

# **DATA WAREHOUSING FOR THE GOVERNMENT OF ANDHRA PRADESH REPORT**

**Batch-1 W1**

**Siddhant Mandal RA2011027010079**

**Omisha Singal RA2011027010103**

**Tanumay Ghosh RA2011027010101**

## **INTRODUCTION**

For any government how Data Warehousing can help-

- **Enhanced decision making:** With a centralized data warehouse, government agencies can collect, store, and analyze data from various sources. This enables decision-makers to access accurate, up-to-date information that they can use to make informed decisions.
- **Improved efficiency:** Data warehousing can help government agencies optimize their operations and streamline their processes. This can lead to increased efficiency, reduced costs, and improved service delivery.
- **Better data security:** Data warehousing can also enhance data security by providing a secure and centralized location for sensitive data. This can help prevent data breaches, cyber attacks, and other security incidents.
- **Increased transparency:** A data warehouse can provide a comprehensive view of government operations and activities, making it easier to identify areas of improvement and track progress towards goals. This can help increase transparency and accountability in government.
- **Better citizen services:** Data warehousing can help government agencies provide better services to citizens by enabling them to better understand citizen needs and preferences. This can lead to more personalized and effective services.

## **DATA WAREHOUSING FOR THE GOV OF AP (OVERVIEW)-**

**Agriculture:** Agriculture is a major contributor to the economy of Andhra Pradesh. The growth of the agricultural sector depends on factors such as availability of water, irrigation facilities, and government policies related to agriculture.

- **Infrastructure:** The quality and availability of infrastructure such as roads, ports, airports, and power supply are critical factors that can impact the economic growth of the state.
- **Human capital:** The availability of skilled and educated workforce is essential for economic growth. The quality of education and training programs, as well as the availability of job opportunities, can impact the state's growth prospects.
- **Industrialization:** The growth of industries such as manufacturing, textiles, and services can contribute significantly to the state's economy. Factors such as availability of raw materials, access to credit, and government policies related to industry can impact the growth of these sectors.
- **Government policies:** Government policies related to taxation, investment, and infrastructure development can have a significant impact on the growth of the state's economy.
- **Political stability:** Political stability and effective governance are critical factors that can impact the growth of the state. Political instability can lead to uncertainty and negatively impact investment and growth.
- **Natural disasters:** Natural disasters such as floods and cyclones can have a significant impact on the state's economy, especially in sectors such as agriculture, tourism, and infrastructure.

## METHODOLOGY/SOFTWARE USED FOR DATA WAREHOUSING-

1. Amazon Redshift: A cloud-based data warehousing solution that is fast, scalable, and cost-effective.
2. Snowflake: A cloud-based data warehousing platform that enables organizations to store, process, and analyze large amounts of structured and semi-structured data.
3. Microsoft Azure SQL Data Warehouse: A cloud-based data warehousing solution that can handle petabyte-scale data volumes.
4. Oracle Exadata: An on-premises data warehousing solution that combines hardware and software to deliver high performance and scalability.
5. IBM InfoSphere Warehouse: A data warehousing solution that provides a comprehensive set of tools for data integration, management, and analysis.
6. SAP BW/4HANA: An in-memory data warehousing solution that provides real-time data processing and analytics capabilities.
7. Google BigQuery: A cloud-based data warehousing platform that enables organizations to analyze large datasets quickly and cost-effectively.
8. Teradata: An on-premises data warehousing solution that provides high-performance analytics and data processing capabilities.
9. Informatica PowerCenter: A data integration tool that provides advanced data profiling, cleansing, and transformation capabilities for data warehousing.
10. Talend: An open-source data integration tool that provides powerful data integration, ETL, and data warehousing capabilities.

## Data warehousing in criminal sector of AP-

It is the seventh-largest state by area covering an area of 162,975 km<sup>2</sup> and tenth-most-populous state, with 49,386,799 inhabitants

State/UT		Andhra Pradesh
Crime Rate (IPC & SLL)	2020	452.7
	2021	420.4
Crime Density (Crime/100km <sup>2</sup> ) (IPC & SLL)	2021	136.34

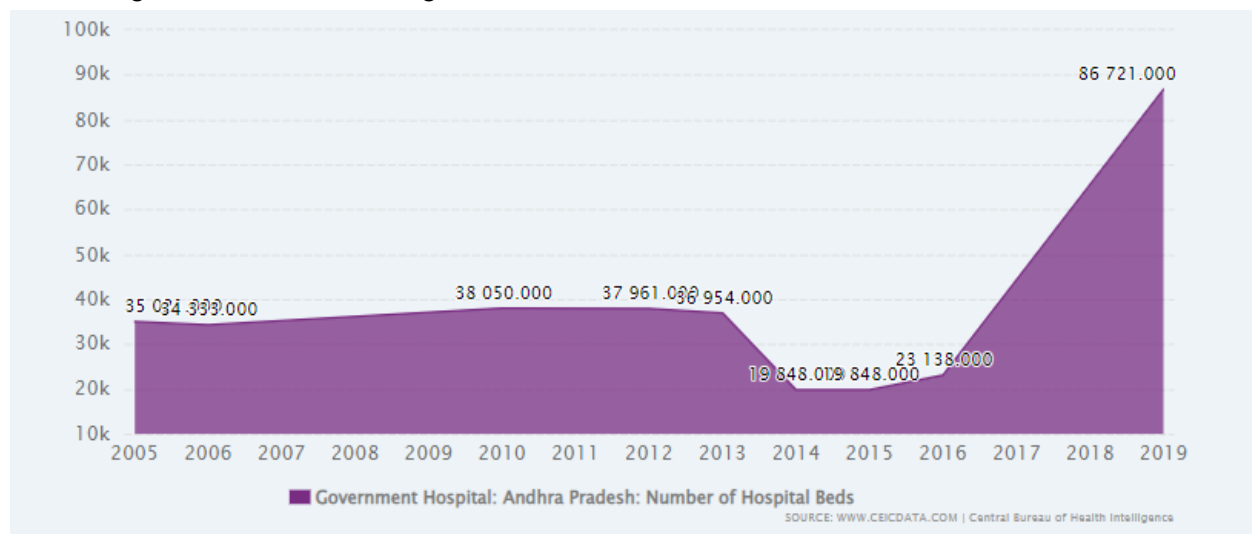
IPC- INDIAN PENAL CODE

SLL - SPECIAL AND LOCAL LAWS

Similarly, fields like Criminal Justice and Judiciary can consume data to analyze crime patterns, locate the criminal networks and hotspots of potential crimes, etc. This would help the authorities take corrective measures and prevent any such incidents from happening. Data is extremely valuable in fraud prevention also. Many financial systems today are employing data to detect fraudulent activities and it is now suggested to integrate a fraud detection module while setting up any financial system.

### DATA WAREHOUSING FOR THE HEALTHCARE SECTOR-

During the COVID-19 pandemic, data has been extensively used for contact tracing, prediction of hotspots, trends analysis, and take appropriate measures to curb the spread of the virus. Data was also used for the management of hospitals and the supply of essential medicines and essential goods to citizens at large.



### What was India's Government Hospital: Andhra Pradesh: Number of Hospital Beds in 2019?

LAST	PREVIOUS	MIN	MAX	UNIT	FREQUENCY	RANGE
▲ 86,721.000 2019	▲ 23,138.000 2016	19,848.000 2015	86,721.000 2019	Unit	yearly	2005 - 2019

### DATA WAREHOUSING IN AGRICULTURE OF AP-

Andhra Pradesh is endowed with a variety of soils ranging from poor coastal sands to highly fertile deltaic alluviums. Red soils occupy over 66% of the cultivated area

Other crops grown are Maize, Jowar, Cotton, Sugarcane, Groundnut, Pulses, Chillies and to some extent Tobacco.

in the production of rice, given the availability of labour, favourable climatic conditions and a well developed irrigation system over most of the other regions of India, where rice cultivation is done under rainfed conditions. Rice is cultivated in almost all the 22 districts of Andhra Pradesh

**Table 1.5: State wise Rice Production in India in 2008-09**

State	Area (In million ha.)	Production (Mill. Tons)	Productivity
Andhra Pradesh	4.39	14.24	3246
Chhattisgarh	3.73	4.39	1176
Karnataka	1.51	3.80	2511
Orissa	4.45	6.81	1529
Punjab	2.74	11.00	4022
Tamil Nadu	1.93	5.18	3389
Uttar Pradesh	6.03	13.10	2171
West Bengal	5.94	15.04	2533
ALL INDIA	45.54	99.18	2178

#### **DATA WAREHOUSING IN HEALTH CARE SECTOR OF AP-**

Government Hospital: Andhra Pradesh: Number of Hospital Beds data was reported at 86,721.000 Unit in 2019. This records an increase from the previous number of 23,138.000 Unit for 2016. Government Hospital: Andhra Pradesh: Number of Hospital Beds data is updated yearly, averaging 35,021.000 Unit from Dec 2005 to 2019, with 9 observations. The data reached an all-time high of 86,721.000 Unit in 2019 and a record low of 19,848.000 Unit in 2015. Government Hospital: Andhra Pradesh: Number of Hospital Beds data remains active status in CEIC and is reported by Central Bureau of Health Intelligence. The data is categorized under India Premium Database's Health Sector – Table IN.HLA002: Health Infrastructure: Government Hospital Beds.

## REFERENCES—

<https://www.nic.in/blogs/data-driven-government/#:~:text=For%20instance%2C%20data%20can%20prove.unorganized%20labor%2C%20Scholarships%2C%20etc.>

<https://www.ijcaonline.org/archives/volume169/number8/arora-2017-ijca-914785.pdf>

[https://en.wikipedia.org/wiki/List\\_of\\_states\\_and\\_union\\_territories\\_of\\_India\\_by\\_crime\\_rate](https://en.wikipedia.org/wiki/List_of_states_and_union_territories_of_India_by_crime_rate)

<https://vikaspedia.in/schemesall/state-specific-schemes/welfare-schemes-of-andhra-pradesh>

[https://en.wikipedia.org/wiki/List\\_of\\_schemes\\_of\\_the\\_government\\_of\\_India#:~:text=In%20the%202022%20Union%20budget,centrally%20sponsored%20schemes%20\(CSS\).](https://en.wikipedia.org/wiki/List_of_schemes_of_the_government_of_India#:~:text=In%20the%202022%20Union%20budget,centrally%20sponsored%20schemes%20(CSS).)

[https://www.researchgate.net/publication/273691933\\_Rice\\_Production\\_Productivity\\_in\\_Andhra\\_Pradesh](https://www.researchgate.net/publication/273691933_Rice_Production_Productivity_in_Andhra_Pradesh)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8037603/>