

# **Planning & development, Indira Gandhi Airport**

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# **BACK GROUND**

# **THEORY OF PLANNING**

# **BASIC ELEMENTS :**

## **1. Human**

**(passengers,airport staff,visitors, & others);**

## **2. Society**

**(safety,security,recreation,shelter etc.);**

## **3. Structure (offices,commercial areas etc.)**

## **4. Net works**

**(water,sewerage,drainage,power,SWM,signaling ,etc.)**

## **5. Nature (unpolluted environment);**

## **6. Operation Areas (Hangers, repair shops etc.)**

- **SYSTEM OF PLANNING**

- **Macro (Long Term),**
- **Meso (Medium Term)**
- **Micro (Short Term) Level**
- **Various land uses like - circulation , P&SP use, & operating areas.**
- **Vision - 50 years.**
- **COMPREHENSIVE PAPER PLANNING**
- **On the TOP of it, Coordination, Integration, Evaluation& Monitoring.**

# **DESCRIPTION OF EARLIER PLANS**

**MASTER PLAN - 20 SQ.KM.**

**ZIG-ZAG LINE IN NORTH WITH EXISTING RUN WAY;**

**NH-8 IN THE EAST WITH MAHIPALPUR & RANGPURI**

**VILLAGES WITHIN 1/2 KM. FROM PERIPHERY.**

**MEHRAMPUR & A PROPOSED ROAD IN THE SOUTH**

**RAIL LINE IN WEST EXC. SHAHABAD**

**MUHAMMADPUR.**

# **EXISTING VILLAGE ABADIES WERE THERE.**

- (I) VILLAGE RANGPURI, MAHIPALPUR, & MEHRAM NAGAR ON THE PERIPHERY.**
- (II) (A) VILLAGE NANGAL DEWAT, (B) UNIVERSAL POULTRY FARM,(C) SOME FACTORIES, (D) NAI BASTI, (E) SOHAL SARAI, (F) PUNJAB POULTRY, (G) SOME OTHER INDUSTRIES WERE THERE. SOME INDUSTRIES / STRUCTURES HAVE ALREADY BEEN SHIFTED.**

# **COMPONENTS OF PROPOSED PLAN:**

- I. NEW AIRPORT TERMINAL BUILDING**
- II. PARKING AREAS**
- III. EXISTING & PROPOSED RUN WAYS**
- IV. PLOTS FOR OPERATIONAL BUILDINGS, AIR NAVIGATION, AIR TRAFFIC CONTROL ETC.**
- V. PLOT FOR OPERATIONAL BUILDING, HOTELS, FLIGHT-CATERING ETC.**

**VI. PLOTS FOR OPERATIONAL BUILDING,  
ADMINISTRATION & OTHER OFFICES.**

**VII. STAFF HOUSING**

**VIII. FLY OVERS & CLOVER LEAFS, UNDER-  
BRIDGES & OVER BRIDGES.**



# GOALS

**TO MAKE THE ENTIRE COMPLEX**

**(I) ECONOMICAL,**

**(II) EFFICIENT,**

**(III) ABLE TO FACE EMERGENT SITUATIONS**

**(IV) AESTHETICAL SOUND & COMPARABLE**

**WITH OTHER GOOD PORTS.**

**(V) UNIQUE IN THE COUNTRY.**

# OBJECTIVES

- 1 BOOST TO INTERNATIONAL TRADE & TOURISM.**
- 2 CAPACITY AHEAD OF DEMAND.**
- 3 TO MAKE IT USER FRIENDLY AND HIGHER LEVEL OF CUSTOMER SATISFACTION.**
- 4 TO ENSURE TOTAL SAFETY & SECURITY.**
- 5 TO PROVIDE MULTI MODAL LINKAGES.**

- 6 MARKET ORIENTATION TO PROVIDE CAPITAL & MANAGEMENT SKILLS.**
- 7 AIRPORT INFRASTRUCTURE (PHYSICAL, SOCIAL, ECONOMIC & ECOLOGICAL).**
- 8 SUSTAINABLE DEVELOPMENT BY COMMERCIAL ACTIVITIES, TOURIST FACILITIES FOR BOTH.**
- 9 PUBLIC & PRIVATE FUNDS AND AS WELL AS JOINT VENTURE.**

# STEPS TO BE TAKEN

- **Economically viable - in 1 decade.**
- **50% cost of the P,D,C,M & M of from the resources to be generated from the Project from:- Commercial use, shops, entry tickets, & receipts from other uses.**

- **Comprehensive Paper Planning.**
- **Implement in phases so that existing functions / systems are not disturbed.**
- **Revolving fund of sizeable amount.**
- **With the help of joint venture the entire system of P,D,C,M & M ;**
- **Compensation from the project.**

**Adequate physical spaces.**

**Integrate with MRTS.**

**To use built up spaces for commercial purposes to generate adequate surpluses.**

**Management & maintenance of the complex to partly Private Sector.**

**Segregation of different types of traffic.**

- **Land acquisition act may be modified**
- **a. Section 4, 6 & 17 together.**
- **b. Due publicity, so that there is less encroachment**
- **c. Compensation to be adjusted in the price / cost of alternate plot / property.**
- **d. Stay orders only in genuine cases.**
- **e. Take care of owner & tenant**

# PRINCIPLES OF PLANNING

- **Components to be taken care of to get optimum use:**
  - **i) Time & Vision**
  - **ii) Volume**
  - **iii) Economy**
  - **iv) Sanitation**
  - **v) Signages**
  - **vi) Circulation**



- vii) Parking**
- viii) Efficiency**
- ix) Emergency**
- x) Facilities**
- xi) Passengers**
- xii) Air Port Spaces**
- xiii) Land use control within the entire  
Air Port**

# **ORGANISATIONAL SET UP**

- I. DIRECTORATE OF REGULATIONS & INFORMATION**
- II. DIRECTORATE OF AIR TRANSPORT**
- III. DIRECTORATE OF AIRWORTHINESS**
- IV. DIRECTORATE OF AIRWORTHINESS (TRAINING)**
- V. DIRECTORATE OF AIRWORTHINESS (EXAMINATION)**
- VI. DIRECTORATE OF SAFETY.**

- VII. DIRECTORATE OF TRAINING AND LICENSING**
- VIII. DIRECTORATE OF AERODROME STANDARDS**
- IX. DIRECTORATE OF FLYING TRAINING**
- X. DIRECTORATE OF FLIGHT INSPECTION**
- XI. DIRECTORATE OF RESEARCH & DEV.**
- XII. DIRECTORATE OF ADMINISTRATION**

# **FUNCTIONS**

- I. REGULATION OF AIR TRANSPORT SERVICES;**
- II. REGISTRATION OF CIVIL AIRCRAFT;**
- III. STANDARDS OF AIRWORTHINESS AND GRANT OF CERTIFICATE;**
- IV. LICENSING OF PILOTS, AIRCRAFT MAINTENANCE ENGINEERS AND FLIGHT ENGINEERS;**
- V. LICENSING OF AERODROMES;**
- VI. INVESTIGATION INTO AIR ACCIDENTS AND INCIDENTS;**

- VII. IMPLEMENTATION OF BILATERAL AIR SERVICES AGREEMENTS WITH FOREIGN COUNTRIES;**
- VIII. RENDERING ADVICE ON MATTERS RELATING TO AIR TRANSPORT;**
- IX. PROCESSING OF AVIATION LEGISLATION;**
- X. SUPERVISION OF TRAINING ACTIVITIES OF THE FLYING/GLIDING CLUBS IN INDIA;**
- XI. DEVELOPMENT OF LIGHT AIRCRAFT, GLIDERS AND WINCHES; AND**
- XII. TYPE CERTIFICATE OF AIRCRAFT.**

# TERMS OF REFERENCES

# **EXISTING STATUS OF INFRASTRUCTURE**

## **1.1 Physical Infrastructure**

- (i) Water (potable & ground);**
- (ii) Sewerage, SWD, SWM.**
- (iii) Protection of floods;**
- (iv) Power (generation, transmission & distribution.**
- (v) Telecommunication;**

# 1.2 Circulation Infrastructure

- **Circulation outside the complex.**
- **Circulation inside the complex.**
- **Circulation within the Terminal building.**
- **Parking of different modes of vehicles may be at one or more levels.**
- **Circulation via roads , rails and Urban rails.**



# 1.3 Social Infrastructure

## I) Security with relation to

- a. Fire
- b. Un social elements
- c. Police

## ii) Recreation

- a. Air Port employees
- b. Passengers

## iii) Shelter (Short Term & Long Term)

## iv) Aesthetics

## **1.4 Ecological Infrastructure:**

**To control and stop -**

- a. Water pollution**
- b. Air pollution**
- c. Noise pollution**

## **1.5 Economic Infrastructure:**

**Entry tickets, shopping centres, comm. offices,  
signage and usable spaces =**

**50% surpluses for the complex.**

# **1.6 Street Furniture**

- i. Signage.**
- ii. Plants and Tree plantation.**
- iii. Landscape features.**
- iv. Lights of different intensities.**
- v. Tele communication System.**
- vi. Location maps.**

## **2. COMPILATION & PRESENTATION OF THE ENTIRE DATA**

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## **3. NORMS & STANDARDS FOR 6 TYPES OF INFRASTRUCTURES**

## **4. PHYSICAL SURVEYS**

- i. Not only of the entire complex but also of the adjoining areas in a scale of 1:5000.**
- ii. Air Port & surrounding properties in a scale of 1:2000.**
- iii. Air Port in a scale of 1:1000.**

**5. High power committee - once in a month to examine physical & financial plans & for co-ordination, integration, evaluation & monitoring .**

**6. Formulation of problems/ issues and tentative solutions of the proposals after discussion with air port authority officers.**

## **7. SITE PLANNING**

**It would have site planning, landscape planning & planning of physical, social, economic & ecological infrastructure at Macro & Meso level.**

## **8. MICRO LEVEL PLANNING:**

**Architecture Planning**

**Structure planning**

**Preliminary estimates**

**Landscape planning**