

# Map design and layout

**UNEP-WCMC** 

May 2018 | Monrovia







# Maps

Maps are a tool for communication, they should tell a story in a well designed manner









# Designing a good map

The following four guidelines should be considered:

- **1. Define your target audience**: How and in which context will the map be used?
- **2. Determine the message you want to communicate**: What do the data show? Is there more than one message?
- **3. Determine the nature of your data**: How many variables should be mapped? Is there a time dimension?
- 4. Determine the appropriate mapping technique, colours and symbols: How do you want to present the values of the maps to reflect the accuracy of the data in relation to the purpose of the map?
  What are the conventions for colours or classifications?

Source: http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\_Part2\_English.pdf







# Additional design tips

- Keep it simple! Be careful not to distract or confuse your audience by displaying too much information or too many visually conflicting elements
- Know your audience how will they interpret the map?
- Design your maps so that they are independent of story texts
  or data tables. A map should be understood on its own,
  without need for further reference to surrounding texts or
  notes





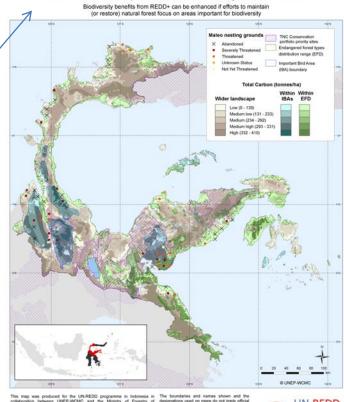


The **map title** should give a clear idea of what the map is about. It needs to be short and concise. Subtitles may be added to provide more detailed information (e.g. unit of measure)

## Source:

http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\_Part2\_English.pdf

#### Central Sulawesi Province - Important Areas for Biodiversity in relation to Total Carbon



This map was produced for the UN-REDD programme in Indonesia in The bounderies collaboration between UNEP-WCMC and the Ministry of Forestry of Indonesia, DG Foorestry of Indonesia, DG Foorest Planning (Jahrafan Office and Office for Forest Planning (Jahrafan Office and Office for Forest Planning (Jahrafan Office and Office for Forest Planning) Author Environ. Nation Environ. Organisation of Indonesia (Indonesia) (Indonesia

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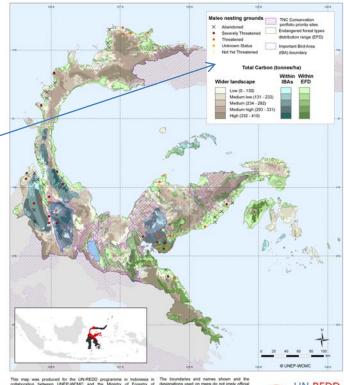
The **legends** should identify all the symbols, patterns and colours used to represent the data in the map

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#### Central Sulawesi Province - Important Areas for Biodiversity in relation to Total Carbon

Biodiversity benefits from REDD+ can be enhanced if efforts to maintain (or restore) natural forest focus on areas important for biodiversity



This map was produced for the UN-REDD programme in Indonesia in collaboration between UNEP-WCMC and the Ministry of Forestry of Indonesia, DG Forest Planning (Jakarta Office and Office for Forest Planning Region XVI), the Regional Forest Service Central Sulawesi and Tadulako University.

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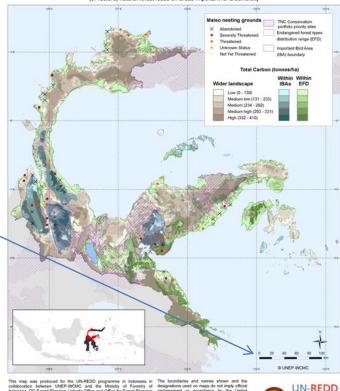
The **map scale** should be provided to help the user measure distances and compare different maps

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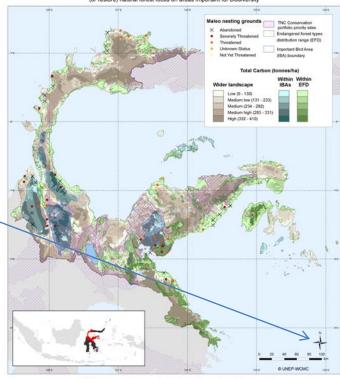
A **North arrow** should be provided to indicate the orientation of the map

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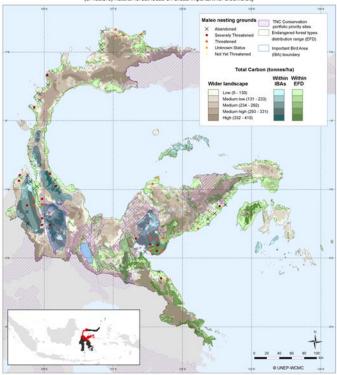
The **data source** should be identified at the bottom of the map

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Central Sulawesi Province - Important Areas for Biodiversity in relation to Total Carbon
Biodiversity benefits from REDD+ can be enhanced if efforts to maintain
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http://www.unece.org/fileadmin/DAM/stats/documents/writing/MDM\_Part2\_English.pdf















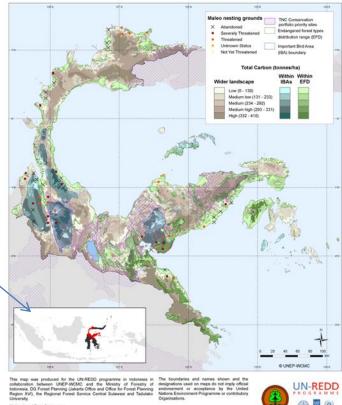
An **inset map** either provides the overall location of the place that is mapped, as in this case, or shows a scale-up of a part of your map.

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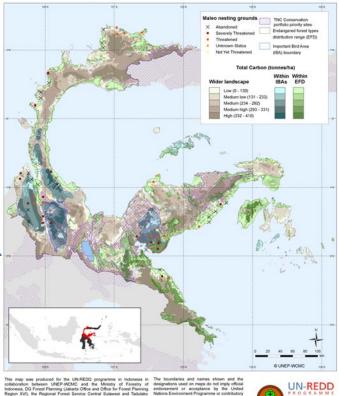
**Graticules** can be added to make it possible to georeference the map and provide more accurate information on scale.

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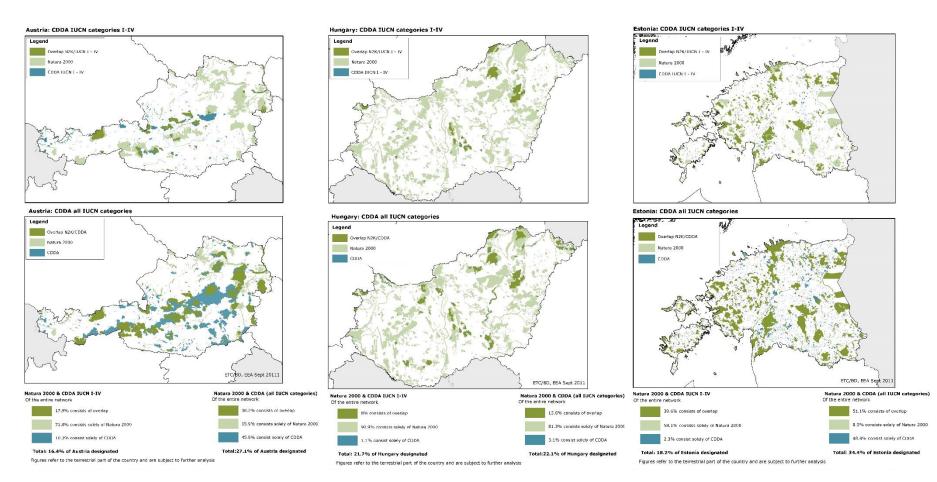








# Consistency











# Symbology

- Try not to use overly bright colours
- Visual hierarchy use saturated colours if you want something to stand out and softer colours if not
- Select colours that are familiar e.g. green for forest, blue for water
- Don't use colours and symbols that are too similar which could be easily confused
- But don't use complete opposites colours either







# Map examples

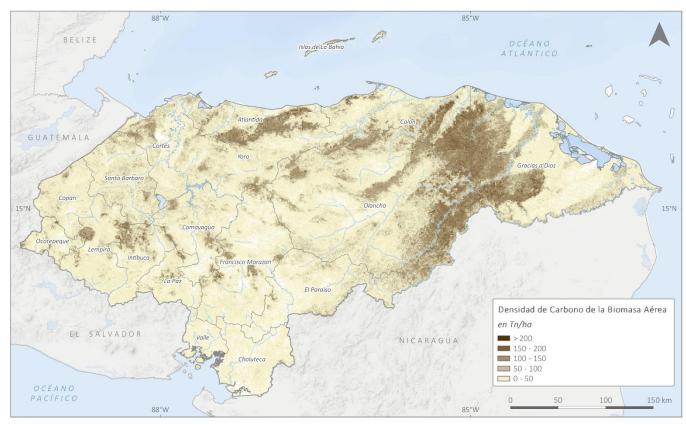








# Map examples



#### FUENTES DE DATOS

Densidad de Carbono de la Biomasa Aérea: Avitabile, V., Herold, M., Heiwelink, G. B. M., Lewis, S. L., Phillips, O. L., Asner, G. P., Armston, J., Ashton, P. S., Banin, L., Bayol, N., Berry, N. J., Boecky, P., de Jong, B. H. J., DeVries, B., Girardin, C. A. J., Kearsley, E., Lindsell, J. A., Lopez Gonzalez, G., Lucas, R., Walhi, Y., Vorel, A., Mitchard, E. T. A., Nagy, L., Qie, L., Quinones, W. J., Ryan, C. M., Ferry, S. J. W., Sunderland, T., Laurin, G. V., Satti, R. C., Valentini, R., Verbeeck, H., Wijaya, A. and Willcock, S. (2016). An integrated pan-tropical biomass map using multiple reference datasets. Global Change Bulogy, 22:1406–1470. doi:10.1111/j.gcb.13139



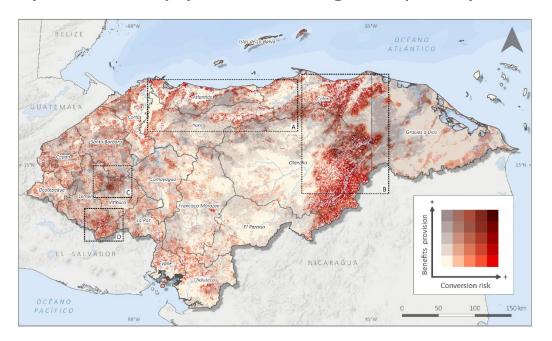






# Matrix legend

- Useful for showing two variables on one map
- A good way to convey your message to policy makers



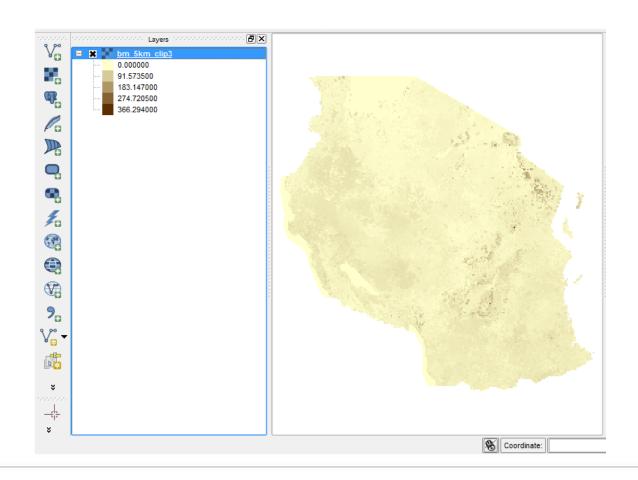








# Variable 1



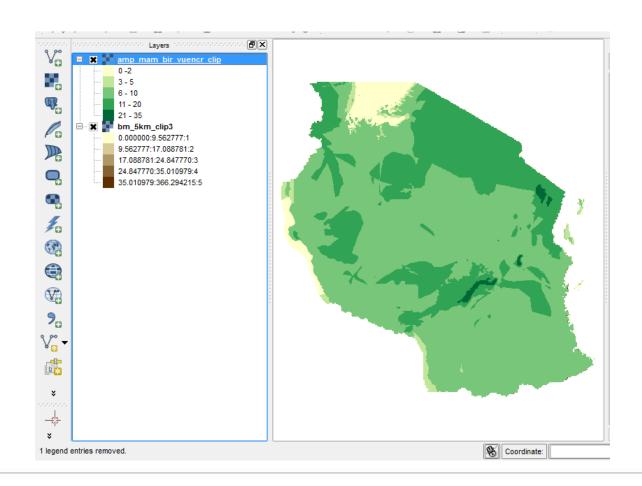








# Variable 2



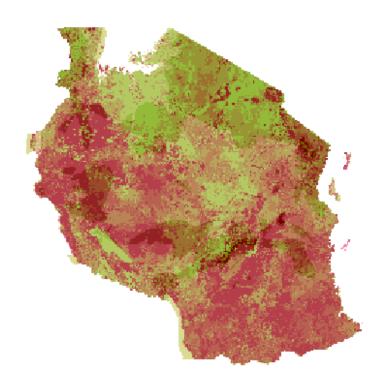


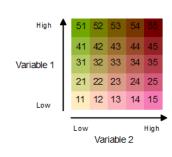






## Combined













# **Templates**

- Allow you to create maps with the same layout
- Useful for organisations to produce consistent maps







# Summary

- Simplify as much as possible! Two simple maps are better than one complicated map.
- Choose colours appropriate for application screen presentation, publishing, both.
- Colour combinations which themes are most important? What should be standing out most on the map?
- Think about colour-blindness e.g. red/green colour combination not good
- Background layers what should be labelled?
- Inset maps
- Fonts and text sizes









## Thank you!

Joe Gosling | joe.gosling@unep-wcmc.org

## Connect with us online:

www.un-redd.org www.unredd.net





