




ICIMOD

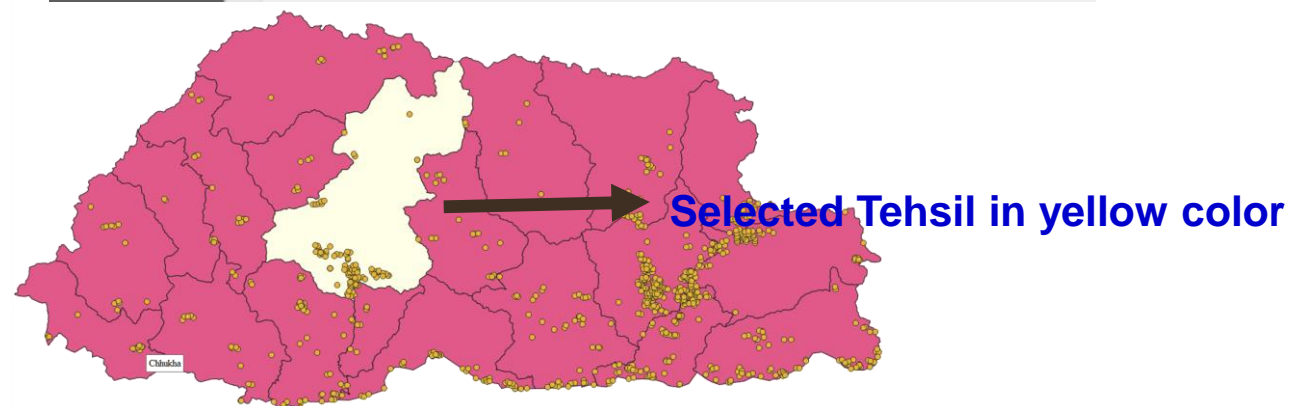
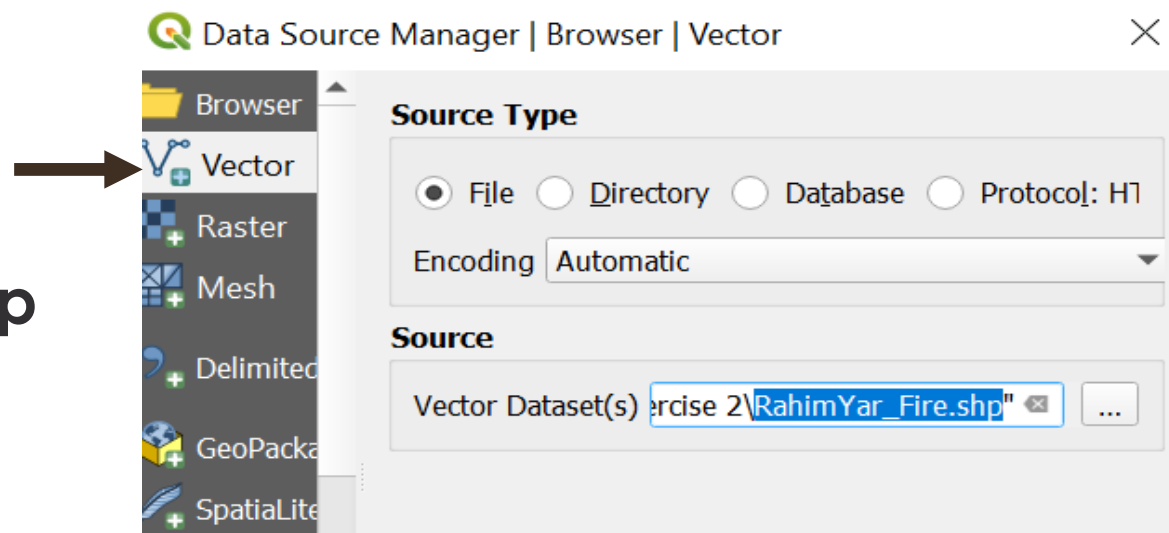
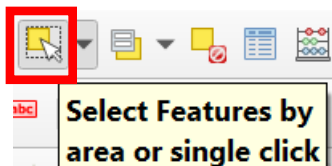
# Empowering Women in Geospatial Information Technology

Poonam Tripathi

## Exploring geo-processing tools

# Exploring geo-processing tools (Clip)

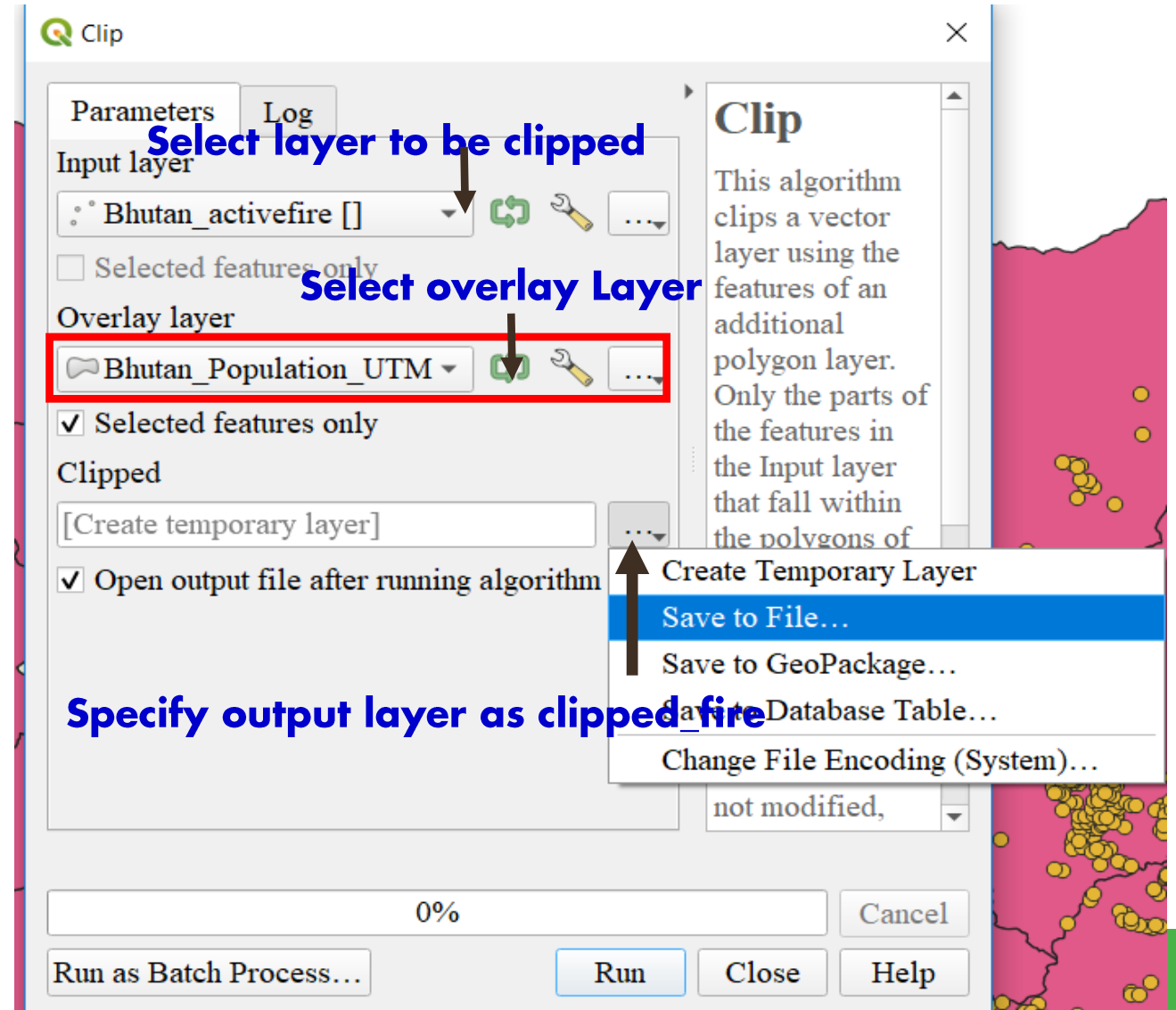
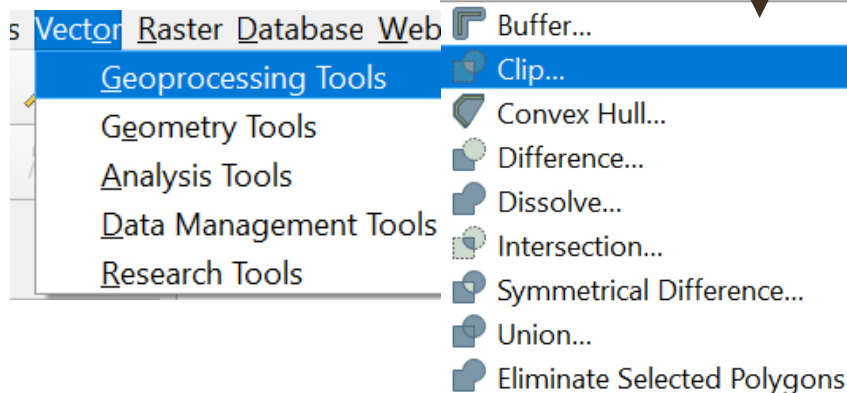
- Click  -> **Vector**
- Add **Bhutan\_Population\_UTM.shp** you created
- Add **Bhutan\_activefire.shp** from the folder
- Select any district by clicking on the icon **Select Features by area** or single click from the menu toolbar





# Exploring geo-processing tools (Clip)

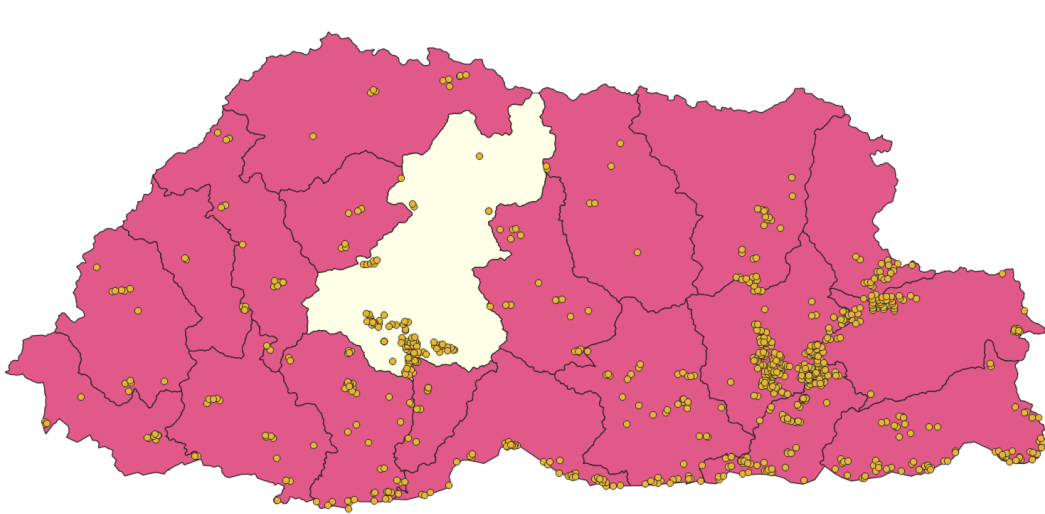
- From the Menu toolbar click on **Vector-> Geoprocessing Tools-> Clip**
- A Clip window opens
- Specify the parameters



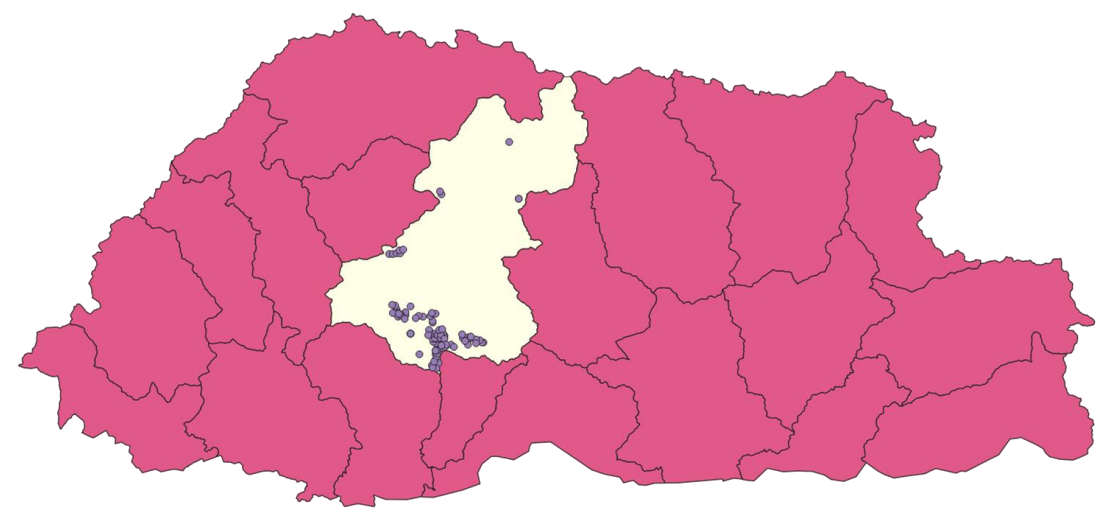
# Exploring geo-processing tools (Clip)

Before

Clipped Fire data (Point)



After

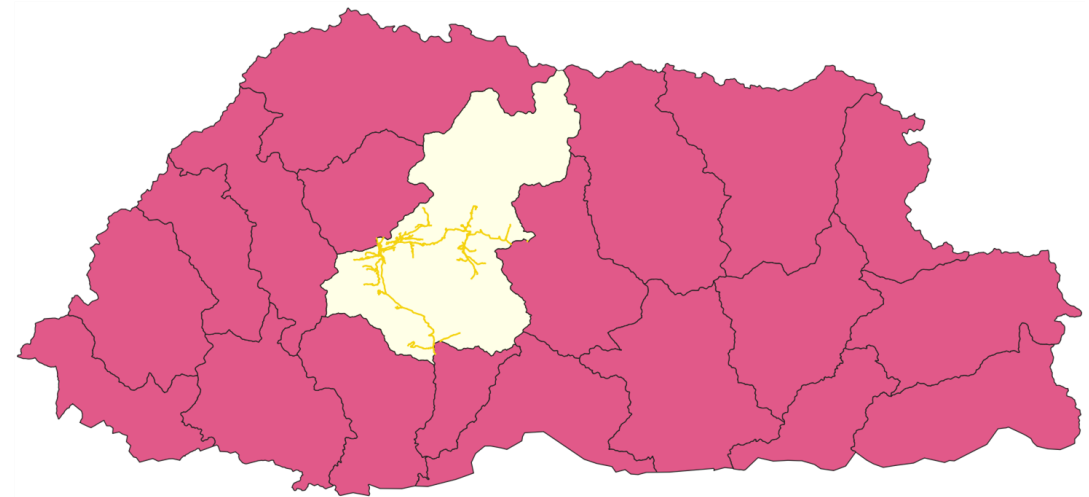
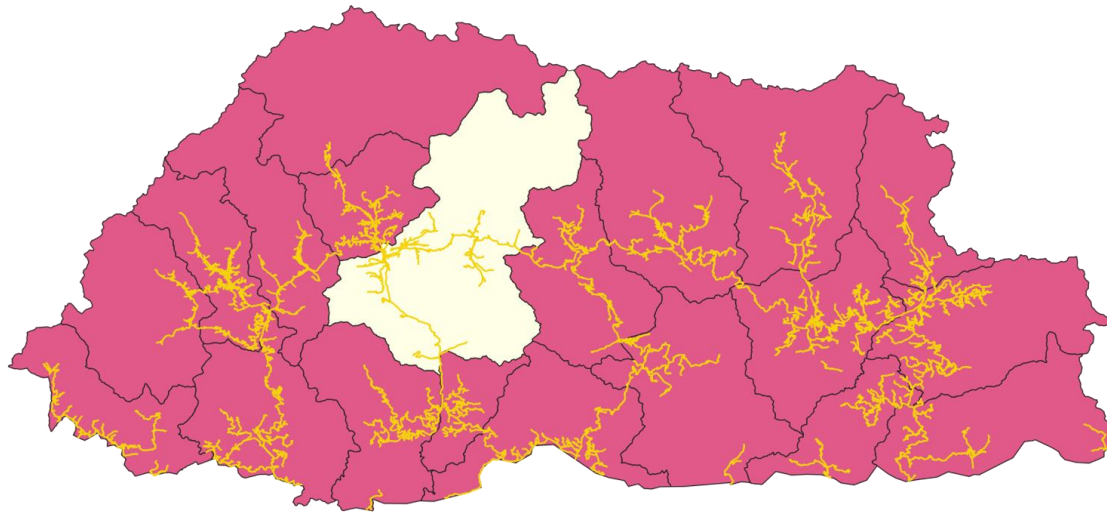


# Exploring geo-processing tools (Clip)

Before

After

Clipped Road data (Line)

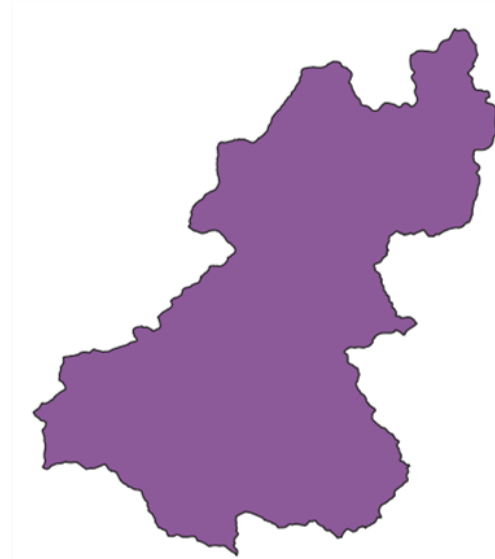
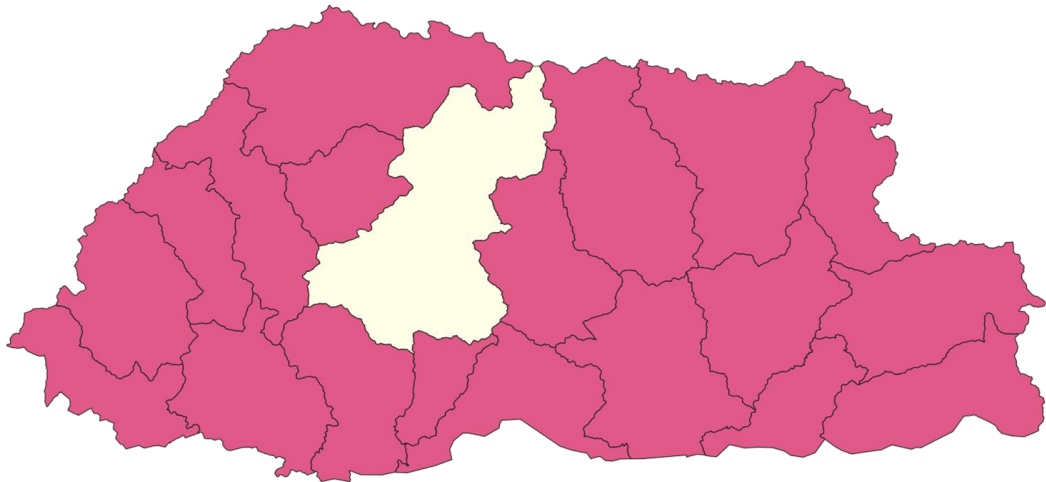


# Exploring geo-processing tools (Clip)

Before

After

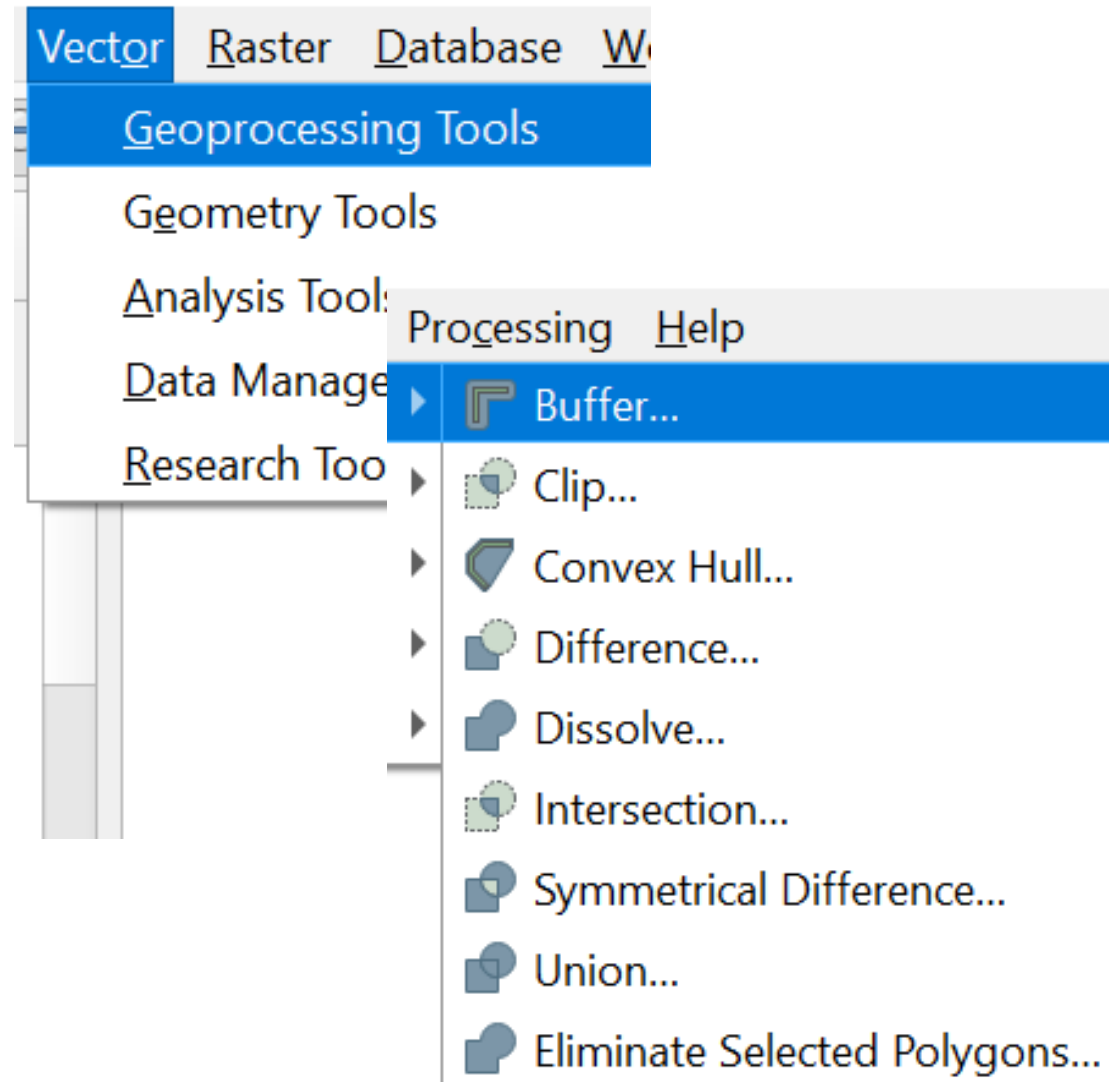
Clipped Tehsil data (Polygon)



# Exploring geo-processing tools

## Buffer Tool

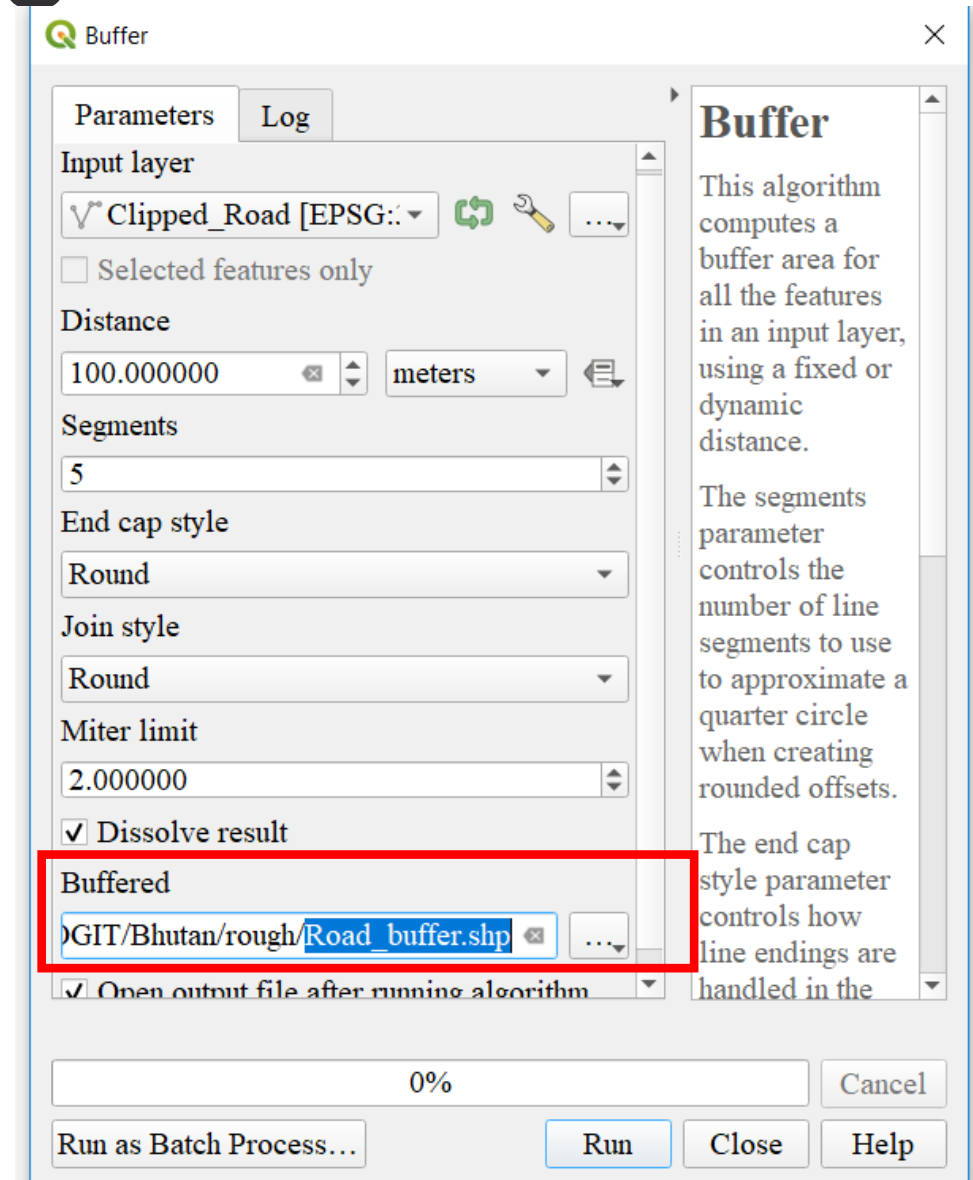
- Open the clipped shapefile i.e. **clipped\_road.shp** on the QGIS window
- Click **Vector**->**Geoprocessing Tools**->**Buffer**



# Exploring geo-processing tools

## Buffer Tool

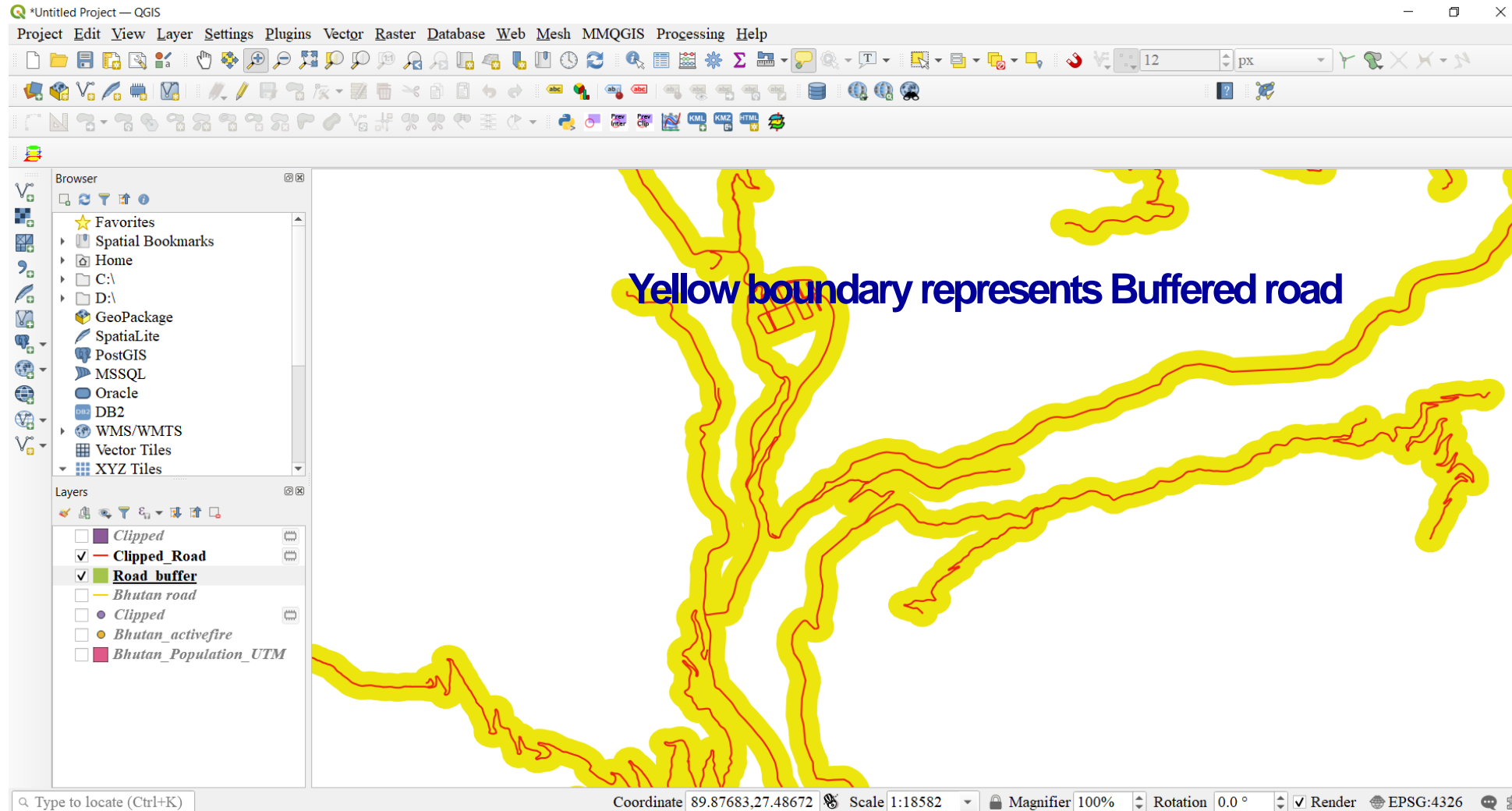
- Select the input layer
- Enter the distance limit
- Drop down the **Buffered** menu and **save to file** as **Road\_buffer**





# Exploring geo-processing tools

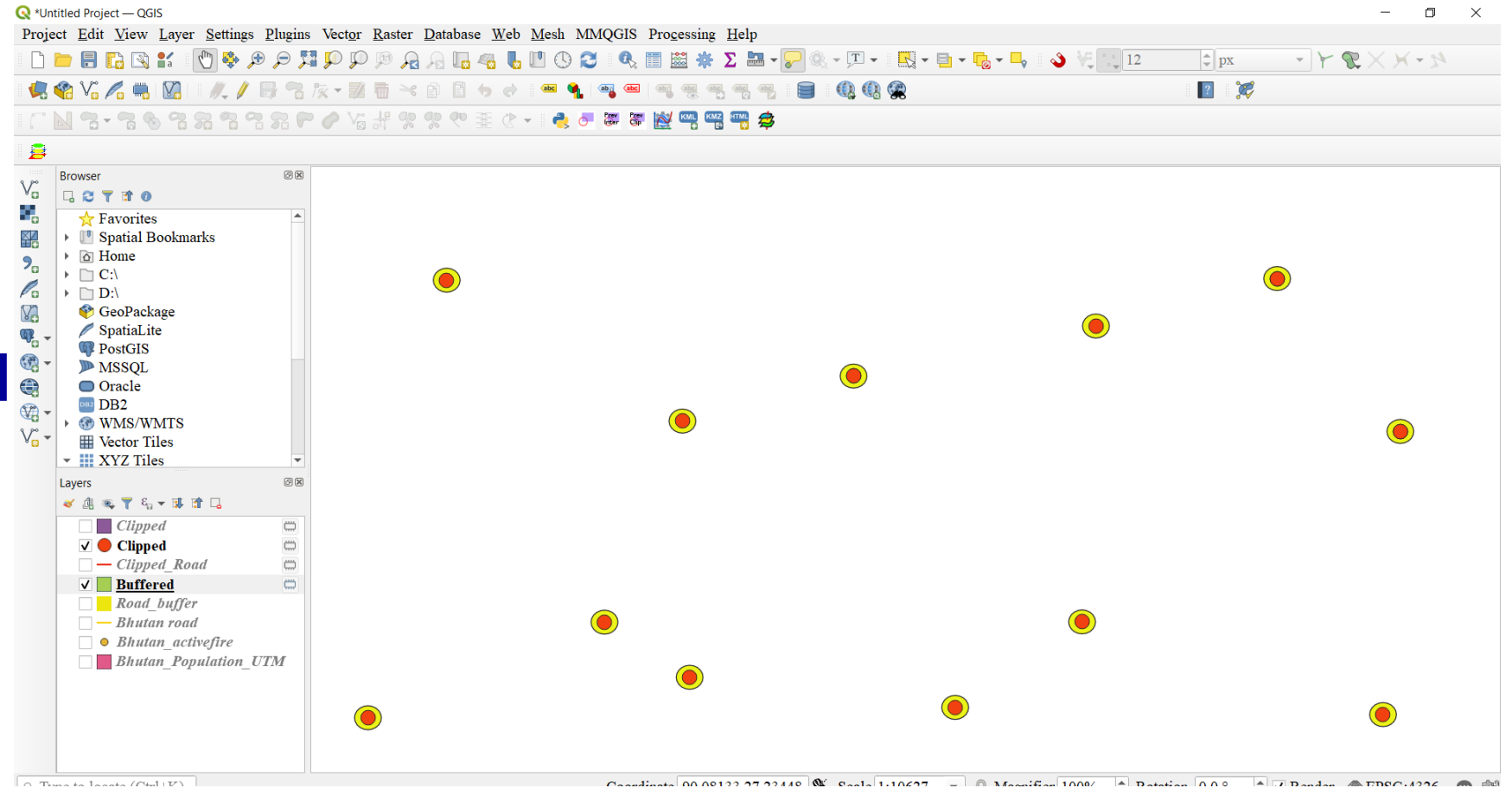
## Buffer Tool



# Exploring geo-processing tools

## Buffer Tool

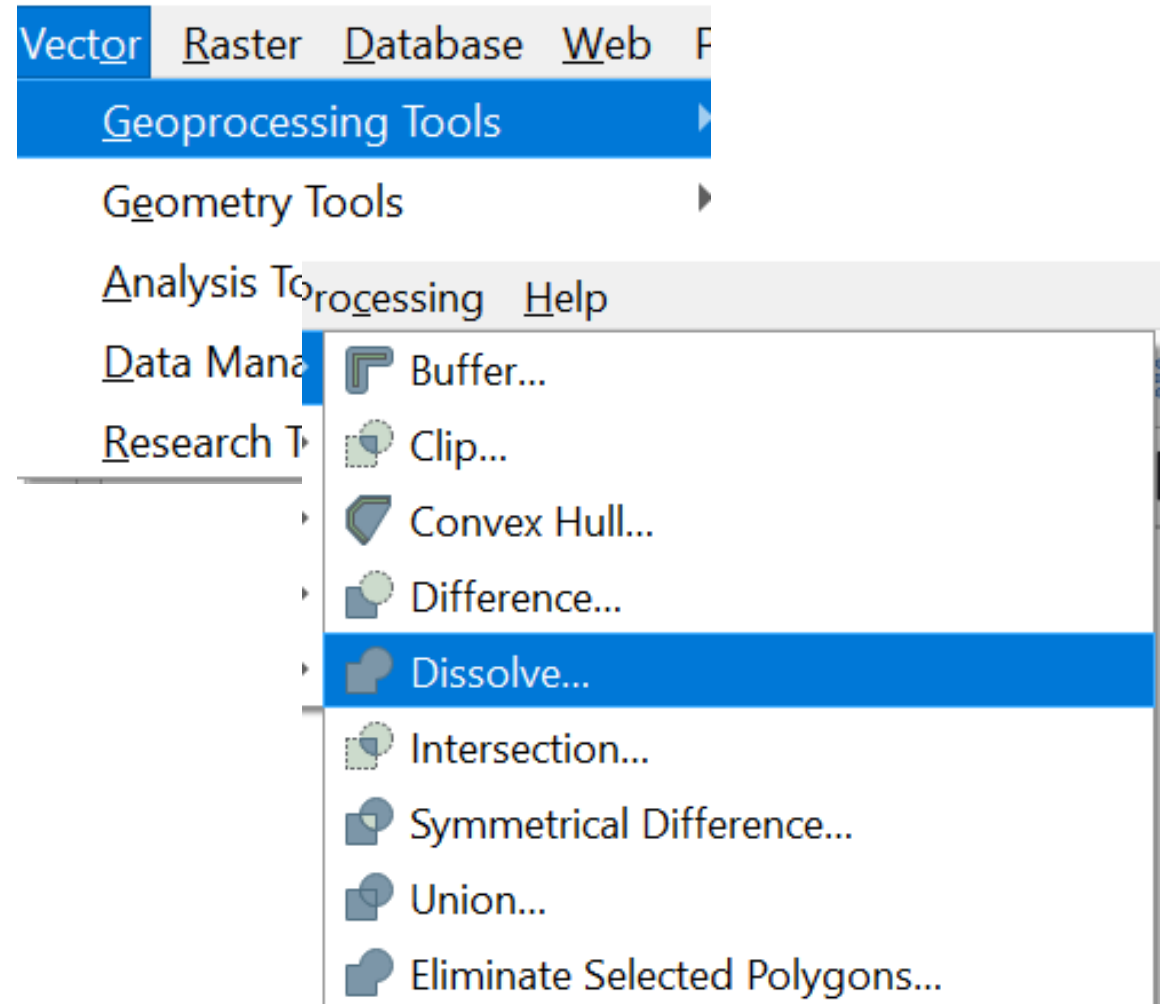
Yellow boundary  
represents Buffered  
points



# Exploring geo-processing tools

## Dissolve Tool

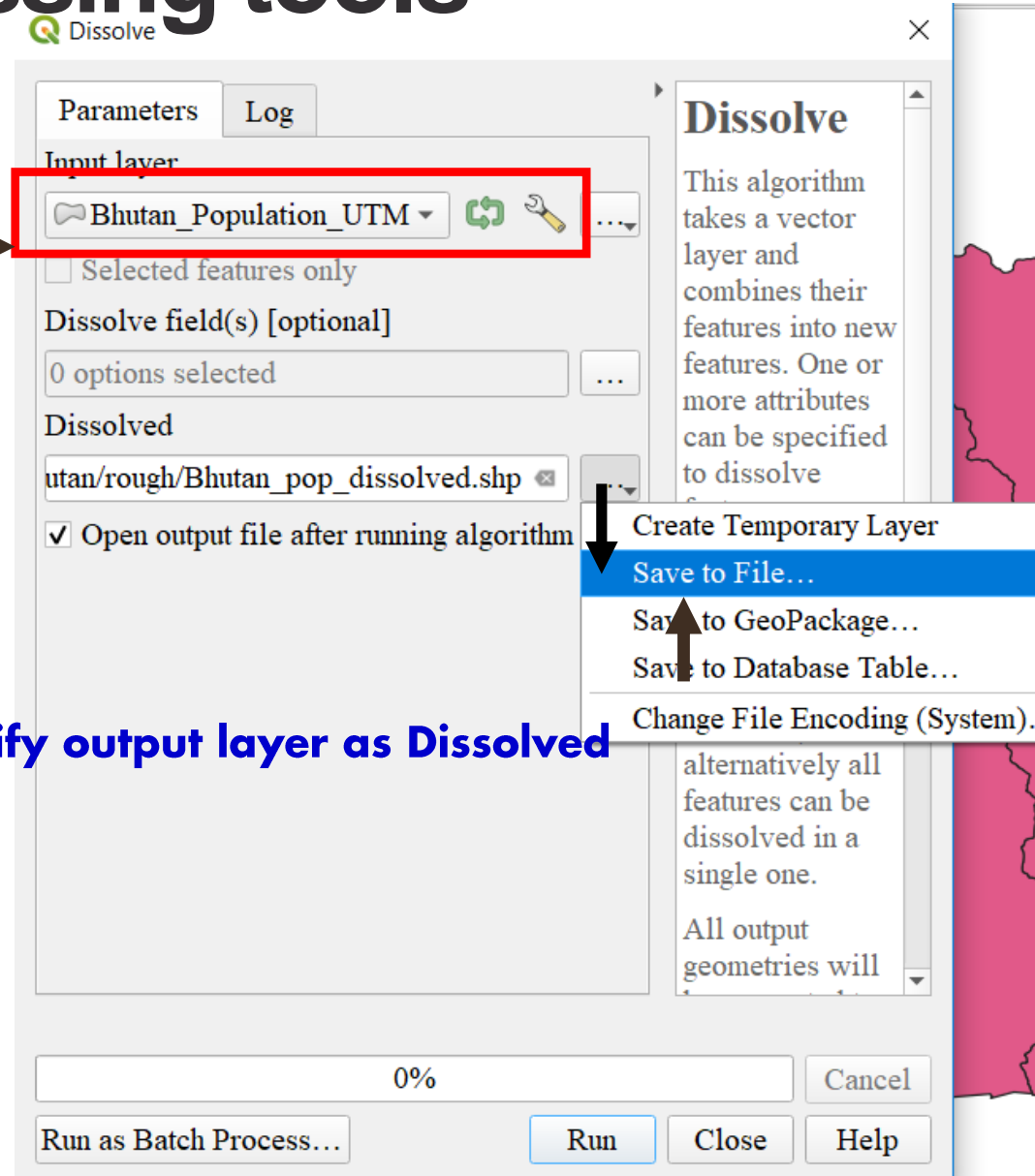
- Click **Vector->Geoprocessing tools -> Dissolve**
- Select the **Bhutan\_Population\_UTM.shp** as input layer



# Exploring geo-processing tools

## Dissolve Tool

Select input layer



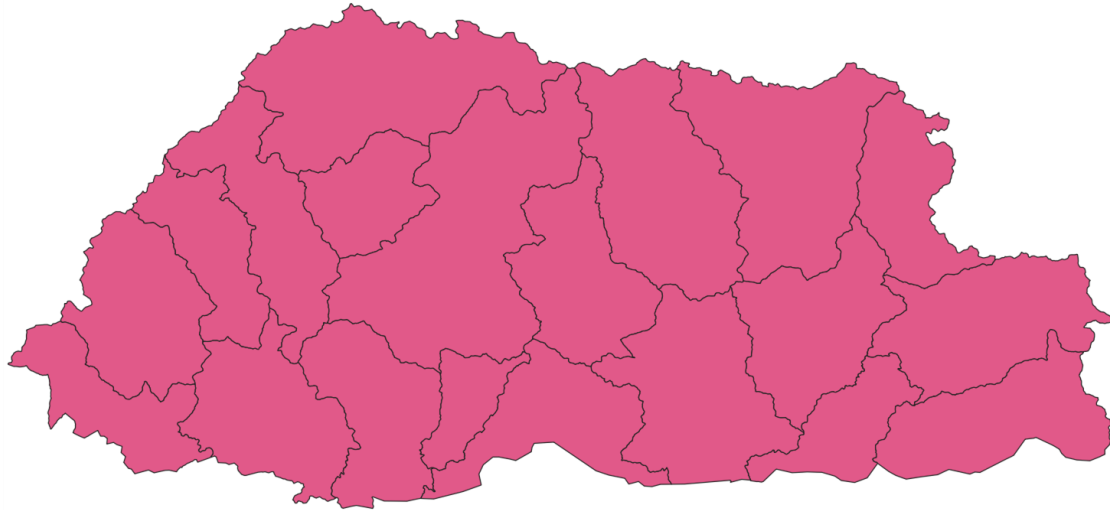
Specify output layer as Dissolved



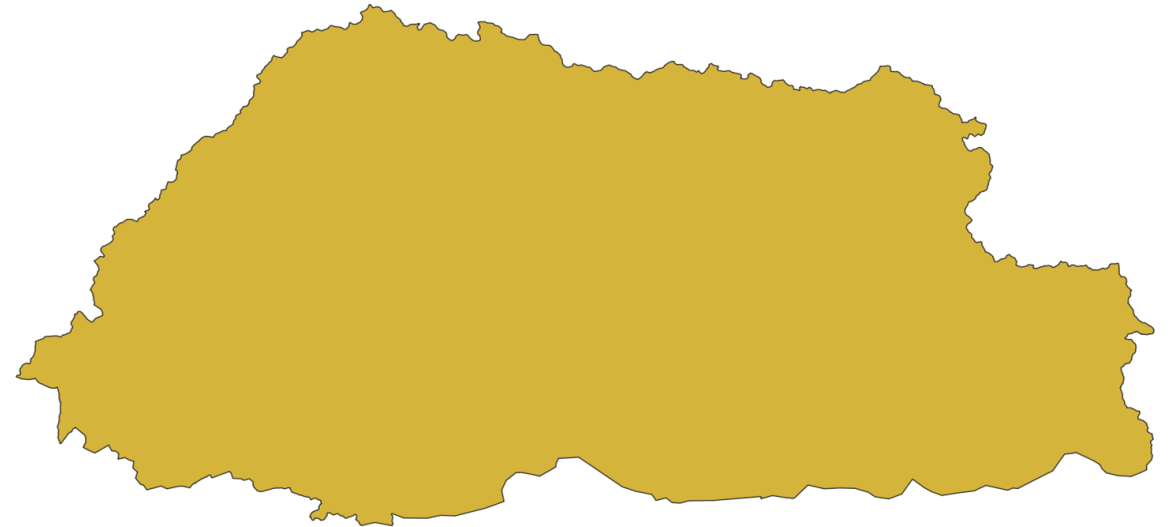
# Exploring geo-processing tools

## Dissolve Tool


**Before**



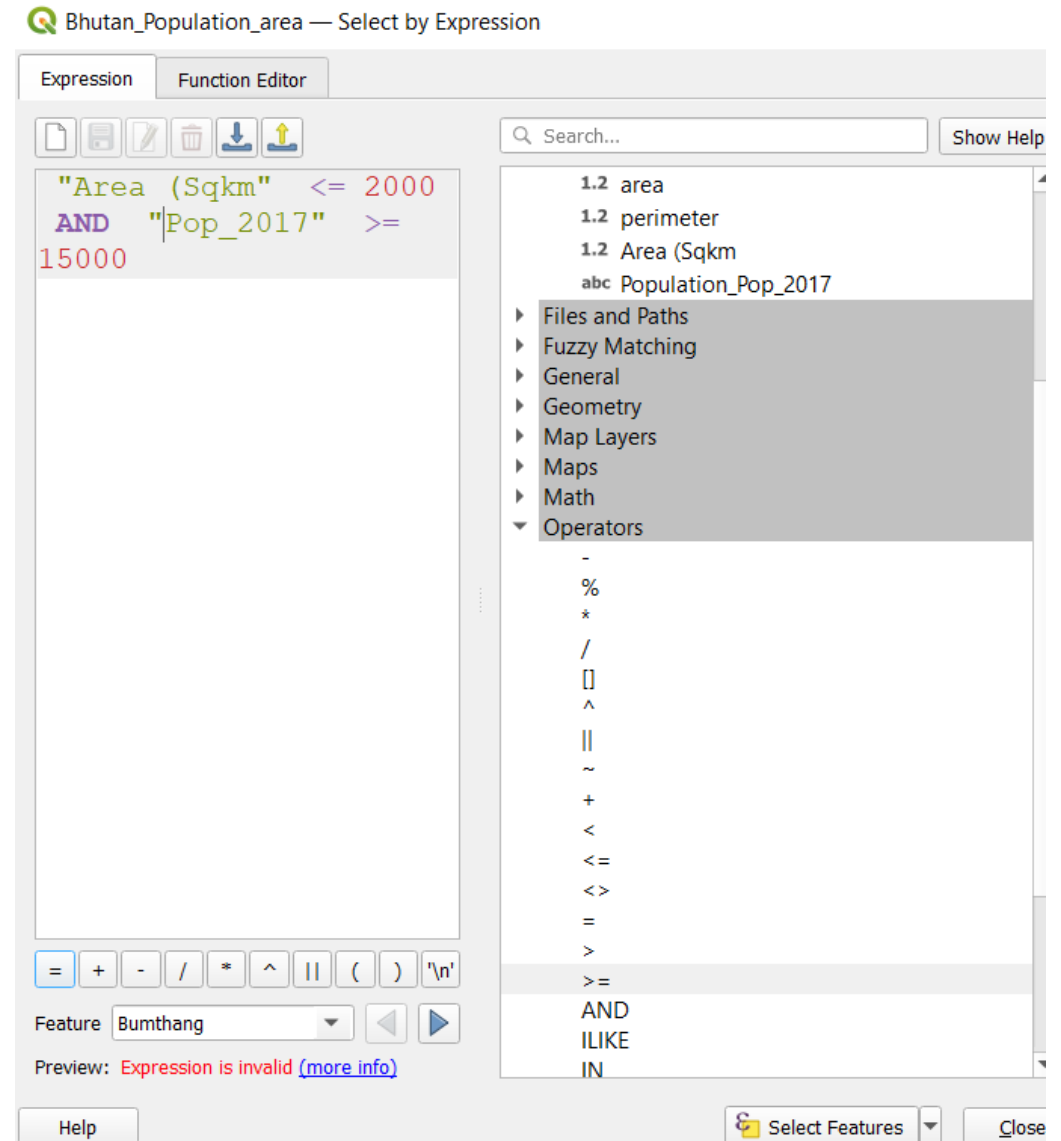
**After**



# Select by expression (Query)

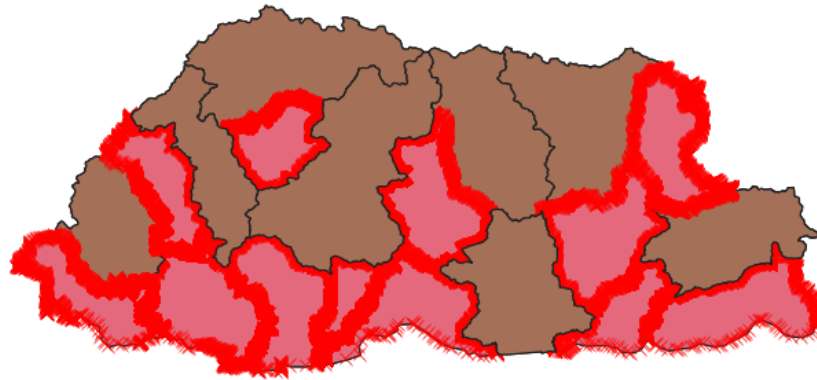
- Open the **Joined.shp** file from **Day1/exercise 1** (You created)
- Open attribute table and click on icon 
- Select **Fields and Values**
- Write an expression as shown below:

"Area (Sqkm" <= 2000 AND "Pop\_2017" >= 15000 "



# Select by expression (Query)

**Selected (12) features falling  
under the build query**



Bhutan\_Population\_area — Features Total: 20, Filtered: 20, Selected: 12

	District	ADM1_PCODE	Popul_2005	area	perimeter	population
1	Pemagatshel	BT009	13864	102157203...	196255.763...	23,632
2	Punakha	BT010	17715	1111321481...	166449.464...	28,740
3	Paro	BT008	36433	129007140...	229941.715...	46,316
4	Samtse	BT012	60100	130844724...	251973.430...	62,590
5	Yangtse	BT016	17740	144789224...	230577.491...	17,300
6	Sarpang	BT013	41549	165666410...	286681.260...	46,004
7	Dagana	BT003	18222	172554688...	238930.107...	24,965
8	Thimphu	BT014	98676	179951373...	321107.322...	138,736
9	Trongsa	BT017	13419	181489428...	250183.511...	19,960
10	Samdrupjon...	BT011	39961	187480519...	233120.714...	35,079
11	Chhukha	BT002	74387	188363287...	264795.845...	68,966
12	Haa	BT005	11648	190984735...	225456.752...	13,655
13	Monggar	BT007	37069	194349712...	247600.411...	37,150
14	Trashigang	BT015	51134	220142546...	282672.120...	45,518
15	Zhemgang	BT020	18636	241691447...	290233.716...	17,763
16	Bumthang	BT001	16116	271811924...	281715.978...	17,820
17	Lhuentse	BT006	15395	285793824...	304882.747...	14,437

Show All Features







Thank you

Let's protect  
the pulse.