# Exercise Building Dashboards with Tableau

# Summary

- 1. Module: Data Visualization<sup>1</sup>
- 2. Lesson: Dashboards
- 3. Sub-topic: Building Dashboards Using Tableau
- 4. Objective: Introduction to building an interactive dashboard with Tableau
- 5. Time Allotment: 120 minutes

### Steps

#### Getting Data into Tableau

We start up downloading a CSV version of the dataset. Click on File -> Download -> Comma-separated values.

<sup>&</sup>lt;sup>1</sup> This lesson was adapted from the World Bank's Introduction to Data Literacy training manual by Eva Constantaras, and adapted by Yan Naung Oak, Open Development Cambodia and Open Development Initiative, and is licensed under a <u>Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License</u>. For full terms of use, see <u>here</u>.

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12	Rena	me	Web page (.h	ntml, zipped)		107	
13			Comma-sep	arated values (.csv, curi	rent sheet)	106	
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Click Add Connection on Tableau and Click Text file. Next, choose the CSV file that you downloaded from Google Sheets. A preview of the data should appear.

<sup>⊖-</sup> Establishment of community forest project B.E.254...

Establishment of commu...

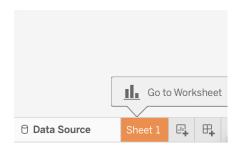
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Need more data? Drag tables here to relate them. Learn more

🖩 🗏 Sort fields Data source order 🔹											
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18.7909	98.98805	Chiang Mai	เชียงใหม่	North	601	1,349.00	21.0000	0.0000	0.0000	1,370.00	
19.7321	99.88474	Chiang Rai	เขียงราย	North	515	462.70	42.6000	15.2000	2.9000	520.40	
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18.2661	98.96749	Lamphun	ลำพูน	North	252	284.80	32.3000	0.0000	0.0000	317.00	
18.6800	99.73325	Lampang	ลำปาง	North	453	1,158.00	6.4000	0.0000	0.0000	1,164.40	
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Next, click on the "Sheet 1" tab to start making a chart.

Filters 0 | Add



This is the view that you will see when you go to Sheet 1. On the left you can see all the columns in your dataset. They are seperated into Dimensions, which show categories, and Measures, which shows numbers.

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### **Pie Chart**

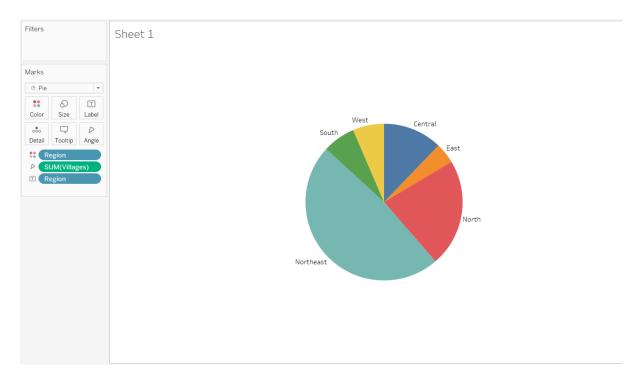
Let's start with a pie chart of the total number of villages of different regions.

- First drag the "Region" dimension to the Color box under Marks.

### - Next, drag "Villages" to the Angle box.

Pages	iii Columns	
	≔ Rows	
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<ul> <li>○ Pie</li> <li>✓</li> &lt;</ul>		

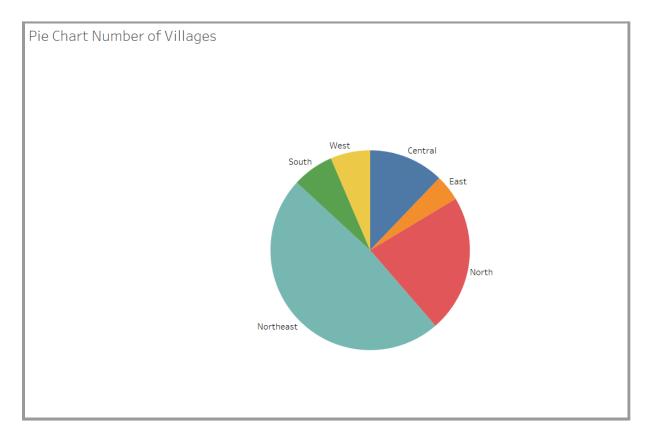
Next, we want to label our pie chart. To do this, we drag "Region" to the label box.



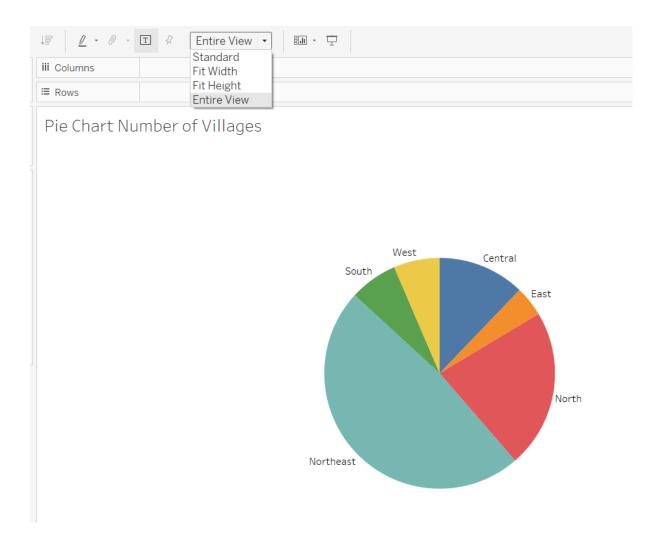
Next, we change the name of the tab to something more relevant, such as "Pie Chart\_number of villages".



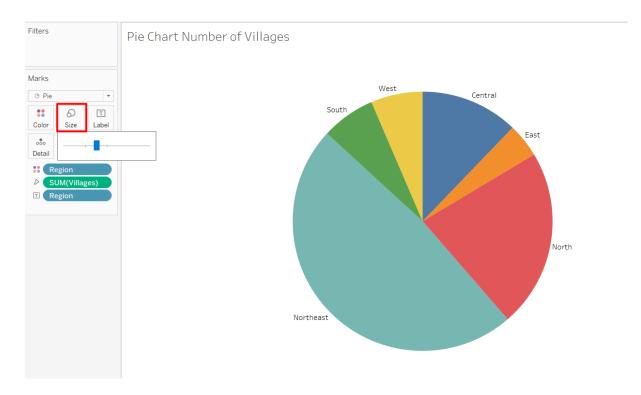
This will also change the label of the chart.



We're done with making the pie chart, but vlsually, it looks too small. To resize it, click on "Entire Vlew" in the dropdown box seen in the screenshot below.



This increases the size of the pie chart.



To further increase its size, you can click on the size box, and drag on the slider until the chart fills most of the screen.

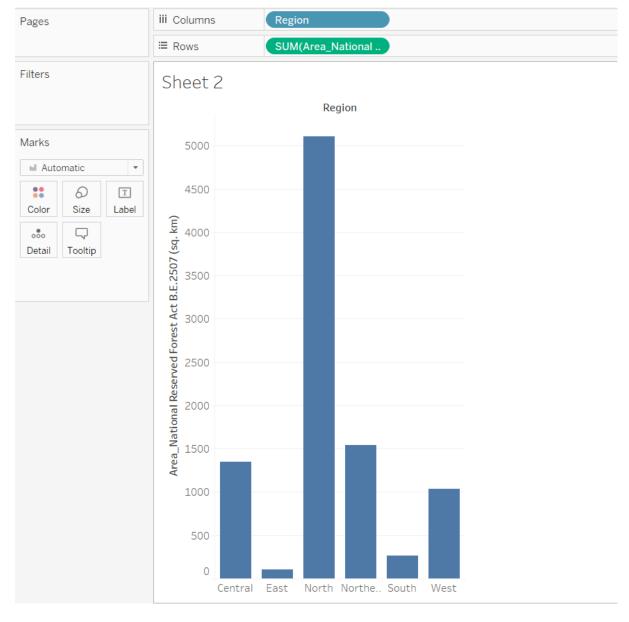
### **Bar Chart**

The next chart we want to make is a simple bar chart

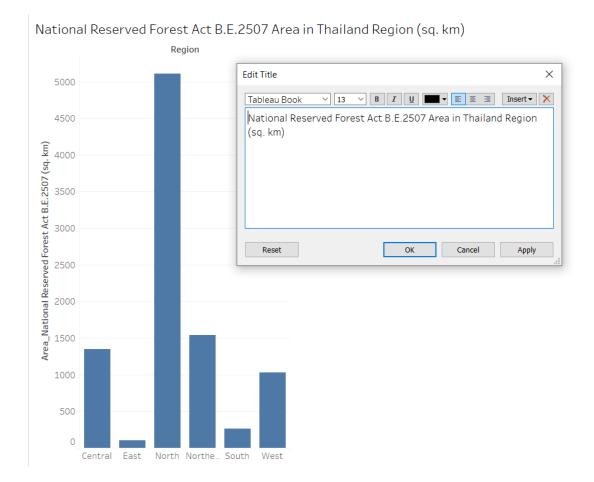
Click on "New Worksheet" to bring up a new sheet on the tab bars below.

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0 Data Source		Pie Chart Number of Villages		•	₽4	$\square_{\bullet}^{1}$		
6 marks 1 row by 1 column SUM(Villag			ges): 14,374	Ľ	New	Work	sheet	

To do so we drag "**province**" to the Columns box and "**Area\_National Reserved Forest Act B.E.2507 (sq. km)**" to the Rows box. And that's it! You've got a bar chart.



We can rename the tab to change the title of the chart.



Side-by-Side Bar Chart

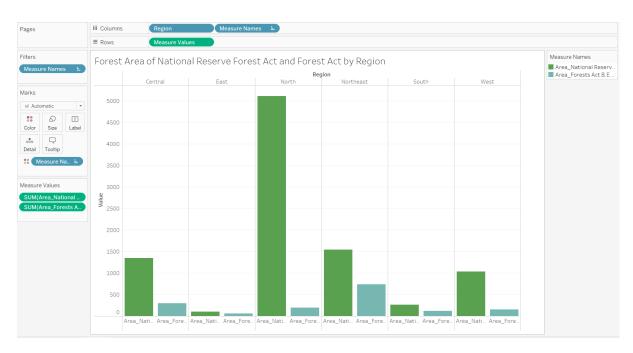
Next, let's make a side-by-side bar chart, showing the area of forest by region

First, drag "Region" to Rows. After that, drag "Area\_National Reserved Forest Act..." and "Area\_Forests Act..." to Columns.

iii Columns	SUM(Area_National SUM(Area_Forests			
■ Rows	Region	** 1514 638 ** 358 9634 ** 2629 2658 *11 522		- 2004 040 - 2008 040 - 2008 0400
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Next, click "side-by-side bar" to change chart type.

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Rename the tab. And we're done with our chart.

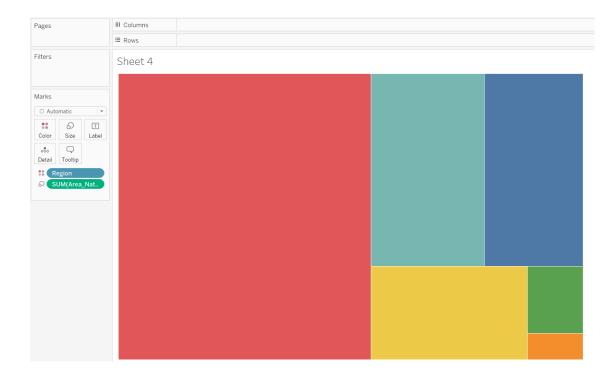
### **Circle Packing Chart**

Now let's try a more unusual type of chart.

First, drag "Region" to Color. This is the area that is separate in each project.

Then drag "Area\_National Reserved Forest Act B.E.2507 (sq. km)" to Size.

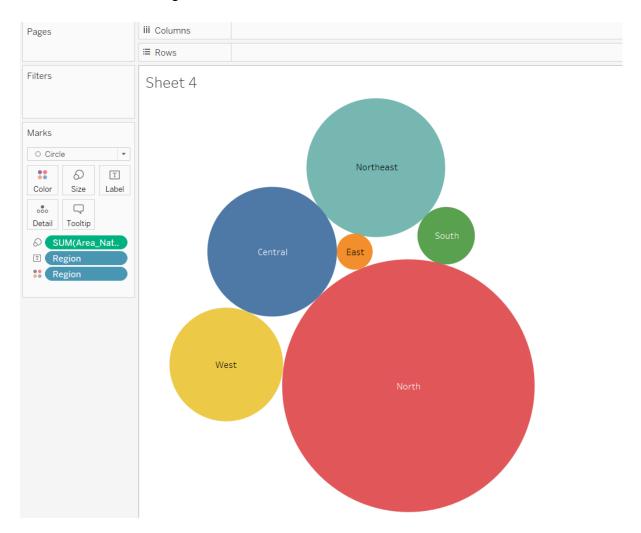
By default, you will get a treemap.



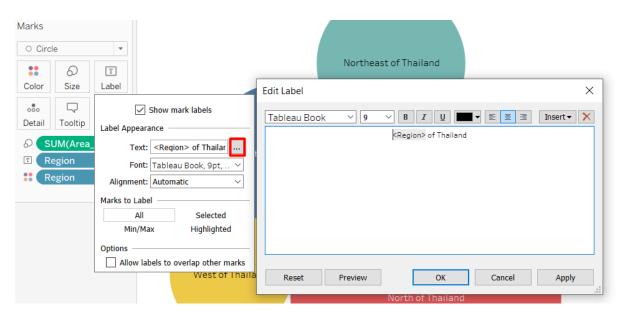
To change the chart type from a treemap to a circle packing chart, click on the Show Me tab on the top right, and select the circle packing chart.

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For <b>packed bubbles</b> try						
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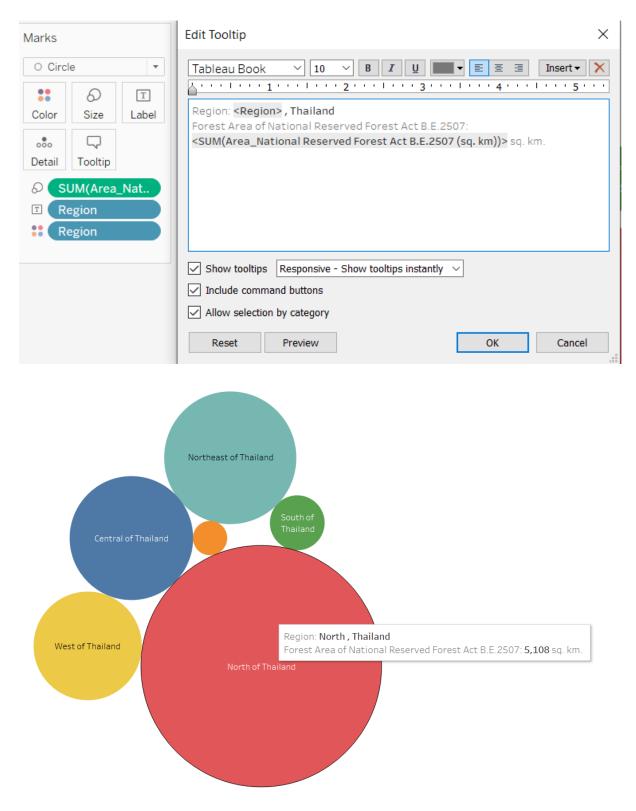
#### You will see the following chart.



#### Edit Label



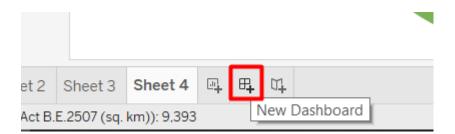
#### Edit Tooltip



Marks	Edit Colors [Region]	×
Circle Color Colo	Select Data Item: Central East North Northeast South West	Select Color Palette:          Automatic         Image: Color Palette
	Reset	OK Cancel Apply



# **Combining Everything into a Dashboard**



### Saving your Notebook

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Password



Processing Request



# A Save Workbook to Tableau Public

Publishing this workbook will make it available on the Tableau Public website. Make sure it doesn't contain private or confidential information.

Workbook Title

Book1		*
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# **Further Practice**

Improve your dashboard's design

• Try to apply the tips that we covered in the Dashboard Design section to improve the design of your dashboard

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