

# OUTLINE

- Academic institutions involvement
- Organizational set up of Forensic Science Laboratories in India
- Hierarchical set up of Central Forensic Science Laboratories
- State Forensic Science Laboratories
- Government Examiners of Questioned Documents
- Fingerprint Bureaus, National Crime Records Bureau
- Police & Detective Training Schools
- NIA, CCTNS, Bureau of Police Research & Development
- Directorate of Forensic Science and Mobile Crime Laboratories
- Police Academies
- National investigation agency and other agencies involved in the criminal investigations- agencies referred for the additional information and requisite examinations .

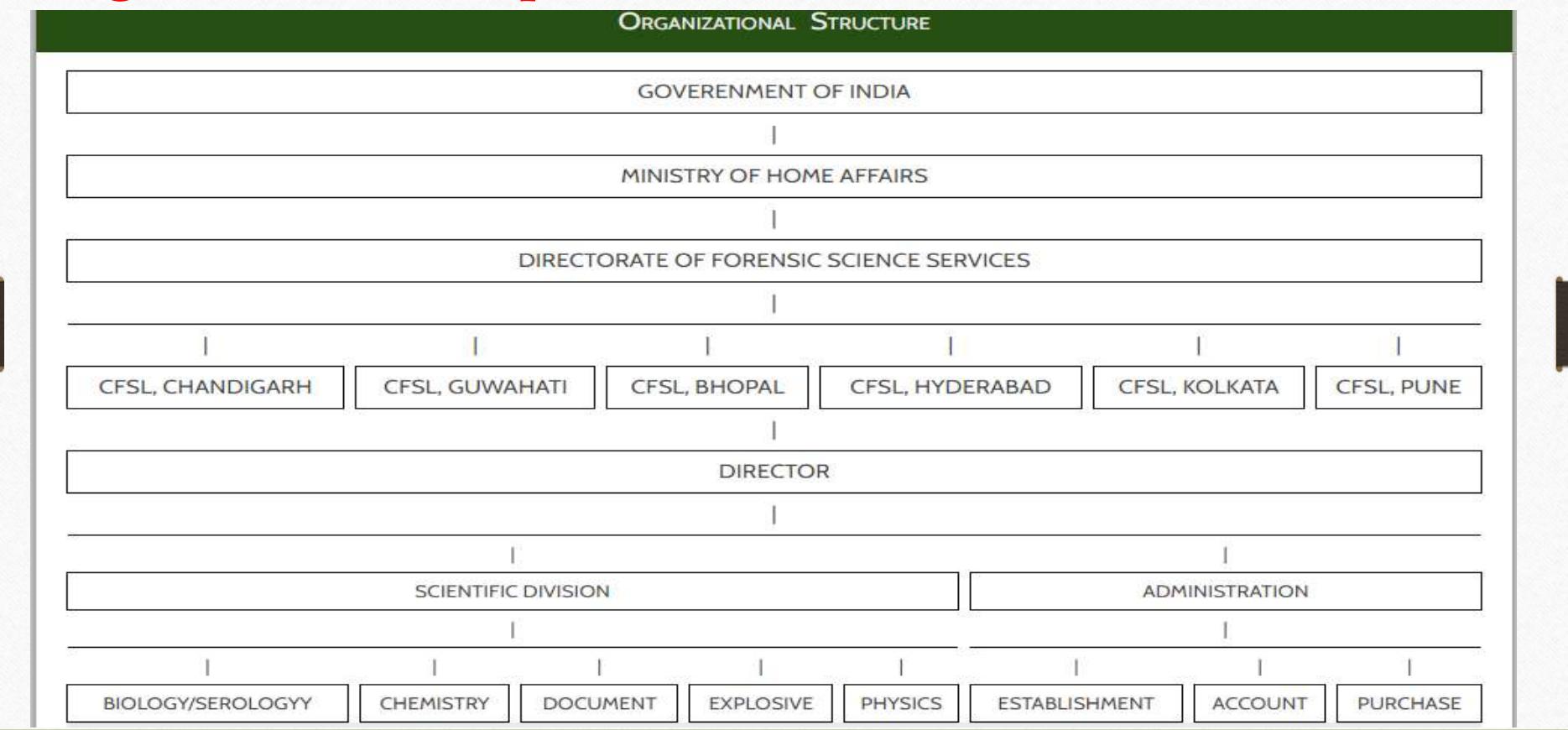
## **Academic Institutions Involvement**

- 1.National Forensic Sciences University, Gandhi Nagar
- 2.IFS Indian Education Department, Pune
- 3.Lady Hardinge Medical College, New Delhi
- 4.All India Institute of Medical Sciences, New Delhi
- 5.Institute of Forensic Sciences, Mumbai
- 6.Lok Nayak Jayaprakash National Institute of Criminology & Forensic Sciences (LNJN), New Delhi

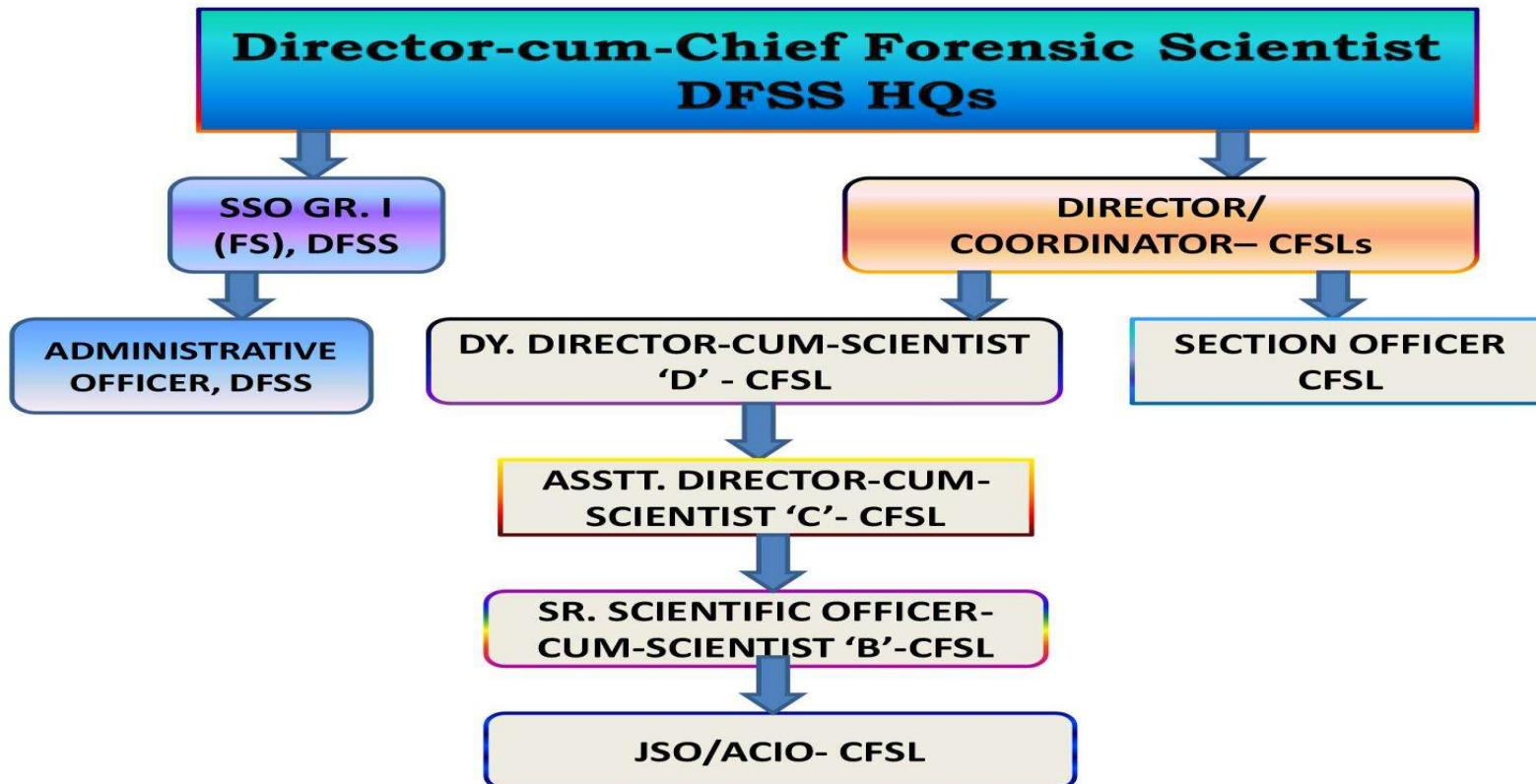
## Courses Offered

Title	Description
Types of Courses	BSc in Forensic Science, Masters in Forensic Science, MSc in Forensic Science
Admission	Merit-Based / Entrance Based
Top Recruiters	CBI, Forensic Laboratories, Income Tax Department, Intelligence Bureaus
Top Job Profiles	Forensic Scientist, Investigative Officer, Forensic Accountant, Cyber Forensic Accountant, Cyber Forensic Expert, Law Expert

# Organizational set up of Forensic Science Laboratories in India

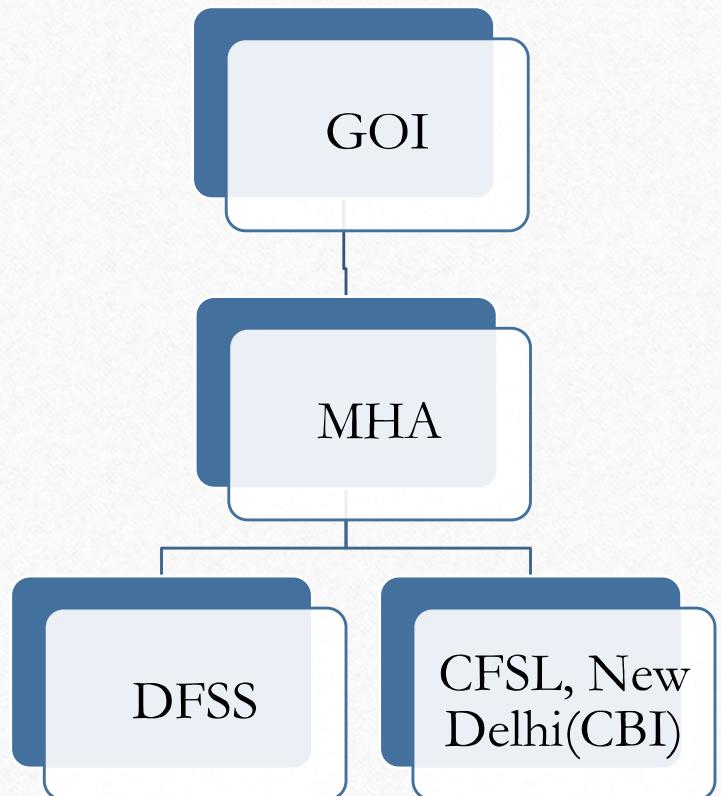


## **ORGANISATION CHART**



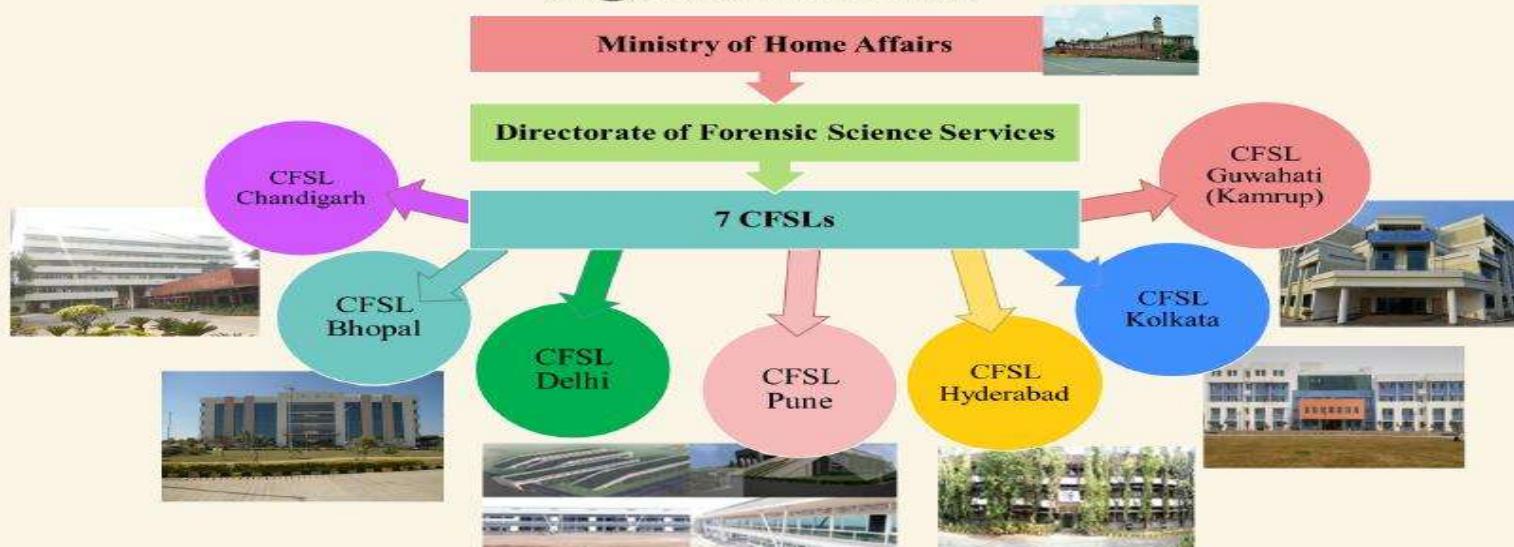
# DFSS

- The Directorate of Forensic Science services (DFSS) was created in the year 2002 by Ministry of Home Affairs, Govt. of India.
- It is headed by Director-cum-Chief Forensic Scientist.
- It has six Central Forensic Science Laboratories under its control located at Chandigarh, Kolkata, Hyderabad, Pune, Guwahati and Bhopal.



# Organization Chart

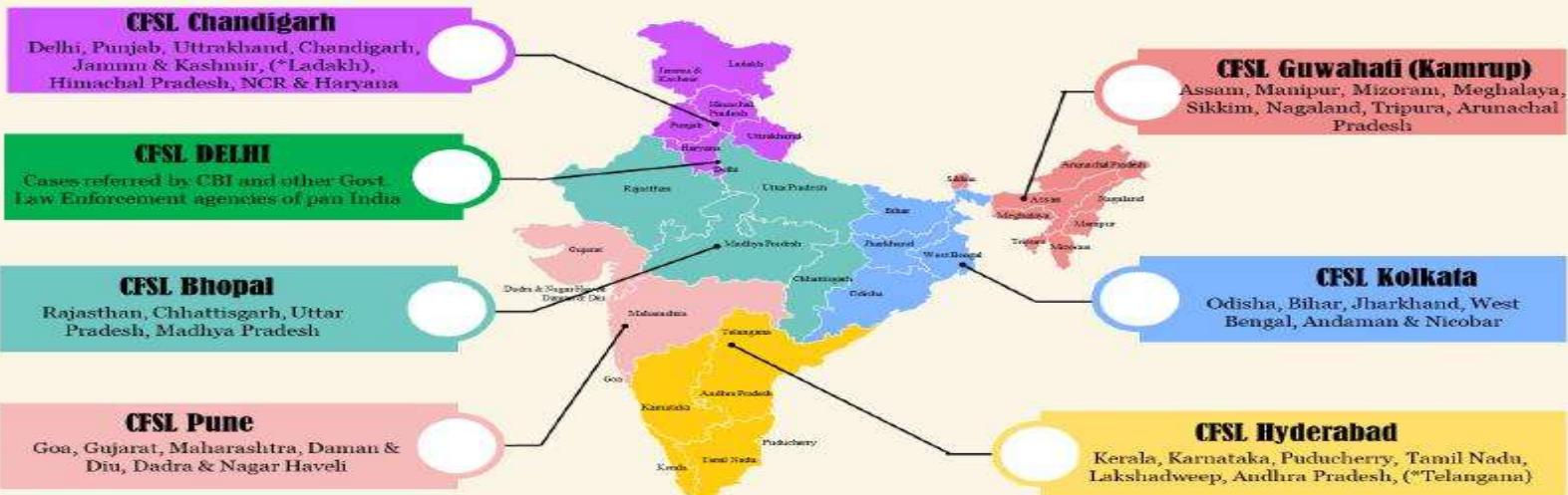
## Organization Chart



## Jurisdiction of CFSLs

# CFSL

## Jurisdiction of CFSLs

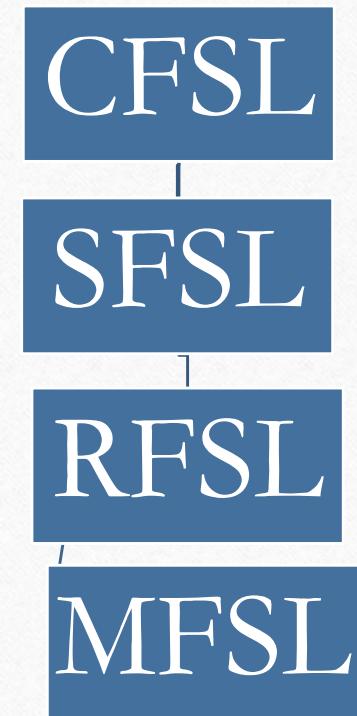


# **Historical Background**

- **DFSS Headquarter New Delhi established 2002**
- **About CFSLs under DFSS—**
- CFSL Kolkata established 1957
- CFSL Hyderabad established 1968
- CFSL Chandigarh established 1972
- CFSLs Bhopal, Pune & Guwahati established 2011
- CFSL, Delhi (brought under the Administrative control of DFSS from CBI)  
2022

# Forensic Lab Categories

1. Central FSL
2. State FSL
3. Regional FSL
4. MFSL



## Forensic Science Labs in India

- Central Forensic Science Laboratories - 07
- State FSLs - 32
- Regional FSLs - 106
- Mobile F.S. Units - 552
- **Total 697**

## Charter of Duties by DFSS

The Directorate of Forensic Science Services is responsible for performing following duties:

- 1) To provide high quality and on time Forensic Services to Criminal Justice Delivery System.
- 2) To develop new technologies and create new scientific knowledge.
- 3) To encourage Research & Development in various areas of forensic science .
- 4) To establish linkages with National and International Scientific, Forensic Institutions and Universities.
- 5) To promote Quality Assurance and Quality Control in Forensic Testing.

## Charter of Duties by DFSS

- 6) To disseminate and promote knowledge in the field of application of Science & Technology.
- 7) To formulate Plan and Policies to promote capacity building in Forensic Science in the country.
- 8) To develop National database on various forensic indices.
- 9) To promote excellence in Forensic Services & R&D by instituting awards & incentive programs.
- 10) To assist and advice the Central and State Governments in all Forensic Science matters.

## Government Examiners of Questioned Documents

- During the struggle independence, the government of west Bengal created this post(to identify the handwritings of secret documents, example-little of freedom fighters).
- It was letter shifted to Shimla under the control of criminal investigation department.
- Though established first in Shimla , another zonal institution in Calcutta was established.
- They examine the disputed or forged documents. Both central and state governments have these facilities in their respected lab.

# Government Examiners of Questioned Documents

- **Role of Forensic Questioned Document Examination**
- Questioned document examination is one of the essential branches of forensic science in which the handwriting experts discuss their findings regarding the authenticity or ownership of a questioned document.
- Various tools and techniques are used to study the different physical and chemical attributes of a written document. These can include handwriting, typewriting, rubber stamps, ink, pencil, paper, or printing processes, among several others.
- The primary goal of a questioned document examiner is to establish a link between a specific document and a particular writing instrument or process used to create that document.

# Government Examiners of Questioned Documents

Types of Questioned Documents that can Require Forensic Analysis

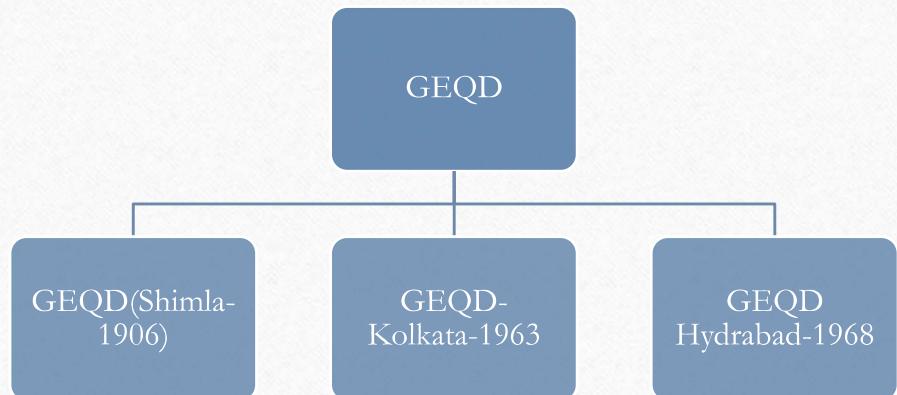
1. Bank Drafts
2. Cheques
3. Laminated Documents
4. Wills
5. Photocopied Documents
6. Agreements
7. Receipts
8. ID Cards
9. Passports

10. Currency notes
11. Stamp Papers
12. Typed letters
13. Licenses
14. Suicide notes

Sometimes forensic document examination is also carried out on documents **not bearing any physical mark.** These include burned and shredded documents and documents containing impressions when kept below other documents while writing.

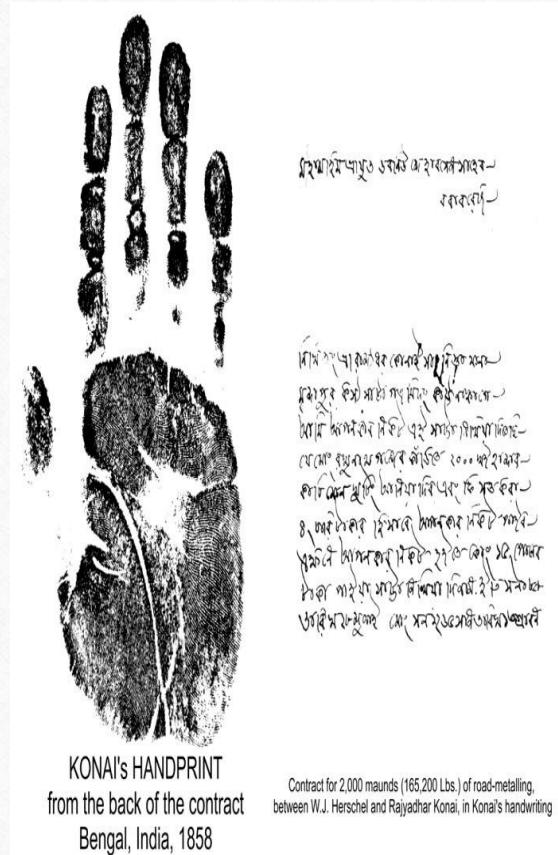
## History of GEQD, Kolkata

- The British Government of Bengal felt the necessity of identifying the handwritings on the secret documents connected with the Indian independence movement and, therefore, created the post of Government Handwriting Expert of Bengal. Mr. CR Hardless, was appointed to this post in 1904.
- This set-up was shifted to Shimla in the year 1906 and was placed under the control of the Director, CID.
- Currently , It is under the control of DFSS, MHA, GOI.



## Fingerprint Bureaus

- On the recommendations of the Royal Police Commission of 1902-03, the first Central Finger Print Bureau (CFPB) in India was established in 1905 at Shimla.
  - The CFPB started functioning from 1955 in Delhi under the administrative control of Intelligence Bureau (IB).
  - The major role envisaged for CFPB was to coordinate the activities of State in tracing/locating inter-state criminals.
  - In 1973 the administrative control was transferred to CBI and it was in July, 1986 that the CFPB was finally placed under the administrative control of the newly formed National Crime Records Bureau.

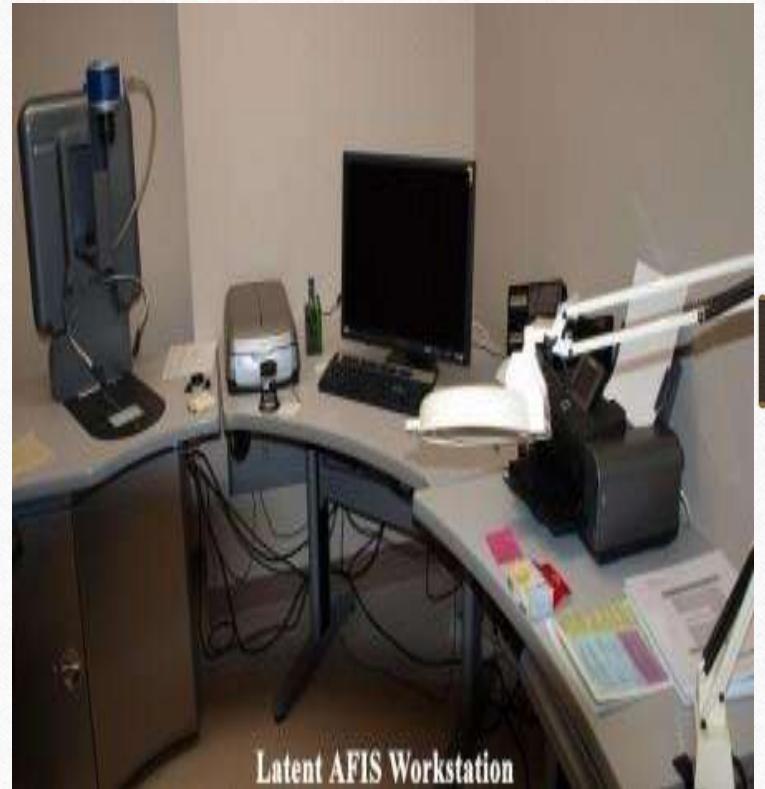


## Fingerprint Bureaus Functions

- To maintain Finger Print Record Slips.
- To undertake examination of questioned finger impressions referred by Central Govt. departments and Govt. of India undertakings.
- To impart training in F.P. Science (Theory and Practical) to police and non-police personnel of State Govts. in India.
- To Co-ordinate the work of the State Finger Print Bureaux and give necessary guidance in all matters relating to F.P. Science.
- To conduct All Indian Board Examination (since 1956) every year for accrediting the Finger Print Experts.
- To conduct competition in Finger Print Science at the All India Police Duty Meet (since 1958) annually.
- To publish 'Finger Print in India', an annual publication, which is an in-depth study of the performance and activities of all the Finger Print Bureaux of the country.

# AFIS (Automated Finger Print Identification System)

- The Indian Version of Automated Fingerprint Identification System (AFIS) is called FACTS, which was co-developed, by NCRB and CMC Ltd., India.
- The current version of FACTS is 5.0. The system uses Image Processing and Pattern Recognition technique to capture, encode, store and & match fingerprints, including comparison of chance prints.
- It uses pattern class, core and delta information, minutiae location, direction, neighbouring information, ridge counts and distances, density, type, print background/foreground information etc. for matching Finger Prints. Apart from the above details, FACTS also stores non-fingerprint information or demographic details like gender, region and conviction details.



Latent AFIS Workstation

# National Crime Records Bureau (NCRB)

- The National Crime Records Bureau (NCRB), is an Indian government agency responsible for collecting and analyzing crime data as defined by the **Indian Penal Code (IPC)** and **Special and Local Laws (SLL)**. NCRB is headquartered in New Delhi and is part of the Ministry of Home Affairs (MHA), Government of India.
- NCRB was set-up in 1986 to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators based on the recommendations of the Tandon Committee, National Police Commission (1977-1981) and the MHA's Task force (1985).



## NCRB Functions

1. Maintain a national database of fingerprints of all criminals in India.
2. Create, lead, and coordinate the development of IT applications for Police.
3. Collate information and maintain statistics on crime and criminals at the national level.
4. Creation and maintenance of Database at the National level for law enforcement agencies.
5. To coordinate, guide and assist the functioning of the State Crime Records Bureau, along with, providing training facilities to personnel of the Crime Records bureau.
6. To function as the National storehouse of fingerprint (FP) records of convicted persons including FP records of foreign criminals.
7. To keep the central and state governments updated with the official records and findings related to any case.

## Police & Detective Training Schools

- The Training Division of the Bureau of Police Research & Development is responsible for comprehensive in-service training of Police personnel in the country on common subjects related to the police training across the country.
- It also coordinates training of Indian police personnel abroad and within the country by Foreign Security agencies.
- BPR&D in co-ordination with Ministry of External Affairs (MEA) facilitates training of foreign police personnel in India.
- Being the nodal agency of the Ministry of Home Affairs, Government of India on issues related to Police training, it has the important task of standardizing training methodology and framing training policies for skill up-gradation of Police officers of all ranks.

## Police & Detective Training Schools

- BPR&D also supervises the five Central Detective Training Schools (CDTS) located at Chandigarh, Kolkata, Hyderabad, Jaipur and Ghaziabad, which run courses for central/state police officers in the field of Scientific Investigation.
- A Central Academy for Police Training (CAPT) established by BPR&D, at Bhopal conducts training programs for DySSP rank officers.
- Under training intervention scheme BPR&D conducts specialized training programs on various aspects of investigation with an aim to create a pool of trained police investigators on specialized area of investigation in every district of the country.
- Training Division also reviews Training Methodology and conducts assessment of future needs for police training in the country.

# NIA (National Investigative Agency)

- The National Investigation Agency (NIA) is a federal agency of India - MHA-GOI.
- The National Investigation Agency Act 2008 was passed by the Indian Parliament on December 31, 2008, following the tragic Mumbai terror assault of 26/11.
- It has the power to investigate and prosecute offences under various laws, including the Unlawful Activities (Prevention) Act, the Explosive Substances Act, and the Arms Act.
- The NIA has jurisdiction over the entire country and can investigate cases involving citizens of other countries as well.
- The agency also works closely with other law enforcement agencies in India and abroad to prevent and combat terrorism and other serious crimes.



# **NIA (National Investigative Agency) Branches**

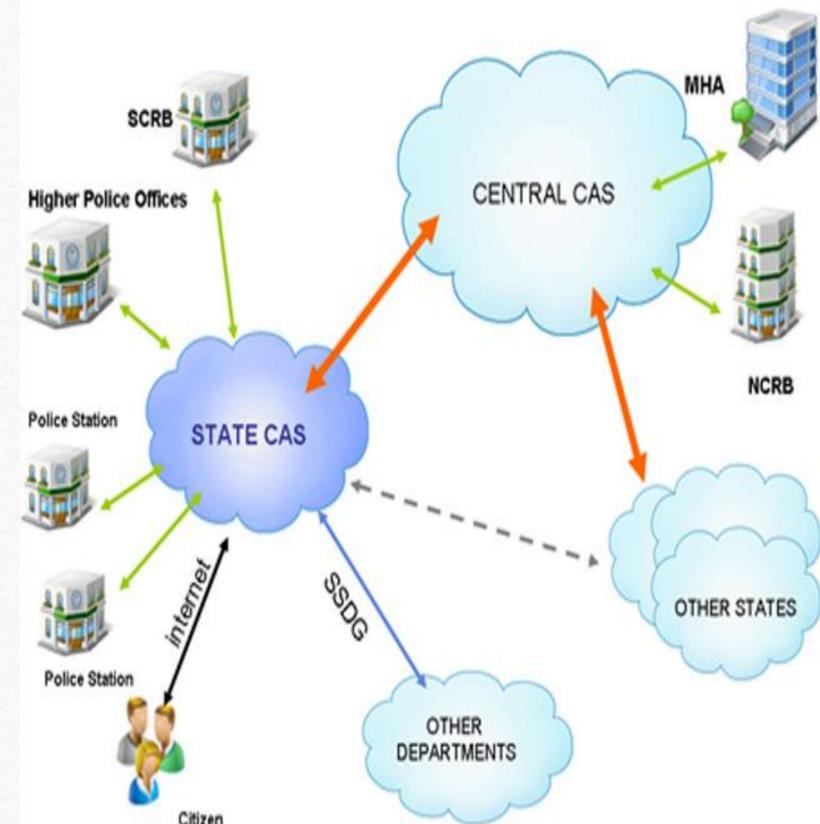
No.	Hqrs / Branches
1.	NIA Hqrs, New Delhi
2.	NIA branch office, Hyderabad
3.	NIA branch office, Guwahati
4.	NIA branch office, Lucknow
5.	NIA branch office, Mumbai
6.	NIA branch office, Kochi
7.	NIA branch office, Kolkata
8.	NIA branch office, Jammu
9.	NIA branch office, Raipur

# NIA (National Investigative Agency) Functions

- Human trafficking, counterfeit currency, the manufacturing or sale of **forbidden weapons, cyber-terrorism, and offences under the Explosive Substances Act of 1908** are now among the crimes that the agency can investigate. The central government can also designate sessions courts as special courts for NIA trials under the amendment.
- CBI is a criminal investigating agency, the NIA was established to **combat terrorism**.
- The NIA does not need authorization from the states to probe terror cases across the country.
- A **Director-General** is in charge of the organization (**an IPS officer**).
- The NIA's '**Most Wanted List**' is updated on a **regular basis**.

# CCTNS (Crime & Criminal Tracking N/W & System

- The Crime and Criminal Tracking Network & Systems (CCTNS) is a comprehensive online police system in India that was launched in 2009 by the Ministry of Home Affairs.
- The objective of CCTNS is to create a nationwide integrated database of crimes and criminals and to facilitate information sharing among police stations and law enforcement agencies across the country.
- As of 2021, the CCTNS system has been implemented in all 36 states and union territories of India, covering over 16,000 police stations and serving a population of more than 1.3 billion people.



## CCTNS Objectives

- Make the Police functioning citizen friendly and more transparent by automating the functioning of Police Stations.
- Improve delivery of citizen-centric services through effective usage of ICT.
- Provide the Investigating Officers of the Civil Police with tools, technology and information to facilitate investigation of crime and detection of criminals.
- Improve Police functioning in various other areas such as Law and Order, Traffic Management etc.
- Facilitate Interaction and sharing of Information among Police Stations, Districts, State/UT headquarters and other Police Agencies.
- Assist senior Police Officers in better management of Police Force
- Keep track of the progress of Cases, including in Courts
- Reduce manual and redundant Records keeping

## CCTNS Benefits to Police Department

1. Enhanced tools for investigation.
2. Centralized crime and criminal information repository along with the criminal images and fingerprints with advanced search capabilities.
3. Enhanced ability to analyze crime patterns and/ or modus operandi
4. Enhanced ability to analyze road incidents and other accidents.
5. Faster turnaround time for the analysis results (criminal and traffic) to reach the officers on the field.
6. Reduced workload for the police stations back-office activities such as preparation of regular and ad-hoc reports and station records management.
7. A collaborative knowledge-oriented environment where knowledge is shared across different regions and units.
8. Better co-ordination and communication with external stakeholders through implementation of electronic information exchange systems.

## CCTNS Benefits to MHA(NCRB)

1. Standardized means of capturing the crime and criminal data across the police stations in the country.
2. Faster and easier access to crime and criminal information across the country in a manner amenable for trend and pattern analysis.
3. Enhanced ability to detect crime patterns through modus operandi across the States/UTs and communicate to the state police departments for aiding in crime prevention.
4. The ability to respond faster and with greater accuracy to inquiries from the parliament, citizens and citizens groups and to RTI queries.
5. Easy and low-cost scalability of crime and criminal systems in the future.

## CCTNS Benefits to Citizens

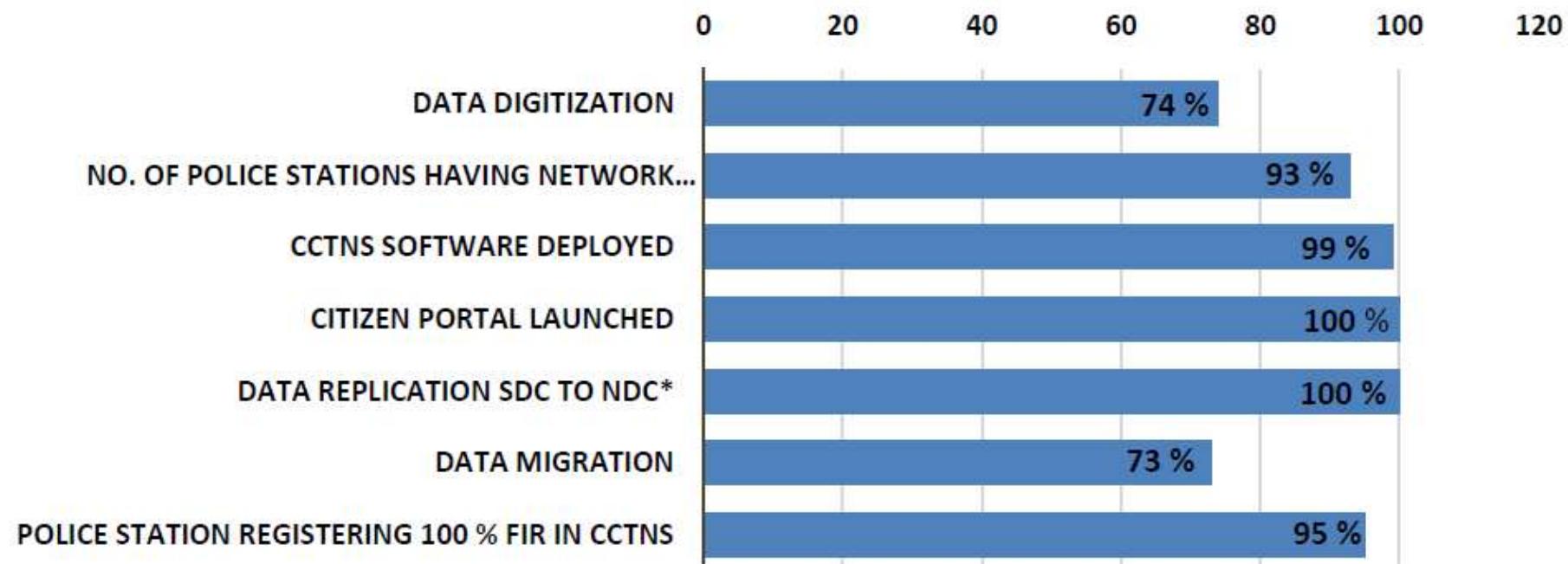
1. Multiple channels to access services from police.
2. Simplified process for **registering petitions**.
3. Simplified process for **accessing general services** such as requests for certificates, verifications, and permissions.
4. Simplified **process and accurate means of tracking the progress of the case during trials**.
5. Simplified and accurate access to **view/report unclaimed/recovered vehicles and property**.
6. Simplified process and channel for **grievance registration**.
7. Improved relationship management for **victims and witnesses**.
8. Faster and assured response from police to **any emergency calls for assistance**.

## CCTNS Benefits to External Departments

1. Seamless integration with police systems for better citizen service delivery and improved law enforcement.
2. Quick exchange of accurate information with the police department.

Present status of implementation:

**Status of CCTNS**



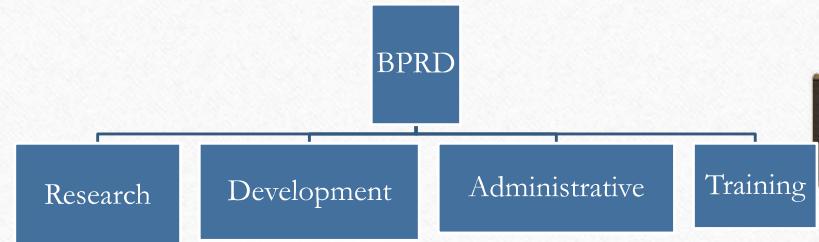
## Bureau of Police Research & Development

- Bureau of Police Research and Development was established on August 28, 1970.
- The Bureau of Police Research and Development comes under the administration of the Ministry of Home Affairs
- There are four divisions under BPR&D, with each of these divisions performing separate roles and responsibilities.
- The Bureau of Police Research and Development releases the Data on Police Organizations (DoPO), which shows different aspects of policing in the country like woman police, police expenditure, constabulary ratio, transport facilities, communication facilities, representation of various castes and police training centres.

# Bureau of Police Research & Development

**Objectives** – The Bureau of Police Research and Development was established to fulfil three key aims:

- To take a direct and active interest in the issues
- To promote a speedy and systematic study of the police problems
- To apply science and technology in the methods and techniques used by police



**Divisions:** There are four divisions under BPR&D, with each of these divisions performing separate roles and responsibilities.

# **Bureau of Police Research & Development**

## **Research Division & Correctional Division**

- Analysis and study of general causes of crime; preventive measures; methods of improvising the investigation; administrative structure; Juvenile delinquency, etc.
- The assistance of Police Research programmes in States and participation in social defence and crime prevention programmes.

## **Correctional Administration Division**

- Analysis and study of prison statistics and problems of general nature affecting Prison Administration.
- To prepare uniform Training Module including course, syllabi, . curriculum, etc. For providing training at various levels to the Prison staff in the field of Correctional Administration.

# **Bureau of Police Research & Development**

## **Development Division**

- Take a regular assessment of the equipment used by the police forces in India and ensure that new and modified pieces of equipment are provided in the fields of Arms and Ammunition, Riot Control Equipment, Traffic Control Equipment, Police Transport and other scientific aids for investigation
- Providing access to computer technology in various fields of the police force.

## **Administrative Division**

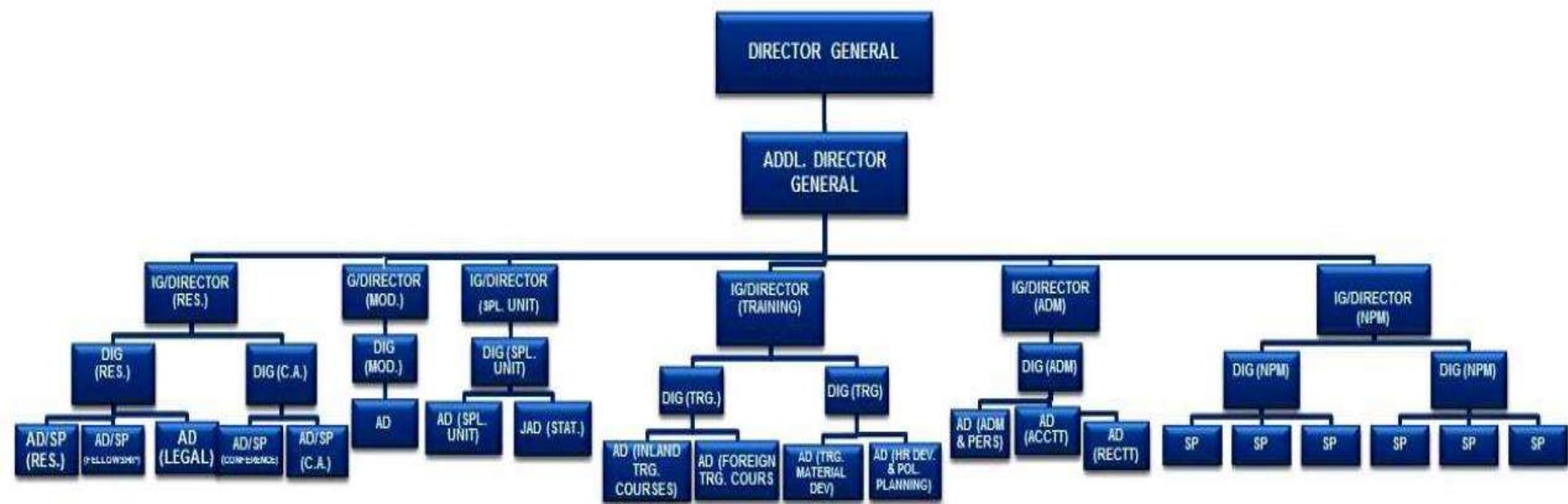
- Managing the matters related to the police workforce, their units and headquarters
- Maintaining all accounts and budgets
- Working for the welfare of the staff of BPR&D

# Bureau of Police Research & Development

## Training Division

- Evaluate the training programmes conducted for the police force
- Assess that the training is suitable as per the social state of the country and the force is well prepared for every circumstance
- Provide training aids, projects and fellowships under the UNDP, UNESCO & Colombo Plan etc.
- To **create and maintain a circulating library of films** for the use of various police training institutions
- Supervising the central detective training schools situated at Chandigarh, Kolkata and Hyderabad,etc.

# ORGANIZATION CHART



## **DFSS and Mobile Crime Laboratories**

- Mobile Forensic Van (MFV) is being launched by Gujarat Forensic Sciences University (GFSU) and Helik Advisory Ltd which helps in reaching the crime scene at the earliest to assist the Investigating Officers (IOs) in identifying and collecting relevant forensic evidence from the crime scene, victims & from suspects which are the primary sources of forensic evidence.
- The “Mobile Forensic Van” is unique. It is air-conditioned and is equipped with modern amenities to undertake spot tests in a laboratory environment at the crime scene itself.

## MFV Roles

- Providing professional and technical assistance to the investigating officers to recognize appropriate evidence materials at the scene of the crime, followed by proper collection and preservations of the said materials so recognized, and dispatch of the relevant materials to the laboratory for examination.
- Preliminary analysis of the clue materials at the scene of the crime and thereafter forensic analysis of the clue materials by the latest analytical methodologies in the laboratory.
- Interpretation of the forensic results obtained.

## Benefits

- **Reduced response time:** The van can reach the crime scene at the earliest. This paces up collection and analysis at the crime scene. Otherwise, all the evidence is required to be transported to the laboratories for tests. Thus, it makes the process less time-consuming.
- **On-scene spot test/field test:** The mobile van has all the facilities to assist the investigator in carrying out the tests.
- **Evidence identification and collection:** It has enhanced tools and equipment required for the identification and collection of varieties of evidence.
- **Evidence storage and transport:** Equipped with build-in cabinetry, refrigerated storage, and a controlled environment inside the van, the evidence collected can be stored and transported to the laboratory in proper and recommended storage facilities.
- **Special customizable forensic mobile vans:** Custom manufactured crime scene vans enable technicians to conduct extensive evidence collection and processing. Whether you are investigating homicide scenes, meth labs, or arson scenes. A customized mobile van can help in conducting chemical tests for any situation.

## Distribution of MFVs

These Mobile forensic vans are currently being used in the following states:

- 2 Mobile Forensic Van at Directorate of Forensic Science Laboratories, Rohini Delhi.
- 13 Mobile Forensic Van at Directorate of Forensic Science, Gujarat State Gandhinagar
- 45 Mobile Forensic Van to Maharashtra State Government.
- 1 Mobile Forensic Vans to Nepal Government.

# Police Academies

There are several police academies in India:

- Sardar Vallabhbhai Patel National Police Academy (SVPNPA)

Following all under **Central Armed Police Force(CAPF)**:

1. Central Reserve Police Force Academy (CRPF)
2. Border Security Force Academy (BSF)
3. Indo-Tibetan Border Police Academy (ITBP)
4. Assam Rifles(AR)
5. Central Industrial Security Force (CISF)
6. National Security Guard(NSG)
7. Sashastra Seema Bal (SSB)

## Sardar Vallabhbhai Patel National Police Academy (SVPNPA)

- **Establishment Year:** 15 September 1948
- **Headquarter :** Shivrampalli , Hyderabad
- **Type:** Civil Service Training Institute
- **Function:**
  - 1. Training of IPS
  - 2. In-service Management Development Programs
  - 3. Training of Trainers
- **Governing Body:** MHA, GOI.
- **History:** CPTC- 1948
  - NPA- 1967
  - SVPNPA- 1974



## 1. Central Reserve Police Force Academy (CRPF)

- Establishment Year: 1949
- Headquarter : Shivrampalli , Hyderabad
- Type: Civil Service Training Institute
- Function:
  1. Assisting the State/Union Territories in police operations to maintain law and order and counter-insurgency.
  2. It is composed of Central Reserve Police Force (Regular) and Central Reserve Police Force (Auxiliary).
- Governing Body: MHA, GOI.



## 2. Border Security Force Academy (BSF)

- Establishment Year: 1 December, 1965
- Governing Body: : MHA, GOI.
- Type: Civil Service Training Institute
- Headquarter : New Delhi, India.



## BSF Objectives

- During peacetime
- Border guard and security.
- Prevention trans-border crimes, unauthorized entry into or exit from the territory of India.
- Prevention of smuggling and any other illegal activities on the border.
- Anti-infiltration duties.
- Collection trans-border intelligence.
- To promote a sense of security among the people living in the border areas.

## BSF Objectives

### **During war time**

- Holding ground in assigned sectors.
- Limited aggressive action against irregular forces of the enemy.
- Maintenance of law and order in enemy territory administered under the Army's control.
- Acting as guides to the Army in border areas.
- Assistance in control of refugees.
- Provision of escorts.
- Performing special tasks connected with intelligence including cross-border raids
- Replenishing manpower.

### 3. Indo-Tibetan Border Police Academy (ITBP)

- Establishment Year: 1962
- Headquarter : New Delhi
- Type: CAPF
- Function: ITBP guards 3,488 km long India-China borders ranging from the Karakoram Pass in Ladakh to Jachep La in Arunachal Pradesh.
- Governing Body: MHA, GOI.



#### 4. Assam Rifles

- Establishment Year: 15 September 1948
- Headquarter : Shilong, Meghalaya, India
- Type: CAPF but under control of Indian Army
- Function: Assam Rifles protect the Indo-Myanmar border
- National border patrol, security, and integrity.
- Paramilitary law enforcement, counter insurgency, and riot control.
- Governing Body: MHA, GOI.



## 5. Central Industrial Security Force

- **Establishment Year:** 1969
- **Headquarter :** New Delhi, India
- **Type:** CAPF
- **Function:** CISF provides security to over 356 industrial units (including 13 Private Sector Units), government infrastructure projects and facilities and establishments located all over India. These include atomic power plants, space installations, mines, oil fields and refineries, major ports, heavy engineering, steel plants, barrages, fertiliser units, airports and hydroelectric/thermal power plants owned and controlled by Central Public Sector Undertakings (PSUs), and currency note presses.
- **Governing Body:** MHA, GOI.



## 6. National Security Guard (NSG)

- **Establishment Year:** 16 October 1984
- **Headquarter :** New Delhi, India
- **Type:** CAPF but under control of Indian Army
- **Function:** The National Security Guard (NSG), commonly known as Black Cats, is a counter-terrorism unit.
- National border patrol, security, and integrity.
- Paramilitary law enforcement, counter insurgency, and riot control.
- **Governing Body:** MHA, GOI.



## 7. Sashastra Seema Bal (SSB)

- **Establishment Year:** 20 December 1963
- **Headquarter :** New Delhi, India
- **Type:** CAPF
- **Function:** It is a border guarding force of India deployed along its borders with Nepal and Bhutan.
- **Governing Body:** MHA, GOI.



**Other agencies involved in the criminal investigations- agencies referred for the additional information and requisite examinations .**

## Intelligence Bureau (IB)

- **Establishment Year:** 1947
- **Headquarter :** New Delhi, India
- **Function:** IB is used to garner intelligence from within India and also execute counter-intelligence and counter-terrorism tasks.
- **Governing Body:** MHA, GOI.



## Narcotics Control Bureau (NCB)

- Establishment Year: 1947
- Type: Central Law Enforcement & Intelligence Agency
- Headquarter : New Delhi, India
- Function: combating drug trafficking and the use of illegal substances under the provisions of Narcotic Drugs and Psychotropic Substances Act.
- Governing Body: MHA, GOI.



## Enforcement Directorate

- **Establishment Year:** 1 May 1956
- Type: Law Enforcement and Economic Intelligence Agency,  
Part of Department of Revenue
- **Headquarter :** New Delhi, India
- **Function:** enforcement of two key Acts, of the Government  
of India namely, the Foreign Exchange Management Act,  
1999 (FEMA) and the Prevention of Money Laundering Act,  
2002 (PMLA), and The Fugitive Economic Offenders Act,  
2018 (FEOA).
- **Governing Body:** Ministry of Finance, GOI.

