



Report on Road Accidents: World Bank

Why in News

Recently, the Union Minister for Road Transport and Highways released the [World Bank](#) Report titled “**Traffic Crash Injuries And Disabilities: The Burden on India Society**”.

- The Report has been prepared in collaboration with the **NGO-Save Life Foundation**.
- The survey data was collected from four Indian states i.e. **Uttar Pradesh, Bihar, Tamil Nadu and Maharashtra**.

Key Points

- **Global Fatalities due to Road Accidents:**
 - Road Traffic Injuries (RTIs) - **Eighth leading cause of death**.
 - **Road Crash Fatality Rate** - Three times higher in low-income countries compared to high-income countries.
- **Road Accidents and Related Deaths in India:**
 - **Accounts for 11% of the global death** in road accidents, the **highest in the world**.
 - Accounts for about **4.5 lakh road crashes per annum**, in which 1.5 lakh people die.
- **Economic Impacts of Road Accidents:**
 - **Estimated Economic Loss** - 3.14% of [Gross Domestic Product \(GDP\)](#), indicating **underreporting phenomenon** in the country.
 - **Ministry of Road Transport and Highways (MoRTH) Estimates** -
 - Socio-economic cost of Road Crashes is equivalent to **0.77% of the GDP**.
 - **76.2% of people** who are killed in road crashes are in their prime working-age, **18-45 years**.
- **Social Impact:**
 - **Burden on Households:**
 - At the individual level, road crash injuries and deaths **impose a severe financial burden and push entire (non-poor) households** into poverty and the already poor into debt.
 - Every road accident death causes **depletion of nearly seven months' household income in poor families**, and pushes the kin of victims in a cycle of poverty and debt.
 - **Vulnerable Road Users (VRUs):**
 - **VRUs bear a disproportionately large burden of road crashes** and account for more than half of all road crash deaths and serious injuries in the country.
 - It is often the **poor, especially male road-users** of working age, that constitute the category of **VRUs**.
 - Daily wage workers and workers employed as casual labourers in informal

activities are more prone to be defined as vulnerable compared to workers engaged in regular activities.

- In India, where **VRUs** are forced to share space with other less vulnerable road users, **the income level of an individual has a direct bearing on the mode of transport used.**
- **Gender Specific Impact:**
 - Women in the families of victims **bore the burden across poor and rich** households, often taking up extra work, assuming greater responsibilities, and performing caregiving activities.
 - About **50% of women were severely affected by the decline in their household income** after a crash.
 - About **40% of women reported a change in their working patterns** post-accident, while around **11% reported taking up extra work** to deal with the financial crisis.
- **Rural-Urban Divide:**
 - The **income decline** for low-income **rural households (56%) was the most severe** compared to low-income urban (29.5%) and high-income rural households (39.5%).
- **Steps Taken at Global Level:**
 - **Brasilia Declaration on Road Safety (2015):**
 - The **declaration** was signed at the second Global High-Level Conference on Road Safety held in Brazil. **India is a signatory** to the Declaration.
 - The countries plan to achieve the **Sustainable Development Goal 3.6** i.e. to half the number of global deaths and injuries from road traffic accidents by 2030.
 - **Decade for Road Safety:**
 - The United Nations (UN) declared **2011-2020** as the decade of action for Road Safety.
 - **UN Global Road Safety Week:**
 - It is **celebrated every two years**, the fifth edition (held from 6-12 May 2019) highlighted the need for strong leadership for road safety.
 - **The International Road Assessment Programme (iRAP) :**
 - It is a registered charity dedicated to saving lives through safer roads.
- **Steps Taken by Indian Government**
 - **Motor Vehicles Amendment Act, 2019:**
 - The **Act** hikes the penalties for traffic violations, defective vehicles, juvenile driving, etc.
 - It provides for a **Motor Vehicle Accident Fund**, which would provide compulsory insurance cover to all road users in India for certain types of accidents.
 - It also provides for a **National Road Safety Board**, to be created by the Central Government through a notification.
 - It also provides for the protection of good samaritans.

Way Forward

- **Policy-oriented approaches are needed** for saving lives and improving the ability of victims and their families to get back on their feet, including providing immediate financial, medical and legal aid.
- Areas that require immediate improvements include **post-crash emergency care and protocols, insurance and compensation systems.**

- There is a need for development agencies, policymakers and respective state governments to **prioritize a complete policy overhaul** of the existing system and **implement sustainable solution-oriented, inclusive measures** to improve their performance on road safety.

[Source:PIB](#)

Corruption Perception Index 2020

Why in News

India's rank has slipped six places to **86th among 180 countries** in **Corruption Perception Index (CPI)** released by [Transparency International](#).

- India was ranked 80th out of 180 countries in 2019.

Transparency International

- Transparency International is an international non-governmental organisation founded in **1993** based in **Berlin, Germany**
- its non profit purpose is to take action to **combat global Corruption with civil societal anti-corruption measures** and **to prevent criminal activities** arising from corruption.
- Its most notable publications include the **Global Corruption Barometer** and the **Corruption Perception Index**.

Key Points

- **About:**
 - The index ranks **180 countries and territories** by the perceived level of public sector corruption according to experts and business people.
 - It uses a scale of **zero (highly corrupt) to 100 (very clean)**.
 - CPI 2020 paints a grim picture of the state of corruption worldwide. While most countries have made little to no progress in tackling corruption in nearly a decade, more than two-thirds of countries **score below 50, with an average score of just 43**.
 - Moreover, corruption not only undermines the **global health response to [Cover-19](#)** but contributes to a **continuing crisis of democracy**.
- **Top Performers:**
 - The top countries on the **Corruption Perception Index (CPI)** are **Denmark and New Zealand**, with scores of 88, followed by **Finland, Singapore, Sweden and Switzerland**, with scores of 85 each.
- **Poor Performers:**
 - **South Sudan and Somalia** are the bottom Countries with scores of 12 each, followed by Syria (14), Yemen (15) and Venezuela (15).
- **Regional Specific:**
 - The highest scoring region is **Western Europe** and the **[European Union](#)** with an average score of 66.
 - The lowest scoring regions are **Sub-Saharan Africa (32)** and **Eastern Europe and Central Asia (36)**.

▪ **India Specific:**

- In 2020, India's score is 40 (41 in 2019).
- India experienced slow progress in anti-corruption efforts, with several government commitments to reform not yet materialising effectively.

▪ **Corruption, Health & Covid-19:**

- Corruption shifts public spending away from essential public services. Countries with higher levels of corruption, regardless of economic development, tend to spend less on health.
 - Higher levels of corruption are associated with lower universal health care coverage and higher rates of infant and maternal mortality and deaths from cancer, diabetes, respiratory and cardiovascular diseases.
- Corruption is one of the key barriers to achieving the **United Nations' Sustainable Development Goals (SDGs)**, and the covid-19 pandemic is making those goals even more difficult to attain.
- Covid-19 is not just a health and economic crisis, but a corruption crisis as well, with countless lives lost due to the insidious effects of corruption undermining a fair and equitable global response.
- The Covid-19 response exposed vulnerabilities of **weak oversight and inadequate transparency**. Countries with higher levels of corruption tend to be the worst perpetrators of democratic and rule-of-law breaches while managing the COVID-19 crisis.
 - Governments exploiting the pandemic to suspend parliaments, renounce public accountability mechanisms, and incite violence against dissidents.

▪ **Recommendations:**

- **Strengthen oversight institutions** to ensure resources reach those most in need. **Anti-corruption authorities and oversight** institutions must have sufficient funds, resources and independence to perform their duties
- **Ensure open and transparent contracting** to combat wrong doing, identify conflicts of interest and ensure fair pricing.
- **Defend Democracy, Promote Civic Space** by enabling civil society groups and the media to hold governments accountable.
- **Publish relevant data and guarantee access to information** to ensure the public receives easy, accessible, timely and meaningful information.

[Source-IE](#)

Liberalisation of the Geo-Spatial Sector

Why in News

Recently, the Ministry of Science and Technology released **new guidelines for the Geo-Spatial Sector** in India, which deregulates existing protocol and **liberalises the sector** to a more competitive field.

Key Points

▪ **Geo-Spatial Data:**

- Geospatial data is data about **objects, events, or phenomena that have a location on the surface of the earth**.

- The location may be static in the short-term, like the **location of a road**, an [earthquake event](#), [malnutrition](#) among children, or dynamic like a **moving vehicle** or pedestrian, the **spread of an infectious disease**.
- It combines Information on:
 - **Location**,
 - **Attribute** (the characteristics of the object, event, or phenomena concerned),
 - **Temporal or time**.
- The past decade has seen an increase in the use of geo-spatial data in daily life with various apps such as **food delivery**, [e-commerce](#) or even **weather apps**.
- **Current State of the Geo-Spatial Sector:**
 - **Strict Restriction:**
 - There are **strict restrictions on the collection, storage, use, sale, dissemination** of geo-spatial data and mapping under the current regime.
 - **Renewal:**
 - The policy had not been renewed in decades and has been driven by **internal as well as external security concerns**.
 - **Dominated by Government:**
 - The sector so far is dominated by the Indian government as well as government-run agencies such as the [Survey of India](#) and **private companies need to navigate a system of permissions** from different departments of the government (depending on the kind of data to be created) as well as the defence and Home Ministries, to be able to collect, create or disseminate geo-spatial data.
- **New Policy:**
 - **Open Access:**
 - Open access to its geospatial data and services, including maps, for all Indian entities, with the **exception of sensitive defence or security-related data**.
 - **Restrictions Removed:**
 - Indian corporations and innovators are **no longer subject to restrictions nor do they require prior approvals** before they collect, generate, prepare, disseminate, store, publish, update digital geospatial data and maps within the territory of India.
 - There shall be **no requirement for security clearance, licence** or any other restrictions.
- **Reason for Deregulation of Geo-Spatial Data:**
 - **Delayed Projects:**
 - System of acquiring licenses or permission, and the **red tape involved, took months, delaying projects**, especially those that are in mission mode – for both Indian companies as well as government agencies.
 - The deregulation eliminates the requirement of permissions as well as scrutiny, even for security concerns. **Indian companies now can self-attest, conforming to government guidelines** without actually having to be monitored by a government agency- these guidelines therefore place a great deal of trust in Indian entities.
 - **Lack of Data:**
 - There is also a huge lack of data in the country which **impedes planning for infrastructure, development and businesses** which are data-based.
 - The mapping of the entire country, that too with high accuracy, by the Indian

government alone could take decades.

- The government therefore felt an urgent **need to incentivise** the geo-spatial sector for Indian companies and increased investment from private players in the sector.

- **Changing Needs:**

- For decades, geo-spatial data has been a priority for strategic reasons and for internal and external security concerns, this priority has seen a shift in the past 15 years.
- Initially conceptualised as a matter solely concerned with security, geo-spatial data collection was the prerogative of the defence forces and the government.
 - **Geographic Information System (GIS)** mapping was also rudimentary, with the government investing heavily in it after the **Kargil war** highlighted the dependence on foreign data and the need for indigenous sources of data..
- Geo-spatial data has now become imperative for the government in **planning for infrastructure, development, social development, natural calamities as well as the economy**, with more and more sectors such as agriculture, environment protection, power, water, transportation, communication, health (tracking of diseases, patients, hospitals etc) relying heavily on this data

- **Global Push:**

- There has also been a global push for open access to geo-spatial as it affects the lives of ordinary citizens.
- Large amounts of **geo-spatial data are also available on global platforms**, which makes the regulation of data that is freely available in other countries, untenable.

- **Impact of Deregulation:**

- **Increased Competitiveness:**

- By liberalising the system, the government will **ensure more players in the field, competitiveness of Indian companies in the global market**, and more accurate data available to both the government to formulate plans and administer, but also for individual Indians.

- **New Employment:**

- Startups and businesses can now also use this data in setting up their concerns, especially in the sector of e-commerce or geo-spatial based apps - which in turn will **increase employment in these sectors**.
- Indian companies will be able to develop indigenous apps.

- **Increased Public-Private Partnership:**

- There is also likely to be an increase in public-private partnerships with the opening of this sector with data collection companies working with the Indian government on various sectoral projects.

- **Increased Investment:**

- The government also expects an increase in investment in the geo-spatial sector by companies, and also an increase in export of data to foreign companies and countries, which in turn **will boost the economy**.

[Source:TH](#)

Bhuvan Portal

Why in News

Recently, [Indian Space Research Organisation \(ISRO\)](#) and **MapmyIndia** have partnered to come up with an **indigenous geospatial portal** known as 'Bhuvan'.

- This is in line with the above discussed new **guidelines for the Geo-Spatial Sector** in India.

Key Points

▪ Geospatial Portal (Bhuvan):

- It is a type of web portal **used to find and access geographic information** (geospatial information) **and associated geographic services** (display, editing, analysis, etc.) **via the Internet.**

▪ The Collaboration:

- **MapmyIndia's database** will be connected with **ISRO's high-end satellite catalogue and earth observation data**, which it generates through a constellation of its satellites.
- The collaboration will enable them to jointly identify and build a holistic **geospatial portal** utilising earth observation datasets, [Navigation in Indian Constellation \(NavIC\)](#), Web Services and **APIs** (application programming interface) available in MapmyIndia.

- **API** is a **software intermediary** that allows two applications to talk to each other.
- It is a computing interface that defines **interactions between multiple software intermediaries**

▪ Significance of the Portal:

◦ True Maps:

- Its services will **reflect the true borders of the country** as per the information available from Government of India.

◦ Protects Privacy:

- By using MapmyIndia maps and applications instead of the foreign map apps, **users can better protect their privacy.**
- As foreign search engines and companies claim to offer 'free' maps, but in reality, they make money by targeting the same users with advertising, by **invading the user's privacy and auctioning private location and movement data.** However there is no such provision of advertisement in MapmyIndia.

- **Atma Nirbhar Bharat:** Being an Indian platform, it is well aligned with the government's Mission of [Atma Nirbhar Bharat](#).

▪ MapmyIndia:

◦ About:

- It is an **Indian technology company** that builds digital map data, telematics services, Global Information System and [Artificial Intelligence](#) services.
- It is an alternative to **Google Map**, which covers as many as 7.5 lakh Indian villages and 7,500 cities.

◦ Database:

- The database has a road network connected by 63 lakh km and the organisation claims to consist of the most exhaustive digital map database of the country.

◦ Use:

- Almost all the vehicle manufacturers in India who come with built-in navigation

systems are using MapmyIndia.

- **Other Products:**

- App called '**Move**' that provides **real-time traffic updates and navigation**.

Navigation in Indian Constellation (NavIC)

- **About:**

- It is an **Indian Regional Navigation Satellite System (IRNSS)**, developed by the Indian Space Research Organization (ISRO).
 - IRNSS **consists of eight satellites**, three satellites in geostationary orbit and five satellites in geosynchronous orbit.
- It works just like the established and popular **U.S. Global Positioning System (GPS)** but within a 1,500-km radius over the sub-continent.
- It has been **certified by the 3rd Generation Partnership Project (3GPP), a global body for coordinating mobile telephony standards**.

- **Objective:**

- The main objective is to **provide reliable position, navigation and timing services** over India and its neighbourhood.

- **Potential Uses:**

- Terrestrial, aerial and marine navigation;
- Disaster management;
- Vehicle tracking and fleet management (especially for mining and transportation sector);
- Integration with mobile phones;
- Precise timing (as for ATMs and power grids);
- Mapping and geodetic data capture.

- **Other Global Navigational Systems:**

- **BeiDou/BDS** (China)
- **Galileo** (Europe)
- **GLONASS** (Russia)
- **Quasi-Zenith Satellite System (QZSS)** (Japan)

[Source:IE](#)

Increased Foreign Portfolio Investments

Why in News

The [Sensex](#) has risen 11.36%, post [Union Budget 2021-22](#) presentation, due to increased [Foreign Portfolio Investments \(FPIs\)](#).

- **Sensex**, otherwise known as the S&P BSE Sensex index, is the **benchmark index of the Bombay Stock Exchange (BSE)** in India. It **comprises 30 of the largest and most actively-traded stocks** on the BSE, and is the oldest stock index in India.
- A **stock** is an investment that represents a share, or partial ownership, of a company. Corporations issue (sell) stock to raise funds to operate their businesses.

Key Points

▪ Reasons for Inflow:

◦ Increased Liquidity:

- **Stock market is responding to the Budget 2021-22** that has infused liquidity (money supply in market) in the Indian economy and been **pro-growth with privatisation gaining ground**.
- Several reforms aimed at protecting shareholder rights and improving the ease of doing business have also been a contributing factor.

◦ Post Covid Recovery:

- India, with a recovering economy, is moving back to a higher nominal growth trajectory versus the western world (which continues to struggle with the second wave of Covid and related lockdowns) and looks as a credible destination for growth seeking developed world investors.

▪ Sectors Wise Investments:

◦ Performing Sectors:

- Sectors like **private banks, Fast-Moving Consumer Goods (FMCG) and Information Technology (IT)** have seen foreign flows as Indian companies have exhibited resilience and demonstrated growth post lifting of the lockdown restrictions.
- In 2020, the **pharma sector** was a preferred choice and the sector did very well.
- The **Banking stocks underperformed due to potential [Non-Performing Asset \(NPA\)](#) concerns**. Now, the banking stocks are again sought after by the FPIs.

▪ Benefit:

◦ Build Forex Reserve:

- Increased inflow of investments will conservatively allow to build **[forex reserves](#)** so that India has a buffer to maintain resilience in case of any future contagion from excessive liquidity and rising **[fiscal deficits](#)**.

Foreign Portfolio Investment

▪ Foreign Capital:

- **FPI and FDI** are both **important sources of funding** for most economies.
- A **[Foreign Direct Investment \(FDI\)](#)** is an investment made by a firm or individual in one country into business interests located in another country. **FDI lets an investor purchase a direct business interest** in a foreign country.
 - **Example:** Investors can make FDI in a number of ways. Some common ones include **establishing a subsidiary** in another country, **acquiring or merging** with an existing foreign company, or **starting a joint venture partnership** with a foreign company.
- **Foreign portfolio investment (FPI)** consists of securities and other financial assets passively held by foreign investors. It **does not provide the investor with direct ownership of financial assets** and is relatively liquid depending on the volatility of the market.
 - **Examples** of FPIs include **stocks, [bonds](#), [mutual funds](#), [exchange traded funds](#), **American Depositary Receipts (ADRs)**, and **Global Depositary Receipts (GDRs)**.**

▪ Other Details Related to FPI:

- FPI is part of a country's capital account and is shown on its [Balance of Payments \(BOP\)](#).
 - The BOP measures the amount of money flowing from one country to other countries over one monetary year.
- The [Securities and Exchange Board of India \(SEBI\)](#) brought [new FPI Regulations, 2019](#), replacing the erstwhile FPI Regulations of 2014.
- **FPI is often referred to as “hot money”** because of its tendency to flee at the first signs of trouble in an economy. FPI is more liquid, volatile and therefore **riskier than FDI**.

Differences Between FDI and FPI

Parameters	FDI	FPI
Definition	FDI refers to the investment made by foreign investors to obtain a substantial interest in the enterprise located in a different country.	FPI refers to investing in the financial assets of a foreign country, such as stocks or bonds available on an exchange.
Role of investors	Active Investor	Passive Investor
Type	Direct Investment	Indirect Investment
Degree of control	High Control	Very low control
Term	Long term investment	Short term investment
Management of Projects	Efficient	Comparatively less efficient
Investment has done on	Physical assets of the foreign country	Financial assets of the foreign country
Entry and exit	Difficult	Relatively easy
Leads to	Transfer of funds, technology, and other resources to the foreign country	Capital inflows to the foreign country
Risks Involved	Stable	Volatile

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[Source:IE](#)

Digital Intelligence Unit

Why in News

Recently, the **Ministry of Communications** has decided to set up a **Digital Intelligence Unit (DIU)** as a nodal agency to deal with complaints of unsolicited commercial communication (UCC) and cases of financial fraud, especially in the digital payments space.

- Apart from the DIU a Telecom Analytics for **Fraud Management and Consumer Protection (TAF COP)** will also be set up at all the 22 license service area levels.
- It would also ensure strict compliance of the [Telecom Commercial Communications Customer Preferences Regulations \(TCCCPR\)](#) 2018 which provides a revised regulatory framework aimed at regulating '**unsolicited commercial communication (UCC) in India**'.

Key Points

▪ Background:

- Recently, the Delhi High Court (HC) ordered the **Telecom Regulatory Authority of India (TRAI)** to ensure “complete and strict” implementation of the regulation issued by it in 2018 for curbing [Unsolicited Commercial Communications \(UCC\)](#).
- Earlier in November, 2020 **TRAI had imposed fines of up to Rs 30 crore on telecom companies** such as Bharat Sanchar Nigam Limited, Vodafone Idea and Reliance Jio Infocomm for not putting enough measures to control UCC, which occurred over their networks between April and June 2020.
- The [Reserve Bank of India \(RBI\)](#) had, in its annual report for 2018-19, said frauds related to misuse of credit and debit cards, cloning of identities, and spam amounted to Rs 220 crore in the year. DIU could mitigate this menace.

▪ Digital Intelligence Unit

◦ Objective:

- To coordinate with various law enforcement agencies, financial institutions and telecom service providers in investigating any fraudulent activity involving telecom resources.

◦ Significance:

• **Checking Unsolicited Commercial Communication (UCC):**

- The issue of UCC has been a major area of concern for the Telecom Ministry as well as the **Telecom Regulatory Authority of India (TRAI)**. It has from time to time fined telecom operators for not following its directives on stopping UCC.

• **Effective Redressal of Complaints:**

- Along with DIU, a web and mobile application as well as a SMS-based system shall be developed for effective redressal of complaints.

• **Instilling Trust In the Digital Ecosystem:**

- The DIU system will strengthen the trust of people in the digital ecosystem and will make financial digital transactions primarily through mobile more secure and reliable, which will result in promotion of Digital India.

• **UCC on over-the-top (OTT) Service Providers:**

- TRAI is also about to come up with a consultation paper to deal with **UCC on over-the-top (OTT) service providers**. The launched systems does not address the issue of UCC on over-the-top (OTT) service providers such as **WhatsApp**.
- **The Telecom Commercial Communication Customer Preference Regulation, 2018** tightened the norms for all stakeholders in the telecom ecosystem to have facilities for users to complain against unsolicited calls or SMS. However, OTT players have thus far remained untethered from regulations as far as UCC is concerned.

Telecom Regulatory Authority of India

▪ Statutory Body:

- Established by an Act of Parliament (Telecom Regulatory Authority of India Act, 1997)

▪ Objectives:

- **To regulate telecom services**, including fixation/revision of tariffs for telecom services.
- **Provide a fair and transparent policy environment** which promotes a level playing field and facilitates fair competition.

▪ Recent Amendment:

- The TRAI Act was amended in the year 2000 to establish a **Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT)** to take over the adjudicatory and disputes functions from TRAI.

[Source:IE](#)

Arjun MBT MK-1A

Why in News

Recently, the Prime Minister of India has handed over the indigenously developed **Arjun Main Battle Tank (MBT) MK-1A** to the Indian Army.



Key Points

▪ About:

- **Launch:** The Arjun MBT Project was initiated by [Defence Research and Development Organisation \(DRDO\)](#) in 1972 with the **Combat Vehicles Research and Development Establishment (CVRDE)** as its lead laboratory.
- **Objective:** To create a "state-of-the-art tank with superior fire power, high mobility, and excellent protection".

▪ Features of the Arjun Tank:

- The Arjun MBT is equipped with an indigenously developed **120mm main rifled gun** with **Fin Stabilised Armour-Piercing Discarding Sabot (FSAPDS)** ammunition.
 - **FSAPDS** is capable of destroying all known tank armour up to direct shooting range.
- It also has a **computer-controlled integrated fire control system** with stabilised sighting that works in all lighting conditions.
- The secondary weapons include a coaxial 7.62-mm machine gun for anti-personnel and a 12.7-mm machine gun for anti-aircraft and ground targets.

▪ Mk1A and MkII:

- The development of Arjun Mk1 was followed by improved variants - Mk1A and MkII.
- Arjun Mk1A, which features improved **firepower and transmission systems**, completed the final integration tests in 2019 and was cleared for production.
- The Arjun MkII variant is a light-weight **Futuristic Main Battle Tank (FMBT)** with electro-optical sensors and high-power lasers.

▪ Features of Mk-1A:

- The Mk-1A version has 14 major upgrades on the earlier version. It is also supposed to have **missile firing capability** as per the design.
- However, the biggest achievement with the latest version is **54.3% indiginous content** against the **41% in the earlier model**.
- The newly developed **Kanchan** modular composite armour gives all-round protection to the tank from anti-tank ammunition.
 - Kanchan has been manufactured by **Defence Metallurgical Research Laboratory (DMRL)** - a DRDO Laboratory.

Defence Research and Development Organisation

- DRDO works to establish a world class science and technology base for India and provides India's Defence Services decisive edge by equipping them with internationally competitive systems and solutions.
- DRDO was established in 1958 after combining Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).
- DRDO works under the administrative control of the Ministry of Defence, Government of India.

[Source: IE](#)

Karlapat Wildlife Sanctuary, Odisha

Why in News

Recently, **six elephants died of Haemorrhagic Septicaemia (HS) in Karlapat Wildlife Sanctuary** located in Odisha's Kalahandi district.

Key Points

- **Haemorrhagic septicaemia (HS)**
 - **About:**
 - It is a disease which infects animals that come in contact with contaminated water or soil by a **contagious bacteria (*Pasteurella multocida*)**.
 - In this disease the respiratory tract and lungs of the animals are affected, leading to **severe pneumonia**.
 - **Affected Animals:**
 - It mainly affects water buffalo, cattle and bison with a high mortality rate in infected animals.
 - Recently, around 40 buffaloes had succumbed to the infection in Odisha's Kendrapara.
 - **Season:**
 - The disease generally spreads in the period right before and after the **monsoons**.
- **Karlapat Wildlife Sanctuary**
 - **Location:** It is spread over 175 square kilometre area in Odisha's Kalahandi district.
 - **Vegetation:** Dry Deciduous Forest.
 - **Fauna:**
 - **Mammals:** [Elephant](#), [Leopard](#), [Gaur](#), [Sambar](#), Barking deer, Indian wolf, [Malbar giant squirrel](#), [Pangolin](#), etc.
 - **Birds:** Peacock, [Hornbill](#), Red jungle fowl, etc.
 - **Reptilians:** [Mugger](#), crocodile, monitor lizard etc.
 - **Flora:** Sal, Bija, Bamboo, medicinal plants, etc.

- **Water Body: Phurlijharan waterfall** is located within the sanctuary.
- **Major Protected Areas in Odisha:**
 - **National Parks:**
 - **Bhitarkanika National Park:** It is home to the largest congregation of the endangered **SaltWater Crocodile** in the country.
 - **Simlipal National Park:** It derives its name from the **abundance of Semul or red silk cotton trees** that bloom abundantly in the locality.
 - **Wildlife Sanctuaries:**
 - **Badrama WLS:** It is characterized by the presence of **Moist Sal Forests**.
 - **Chilika (Nalaban island) WLS:** Asia's largest and world's second-largest lagoon. Recently, direct sightings of school of Irrawaddy dolphins has been reported here.
 - **Hadgarh WLS: Salandi river passes** through it which is home to mugger crocodiles.
 - **Baisipalli WLS:** It is a sal dominated forest with a significant number of tigers, leopards, elephants, herbivores like **Chousingha**.
 - **Kotagarh WLS:** It consists of dense deciduous forests with grasslands.
 - **Nandankanan WLS:** First in the world to breed White tiger and Melanistic tiger.
 - **Lakhari Valley WLS:** The Lakhari Valley Sanctuary is a dwelling place of a large number of elephants.
 - **Gahirmatha (Marine) WLS:** It is a mass nesting spot in Indian Ocean region and the only turtle sanctuary in Odisha. **The Olive Ridley turtles** travel across the South Pacific to breed on the coast of Gahirmatha

Source:IE

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