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First time set-up instructions for the Map Dashboard

These instructions need to be executed once to set up a new prioritization tool. Assuming you know your way around Excel and Arcmap, this should take less than an hour.

1) Enable Marcos

If necessary, add the developer tab: File>Options>Ribbon.

Enable the macros: Developer>Macro Security>Disable with notification. You may need to re-open the workbook.

2) Prepare the polygons

- Draw polys in ArcMap (Admin level 1, 2 or 3).
- Make the map as large as possible on your screen. Resize the map window to have minimal white space around the geometry.
- Set polygon rendering to no line, white fill (**not** transparent).
- Label the polygons. The labels do not need to be pretty, just readable. They will be deleted eventually. When you can see the labels but not the geometry, you've got it right.
- Export the map to EMF.
- Set resolution to 300dpi and quality to highest (this could be experimented with to lower file size for pdf end products)
- In the Excel template, select the Geometry worksheet.
- Insert the EMF as a picture.
- Reposition if you like, but avoid resizing.
- Right click the picture>edit.
- This forces conversion to drawing objects. Do not ungroup the resulting group (ever).
- Select the resulting group, and set the outline to solid line, 35% gray, .75pt. Do not change the fill. This will outline the group, each admin unit, and each label box.

3) Match Pcodes to Polygons

- Copy a sorted list of pcodes onto the 'Setup Geometry' sheet in the indicated column (P Codes in column A and Admin name in column B).
- Click "Rename Polygons". A polygon will be selected and you will be prompted to click the cell containing the matching p-code.
- Repeat this process until complete.
- You can confirm that the naming is correct by selecting them one at a time and confirming the name in the address window.
- When the labels is covering entirely the polygon you are trying to select, try to identify first the corresponding item in the selection pane, or delete the label text box so to be able to select the right (this applies usually when the adm1 territory you are trying to select is very small)

4) Set up the vocabulary

- Unhide the Vocabulary worksheet and set up the blue vocabulary cells in column 'I' (tbl_Countries) by providing the country name. For example: Yemen, South Sudan.

	I
Country	.I
SS	

- Likewise provide the country name in column 'M', preceded by 'Grp_' (tbl_MapsCoord). For example: Grp_Yemen, Grp_South Sudan.

M	N	O	P	Q
MAP	Top	Left	Height	Width
Grp_SS	471.402435	197.239136	149	102.813072

- There must not be any blank rows, including at the bottom of the table.
- Never delete entire rows from this or any sheet in this workbook.
- You can remove table rows by selecting them>right click>delete>table rows.
- You can resize the table to remove empty rows at the bottom by dragging the small handle that appears in the bottom right corner of the bottom right cell in the table. You can also use Table>Resize Table.
- You can sort rows in a table using the drop-menus at the top of each column.
- You can use Format Painter to apply "no format" to cells pasted from another table to restore the default table formatting (this is not a requirement).

5) Generate the 13 maps for the Dashboard

- Select and delete the polygon labels.
- The Selection Pane may be helpful for this (on the Drawing Tools ribbon). Do not ungroup.
- Select and delete the frame polygon. This is part of the group and will be visible on the dashboard if not deleted.
- Select the map (the group containing all the polygons). Copy the map and paste it onto the "Dashboard" worksheet.
- Using ONE of the small map boxes (there are 12 of them), resize your map to fit in the box. The fit does not need to be perfect. You can adjust the numbers and dimensions of the boxes later.
- Hold down shift while resizing to constrain the resize to proportional. "Stretching" the polygons disproportionately is a sin. Don't do it.
- You can select and move the color ramp group to find the best possible layout. Just be careful not to rename any of these graphic elements or delete them.
- It is recommended that final adjustments to the layout of the dashboard (deleting unneeded maps, resizing map boxes, etc.) be left until later in the process.
- Once happy with the map size, make a note of the height and width of the group (right click>properties>size). You will need these values to be in centimeters (hint: 1" = 2.54cm and 1pt = 0.035278 cm).
- Go back to the 'Setup Geometry' worksheet; delete all the maps from the former template in the Dashboard worksheet by clicking on 'Delete Maps from dashboard' button.
- Rename the map (entire group) to 'Grp_yourcountryname' by selecting it and entering the name in the address window.

- Click on 'Generate Maps for Dashboard' to generate 13 maps for the dashboard.
- Note that each polygon in each map has a unique name. It is important that these are not changed and that the maps are not re-ordered on the page. For example, the map with polygons named [pcode]_1 must be under the text box named (but not labeled) MapTitle_1 and with the color ramp labels named ColorRamp_1.

6) Generate 12 maps for the Reliability of Data Dashboard

- Go back to the 'Setup Geometry' worksheet.
- If there are any maps present on the Reliability of Data Dashboard worksheet then use the 'Delete Maps from Reliability Dashboard' button to delete them.
- Click on 'Generate Maps for Reliability of Data Dashboard' to generate 12 maps for the dashboard.
- Note that each polygon in each map has a unique name. It is important that these are not changed and that the maps are not re-ordered on the page. For example, the map with polygons named [pcode]_1_1 must be under the text box named (but not labeled) MapTitle_1_1.

7) Dashboard layout adjustments

- You can now make adjustments to the items on the 'dashboard' and 'Reliability of data dashboard' worksheets. Almost every element on the page is a text box or other movable graphic. You may delete any unused small maps at the bottom and their associated color ramps, titles and frames.
- You may **not** delete any map that is associated with a Domain on the Vocabulary page.
- Do not delete anything else from these worksheets.

8) Set up the Lists worksheet

- Paste in AdminName and Pcode values for Admin level 1 in 'tbl_admin1' table on the worksheet (Column A and B). The table will auto expand based on the list.
- Similarly, paste in AdminName and Pcode values for Admin level 2 in 'tbl_admin2' table on the worksheet (Columns F- M). The table will auto expand based on the list.
- Paste population figures in Column 'J' and IDPs figures (if available) in column M (IDP families).
- If you are setting up the tool at admin level 3 then provide Admin 3 names and Pcode in columns 'K' and 'L'. Additionally add two more columns in the 'DataEntry' worksheet after column 'G'. In the first column enter =IFERROR(Lists!K12,"-") in the formula window and press enter. Similarly in the second column enter =IFERROR(Lists!L12,"-") in the formula window and hit enter.

9) Generating more maps for the dashboard

- Copy one of the small domain maps from the dashboard; paste it on the 'ChangeMapName' worksheet.
- Rename the map group as "MapGeometry" by typing the name in the address window.
- , click the "Select and Rename Shapes for Map Dashboard" button to rename the polygon names. Enter '13' (without quotes) in the input box and press OK. The shapes will be renamed with '_13' at the end of their name.

- Copy and paste the map on the 'Dashboard' sheet.
- Name it by selecting the entire group and providing 'MapGeometry_13' in the address window
- Repeat the process to generate as many small maps for the domain as you want.

10) Generating more maps for the Reliability of Data dashboard

- Copy one of the small domain maps from the reliability of data dashboard; paste it on the 'ChangeMapNameRel' worksheet.
- Rename the map group as "MapGeometryReliability" by typing the name in the address window.
- Click the "Select and Rename Shapes for Reliability Map Dashboard" button to rename the polygon names. Enter '13' (without quotes) in the input box and press OK. The shapes will be renamed with '_13_13' at the end of their name.
- Copy and paste the map on the 'Reliability of Data Dashboard' sheet.
- Name it by selecting the entire group and providing 'MapGeometry_13_13' in the address window
- Repeat the process to generate as many small maps for the domain as you want.

11) Changing the TEST DOMAIN from the DataEntry worksheet

- **Never delete the first domain "Test Domain" from the 'DataEntry' worksheet, as this will mess up with the formulas in the workbook. Change the name of the domain using 'Modify Domain' Form first and then change the indicator details using the 'Edit Indicator' form.**
- **Please follow the steps on the next page to change the test domain.**

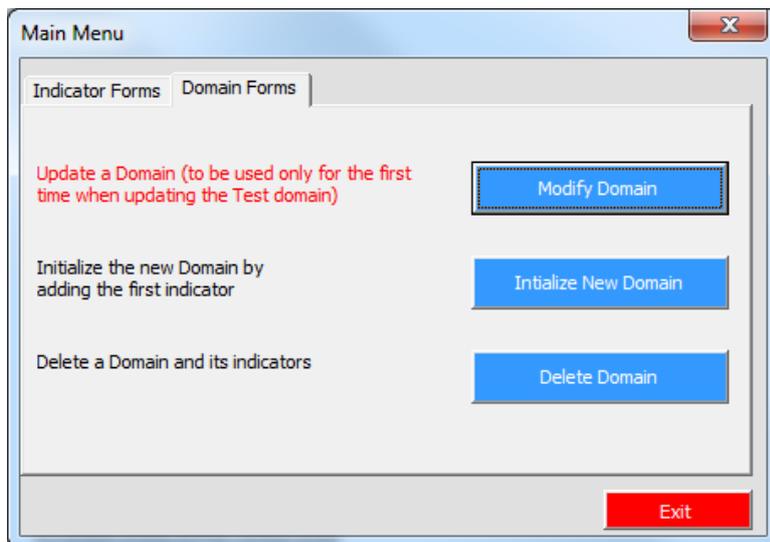
Instructions for the Forms



Click on the 'Open Menu' button to open the main menu.

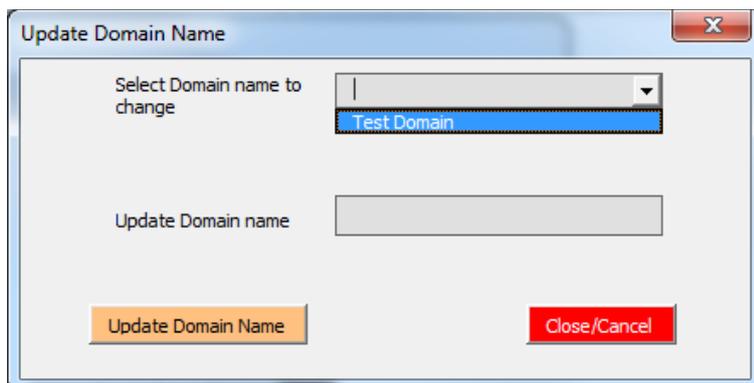
- 1) Domain Forms:** There are 3 forms under this tab, using which you can update the first 'Test Domain', add or delete a domain name on the Domain list (Vocabulary worksheet), add indicators for the newly added domain and completely delete a domain and its relevant indicator(s) from the workbook.

Figure 1: Domain Forms



2) Modify Domain

Figure 2: Update Domain name



- This form is to be used only for the first time to change the 'Test Domain' name, when you are setting up the tool. Select the domain from the combo box, change its names and hit the 'Update Domain Name' button.
- This action will change "Test Domain" to whatever you input in the 'Update Domain Name' textbox in all of the relevant worksheets and formulas.

- Open the 'Update Indicator' Form from the main menu and select 'Test Indicator' from the drop down. Change the name of the indicator by typing a value in the 'Update Indicator' textbox. Likewise, Provide different options and their respective weightings in the relevant textboxes.
- Hit 'Update Indicator'. This action will complete the updating of 'Test Domain' and its indicator.

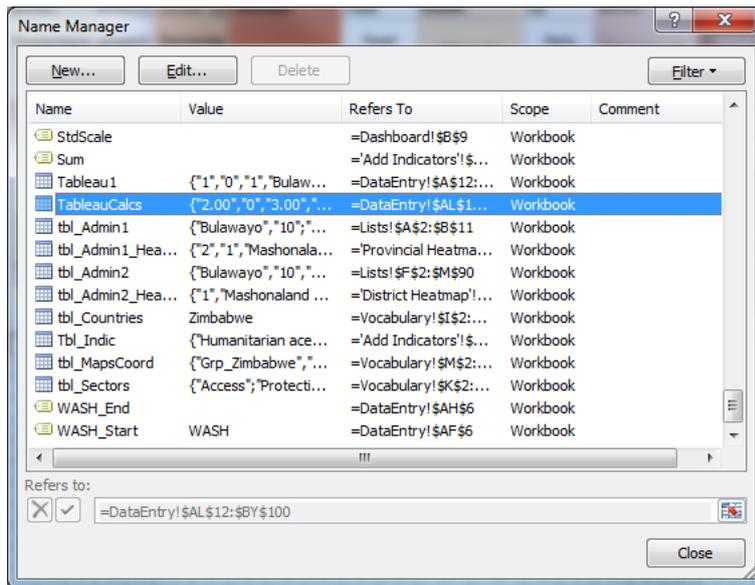
Figure 3: Update 'Test Indicator'

3) Initialize New Domain

Figure 4: Initialize domain Form

Enter the name of the new domain name in the 'Enter a New Domain' textbox. Type in the relevant text boxes, the Indicator detail by specifying the indicator heading, its options and respective weightings.

Also, provide a data source for the indicator. Hit the 'Add Domain' button, this will add the indicator and its detail on the 'DataEntry' worksheet. Data source will be copied to the 'DataSource' worksheet.



In addition, there are four more relevant columns added to the table 'TableauCalcs' on the 'DataEntry' worksheet. These columns are meant to provide calculation of geomean for heatmaps and the 'Gears' worksheet, for each of the domain indicator(s).

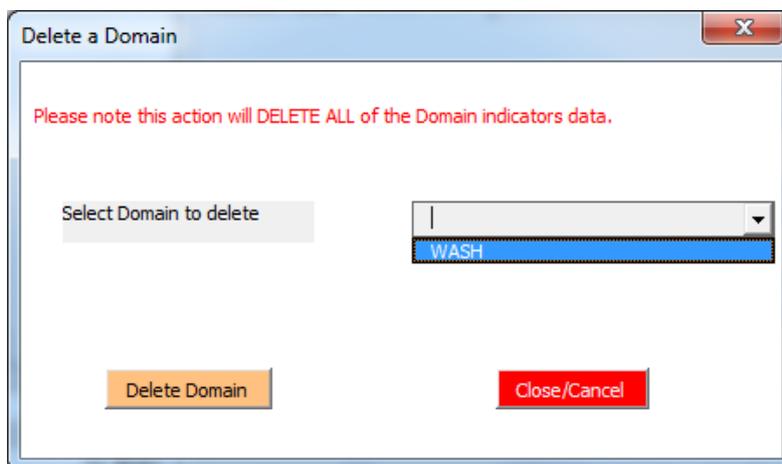
Figure 5: Tableau Calcs

Please do not change the formulas in this table on the 'DataEntry' worksheet.

Also, a domain column is automatically added in the 'Provincial Heatmap' and 'District Heatmap' worksheets along with the relevant formulas for calculating geomean.

4) Delete Domain Form

Figure 6: Delete domain Form



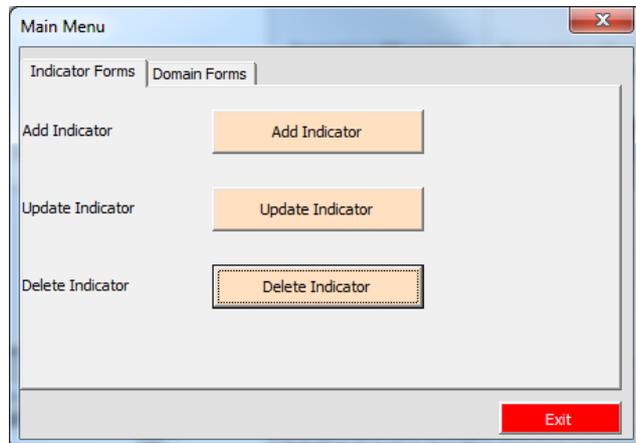
Select the domain name from the combo box and hit the 'Delete Domain' button. All of the indicator(s) related to the selected domain name will be deleted from the 'DataEntry' worksheet. This action will also delete relevant domain calculation columns from the 'TableauCalcs'.

The domain information is also deleted from the 'Gears', "Gear_Rel" worksheets as well as the heatmaps.

Never delete the first domain from the 'DataEntry' worksheet, as this will mess up with the formulas in the workbook. In case, if you don't want to keep the first domain, simply change the name of the domain using 'Modify Domain' Form first and then change the indicator details using the 'Edit Indicator' form.

5) **Indicator Forms:** There are 3 forms under this tab, using which you can add, update or delete an indicator.

Figure 7: Indicator Forms menu



6) Add Indicator Form

The screenshot shows a window titled "Add Indicator Form" with a close button (X) in the top right corner. It contains the following elements:

- A "Select Domain" dropdown menu with "WASH" selected.
- An "Add Indicator" text input field.
- A red instruction bar: "Please make sure that first option is chosen in a way that its weight is always input as zero (e.g. None or No)".
- Five rows of input fields for options and weights:
 - Option 1, Option 2, Option 3, Option 4, Option 5 (text input fields)
 - Weight for Option # 1, Weight for Option # 2, Weight for Option # 3, Weight for Option # 4, Weight for Option # 5 (text input fields)
- An orange instruction bar: "Please provide information on the source for the indicator".
- A "Source of the indicator" text input field.
- At the bottom, there are two buttons: an orange "Add Indicator" button and a red "Close/Cancel" button.

Figure 8: Add Indicator Form

Select a name from the domain combo box. Type in the relevant text boxes, the Indicator detail by specifying the indicator heading, its options and respective weightings.

Also, provide a data source for the indicator. Hit the 'Add Indicator' button, this will add the indicator and its detail on the 'DataEntry' worksheet. Data source will be copied to the 'DataSource' worksheet.

Please note that it is only mandatory to fill Option 1 and Weight 1 text boxes. Later on if you want to add / or delete 'Options' to an indicator, you can use the 'Edit Indicator' form.

7) Update Indicator Form

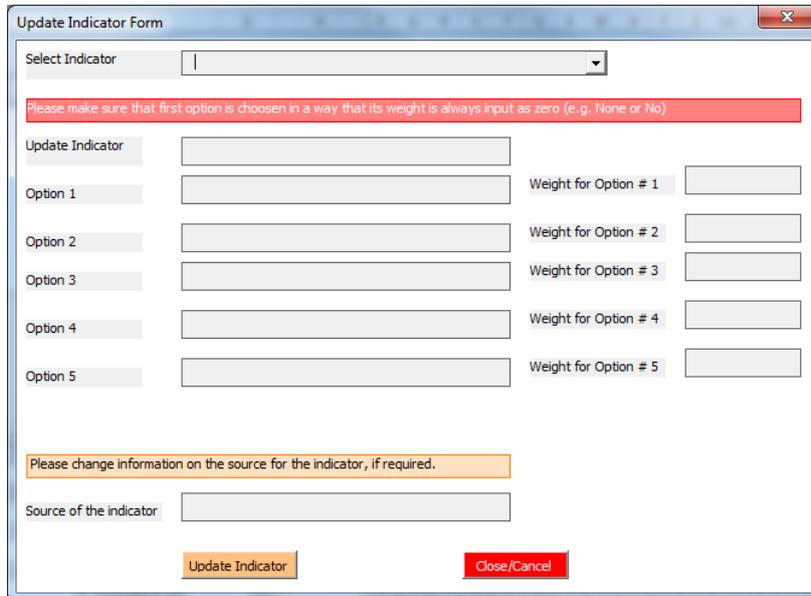


Figure 9: Edit Indicator Form

Select an indicator from the combo box. This will bring up all the relevant details for that indicator in the text boxes on the form. Now, you can add or delete 'Options' for the indicator. Hit the 'Update Indicator' button, and the indicator will be updated accordingly on the 'DataEntry' worksheet.

Please note that the form is organized in a way that a single indicator can have a minimum of one and a maximum of five options assigned to it.

8) Delete Indicator Form

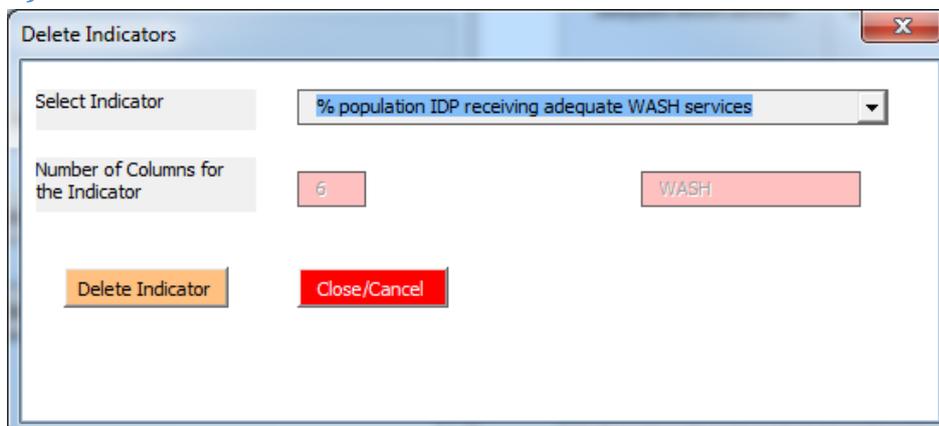


Figure 10: Delete Indicator Form

Select an indicator from the combo box for deletion and hit the 'Delete Indicator' button.

Please note that if there is only ONE indicator remaining on the 'DataEntry' worksheet for a particular domain, it is strongly advised to delete the entire domain using 'Delete Domain' form. As that form ensures that everything related to that domain is deleted from the workbook, including all the named ranges.

Worksheets explanation

1) Data Entry worksheet

The 'DataEntry' worksheet is the only place where a user will input values for indicator options. Select '1' from the list box in the relevant cell if an option matches the criteria, '0' if doesn't match the criteria and '?' (Default) if there is no data available for that indicator.

Figure 11: Reliability score

							WASH						
							% population IDP receiving adequate WASH services					% sc	
							1	1	1	1	1	2	
							Indicator Index:	0	1	3	4	5	0
							Score Max: 10	Weighting:	5	5	5	5	5
							Max Indicator score:	5	5	5	5	5	4
Data missing	Data consistency	Admin Level 1	Pcode	Admin Level 2	Pcode	IDP Famili	Full	>75%	51-75%	26-50%	<25%	Rel of Data WASH	Full2
✓	✗	Ombella M'Poko	11	Bimbo	111	-	0	0	0	0	1	M	
✓	✓	Ombella M'Poko	11	Damara	112	-	0	1	0	0	0	H	
✓	✓	Ombella M'Poko	11	Bogangolo	113	-	0	0	1	0	0	L	
✓	✓	Ombella M'Poko	11	Boali	114	-	1	0	0	0	0	?	

Please note you can either have a combination of '1' and '0' for an indicator or a question mark (?) for the indicator. You cannot have a '?' entered alongside '1' or '0' for an indicator.

Select the appropriate reliability level of data from the drop down for a particular location by

choosing either an 'H' (High), 'M' (Medium) or 'L' (Low).

2) 'Gears' worksheet

Everything on this worksheet is auto calculated based on the entries in the 'TableauCalcs'. This data feeds information to the maps on the 'Dashboard' worksheet.

Please note everything is auto generated in this worksheet and user has nothing to add or delete in this worksheet.

3) 'Gears_Rel' worksheet

Everything on this worksheet is auto calculated based on the entries in the 'TableauCalcs'. This data feeds information to the maps on 'Reliability of Data Dashboard' worksheet.

4) 'Provincial Heatmap' worksheet

This worksheet display domain geomean scores as well as an overall geomean score calculated at admin level 1 of the country.

Please note everything is auto generated in this worksheet.

Prefecture	RANK by Reliabil	Reliability of Data: Overa	RANK by Score	Overall Score	WASH	RD WASH
Basse Kotto	2	0.32	1	0.97	0.97	▼
Nana Mambéré	2	0.32	2	0.96	0.96	▼
Bangui	2	0.32	2	0.96	0.96	▼
Sangha Mbaséré	2	0.32	4	0.94	0.94	▼
Couham Péné	14	0.31	4	0.94	0.94	▼
Couham	17	0.28	4	0.94	0.94	▼
Nana Gribizi	2	0.32	7	0.91	0.91	▼
Douala	2	0.32	7	0.91	0.91	▼
Bamingui Bangoran	2	0.32	7	0.91	0.91	▼
Vakaga	2	0.32	7	0.91	0.91	▼
Kémo	16	0.29	11	0.89	0.89	▼
Haute Kotto	2	0.32	11	0.89	0.89	▼
Haut Mbomou	2	0.32	13	0.87	0.87	▼
Mbomou	2	0.32	14	0.86	0.86	▼
Lobaye	15	0.31	15	0.85	0.85	▼
Mambéré Kadéi	2	0.32	16	0.80	0.80	▼
Ombella M'Poko	1	0.36	17	0.83	0.83	▼

Situation	Score
Situation critical	> 0.32 = Low Reliability
Situation moderate	0.33 - 0.67 = Medium Reliability
Situation normal	> 0.67 = High Reliability
Situation very normal (Score of zero)	
No Data Available (ND)	

Reliability of Data	Score
0.12	0.32 - 0.67 = Medium Reliability
0.34	> 0.67 = High Reliability
0.69	RD = Reliability of Data

Figure 12: Admin Level 1 Heatmap

5) 'District Heatmap' worksheet

Prefecture	Score Prefecture	RANK by Reliabil	Reliability of Data: Overa	RANK by overall score	Overa	WASH	RD WA
Ombella M'Poko	Dzoundoudou	3	0.32	1	1.00	1.00	▼
Lobaye	Mbaïkoudou	3	0.32	1	1.00	1.00	▼
Mambéré Kadéi	Carron	3	0.32	1	1.00	1.00	▼
Nana Mambéré	Bozou	3	0.32	1	1.00	1.00	▼
Nana Mambéré	Baboua	3	0.32	1	1.00	1.00	▼
Sangha Mbaséré	Bambou	3	0.32	1	1.00	1.00	▼
Sangha Mbaséré	Bouanga	3	0.32	1	1.00	1.00	▼
Couham Péné	Koua	3	0.32	1	1.00	1.00	▼
Couham Péné	Pouébo	3	0.32	1	1.00	1.00	▼
Couham Péné	Ngaoundou	3	0.32	1	1.00	1.00	▼
Couham Péné	Bakanga	3	0.32	1	1.00	1.00	▼
Couham	Nana Dalaasa	3	0.32	1	1.00	1.00	▼
Couham	Makanda	3	0.32	1	1.00	1.00	▼
Couham	Nangha-Bouatta	3	0.32	1	1.00	1.00	▼
Kémo	Ndoulou	3	0.32	1	1.00	1.00	▼
Nana Gribizi	Kaga-Bandoro	3	0.32	1	1.00	1.00	▼
Douala	Kouango	3	0.32	1	1.00	1.00	▼
Douala	Ippa	3	0.32	1	1.00	1.00	▼
Bamingui Bang	Ndélé	3	0.32	1	1.00	1.00	▼
Haute Kotto	Yalanga	3	0.32	1	1.00	1.00	▼
Basse Kotto	Koumba	3	0.32	1	1.00	1.00	▼
Basse Kotto	Mingata	3	0.32	1	1.00	1.00	▼
Basse Kotto	Zangha	3	0.32	1	1.00	1.00	▼
Mbomou	Bakouma	3	0.32	1	1.00	1.00	▼
Haut Mbomou	Obo	3	0.32	1	1.00	1.00	▼
Bangui	3e Arrondissement	3	0.32	1	1.00	1.00	▼
Bangui	2e Arrondissement	3	0.32	1	1.00	1.00	▼
Bangui	1e Arrondissement	3	0.32	1	1.00	1.00	▼
Vakaga	Quand-Djaba	3	0.32	1	1.00	1.00	▼
Basse Kotto	Alindao	3	0.32	1	1.00	1.00	▼
Basse Kotto	Siakha	3	0.32	1	1.00	1.00	▼
Bangui	7e Arrondissement	3	0.32	1	1.00	1.00	▼
Mambéré Kadéi	Dadié-Mokoumba	3	0.32	30	0.83	0.83	▼
Nana Mambéré	Pouébo	3	0.32	30	0.83	0.83	▼
Sangha Mbaséré	Nana	3	0.32	30	0.83	0.83	▼
Couham Péné	Bosoum	3	0.32	30	0.83	0.83	▼
Couham Péné	Bosoum	3	0.32	30	0.83	0.83	▼

This worksheet display domain geomean as well as an overall score calculated at admin level 2 of the country.

Please note everything is auto generated in this worksheet and user has

nothing to add or delete in this worksheet.

6) 'Dashboard' worksheet

The big map at the top (orange color) is meant to display the overall score of the country (at admin level 2) by taking scores for all of the domains from 'Gears' worksheet.

Figure 13: Admin Level 2 Heatmap worksheet.

Below the orange map are small domain maps (at admin level 2), which are colored in blue shade, based on the domain scores from 'Gears' worksheet.

Whenever new data is entered in the 'DataEntry' worksheet, use the 'UPDATE MAPS' button at the left corner of the worksheet to

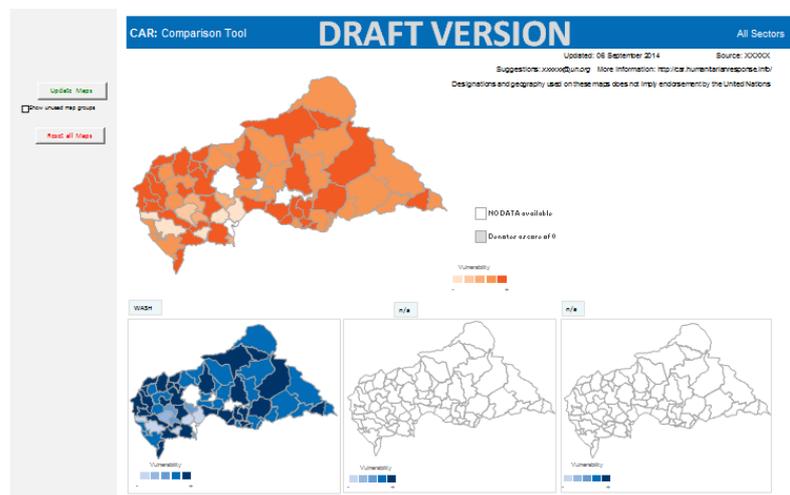


Figure 14: Map Dashboard

update color ramp in the maps.

Please note whenever a domain is added in the workbook (using the Add Domain form) a small map is automatically added in the dashboard worksheet. Similarly if a user deletes a domain (using Delete Domain form), its relevant map is also deleted from the 'Dashboard' worksheet.

7) 'Reliability of Data Dashboard' worksheet

The big map at the top is meant to display the overall reliability score of the country (at admin level 2) by taking scores for all of the domains from 'Gears_Rel' worksheet.

Small domain maps (at admin level 2) display reliability score based on the domain scores from 'Gears_Rel' worksheet.

Whenever new data is entered in the 'DataEntry' worksheet, use the 'UPDATE RELIABILITY MAPS' button at the left corner of the worksheet to update color ramp in the maps.

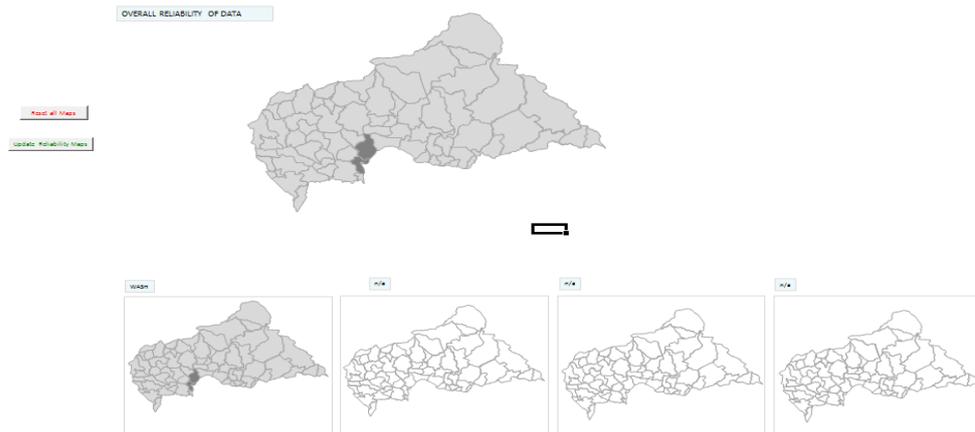


Figure 15: Reliability of Data Map Dashboard

8) 'DataSource' worksheet

This worksheet displays the data source of the indicators. Use the 'Explanation of Indicator' column to explain the indicator and its different options.

Domain	Indicator	Source	Explanation of Indicator
WASH	% population IDP receiving adequate WASH services	WASH Cluster	
WASH	% population with access to a source of safe drinking water	WASH Cluster	
WASH	Garbage disposal	WASH Cluster	

Figure 16: Data Source table for indicators