

Task 1

Exhaustive Analysis of Indian Agriculture Using Power BI

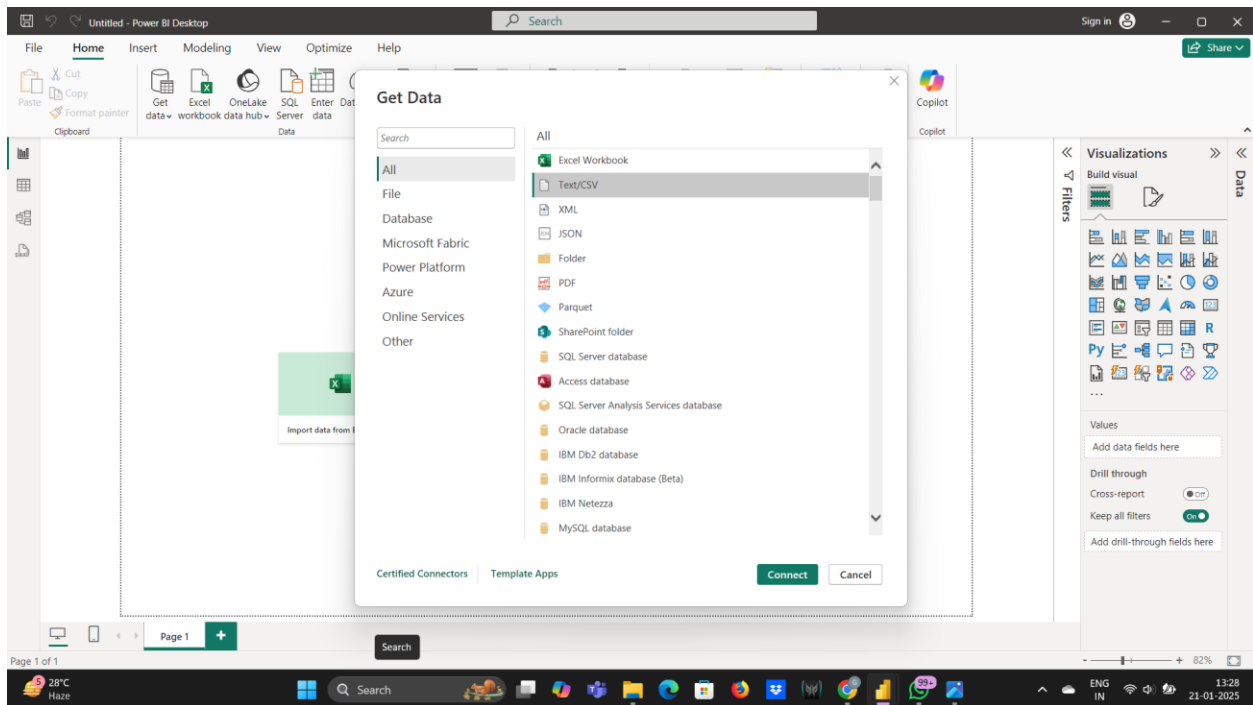
Here are the steps -

1] Download Power BI:

Tool provided by Microsoft for data analysis and visualization.

2] ETL Process:

Extract: Pull data from data sources like Excel, CSV, text, or database files.



Transform: Perform data processing and data cleaning.

Load: Load the cleaned and processed data for analysis.

The screenshot displays the Power BI Desktop interface. A data source window titled "Exhaustive Analysis of Indian Agriculture.csv" is open, showing a table with columns: RowID, State_Name, District_Name, Crop_Year, Season, Crop, Area, Production, and two empty columns labeled .1 and .2. The table contains 19 rows of data. At the bottom of the window, there are three buttons: "Extract Table Using Examples", "Load" (highlighted with a red box), and "Transform Data" (highlighted with a blue box). The "Load" button is also highlighted with a red circle. The background shows the Power BI Desktop ribbon with tabs: File, Home, Insert, Modeling, View, Optimize, and Help. The "Home" tab is active, showing options like Paste, Copy, Format painter, and Clipboard. The right sidebar shows the "Visualizations" pane with various chart types and the "Data" pane with a list of fields.

RowID	State_Name	District_Name	Crop_Year	Season	Crop	Area	Production	.1	.2
0	Bihar	NALANDA	2005	Rabi	Wheat	81934	160425		
1	Assam	KARBI ANGLONG	2019	Whole Year	Onion	257	514		
2	Gujarat	ANAND	2020	Summer	Maize	100	100		
3	Karnataka	UTTAR KANNAD	2013	Rabi	Groundnut	2872	4572	45168275000	89
4	Uttar Pradesh	JAUNPUR	2016	Rabi	Onion	110	1290		
5	Assam	MARIGAON	2014	Rabi	Rapeseed & Mustard	6535	2719		
6	Odisha	SONEPUR	2006	Winter	Rapeseed & Mustard	91	6		
7	Rajasthan	DHOLPUR	2017	Whole Year	Garlic	1	1		
8	Karnataka	BELGAUM	2018	Whole Year	Coconut	336	3212		
9	Bihar	MUNGER	2020	Summer	Moong(Green Gram)	125	78		
10	Chhattisgarh	JANIGIR-CHAMPA	2013	Kharif	Other Kharif pulses	223	107		
11	Assam	KARBI ANGLONG	2019	Rabi	Rapeseed & Mustard	19337	8652		
12	Uttar Pradesh	SHRAVASTI	2005	Kharif	Groundnut	72	58		
13	Gujarat	PATAN	2019	Kharif	Moong(Green Gram)	9100	3300		
14	Tamil Nadu	KARUR	2008	Whole Year	Sweet potato	20	309		
15	Uttar Pradesh	KASGANI	2019	Rabi	Tobacco	5247	28554		
16	Haryana	MAHENDRAGARH	2006	Rabi	Wheat	45074	186000		
17	Assam	DHEMAJI	2017	Whole Year	Turmeric	321	211		
18	Assam	BAKSA	2015	Kharif	Small millets	284	127		
19	Kerala	PATHANAMTHITTA	2008	Whole Year	Sugarcane	224	10950		

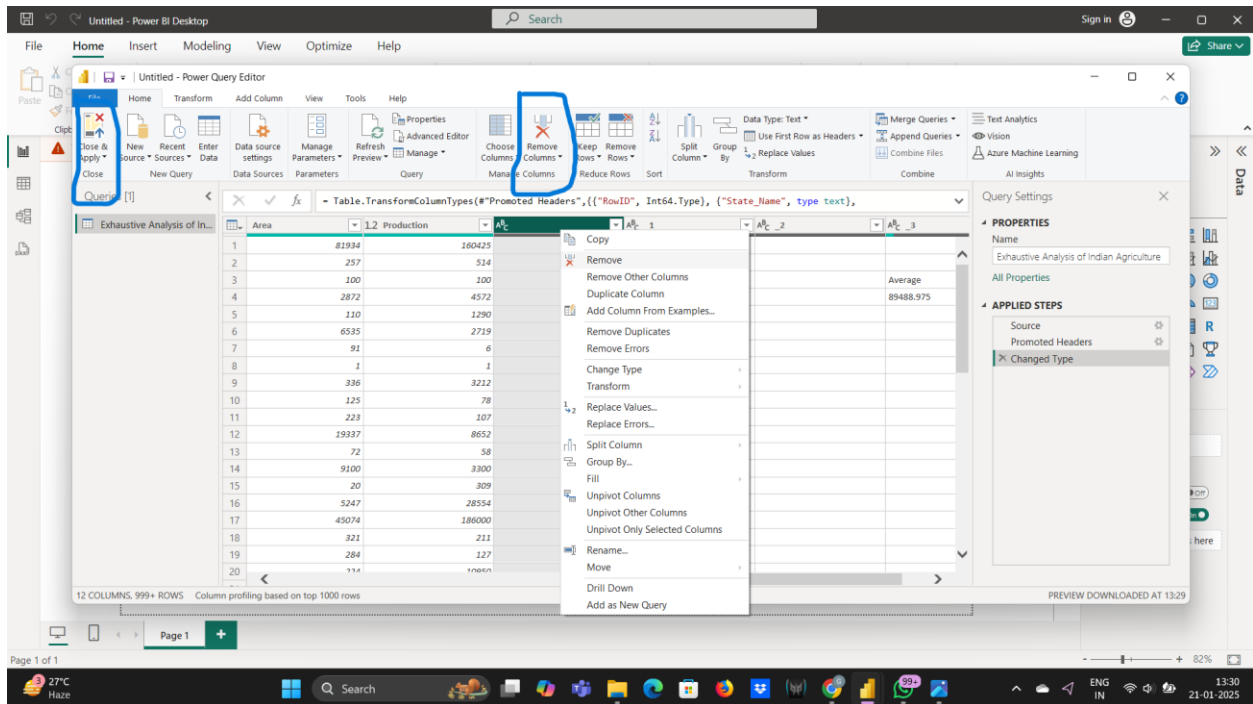
3] Analysis:

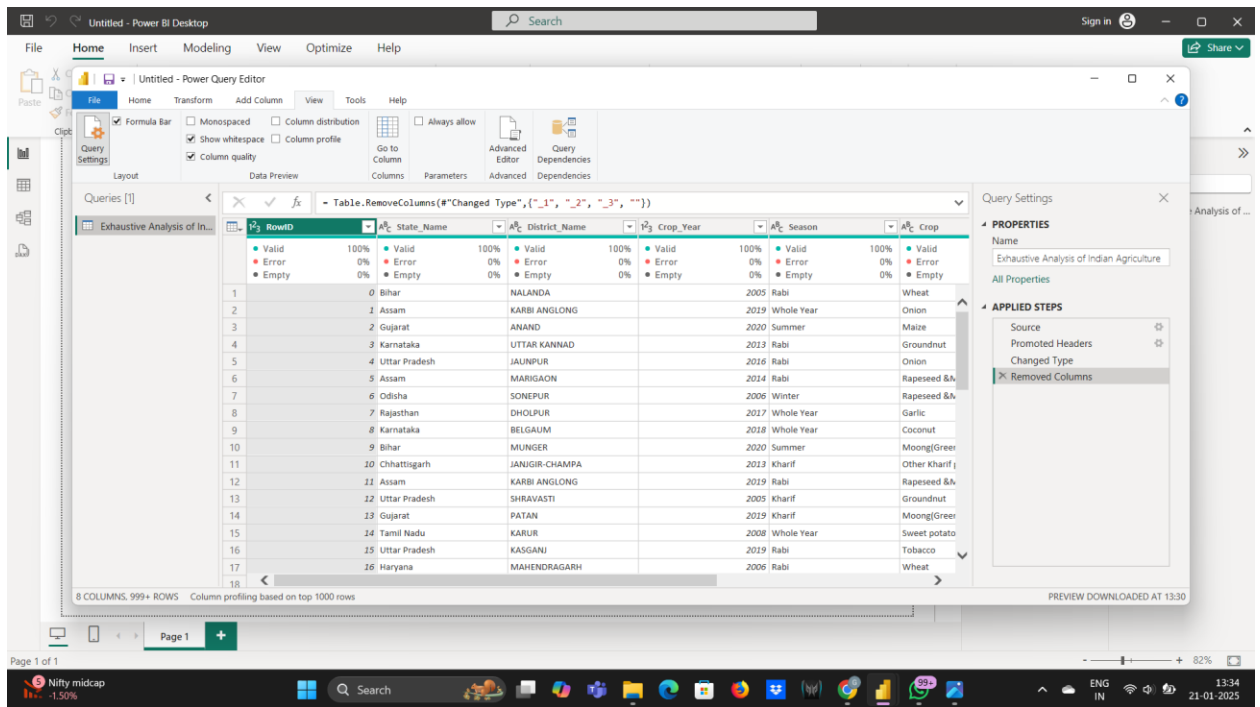
Focus on keeping facts and generating insights via dashboards.

4] Load vs. Transform:

Load: Used after data is cleaned.

Transform: Used when you want to process the data.





5] Power BI Views:

Report View: Used for visualization.

Table View: Used to see the raw data.

Table: Exhaustive Analysis of Indian Agriculture (73,827 rows)

	State_Name	District_Name	Crop_Year	Season	Crop	Area	Production
	Uttar Pradesh	PILBHI	2009	Kharif	Moong(Green Gram)	1	0.1
657	Uttar Pradesh	AMBEDKAR NAGAR	2012	Kharif	Small millets	1	0
959	Uttar Pradesh	MUZAFFARNAGAR	2012	Kharif	Sannhamp	1	0
1469	Uttar Pradesh	VARANASI	2018	Kharif	Groundnut	1	1
1477	Uttar Pradesh	GORAKHPUR	2020	Kharif	Dry chillies	1	1
1864	Uttar Pradesh	BALRAMPUR	2010	Kharif	Moong(Green Gram)	1	0
2081	Uttar Pradesh	AGRA	2010	Kharif	Sunflower	1	1
3989	Uttar Pradesh	AURAIYA	2018	Kharif	Sannhamp	1	0
4944	Uttar Pradesh	ETAH	2012	Kharif	Soyabean	1	1
4963	Uttar Pradesh	SIDDHARTH NAGAR	2006	Kharif	Moong(Green Gram)	1	0
6377	Uttar Pradesh	HATHRAS	2012	Kharif	Groundnut	1	1
6498	Uttar Pradesh	MUZAFFARNAGAR	2022	Kharif	Sannhamp	1	1
7358	Uttar Pradesh	MATHURA	2010	Kharif	Small millets	1	1
8253	Uttar Pradesh	KAUSHAMBI	2011	Kharif	Sunflower	1	2
8499	Uttar Pradesh	HAMIRPUR	2014	Kharif	Cotton(lint)	1	0
8508	Uttar Pradesh	KANNAIJI	2009	Kharif	Moth	1	0.1
9248	Uttar Pradesh	MAHARAJGANJ	2016	Kharif	Small millets	1	1
9773	Uttar Pradesh	BALRAMPUR	2008	Kharif	Moong(Green Gram)	1	1
9775	Uttar Pradesh	CHANDAULI	2014	Kharif	Small millets	1	1
11191	Uttar Pradesh	GONDA	2015	Kharif	Sannhamp	1	0
11891	Uttar Pradesh	CHANDAULI	2012	Kharif	Small millets	1	0
12339	Uttar Pradesh	BAREILLY	2022	Kharif	Moong(Green Gram)	1	0
12883	Uttar Pradesh	PRATAPGARH	2008	Kharif	Groundnut	1	1
13936	Uttar Pradesh	JALAUN	2010	Kharif	Sunflower	1	1
15748	Uttar Pradesh	MEERUT	2008	Kharif	Groundnut	1	1
17448	Uttar Pradesh	SAHARANPUR	2019	Kharif	Arhar/Tur	1	1
18278	Uttar Pradesh	AGRA	2011	Kharif	Groundnut	1	1
18820	Uttar Pradesh	FIROZABAD	2008	Kharif	Groundnut	1	1

Model View: Used to understand relationships between data.

