Carbon Benefits Project:
Modelling,Measurement and Monitoring

Introduction

The Project Description Module (PDM) enables you to define the location and area of your project sites. This can be achieved using three methods – manually "drawing" your project boundaries, adding the project from coordinates or uploading GIS files with your defined project area.

The PDM is the next step after you have created a project in the Project Information Module. For more information on how to create a project, please consult the PIM Tutorial.

Project Description Module Tutorial

1. Defining Your Project Activity Areas

The first step is to define the project areas you wish to analyse for your Carbon Benefits Report. This can be done in three ways (*Figure 1*); using the map to draw your Project Activity Areas, entering or uploading the coordinates or uploading data via a shape file. These options are aimed at different Internet speed requirements and we suggest for low bandwidth, slow speed users, they enter their Project Activity Areas as coordinates, whilst medium to high bandwidth/speed users can utilise all three functions.
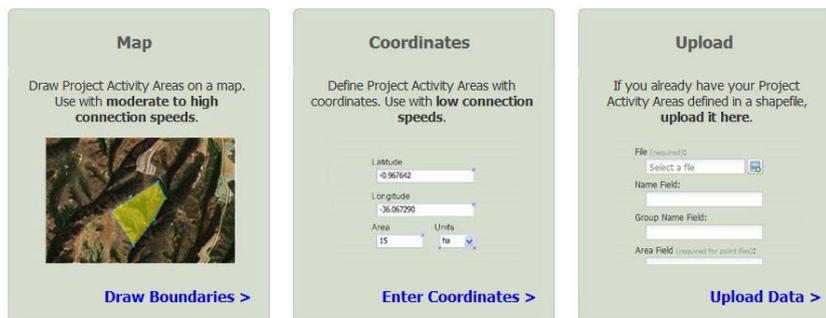

Figure 1

1.1 By Map

The first option is to draw your Project Activity Areas by using a Google Map and physically placing or drawing the areas on the part of the map representing your project. This can be done by placing a point in the required location or creating a simple or complex polygon. You can move the map area (pan) or zoom into a specific location using the Pan/Zoom option (*Figure 2*). You can also change the view of the map by using either the '**Streets**', '**Aerial**' or, to view both at the same time, the '**Hybrid'** view located at the top right hand side of the map (*Figure 2*). It is recommended you use the '**Streets**' view if you have a moderate to low Internet connection speed.
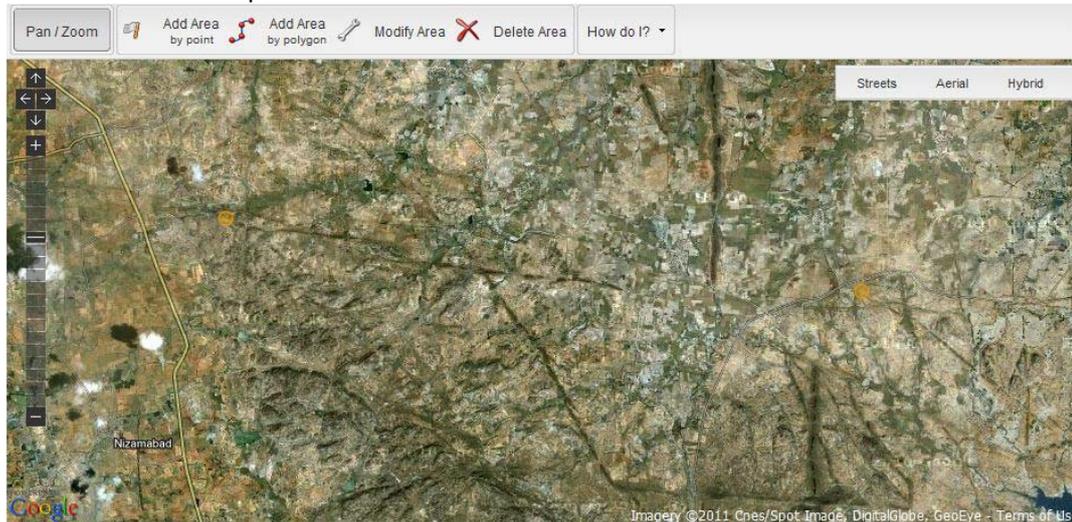

Figure 2

1.1.1 Adding Area by Point

The first way of adding a Project Activity Area is by adding points on the map. To do this you must first locate where your Project Activity Area is located (using the Pan/Zoom function). Then select the '**Add Area by point**' button on the menu bar (*Figure 3*), place your onscreen mouse pointer at the correct location and then click the left mouse button on this part of the map. A yellow circle will be placed where you have clicked (*Figure 4*) and the Boundary Attributes screen will appear (*Figure 5*).

The '**Boundary Attributes'** screen will ask you to name the Project Activity Area and assign it to a group. Groups can be a collection of Project Activity Areas that share the same land use categories and percentages of area. Their area is combined when you describe your project land use. Once you have named your Project Activity Area and assigned it to a Group, you must enter the area for the point in Hectares. You can then store this Project Activity Area by clicking the '**Save**' button or remove it by clicking '**Cancel**'.
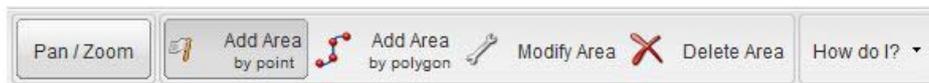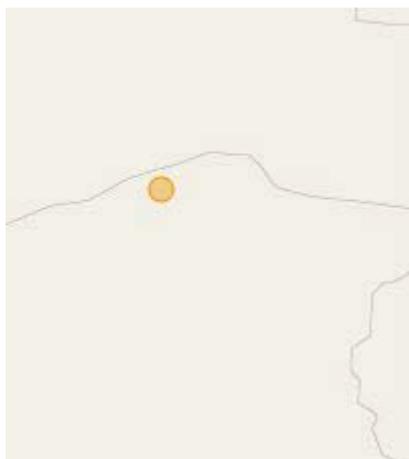

Figure 3

Figure 5

Figure 4

1.1.2 Adding Area by Polygon

The other option for adding Project Activity Areas to the map is to draw polygons. This works in a similar way to adding area by point, but there are some differences. Firstly, you must find your part of the map using the 'Pan/Zoom' option (*Figure 6*). Then you must click on the '**Add Area by polygon**' button (*Figure 6*). Once you are happy you've found the correct location for your Project Activity Area, you can start the polygon by placing your onscreen mouse pointer at the correct location on the map and then clicking the left mouse button. Every time you click the left mouse button a new point of the polygon will be placed wherever your mouse pointer is located on the map at that time. The more points of the polygon you create, the more complex the shape will become. Once you are happy that the polygon is complete you must double-click the left mouse button on the last point of the shape to finish (*Figure 7*).

Once the polygon is complete the '**Boundary Attributes**' screen will appear (*Figure 8*). You can then name your Project Activity Area and assign it to a group. For more information regarding grouped Project Activity Areas, please read the previous item '1.1.1 Adding Area by Point'. This time you are not required to specify the value of the Project Activity Area in Hectares, as this is generated automatically by the size of the polygon.
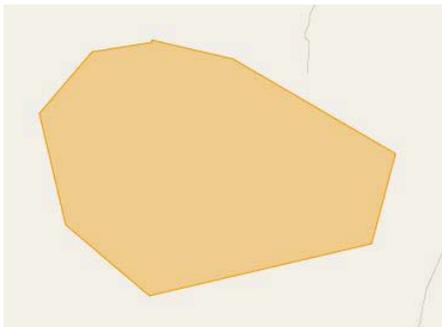

Figure 6

Figure 7

Figure 8

1.1.3 Modifying an Area

Once you have created an area, it can be modified using the '**Modify Area**' button on the menu bar (*Figure 9*). After the button has been clicked, you can select any polygon or point that has already been created on the map. The selected point or polygon will turn blue (*Figure 10*) and the applicable '**Boundary Attributes'** screen will appear. You can change the shape and size of a selected polygon (by moving any of the points on the map) and you can move any selected point data to another location of the map. The modified polygon will automatically adjust its area if the shape has been changed. You can also alter the name and which group the Project Activity Area is assigned to on the '**Boundary Attributes**' screen (*Figure 10*) – this is where you can also modify the area of any single point. If you are happy with the changes made then you can store the modified data by left-clicking on the '**Save**' button (*Figure 10*) or you can keep your previous settings by left-clicking the '**Cancel**' button. Please note that if you adjust the shape of a polygon or move any point areas, they will not return to their previous states by clicking on '**Cancel**'. You will have to manually adjust them back to their original positions.
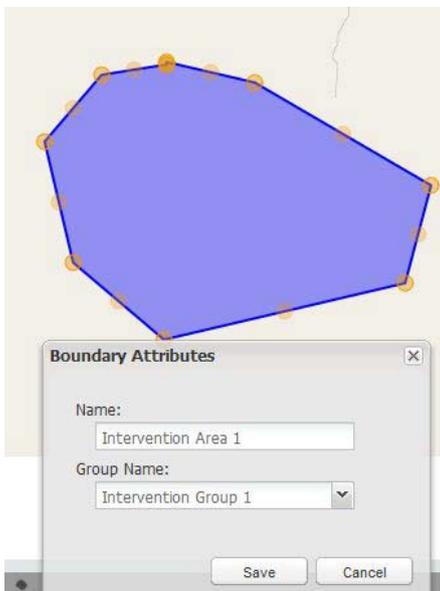

Figure 9

Figure 10

1.1.4 Deleting an Area

You can also remove an existing area if it is no longer required. Firstly select the '**Delete Area**' button on the menu above the map (*Figure 11*) then select the polygon or point you wish to delete.
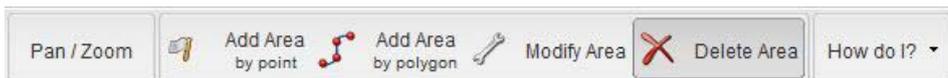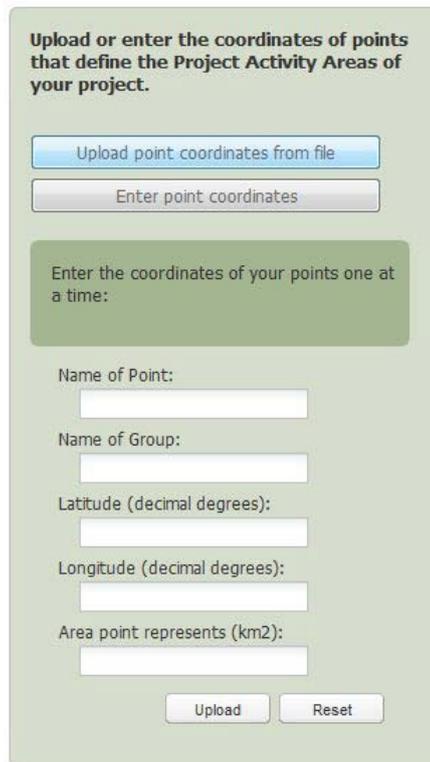

Figure 11

1.2 By Coordinates

The second way to enter Project Activity Areas is by entering or uploading your project area coordinates.
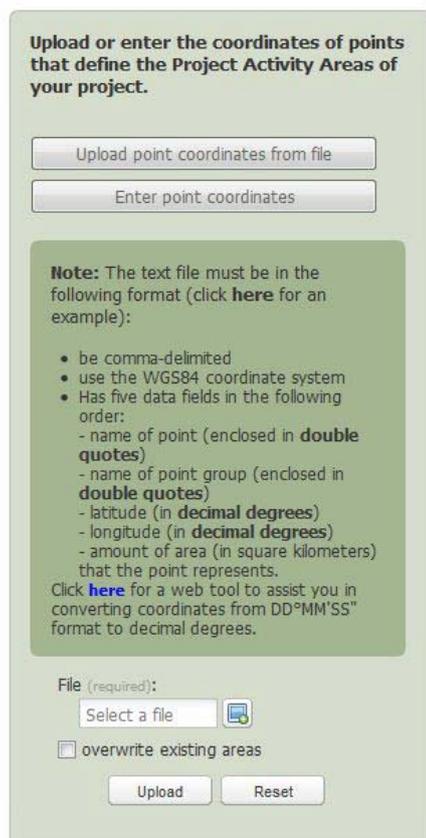
1.2.1 Manual Entry

You can manually enter your coordinates by left-clicking on the '**Enter Point coordinates**' button (*Figure 12*). You can then enter multiple points, individually, using the fields below the button (*Figure 12*). You first must name your point, this represents the name of your Project Activity Area (see '1.1.1 Adding Area by Point' for more information) and then you can assign this point to a group (again, please refer to '1.1.1 Adding Area by Point' for more information about groups).

You must then enter the Latitude and Longitude (in decimal degrees) and the area in km2 the point represents. To add the point, left-click the '**Upload**' button or clear all the fields by clicking the '**Reset**' button.

Figure 12

1.2.2 Uploading Coordinate File

You can also upload your point coordinates via a text file by first left-clicking on the '**Upload point coordinates from file**'. For the full information regarding the required format of the text file please consult the instructions in *Figure 13*.

You must then left-click on the icon next to the '**Select a file**' text box (*Figure 13*). You will then have to locate your text file located on your own computer and click '**Open**' to add the file or '**Cancel**' to not continue with the upload. If you wish to replace all existing areas you have previously created you can left-click on the checkbox next to the '**overwrite existing areas**' message. Once you are happy with your file selection you can left-click the '**Upload**' button to add the coordinates to your Project Activity Areas. A success or error message will be displayed once the file is uploaded depending on the format of the file. You can also use the '**Reset**' button to clear the File field.

Figure 13

1.3 By Upload

The third option to create Project Activity Areas and Groups is by uploading a compatible shape file. For more instructions regarding the requirements of this upload please consult the explanation in *Figure 14*.

Once you are happy that your file fits the correct format, you can add it by left-clicking the icon next to the '**Select a file**' field. You can then enter the '**Name**' and the '**Group Name**' and an '**Area Field**' that is required for point files – for more information regarding points please consult the '1.1.1 Adding Area by Point' section.

If you wish to remove all existing areas you've entered earlier, please tick the '**overwrite existing areas**' checkbox by clicking the left mouse button. You can then upload the file by clicking the '**Upload**' button or resetting all fields through clicking the '**Reset**' button.

Figure 14

2. Using Spatial Data

There are two ways of utilising Spatial Data in the Project Description Module. Firstly, you can use the defaults selected by the Carbon Benefits Toolkit, these can be viewed by selecting the '**View**' option under '**Step 2 – Review Supporting Spatial Data**' in the top menu for the PDM (*Figure 15*). Secondly you can upload your own GIS file that contains the relevant spatial data for your project. For more information regarding what is contained with the supporting Spatial Data, we recommend that you look at the default files.

Figure 15

2.1 Default Spatial Data

You can view and download the different types of Spatial Data that is used for the defaults. This contains several items, such as IPCC Land Use Climate Regions and Livestock Climate Regions (*Figure 16)*, IPCC Soil Classes and various IPCC Factor Regions. The defaults are used automatically for your Project Activity Areas, so you are only required to change spatial data if you have additional data not in the default list.
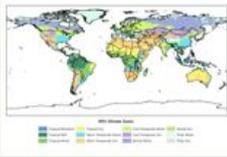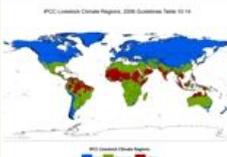
Figure 16

2.2 Uploading Spatial Data
If the Default Spatial Data is not accurate for your project and you would like to use your own or have access to different data, you can upload your own GIS file containing your own project- or region-specific dataset to replace the default values. This feature is currently disabled and will be enabled in the Fall of 2011.

3. Describing Project Land Use

Once you have created a Project Activity Area, you can describe the land use for that particular Area or Group. Firstly select the Group or Area you wish to describe from the drop-down list in section 1 '**Select Project Activity or Group**' (you can view which area on the map this represents by clicking on the '**Show Project Activity Areas**' to the right of the drop-down list (*Figure 17*).

You can then enter the amount of area for the particular land use that best describes your Project Activity Area or Group in Section 2 (*Figure 17*). You must enter the land use for before your project ('**Initial Land Use**') the alternative scenario without your project ('**Baseline Scenario**') and your '**Project Scenario**'. You must enter the total amount of area for each column in Section 2 (e.g. if your selected Project Activity Area or Group represents 100 ha your land use total for the '**Initial Land Use**' column must equal 100 ha and the Baseline and Project Scenarios must add up to 100 ha each). You are only required to use the actual Land Use Categories that are applicable to your Project Activity Area or Group, so you can leave any value at zero (0) for a category that is not applicable. You can save you data at any time by pressing the '**Save**' button located at the bottom of the screen.

If your project has more than one Project Activity Area or Group, you can select a different one from the drop-down list in Section 1. You must enter data in all three columns for every Project Activity Area or Group before you can progress to the next stage.

Describe Project Land Use

1 Select Project Activity Area or Group

Intervention Group 1 [1477 ha] ▾ ⇨ Show Project Activity Areas
(opens in new window)

2 Enter land use area

Land Use Category	Initial Land Use	Baseline Scenario	Project Scenario
Agroforestry	0	0	0
Annual Cropland	0	0	0
Forestland	0	0	0
Grassland	0	0	0
Livestock	0	0	0
Perennial Cropland	0	0	0
Settlements	0	0	0
Wetlands	0	0	0
	0	**0**	**0**

Save   << Back   Next >>

Figure 17