

**E-Governance  
Mission Mode Project**

**Crime and Criminal Tracking Network  
and Systems**

**Monitoring and Evaluation  
(M&E) Framework**



**Ministry of Home Affairs  
Government of India**

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## **1. Principles of Effective M&E Framework**

### **1.1. Definition of a M&E Framework**

An effective M&E Framework will help the State's/ UT's police force to identify its desired outcomes from implementation of CCTNS, prioritise its actions and understand the impact post its implementation. Following are the key set of activities that should be included while defining an M&E Framework:

- Linking strategic aims, objectives and priorities for CCTNS across the State's/ UT's police force
- Enabling progress against these aims and objectives to be monitored by senior police officials and higher offices
- Linking individual actions

As a result, an M&E Framework can enable State's/ UT's police force to move away from a reactive 'fire fighting' approach to decision-making to a forward-looking, proactive and informed approach in which the police force of the State/ UT can take steps to further improve the penetration and usage of CCTNS.

Crucially, M&E Framework will establish an on-going process for planning, monitoring and revising implementation and utilisation of CCTNS, in order to produce a higher level of performance especially after its implementation across the States/ UTs.

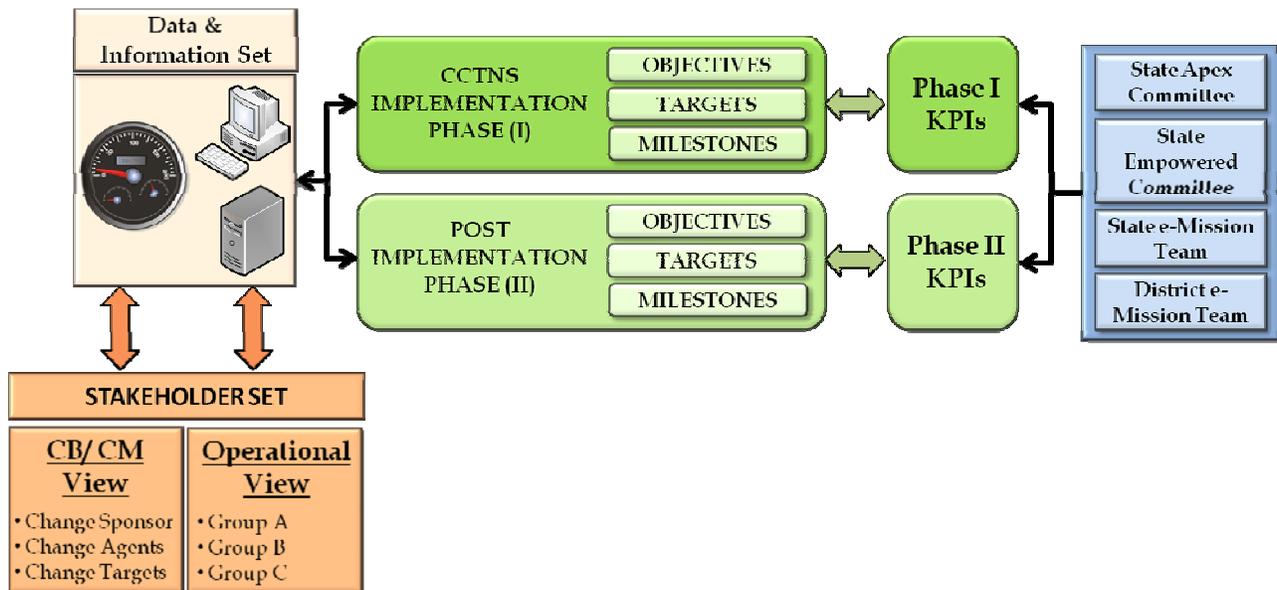
### **1.2. Advantages of a M&E Framework**

An effective M&E Framework can provide the following advantages:

1. Ownership and active involvement of the senior police officials to ensure CCTNS is able to penetrate in to the core functioning of the State's/ UT's police force
2. Well defined review structures which are replicated from top to bottom and across operational and support departments
3. Recognition of high quality of implementation and usage of CAS (State) but with a relentless follow-up where such high quality falls short
4. A culture of continuous improvement via employing CCTNS is evident throughout the police force
5. Clearly articulated priorities which are widely understood by senior police officials, officers at Police Stations and staff at every level
6. Timely, accurate and relevant data is used to inform decision making

## 2. Suggested M&E Framework and Approach

A structured approach is required to ensure that the M&E parameters are embedded across the police force during the implementation phase as well the post implementation phase of CAS (State) and the CCTNS project as a whole. To do this, an M&E Framework has been suggested as the diagram below.



The suggested M&E Framework would primarily consist of two phases:

- I. CCTNS Implementation Phase
- II. Post Implementation Phase

Each of these phases would have their separate set of KPIs for monitoring and evaluation. Initial base lines will have to be developed for each of the KPIs. During the implementation of CCTNS and post the implementation, these KPIs would be continuously measured, monitored and evaluated against the baseline to understand the progress of the scheme and whether the desired outcomes are achieved. The governance structure (Apex Committee, Empowered Committee) formed in the State/UTs will be monitoring the progress of the scheme through the KPIs.

### 3. Implementation Phase KPIs

Implementation KPIs are the indicators for measuring the progress of CCTNS implementation during the roll-out period. Measurement and monitoring the progress of below parameters provide a measure of the progress of the CCTNS roll-out in the State/UT.

**1. Number of District Training Centres (DTCs) enabled and operational in the state**

District Training Centres (DTC) are the vehicles for training the police personnel on CCTNS. The effective use of CCTNS is dependent on the quality training imparted to the personnel. Hence it is imperative that all the DTCs are enabled and operational at the time of completion of implementation. Fulfilling this criterion indicates a successful implementation of CCTNS in the state.

**2. Ratio of the number of personnel trained (Capacity Building) over the number of personnel planned for training**

The number of personnel trained at each DTC is an important indicator of readiness of the personnel to use the CCTNS. The ratio of the number of personnel trained (Capacity Building) over the number of personnel actually planned for training is an indicator of the success of the implementation of CCTNS.

**3. Ratio of number of police stations where data is fully migrated over the total number of police stations.**

Prior to "Go-Live", the legacy data in the police station needs to be digitized and moved into the CCTNS system. The Data Migration activity needs to be completed for a police station, to be fully functional with the CCTNS software. Hence, a successful data migration activity is a vital indicator of success of CCTNS at that police station.

**4. Ratio of number of police stations which are networked over the total number of police stations.**

Prior to "Go-Live", the police stations shall be networked. Hence, the higher number of networked police stations is a leading indicator for a successful implementation of CCTNS.

**5. Identification and setup of Data Centre (DC)**

Data Centre needs to be ready at the state data centre of the state or any other site if the SDC is not ready. This includes identification of site, deployment of hardware, network, software (like EMS etc) and deployment and configuration of CCTNS software. Completion of all these activities is mandatory for CCTNS to Go-Live. Hence, identification and setup of Data Centre is an important indicator of success of implementation of CCTNS.

**6. Identification and setup of Disaster Recovery Centre (DRC)**

Disaster Recovery Centre plays an important role when there is a failure in the DC. DRC needs to be operational when the program goes live. This includes identification and preparation of site, deployment of hardware, network, software and deployment and configuration of CCTNS software. Completion of all these activities is mandatory for CCTNS to Go-Live. Hence, identification and setup of Disaster Recovery Centre is an important indicator of success of implementation of CCTNS.

**7. Ratio of the number of higher offices enabled with CCTNS over the total number of higher offices in the state**

Higher offices in the state give advisories to the police stations about law and order situations, investigation of key cases, etc. They also receive reports from the police stations for analytics etc. The greater the number of higher offices enabled with CCTNS, the greater the success of implementation of CCTNS.

**8. Ratio of number of police stations enabled with CCTNS over the total number of police stations in the district**

A Police station can be considered enabled with CCTNS if the hardware, network, and the configuration is installed in the police station. Also, site preparation, training and data migration needs to be completed before the police station can be considered enabled with CCTNS. Since police station is a fundamental unit of policing in the district, the number of police stations enabled with CCTNS over the total number of police stations in the State is an important indicator of success of implementation of CCTNS.

**9. Number of Change Management Interventions (Workshops, Periodical Communications)**

Change Management is key to get the complete buy-in of the officers/constables on CCTNS. Hence the activity on Change management is a key leading indicator that needs to be monitored for the success of CCTNS.

## 4. Post-Implementation Phase KPIs

Post-Implementation KPIs are the indicators for measuring the success of CCTNS implementation. Measurement and monitoring the progress of below parameters provides the measure of the success of the CCTNS implementation in achieving the intended objectives that the Scheme is designed with.

### 4.1. Usage/Availability Indicators

#### 4.1.1. Citizen Related Services

**1. Number of services available through the alternate channels (including internet)**

- a. Transactional such as application for a no-objection certificate**
- b. Informational such as the status of a case**

Service delivery to the public can be vastly improved by providing alternate access channels like internet, IVR, Dial 100 etc. Higher number of services available through alternate channels indicates successful implementation of CCTNS in the state. Transactional services like a no-objection certificate, permissions etc and informational services like stolen vehicle information, missing vehicle information, case status etc are examples of services that can be made available through alternate channels and measured for an outcome based success of CCTNS.

**2. Ratio of usage of a service over the alternate channels over the total usage per service (including internet) for transactions**

- a. Transactional such as application for a no-objection certificate**
- b. Informational such as the status of a case**

While the number of services delivered through alternate channels is an important KPI, the percentage usage of each service through an alternate channel is also important for measuring the success of the public delivery of services in CCTNS. A greater percentage use of an alternate channel indicates successful implementation of CCTNS in the state.

#### 4.1.2. Police Related Services

**1. Number of Personnel trained on CCTNS**

Training the personnel is vital for successful usage of CCTNS. Lack of training could mean a great deal of difficulty in using the system which could result in its failure. Higher number of people trained on CCTNS means an increase in the number of people using the system with ease thereby increasing the operational efficiency.

**2. Number of Change Management Interventions (Workshops, Periodical Communications)**

Change Management is key to get the complete buy-in of the officers/constables on CCTNS. Hence the activity on Change management is a key leading indicator that needs to be monitored for the success of CCTNS.

**3. Usage of CCTNS**

- a. Number of active users profiles in CCTNS**
- b. Number of read-write transactions on CCTNS system**

- c. Number of Searches Carried out on data in CCTNS*
- d. Total number of FIRs prepared through CCTNS*
- e. Total number of Crime Details Forms prepared through CCTNS*
- f. Total number of Investigation Forms prepared through CCTNS*
- g. Total number of Arrest Cards prepared through CCTNS*
- h. Total number of ChargeSheets prepared through CCTNS*
- i. Availability of up-to date status of a case in CCTNS (including the registration/investigation/trial status)*
- j. Availability of up-to date status of summons/warrants in CCTNS (including the issue/execution status)*

Usage of CCTNS is also an important indicator. An increase in the usage of CCTNS in terms of the number of active users, number of FIRs, Crime Details Forms,... prepared through CCTNS can contribute to the success of implementation of CCTNS.

#### **4. Quality of information available in CCTNS**

- a. Recency of the data available in the System*
- b. Accuracy of the data available in the System*

Quality of information available in CCTNS with respect to the accuracy and recency of data is an important leading indicator for the success of CCTNS. The same can be found through a combination of an audit of the information available in CCTNS and a survey of the end-users (Investigation officers,..) on the data available in CCTNS.

## **4.2. Outcome Indicators**

### **4.2.1. Improve Service Delivery to Public**

One of the main objectives of CCTNS is to deliver police services to the public through multiple channels, transparently, responsively, reliably and with accountability in a citizen friendly manner.

The benefits that accrue from these sub-objectives are

- Multiple channels to access services from police
- Simplified process for registering and tracking petitions and FIRs
- Better citizen police interaction
- Confidence of citizens on policing
- Effective prosecution of cases
- Increases efficiency and decreases work backlogs
- Simplified process for accessing general services such as requests for certificates, verifications, and permissions
- Simplified process for registering grievances against police

The indicators that measure these benefits are summarized below.

#### **1. Total number of visits made for availing a service request**

- a. Complaint Related Services*
- b. General Service Request Related Services*

Citizens visit a police station for complaint related services like filing an FIR, case status and general service requests like permissions, no-objection certificates etc. A decrease in the number of visits to the police station for a service request indicates successful implementation of CCTNS.

**2. Average turnaround time for some of key services (including visits to Police Station) such as**

- a. Registration**
- b. General Service Requests**
- c. Getting a Status of a Complaint**
- d. Getting copies of case artefacts**

Reduction in total turn-around time for registration of complaints, general service requests, getting a status of a complaint or getting copies of case artefacts indicates successful implementation of CCTNS. This could encompass number of visits made, total waiting time in each visit to the police station etc.

**3. Number of complaints lodged against police to higher authorities or central complaint cell**

Reduction in the number of complaints lodged against police to higher authorities or central complaint cell indicates successful implementation of CCTNS. Higher complaints mean that there were more issues to be resolved which could not be addressed by CCTNS. In vice versa, decrease in complaints means that the police are able to handle the issues efficiently and effectively through use of CCTNS.

**4. Numerical Score of Citizen Confidence in the Police**

This can be measured by conducting citizen surveys at a periodic basis either online or through the field agencies. This will help in providing a citizen police perception index score that can be tracked to understand the demands of citizens from the police and to identify the effects or impact of police actions and special drives on public perception

**4.2.2. Provide Enhanced Tools for Law & Order Maintenance, Investigation & Crime Prevention**

Another objective of CCTNS is to provide tools for effective law and order maintenance, investigation and crime prevention.

The benefits that accrue from these sub-objectives are

- Seamless integration with police systems for better citizen service delivery and improved law enforcement
- Enhanced tools for investigation
- Centralized crime and criminal information repository along with the criminal images and fingerprints with advanced search capabilities
- Enhanced ability to analyze crime patterns, modus operandi
- Faster turnaround time for crime analysis results to reach the officers on the field

These benefits can be summararily measured by the following indicators.

**1. Number of cases solved because of the availability of CCTNS**

Increased number of cases that could be solved because of the availability of CCTNS is an important indicator for the success of CCTNS.

**2. Turn-around time for closure of investigation of key cases**

- a. Total turn-around time**
- b. Turn-around time for accessing information from external entities (RTA, Telephone service provider)**
- c. Turn-around time for accessing / searching information about crimes and criminals within district / state / outside state**

**d. Turn-around time for accessing / searching information on bail releases / prisoner movements to/ from jails**

Reduced turn-around time for investigation and its related activities is in the best interest of the police since that expedites the prosecution and the overall case. Tools that help police in investigation like vehicle owners' information, driving license, information on telephone numbers expedite the cases. The ability to quickly search and retrieve criminal information either within the district, state or outside the state has huge implication in solving the cases. Also, having information of convicts released, persons released on bail, prisoner movements to and from the jail etc can also give substantial clues for investigation. The reduced turn-around time for investigation indicates successful implementation of CCTNS.

**3. Quality of investigation**

**a. Conviction rate of key cases**

**b. Acquittals or re-investigation ordered by Court/Senior Officers due to gaps in investigation**

Quality of investigation is another important KPI that helps measure the success of implementation of CCTNS. A higher conviction rate indicates that investigations were methodical and in order. Lower conviction rates obviously indicate a lower quality of investigation. Lower number of acquittals or ordering re-investigation by courts indicate that CCTNS has benefited the Investigation officers.

**4. Turn-around time for receiving advisories / analyses from higher offices such as DCRB / SCRB**

A reduced turn-around time for receiving advisories / analyses from higher offices such as DCRB/SCRB mean more time for crime prevention and enforcement of law and order activities. An informed police officer would have better leeway in preventing a crime or arrive at the scene of crime early to try and prevent the crime. Hence, a reduced turn-around time for receiving advisories / analyses indicates the effectiveness of the tools for investigation and also the successful implementation of CCTNS.

**4.2.3. Increase Operational Efficiency**

This objective focuses on increasing the operational efficiency of a police station. This can be achieved by reducing repetitive paper work / records and having efficient back office functions.

The benefits that accrue from these sub-objectives are

- Reduced workload of the police station back-office activities such as preparation of regular and ad-hoc reports and station records management
- Simplified process for tracking the progress of the case during trials
- Enhanced tools to optimize resource allocation for patrols, emergency response, petition enquiries, and other general duties
- Simplified access to view/report unclaimed/recovered vehicles and property

These benefits can be summarily measured by the following indicators.

**1. Number of physical registers (crime and criminal related) maintained and time spent on the same**

CCTNS should obviate the need for maintaining physical registers related to crime and criminals in the police stations and higher offices. Successful implementation of CCTNS should result in elimination of the physical registers at the Police Station.

**2. Percentage of reports generated through CCTNS**

The ratio of reports generated through CCTNS as a proportion of the total reports is an indicator of use of CCTNS. An increase in this ratio implies an increase in operational efficiency

**3. Percentage of ad-hoc requests answered through CCTNS**

An Increase in the percentage of ad-hoc requests answered through CCTNS indicates the enhanced utility of CCTNS to the end-users.

**4. Turn-around time of ad-hoc reports**

A decrease in time spent on generating an ad-hoc report by using CCTNS indicates an improvement in the operational efficiency. The ease of generation of ad-hoc reports as well as in quick time is an indicator of success of implementation of CCTNS.

**5. Time spent on non-core activities (scriptory / reports / registers / court related functions) as a percentage of total time**

A decrease in the time spent on non-core activities as a ratio of total time indicates an improvement in the operational efficiency. The scriptory, reports, registers and court related functions could be an output of CCTNS and will reduce the time spent on non-core activities thus indicating a success of implementation of CCTNS.

**6. Alerts (effectiveness) – number of instances where timelines / deadlines (ex, extension of remand, filing of charge-sheet) were missed**

A measure of effectiveness of alerts is an important indicator of an increase in operational efficiency. This can be monitored by measuring the number of instances the timelines / deadlines were missed, for example, an alert to remind the police personnel of an extension of a remand of an accused.

**4.2.4. Create a Platform for Sharing Crime and Criminal Information across the Country**

This objective of CCTNS is to create a platform to effectively share crime and criminal information across police stations, state and the country.

The benefits that accrue from these sub-objectives are

- Faster and easier access to crime and criminal information across the country in a manner amenable for trend and pattern analysis
- Enhanced ability to detect crime patterns and modus operandi across the states and communicate to the state police departments for aiding in crime prevention

These benefits can be summarily measured by the following indicators.

**1. Turnaround Time for accessing crime/criminal information from repositories outside the State / across the country**

CCTNS should facilitate faster turnaround time for accessing crime/criminal information of all the States/UTs across the country.

**2. Turnaround Time for submitting the monthly and annual crime/criminal information to NCRB from the State/UT**

CCTNS should facilitate faster submission of the period returns submitted to NCRB from the State.