

Filling the Data Gap



Naveen Francis

Volunteer - Openstreetmap

Volunteer - English Wikipedia, Wikidata

 **@naveenpf**



In India, a death occurs every 3.5 minutes due to road accidents

GOAL 3. Target 3.6

By 2020, halve the number of global deaths and injuries from road traffic accidents.

Road Data

- National Highways accounted 36.0 percent of deaths in 2017.
- State Highways accounted 26.9 percent of deaths in 2017.
- 63% people die on NH/SH. NH/SH - 3 lakhs kms

Wikipedia:WikiProject Indian roads



High resolution maps [[edit source](#)]

I was able to use Inkscape to generate good-quality maps of National Highways. I have created maps for first 75 national highways and will be continuing to make maps for the remaining highways. Please check and inform me if there are any errors.

Abhijit Sathe (talk) 5:11 am, 1 June 2009, Monday (10 years, 6 months, 3 days ago) (UTC+5.5)

really a tough job... carry on ... :) **Naveenpf** (talk) 6:45 am, 3 June 2009, Wednesday (10 years, 6 months, 1 day ago) (UTC+5.5)

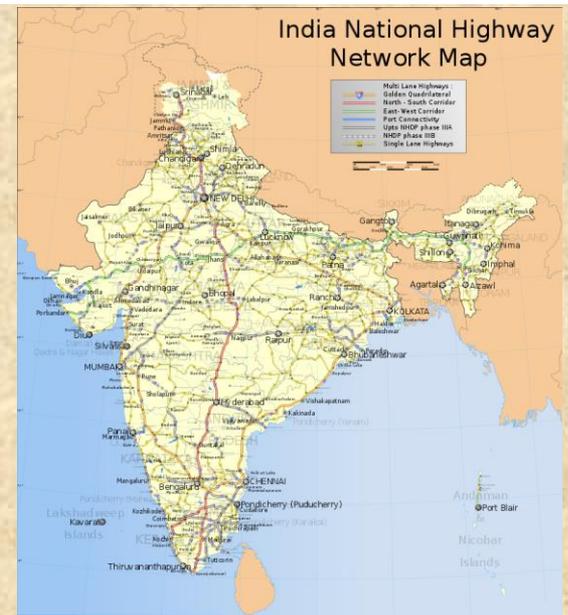
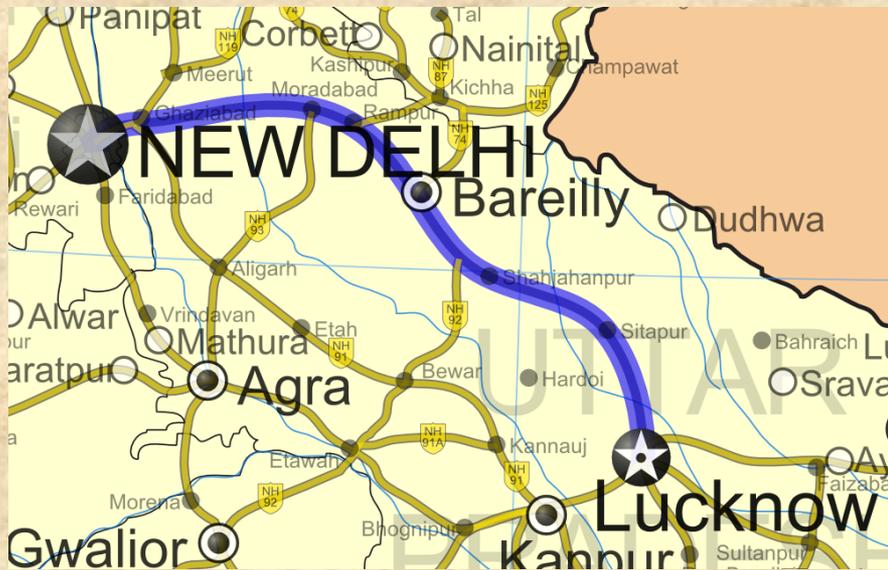
Good work ! -- **Tinu Cherian** - 11:07 am, 3 June 2009, Wednesday (10 years, 6 months, 1 day ago) (UTC+5.5)

While i congratulate efforts of **Abhijit Sathe** in making the NH maps, I have a suggestion. How about using [Openstreetmap](#) data and generating maps, [Checkout here](#) . I think the national highway network is complete and it also has a decent coverage of State Highways as it was a bulk import donated data. Thoughts welcome **Srikanth** [†] 7:42 pm, 11 June 2009, Thursday (10 years, 5 months, 22 days ago) (UTC+5.5)

Is Inkscape a free software? --**Like I Care** 8:04 pm, 11 June 2009, Thursday (10 years, 5 months, 22 days ago) (UTC+5.5)

Yes **Srikanth** [†] 8:08 pm, 11 June 2009, Thursday (10 years, 5 months, 22 days ago) (UTC+5.5)

great. If you guys dont mind sharing, how do you get or draw the Indian highways map to begin with? --**Like I Care** 12:13 am, 12 June 2009, Friday (10 years, 5 months, 22 days ago) (UTC+5.5)



National Highway Mapping



MORTH Website:- 1,31,326km
In OSM :- 1,26,471km

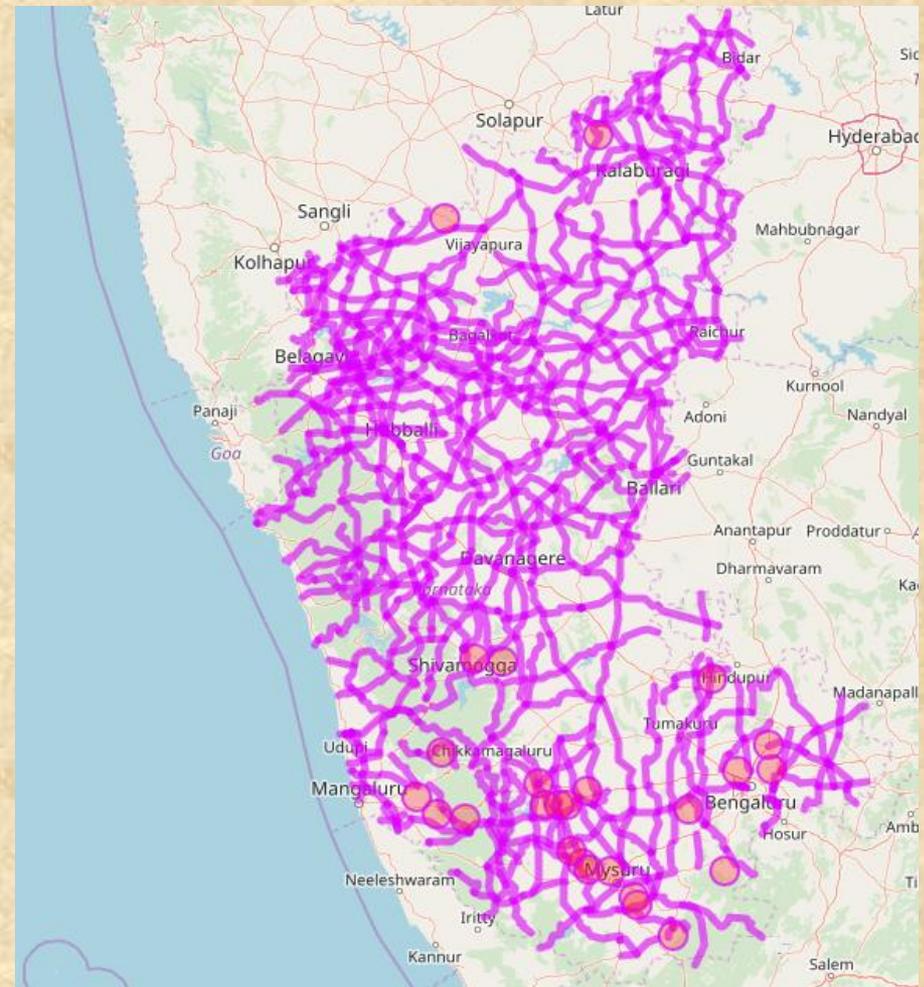
[https://en.wikipedia.org/wiki/National_Highway_\(India\)](https://en.wikipedia.org/wiki/National_Highway_(India))

State Highway Mapping

MORTH Website:- 1,76,166km
 In OSM :- 1,05,449km

State highways [\[edit | edit source \]](#)

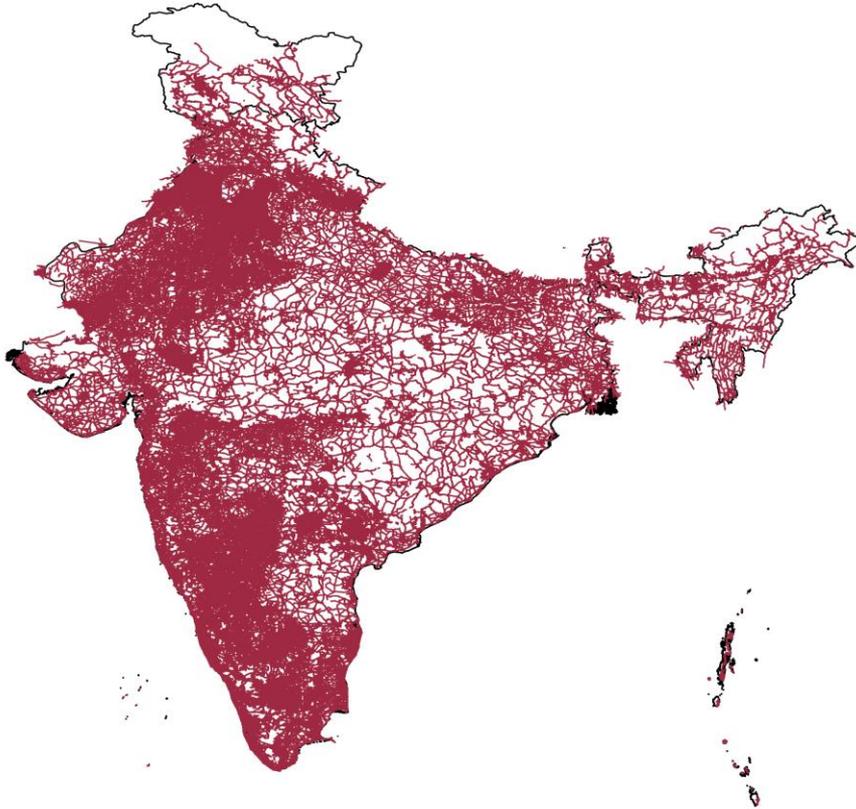
No	State	Network tag	Length official	Length in OSM	Next Task
1	Andhra Pradesh-SH	IN:SH:AP	6485		Mapping can be started
2	Arunachal Pradesh-SH	IN:SH:AR	8123		Data not available, no separate SH and MDR
3	Assam-SH	IN:SH:AS	3134	2232	unmapped 142km
4	Bihar-SH	IN:SH:BR	4253	2695.9	Mapping complete
5	Chhattisgarh-SH	IN:SH:CT	4482	2270	Mapping Complete
6	Goa-SH	IN:SH:GA	279		Data not available
7	Gujarat-SH	IN:SH:GJ	17201	13983	unmapped :354km
8	Haryana-SH	IN:SH:HR	1816	1599	Mapping Complete
9	Himachal Pradesh-SH	IN:SH:HP	1496	1038.5	Mapping Almost Complete
10	Jammu and Kashmir-SH	IN:SH:JK	130		Data not available
11	Jharkhand-SH	IN:SH:JH	1296		Data not available
12	Karnataka-SH	IN:SH:KA	19578	20930.3	Mapping Almost Complete
13	Kerala-SH	IN:SH:KL	4342	4036	Mapping Complete
14	Madhya Pradesh-SH	IN:SH:MP	11389	10087	unmapped:342km
15	Maharashtra-SH	IN:SH:MH	39000	17594	unmapped : 70km
16	Manipur-SH	IN:SH:MN	715		Data not available
17	Meghalaya-SH	IN:SH:ML	772		Data not available
18	Mizoram-SH	IN:SH:MZ	170	636.9	Mapping almost complete
19	Nagaland-SH	IN:SH:NL	722		Data not available
20	Odisha-SH	IN:SH:OR	4187	3427	unmapped = 250km
21	Punjab-SH	IN:SH:PB	1133	880.8	unmapped : 0km
22	Rajasthan-SH	IN:SH:RJ	15437.85	14820	unmapped:102km
23	Sikkim-SH	IN:SH:SK	701		Data not available
24	Tamil Nadu-SH	IN:SH:TN	11752		Mapping can be started
25	Telangana-SH	IN:SH:TG	2731	1616	Mapping Almost Complete
26	Tripura-SH	IN:SH:TR	329		Data not available
27	Uttar Pradesh-SH	IN:SH:UP	8432	4396	unmapped:5km
28	Uttarakhand-SH	IN:SH:UK	4521		Data not available
29	West Bengal-SH	IN:SH:WB	3612	3237.5	Mapping Complete
30	Andaman and Nicobar Islands-SH	IN:SH:AN	266		Data not available
31	Chandigarh-SH	IN:SH:CH	200		Data not available
32	Dadra and Nagar-SH	IN:SH:DN	28		Data not available
33	Daman and Diu-SH	IN:SH:DD	22		Data not available
34	Delhi-SH	IN:SH:DL	0		NA
35	Lakshadweep-SH	IN:SH:LD	0		NA
36	Puducherry-SH	IN:SH:PY	89		Mapping can be started
			176166	105449	



https://wiki.openstreetmap.org/wiki/India/Roads#State_highways

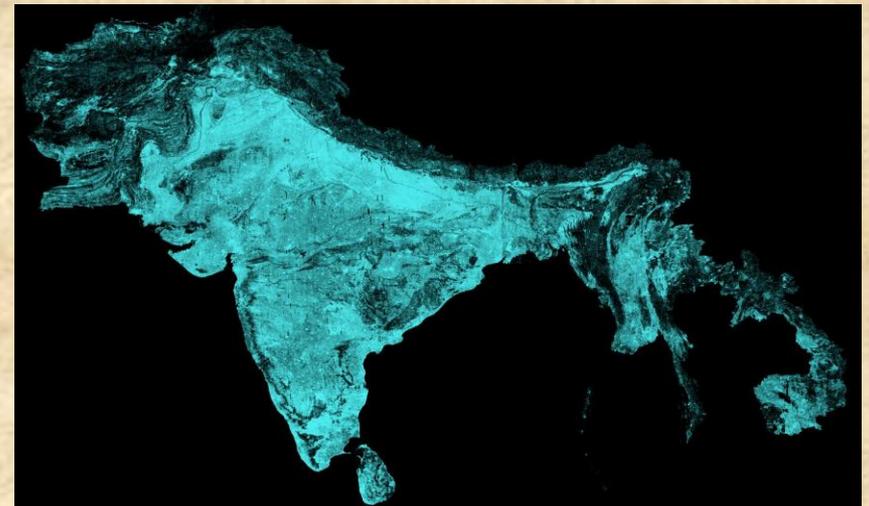
Roads

As on March 2017



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Road classification	Authority responsible	Length (km)	Share of network length
National Highways	Ministry of Road Transport and Highways	1,14,158	1.93 %
State Highways	Public Works Department of State/Union Territory	1,75,036	2.97 %
District roads	Public Works Department of State/Union Territory	5,86,181	9.93 %
Rural roads	Panchayats, JRY and PMGSY	41,66,576	70.65 %
Urban roads	Local governments and municipalities	5,26,483	8.93 %
Project roads	Various State/Union territory government departments, and SAIL, NMDC and BRO	3,28,897	5.57 %
Total	N/A	59,97,671	100 %



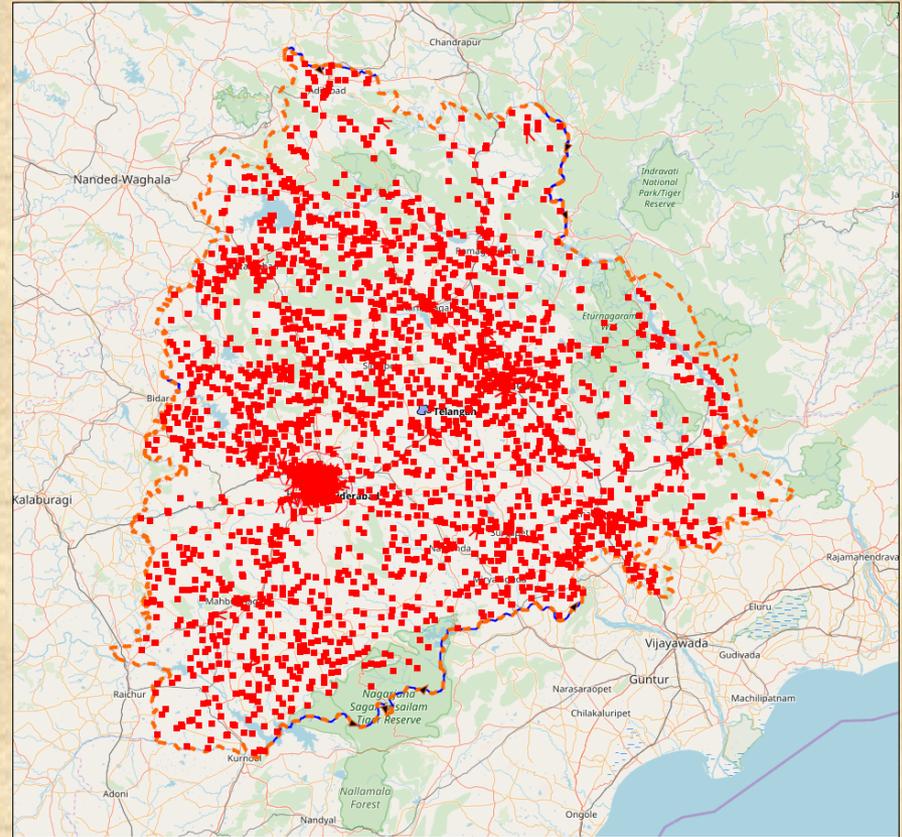
Total km of roads by country in OpenStreetMap

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
	January	March	January	January	September	June	June	June	February	January	December
India	1,096	198,641	257,162	300,607	494,387	665,761	829,185	963,844	1,061,644	1,228,410	1,366,130



Health Facilities - India

- To provide accessible data of accurate health care information from the [Open Government Data](#) directories.
- Hospitals, Health facilities, Blood banks, Health Centers and Health Clinics information which can be useful for all the people and also the Humanitarian team in India.
- Rural India has a shortfall of between 24% and 38% in the number of sub-centres, primary health centres (PHC) and community health centres in 28 states and union territories.

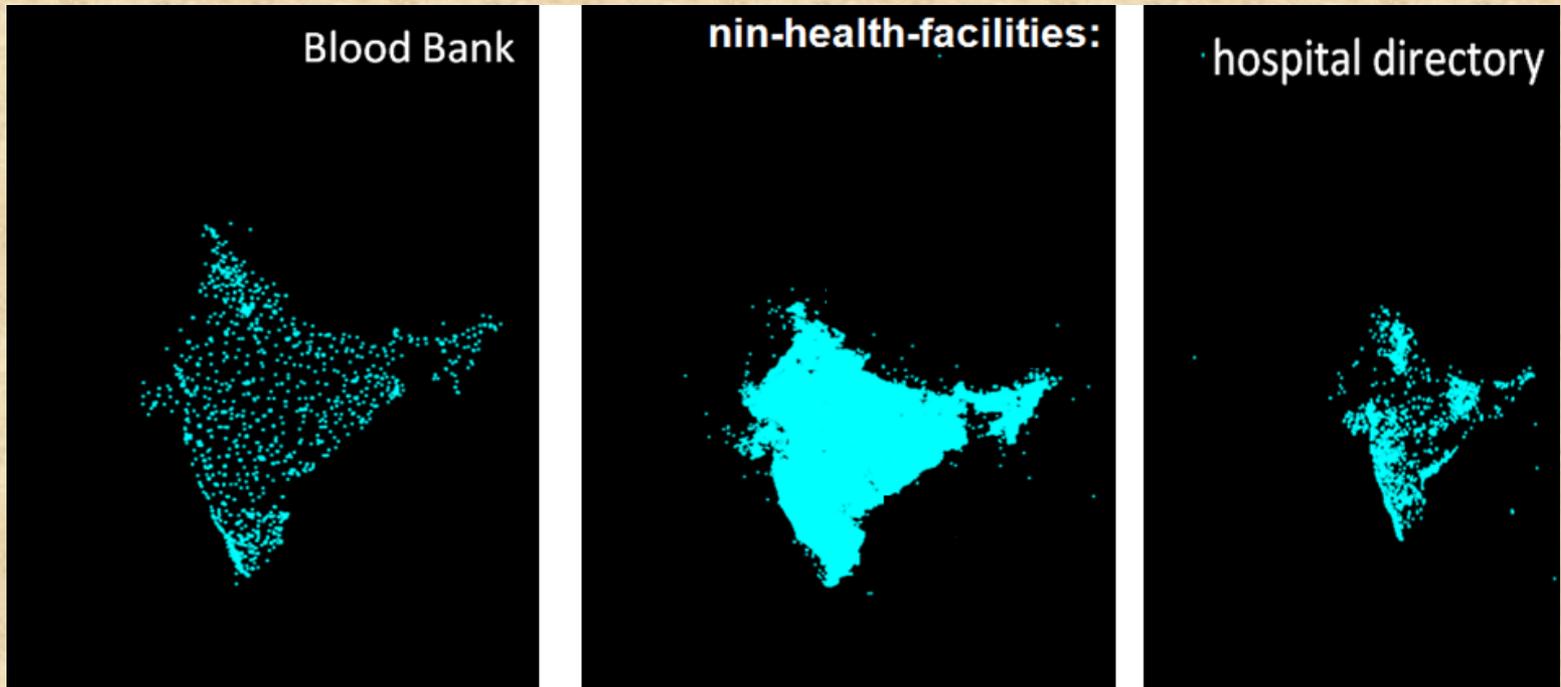


Open Government Data

Data source site: <https://data.gov.in>

- National Hospital - [Click here](#)
- National identification number (NIN) Health-facilities - [Click Here](#)
- Blood-bank - [Click Here](#)

File	Total Records	Missing Lat Long	Incorrect Lat Long (-x:-y)
Hospital directory	30274	19322	133
Health-Facilities	192905	25915	13
Blood Bank	2823	370	-



Sample showing enhancement of the Hospital attributes:

Before Improving

After Improving



Key	Value	Key	Value
addr:city	Hyderabad	addr:district	Hyderabad
		addr:full	Apollo Hospitals, Jubilee Hills
addr:houseName	Jubilee Hills	addr:postcode	500033
addr:postcode	500096	addr:state	Telangana
amenity	hospital	amenity	hospital
building	yes	building	yes
emergency	yes	contact:email	apollohealthcity@apolohospitals.com
		emergency	yes
		health_facility:type	Inpatient;Accommodation;Food an...
		healthcare:specialty	multi speciality
		medical_system	Allopathic
name	Apollo Hospital	name	Apollo Hospitals
		operator:type	private
		phone	040 23607777
		source	https://data.gov.in
		website	www.apolohospitals.com
wheelchair	yes	wheelchair	yes



Key	Value	Key	Value
		addr:district	Hyderabad
		addr:full	Plot No: 8-2-293/82/L/276A, MLA Colon...
		addr:postcode	500034
		addr:state	Telangana
amenity	hospital	amenity	hospital
building	yes	building	yes
		contact:mobile	9160900045
		email	info@omegahospitals.com
		fax	040 23550327
		healthcare:specialty	Cancer Subspecialties;General Health I...
		medical_system	Allopathic
name	Omega Hospital	name	Omega Hospital
		operator:type	private
		phone	040 23551034
		source	https://data.gov.in/Local Knowledge
		website	http://www.omegahospitals.com/

Administrative boundaries

- 732/732 Districts
- 5811/6548 Subdistricts
- 17/664369 Villages

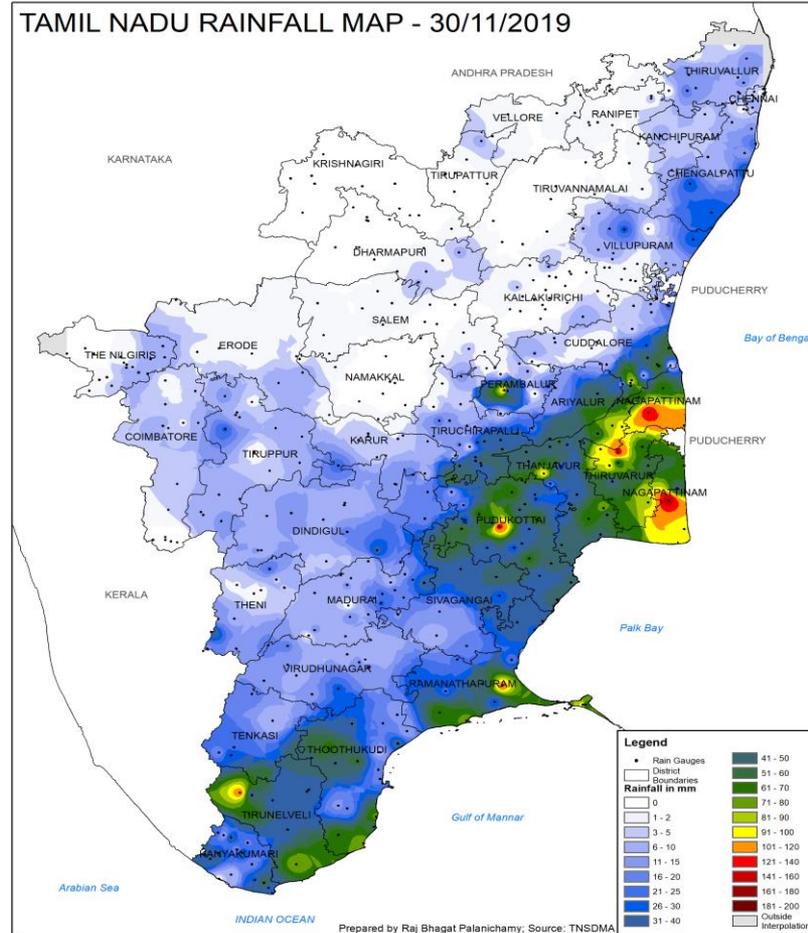
Telangana District, Mandal and Revenue Shape Files



Click the below link to download the Telangana Shape Files. This contains District, Mandal and Revenue Shapefiles of Telangana

Download

TAMIL NADU RAINFALL MAP - 30/11/2019



- <https://wiki.openstreetmap.org/wiki/India/Boundaries>



SDG Working group

Goal 4: Ensure inclusive and quality education for all and promote lifelong learning.

Type	Key	Value	Description/notes
Minimum educational facility tagging	amenity	school, kindergarten, co	<i>Type of school</i>
	name	<free text>	<i>Name of school</i>
Additional educational facility tagging	operator	<free text>	Name of operator, often the local education authority
	operator:type	public, private, religious	Type of operator
	addr:full	<free text>	Full address and/or addr:city, addr:district, addr:street, etc.
	capacity	yes, no, <number>	Total number of students the school can accept (not current)
	grades	<grade number range>	Grades serviced at school
	fee	yes, no	Requirement of students to pay fee to attend
	religion	christian, muslim, buddhis	If applicable, add denomination=*
	min_age	<number>	Lowest age of students allowed to enroll
	max_age	<number>	Highest age of students allowed to enroll
	wheelchair	yes, no	Wheelchair accessibility
	temporary	yes	Denotes if school is temporary facility or structure
	toilets	yes, no	Denotes if school has toilets available
	toilets:access	public, staff only	Access to available toilets
	staff_count:teachers	<number>	Number of teachers
	generator:source	oil, gas, coal, biomass, <or	Power supply (if any) for the school
water_supply	water_well, pipeline, pump	Water supply (if any) for the school	



PARTNERS FOR RESILIENCE
Working together on disasters, climate, ecosystems



Partners for Resilience through Strategic Partnership



FR-SP)
sa, Bihar



SEEDS ✓
@SeedsIndia

True champions often go unheard! In [#flood](#)-hit Saharsa district [#Bihar](#), Task Force Member Mr. Amit Kumar saved lives and livelihoods by disseminating alert messages & providing rising water level updates on a daily basis to more than 1000 people.

Mapathon Keralam



MAPATHON KERALAM
മാപ്പാത്തൻ കരളം



LET'S MAKE OUR MAP

JOIN THE IT MISSION'S LOCAL MAPPING PROJECT

MAPATHON KERALAM

FOR DETAILS
KERALA STATE SPATIAL DATA INFRASTRUCTURE
KERALA STATE IT MISSION
ICT CAMPUS, VELLAYAMBALAM
THIRUVANANTHAPURAM, KERALA - 695 033
TEL. - 0471 2332114
EMAIL - KSDI.KSITM@KERALA.GOV.IN
WWW.MAPATHONKERALAM.IN



State to launch mapping project

Mapathon Keralam initiative to help in flood control, rehabilitation

SPECIAL CORRESPONDENT
THIRUVANANTHAPURAM

The Kerala State IT Mission is set to launch the ambitious Mapathon Keralam project, a crowd-sourcing mapping initiative, which aims at creating micro-level maps of the entire State for identifying all natural and physical assets that will help effectively address the problem of recurrent natural calamity situations.

Through Mapathon Keralam, the government seeks to create extensive local maps of the State covering every nook and cranny.

It will encompass the entire spectrum of details, including physical infrastructure, natural resources and other useful information, for planning and implementing

flood control and rehabilitation activities.

The project is led by the Kerala State Spatial Data Infrastructure (KSDI) under the Kerala State IT Mission and supported by institutions such as the International Centre for Free and Open Source Software (ICFOSS) and National Service Scheme (NSS).

Free online map

The free online map, titled Open Street Map, is used for this mapping project as part of the government's policy of strengthening activities focussed on free knowledge and Free and Open Source Software.

Chief Minister Pinarayi Vijayan will kick-start the initiative on Wednesday by ad-

ressing volunteers of the National Service Scheme (NSS) from various engineering colleges in the State, over a videoconferencing network.

The students volunteers on Monday organised local mapping sessions at various colleges.

Selected faculties from nearly 80 colleges also underwent the master training programme. More organisations, communities and individuals are expected to take up the campaign and hold programmes of their own for developing local map using this platform.

Map My Office

As a pilot programme, a crowd-sourced mapping of government offices, called

Map My Office, was earlier launched with the participation of employees.

The maps are to be created online with public participation, and anyone with a computer/mobile phone and an Internet connection can participate in Mapathon Keralam.

This data can be availed by students, researchers, start-ups, etc., free of cost for their requirements.

Students, governmental and non-governmental organisations, labour outfits and private sector employees can join the endeavour.

With this kind of mapping, locals can identify and mark all the features of their locality, since such information will be highly accurate.

<https://mapathonkeralam.in/>

2019-10-2

MINISTRY OF SCIENCE & TECHNOLOGY
(DEPARTMENT OF SCIENCE & TECHNOLOGY)

National Data Sharing and Accessibility Policy (NDSAP) – 2012

1. Preamble

1.1 Asset and value potentials of data are widely recognized at all levels. Data collected or developed through public investments, when made publicly available and maintained over time, their potential value could be more fully realized. There has been an increasing demand by the community, that such data collected with the deployment of public funds should be made more readily available to all, for enabling rational debate, better decision making and use in meeting civil society needs. Principle 10 of the United Nations Declaration on Environment and Development (Rio de Janeiro, June 1992), stated

".....each individual shall have appropriate access to information concerning the environment that is held by public authorities and the opportunity to participate in the decision making process. States shall facilitate and encourage public awareness and participation by making information widely available."

Section 4(2) of the Right to Information Act, 2005 reads

"It shall be a constant endeavor of every public authority to take steps in accordance with the requirements of clause (b) of sub-section (1) to provide as much information suo motu to the public at regular intervals through various means of communication, including internet, so that the public have minimum resort to the use of this Act to obtain information"

Topics of the most popular open datasets

-  **Police and crime:** Police incidents; jail bookings; police station locations; crime statistics
-  **Transportation:** Taxi licenses; transit data; traffic counts; road infrastructure data; parking data
-  **Emergency calls:** Police, fire, and EMS responses; 911 calls; response times; incident reports
-  **Development:** Commercial developments; housing developments; property data; housing affordability
-  **Building safety:** Building permits; safety permits; certificates of occupancy
-  **Finance:** Revenue; spending; employee salaries; capital budgets; payments
-  **Elections:** Election results; polling locations; campaign finance reports
-  **Businesses and licenses:** Business licenses; liquor licenses; vendor, contract, and procurement data
-  **Inspections and service requests:** Restaurant health inspections; 311 requests; code violations
-  **Education:** Schools information; student health data; after-school programs; library locations



Open Government Data (OGD) Platform India

OGI India

[OGI India text](#)

Key points:

- Permitted uses include derivatives and lawful commercial use (3). A bit unknown what exactly is lawful uses under Indian law.
- Attribution expressly allows for a link to a separate page that includes attribution statements where multiple data sources are used together (4.b)
- There is the possibility of termination of the license by the data provider, but only if it's discovered that personal data was accidentally released (7.c), so it's very unlikely to affect OSM. There's also a 30-day cure period for violations (7.a).

Tentative recommendation: Compatible

https://wiki.osmfoundation.org/wiki/OGI_India

Companies working from India on OSM





OSM India

Website:- <http://openstreetmap.in>

Facebook:- [OSM India Facebook group](#)

Telegram:- <https://t.me/OSMIndia>

Twitter:- https://twitter.com/osm_in

Forum:- [Indian OpenStreetMap Forum](#)

Github:- <https://github.com/osm-in>

Public Mailing List:- <https://lists.openstreetmap.org/pipermail/talk-in/>

Thank you

Together we can...

Open Mapping for the SDGsOpen Mapping for the SDGs

- <http://www.data4sdgs.org/resources/open-mapping-sdgs>
- <https://hotosm.github.io/gpsdd-documentation/>