk management and Critical Infrastructure**

**Technical paper on Aviation Accidents  
with special focus of Flood risk  
mitigation at Airports**

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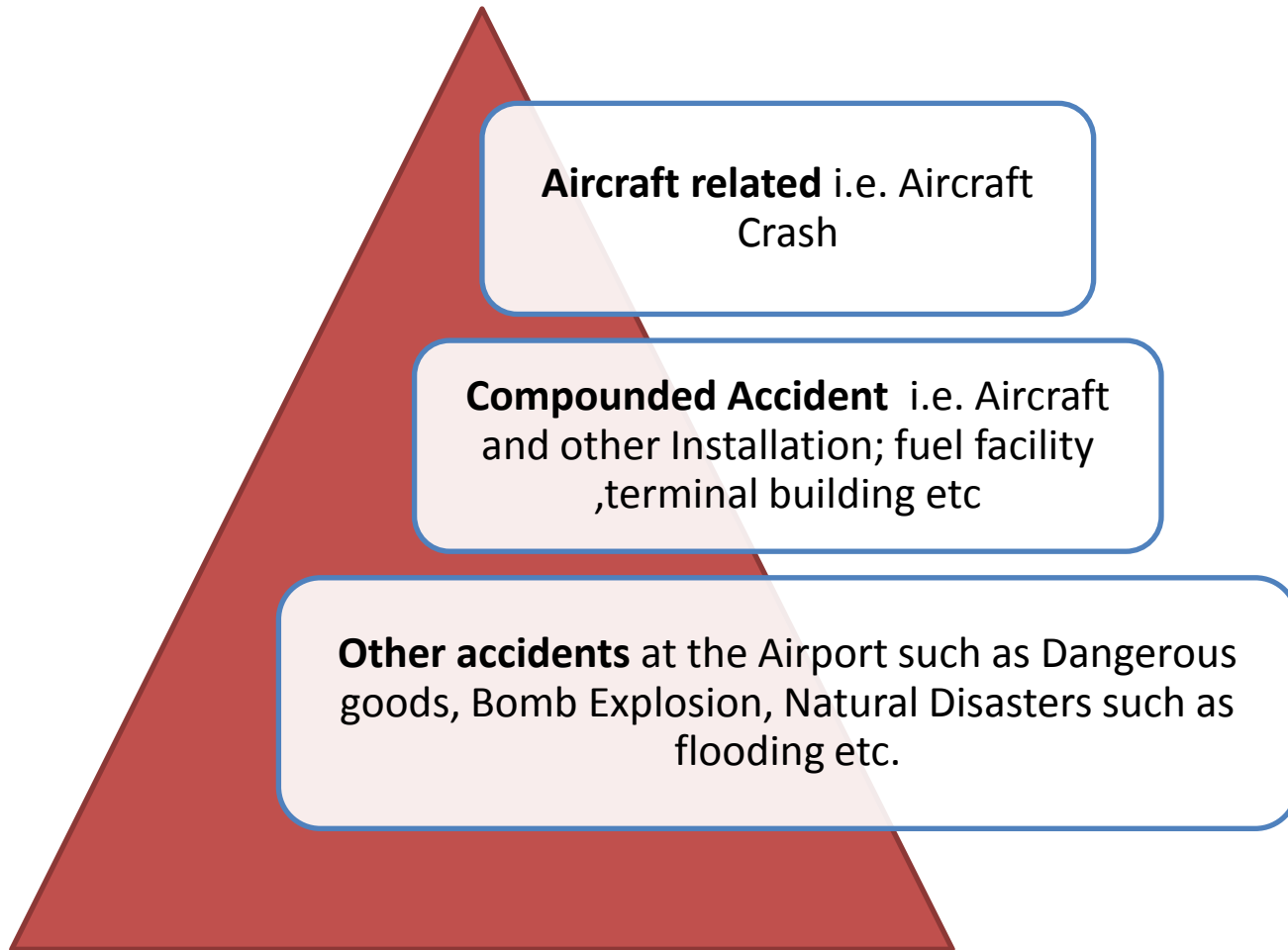
# Criticality of Airport Infrastructure

- The CSI Airport being gateway to Mumbai which is financial capital of India assumes a significant role in the national economy. The CSIA daily traffic is around **650 movements** daily, which will increase to 750 flights after the completion of Airport Redevelopment work. The CSIA catered to **25.6 million passengers and 551,189 tons of cargo** between April 2009 – March 2010. Upon the completion of the integrated terminal in year 2012, CSIA will have a capacity of handling **40 million passengers per annum and one million tons of cargo**. Around **52 airlines** visit Mumbai Airport. The rate of growth in passenger traffic for next 5 years is projected to be at 15 % and cargo handling is about 20 %. Hence disruption of Airport operation will have a severe impact on Nation as well as world economy .

# 26 July 2005 flooding

- The Accident at the airport will not only have an impact on the airport, but also on the **social and economical impact on the life of Mumbai.**
- **Closed for 30 hours leading to cancellation of around 700 flights** having adverse impact on passenger and cargo movement.

# Type of Accidents/Disaster



# Integrated Disaster Risk Management: Flood Mitigation Measures at Airport Mitigation Measures

Widening and  
construction of new  
Drains


Silt Removal Work


Cleaning of Drains


Precautionary  
measures for  
protecting critical  
Areas from flooding

Special precaution  
during Monsoon  
Season

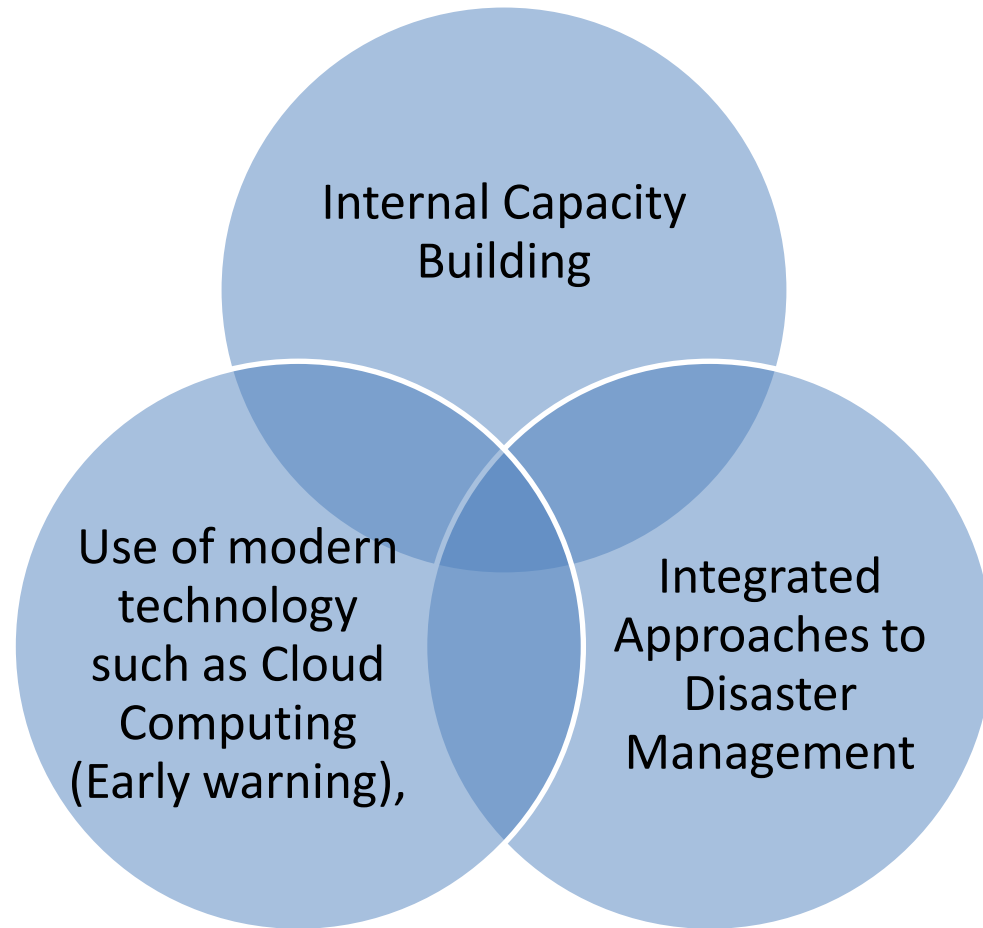
# Preparedness: Monsoon Contingency Plan

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- Pre Monsoon Meeting
  - Updating of plan

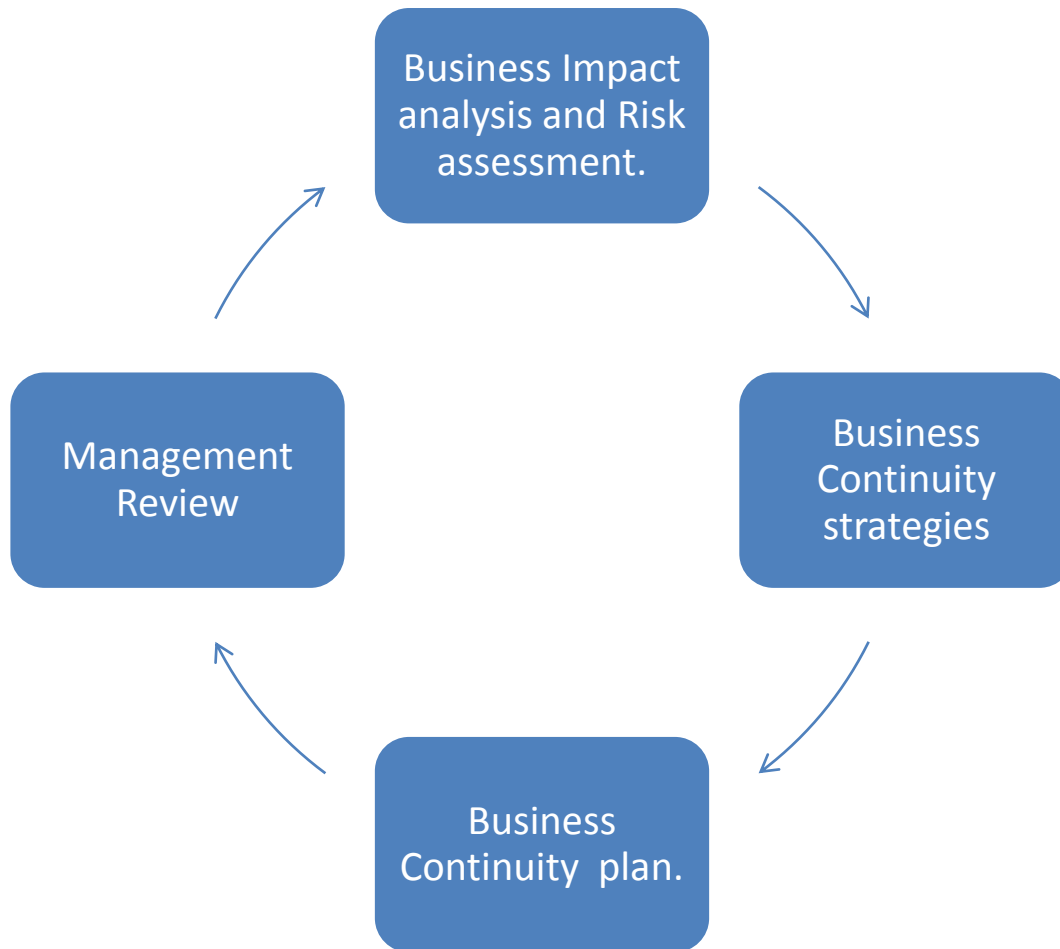
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- Training of Manpower (Emergency Services, Civil Defence)
  - Procurement of equipments and Materials e.g. Food Stock, Fuels, Medicines, tarpaulins etc.

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- Roster of senior managements Team for the Night Duty: Inspection and Audit.
  - Business Continuity plan: Alternate Strategy
  - Review Meeting post Monsoon.

# Response



# Recovery: Business Continuity Management





# Integrated Disaster Risk management

Implementation of Safety Management System, which is an effective accident prevention and mitigation strategy.: Accidents Organizational in nature

**Comprehensive mitigation, preparedness, response and recovery strategy**

Wider Focus beyond **aircraft crash**

Developing a **support structure**: optimum utilization of support available from external stakeholders such as City Administration, NDRF etc.

# IDRiM and the Interagency Coordination :

- The Interagency Coordination Committee should form its **rules, regulations and operating procedure**
- The DM **awareness, training and knowledge up-gradation** organization.
- The Inter Agency and Intra Agency **Audit** should be carried out for DM Plan Implementation and proper monitoring of DM system.
- All internal airport agencies should contribute some minimum **fund** to facilitate the implementation of DM Plan.
- This Interagency Coordination Committee should give **professional guidance** to all stakeholders for developing the DM plan.
- The **regulatory bodies** such as Civil Aviation Authority should play a role of facilitator and guide.

Arigato!

Thank You!