

ICIMOD

Empowering Women in Geospatial Information Technology

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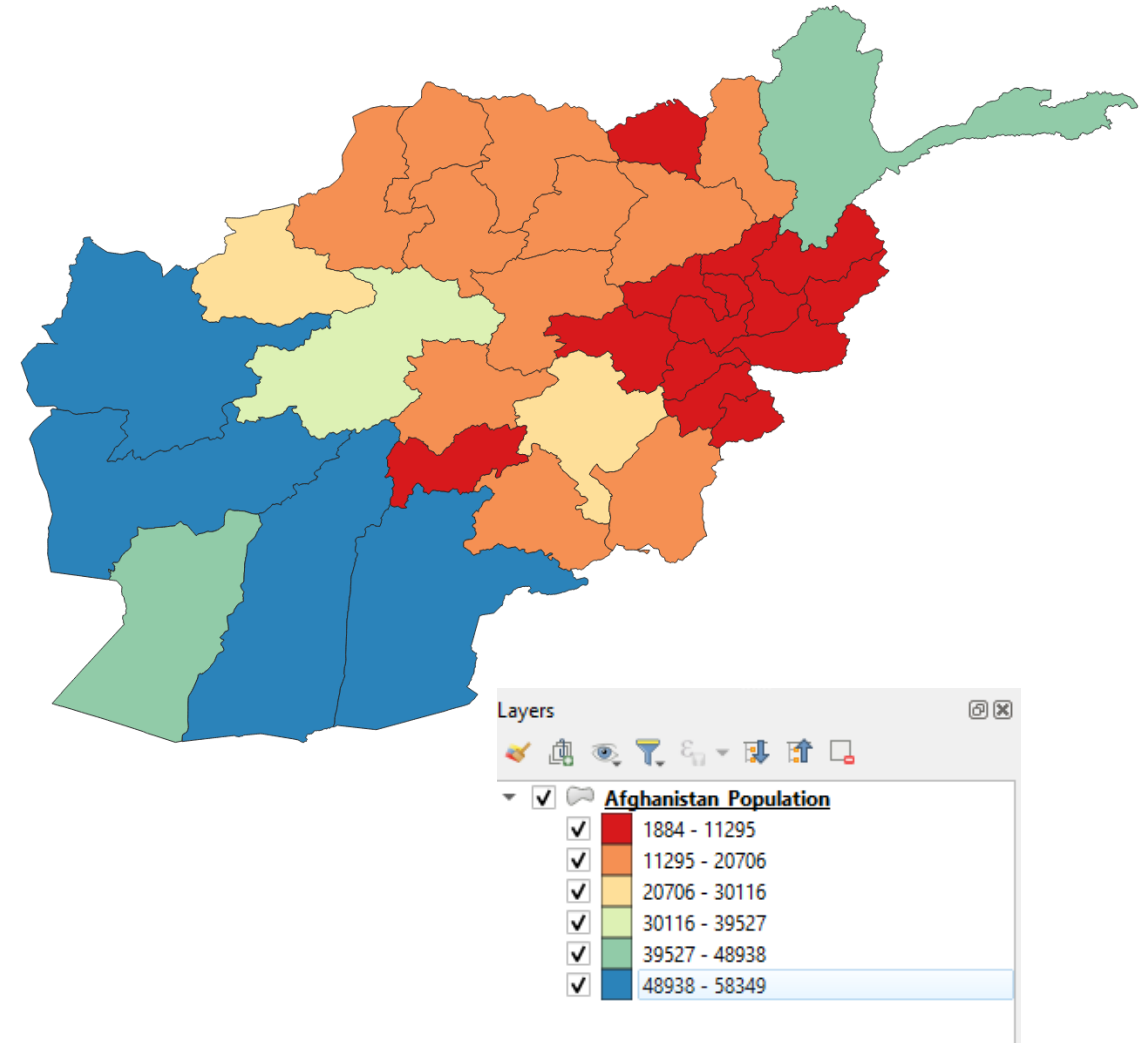
Poonam Tripathi

23rd June 2021


Map production

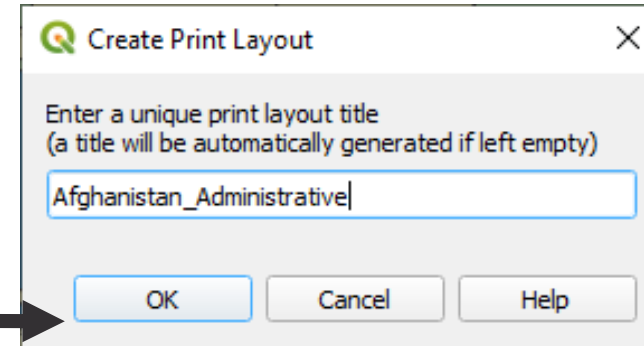
Map production in QGIS

- Open the **Afghanistan_Area_SqMeter.shp** file in QGIS from the folder **Day 1 \Exercise 1**
- Select and edit the Symbology for the field you want to display in the Map (In this Area_SqKm)

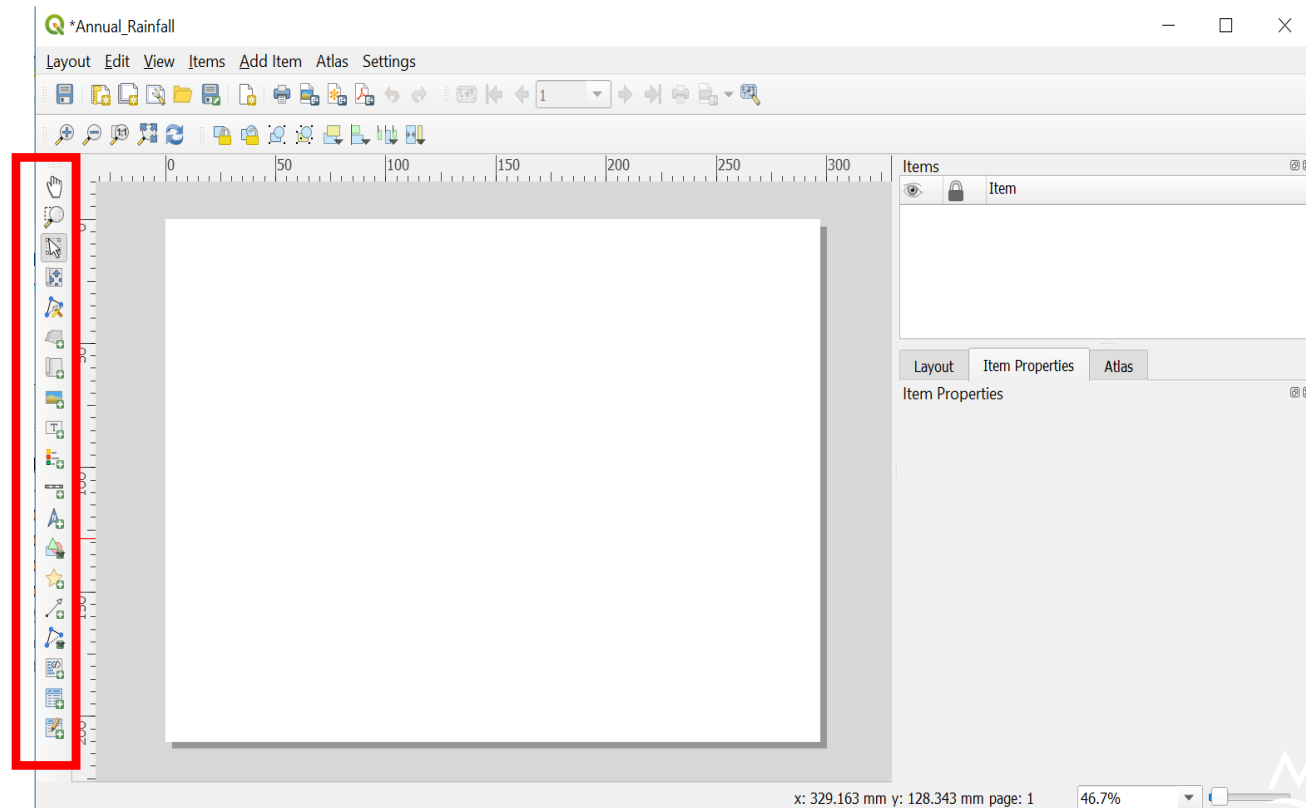


Map production in QGIS

- Click on the **New Print Layout** icon 
- A window **Create print layout** will appear
- Enter the title in the window and click **OK**
- A new **print layout** window opens



Toolbox toolbar



Map production in QGIS

Layout toolbar

Action toolbar

Toolbox toolbar


Map display window

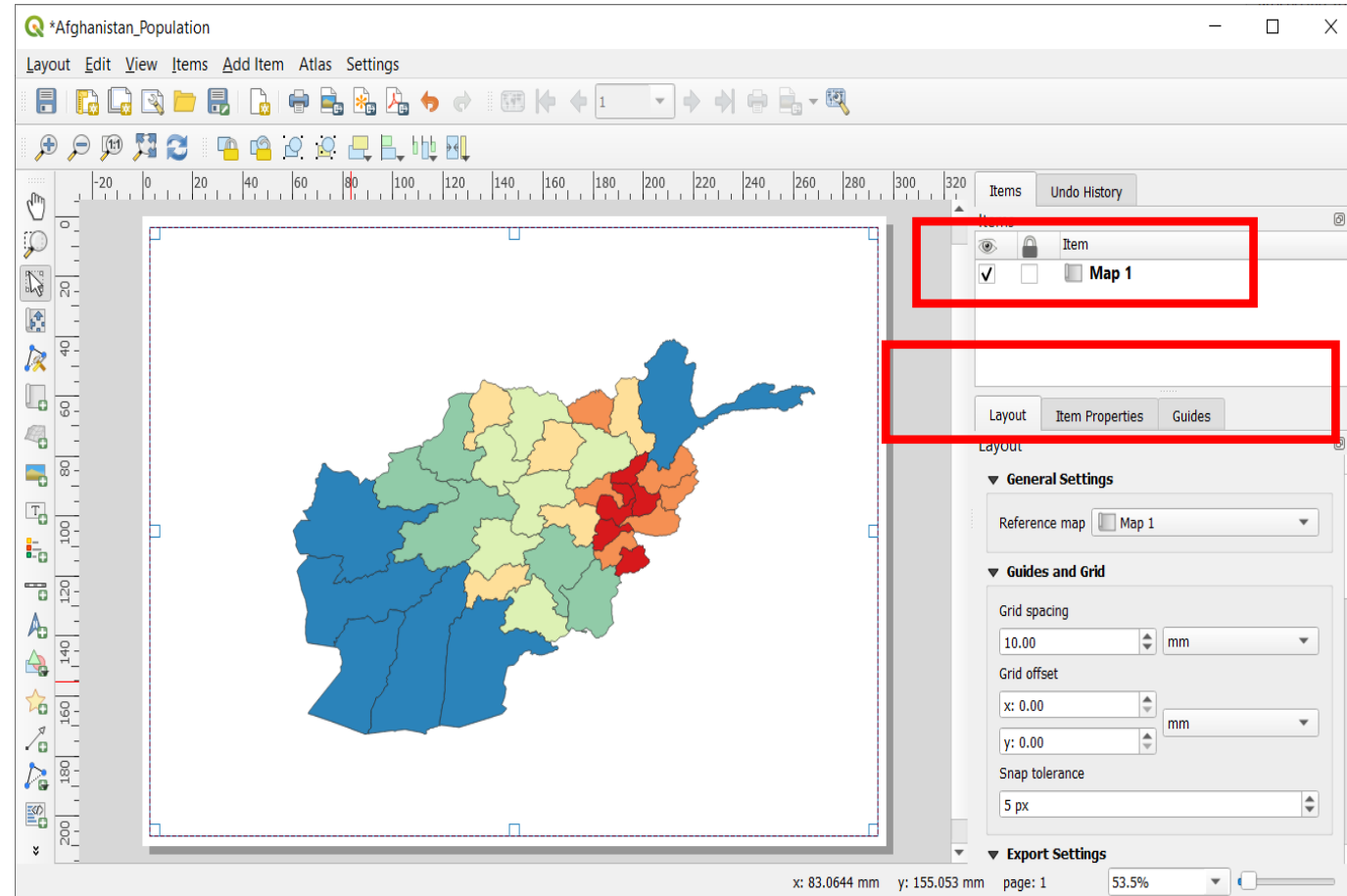
Item panel

Item properties panel



Map production in QGIS

- Click on the **Add map** icon  from the toolbox toolbar
- A **+** sign arrow follows your mouse
- Place the mouse on the upper left corner of the print layout and **drag** towards lower right corner
- The map appears on the print layout screen
- Under the Item panel you will be able to see **Map 1** and **Item properties**



Map production in QGIS

1. Under the **Main Properties** drop down the arrow under **CRS** and select **Default CRS**:
➤ You will observe the extent is displayed in **lat/long**
2. Scroll down the Item Properties -> click on the **Grids** -> + sign
3. Click on **Modify Grid**
4. The Map Grid Properties will appear

The screenshot displays the QGIS interface with several panels and settings highlighted in red boxes and numbered 1 through 4:

- (1)** In the **Main Properties** section, the **CRS** dropdown is set to **Default CRS: EPSG:4326 - WGS 84**.
- (2)** In the **Grids** section, the **+** sign is highlighted to add a new grid.
- (3)** The **Modify Grid...** button is highlighted.
- (4)** The **Map Grid Properties** dialog is open, showing the following settings:
 - Grid type:** Solid
 - CRS:** Use Map CRS
 - Interval:** Map Units
 - X:** 0.000000000000
 - Y:** 0.000000000000
 - Offset:** X 0.000000000000, Y 0.000000000000
 - Line style:** (empty)
 - Blend mode:** Normal

At the bottom of the main panel, the **Extents** section is highlighted, showing the following values:

Property	Value
X min	79.475
Y min	25.142
X max	88.674
Y max	31.588

At the bottom of the interface, the status bar shows: 4 mm y: 111.734 mm page: 1 46.7%



Map production in QGIS

1. Set the **X** and **Y** values as **2** below
Interval

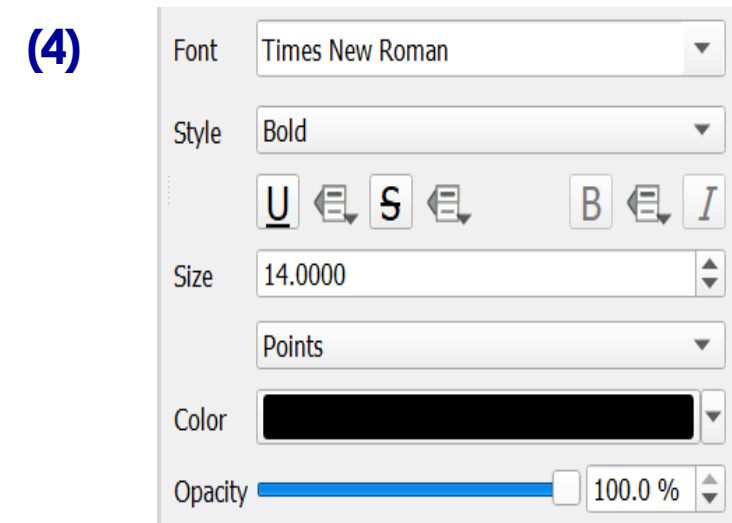
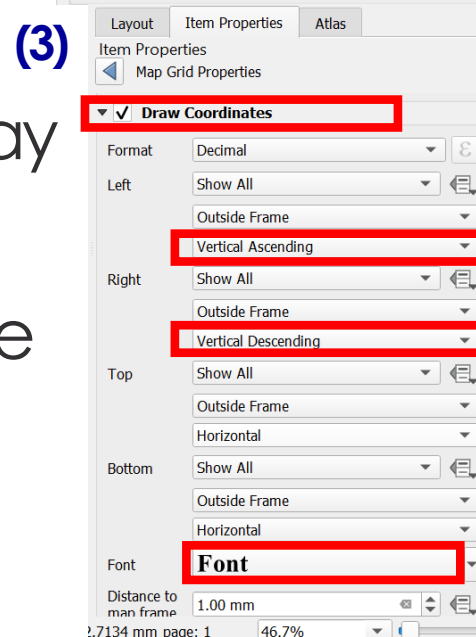
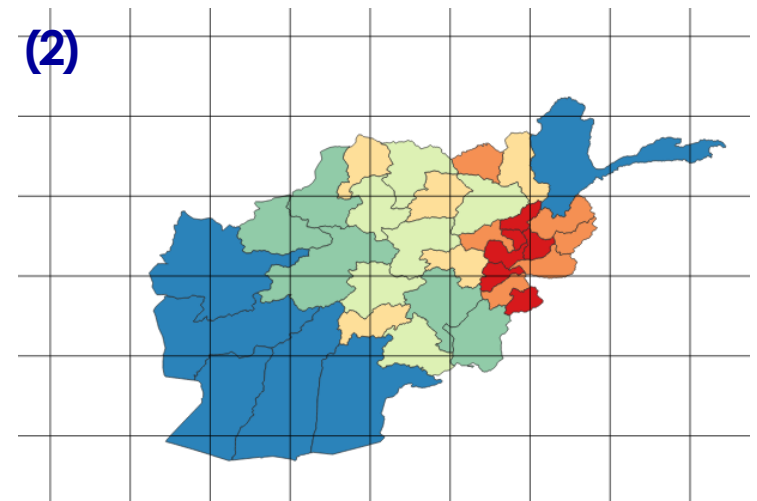
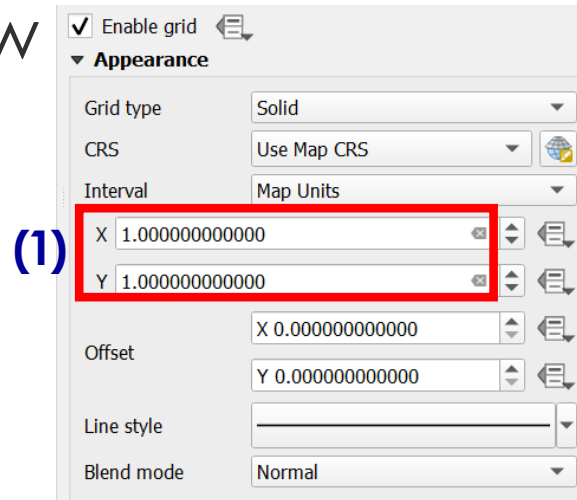
2. Grids appear on the Map

3. Scroll down the Map Grid Properties -> click on **Draw**

Coordinates

➤ Change the **Left** and **right** display of Coordinates

4. Change the **font** properties of the coordinates

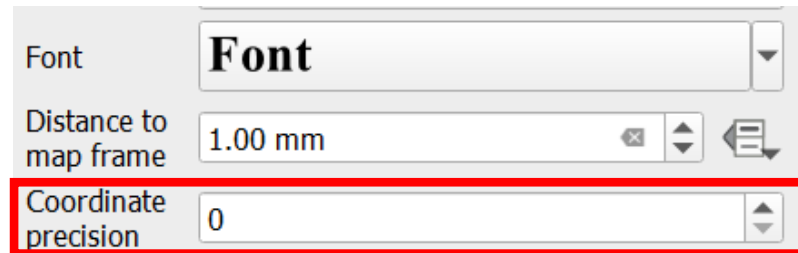


Map production in QGIS

5. Set the **coordinate precision** as 0

6. Coordinates appear on the Map

(5)

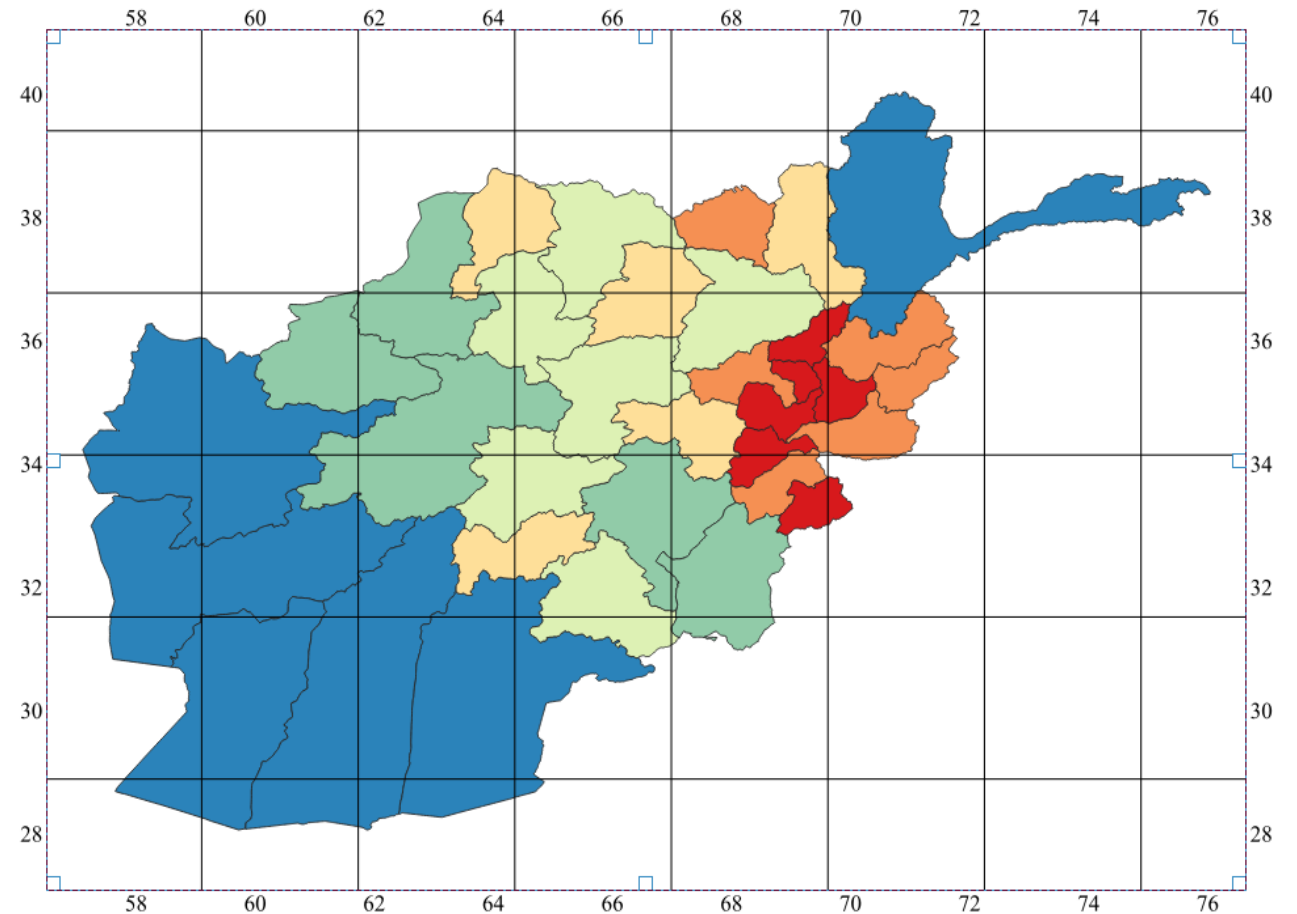


Font **Font**


Distance to map frame 1.00 mm

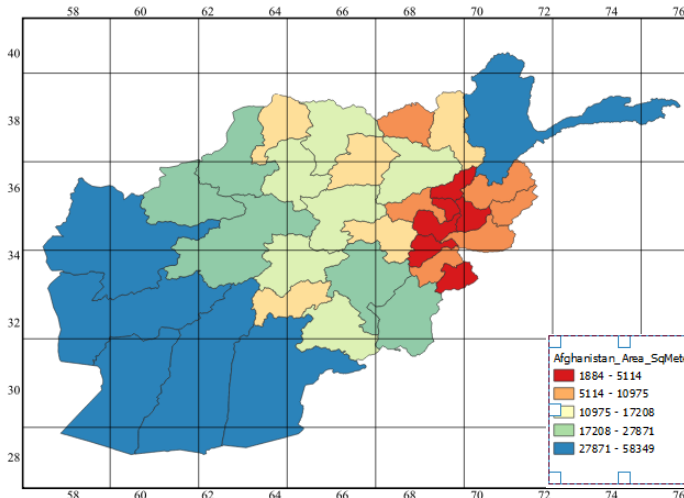
Coordinate precision 0

(6)



Map production in QGIS

- Click on the **Frame** to add the frame of the Map and edit the properties i.e. Color, Thickness etc.
- Click on the icon  Adds a new Legend to the layout
- Place the mouse on the screen and drag down to place legend
- The Legends appear on the print layout screen
- Under the Item panel you will be able to see Legend

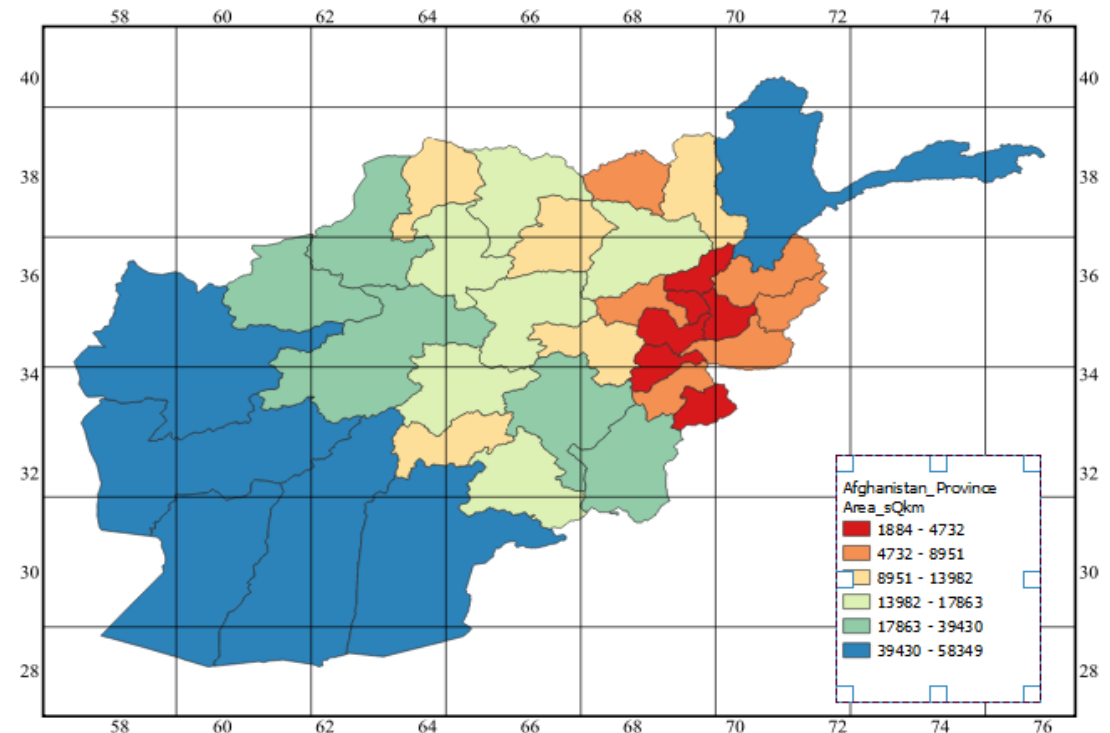
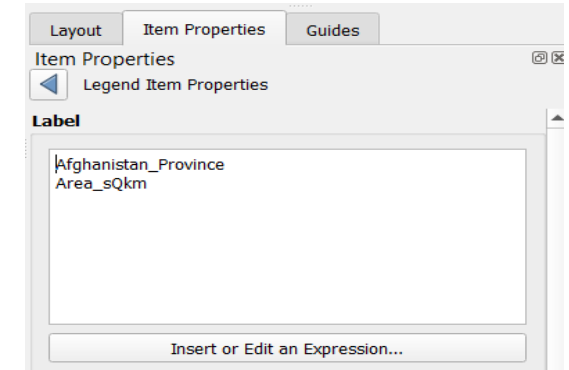
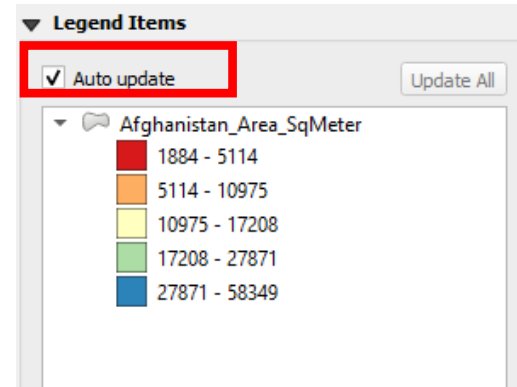


The screenshot shows the QGIS interface with the Item Properties panel open. The 'Frame' section is highlighted with a red box, showing properties for the map frame: Color (black), Thickness (0.8), and Join style (Bevel). The 'Legend' section is also highlighted with a red box, showing the legend item 'Afghanistan_Area_SqMeter' with its properties: Title, Map (Map 1), Wrap text on, Arrangement (Symbols on Left), and Resize to fit contents. The legend items are listed as follows:


Area Range (SqMeter)	Color
1884 - 5114	Red
5114 - 10975	Orange
10975 - 17208	Yellow
17208 - 27871	Green
27871 - 58349	Blue

Map production in QGIS

- Uncheck the **Auto update** box
- Double Click on the **Legend Title** and edit the name
- Check the box **Only show items inside linked map**
- Click **OK**
- Edit the font and text properties from Font and Text Formatting option



Map production in QGIS

- Click on the icon  Adds a new Scale Bar to the layout
- Place the mouse on the screen to place Scale and drag down
- The Scale appears on the print layout screen
- Under the Item panel you will be able to see Scalebar
- **Edit** the properties of Scalebar from Scalebar Main Properties i.e Units, Segments etc.



Scalebar

▼ Units

Scalebar units: Kilometers

Label unit multiplier: 1.000000

Label for units: km

Number format: Customize

▼ Segments

Segments: left 0

right 3

Fixed width: 75.000000 units

Fit segment width: 50.00 mm

150.00 mm

Height: 3.00 mm

Right segments subdivisions: 1


Subdivisions height: 1.50 mm

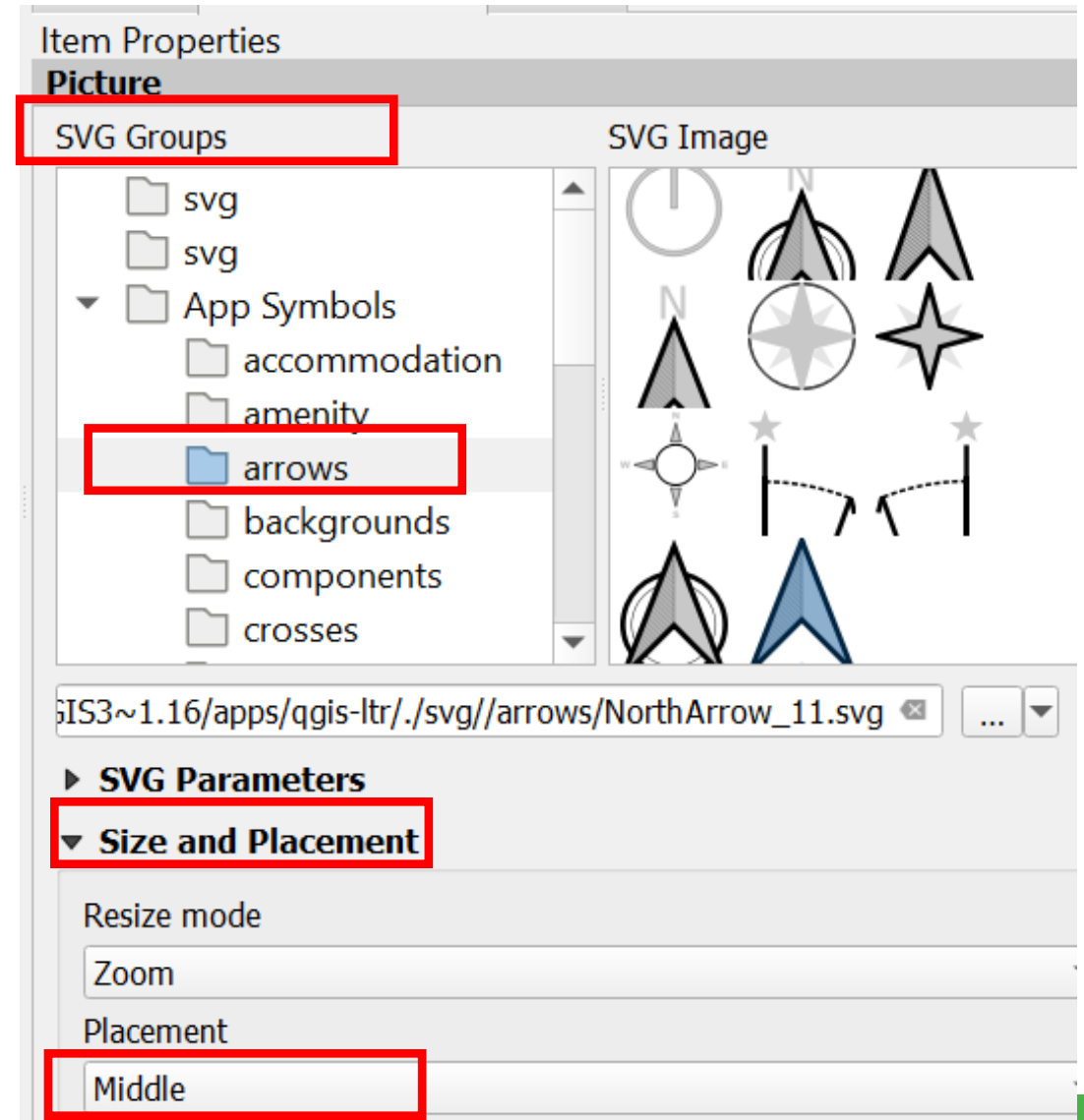
► Display

► Position and Size




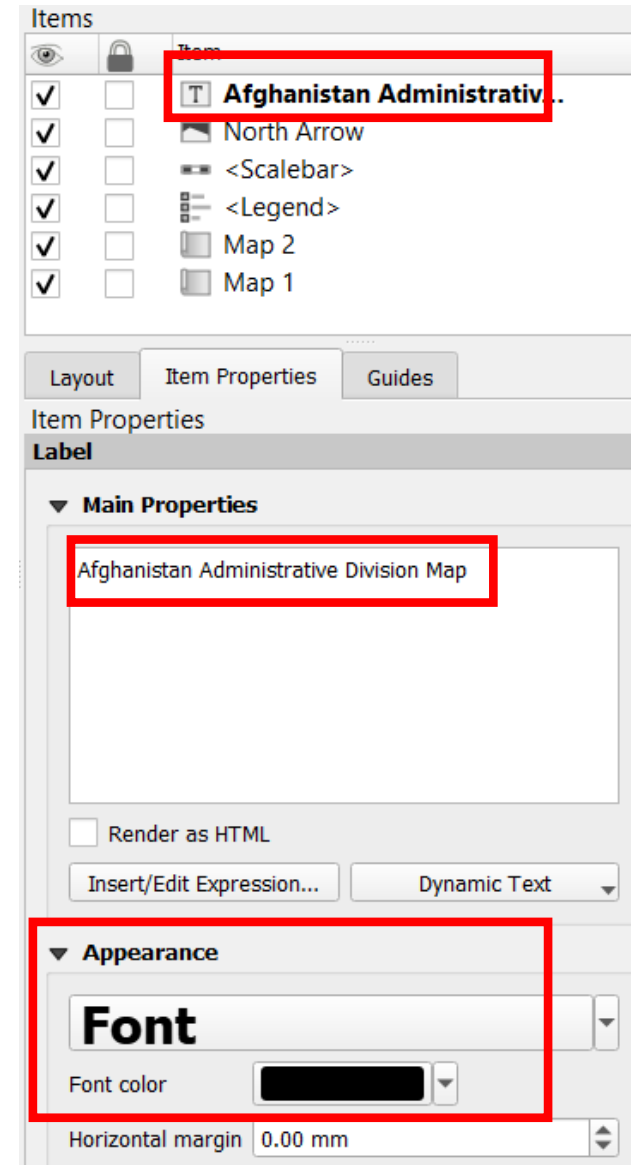
Map production in QGIS

- Click on the icon  Adds a new North Arrow to the layout
- Place the mouse on the screen to place North Arrow and drag down
- The Arrow appears on the print layout screen
- Under the Item panel you will be able to see North Arrow
- You may choose different North arrows from **arrows** under the **SVG groups**
- Edit the **size** and **placement**



Map production in QGIS

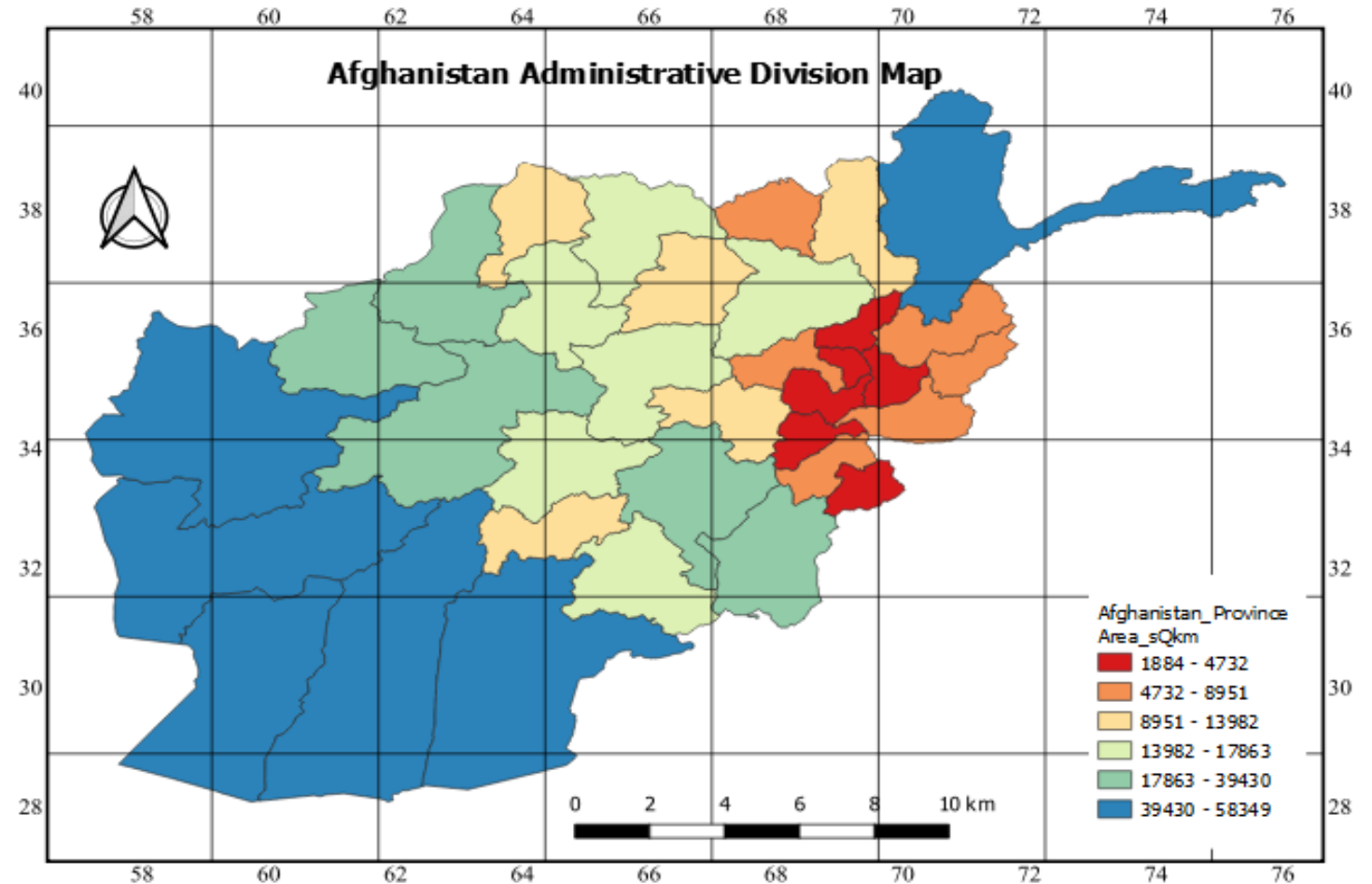
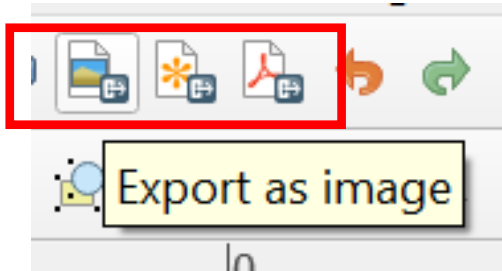
- Click on the icon  Adds a new Label to the layout
- Place the mouse on the screen to place Label on the screen and drag down
- Edit the Label from the Main Properties
- Edit the **Font** properties i.e. Type, style, size
- Set the **Horizontal** and **Vertical alignment**



Map production in QGIS

➤ Export your Map as image or pdf

➤ Click on the icon **Export as image**





Thank you

**Let's protect
the pulse.**