Intelligence Gathering

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- Intelligence is the product resulting from the collection, collation, evaluation, analysis, integration, and interpretation of collected information.

Intelligence Gathering Cycle

Need

- To Combat various situations like,

1. Poaching
2. Illegal Mining
3. Illicit Felling
4. Encroachment
5. Forest Fire
6. Disease Spread etc.

Example: Tiger poaching cases

Tiger Body Parts Trafficking Routes

Multiple Agencies

- WCCB(WILDLIFE CRIME CONTROL BUREAU)

- TRAFFIC INDIA(TRADE RECORD ANALYSIS OF FLORA AND FAUNA IN COMMERCE)

- Others : CBI, Interpol, SSB, Local Police, ITBP, BSF.

Methods

- Art and Science.
- Liasioning with local works well.

Technology in **Prevention** of Wildlife Crime

Electronic E-eye

- Monitoring the movement of wild animals of a specific size.
- Monitoring the movement of staff
- Monitoring the movement of poachers.

UAV- Drone

- Monitoring the movement of wild animals of a specific size.
- Monitoring the movement of staff
- Monitoring the movement of poachers.

Mikrokopters

Mikrokopters are universal aerial platforms that hover. They can identify a position and hold it as long as necessary to identify images, collect data, or calculate distances. They are equipped with GPS, compasses, altitude control, telemetry

Camera Traps

- Capturing images of Wildlife.
- Capturing the images of staff passing through the camera
- Capturing the images of poachers passing through the camera

Acoustic Traps

Acoustic Traps use "echo technology" to monitor sharp disturbances such as gun shots, chain saws, truck engines, blasts etc. using monolithic sensors.

Metal Detectors

Metal Detectors used in the protected areas help locating leg hold traps and wire snares fixed by poachers.
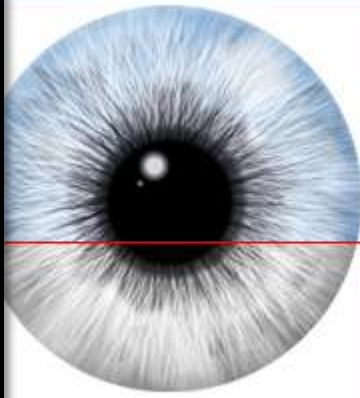
Use of Automated Spray Gun

Use of automated spray guns using odorless mist which is not visible otherwise. Handheld Scanners are used to detect the suspects in a mob when needed.

Video/CCTV camera

Use of Video Camera/CCTV Camera attached to matching software to detect habitual offenders moving within the vicinity of protected areas.

Biometric Details

Biometric database of habitual offenders on a shareable server would become handy for enforcement officials to detect habitual offenders when detected.

SMART- Spatial Monitoring and Reporting Tool

SMART empowers protected area managers by converting patrol data and intelligence into useful information about poaching and helping to plan a strategic response.

GPS instrument

Hand held GPS instruments are used to locate geographical locations on the ground

Illegal Trade Database

▶ Database on illegal trade, crime and criminals are essential to initiate preventive steps. Most of the database available are from voluntary contributors limited to specific countries.

▶ ERIS- Elephant Trade Information System (Managed by TRAFFIC on behalf of the CITES Parties) is used to track confiscated records involving elephant products.

Intelligence Analysis Software
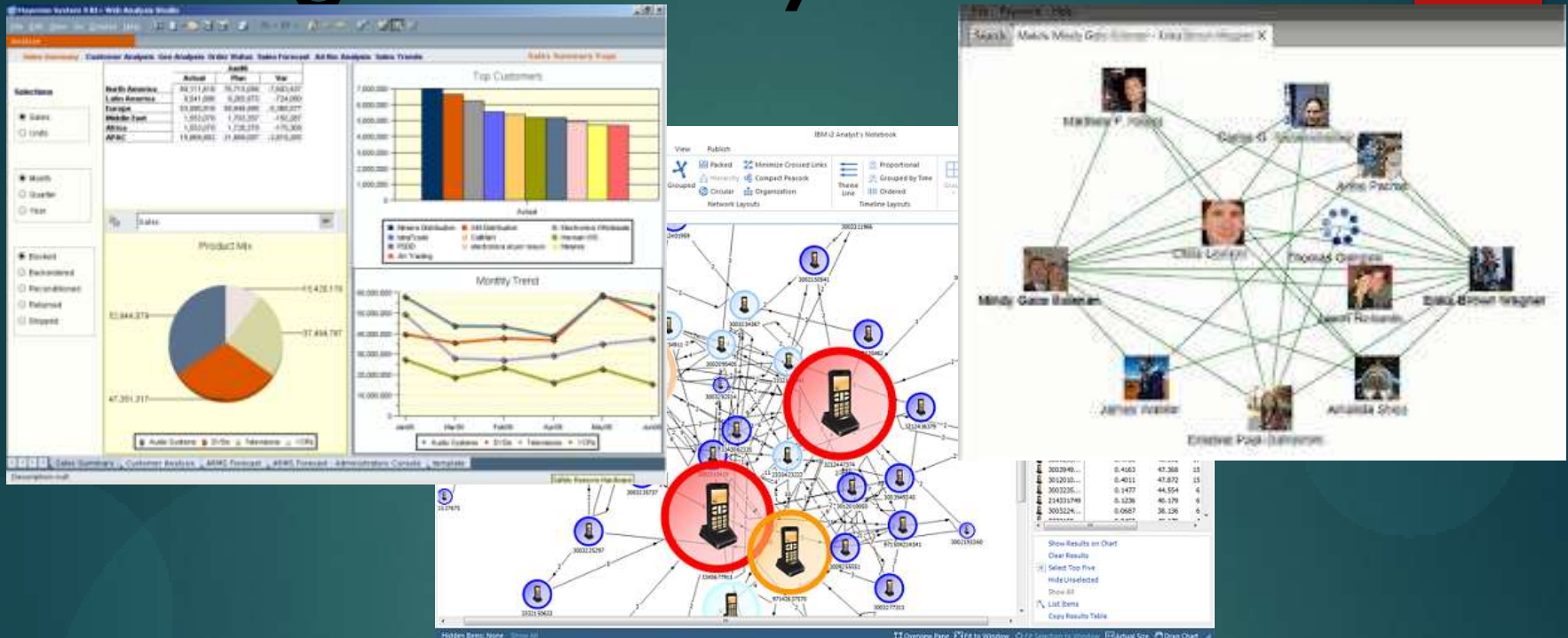
Intelligence Analysis Software is used to analyze information collected from overt and covert sources to actionable intelligence which can be used to prevent crime

Technology in **Detection** of Wildlife Crime

X-Ray Scanners
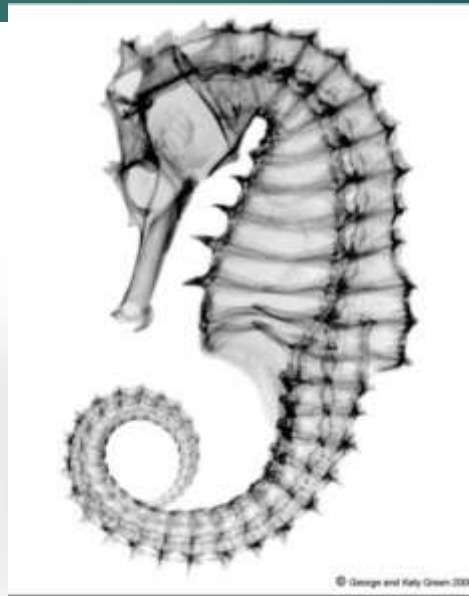
X-Ray Scanners at the transit areas are placed to scan baggage's to detect any contraband in transit

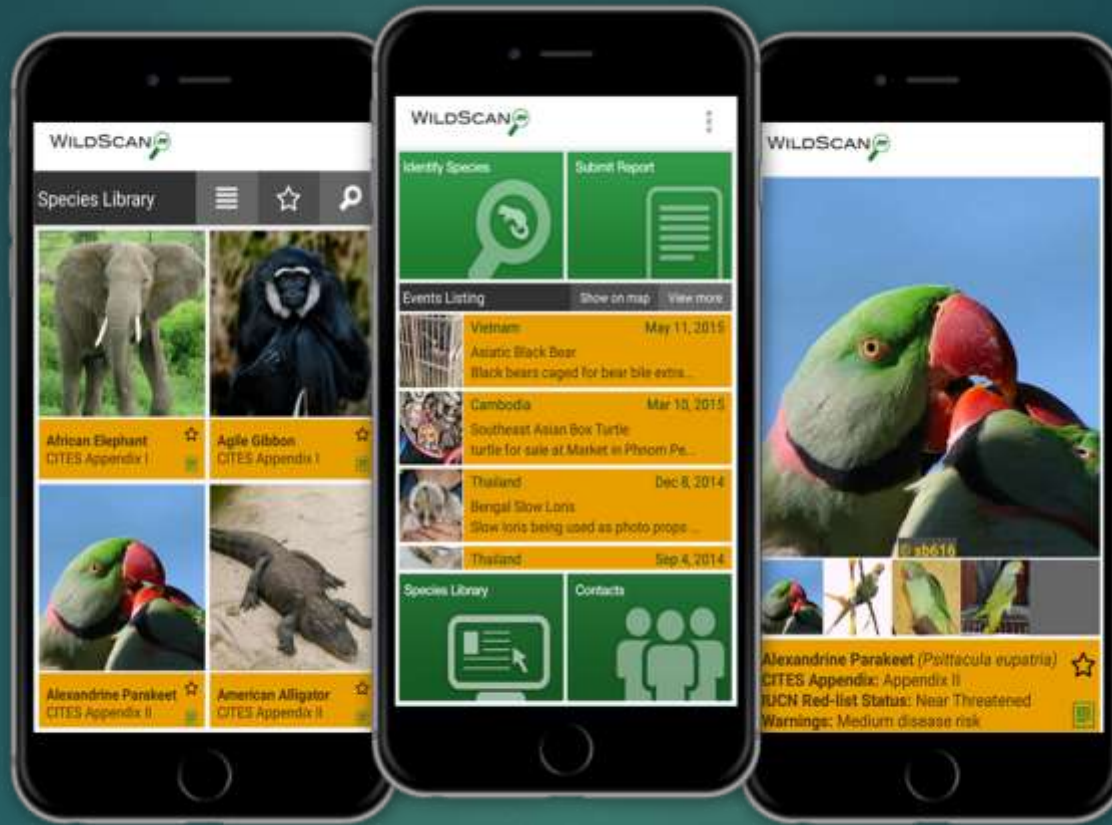# Detection using Mobile Phones

Technical Surveillance and Call Data Records used to detect suspects involved in illegal wildlife crime

Cyber Patrolling over E-Commerce sites

Online illegal wildlife material offered for sale is detected using Cyber patrolling with keywords based search

Mobile based Applications

Mobile based application is used to identify species on detection of offence Eg. **WILDSCAN**

Illegal Wildlife Trade in the Darknet

- The **dark** web is the World Wide Web content that exists on darknets, overlay networks which use the public **Internet** but which require specific software, configurations or authorization to access.

- Darknet hubs and market place are used by illegal wildlife traders for illegal transactions

Technology in **Investigation** of Wildlife Crime

# Detection using Mobile Phones

- Technical Surveillance and Call Data Records are used to investigate linkages involved in the criminal act.
- Identification of location of criminal using call data.
- Identification of suspects using call data.

Digital Forensics

Evidences are extracted from digital media during investigation of crime

Biometrics for details of criminals
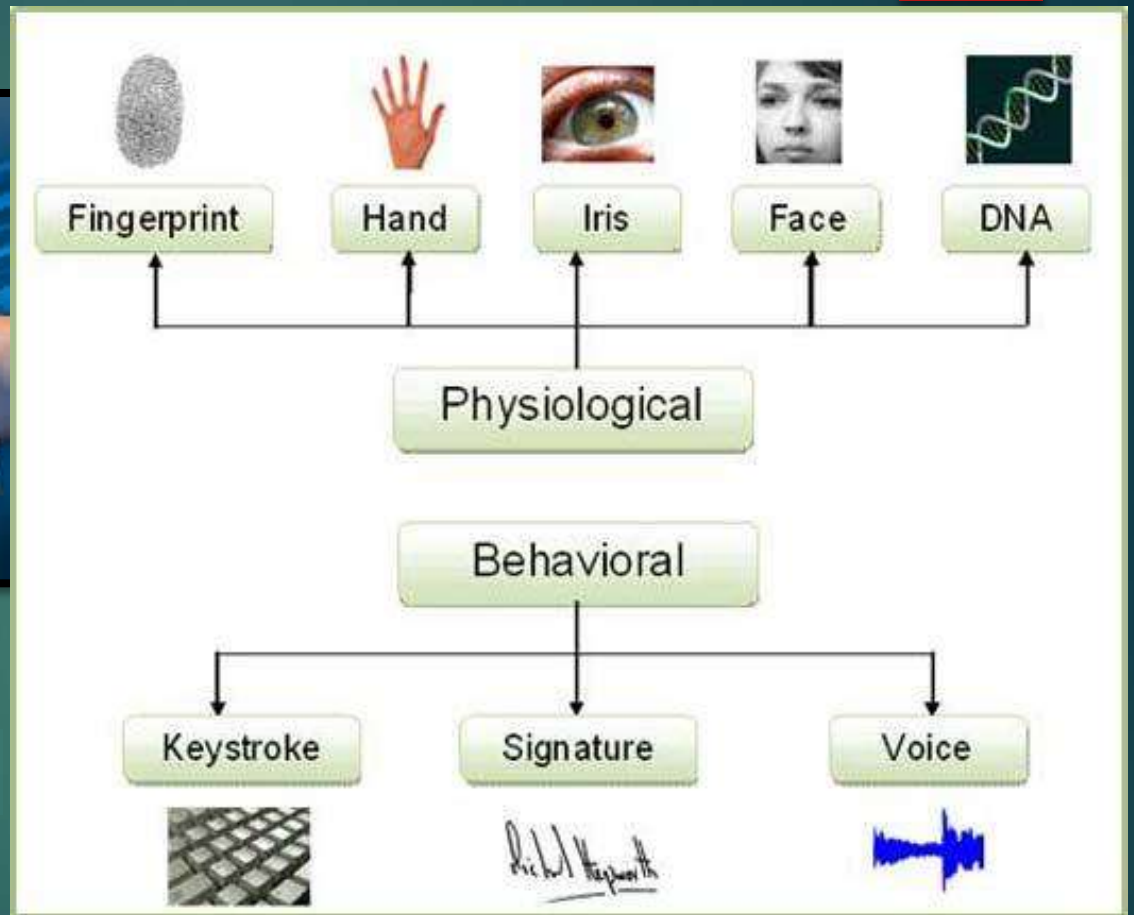
GPS instrument

Hand held GPS instruments are used to map locations of scene of crime and movement location of the criminals

DNA Finger printing

▶ DNA fingerprinting allows identification of an individual or species.

▶ Individual identification for matching tissue samples from an illegal kill site to samples associated with suspect.

▶ Species identification of unknown tissue samples involved in illegal commercialization and poaching.

▶ Includes identification of mixed game products – packed meats.

▶ Sex identification to enforce the violations of the wildlife Law.

Thank You