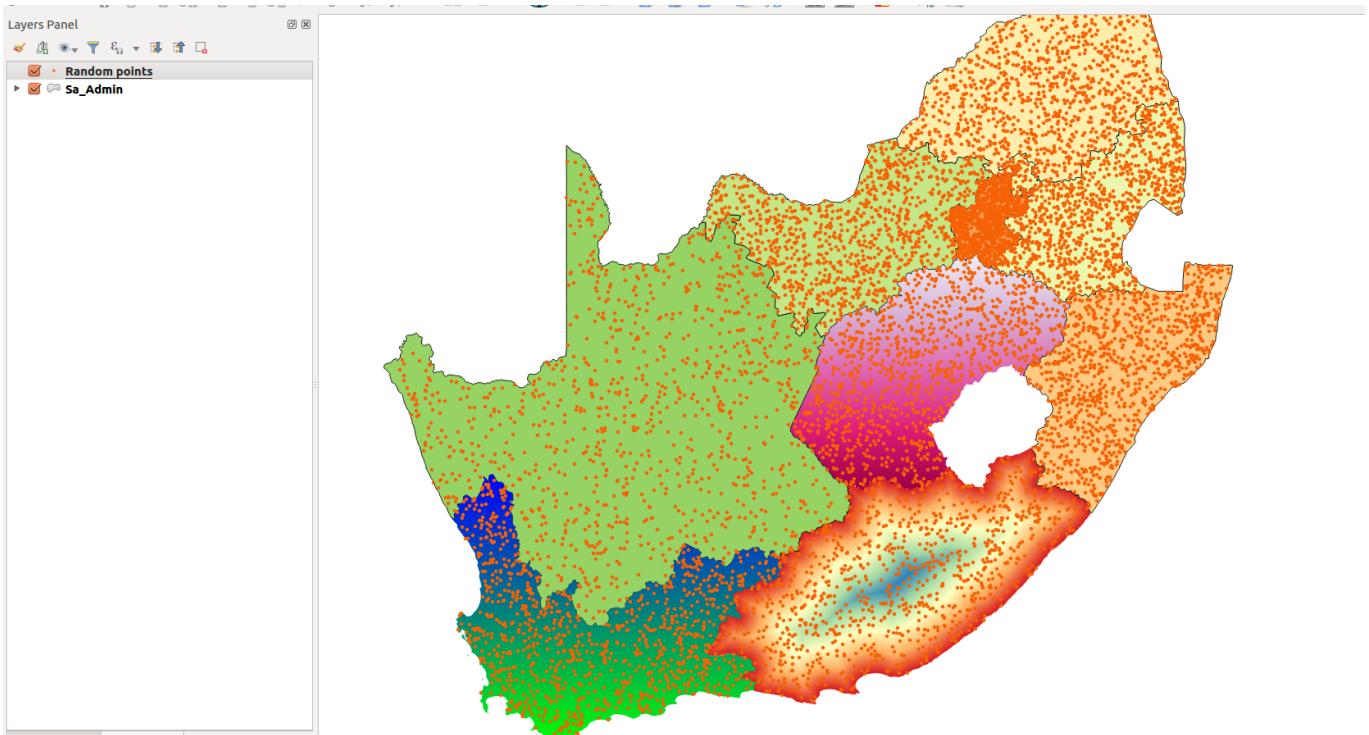




#### Population dot density in Context

*“Population distribution describes a way in which people are spread across the earth surface. Population distribution is usually shown by a dot density map where each dot represent a certain number of ”*

In this module, we will learn how to create a dot density map.



#### **You try:**

**Goal:** Create a dot density map where 1 dot represents 1000 people.

**Data:** Sample data: local-data-district.shp, kzn\_population.csv

- Load the layers into a new project.
- Right-click on districts and choose properties.
- Select the join tab and create a join. Use the join field.
- Create a join using the specified join columns.
- Select which fields to join to. ( select area\_km,population\_2016,density)
- Activate custom field name prefix and give an appropriate name.
- Right-click on district layer and choose 'Save As'.
- Change the CRS to the specified one and proceed to save the layer. Make sure the name corresponds to new layer.
- Use the spatial algorithm to create the random points using the district\_hbk layer.
- Symbolise the resultant point layer and create a legend that shows your results.

Name	Expectation
------	-------------

CRS	South African CRS : HBK_NO_29
Join column	District:code
Spatial algorithm	Random Points
New layer	district_hbk

### **More about**

Dot density maps are effective at showing density variations on geographic landscapes.

Dot maps are advantageous when mapping phenomena that change smoothly over a space, as the dot maps will visually match the phenomena. There are mainly two type of dot density maps namely one-to-one and one-to-many dot maps.

Dot density maps can be used in conjunction with other thematic maps to understand phenomena that occurs across the earth surface.

### **Check your knowledge:**

1. What is it useful to know population distribution:
  - a. Because it will interrupt human activity like a farming
  - b. For planning purpose, resources use against people
  - c. It does not matter as long as we know the population density
2. What is population distribution and how is it represented in a GIS:
  - a. A type of gis dataset that shows how people behave
  - b. The spread of people across the terrain
  - c. Spread of points in a vector layer
3. Is population distribution a type of dataset:
  - a. True
  - b. False

### **Further reading:**

- Vector\_creation\_tools: [http://docs.qgis.org/2.14/en/docs/user\\_manual/processing\\_algs/qgis/vector\\_creation\\_tools.html#random-points-inside-polygons-fixed](http://docs.qgis.org/2.14/en/docs/user_manual/processing_algs/qgis/vector_creation_tools.html#random-points-inside-polygons-fixed)
- Qgis-population-density-tutorial: <http://msgis.co.za/qgis-population-density-tutorial/>

Click [here](#) to download the sample data for the lesson.