

1.INTRODUCTION

1.1.OVERVIEW

India is the world third-largest producer and third-largest consumer of electricity. The national electric grid in India has an installed capacity of 370.106 GW as of 31 March 2020. Consumption pattern of energy shows the percentage use of different sources (solar energy, wind energy, geothermal energy, biogas, and tidal power). The consumption pattern of energy changes over time.

Commercial sources of energy: Commercial energy makes up about 65% of the total energy consumed in India. The energy consumption theory states that the cost of using energy resources in production and service business operations can be compensated by overall positive economical impact of these operations.

1.2.PURPOSE

It is collecting data about the electricity consumption by surveying in the states region-wise and analysing it by years and takes steps to save the electricity for the future. The purpose is to have the electricity in the future generation too. This can be done by inventing new things to produce electricity and save electricity.

Annual electricity consumption per capita serves as an important measure of the country's electric power development. Electricity consumption grows faster when the industrialization process develops quickly and goes down rapidly when industrialization is completed or near completion.

To analyse about the electricity consumption we create the collected data into visualisation, dashboard, stories.

2.PROBLEM DEFINITION AND DESIGN THINKING

2.1 EMPATHY MAP

empathy map_2023-03-16_15-33-51.pdf - Adobe Reader

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Tools

Empathy map

Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

Build empathy

The information you add here should be representative of the observations and research you've done about your users.

Discover a moment in context to empathize with your persona

Says
What does he need from us?
What are we going to be saying?

They will say their money is saved

They enjoy unpredictable electricity

People may earn more income

Thinks
What are they really seeing, feeling, and hearing? What else might they believe that nobody?

They might expect cheap price

They expect zero power cut

Farmers expect free electricity for their farms and

Monthly calculation of electricity bill

Does
What behavior have we observed?
What are we going to hear about?

It fulfill the demand of people

MSME are developed

Finished goods will come earlier

No proper grid connection

High price

While adapting solar manufacturing sector, we need to decrease the production of electricity

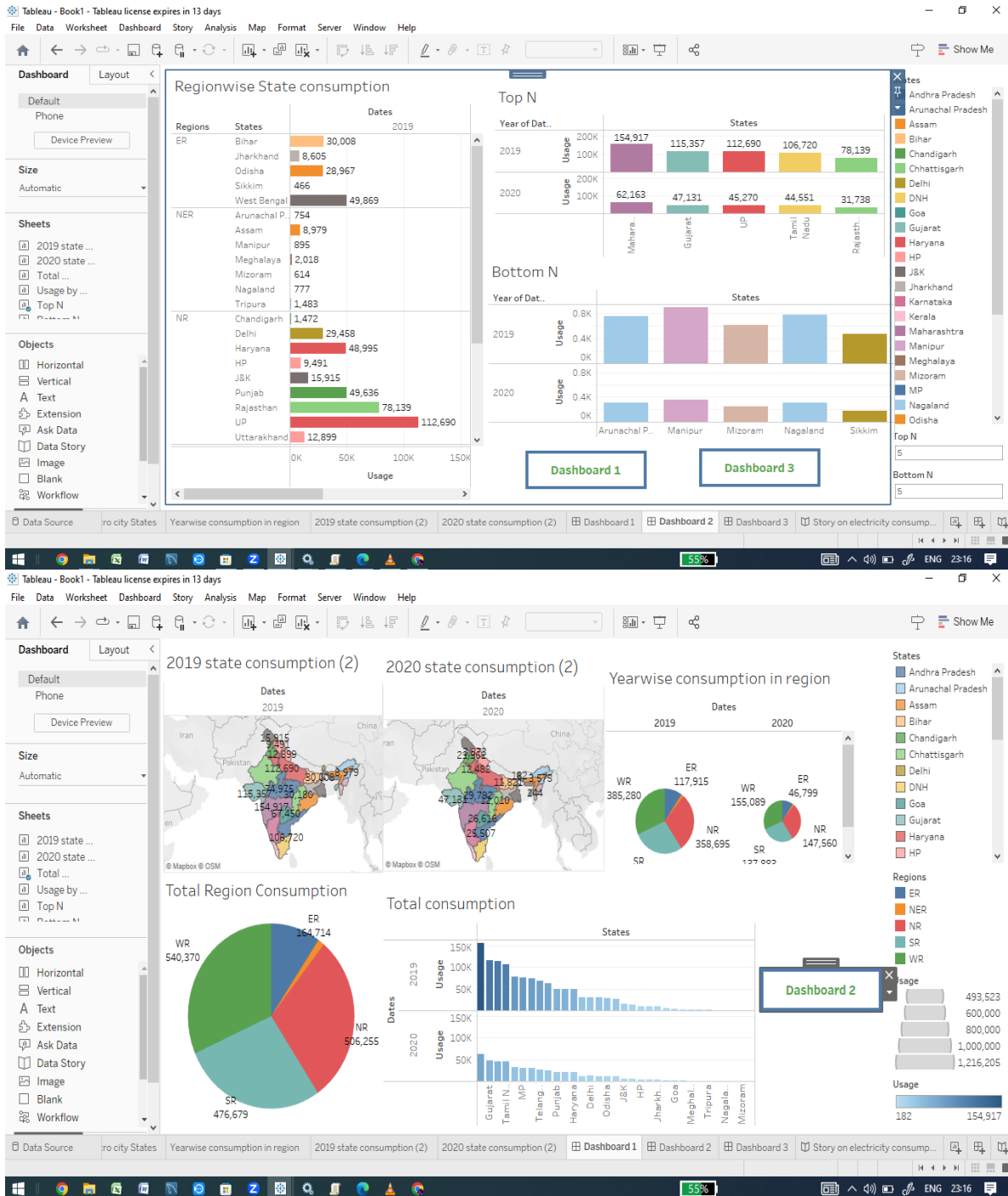
Feels
What are their fears, frustrations, and emotions? What else might they believe that nobody?

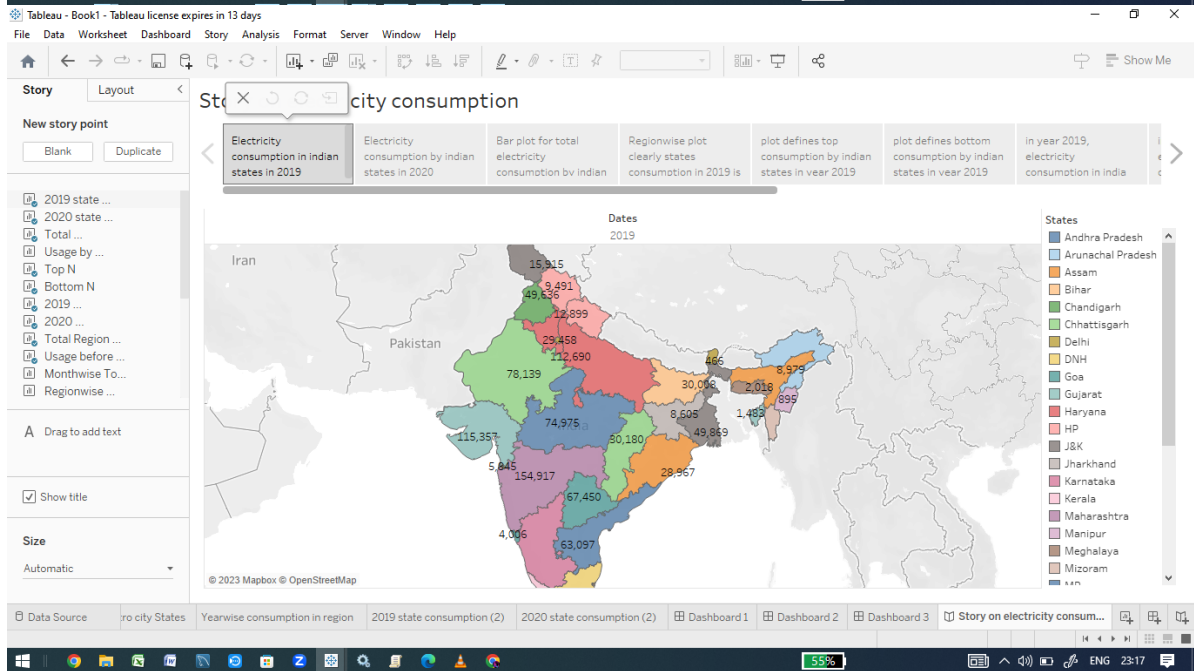
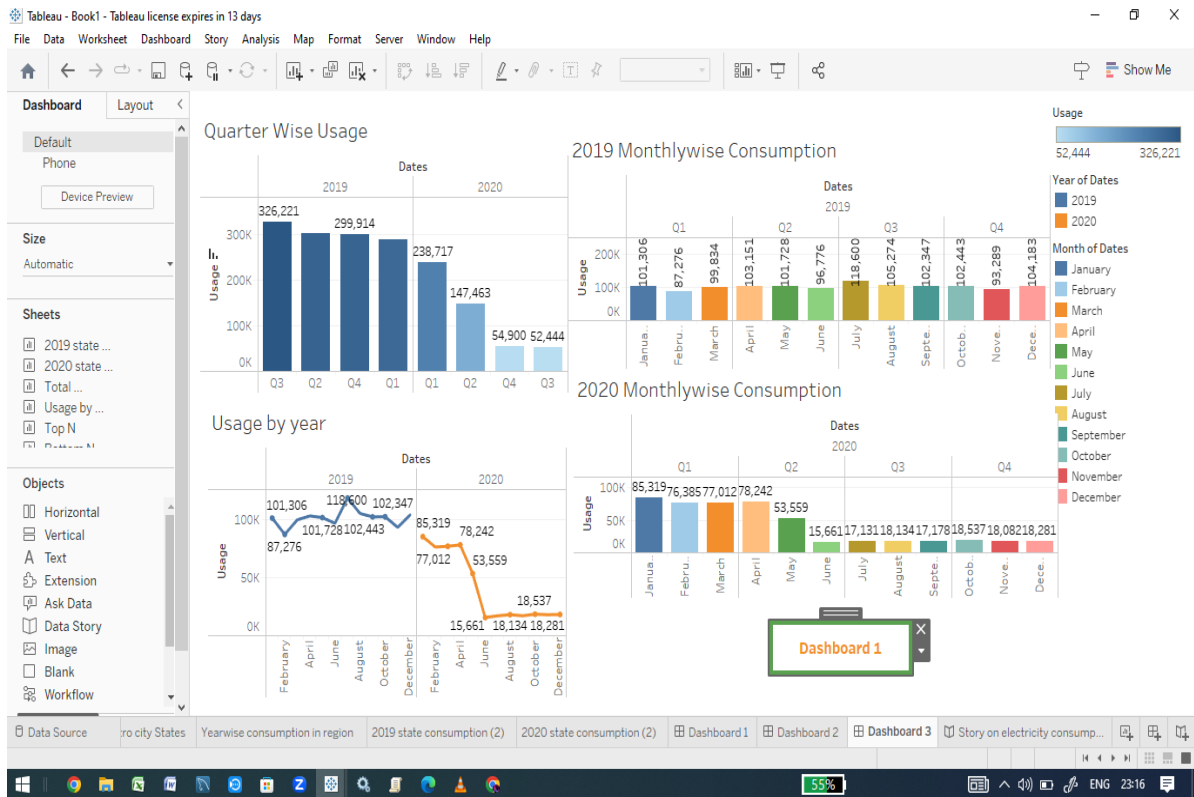
Need some inspiration? See a helpful video of the experience. Or ask your user. Open example

60%

33°C Haze

3.RESULT





4.ADVANTAGES AND DISADVANTAGES

ADVANTAGES

- ❖ It is a clean, safe, cheap, and convenient source of energy.
- ❖ Lower maintainance cost.
- ❖ More efficient
- ❖ Reduces greenhouse emission
- ❖ Doesnot requires many employees
- ❖ No tailpipe emission

DISADVANTGES

- ❖ Unwanted sideeffects
- ❖ Power plants that burns fossil fuel pump co2 into the atmosphere
- ❖ C02 is a greenhouse gs that causes earths temparature to rise

APPLICATIONS

Electric motors, movers, generators and storage batteries etc.

Transportation, vehicles, electric traction, plans and communication.

Escalators, elevators and electronic ladders.

Lighting, heating and cooling i.e. air conditioning, welding and molding etc.

Construction, manufacturing, healthcare, engineering, entertainment, electronics appliances, computers, machinery and much more.

Cooling and heating: 47% of energy use.

Water heater: 14% of energy use.

Washer and dryer: 13% of energy use.

Lighting: 12% of energy use.

Refrigerator: 4% of energy use.

Electric oven: 3-4% of energy use.

TV, DVD, cable box: 3% of energy use.

Dishwasher: 2% of energy use.

6. CONCLUSION

Current through a given area of a conductor is the net charge that passes per unit time through the conductor. To keep up a gradual current, we must have a circuit within which an electrical phenomenon occurs from lower to higher mechanical energy.

consumption in the form of electrical energy. About a fifth of global energy is consumed as electricity: for residential, industrial, commercial, transportation and other purposes.

The supply of energy on Earth is not infinite. Furthermore, it can take a long time to regenerate energy. This makes energy conservation even more important.

7.FUTURE SCOPE

In the Stated Policies Scenario, global electricity demand grows at 2.1% per year to 2040, twice the rate of primary energy demand. This raises electricity's share in total final energy consumption from 19% in 2018 to 24% in 2040. Electricity demand growth is set to be particularly strong in developing economies. Government policies, market conditions and available technologies collectively set a course for electricity supply to shift towards low-carbon sources, with their share increasing from 36% today to 52% in 2040 in the Stated Policies Scenario.

Electricity demand follows two distinct regional paths. In advanced economies, future growth linked to increasing digitalisation and electrification is largely offset by energy efficiency improvements. In developing economies, rising incomes, expanding industrial output and a growing services sector push demand firmly up. Developing economies contribute nearly 90% of global electricity demand growth to 2040 in the Stated Policies Scenario, but demand per person in these economies remains 60% lower than in advanced economies.

8.APPENDIX

A.SOURCE CODE



index.html