

Visualizing Desertification

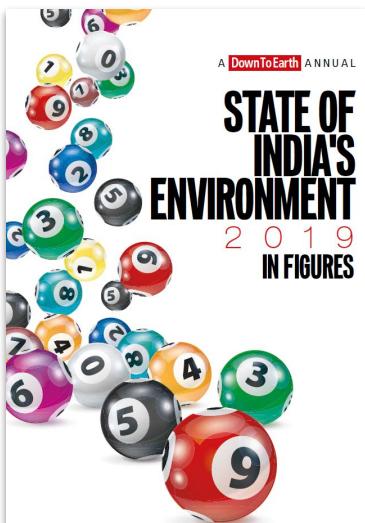
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Objective

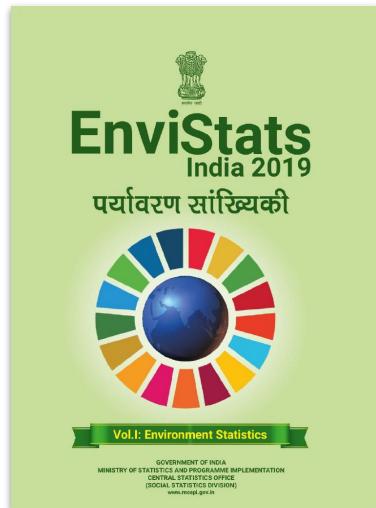
Goal	Research	Initial focus	Refined Scope
To understand and compare different aspects of climate change using visualization	Secondary reading of research and news publications	To study climate change factors in Tamil Nadu	To focus on existing research/work and do a interactive visualization

Ideas

Initial focus



Research



Change of Goal

To visualize
country wide
visualization and
aid in comparison
between states

Secondary Research

States such as Karnataka, Odisha have higher rainfall than Tamil Nadu but considerably more degraded than Tamil Nadu.

Maybe it is not just about rainfall.

STATE OF LAND AND AGRICULTURE

Growing dry | Of the 78 drought-prone districts, 21 have more than half of their areas under desertification. Nine have also witnessed over 2 per cent increase in the area under desertification between 2003-05 and 2011-13

■ Area under desertification

India average
Area under desertification: **29.32%**
% change*: **0.56**

* % change is calculated for the periods 2003-05 and 2011-2013
Source: *Desertification and Land Degradation Atlas of Selected Districts of India: Volume - 2, 2018*, *Desertification and Land Degradation Atlas of India 2016* by ISRO

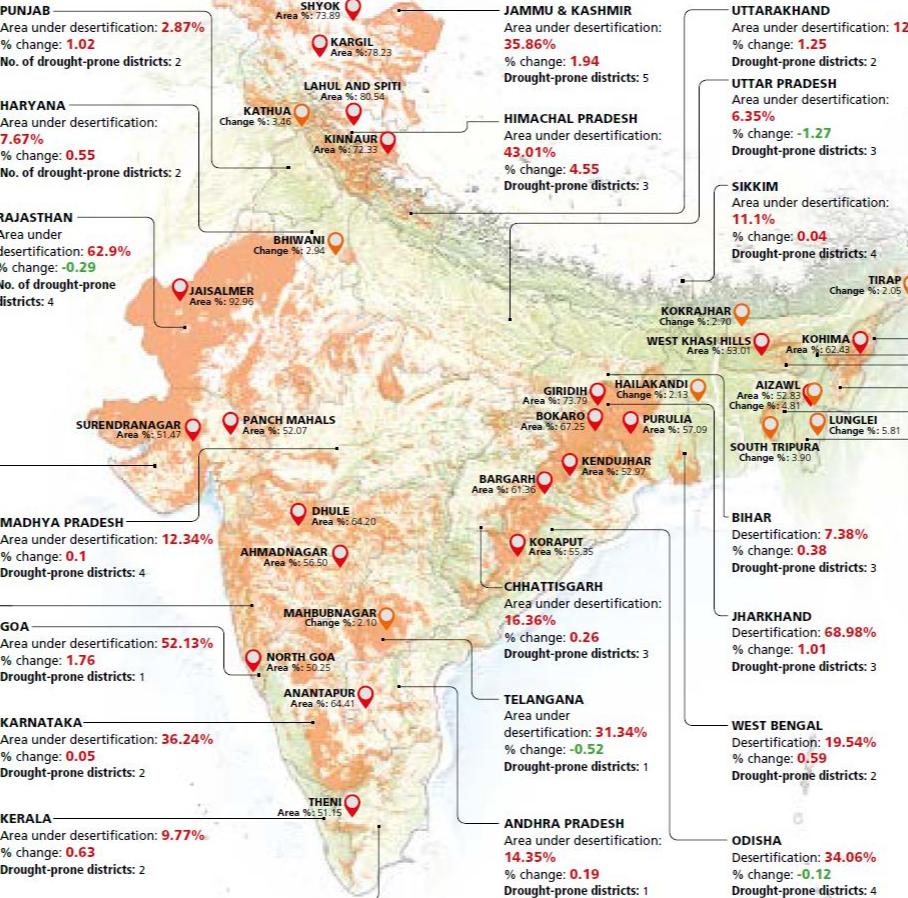
GUJARAT
Area under desertification: **52.29%**
% change: **0.94**
Drought-prone districts: 4

MAHARASHTRA
Area under desertification: **44.93%**
% change: **1.55**
Drought-prone districts: 3

TAMIL NADU
Area under desertification: **11.87%**
% change: **0.21**
Drought-prone districts: 5

📍 Districts with more than 50% area undergoing land degradation

📍 Districts with more than 2% increase in desertification between 2011-13 and 2003-05



Tool Used

D3.js



- Gives complete control
- Steep Learning Curve
- Has Bugs
- Poor Documentation



AMCHARTS



- Libraries for most chart
- High Level of Control
- Moderate Learning Curve
- Awesome Documentation

Processing Data

CSV Data

Statement 1.20 : State-wise district-wise deg विवरण 1.20 : राज्यवार और जिलों वार द (Upto March/ मार्च, 2018 तक)				
Sl. No. क्र. सं.	State/UT	District	Total Area का लक्ष्य भूमि का पक्ष	Total Degraded Land area विकृत भूमि का लक्ष्य भूमि का पक्ष
1	Andhra Pradesh	1 Chittor	1492644	127725
		2 Kurnool	1761393	309412
		3 Nellore	1307600	169808
		Total of affected districts	4561637	606945
			16296800	606945
		State Total		
2	Bihar	1 Banka	278768	29294
		2 Bhagalpur	255822	32589
		3 Gaya	473659	7727
		4 Munger	634594	144617
		5 Siwan	221900	22611
		Total of affected districts	1864743	236838
		State Total	9416300	236838

Open Refine



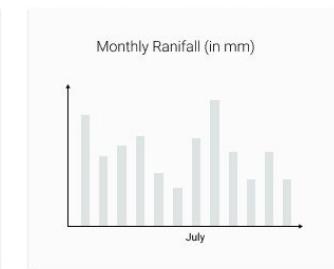
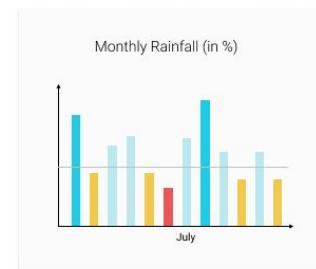
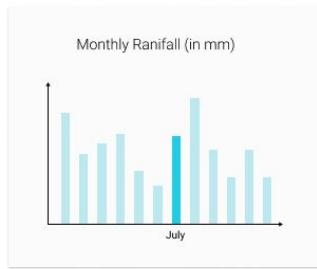
Json

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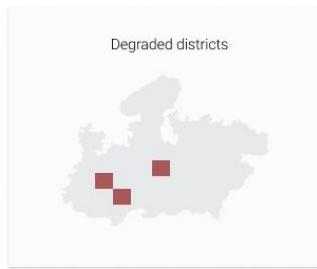
Initial Wireframe

Madhya Pradesh

Rainfall



Land Degradation



India ● States

2018 ● 2019

Rainfall

Temperature

Watersheds

Land Degradation

Link to prototype

<https://arunjirk.github.io/envistatsviz/>

Thank  You