



DRMInfo 1.0 User Manual

14 January, 2010

EUROPEAN COMMISSION



Humanitarian Aid



Contents

Introduction	2
Getting started with DRMInfo 1.0	2
Selecting the Database.....	2
Browsing Information	3
Producing Maps - Manipulating Map Window	7
Overlaying Elements at Risk over Sources of Risk layers	11
Producing Maps for Lower Administrative Levels	12
Printing Maps	16
Displaying DRMInfo layers in Google Earth	19

Produced with funding support from the European Commission’s Humanitarian Aid department (ECHO)

DRMInfo 1.0 User Manual

Introduction

DRMInfo is a tool for organizing, analyzing and presenting geographical, socio-economic and other useful scientific information to support Disaster Risk Management decisions. It is an adaptation of the UNICEF DevInfo 6.0 software for specific use in Timor-Leste, and contains local maps and information.

National Disaster Management Directorate staff and members of District Disaster Management Committees are the principal operators of DRMInfo. These staff should have a basic capacity to operate Windows software. They will use DRMInfo to prepare information products; primarily thematic maps, but also tables and graphs, which show the nature of the disaster risk environment at the national, district and lower administrative levels. In the course of their risk assessment activities, members of Disaster Management Committees may go to the National Disaster Operations Centre or District DOCs to request specific information products to be made for them using the DRMInfo resources available at those sites.

The use of DRMInfo, as well as the data contained within it, is structured according to the following principle: “Sources of risk”, such as floods, drought, high winds and pests; and “elements at risk”; such as houses, infrastructure and crops; interact to produce disaster risk situations with a range of likelihoods and severities. Accordingly, DRMInfo organizes its information into those two categories.

This user manual is focused on how DRMInfo can be used for producing disaster risk maps for analysis, according to the interest of the user.

After working through this manual, the reader who has DRMInfo software on their computer should be able to produce maps of any suco, sub-district or district in Timor-Leste that provide a description of the risk environment.

Getting started with DRMInfo 1.0

Double-click the DRMInfo1.0 icon on the desktop to start the software.

Selecting the Database

In order to browse information in DRMInfo you need access to the database where the data are stored. The DRMInfo.mdb database contains data related to DRM.

Steps for selecting the database:

- Click on **Database Menu** at the upper left corner of the DRMInfo screen shown in Figure 1; a database **selection window** will appear.
- Click on **DRMInfo.mdb** to choose that database.
- Click the **OK** button.

Now you are connected with the DRMInfo database and can access its information.

(Note: The DRMInfo.mdb is by default installed inside C:\DevInfo\DevInfo 6.0\DRMInfo 1.0\Data. If you could not find in the list you have to navigate to above folder using **More** option from database selection window.)

DRMInfo 1.0 User Manual



Figure 1 Select database

Browsing Information

You can browse the information using DRMInfo tool in two ways: by **Indicator** or by **Area**. Here we will explain the process of accessing information according to Indicator.

Now that you have selected a database, click **Start**. Figure 2 shows the window that will appear, offering a choice of Indicator or Area .

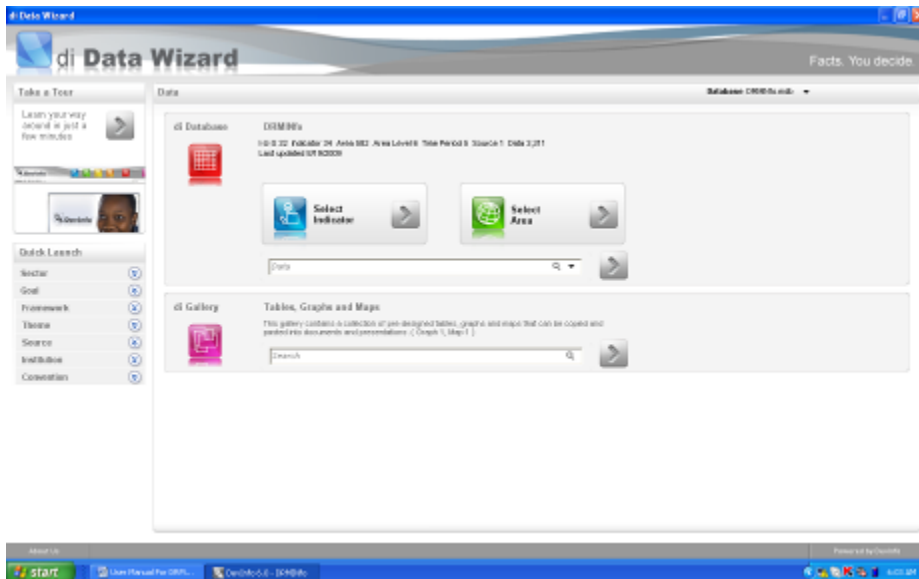


Figure 2 Select Indicator

Click **Select Indicator** to see a list of Indicators that DRMInfo will display.

DRMInfo 1.0 User Manual

Click at **Tree View** just above the Indicator Display window to show the Indicator Classification Window, as in Figure 3

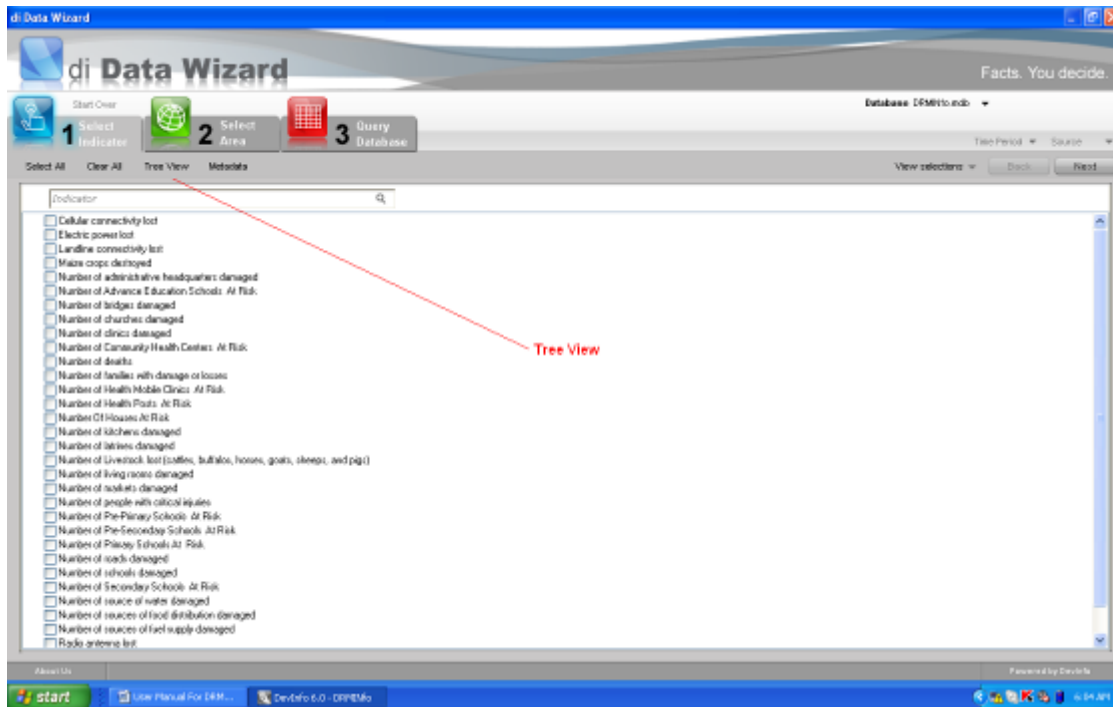


Figure 3 Tree View

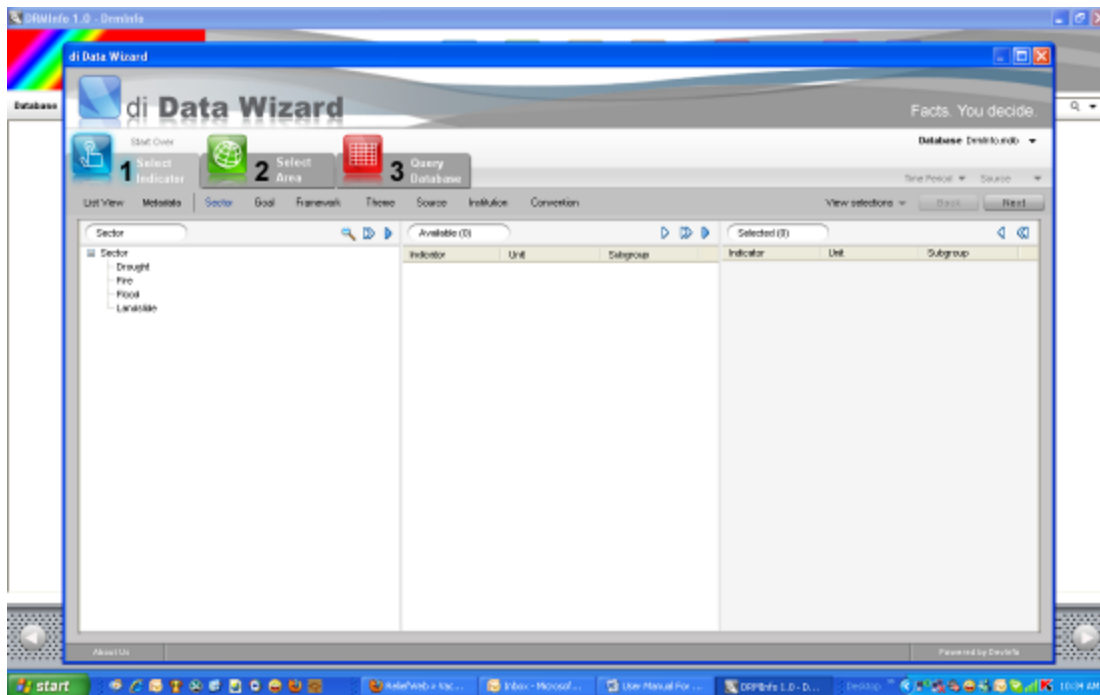


Figure 4 Sectors – Showing the types of hazards that are covered in DRMInfo

Click on Sector Option, shown in Figure 5. Then Choose Type of Risk. For example, Flood.

DRMInfo 1.0 User Manual

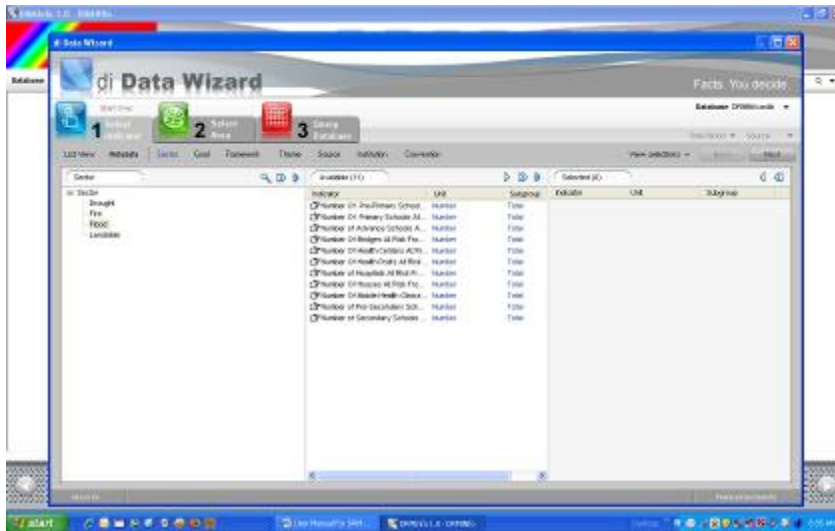


Figure 5 Figure Showing Indicators List to Select.

Double Click each required Indicator in the list below the **Available ()** heading and the selected Indicators will appear below the **Selected ()** heading, as shown in Figure 6.



Figure 6 Selected indicators

Click Next on the upper right corner above Available Tab. Now the Area Selection Screen will appear, as shown in Figure 7.

DRMInfo 1.0 User Manual

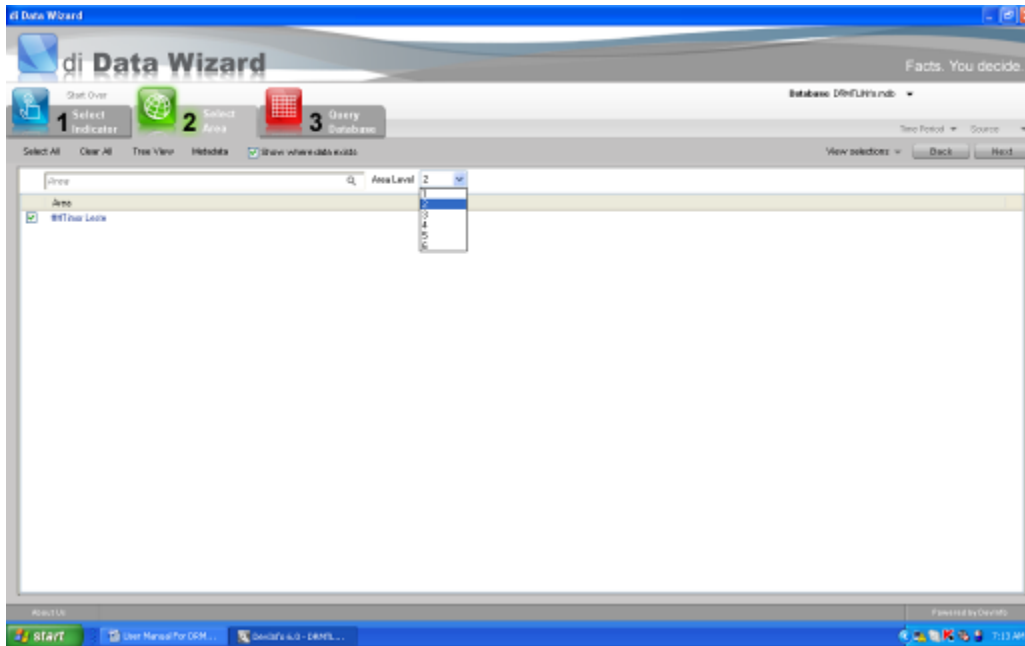


Figure 7 Area selection

Choose an **Area Level** from the drop down menu to see information at that level:

- 1 Asia
- 2 Timor-Leste
- 3 Regions
- 4 Districts
- 5 Sub Districts
- 6 Sucos

The corresponding **Area** level name will display. See Figure 8.

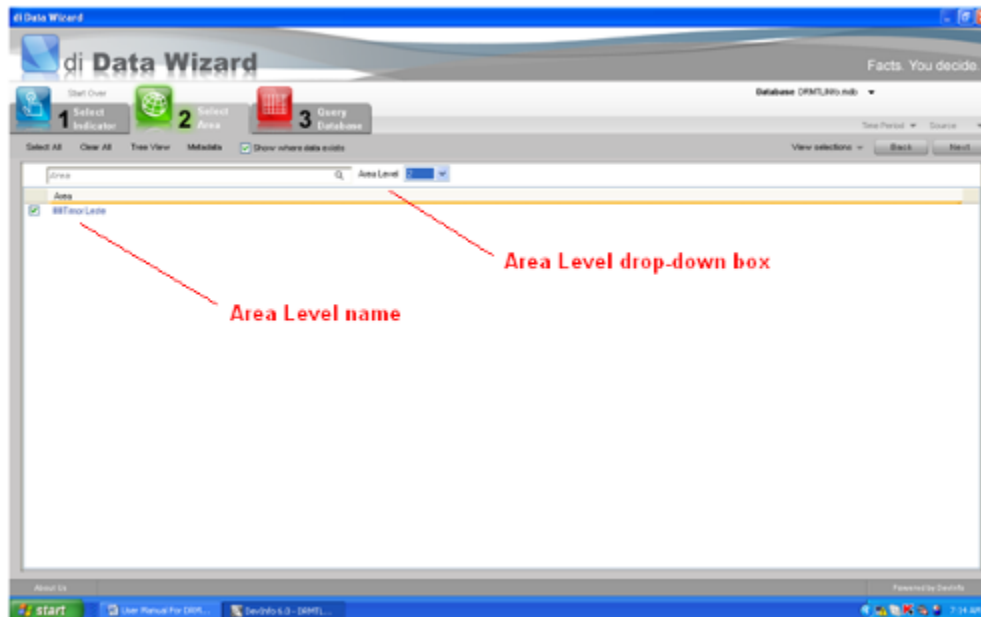
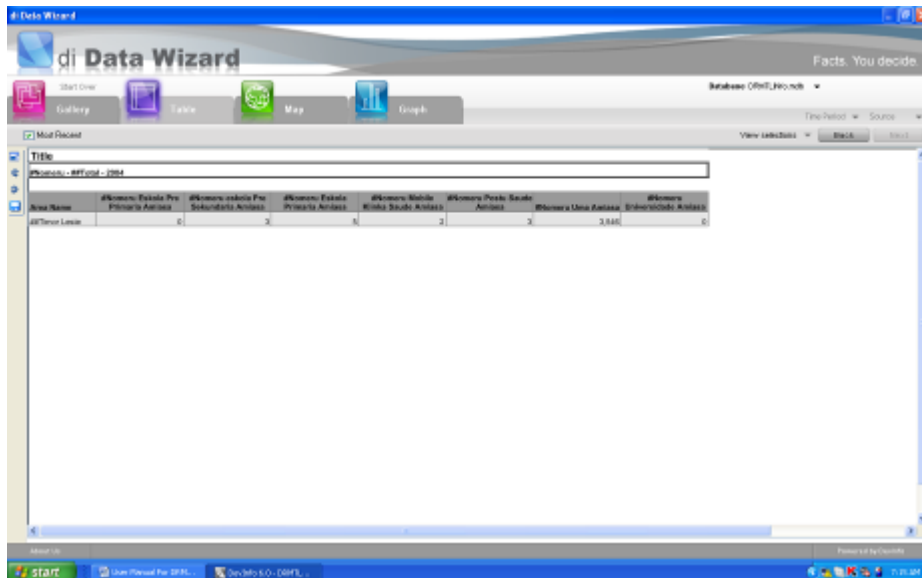


Figure 8 Area names

DRMInfo 1.0 User Manual

(Note: It is necessary to see whether “Show where data exists” option above Area Level button is checked or unchecked. If it is checked it displays area levels where they are data for display. If no data has been input you will not be able to see the list of Area you have selected.)

Select the required **Areas** and click **Next**. The statistics corresponding to the selected indicators and areas will display in the form of a table, map and graph when you click on those buttons. See Figure 9, which shows the **Table** view.



Area Name	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6	Indicator 7	Indicator 8
All Areas	x	x	x	x	x	x	3,888	0

Figure 9 Table view

(Note: Option for manipulating Tables is also available but it is not explained in this user manual because we are more focused on producing maps by following step by step procedures illustrated in this manual.)

Producing Maps - Manipulating Map Window

It is necessary to explain how DRMInfo puts together map components on request of the user. Firstly, DRMInfo produces a base layer of the Area level you have selected for browsing information, for example, Area 4 is District level. The base layer consists only of the administrative boundary. The user then has the functionality to add other relevant layers on the top of the base layer. So, the basic idea of producing maps in DRMInfo is to select indicators that will overlay layers of “sources of risk” and/or “elements at risk”. This allows for analysis of the risk scenario.

It is useful to understand that DRMInfo is not capable of producing any new layers from raw data, as could a powerful GIS such as ArcGIS; but it can display the pre-produced layers and combine them according to the needs of the user - and give precise geographic information for selected area and indicators. DRMInfo provides the functionality of producing tailored risk maps of the area of interest, and print them out for further use as required. DRMInfo allows the user who has limited knowledge of GIS software and GIS techniques to reproduce risk maps of their area of interest with an easily followed procedure.

DRMInfo 1.0 User Manual

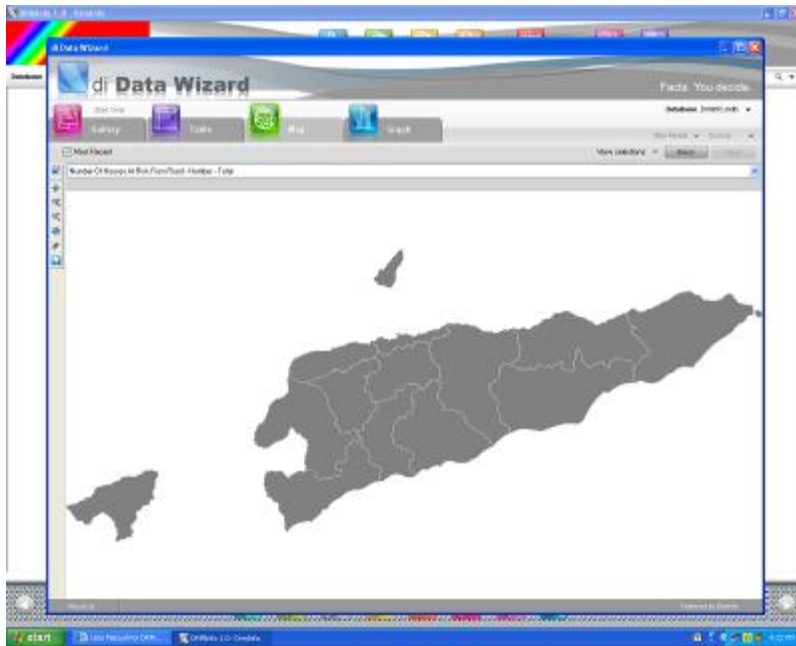



Figure 10 Map window

In the **Map** window shown in Figure 10, click on the **Enlarge** button  on the left side of the map to open a new window that displays the map with symbology controls. See Figure 11.

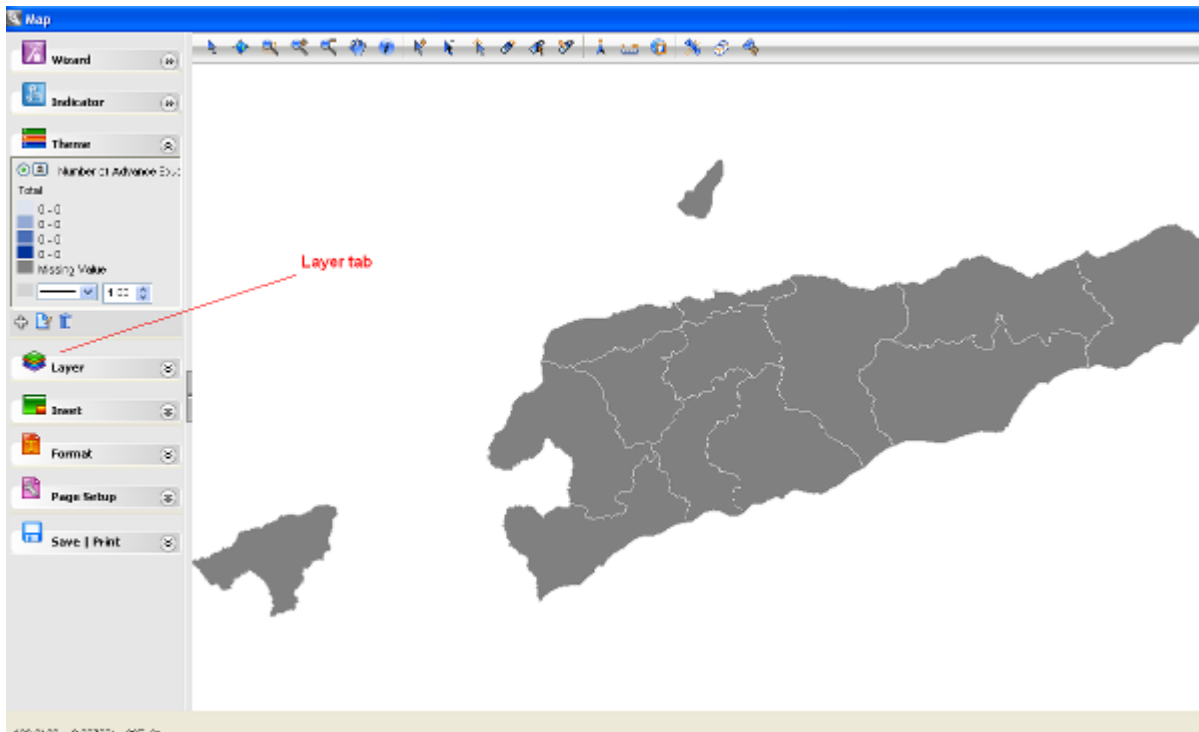


Figure 11 Layer view

Click the **Add Layer** tab to the left of the map, as shown in Figure 12.

DRMInfo 1.0 User Manual

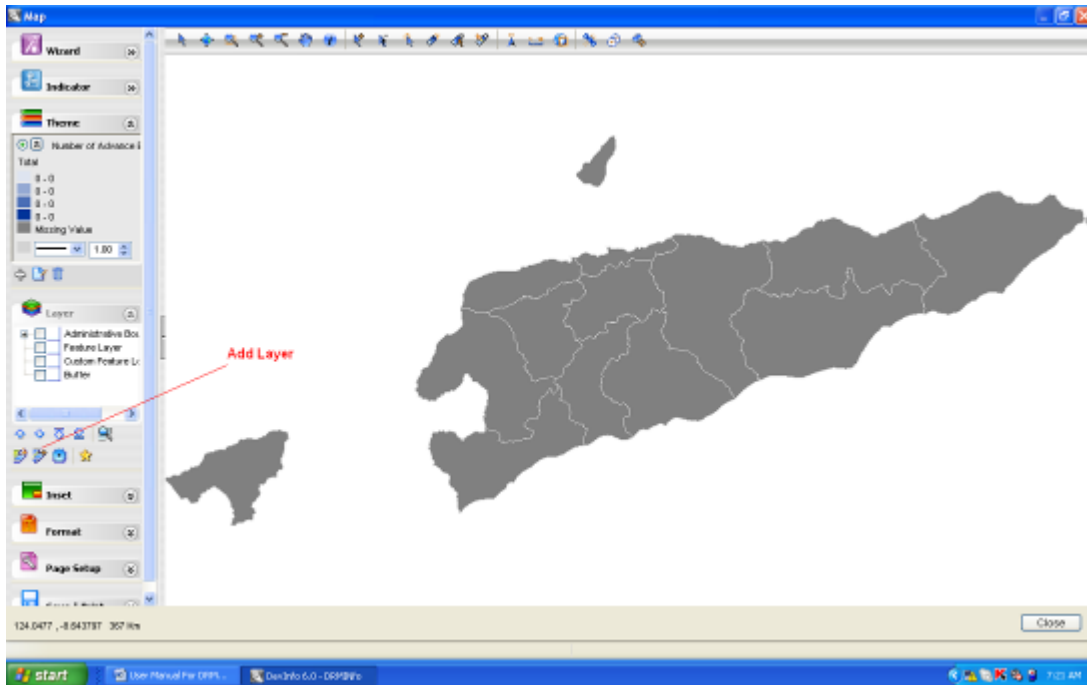


Figure 12 Add layer

To choose a layer, click **Browse** at the bottom of the **Add Layer** window, as shown in Figure 13.

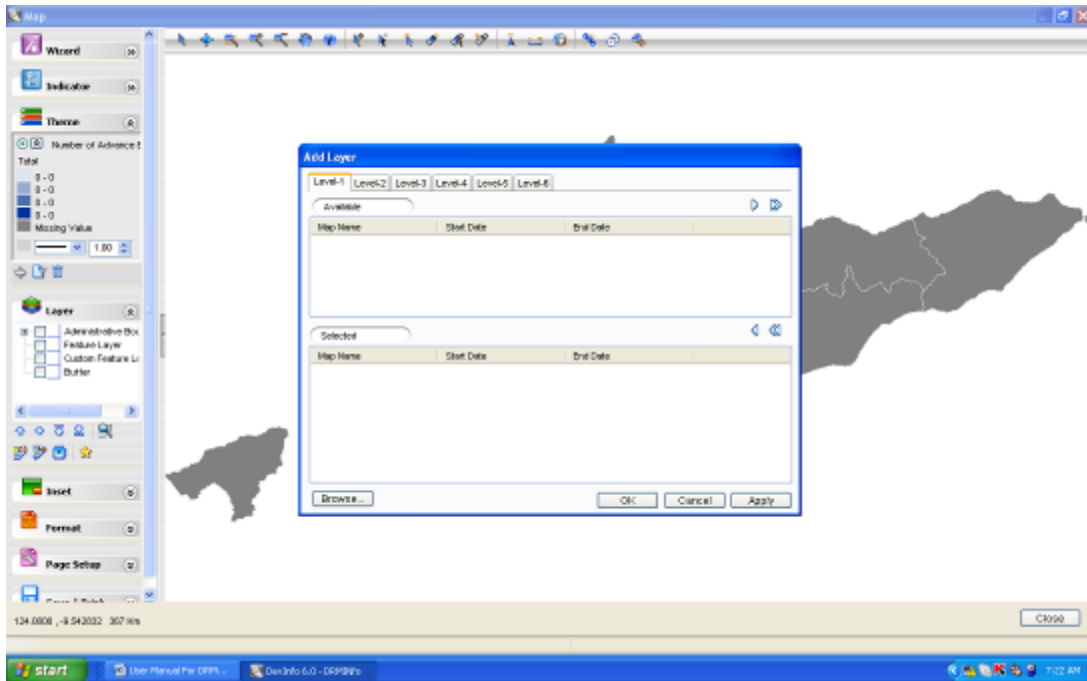


Figure 13 Choose Browse

DRMInfo 1.0 User Manual

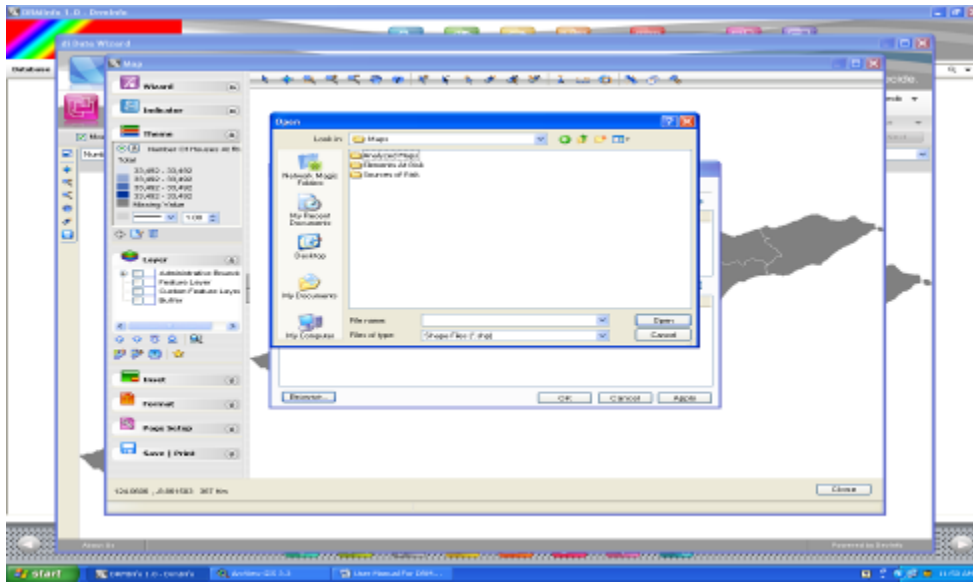


Figure 14 Open layer

In the Layer window shown in Figure 134, choose the folder you want to add in the map, and then click **Open**.

*(Note: Here inside maps folder, maps are categorized as **Sources of Risk** and **Elements at Risk**. Also, there are some pre-analyzed layers of maps for your reference. For overlaying maps over the main base map you should first be clear of which risk indicator you have selected through the indicator selection window and find out the corresponding map layers inside the folder, **Sources of Risk** and **Elements at Risk**. It is a good idea first to overlay **Sources of Risk** and then **Elements at Risk** respectively).*

Click **Sources of Risk** Folder and Click at **Open** command button to open it.

You will get the following windows as shown in Fig 14 where you will choose the **sources of risk** layer.

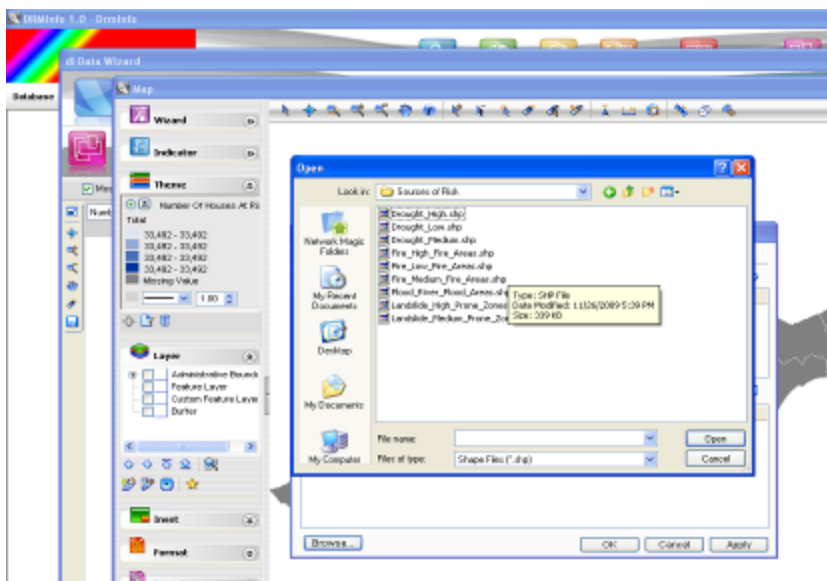


Fig 15 Map with Sources of Risk selection window.

DRMInfo 1.0 User Manual

Select the **Source of Risk** you require (For Example Flood_River_Flood_Areas)

You will get the layer name in the map selection window

Click **OK**

The resulting map with the new layer overlaid is shown below in Figure 16.

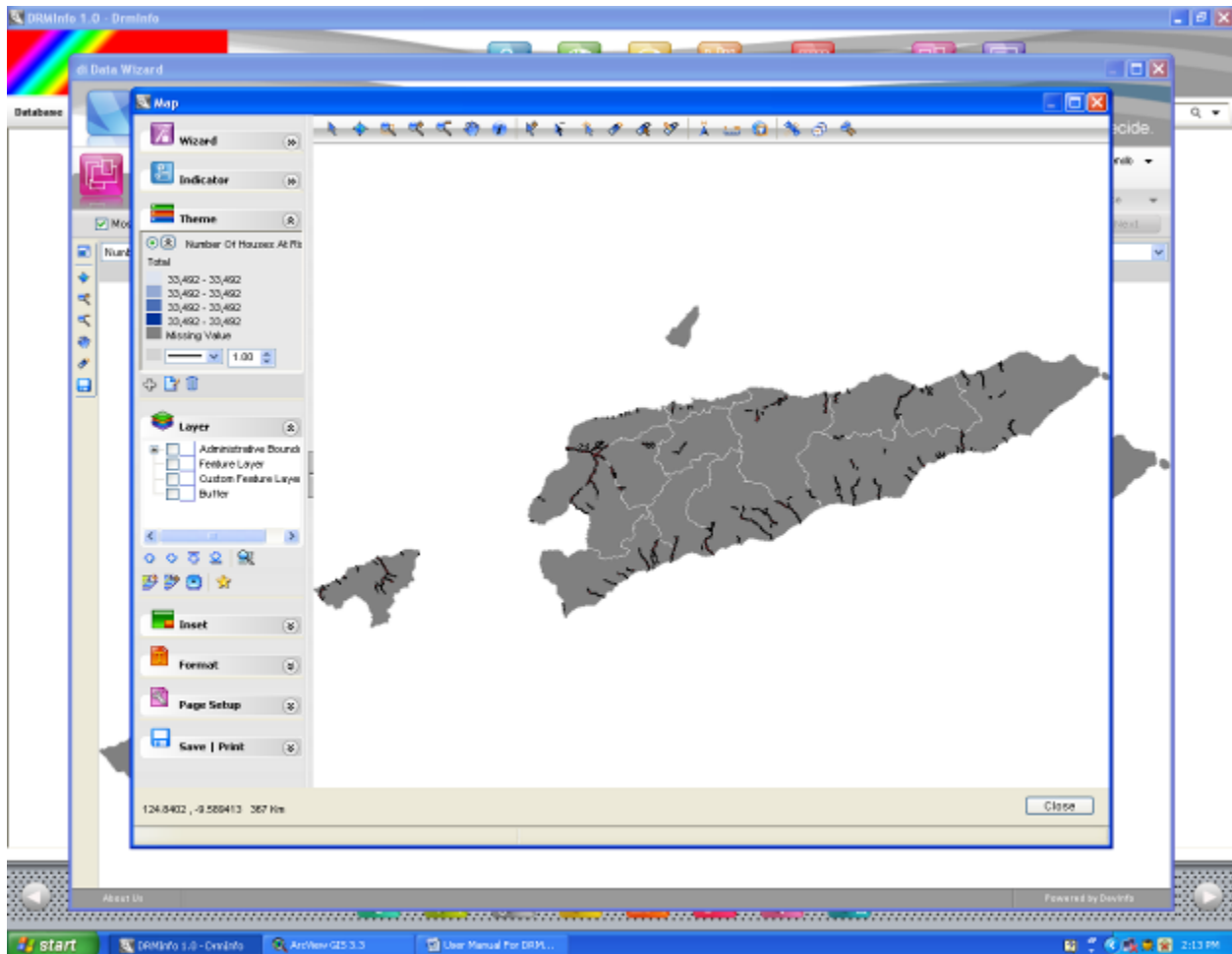


Figure 16 Map with new layer

Overlaying Elements at Risk over Sources of Risk layers

Now you can overlay the **elements at risk** layer. (Example: Number of houses at high flood risk).

Now follow the procedure of adding layers again.

Click **Add Layer** Icon again. You will get the same window as Figure 13.

Click **Browse** again. You will get the same window as Figure 14.

Choose folder **Elements at Risk** as Figure 17 and click **Open**

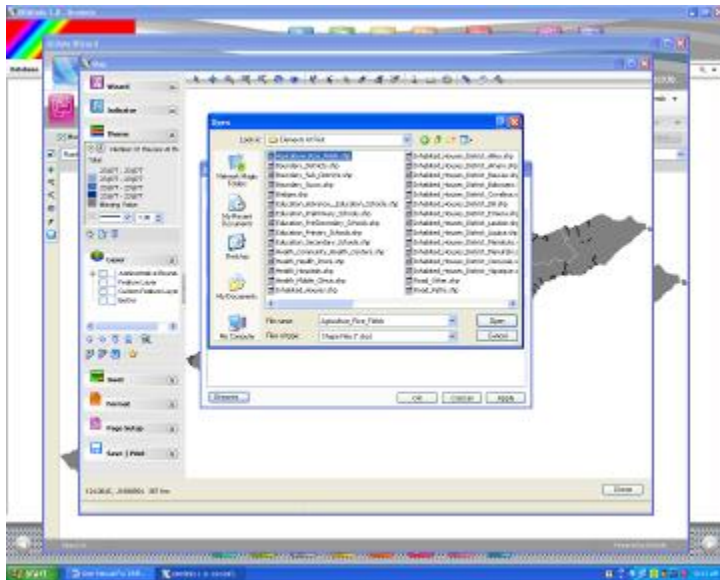


Figure 17 Window showing list of Elements at Risk.

Click **Inhabited_Houses** Layer and click **Open**

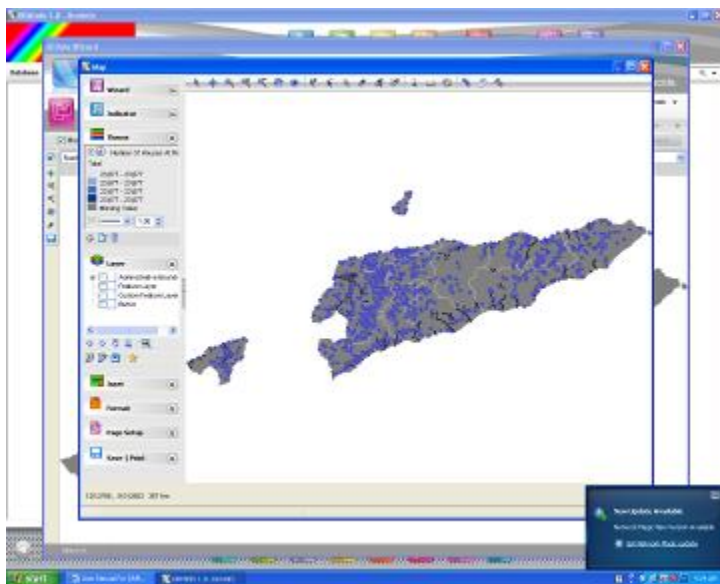


Figure 18. A map with combination of elements and sources of risk

Now the map with the combination of sources of risk and element at risk is displayed where you can analyze the situation and find out which houses are at risk areas and which are not. Following the similar process you can easily overlay other elements and other different sources of risk to produce map of your interest.

Producing Maps for Lower Administrative Levels

If you are able to produce the respective layers for national level, you will also be able to produce the same layers for other administrative levels because DRMInfo has ability to handle administrative area based information and map features. You should understand the **Area** levels we have supplied in the

DRMInfo 1.0 User Manual

database such as 1, 2, 3, 4, 5, and 6 correspond to “Asia”, “Timor-Leste”, “Regions”, “Districts”, “Sub-districts” and “Sucos” respectively. You can simply overlay the desired **Area** level map for respective area and zoom into it to produce map. The detailed illustration is given below:

Now, go back and follow the procedure to produce the map similar to Figure 16.

Choose **Level 4** from the **Area** Level selection window to produce information for district level areas.

Click on **Add Layer** Icon again. The window as shown in Figure 19 Window appears.

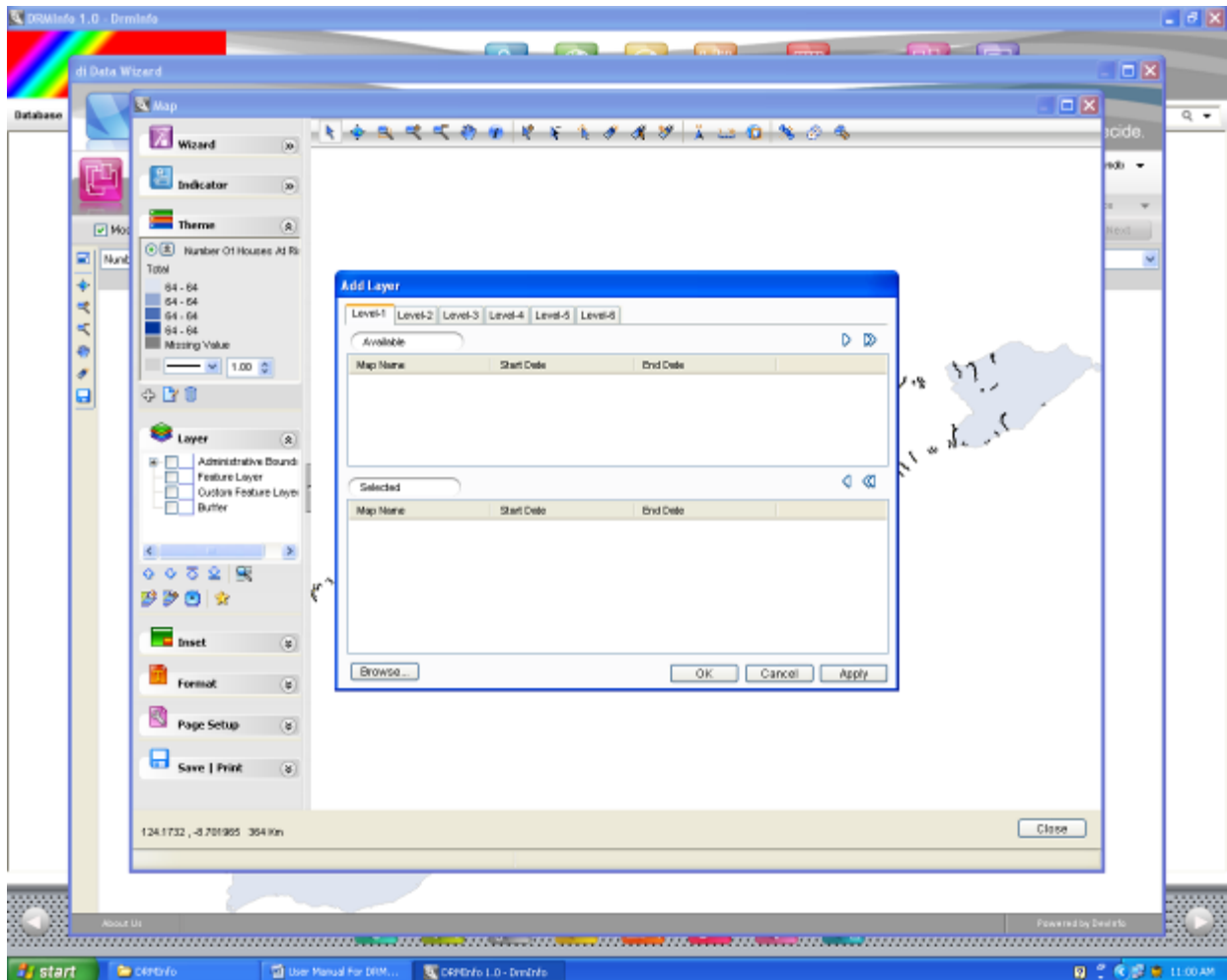


Figure 19. Map with Sources of Risk and District Level Boundary.

Click **Browse** to add elements at Risk

Navigate to the folder **Elements at Risk**

Click at **Inhabited_Houses_District_Lautem.shp** layer file and click **Open**

Click **OK**

The resulting map as shown in Figure 20 appears

DRMInfo 1.0 User Manual

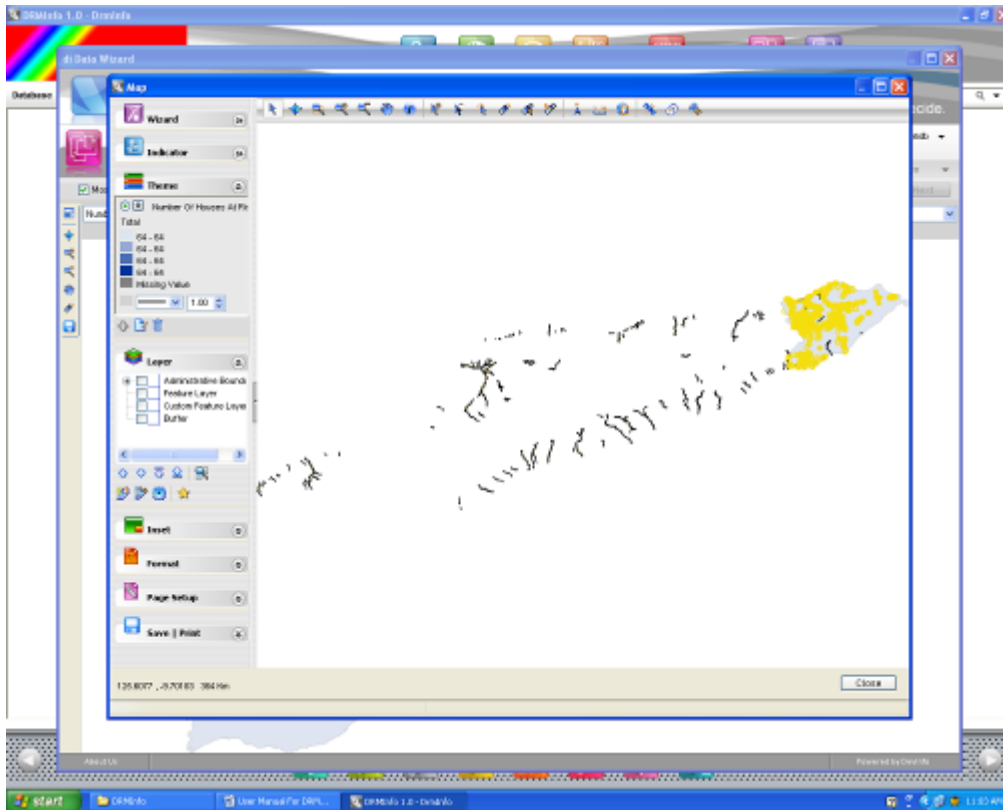


Figure 20 Map showing Sources of Risk and Elements at Risk for the Selected area.



Click on Select to Highlight Icon above the map window.

Click inside the boundary of Lautem District as shown in Figure 21 below.

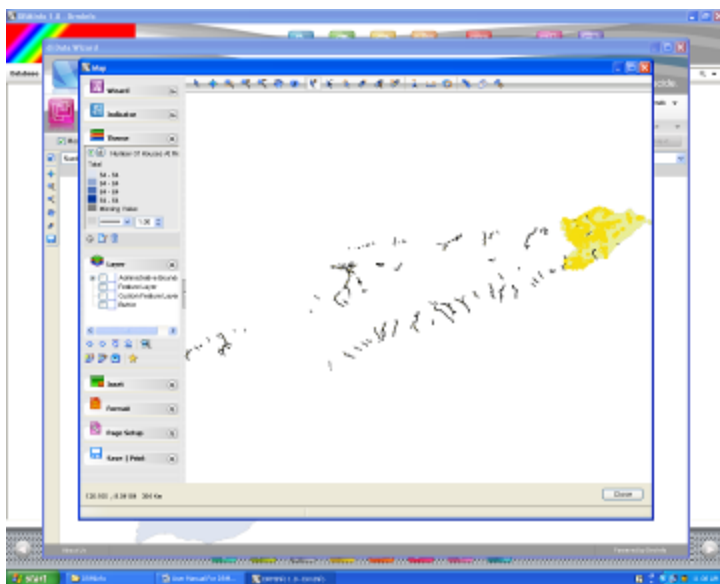


Figure 21 Map with Selected Area Highlighted

DRMInfo 1.0 User Manual

You will notice that the whole Lautem district is highlighted now.



Click at Zoom to Highlight Icon above the map window.



Click at Remove Highlight Icon over the map window to remove highlight.

The resulting map as shown in Figure 22 appears

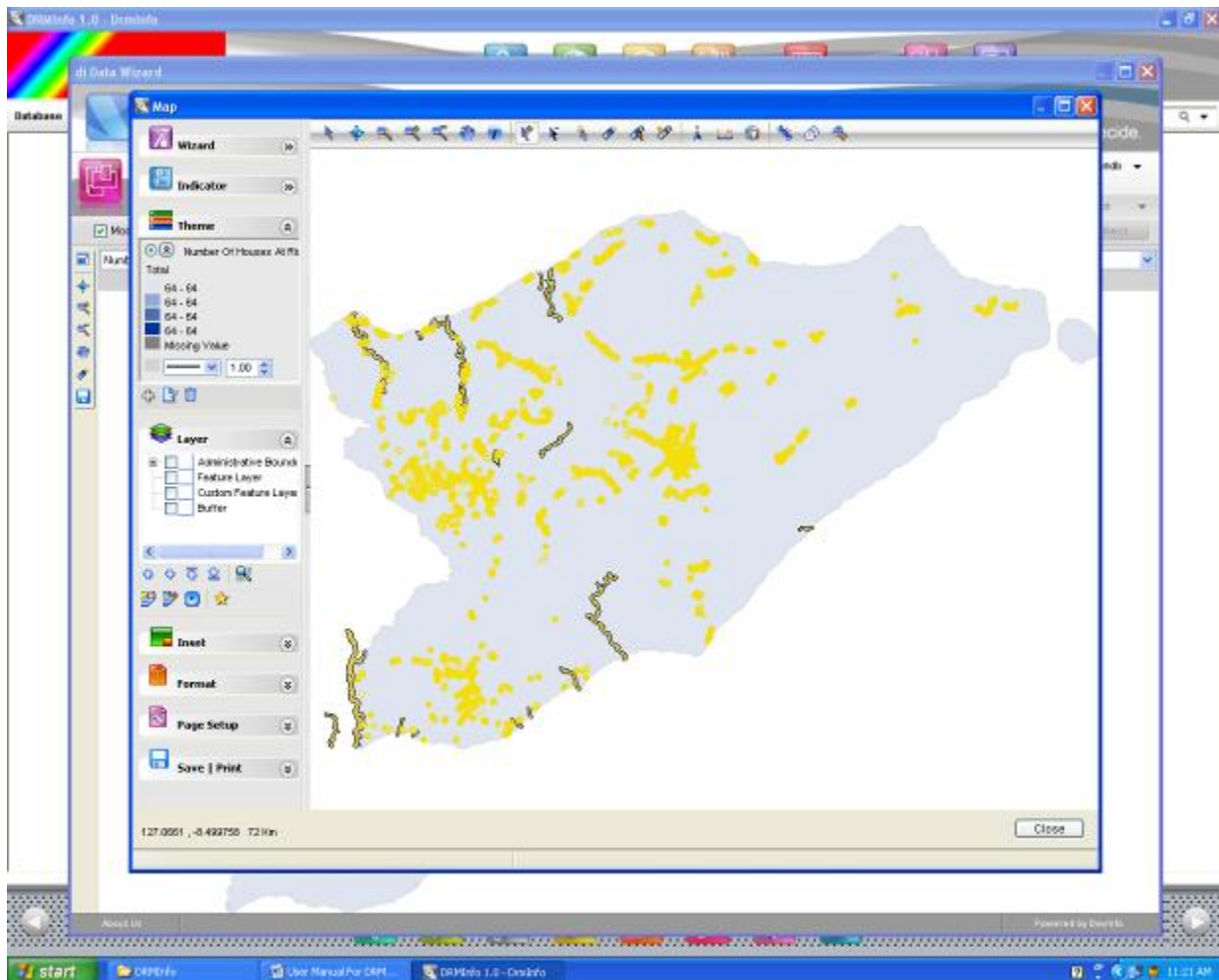
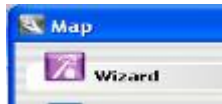


Figure 22. Zoomed in Map for Lautem District with sources of risk and elements at risk layers overlaid

Printing Maps

For a good quality map, other map elements such as North Compass, Scale Bar and Title of Map should be added in the map before printing. To add the above mentioned elements follow the procedures illustrated below:



Click at Wizard option in the map window.



Click at North Icon over map window to insert North Compass



Click at Scale Icon over map window to insert Scale Bar.

The resulting map as shown in Figure 23 will appear

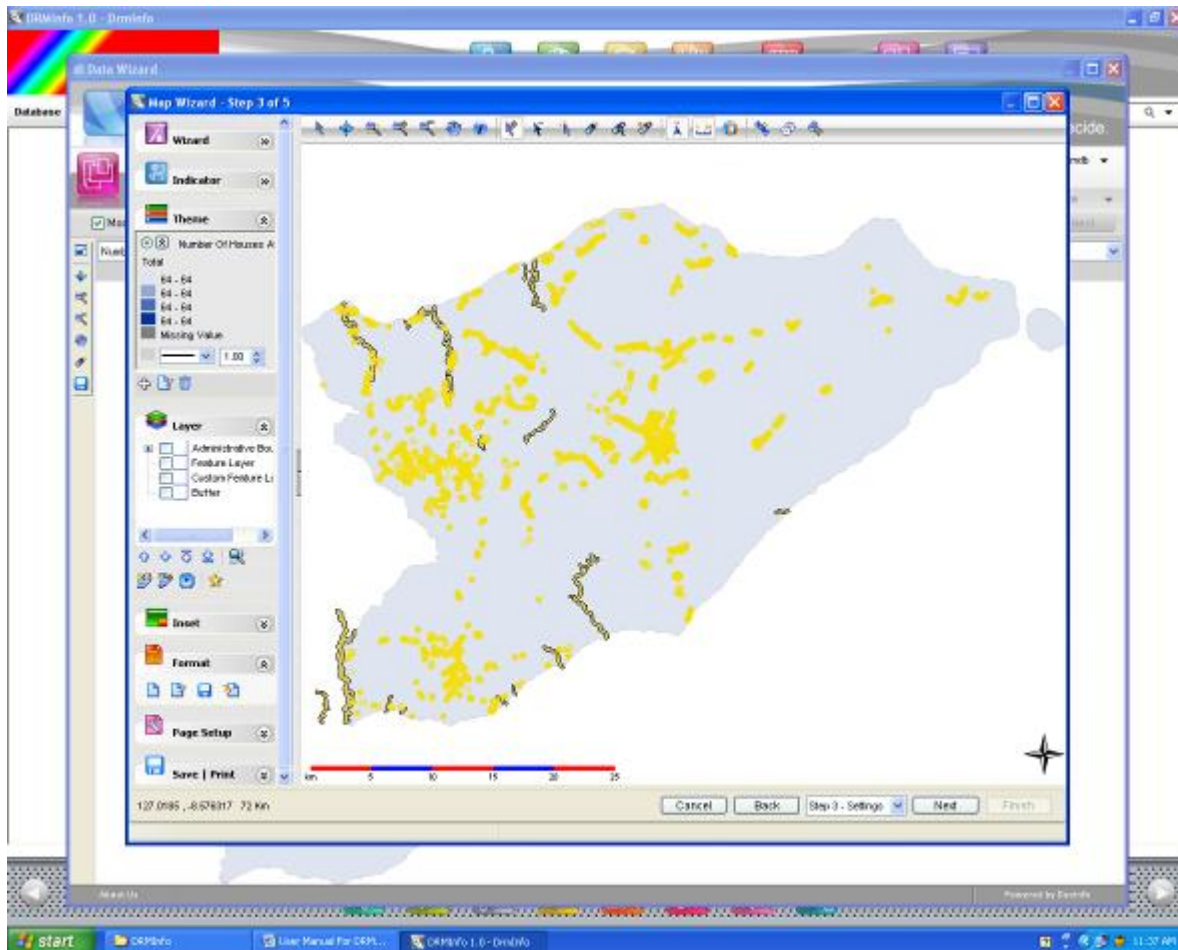


Figure 23 Map with scale bar and north compass.

Now to add map title click Format and Click Edit Icon in the Format Tab

DRMInfo 1.0 User Manual

Screen as show in Figure 24 (Map Legend Adding window) will appear.

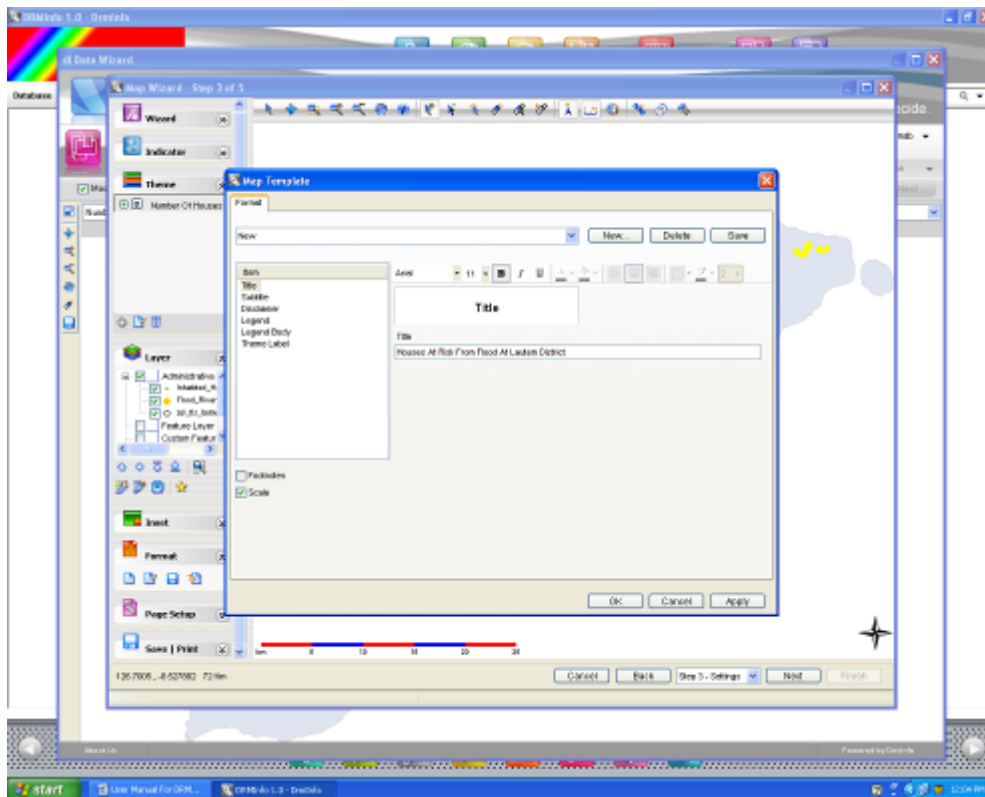


Figure 24 Map Legend Adding window

You can type the Title for the Map and click **OK**

Click **Next** and window as displayed in Figure 25 will appear

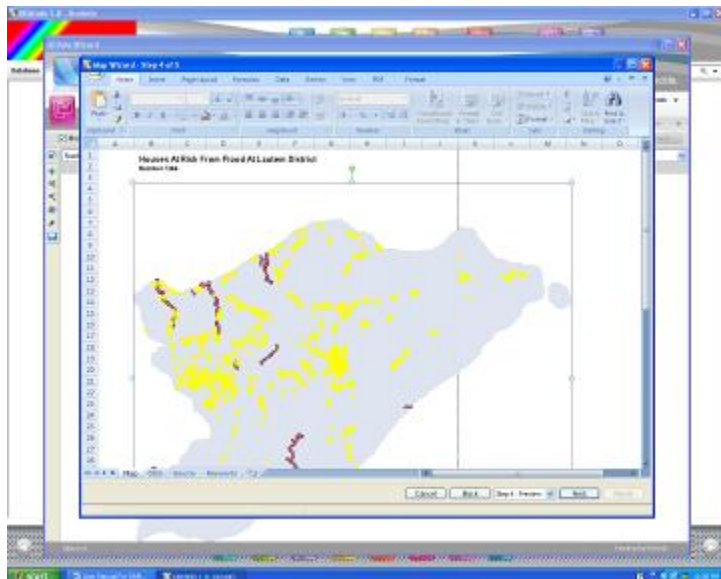


Figure 25 Window for Map preview.

DRMInfo 1.0 User Manual

Click **Next**

The following window as shown in Figure 26 (Wizard Completion Window) will appear

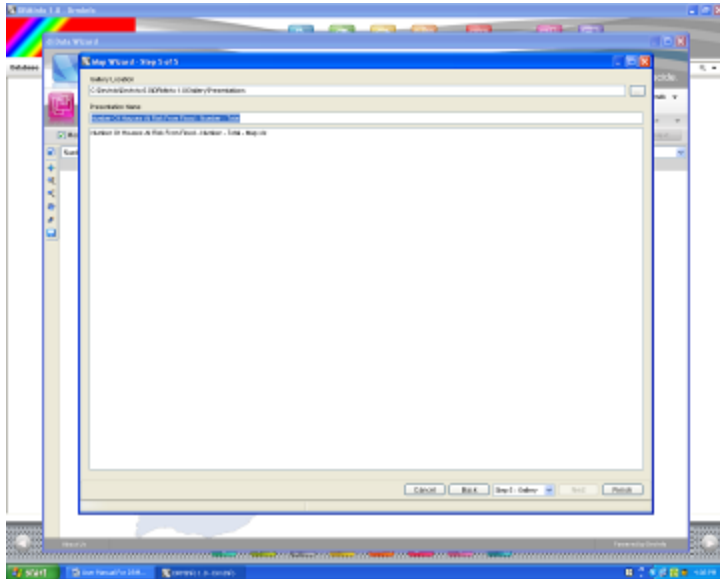


Figure 26 Wizard Completion Window

Click at **Finish**

Now Again Click to **Enlarge Icon** on Map window

Click **Page Setup**  option

Click **Orientation to Landscape**



Click **Fit to Page**

Click at **Save Print**



Click at **Print**

Window as shown in Figure 27 will appear

DRMInfo 1.0 User Manual

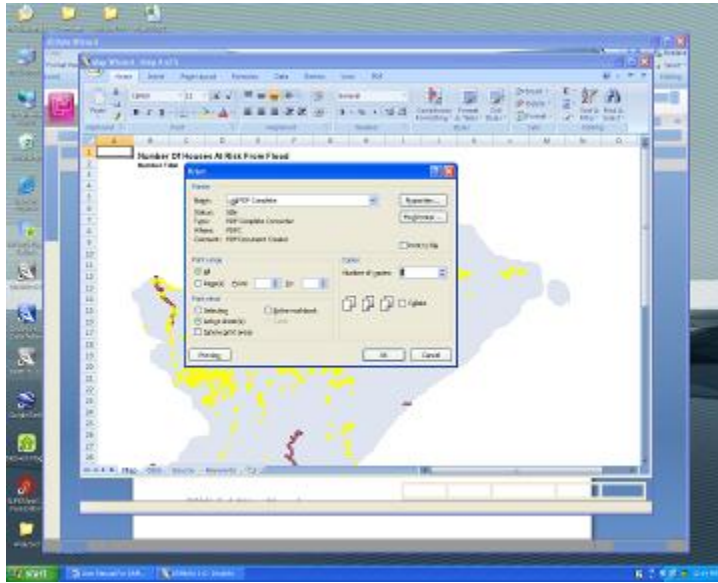


Figure 27 map printing window

Choose the **Printer Name**

Click at **Ok** to print the map

Displaying DRMInfo layers in Google Earth

To Display the above map in Google Earth, if you have access to the internet, click the **Add to Raster Image** icon in the top toolbar of the Map Window. When Google Earth initializes it will display the map overlaid on the imagery, as shown in Figure 15.

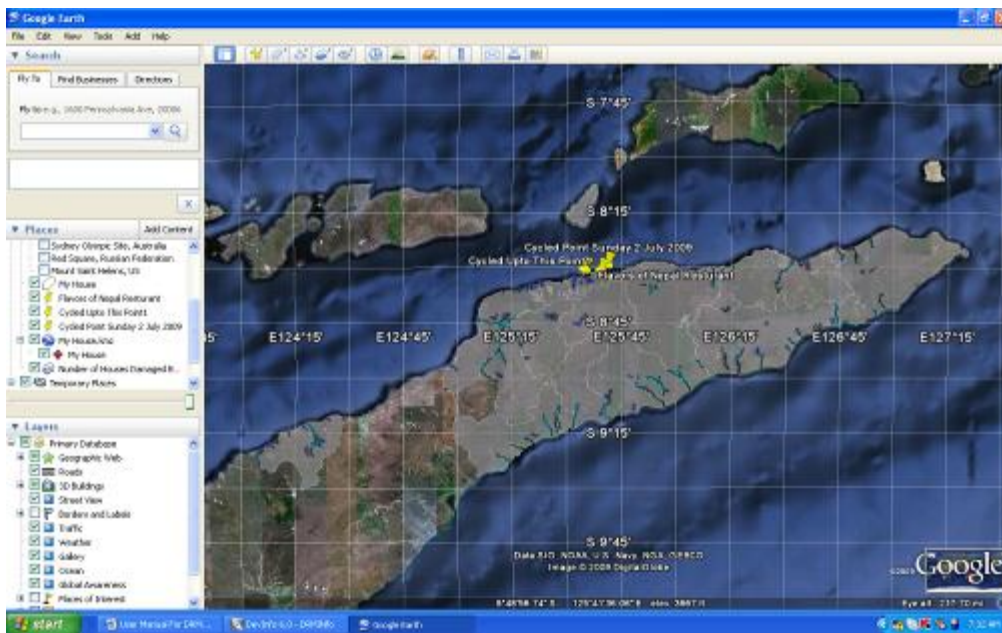


Figure 15 Google Earth with DRMInfo layers

December 7, 2009