Land-use Planner

An interactive economic tool to support responsible land-use planning

Step 1

Description of your area

① Area

The first step consists in describing the general characteristics of the area that will be considered.

First step

The information included in the grey boxes relate to the theoretical example.

N.B. For the purposes of this manual, a hypothetical example, the 'Blue River Basin', is described at each step to illustrate how to use the Land-use Planner. You can use this example for ideas when considering your own area.

For our example, each of the values entered into the tool will be shown in grey italics in a black box: *Blue River Basin*

Our example, the Blue River Basin, was based on conditions in the equatorial forests and the socioeconomic conditions found in the Congo Basin. As a result, this area includes the majority of forest landscapes: forest concessions, community forest and protected forest as well as unallocated forest.

This area also covers subsistence agriculture with tracts of land dedicated to rice culture, mostly aimed at feeding the local population.

Several years ago, a private company came and set up in order to invest in the palm oil sector. The first plantations are dedicated to export and it is likely that other private investors also want to get involved in this sector in the coming decade.

The analysis of this area covers a 30-year time scale, which will reflect the various possible future scenarios, based on the potentially complementary or divergent interests of several groups of actors.

10. Area name

Choose a name for your area. This can be a project area, a region or a country. The name choice is up to you.

Blue River Basin

Your area may be an administrative entity (province, department, municipality) or a feature of the landscape (watershed, agricultural land or conservation project).

You can use the Land-use Planner within a national context if you mainly want to inform certain discussions on agricultural policy or the planning of nationally structured industries (for example, the development of a 'zero deforestation' strategy in one or several agricultural sectors).

11. Total size

Enter the total size of your area in hectares (ha).

100 000 ha

12. Total population

Indicate the number of inhabitants in the area in the simulation's start year.

20 000 hab

Ideally, this figure will be provided by census data.

13. Population growth

Indicate the average yearly demographic growth or decline, calculated as a percentage of the total population.

| 2,7 | % |

Use an average estimated demographic growth or decline for the chosen period.

Consider potential changes due to variations in the birth rate or potential migration phenomena.

14. Currency

Select the desired currency. The results will be calculated in this currency. You will have the option to view the final results in other currencies. The Land-use Planner automatically converts currencies based on the exchange rate, which is updated regularly.

| EUR |

15. Start Year

The choice of start year is up to you. It is recommended that you choose the current year, unless more precise data is available for previous years.

| 2018 |

16. Duration of simulation

Select the number of years for this forecasting exercise, for the land-use planning scenarios that will be defined later. You can select up to 50 years.

| 30 |

17. Main ecological zone

Depending on its size and characteristics, your area could span very different zones in terms of climate and ecosystem type. Select the type of zone that best represents your area (generally the one that covers the largest proportion of it). The Land-use Planner will use default carbon values for each zone type. These carbon values are defined by the Intergovernmental Panel on Climate Change (IPCC)[2]. You will have the option to adjust the carbon values in step 2, 'Land use'.

Please note that there is a world map showing the main ecological zones at the bottom of the page. The various zones are highlighted based on your choice of zone. This map therefore helps you to choose the right zone.

| Tropical dense forest |

18. Main soil type

Your area may include very different soil types. Select the type of soil that best represents your area. The Land-use Planner will use the default carbon values provided by the IPCC. You will have the option to adjust the carbon values in step 2, 'Land use'.

Please note that there is a world map showing the different soil types at the bottom of the page and the various zones are highlighted based on your choice. This map therefore helps you to choose the right zone.

| Clay very active |

19. Next

Once this section is complete, click 'Next' to proceed to the second step, defining the land uses.

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2. For more information on the IPCC, visit: http://www.ipcc.ch

Drop-down menus

While using the Land-use Planner, at various steps you will find drop-down menus that will help you insert values, specifically in relation to productive aspects of various crops (during the step defining the land uses). For example, this refers to baseline data on yields, costs, workforce, etc.

The use of baseline data is optional and all data can be adjusted by the user. These multiple-choice menus are produced using data compiled by the European Forest Institute (EFI) for the most common land uses. This library of values acts as a base to aid your work and speed up your simulation.

Saving your work file

At any time while working on your project, you can save a .lup work file to save the completed work.

- Click [⬇ Export data] to save the current work file.

- You can restart with an empty project by clicking [⊠ Clear project data]

- Click [⬆ Upload project] and select the previously saved work file to resume the study at the point at which it was saved (Export data).