

# DESIGNING MAP LAYOUTS

*Making simple, informative maps that communicate effectively*

Shaenandhoa García Rangel

Viet Nam, 19th of September 2016



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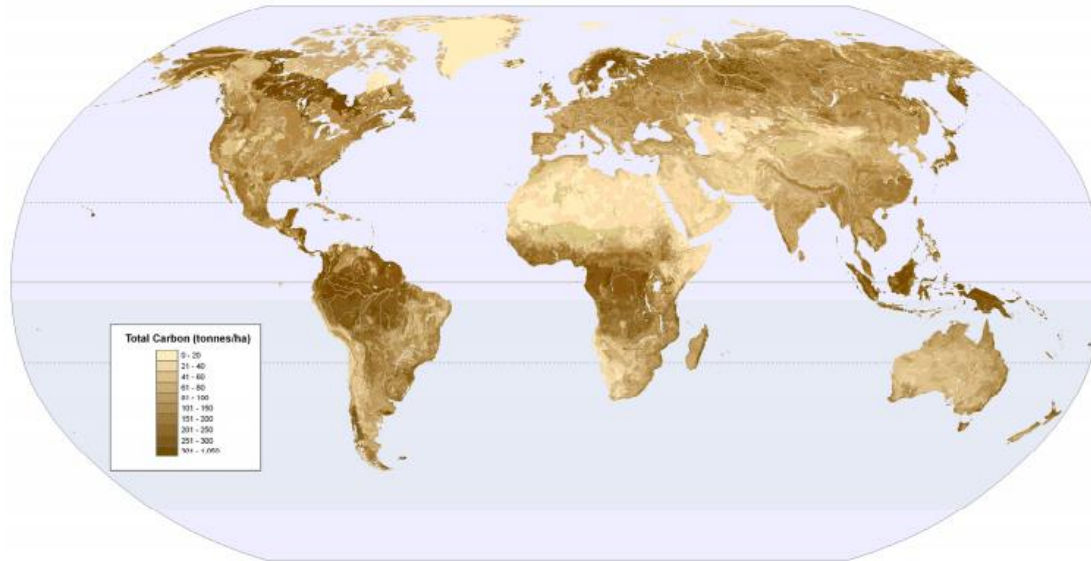
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# MAPS

If a picture is worth a thousand words,  
a map is worth a thousand numbers...



*Map making is a mixture of art, science and technology.*

Source: [http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\\_Part2\\_English.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM_Part2_English.pdf)

# From traditional cartography to state-of-the-art



*Barbariae et Biledulgerid, Nova Descriptio*

1570



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# Designing a good map: Basic principles I

- **Purpose:** The user should clearly understand what the map is showing. Tell a story!
- **Keep it simple:** Too much information blur the message and confuse the user.
- **Focus.** Draw user attention to key information. Use of hierarchy.
- **Know your audience:** Consider potential users. Target and customize.
- **Stand-alone:** A map should be understood on its own, independent of texts or tables.
- **Media:** Always consider the media through which the map will be distributed (e.g. paper, computer screen, large-format maps, etc.)



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# Designing a good map: Basic principles II

- **Clear data:** Include information about sources and nature of the data in your map.
- **Colour.** Within pre-established formats, use subtle and light colours reducing saturation. When possible, use warm colours to highlight key elements.
- **Peer review:** Send your map to review. See the CartoTalk forum!
- **Contextualize.** Consider using locator maps and place neighbouring countries to show the location of the area mapped.



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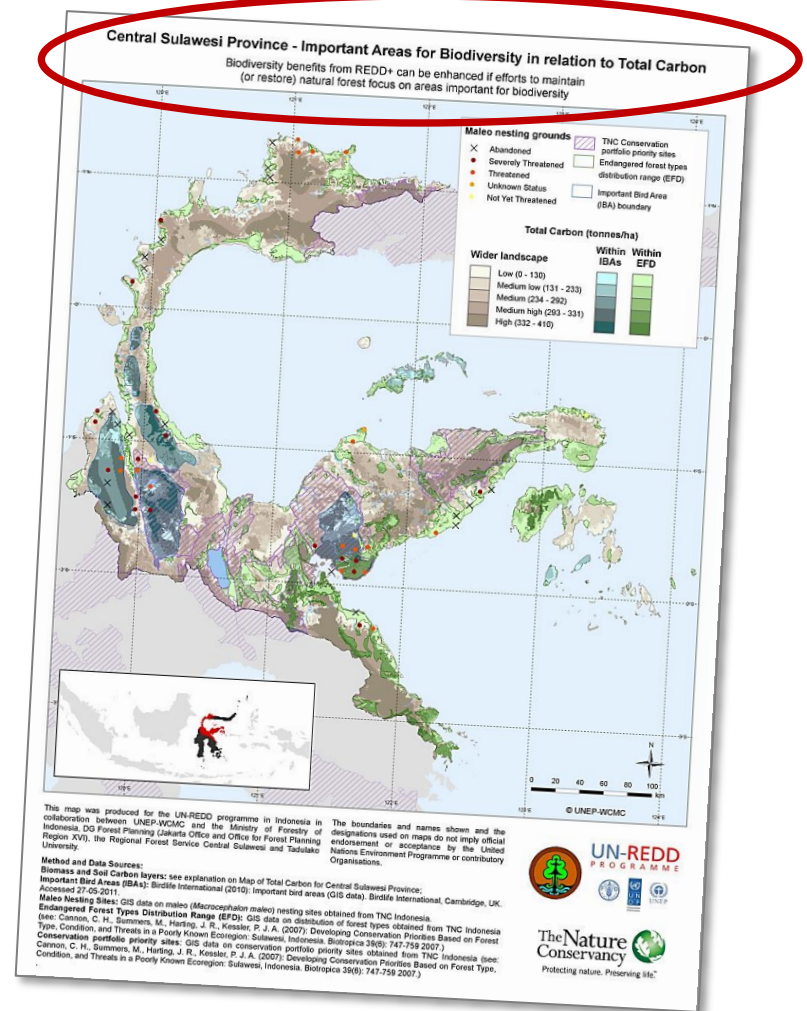
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# Map elements

## Map Title

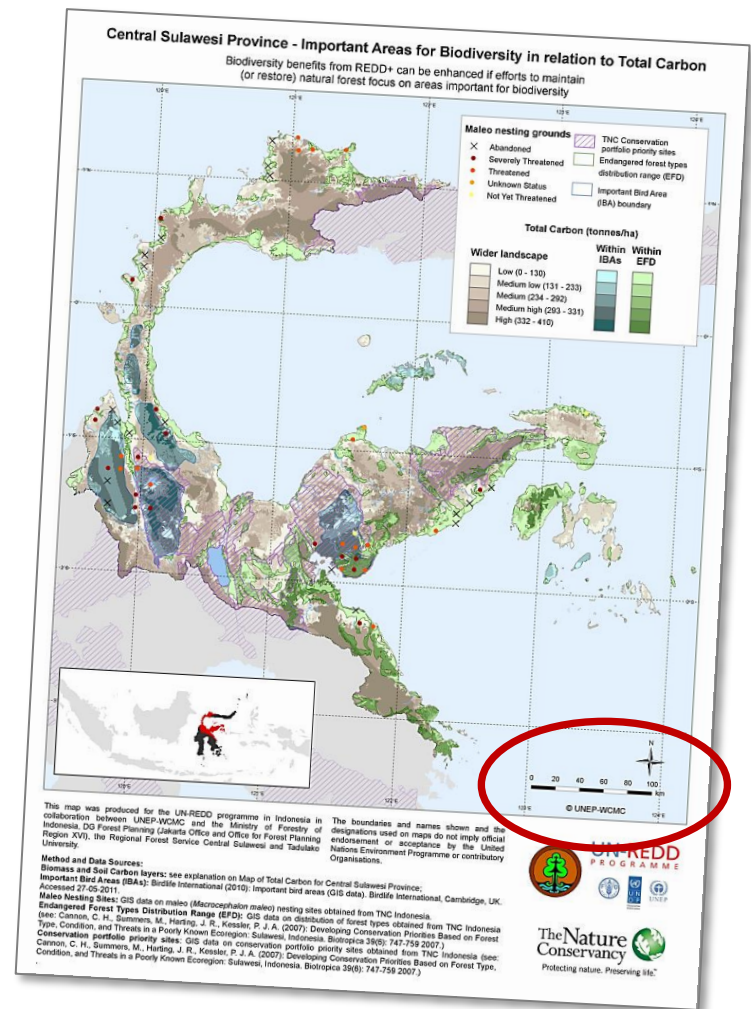
- Clear, short and concise
- Subtitles an option to provide more detailed information



# Map elements

## Map Scale

To help the user measure distance and compare different maps.

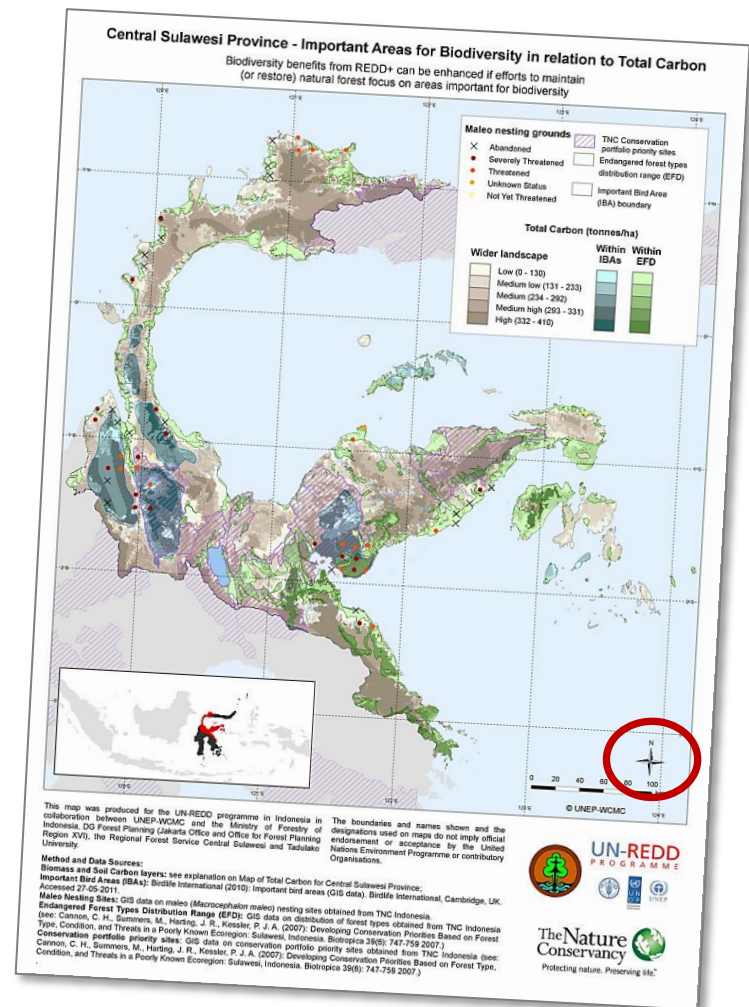


# Map elements

## North Arrow

To indicate orientation of the map.

If a grid is used, the north arrow can be dropped.

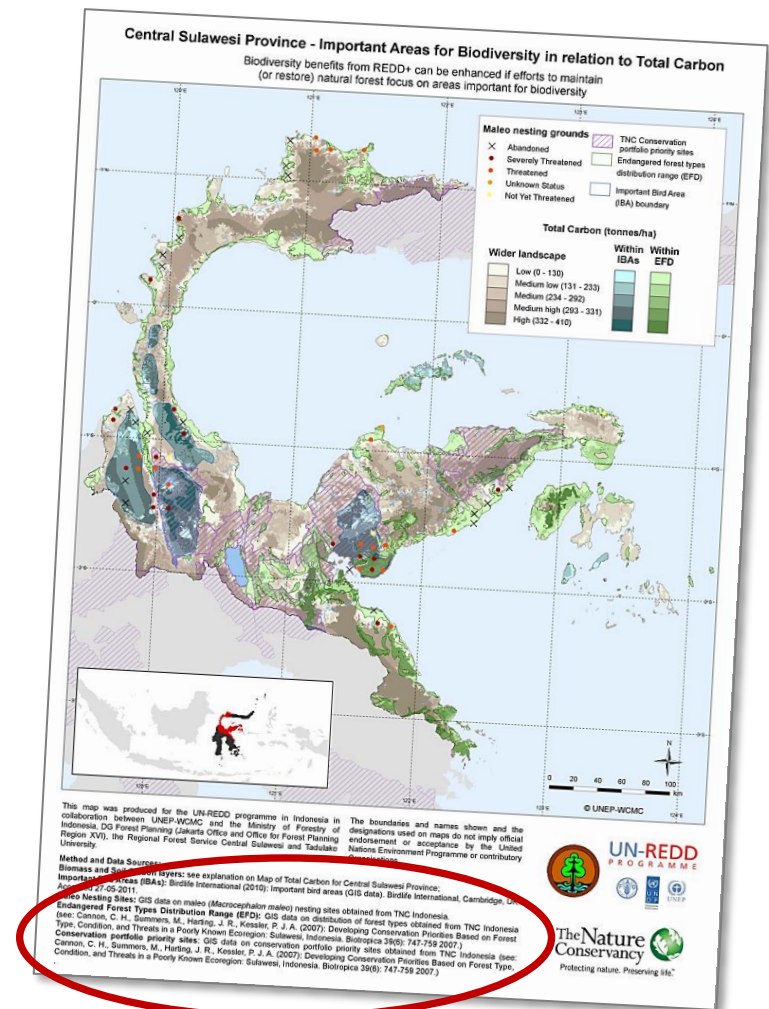




# Map elements

## Data Source

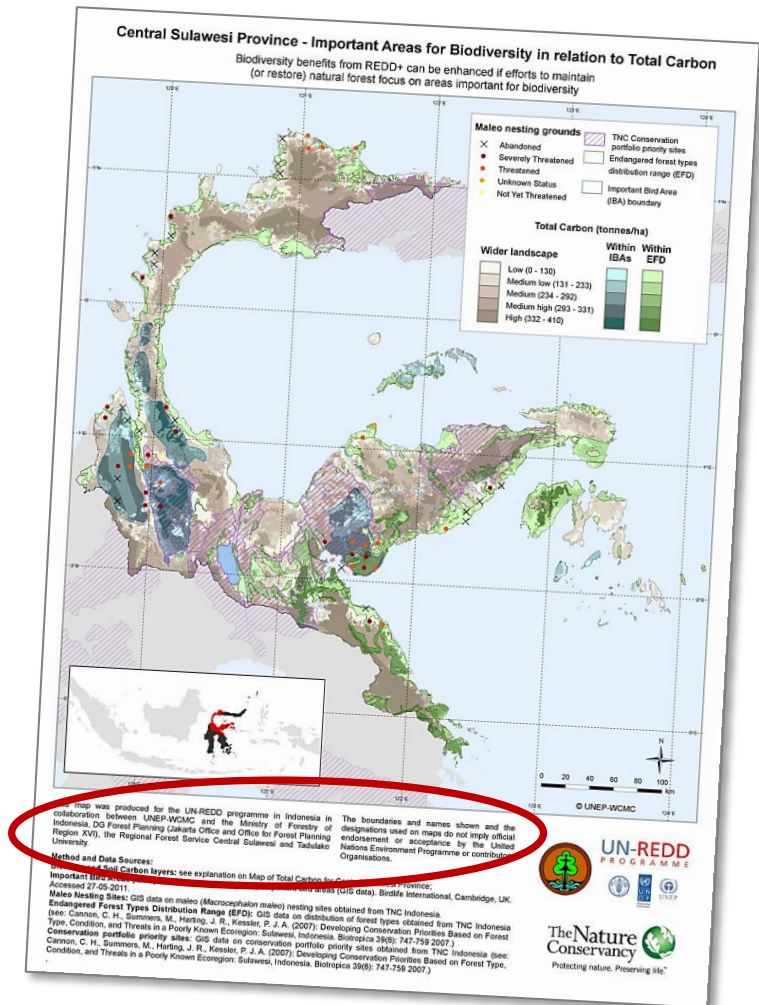
To provide information about the source of the data used



# Map elements

## Copyright

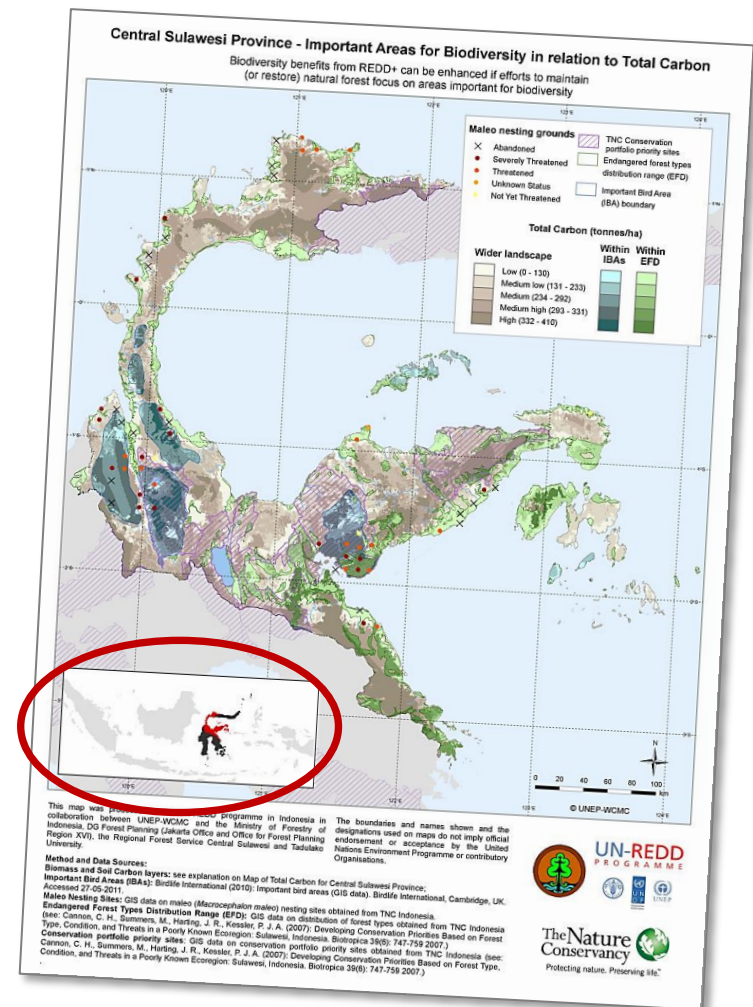
To provide information about the author(s) responsible for the map content



# Map elements

## Locator Map

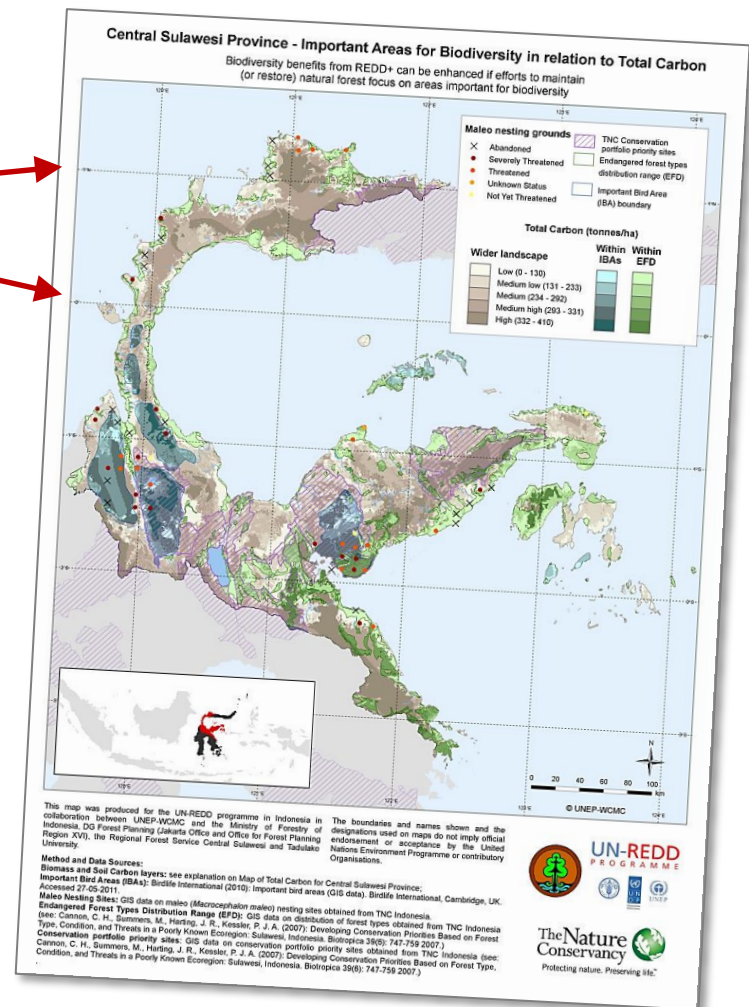
To provide information on the overall location of the place that is mapped



# Map elements

## Graticule

**Graticules** can be added to make it possible to georeference the map and provide more accurate information on scale



# Map examples

## What is wrong with this map?

- Too much information
- Pointless use of colour
- Poor use of visual hierarchy



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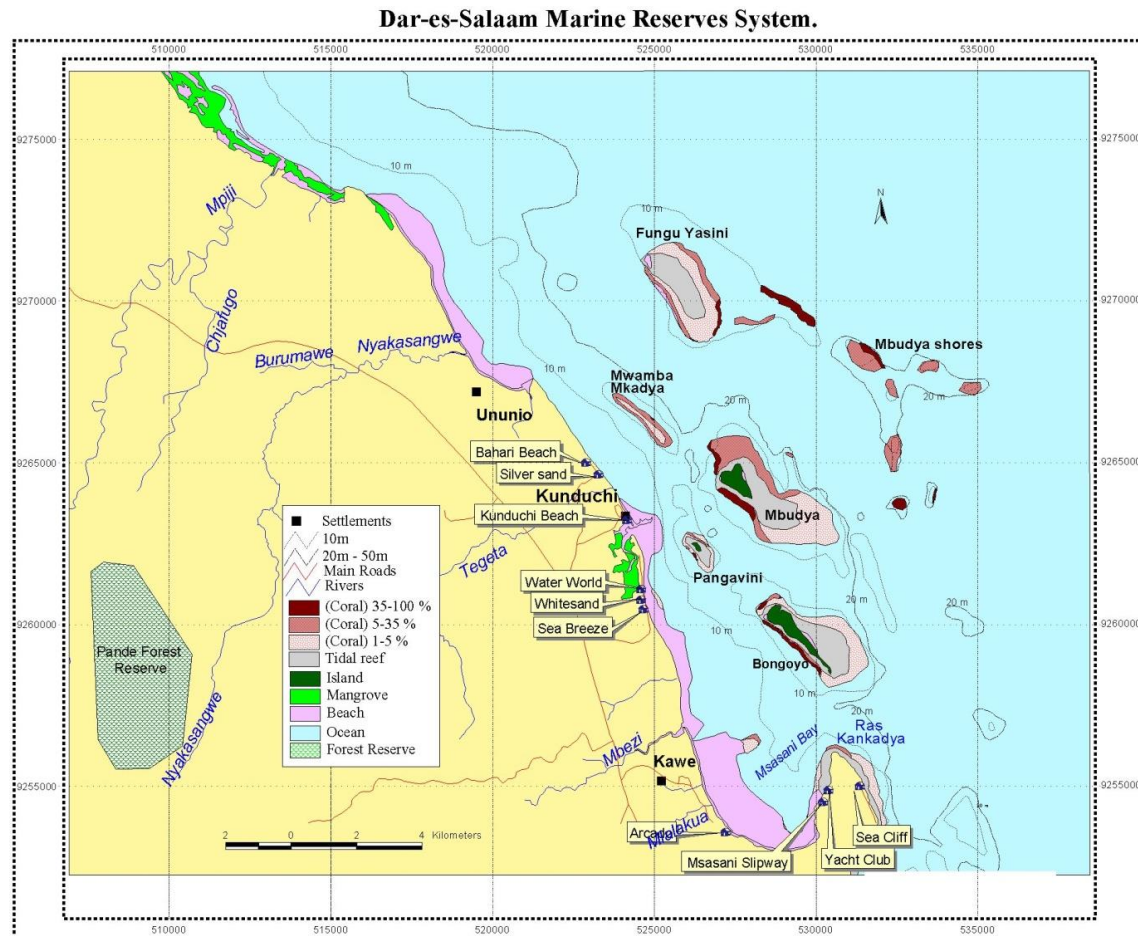
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# Map examples

- Inconsistent labeling
- Where is the source?
- North arrow?



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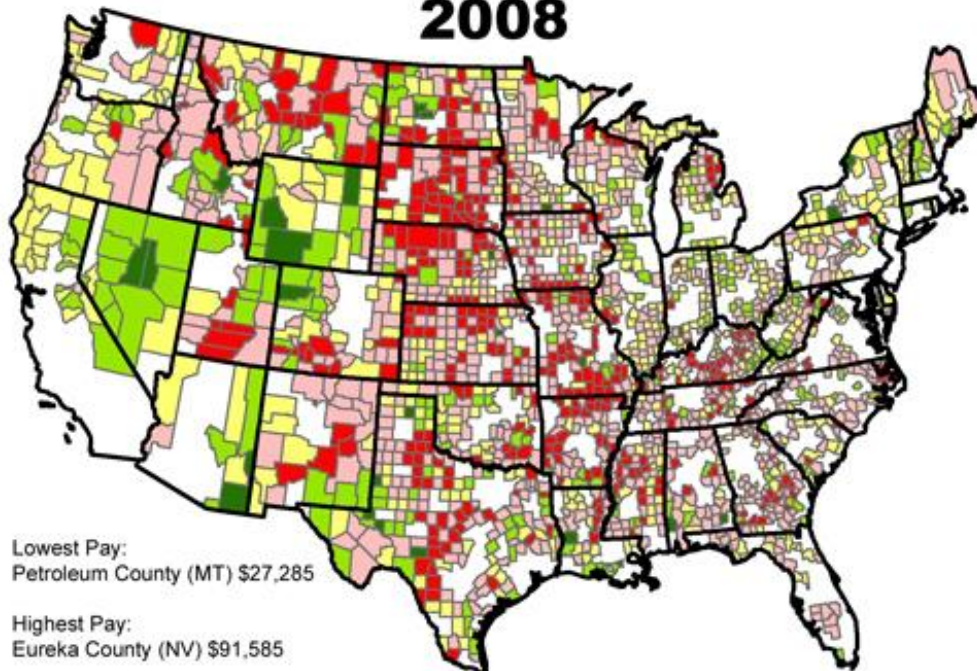
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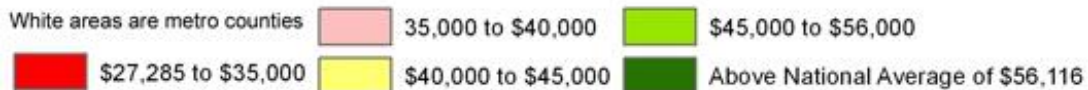
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# Map examples

## What Work Pays in Rural America 2008



### Average Compensation in Rural Counties



Source: Bureau of Economic Analysis

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## More tips for mapping

- For a map series define your extent and keep it constant.
- Try to account for the most complicated map in the series, i.e. in terms of the amount of space needed for text, legends etc.
- Add scalebar, north arrow, legend



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# In summary – Tips for mapping

- If many themes on single map try to simplify as much as possible.
- Colour combinations – which themes are most important? What should be standing out most on the map?
- Background layers – what should be labelled?
- Locator maps – Consider if they are really necessary
- Fonts and text sizes – Use visual hierarchy
- Think about colour-blindness – e.g red/green colour combination not good
- Scale bars and projection used, graticule intervals
- Output formats



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**Thank You**

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