



**drishti**

## Drishti IAS Coaching in Delhi, Online IAS Test Series & Study Material

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### General Studies-III

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(Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management)

- Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.
- Inclusive Growth and issues arising from it.
- Government Budgeting.
- Major Crops - Cropping Patterns in various parts of the country, - Different Types of Irrigation and Irrigation Systems; Storage, Transport and Marketing of Agricultural Produce and Issues and Related Constraints; E-technology in the aid of farmers.
- Issues related to Direct and Indirect Farm Subsidies and Minimum Support Prices; Public Distribution System - Objectives, Functioning, Limitations, Revamping; Issues of Buffer Stocks and Food Security; Technology Missions; Economics of Animal-Rearing.
- Food Processing and Related Industries in India- Scope' and Significance, Location, Upstream and Downstream Requirements, Supply Chain Management.
- Land Reforms in India.
- Effects of Liberalization on the Economy, Changes in Industrial Policy and their Effects on Industrial Growth.
- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.
- Investment Models.
- Science and Technology- Developments and their Applications and Effects in Everyday Life.
- Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.

- Awareness in the fields of IT, Space, Computers, Robotics, Nano-technology, Bio-technology and issues relating to Intellectual Property Rights.
  - Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.
  - Disaster and Disaster Management.
  - Linkages between Development and Spread of Extremism.
  - Role of External State and Non-state Actors in creating challenges to Internal Security.
  - Challenges to Internal Security through Communication Networks, Role of Media and Social Networking Sites in Internal Security Challenges, Basics of Cyber Security; Money-Laundering and its prevention.
  - Security Challenges and their Management in Border Areas - Linkages of Organized Crime with Terrorism.
  - Various Security Forces and Agencies and their Mandate.
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## ECONOMIC DEVELOPMENT

### **Indian Economy & Issues Relating to Planning, Mobilization of Resources, Growth, Development & Employment**

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## Planning

- Meaning of Planning
- Need for Planning in Economic Development
- Imperative Vs. Indicative Vs. Structural Planning
- Objectives of Planning
- Indian Planning History
- Techniques of Indian Planning
- Achievements & Failures of Indian Planning
- Shortcomings of Planning in India
- NITI Aayog Vs. Planning Commission

## Mobilisation of Resources

- Types of Resources – Financial, Human, Natural etc.
- Need for Resource Mobilisation
- Role of Savings & Investment
- Government Resources – Tax & Non-Tax ( or Fiscal & Monetary Policy)
- Banking Sector & NBFCs
- Capital Market
- External Sources – FDI, ODA etc.
- Public Borrowing & Management of Public Debt
- Challenges in Mobilising Resources for Development
- Steps That Can Be Taken

## Growth & Development

- Meaning of Development & Growth
- Difference between Development & Growth

- Determinants of Growth & Development
- Importance & Limitations of Economic Growth
- Jobless Growth
- Pro-Poor Growth
- Balanced & Unbalanced Growth
- Dimensions of Development
- Measurement & Indicators of Development
- Approaches to Development:
  - Market-Based Approach
  - Role of State and Planned Approach
  - Mixed Economy Approach
- Challenges to Development & Growth

## Employment

- Nature – Rural vs. Urban, Formal Vs. Informal
- Terms Related to Employment – Labour Force Participation Rate, Employment Rate, Working Age Population etc.
- Sectoral Distribution of Employment
- Quality of Employment
- Causes of Lack of Employment
- Restructuring of Workforce
- Government Initiatives for Generating Employment

## Inclusive Growth & Issues Arising From It

- What is Inclusive Growth?
- Elements of Inclusive Growth
- Need for Inclusive Growth

- Indicators of Inclusive Growth
- Challenges in Achieving Inclusive Growth in India
- 12<sup>th</sup> FYP & Inclusive Growth

## **Government Budgeting**

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### **Need for Government Budgeting**

- Fiscal Deficit
- Primary Deficit

### **Components of the Government Budget**

- Revenue Account – Revenue Receipts & Revenue Expenditure
- Capital Account – Capital Receipts & Capital Expenditure

### **Changes in Budgetary Process in 2017**

#### **Fiscal Policy**

#### **Deficit Reduction**

#### **FRBM Act**

#### **Other Types of Budgets – Outcome, Zero-Based, etc.**

### **Measures of Government Deficit**

Revenue Deficit

## **Land Reforms in India**

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- Rationale for Land Reforms
- Components of Land Reforms
- Impact of Land Reforms
- Problems in Implementaion of Land Reforms
- Success of Land Reforms
- Recent Initiatives - Land Leasing, Land Acquisition, Rehabilitation & Resettlement Act, etc.

## **Effects of Liberalization on the Economy**

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Phase of Liberalisation

Impact on Different Sectors of the Economy

## **Changes In Industrial Policy & their Effects on Industrial Growth**

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- Industrial Policy Before 1991
  - Industrial Policy After 1991
  - Phases of Industrial Growth
  - Linkage Between Economic Reforms and Economic Outcomes
- Weaknesses and Failures of Industrial Policies
  - National Manufacturing Policy
  - SEZs
  - Make in India

## Infrastructure

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- Energy
  - Ports
  - Roads
- Airports
  - Railways

## Investment Models

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### Need for Investment

### Sources of Investment

### Types of Investment Models

- Domestic Investment Models
- Public Investment Model
  - Private Investment Model
  - Public Private Participation Investment Model

- Foreign Investment Models:
  - FDI
  - FII, etc.
- Sector Specific Investment Models
- Cluster Based Investment Models

### Investment Models Followed by India

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## AGRICULTURE

### Major Crops Cropping Patterns in Various Parts of the Country

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- Importance of Cropping Pattern
- Types of Cropping Pattern
- Reasons Why Cropping Pattern Differ

- Factors Influencing Cropping Pattern
- Emerging Trends in Cropping Pattern
- Long-Run Effects of Current Trends in Cropping Pattern

## **Different Types of Irrigation & Irrigation Systems Storage**

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- Modes of Irrigation
- Sources of Irrigation
- Choosing an Irrigation System
- Problems Associated with Irrigation
- Progress of Irrigation Under Five Year Plans
- Environmental Effects of Irrigation
- Need for Systemic Irrigation Reforms
- Need for a National Water Policy

## **Transport & Marketing of Agricultural Produce & Issues & Related Constraints**

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- Process of Agricultural Marketing - Marketing Channels, Functionaries, Costs, etc.
- Role of FCI
- Regulated Markets
- Warehousing
- Cooperative Marketing
- Shortcomings of Current Agricultural Marketing Process
- APMCs
- National Agricultural Market (NAM)
- Farmer Producer Organisations (FPO)
- Contract Farming
- Futures Trading in Agricultural Commodities

## **E-Technology in the Aid of Farmers, Technology Missions**

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## **Issues Related to Direct & Indirect Farm Subsidies & Minimum Support Prices**

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- Agricultural Pricing Policy
- Rationale for Subsidies
- Types of Subsidies
- Effectiveness, Extent & Problems of Subsidies
- Clash with WTO Agreements

## **Public Distribution System Objectives, Functioning, Limitations, Revamping**

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- Objectives/Significance
  - Functioning - Fair Price Shops, FCI, Ration Cards, Aadhar Linking, etc.
  - Shortcomings or Problems Associated with PDS
  - Need to Improve the Working of PDS
  - Measures to Improve the Loopholes & Lacunaes Associated with PDS
  - Steps Taken by Governement in this Regard

## **Issues of Buffer Stocks & Food Security**

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- Buffer Stock – Objectives & Norms in India
- Impact of Government Procurement & Distribution
- Need for Food Security
- NFSM And othe Food Security Realted Government Initiatives

## **Economics of Animal-Rearing**

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## **Food Processing & Related Industries in India**

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- Scope & Potential in India
- Significance
- Location
- Constraints and Challenges
- Upstream & Downstream Requirements
- Supply Chain Management
- Government Policies and Initiatives – SAMPADA, 12th FYP, etc.

## **SCIENCE & TECHNOLOGY**

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## **Developments & their Applications & Effects in Everyday Life**

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## **Chemicals in Food**

- Artificial Sweetening Agents
- Food Preservatives

Anti-Fertility Drugs,  
etc.

## **Drugs**

- Antacid
- Antihistamines
- Neurologically Active Drugs
  - Tranquilizers
  - Analgesics
- Antimicrobials
  - Antibiotics
  - Antiseptic and Disinfectant

## **Cleansing Agents**

- Soaps
- Synthetic detergents

## **Glass**

## **Water Softener**

## **Water Purification/Disinfection**

## **Microwave Oven, etc.**

## **Achievements of Indians in Science & Technology**

- Chandrasekhara Venkata Raman
- Acharya Jagadish Chandra Bose
- Satyendra Nath Bose
- Meghnad Saha
- Homi Jehangir Bhabha
- Subrahmanyan Chandrasekhar

- A.P.J. Abdul Kalam
- Vikram Sarabhai
- Mokshagundam Visvesvaraya
- Har Gobind Khorana
- Tessy Thomas
- C.N.R. Rao

## **Indigenization of Technology & Developing New Technology**

- IT & Computers
- Space
- Nanotechnology
- Biotechnology
- Robotics
- Defence
- Nuclear

## **Awareness in Different Fields**

- IT & Computers
- Space
- Nanotechnology
- Biotechnology
- Robotics
- Defence
- Nuclear

## **Issues Relating to Intellectual Property Rights**

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- Need for Intellectual Property Rights
  - Types of IPR
  - IPR Regime in India
  - International Agreements Related to IPRs
  - Geographical Indicators
  - Recent Issues - Evergreening, Compulsory Licensing, Prominent Cases etc.
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## **BIODIVERSITY & ENVIRONMENT**

### **Conservation**

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#### **What is Biodiversity?**

**Types of Biodiversity – Genetic, Species, Ecosystem, etc.**

**Importance of Biodiversity – Ecosystem Services, Bio Resources of Economic Importance, Social Benefits etc.**

#### **Reasons for Loss of Biodiversity**

### **Conservation**

- In-situ & Ex-Situ
- Eco-Sensitive Areas
- Ecological Hotspots
- National Guidelines, Legislations & Other Programmes.
- International Agreements & Groupings

### **Environmental Pollution & Degradation**

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## **Types of Pollution & Pollutants**

## **Impact of Pollution & Degradation**

- Ozone Layer Depletion and Ozone Hole
- Greenhouse Gas Effect & Global Warming
- Eutrophication
- Desertification
- Acid Rain
- Hazardous Waste, etc.

## **Causes/Sources of Pollution & Degradation**

## **Prevention & Control of Pollution & Degradation**

## **National Environment Agencies, Legislations and Policies**

## **International Environment Agencies & Agreements**

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## **Environmental Impact Assessment (EIA)**

- What is EIA?
- Indian Guidelines & Legislations
- EIA Process
- Need & Benefits of EIA
- Shortcomings of EIA in India
- Measures to Make EIA Effective

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## **Disaster Management**

- Types of Disasters
- Management of Disasters
- Community Level Disaster Management
- Government Initiatives on Disaster Management

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## **SECURITY**

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## **Linkages Between Development & Spread of Extremism**

- Factors Responsible for Spread of Extremism
- Steps that State can Take to Reduce the Spread of Extremism due to Underdevelopment
- Naxalism

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## **Role of External State & Non-State Actors in Creating Challenges to Internal Security**

## **Threats from Non-State Actors**

- J&K Separatism
- Left Wing Extremism
- North East Insurgency
- Terrorism in Hinterland & Border Areas
- Right Wing Terrorism

## **Reasons for Spread of Terrorism**

### **State Sponsored Terrorism**

## **Institutional Framework to Tackle Challenge of Internal Security**

- NIA
- NATGRID
- MAC
- UAPA
- TADA
- POTA
- NCTC

## **Challenges to Internal Security Through Communication Networks**

- Role of Media & Social Networking Sites in Internal Security Challenges
- Challenges in Managing Social Media

Steps That can be Taken

## **Basics of Cyber Security**

- Cyber Security
- Threats to Indian Cyber Security
- Steps taken by India
- International Cooperation on Cyber Security
- Cyber Warfare
- Terms Associated with Cyber Security

## **Money-Laundering & its Prevention**

- Process of Money Laundering
- Impact of Money Laundering
- Challenges to Tackle Money Laundering

- Steps to Counter Money Laundering
- Terms Related To Money Laundering

## **Security Challenges & their Management in Border Areas**

- Challenges in Managing Border Security – Coastal & Terrestrial
- Land Boundary Disputes with Neighbours

India's Policy in Border Area Security Management

## **Linkages of Organized Crime with Terrorism**

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- Types of Organised Crime
- Challenges in Controlling Organised Crime

Indian Context – Link between Organised Crime & Terrorism

## **Various Security Forces & Agencies & Their Mandate**

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- Central Armed Police Forces
- Central Paramilitary Forces

Security & Intelligence Agencies – IB, R&WA, etc.