



ICIMOD

# Empowering Women in Geospatial Information Technology



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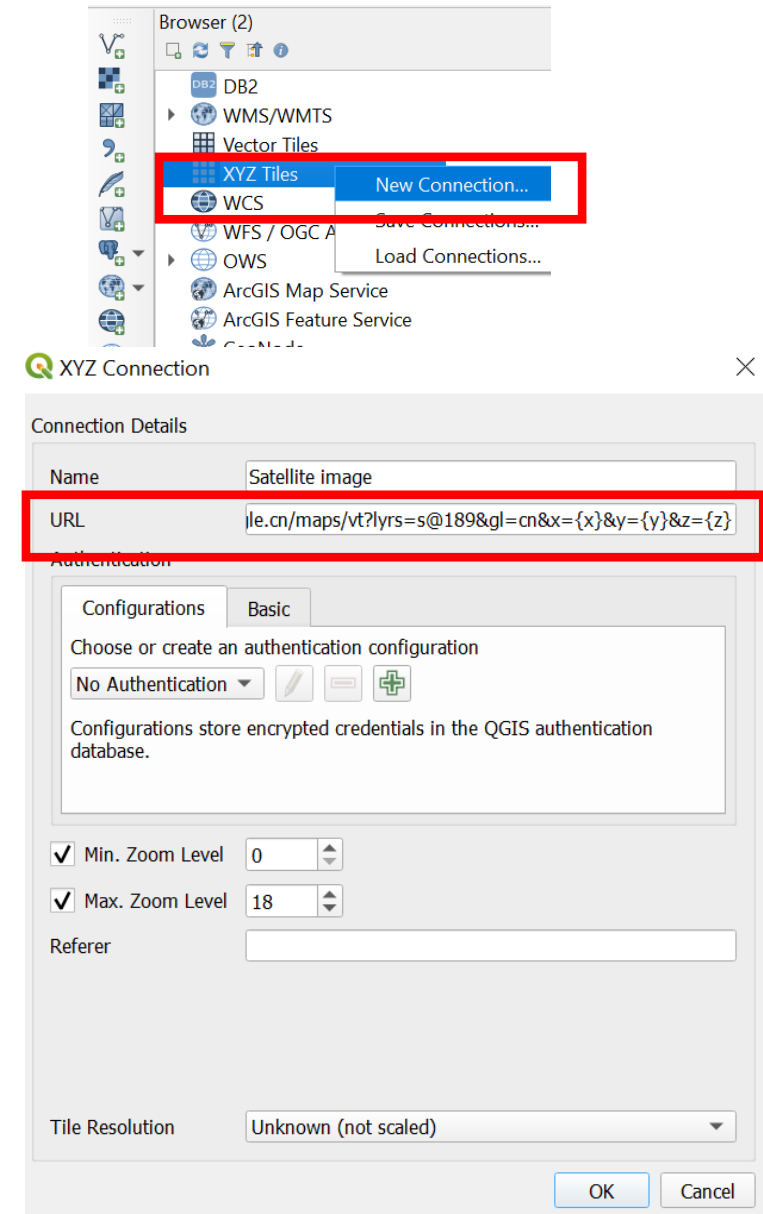
Create your own data with EO  
datasets

# Create your own data in QGIS

## Adding Google satellite image

- Right click on **XYZ Tiles** in the **Browser** panel -> New Connection
- A **XYZ Connection** window appears
- Enter **Name**
- Paste the **URL** given below:  
<http://www.google.cn/maps/vt?lyrs=s@189&gl=cn&x={x}&y={y}&z={z}>
- Click **OK**

\*For other connections: <https://www.geodose.com/2018/03/how-to-add-google-maps-layer-QGIS-3.html>





# Create your own data in QGIS

## Adding Google satellite image

- New connection '**Satellite image**' appears in the Browser panel
- Double click on the **Satellite image**

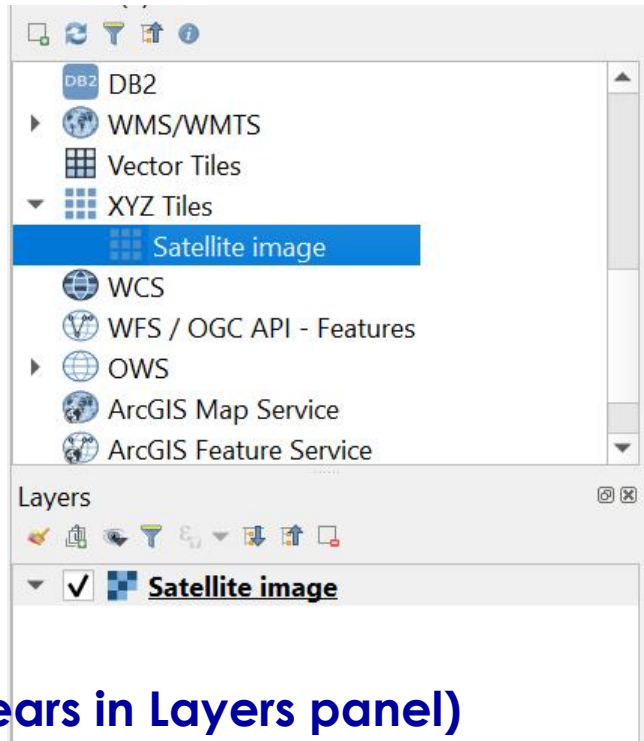


Image appears in Layers panel)



# Create your own data in QGIS

## Creating new shapefile (Point)

- Navigate to your target region
- Click on the **New Shapefile Layer** icon
- **Browse** the folder where you want to save the created Shapefile & **Name**
- Select **Geometry type** as **Point**
- Type LULC in the **Name** field under **New Field**
- Select **Type** as **Text**
- Click on **Add to Fields List** and **OK**
- Created layer appears in the Layers panel

New Shapefile Layer

File name: Capacity Building in Current Systems & General Training\Women GIT -June 2021\Day 3\LULC\_.shp

File encoding: UTF-8

Geometry type: Point

Dimensions: None (selected), Z (+ M values), M values

CRS: EPSG:32642 - WGS 84 / UTM zone 42N

New Field

Name: 123 Whole Number

Type: 123 Whole Number

Length: 10 Precision: 0

Add to Fields List

Fields List



| Name  | Type    | Length | Precision |
|-------|---------|--------|-----------|
| id    | Integer | 10     |           |
| Name  | String  | 80     |           |
| Class | Integer | 10     |           |

Remove Field

OK Cancel Help

# Create your own data in QGIS

## Editing of newly built shapefile (Point)

- Select the layer from the Layer panel
- Click on the **toggle editing** icon 
- **Digitizing toolbars** is highlighted
- Click on the Add point feature icon 
- You will observe a circle cursor follows your mouse
- Start collecting point features


| LULC                                |        |
|-------------------------------------|--------|
| <input checked="" type="checkbox"/> | BU     |
| <input checked="" type="checkbox"/> | CL     |
| <input checked="" type="checkbox"/> | Forest |
| <input checked="" type="checkbox"/> | Snow   |
| <input checked="" type="checkbox"/> | Water  |





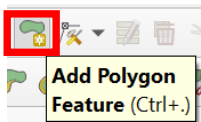
# Create your own data in QGIS

## Creating new shapefile (Polygon)

- Follow the same steps to create polygon shapefile
- Once the polygon layer is added in the Layer Panel, click on **toggle editing mode** 

- **Advanced Digitizing Toolbar** is highlighted 

- Click on the icon **Add Polygon feature**



Newly build polygon shapefile



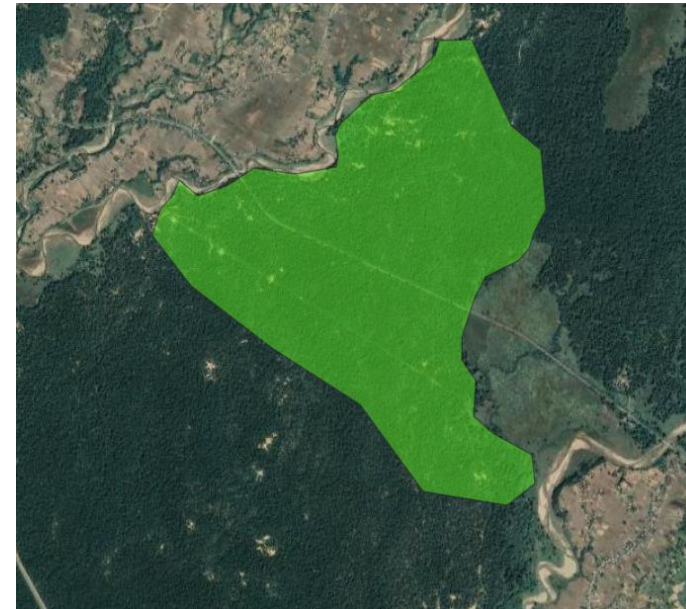
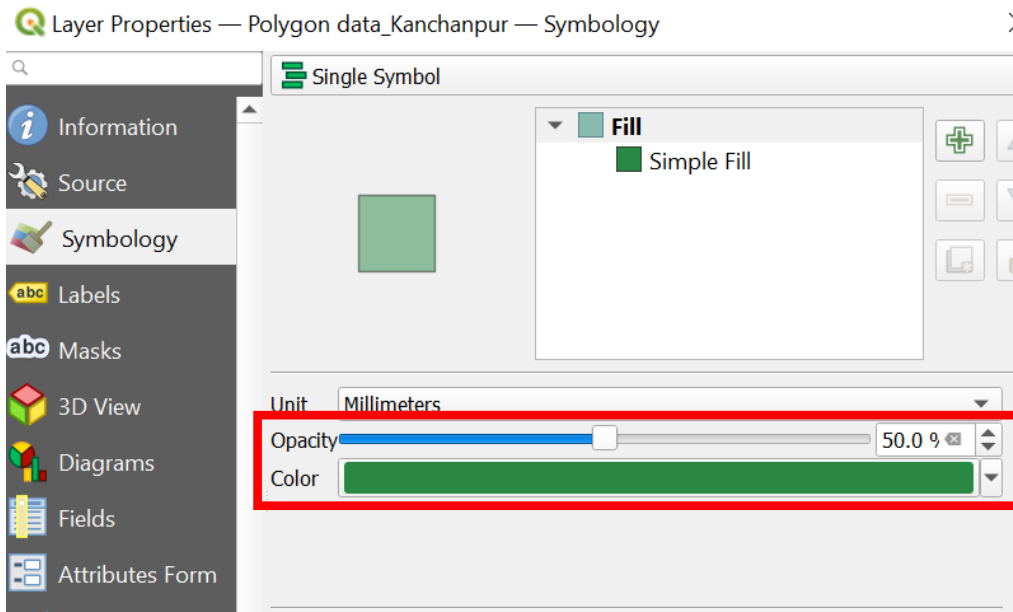
- Start digitization

# Create your own data in QGIS

## Editing of newly built shapefile (Polygon)

### Setting transparent color to polygon


- Click on **Properties-> Symbolology**
- Change the **opacity** parameter from 100% to **50%**
- Click apply

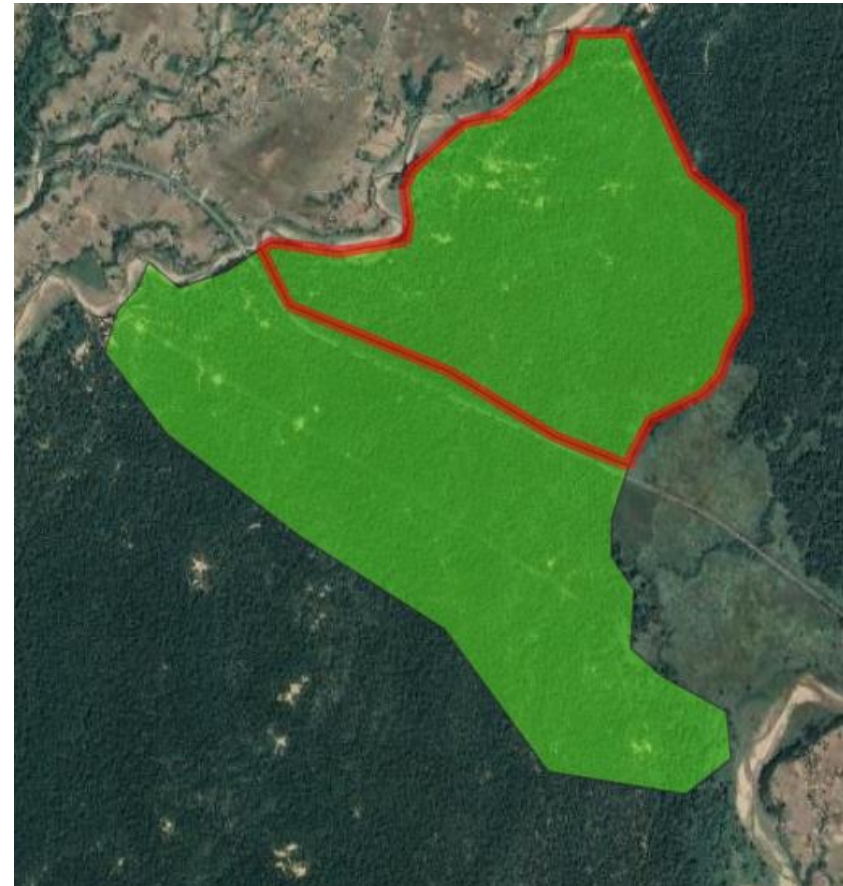


# Create your own data in QGIS

## Editing of newly built shapefile (Polygon)

### Splitting polygon

- Select layer in the Layer Panel
- Click on the **Split Feature** icon 
- Place your mouse on the polygon (from where you want to split) and click outside the polygon
- Drag the mouse over the another end of the polygon (where you want to end the split) and click and then right click
- Polygon is splitted into two




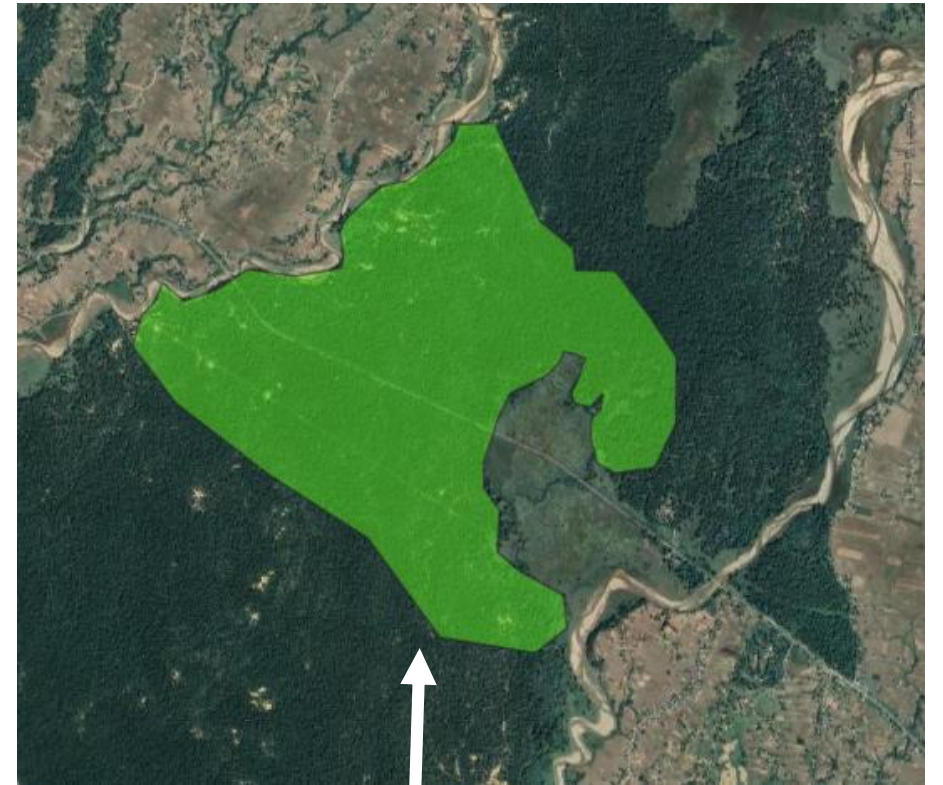


# Create your own data in QGIS

## Editing of newly built shapefile (Polygon)

Reshape polygon (helpful for adding or deleting certain region)

- Select your layer
- Click on the **Reshape Feature** icon 
- Place your mouse (where you want to add the part)
- Start digitizing from the inside of the polygon
- Come back to the inside of the polygon and click and then right click



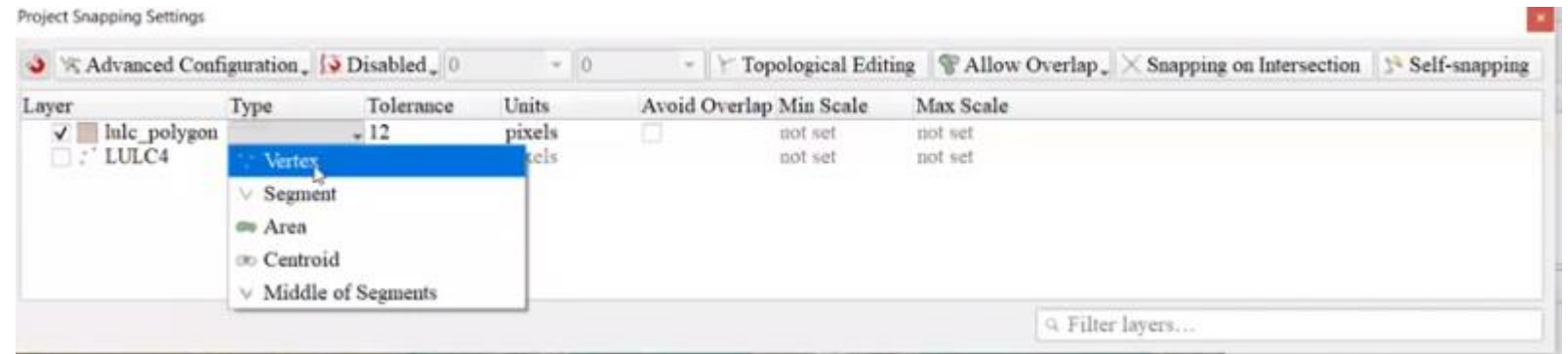
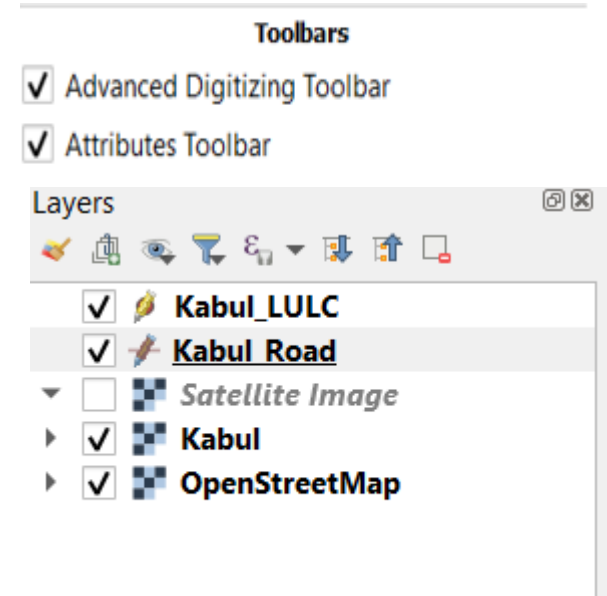
Reshaped feature

# Create your own data in QGIS

## Editing of newly built shapefile (Polygon)

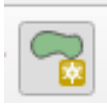
Using Snapping tool (Helpful for tracing and snapping at intersection)

- Click on the **Enable Snapping** icon 
- Click on **Advanced Configuration**
- Edit **Advanced Configuration** and select the editable layer/layers in which you want to trace
- Select the **Open Snapping Options** and set your preferences



# Create your own data in QGIS

## Editing of newly built shapefile (Polygon)

- Select the Add polygon icon 
- Select the layer you want to trace
- You will notice a purple color icon snapping guideline follows your mouse cursor
- Start tracing
- Click on the polygon and finish the tracing





**Can you create the line (road) data?**



Thank you

Let's protect  
the pulse.