

COLD STORAGES IN INDIA

ANALYSIS REPORT

Purpose:

The purpose of this project was to gain comprehensive insights into geographical, infrastructural and operational efficiency of cold storage facilities in India.

To better understand the which areas have adequate cold storage facilities and others who lack.

Data Collection:

The data for this project was collected from the website -> [coldstorageindia](#)

Data was scraped using Python library BeautifulSoup and then put into a csv file.

Details such as State name , District Name , storage name , manager name , address and capacity (in metric tonnes) was obtained.

Further the addresses of the cold storages obtained were used to create latitude and longitude coordinates from google my maps api (geocode)

Cleaning Data:

The csv data file cleaned using python library pandas.

From the primary analysis it was found that –

Storage name: 90 missing values

Address: 1,616 missing values

Manager Name: 11,821 missing values

capacity: 1,592 missing values

Longitude: 5,059 missing values

Latitude: 5,059 missing values

All of these values were object type.

Capacity data was object type and it was converted to float64 type. The column also consisted of some empty and Nan values so those values were converted to 0.

The other column had string data excluding the latitude and longitude columns.

If we delete the rows with empty values then we will have a very small subset of data to work with.

ANALYSIS:

For the capacity column:

```
count      15777.000000
mean       3558.047583
std        14835.614445
min         0.000000
25%        148.882000
50%        760.000000
75%        4769.000000
max       897000.000000
Name: capacity, dtype: float64
```

```
details of cold storage with highest capacity : Unnamed: 0          14504
STATE           Uttar Pradesh
DISTRICT        Pilibhit
Storage name    BISALPUR
Address          NaN
Manager Name    SRI. PK BAJPAI
capacity        897000.0
Longitude        NaN
Latitude         NaN
Name: 14504, dtype: object
```

```
The state with the maximum capacity is Uttar Pradesh with a capacity of 22653994.3805.
```

The state with maximum capacity was found to be Uttar Pradesh and its district Pilibhit was having the highest storage capacity.

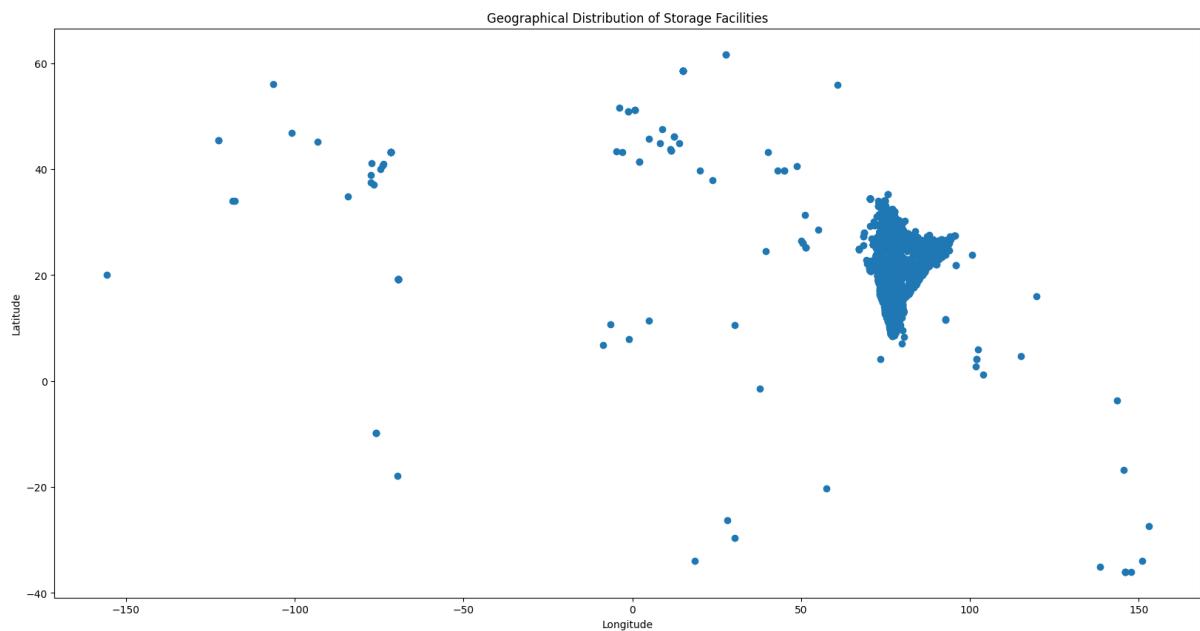
STATE	
Karnataka	3037
Uttar Pradesh	2557
Maharashtra	2330
Punjab	1653
Andhra Pradesh	1135
Rajasthan	962
West Bengal	947
Haryana	473
Bihar	424
Gujarat	348
Odisha	337
Telangana	324
Madhya Pradesh	315
Tamil Nadu	251
Chhattisgarh	247
Assam	181
Kerala	134
Himachal Pradesh	37
Jammu And Kashmir	23
Jharkhand	15
Uttarakhand	14
Delhi	10
Andaman And Nicobar Islands	7
Sikkim	6
Tripura	3
Mizoram	2
Nagaland	2
Daman And Diu	2
Chandigarh	1
Name: count, dtype: int64	

KARANATAKA was found to be the state with the highest number of cold storages.

DISTRICT	
Raichur	1307
Koppal	469
Agra	457
Ballari	453
Guntur	404
...	
Chitrakoot	1
Sonitpur	1
Sivasagar	1
Malappuram	1
Mewat	1
Name: count, Length: 422, dtype: int64	

The district of Raichur is having the largest number of cold storages.

Only approximately 66% of the latitudes and longitudes are available in the dataset.



The map was plotted using matplotlib library. This shows that some of the values are not calculated properly but we do get a gist of a map of india.

Sub analysis:

The state of Andhra Pradesh has 5058405.66599999 metric tonnes capacity of cold storages

QUICK ANALYSIS OF CAPACITY (ANDHRA PRADESH)

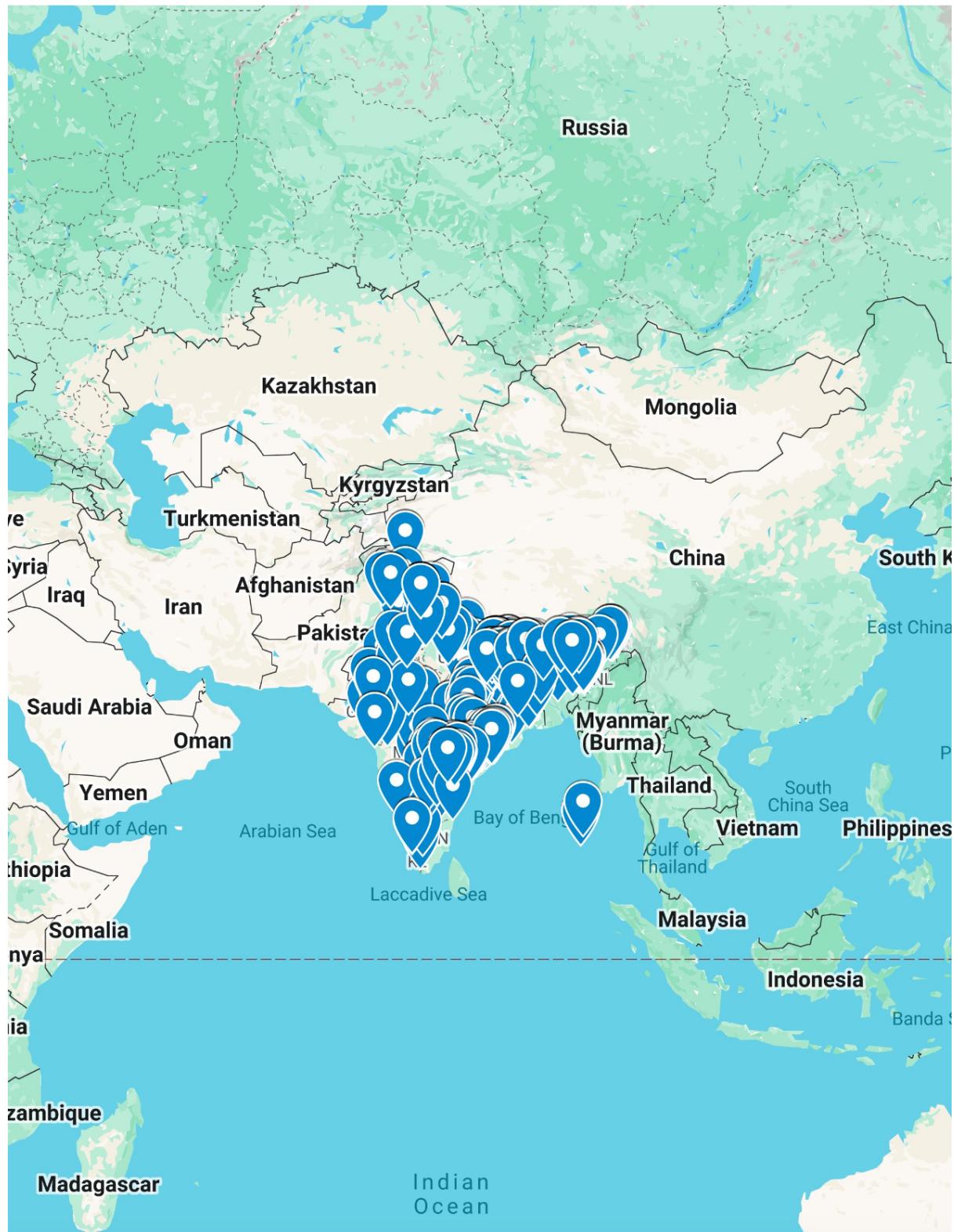
```
count    1135.000000
mean     4456.745080
std      6482.444176
min      0.000000
25%     373.785000
50%     4000.000000
75%     5419.000000
max     77000.000000
Name: capacity, dtype: float64
```

DISTRICT WISE CAPACITY (ANDHRA PRADESH)

DISTRICT	capacity
Anantapur	67640.890
Chittoor	146664.890
East Godavari	566088.870
Guntur	1411720.441
Krishna	681190.297
Kurnool	931214.624
Prakasam	668421.540
Spsr Nellore	9313.000
Srikakulam	51167.340
Visakhapatnam	127316.000
Vizianagaram	34765.560
West Godavari	362902.214

MAPS:

The latitudes and longitudes obtained from the addresses were used to mark the places on google maps (my maps)

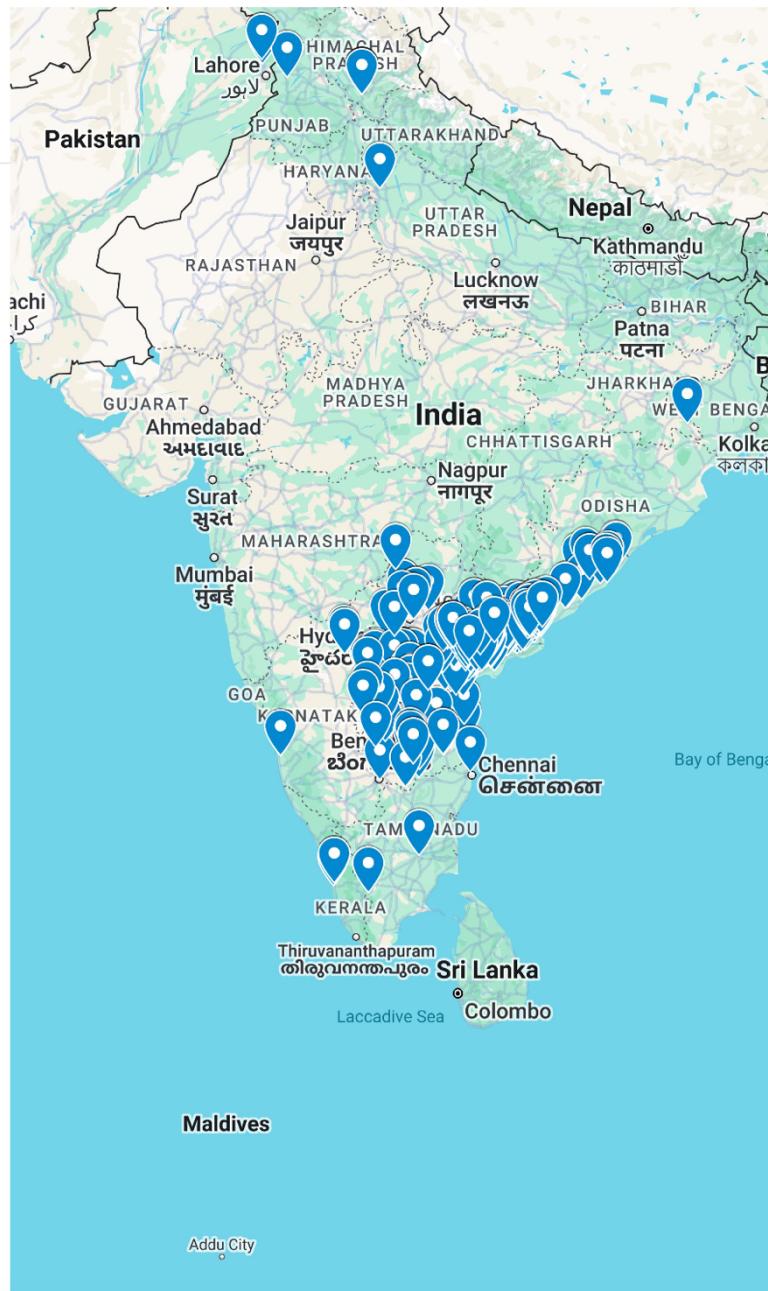


Untitled map

andhrapradesh.csv

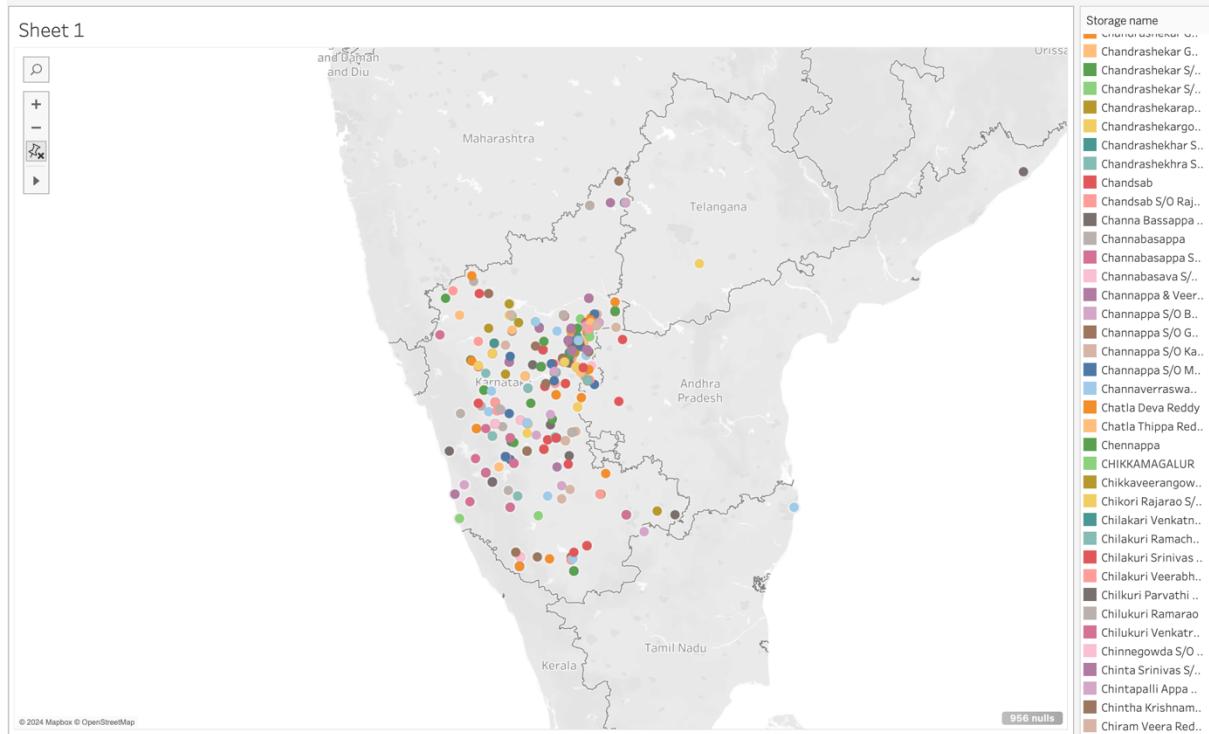


All items



This shows that the data was not totally accurate but still we get good amount of marked locations of cold storages in Andhra Pradesh

Plotting the cold storages in Andhra Pradesh using tableau.



Hence , we got a detailed overview of cold storages in India.