Creating Structured Data for Local Self Government with Wikidata and OpenStreetMap

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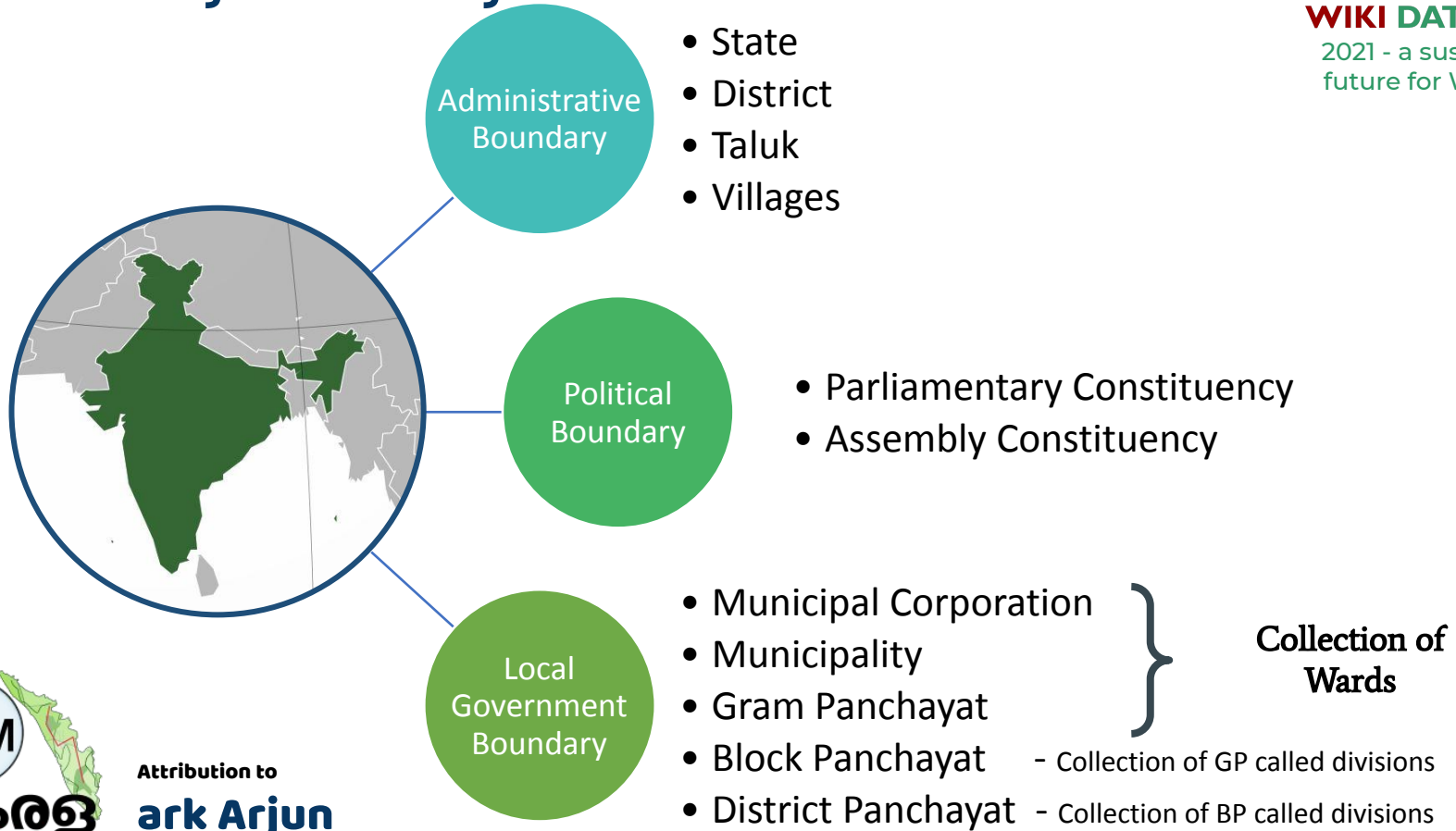2021 - a sustainable
future for Wikidata

Introduction

- Usage in Malayalam Wikipedia

- Wikidata IDs for local govts.

- Linking OpenStreetMap with Wikidata QIDs.

- Other Attributes like Census, Literacy, Election datas
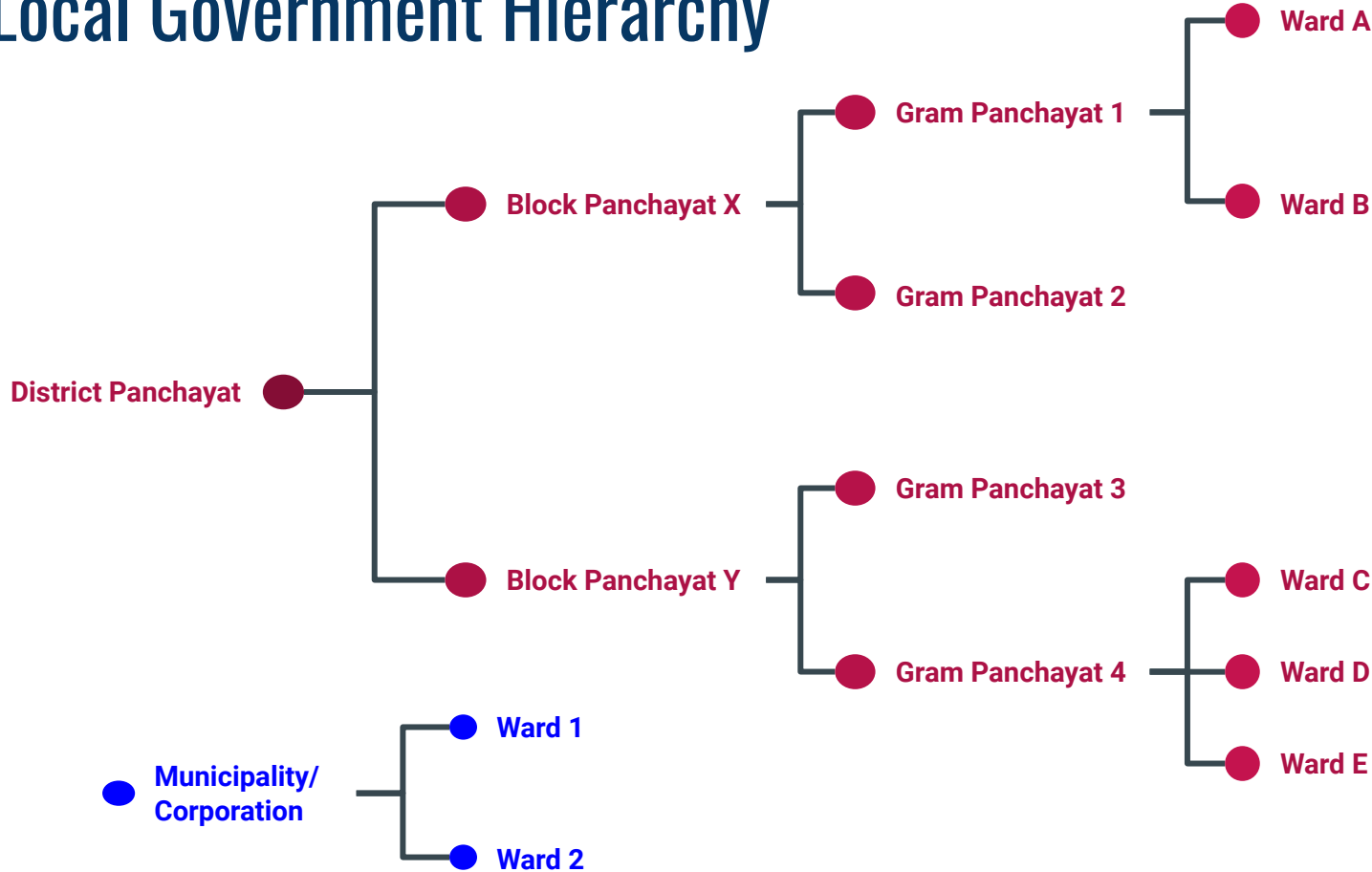
- A Linked Data Portal for Kerala

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Local Self Government

The Boundary Hierarchy

Administrative Boundary
- State
- District
- Taluk
- Villages

Political Boundary
- Parliamentary Constituency
- Assembly Constituency

Local Government Boundary
- Municipal Corporation
- Municipality
- Gram Panchayat   } Collection of Wards
- Block Panchayat   - Collection of GP called divisions
- District Panchayat   - Collection of BP called divisions

OSM
കേരള KERALA

Attribution to
ark Arjun

Local Government Hierarchy

Kerala's - Local Governments

Kerala has 941 Village Panchayats (Grama panchayats) and in the urban areas, it has 87 Municipalities and 6 Corporations, a total of 1034 Local Self Government Institutions.

- Malayalam wikipedia had a initiative to create articles for all LSG in 2005.

- In 2011, malayalam wikipedia has initiated a project for the creation of maps of all local governments in Kerala.
  https://ml.wikipedia.org/wiki/WP:MAPS

Attributions - Rajeshodayanchal, Jaisuvyas, Ajaykuyiloor

Wikidata ID creation for all local governments.

Wikidata entries for all LSG were created and updated with properties like population, literacy , no of admin units.

- LSG is divided in smaller admin units called Wards.

- 1034 LSGs is having a 21000 wards

- Wikidata entries for all 21000 wards were created during 2020.

- Maps were added to commons from Openstreetmap during the same time.

Data Model -
https://www.wikidata.org/wiki/Wikidata:WikiProject_Kerala/Sub_projects/LSGs

Linking Openstreetmap with Wikidata ID

- All 1034 LSG maps were added to Openstreetmap by OSM volunteers.
- Wikidata IDs were added all mapped entities
- Ward mapping has been completed from 8 out 14 districts. (21000+ wards mapping)

Open data maps of local bodies created

TIMES NEWS NETWORK

Kochi: Open street mapping (OSM) community in Kerala has created geospatial open data maps of all local bodies in the state numbering over 1200. The maps would be released as a public repository on Kerala Piravi on Sunday.

The maps are useful in presenting spatial or geographic data as interactive maps and infographics that tells stories and reveals patterns.

While institutions like Information Kerala Mission (IKM) and Kerala State Remote Sensing and Environment Centre (KSRSEC) had prepared local-body boundary maps up to ward levels, their non-availability on public domain and their unwillingness to share them with other departments had caused much difficulties.

Interestingly, most of the mapping using publicly available documents was carried out by a German national, Heinz Vieth, who volunteered to help the community.

"The mapping exercise took around four months. We launched the initiative as open maps for layering data related to Covid-19 as it was not publicly available," said Naveen Francis, one of the key volunteers for the project.

While the maps were created by Francis, Manoj Karingamadathil and Heinz Vieth, OSM volunteers in the state helped in naming and tagging.

"Kerala and Rajasthan were the most awesome regions in India. I am helping to map India as a sign of gratitude," said Vieth.

Once ward-level layers are added, such maps would also be useful during local-body elections. "Volunteers have already created ward-level digital maps for Kan-

hangad municipality and Kochi corporation and ward-level maps would be available soon," said Karingamadathil. The vector maps are also being added to Wikipedia pages of panchayats in the state.

The community had been requesting authorities to release such maps in machine readable format under open data licence since long but this was never done. The maps generated by the community would be available for download under Open Database Licence (ODbL) on websites openstreetmap.org and opendatakerala.org.

The maps would be released as a public repository today

"The Spatial referenced digital maps we prepare are openly accessible and can be downloaded from the portal **opendatakerala.org** *and are being widely used in the Wikipedia pages of local bodies and COVID-19 visualisation portals. The availability of more accurate geospatial data would be of great help during disaster management"*

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Displaying OSM map in Wikipedia

- Infobox template of LSG was edited to display the maps from OSM

Covd19 : Hotspots Tracking

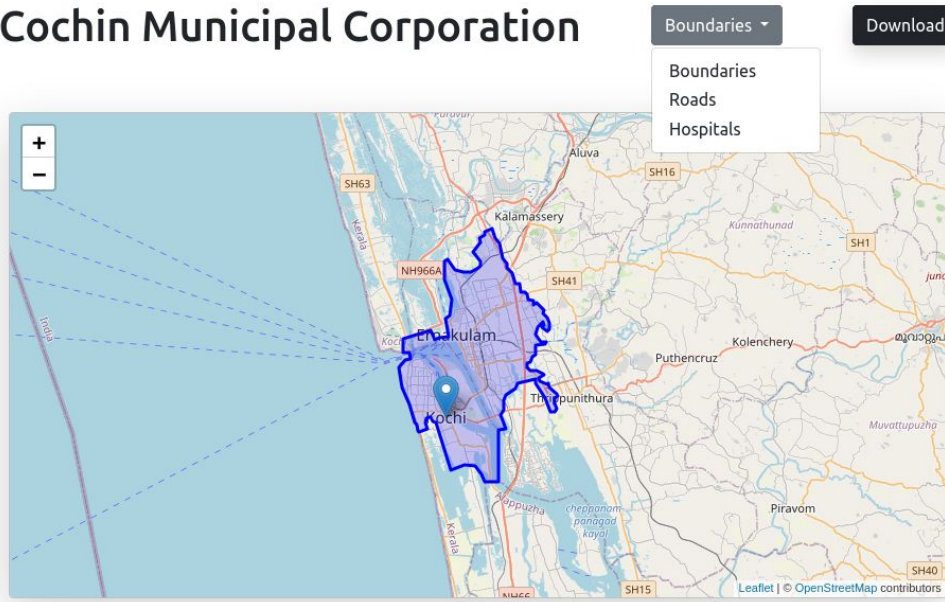# Election Data Visualization
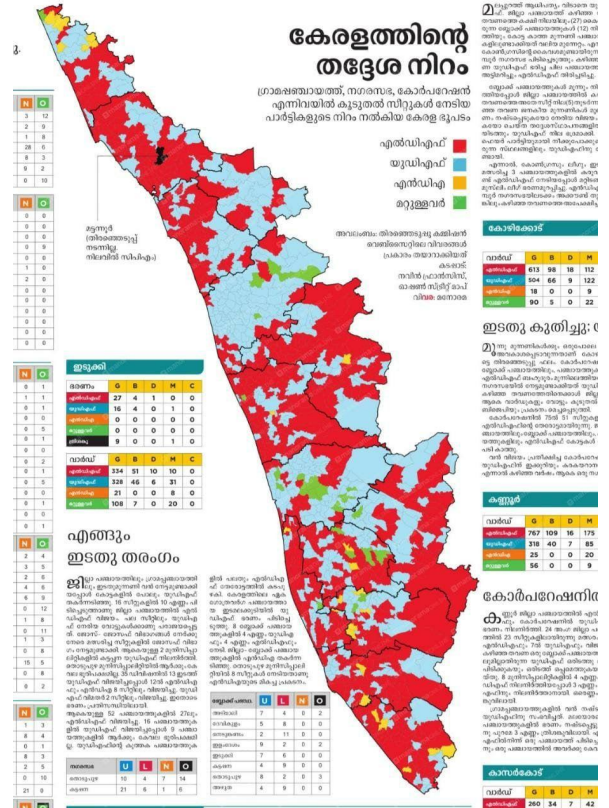
Linked OpenData use case : Map Kerala !!!

- OpendataKerala took an initiative to create LOD website.

Cochin Municipal Corporation Boundaries ▾ Download

Boundaries
Roads
Hospitals

MapKerala Alpha

Your open data..

A Gateway to Geospatial Map Data of Kerala

Powered by Wikidata and OpenStreetMap

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- experiments at https://map.opendatakerala.org

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Thanks for your attention!

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