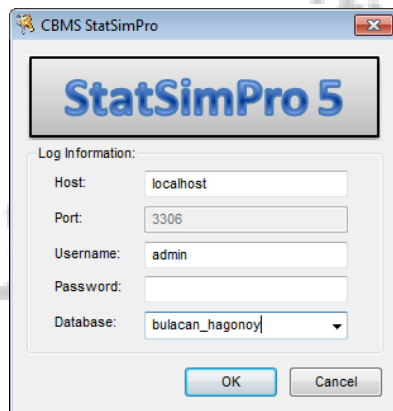


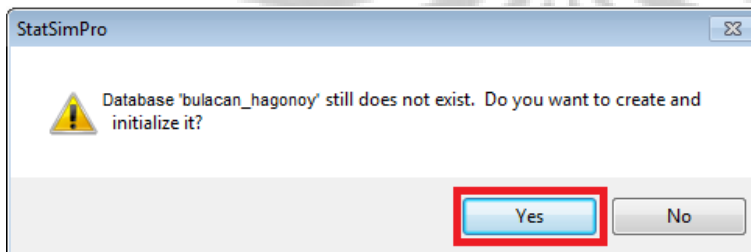
# Steps in Mapping CBMS Core Indicators

## Part 1. StatSim 5.0

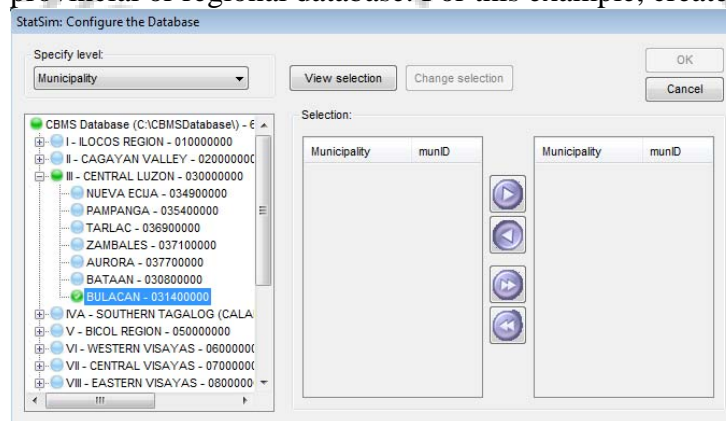
1. Open Statsim.
2. Type the name of the LGU database. The standard name of database follows the format Provincename\_mun/cityname  
Ex. Bulacan\_Hagonoy



3. If you are opening a new database, the system will inform you that the database still does not exist.
  - a. It will ask you if you want to create and initialize it. Click Yes.

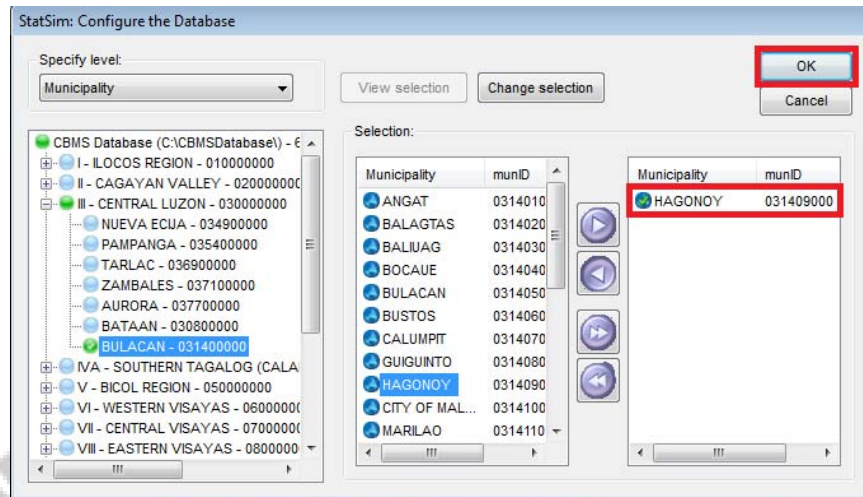


- b. Configuring the database means specifying the level to be municipal, provincial or regional database. For this example, create a municipal database

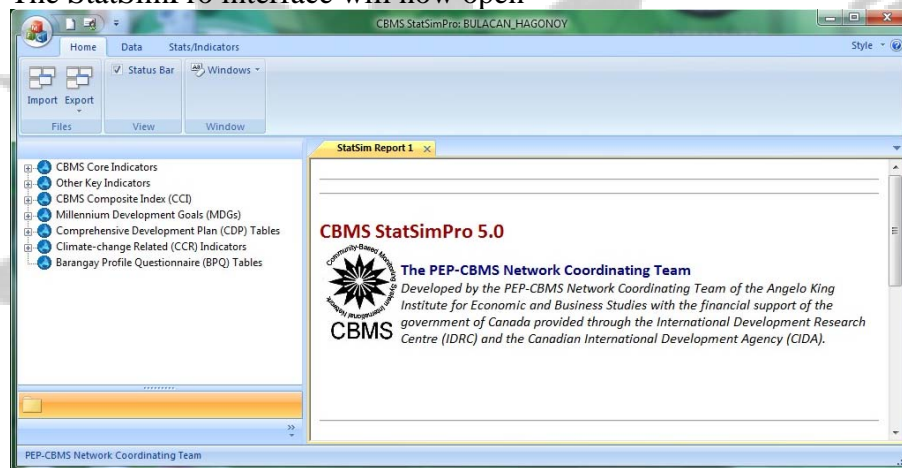


- c. Click the button **View selection**

- d. From the listed municipalities, double click on the name of the municipality
- e. Click OK

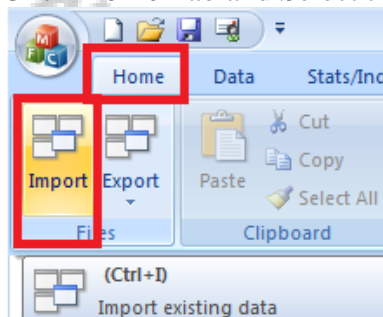


- f. The StatSimPro interface will now open

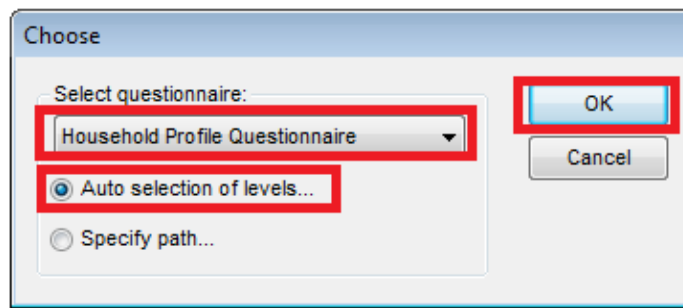


*Note: When you are opening a configured database, you will not need to do the procedure discussed in slides 3-6*

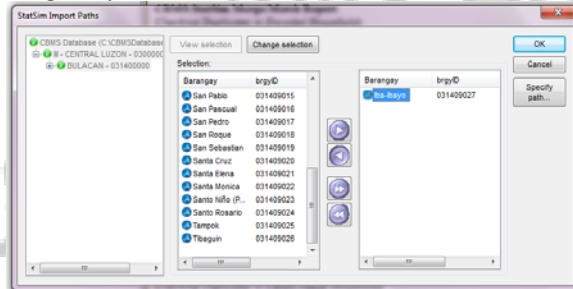
4. Click **Home** Tab and Select the button **Import**



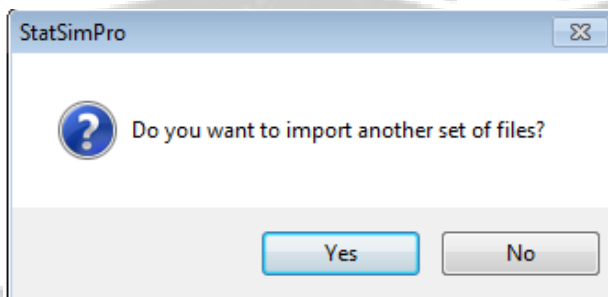
5. Select **Household Profile Questionnaire**.
6. Choose **Auto Selection of Levels**. Note that you can also specify where you encoded text are located.
7. Click **OK**



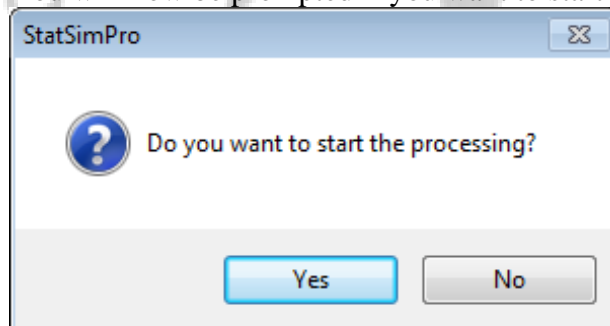
8. Select data to import (In this example, we are using the text file of *Bry. Iba-Ibayo, Hagonoy, Bulacan*)



9. You will now be prompted if you want to import another set of files.  
Click **No** if you prefer to work on the imported files only  
Click **Yes** to import one or several other barangays and repeat steps 4-8.

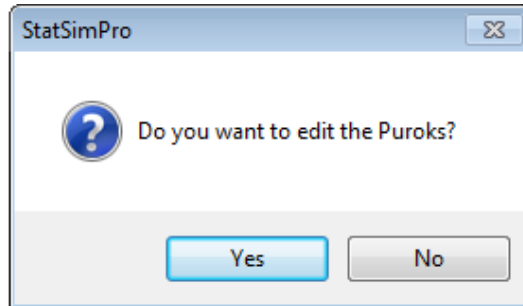


10. You will now be prompted if you want to start the processing. Click **Yes**.

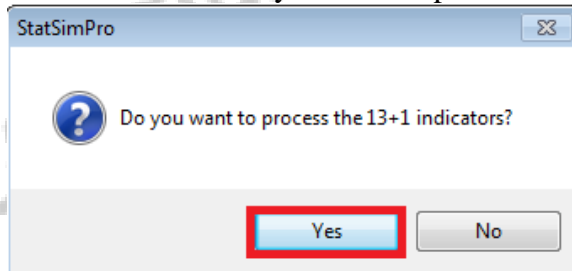


11. At this point you will be asked if you wish to edit the Purok names  
Click **Yes** if you wish to edit. Note that the purok name is **space- and case-sensitive**. It should also be the same as the names in the digitized shapes in the CBMS-NRDB file.

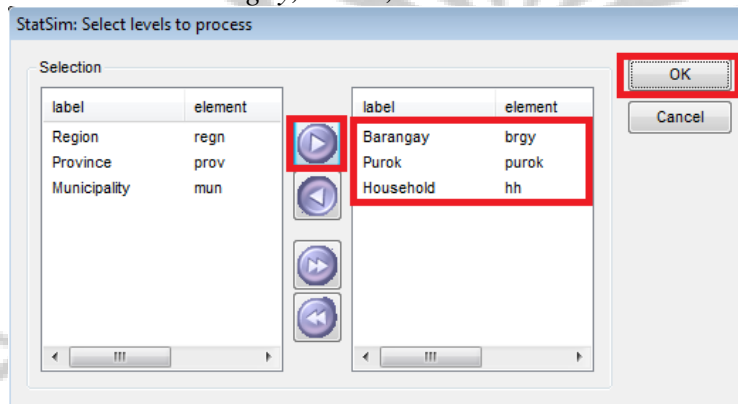
Click **No** if you are sure that the names you are processing and in the CBMS-NRDB file are matched.



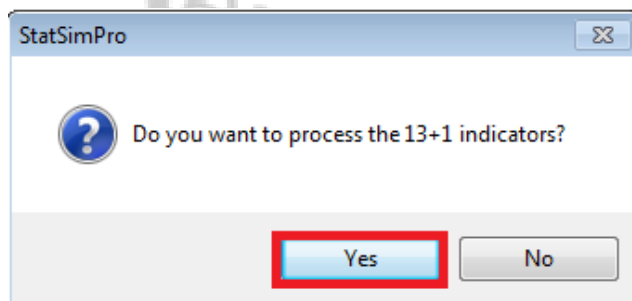
12. You will be asked if you want to process the 13+1 Indicators. Click **Yes**. OK.



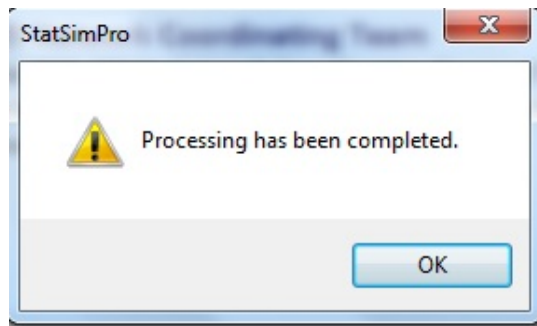
13. In selecting levels to process, if you are consolidating barangay-level data, double click on *Barangay*, *Purok*, *Household* and click OK.



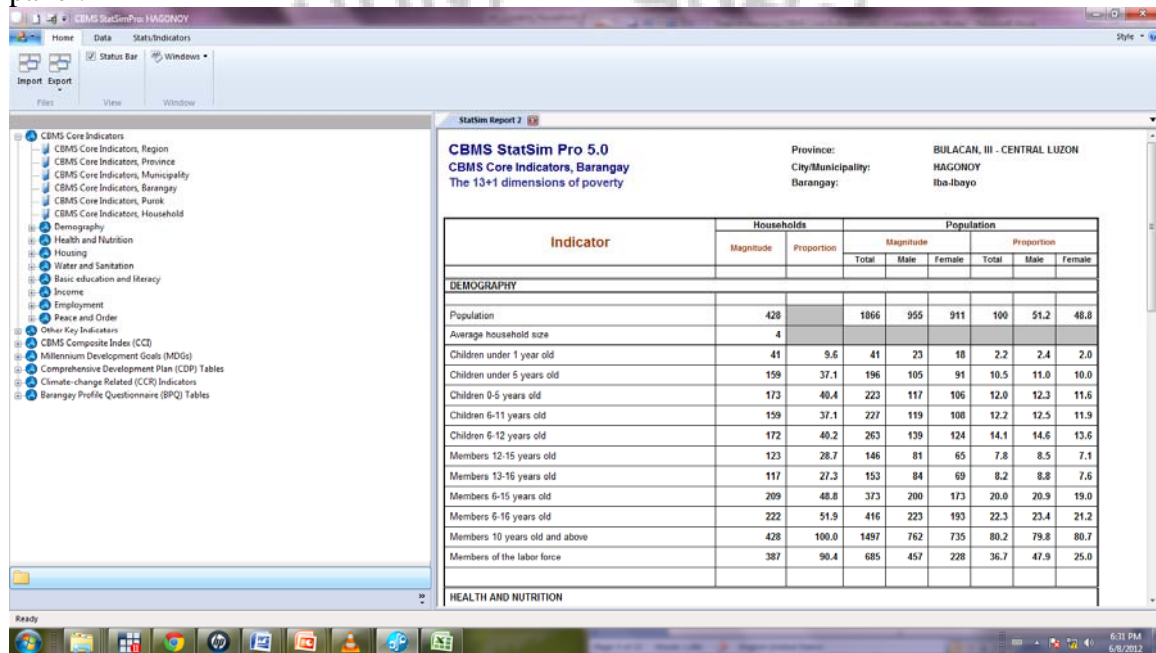
14. You will be asked if you want to process the 13+1 Indicators. Click **Yes**.



15. Wait until the data processing ends. A message below will appear.



You are now ready to view the CBMS Core Indicators. Click the buttons at the left side panel.



## Part 2. Matching your .txt and .mdb files.

Matching is done to ensure data of all households that were surveyed will be included in the data consolidation and database that will be used by policymakers and program implementers as the basis of programs and projects in the LGU. This is also to prepare our files for poverty mapping.

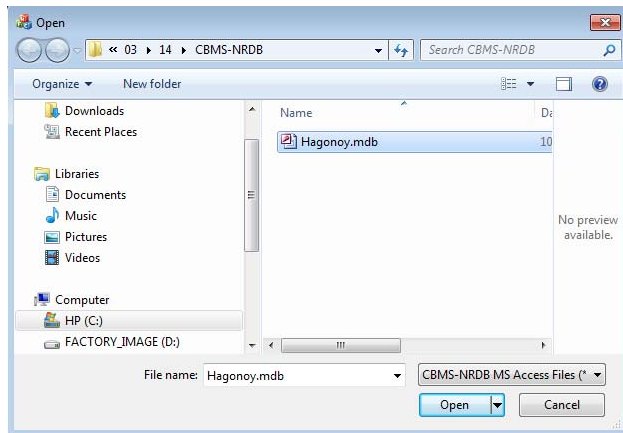
At this stage, we will be matching the encoded text file (\*.txt or \*.hpq) and the NRDB file (\*.mdb).

For this stage, we will use the Matching function of the StatSim and the digitized CBMS-NRDB file (ex. Hagonoy.mdb). To do this, follow the following steps.

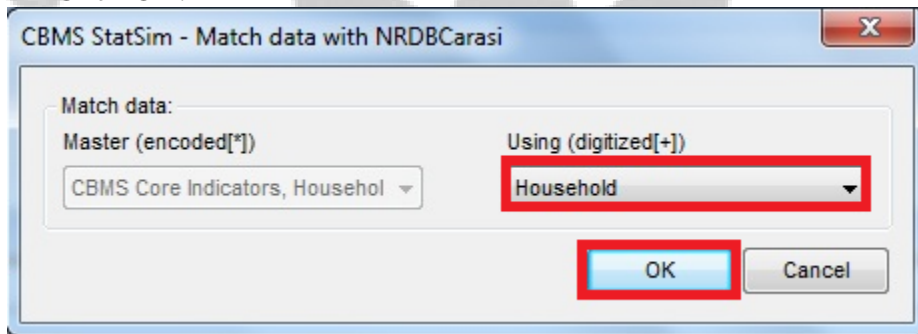
1. Click **Data** and then select **Matching**.



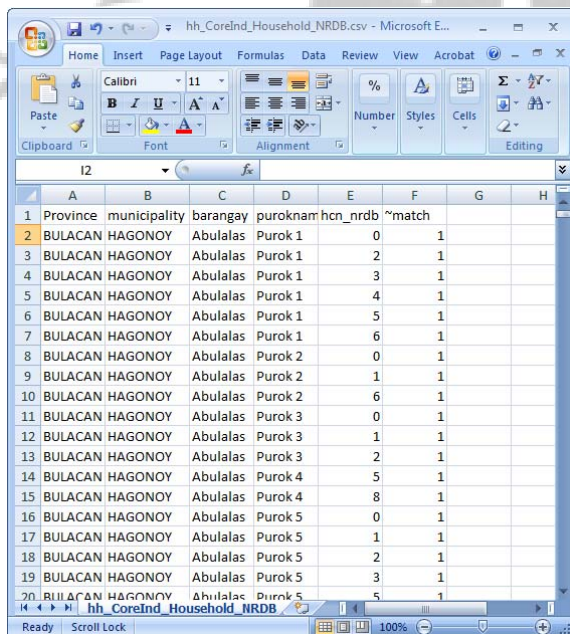
2. You will now be prompted to open your .mdb file (in this case, since we are using the case of Hagonoy, Bulacan, we will open Hagonoy.mdb).



3. The following box will appear. Click **OK**.  
Select Household in the pulldown list.  
Click OK.



4. A report in MS excel format will be displayed similar to the one shown here.



	A	B	C	D	E	F	G	H
1	Province	municipality	barangay	puroknam	hcn	nrdb	~match	
2	BULACAN	HAGONOY	Abulalas	Purok 1	0	1		
3	BULACAN	HAGONOY	Abulalas	Purok 1	2	1		
4	BULACAN	HAGONOY	Abulalas	Purok 1	3	1		
5	BULACAN	HAGONOY	Abulalas	Purok 1	4	1		
6	BULACAN	HAGONOY	Abulalas	Purok 1	5	1		
7	BULACAN	HAGONOY	Abulalas	Purok 1	6	1		
8	BULACAN	HAGONOY	Abulalas	Purok 2	0	1		
9	BULACAN	HAGONOY	Abulalas	Purok 2	1	1		
10	BULACAN	HAGONOY	Abulalas	Purok 2	6	1		
11	BULACAN	HAGONOY	Abulalas	Purok 3	0	1		
12	BULACAN	HAGONOY	Abulalas	Purok 3	1	1		
13	BULACAN	HAGONOY	Abulalas	Purok 3	2	1		
14	BULACAN	HAGONOY	Abulalas	Purok 4	5	1		
15	BULACAN	HAGONOY	Abulalas	Purok 4	8	1		
16	BULACAN	HAGONOY	Abulalas	Purok 5	0	1		
17	BULACAN	HAGONOY	Abulalas	Purok 5	1	1		
18	BULACAN	HAGONOY	Abulalas	Purok 5	2	1		
19	BULACAN	HAGONOY	Abulalas	Purok 5	3	1		
20	BULACAN	HAGONOY	Abulalas	Purok 5	5	1		

- Take note of the following

variables in the report:

- province
- municipality
- barangay
- purokname
- hcn-nrdb
- ~match

Take note of the following codes for the variable **~match** in the report:

**-1** = Found in digitized but not in encoded

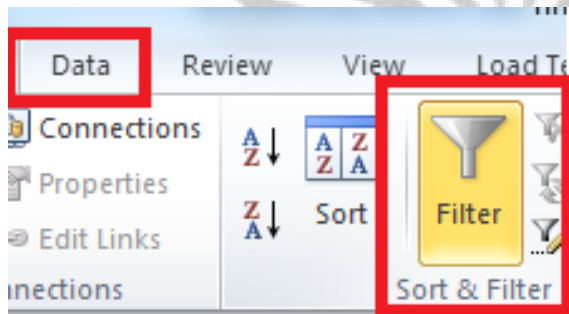
**1** = Found in encoded but not in digitized

**0** = Matched

Since you are only matching the text file of your barangay (in this case, Brgy. Iba-ibayo) with your .mdb file, you can disregard what the report is stating for the other barangays.

To do this, follow the following steps:

1. On your Excel file, click **Data**.
2. Click **Filter**.
3. Select **AutoFilter**.



4. Select the name of the barangay that you are processing  
Again for our example, Barangay Iba-ibayo



	A	B	C	D	E	F
1	provinc	municipi	barang	purokn	hcn_nri	~match
	Sort A to Z				40	1
	Sort Z to A				70	1
	Sort by Color				83	1
	Clear Filter From "barang"				293	1
	Filter by Color				294	1
	Text Filters				295	1
	Search				297	1
					298	1
					300	1
					307	1
					308	1
					310	1
					311	1
					312	1
					314	1
					315	1
					382	1
					392	1
					393	1
21	BULACAN	HAGONO\	Abulalas	Purok 1	394	1
22	BULACAN	HAGONO\	Abulalas	Purok 1	395	1
23	BULACAN	HAGONO\	Abulalas	Purok 1	397	1
24	BULACAN	HAGONO\	Abulalas	Purok 1	398	1
25	BULACAN	HAGONO\	Abulalas	Purok 1	410	1
26	BULACAN	HAGONO\	Abulalas	Purok 1	411	1

The last column labeled ~match shows 0 values indicating that your encoded data matches your digitized spotmap. However, in this example, value 1 for HH #65 denotes that the HH was encoded but was not digitized in NRDB

	A	B	C	D	E	F
1	provinc	municipi	barang	purokn	hcn_nri	~match
2	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	65	1
3	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	61	0
4	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	62	0
5	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	64	0
6	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	81	0
7	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	82	0
8	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	83	0
9	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	101	0
10	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	102	0
11	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	103	0
12	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	104	0
13	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	105	0
14	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	106	0
15	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	107	0
16	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	108	0
17	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	182	0
18	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	185	0
19	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	221	0
20	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	222	0
21	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	224	0
22	BULACAN	HAGONO\	Iba-Ibayo	Purok 1	225	0

To correct this, check first if HH#65 is in the master list of Brgy. Iba-ibayo. After careful checking, the user was able to identify that indeed HH#65 was encoded but was not digitized in NRDB. Go to CBMS-NRDB. Open Hagonoy.mdb, and digitize HH#65 in purok 1.



Repeat instructions in this Section on Matching until all values for the variable ~match are all ZEROES (0).

	A	B	C	D	E	F
1	province	municipality	barangay	puroknam	hcn_nrdb	~match
2	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	65	0
3	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	61	0
4	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	62	0
5	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	64	0
6	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	81	0
7	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	82	0
8	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	83	0
9	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	101	0
10	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	102	0
11	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	103	0
12	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	104	0
13	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	105	0
14	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	106	0
15	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	107	0
16	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	108	0
17	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	182	0
18	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	185	0
19	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	221	0
20	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	222	0
21	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	224	0
22	BULACAN	HAGONOY	Iba-Ibayo	Purok 1	225	0

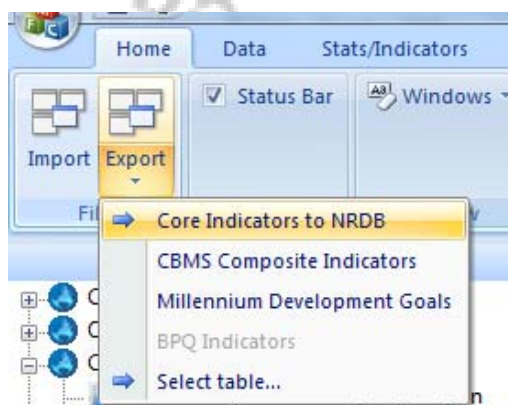
When all values for ~ match, you are now ready to:

- Use Statsim tables for analysis
- Export the processed CBMS Core Indicators of your barangay to CBMS-NRDB for mapping.

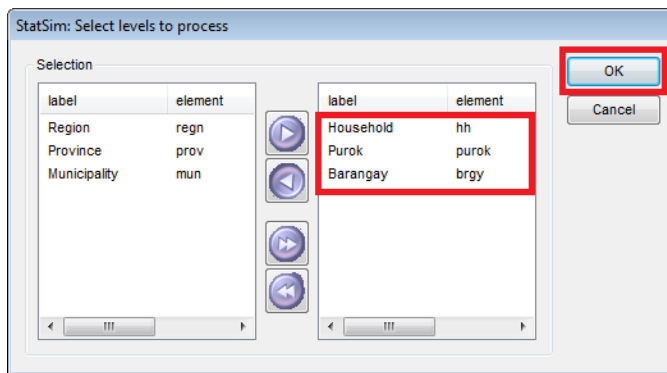
### Part 3. Exporting your Core Indicators to CBMS-NRDB for Mapping

To export your processed data to NRDB for mapping, follow the following steps:

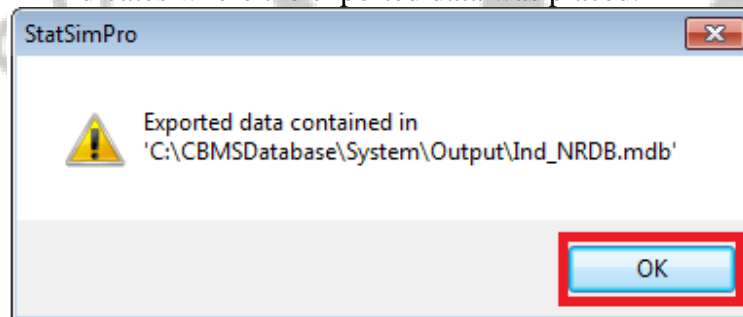
- Click **Home**.
- Select **Export**.
- Select **Core Indicators for CBMS-NRDB**.



4. You will now be prompted to select levels to process. Double click on *Barangay*, *Purok* and *Household*. Click on **OK**.



5. A dialog box similar to the one displayed below will be shown. This only indicates where the exported data was placed.



Notes:

1. All exported data will go to Ind\_NRDB.mdb file in the same path  
**C:\CBMSDatabase\System\Output**
2. Other processed tables can also be exported and opened in MS Excel. From the **Home** menu, select **EXPORT** then select the name of the desired table. The table will automatically open in Excel.

You can now close your StaSim and launch your CBMS-NRDB.

#### Part 4. Importing your Processed Data into the NRDB for Mapping

##### A. Updating the CBMS-NRDB file

Before importing the data processed by StatSim, the CBMS-NRDB data dictionary needs to be updated. Additional Features associated with the different geopolitical levels should be added to data dictionary to house the CBMS data generated by the CBMS StatSim.

**Note that if your Data Dictionary already has the CBMS Demography, CBMS Core Indicators, and CBMS MDG and Composite Index, you do not need to undertake this step.**

1. Check the data dictionary  
Open the NRDB  
Go to Data and Click Data Dictionary

Check if following features are in the Data Dictionary:

Province/Municipality/Barangay/Purok/Households

Province/Municipality/Barangay/Purok/Households *CBMS Demography*

Province/Municipality/Barangay/Purok/Households *CBMS Core Indicators*

Province/Municipality/Barangay/Purok/Households *CBMS Other Indicators*

2. If they are already there, remove them.

Remove each one starting from the recently-added child feature

*CBMS Other Indicators*

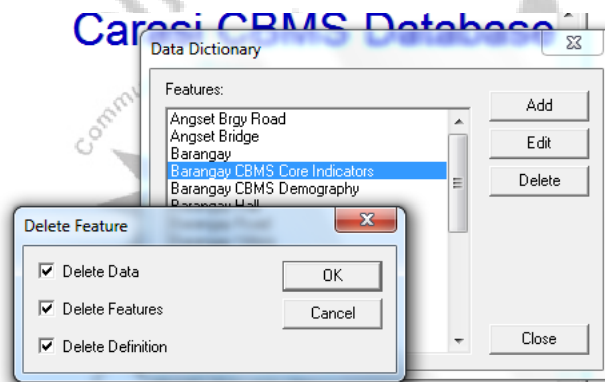
*CBMS Core Indicators*

*CBMS Demography*

Ex. Remove 1<sup>st</sup>: Household CBMS Other Indicators

2<sup>nd</sup>: Household CBMS Core Indicators

3<sup>rd</sup>: Household CBMS Demography



There are 15 features (3 features for all 5 levels) to be removed.

3. To update the Data Dictionary,

Go to File

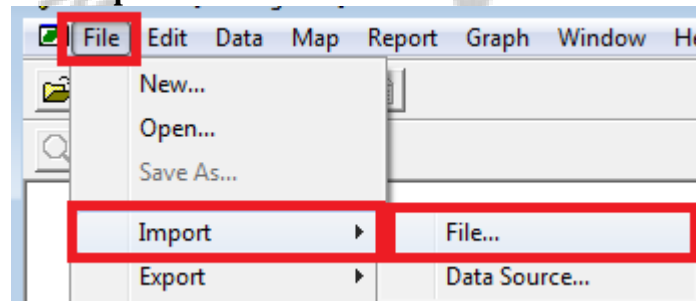
Select Import and Click File

The *Open dialog will appear*

Select the *MDB file "NRDBUpdateTemp.mdb" in*

*C:\CBMSDatabase\System\Specs*

Click **Open**.



In the Import dialog box, check the box adjacent to the following **19** features:

-Household CBMS Demography

- Household CBMS Core Indicators

- Household Unmet Needs

- Purok CBMS Demography

-Municipal CBMS Demography

-Municipal CBMS Core Indicators

-Municipal CBMS Unmet Needs

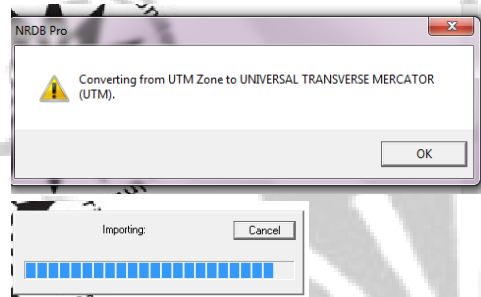
-Municipal MDG

- Purok CBMS Core Indicators
- Purok CBMS Unmet Needs
- Purok MDG
- Barangay CBMS Demography
- Barangay CBMS Core Indicators
- Barangay CBMS Unmet Needs
- Barangay MDG

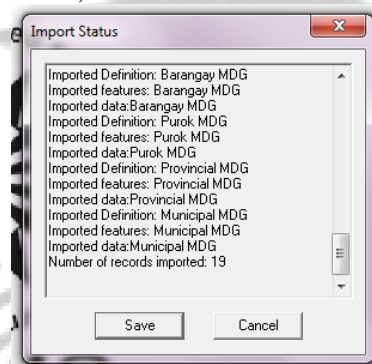
- Provincial CBMS Demography
- Provincial CBMS Core Indicators
- Provincial CBMS Unmet Needs
- Municipal MDG

Tip: Click Button **Select All** then deselect the 5 boxes for Province, Municipality, Barangay, Purok and Households.

- Click the Import button  
A window indicating the projection will appear. Click Ok to start importing the features



- Check if the number of imported features is **19**.  
Then, click Save



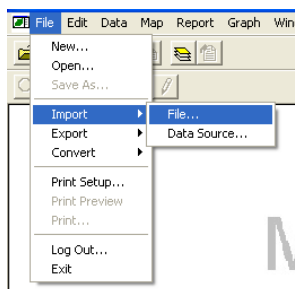
The CBMS-NRDB is now ready to hold the CBMS data.

*Please note that updating the data dictionary should only be done once.*

## B. Importing data processed by StatSim

To import the data processed by StatSim earlier, follow the following steps:

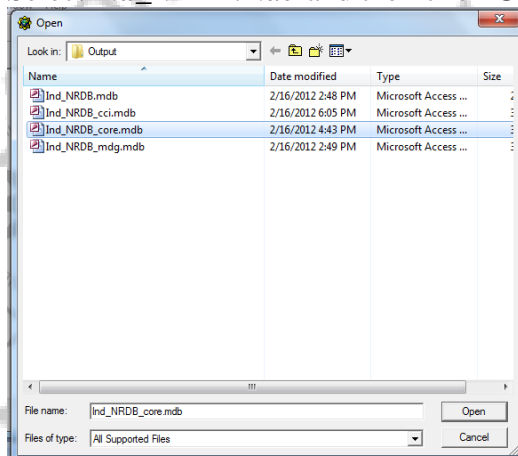
- Click **File**.
- Select **Import**.
- Select **File**.



4. You will now be prompted to open the exported data from the StatSim which was stored in the following location:

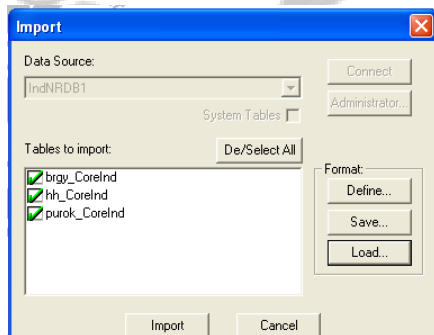
**C:\CBMSDatabase\System\Output\Ind\_NRDB.mdb**

5. Select *Ind\_NRDB.mdb* and then click **Open**.

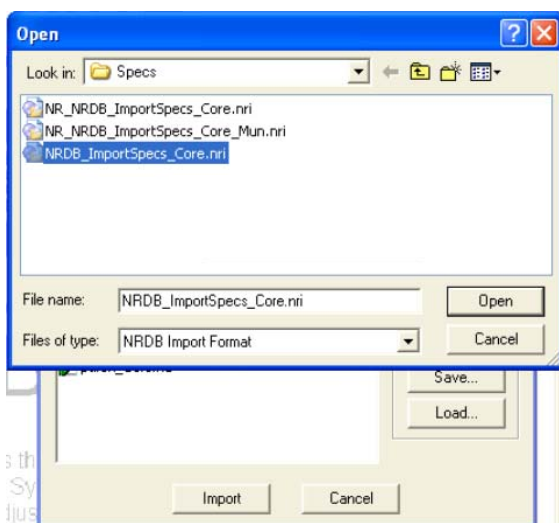


*Note: For safekeeping and avoiding redundant processes, users may copy this file and transfer it to a folder for your back-up.*

6. The following box will be displayed. Make sure that all tables *brgy\_CoreInd*, *hh\_CoreInd*, *purok\_CoreInd* are checked, then click **Load**.

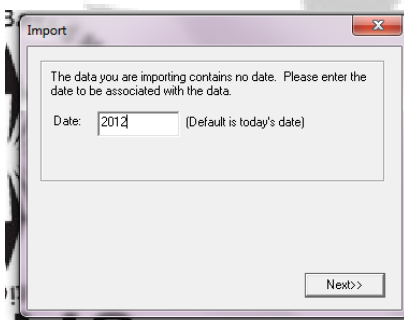


7. Locate the following file in the Specs folder: *NRDB\_ImportSpecs\_Core.nri*. Click **Open**.



8. Click **Import**

9. You will now be prompted to enter a date which will be associated with the data.  
***Enter the year when the CBMS data was collected.*** You will do this 3 times.



10. The following dialog box will be displayed.



To verify whether you were able to import your data successfully, use the following formula:

**No. of Records Imported = No. of Barangay + No. of Puroks + No. of Households**



In this case, we have only imported one barangay (Brgy. IBa-Ibayo), 7 puroks and 428 households. Thus, the number of records imported as shown above is 436.

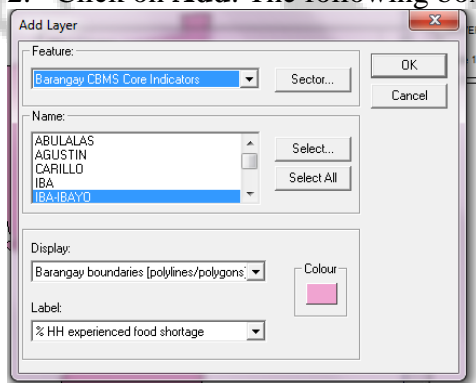
#### 11. Click **Save**.

Congratulations! You are now ready to map the CBMS Core Indicators of your barangay.

### Part 5. Generating Poverty Maps

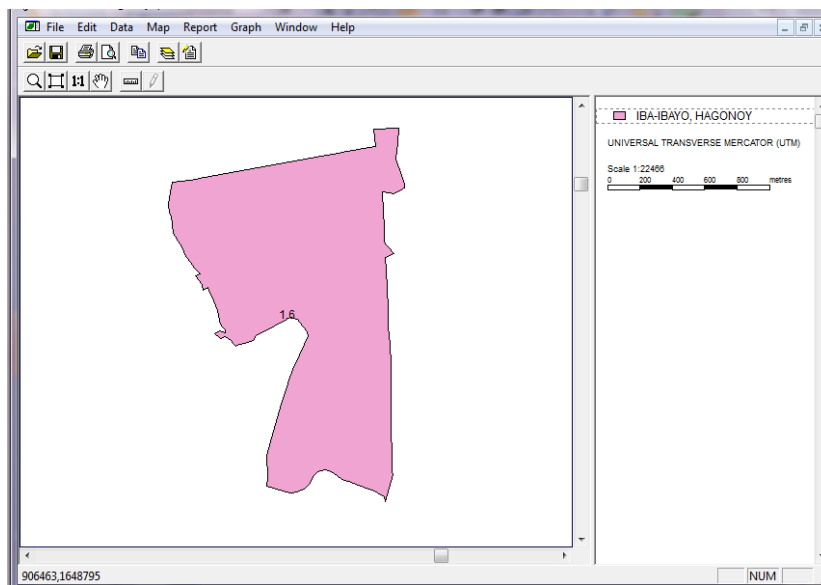
To generate a map, for example the proportion of households without access to safe water, then just follow the following steps:

1. Double click on the **Map Layer** icon. The following box will be displayed:
2. Click on **Add**. The following box will now be displayed:



- Under *Feature*, select **Barangay CBMS Core Indicators**.
- Under *Name*, select **the name of your barangay** (in this case, Brgy. Iba-Ibayo).
- Under *Display*, select **Barangay boundaries (polylines/polygons)**.
- Under *Label*, select **% of HHs experienced food shortage**.

3. Click **OK**. The following map will now be displayed:

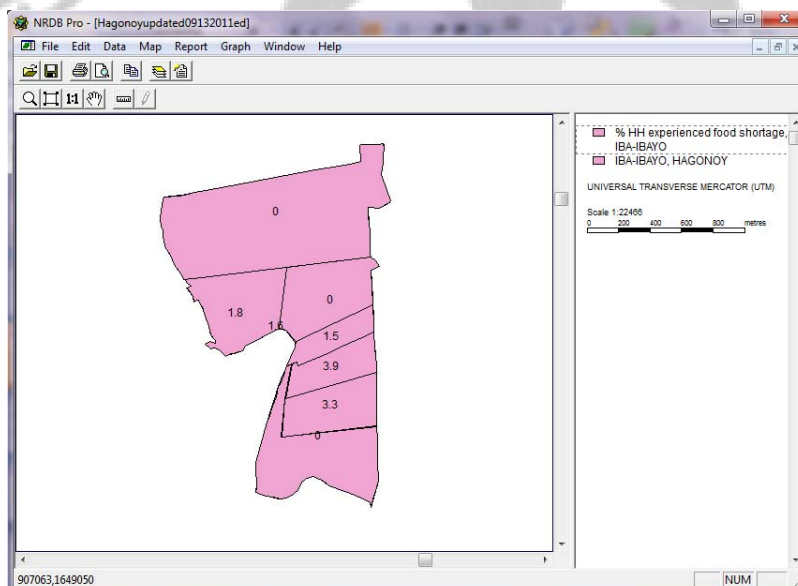


You can also display the access to safe water of each of the purok by clicking on the map layer icon.

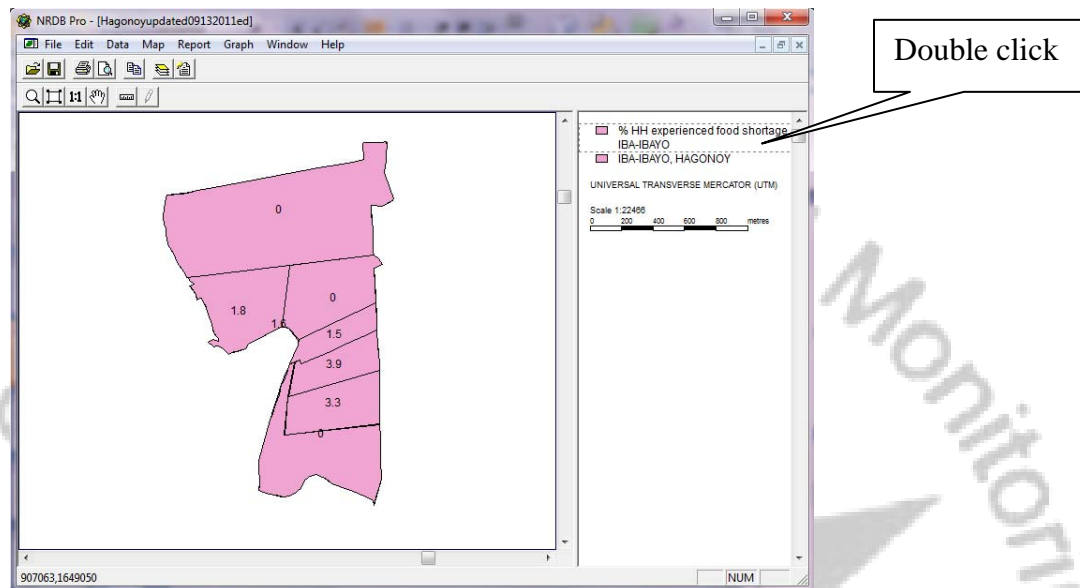
4. Click on **Add**. The following box will now be displayed:

- Under *Feature*, select **Purok CBMS Core Indicators**.
- Under *Name*, select **the name of the puroks of the barangay** (in this case, Brgy. Iba-ibayo).  
To select only puroks of Iba-Ibayo, click the button Select... Click Iba-Ibayo in the list of barangays and Select All at the bottom to select all Purok names under Iba-Ibayo
- Under *Display*, select **Purok boundaries (polylines/polygons)**.
- Under *Label*, select **% of HHs experienced food shortage**.

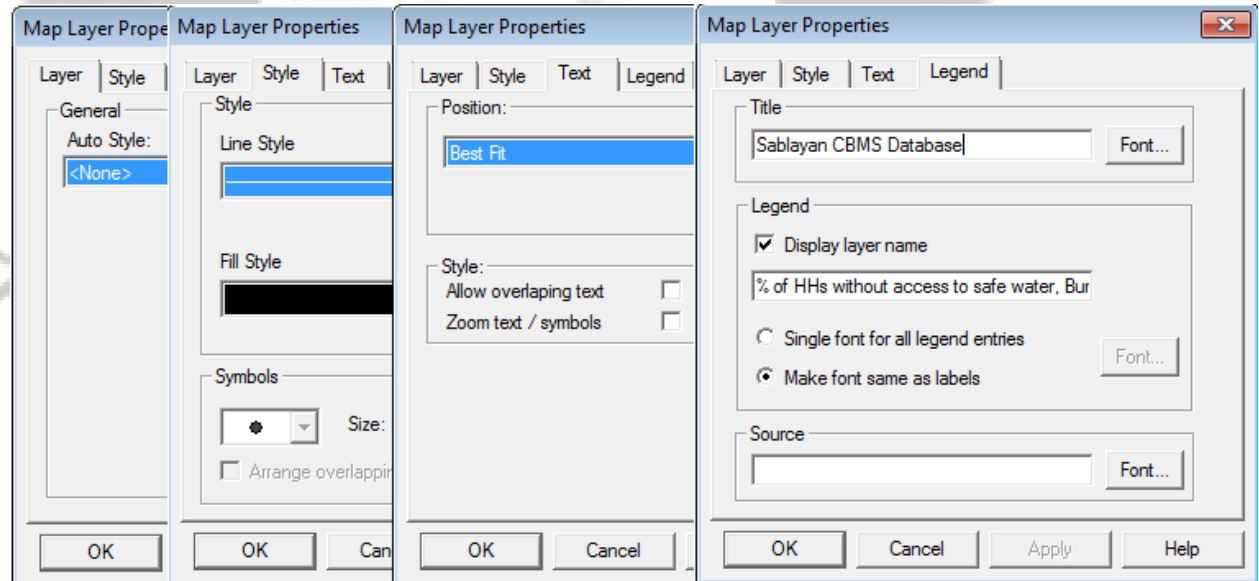
5. Click **OK**. The following map will now be displayed:



- To show which Puroks are performing better or worse than the others, we always use the following color scheme: *shades of blue*. That is, the darker the shade of blue, the better the situation of the Purok vis-à-vis the indicator. To do this, double click on the **% of HHS experienced** in the Map Layer View as shown below.



The properties of the map layer will now be displayed



- Select the **Layer** tab, click on the drop-down menu and select **Colour Range**. As the objective in CBMS poverty mapping is to show the problematic areas as compared to adjacent villages or subvillages, the standard CBMS poverty maps are divided into 4 ranges following the formula below.

1st Range:	A: 0	B: $(\text{Brgy data} - \text{min}/2) + \text{min}$
2nd Range:	C: B	D: Brgy data
3rd Range:	E: Brgy data	F: $(\text{max} - \text{Brgy data}/2) + \text{Brgy data}$
4th Range:	G: F	H: 100

Here are the steps:

- a. First, know the barangay data for the indicator:  
For example, the barangay data for Brgy Iba-Ibayo is 1.6.
- b. Sort the Purok data from lowest to highest  
0, 0, 0, 1.5, 1.8, 3.3, 3.9

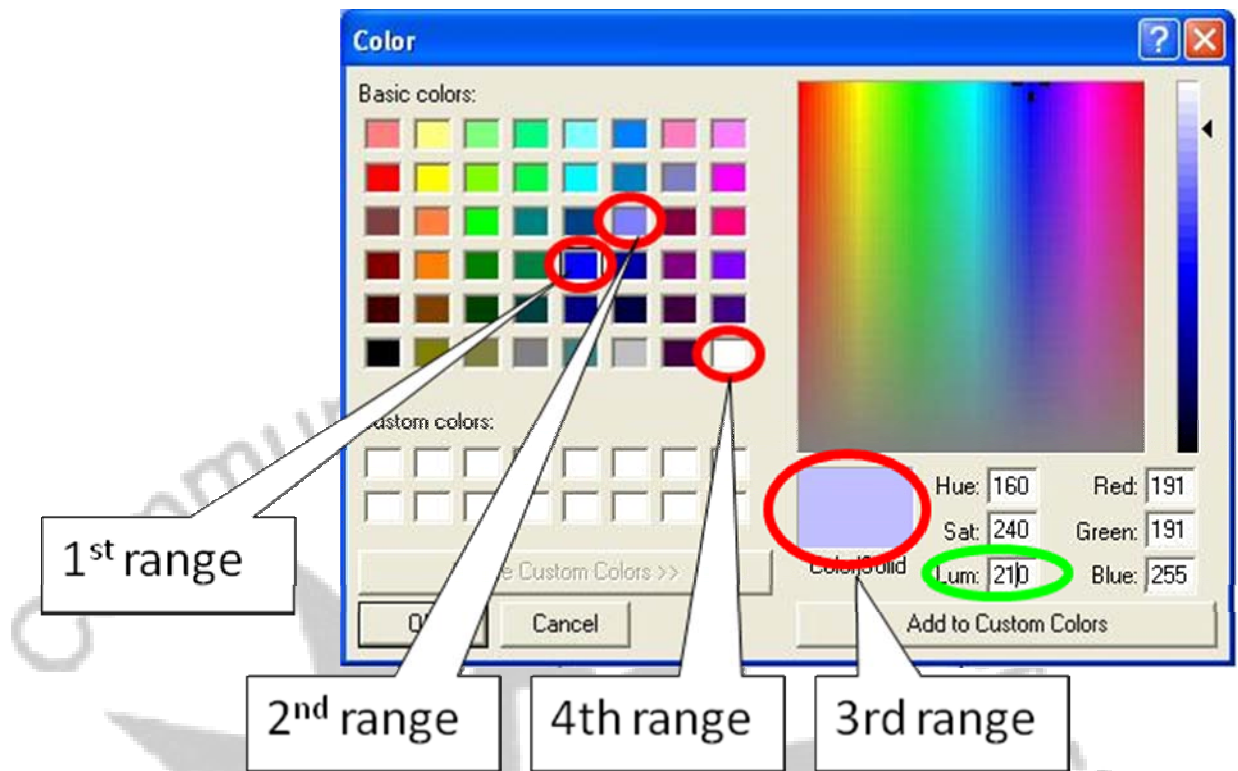
For all data on proportions or percentage: the minimum value for the 1<sup>st</sup> range is always **0** while the maximum is always **100**

The Brgy average is used as the mid cut-off.

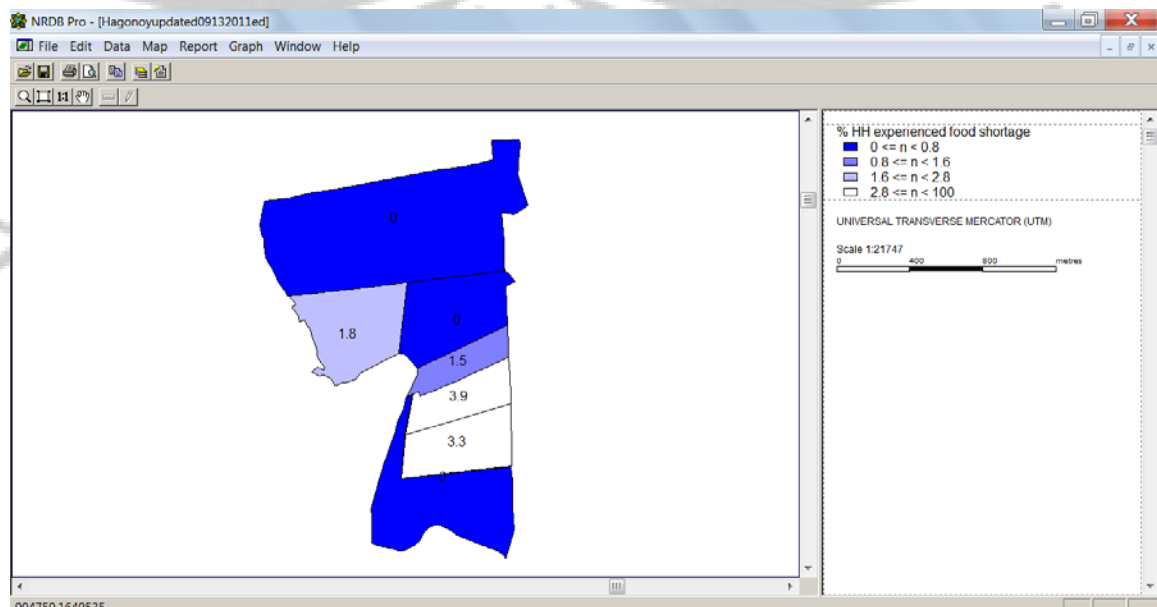
Min = 0 and Max = 3.9

1 <sup>st</sup> Range:	Min:0	Max: 0.8
2 <sup>nd</sup> Range:	Min:0.8	Max: 1.6
3 <sup>rd</sup> Range:	Min:1.6	Max: 2.7
4 <sup>th</sup> Range:	Min:2.7	Max: 100

8. Select the Layer tab, click on the drop-down menu and select Colour Range. You can now set your colour ranges.
9. Next, double-click on each of the boxes adjacent to the ranges to apply our color scheme.
  - **1<sup>st</sup> Range** - Hue: 160 / Saturation: 240 / Lumens: 120
  - **2<sup>nd</sup> Range** - Hue: 160 / Saturation: 240 / Lumens: 180
  - **3<sup>rd</sup> Range** - Hue: 160 / Saturation: 240 / Lumens: 210
  - **4<sup>th</sup> Range** - Hue: 160 / Saturation: 240 / Lumens: 240



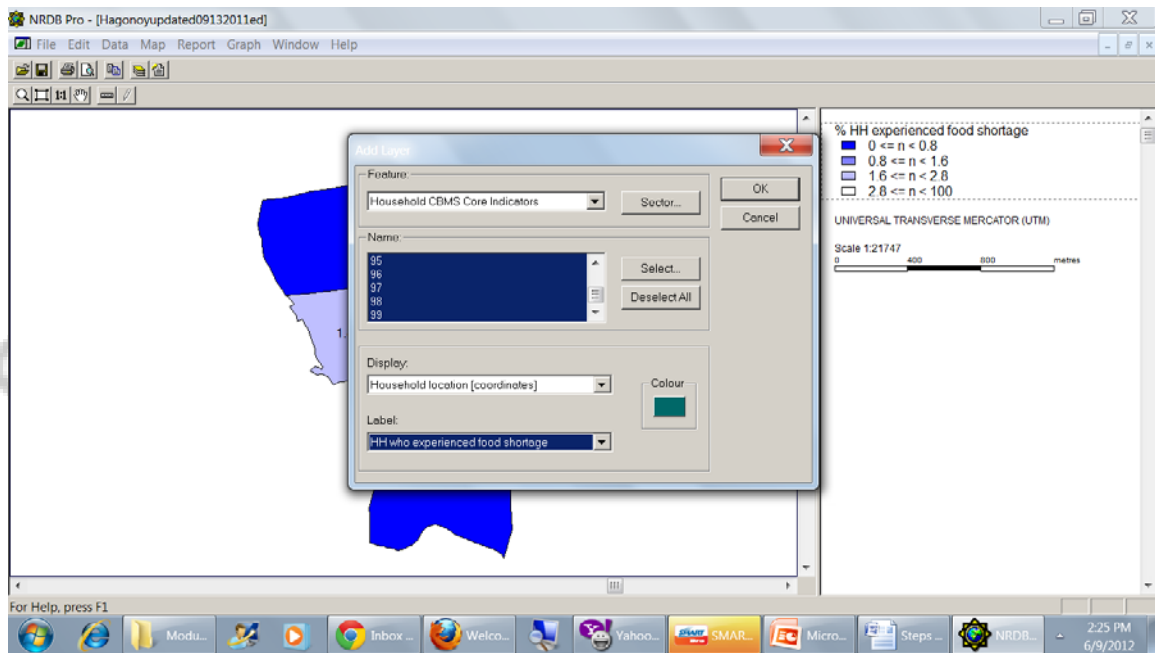
10. Click **OK**. The following map with our desired color scheme will now be displayed.



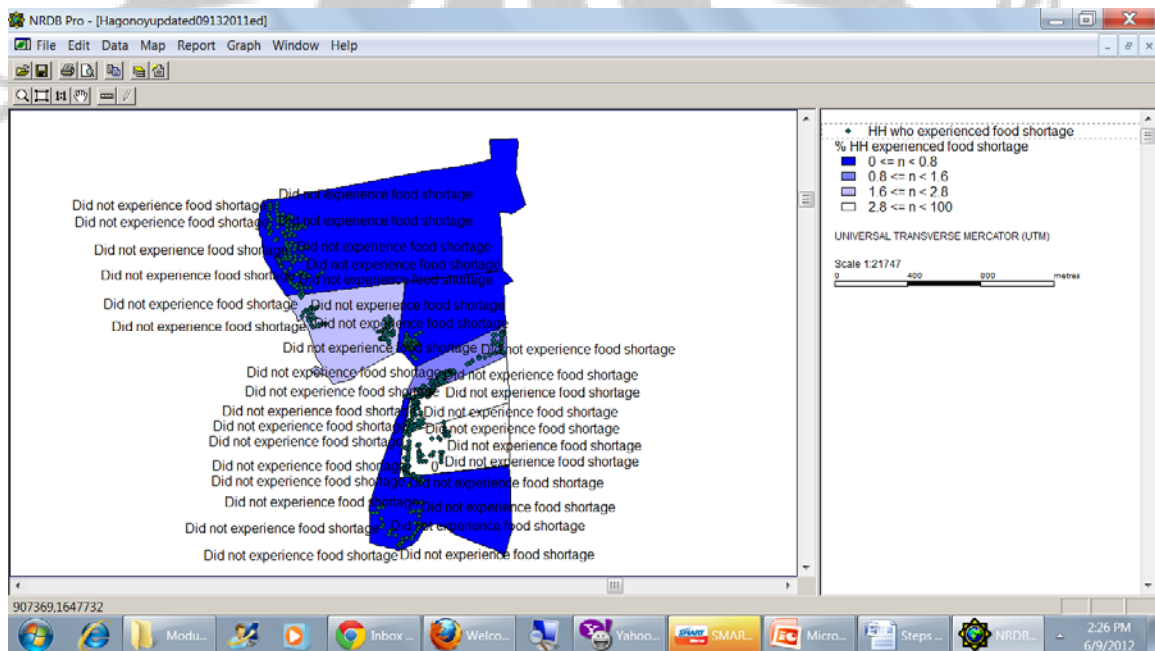
11. We are now ready to display another layer showing **% of HHs who experienced food shortage**. Click on **Map**, select **Map Layers**.

12. Click **Add**.

- Click on the drop-down menu under *Feature* and select **Household CBMS Core Indicators**.
- Under *Name*, select only the **Household IDs** in the barangay that you are currently processing.
- Under *Display*, select **Household Location (coordinates)**.
- Under *Label*, select **HH who experienced food shortage**.

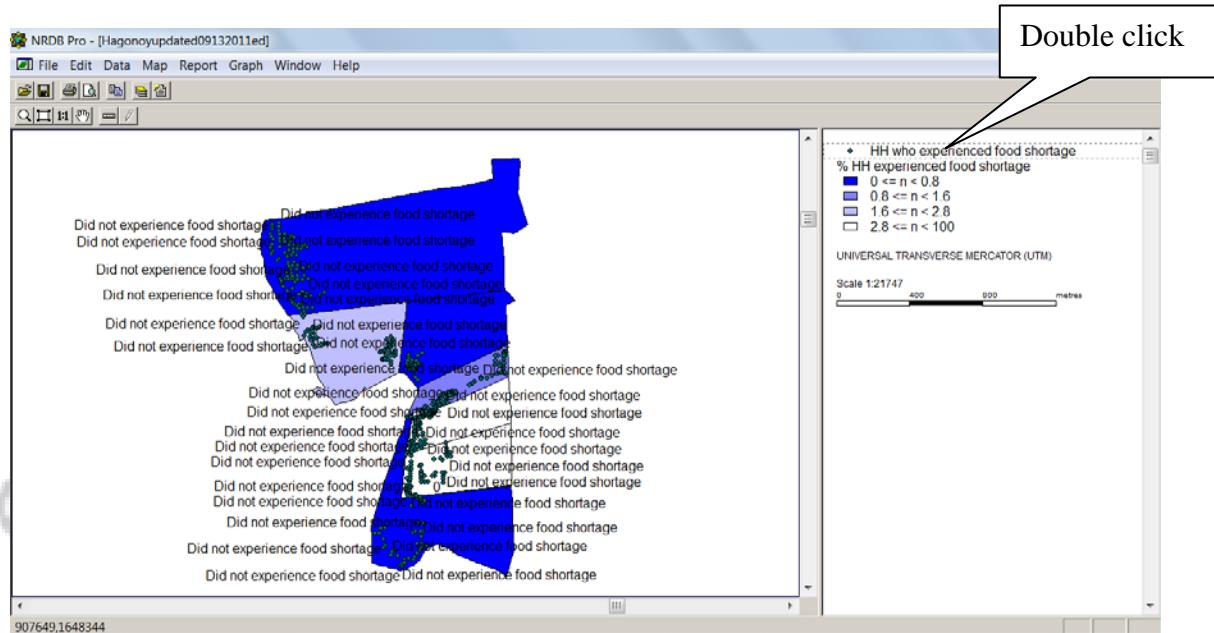


13. Click **OK**. The following map will now be displayed.

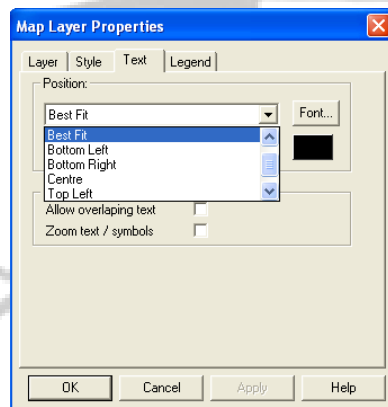




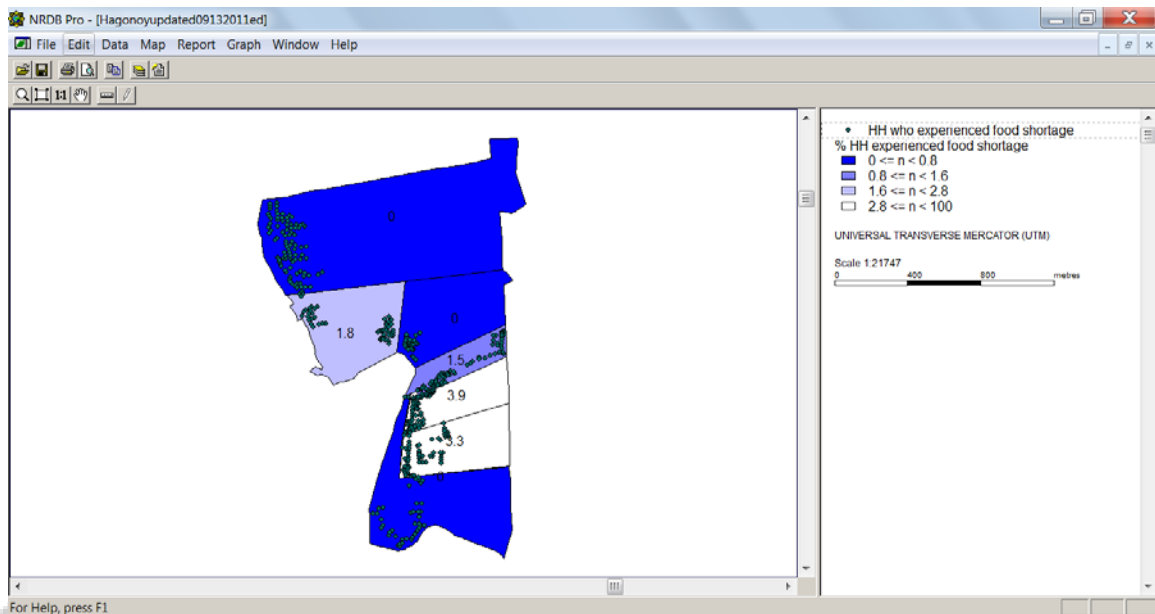
14. To remove the text adjacent to each household dot (e.g. experienced or did not experienced food shortage), double click on the map layer: **HH who experienced food shortage**.



The map layer properties will now be displayed. Go to the **Text** tab, click on the drop down menu and select **None**.



Click **OK**. The following map shall now be displayed:



15. In order to show which households experienced or did not experience food shortage, we will adopt another color scheme:

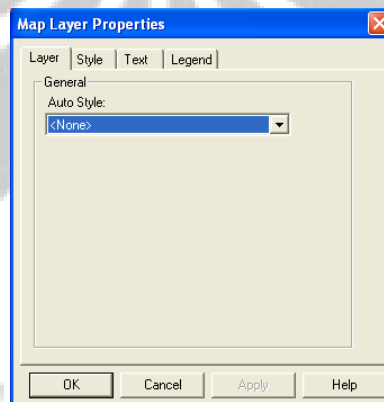
**Green Dots ● represent households who did not experience food shortage**

**Red dots ● represent households who experienced food shortage**

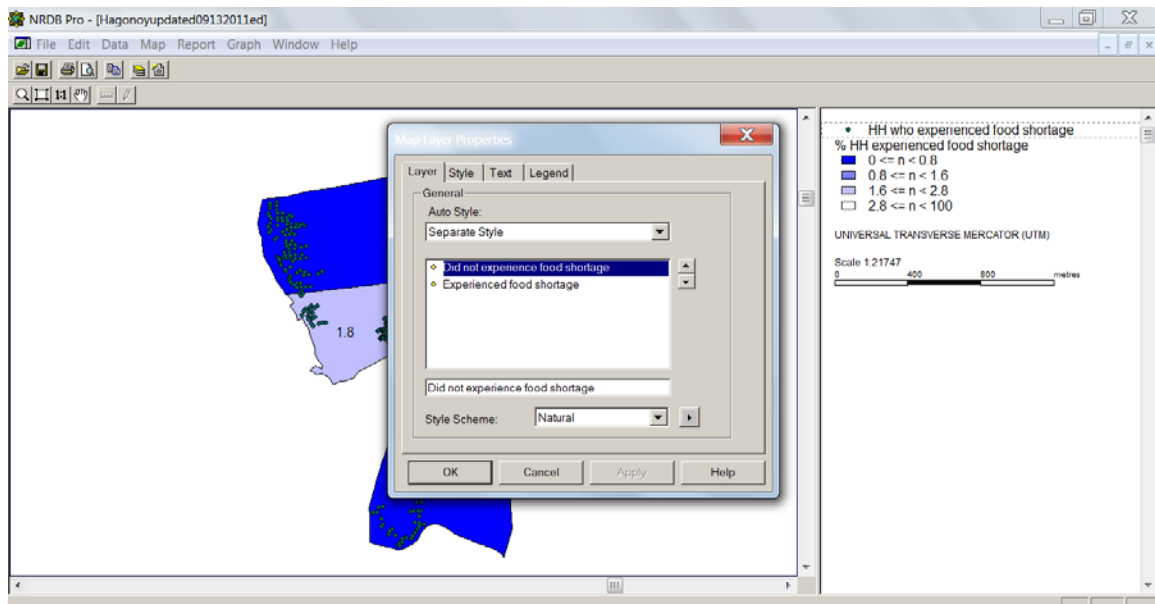
To do this, double click again on the map layer: **HH who experienced food shortage**

16. The properties of the map layer will now be displayed.

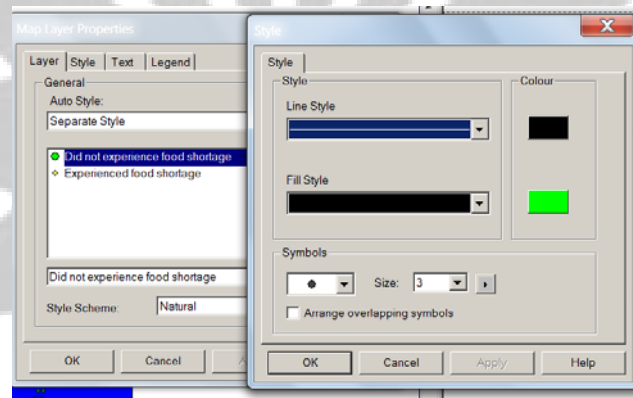
Double click



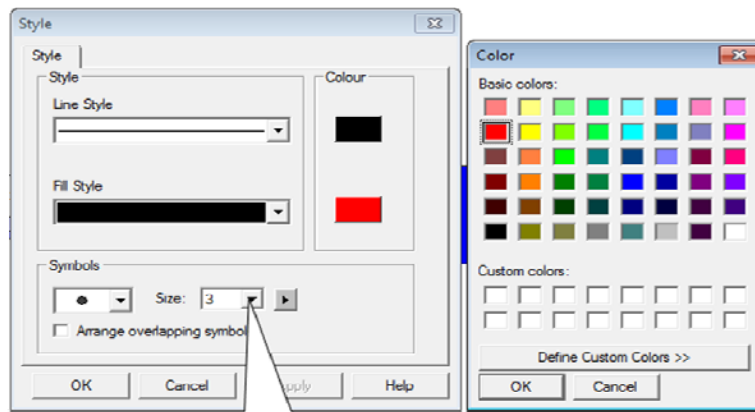
Select the **Layer** tab and then select **Separate Style**.



17. Double click on the dot adjacent to the text: Did not experience food shortage. Under Fill Style, select the **green** color

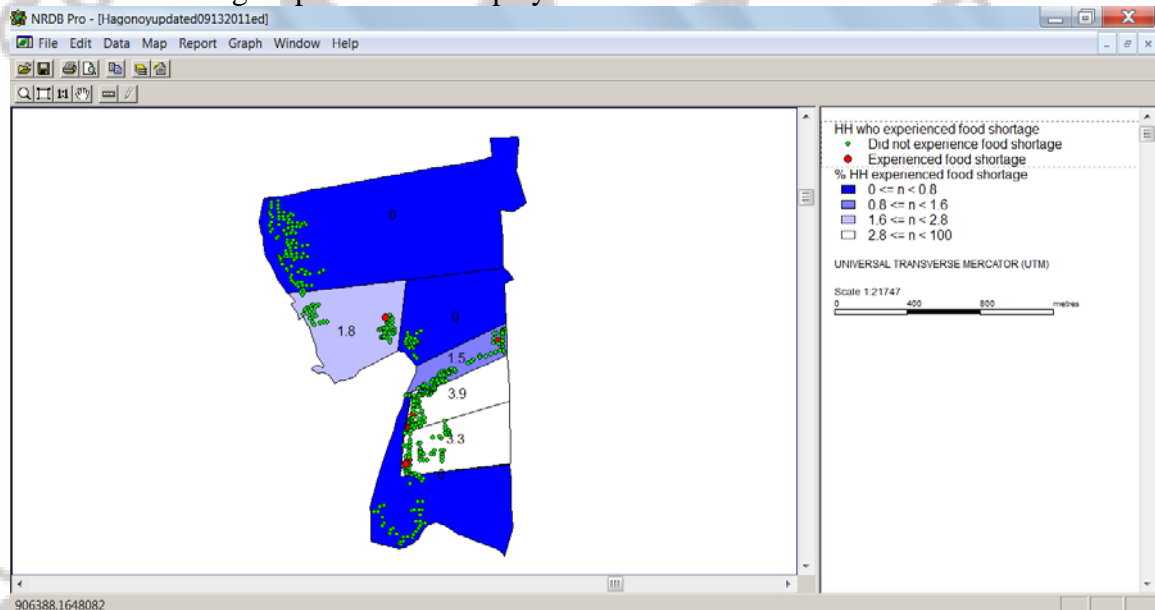


18. Next, double click on the dot adjacent to the text: **Experienced food shortage**. Under Fill Style, select the **red** color. Click **OK**. To emphasize the location of the households, increase the size of the household dots to 3.



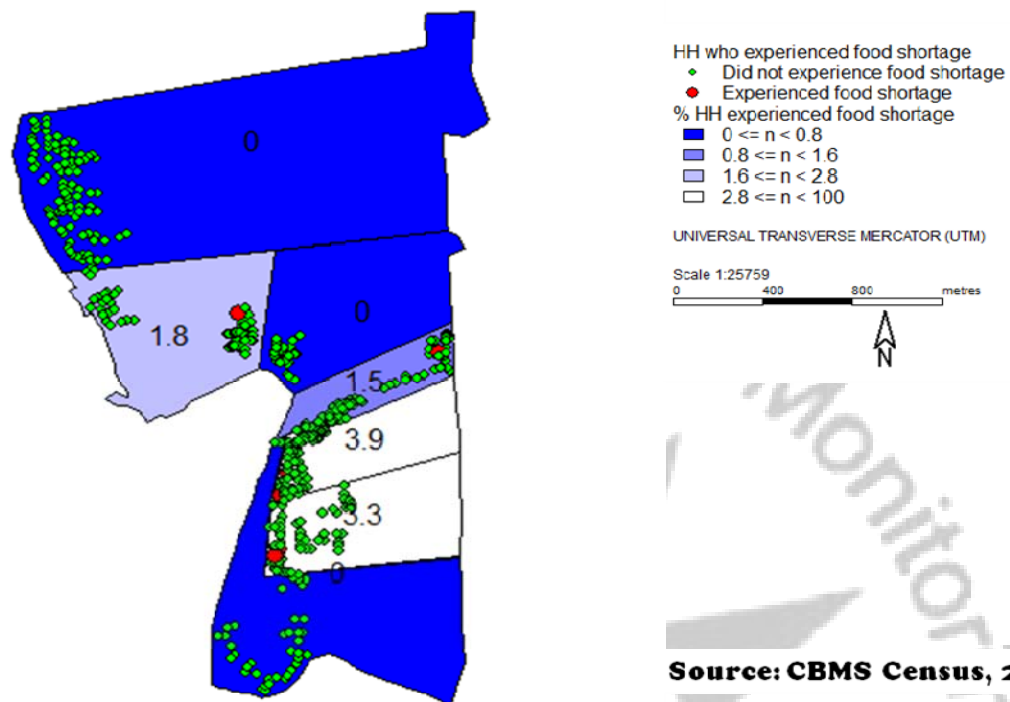
**Choose  
3**

The following map will no be displayed.



19. **Save your map layer.** You can also copy your map to a powerpoint slide for presentation purposes similar to the one displayed below.

**Proportion of households who experienced food shortage  
Brgy. Iba-Ibayo, Hagonoy, Bulacan**



**Source: CBMS Census, 2011**

