GeoNetwork opensource – User Training

Module II for Editors – Metadata and data publishing

Exercise 1 – session B

Editing new metadata

A local version of GeoNetwork has been installed for the training's exercises.

This tutorial leads you through the process of creating new metadata entries. You will use the template system, add thumbnails, upload data, link to services and set access privileges to the metadata and data.

In this session of the exercise you will describe a dataset by creating a new metadata record in the catalogue using the on-line metadata editor.

For a metadata record to be good, it is helpful to describe the dataset in plain text first, gathering as much details as possible to properly identify and understand the resource that you want to describe.

The next step is to fill out the form correctly using all the information gathered while at the same time avoiding duplication of information within the form. You can use the metadata elements presented in the default view as a guideline.

As mentioned in the session A of this exercise, the default view of the metadata form in GeoNetwork shows only a selection of elements from the full content of the ISO 19115 metadata standard. This selection provides the minimum set of metadata elements recommended to properly describe a spatial dataset. Then, the metadata fields are shown within five different categories of information: **Identification info, Distribution info, Reference system info, Data quality info, and Metadata.** A separate section to handle the graphic overview of the datasets is accessible through the **Thumbnails** button, on top and at the bottom of the metadata form in editing mode.

Note that in each section, the fields marked with a [*****] symbol are mandatory or highly suggested. The standard definition for each field can be read by moving the mouse over the element name. The fields are either free text fields or drop down lists. Free text means you can type any text into that field. Drop down lists allow you to select only one option from the list. You can add multiple fields of the same kind by clicking on the [+] symbol next to the element. You can also delete existing fields from the form by clicking on the [**x**] symbol next to the element; obviously <u>mandatory fields cannot be deleted</u>.

The following text provides you with a description of the African sub-national boundaries vector layer. During this session you will use this basic information to properly fill out the form.

Description of the dataset

Sub-national boundaries of Africa

*This is the **third edition** of the layer that was revised in **2000 (July 1st)**. The geographic area covered by the dataset is the **African continent** (North lat. 38.2; West long. -17.3; East long. 51.1; South lat. -34.6).*

*The map was created in **vector** format from various national and regional datasets by the GIS lab of the Food and Agriculture Organization of the United Nations (FAO) in **1993** and updated for some countries in collaboration with the Global Information and Early Warning System on Food and Agriculture (FAO-GIEWS) in 1999. Further amendments made by FAO from 1999 up to **2001**, include: the coastline, corrected according to VMap0; 2) the Walvis Bay attributed to Namibia.*

*The map is compiled from different national and regional datasets, each of them with different scales, the scale at which the map can be used is considered to be **1:1.000.000**. The datum is set to **WGS 1984** and map is in geographic projection.*

*The layer has **no maintenance or updates planned** for the future.*

*The layer can be used as a base map for continental and regional GIS analysis and publication, taking into account the **copyrights** of the originator.*
For instance, it has been included into the African Water Resources Database (AWRD) as ancillary dataset.

*The first version of the layer is published in the GeoNetwork-FAO catalogue with the title: Sub-national boundaries of Africa (1993) as shown on the web at the following URL: http://www.fao.org/geonetwork**.***

*In this exercise you are the **author** of these resource's information, so put your name and contact details in the* **Metadata Information Section**.

Fill in the form

Complete the fields in the sections below using only the information useful to identify the resource. Some of the elements are filled in automatically; to change their content click, on the close dropdown arrow.

It is recommended to save the metadata after each block, before carry on with the next step, by clicking on the **Save** button**.** Click on **Save and Close**, instead, only when you have completed the metadata form editing.

Identification section

The first section to be completed is the (mandatory) *Identification info* section. It contains elements that specifically describe the data. It includes the citation of the resource (title, date of creation or publication, edition, presentation form), an abstract, the purpose, the status (Fig. 1).

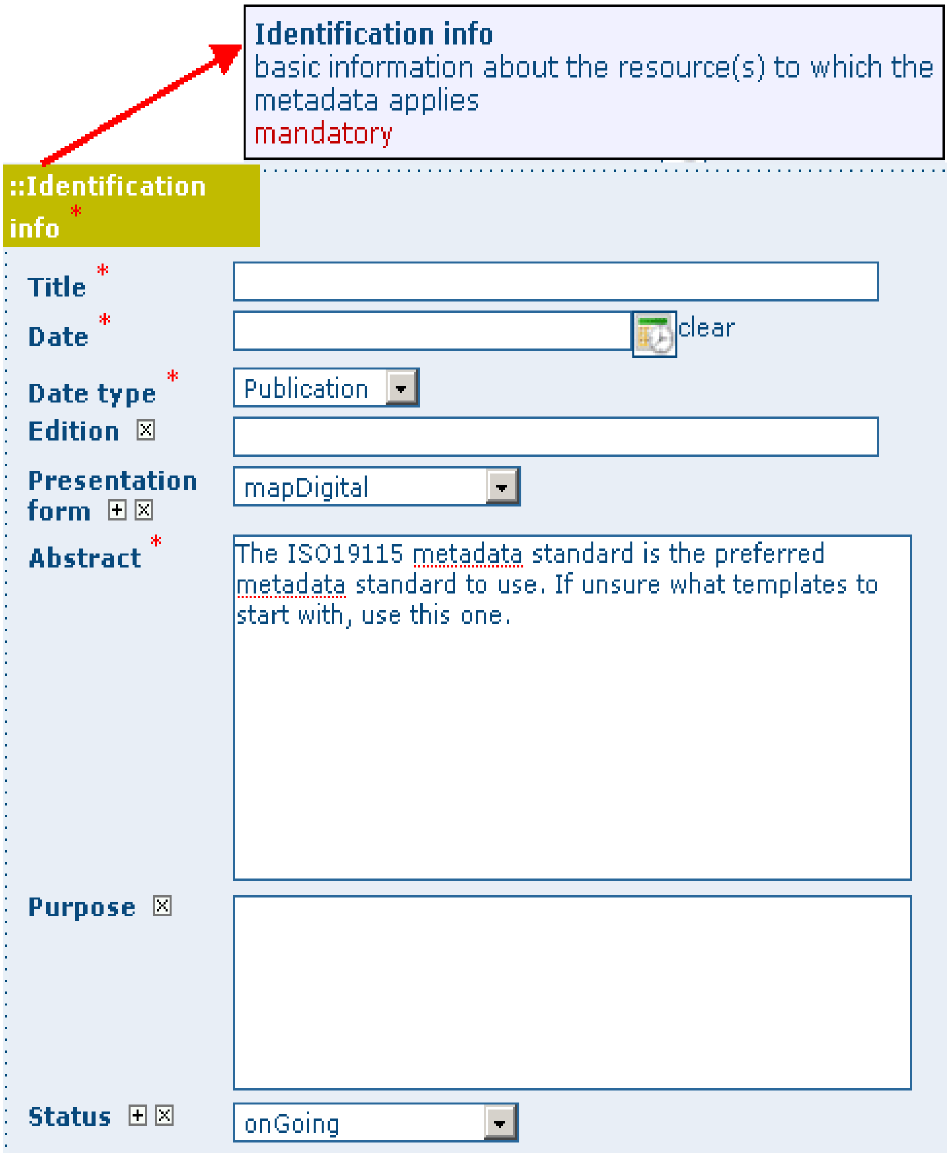

Figure 1

The person(s) and/or organization(s) associated with the data, as well as their contact details, are specified in the **point of contact** along with the identification of the role that best qualifies the function performed by the responsible party (Fig. 2).

If the point of contact for the data corresponds to the person who also is responsible of the metadata, just leave the point of contact fields empty or remove the entire section clicking on the [x] symbol. Then supply the information in the Metadata Section, which is mandatory.

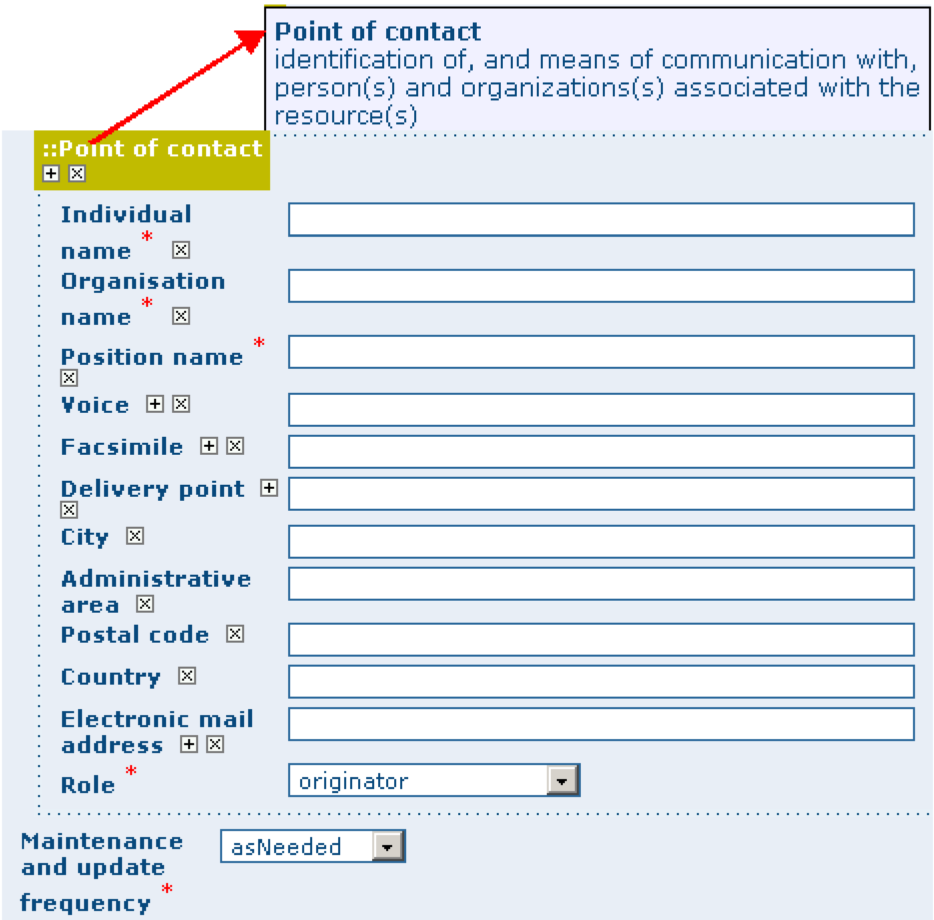

Figure 2

Otherwise:

1. Provide information for at least one of the first two elements: **Individual name**, **Organization name**;
2. Click on the dropdown arrow to select the **role** performed by the responsible party;
3. Provide all available **contact details** of the responsible party;
4. **Save** the metadata form.

Information about maintenance is provided using the element **maintenance** and **update frequency**, which supplies you with the possibility, through a dropdown list, to specify the frequency of data update (Fig. 2).

Elements for **keywords** and for describing **restrictions on data access and use** are also included in this section in addition to the **spatial representation info** like the data type (vector, raster, text table, etc.) (Fig. 3).

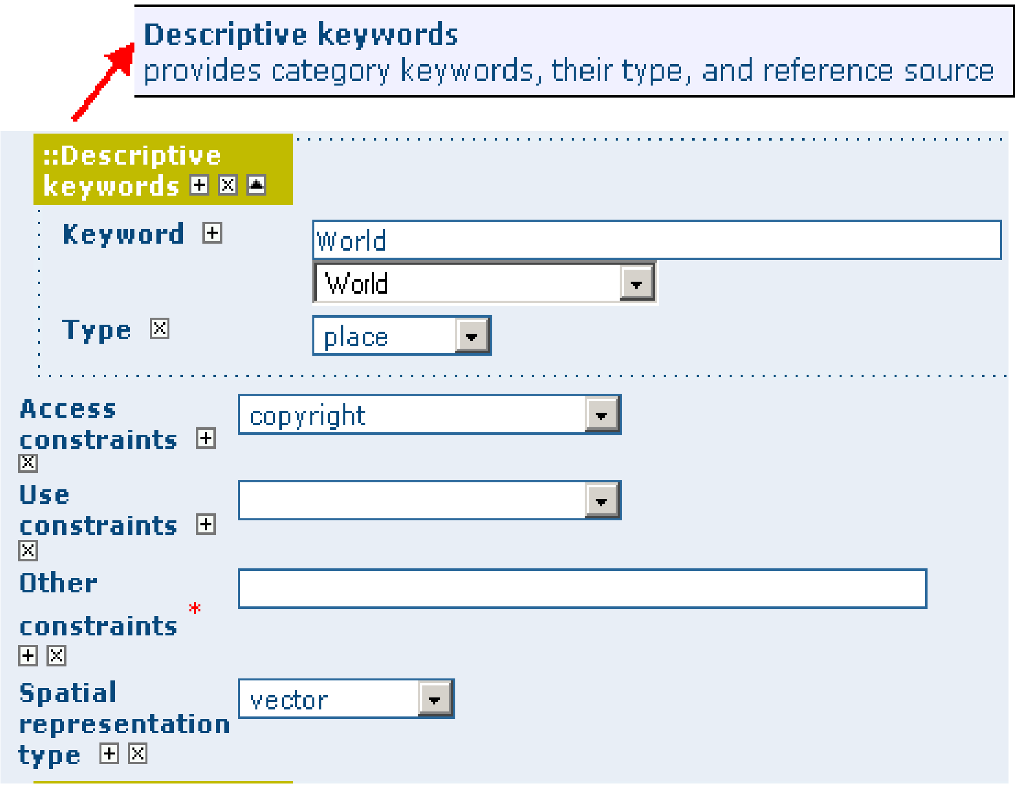

Figure 3

The *Identification info* section provides information about the **scale**, the **language** and the **character set** used within the resource and the list of **ISO categories** through which your map could be classified (Fig. 4).

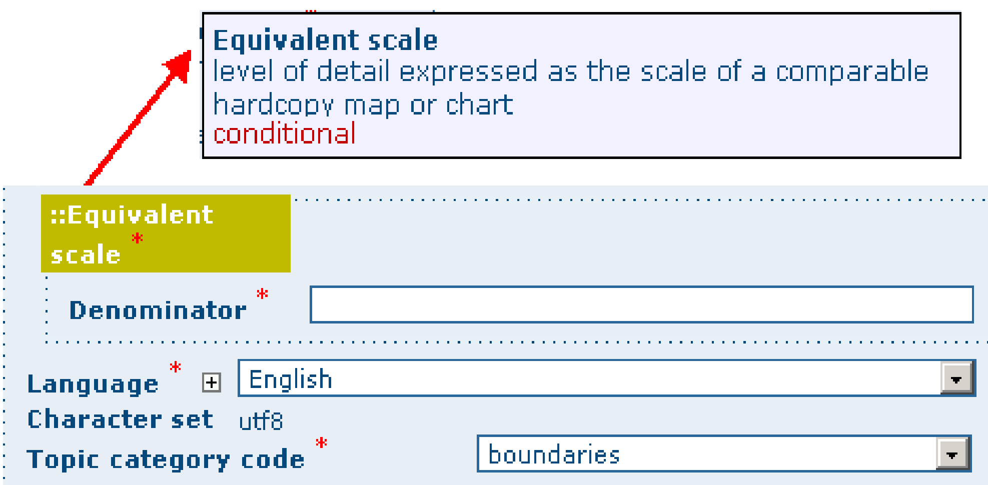

Figure 4

Finally, the **temporal and spatial extents** are also defined in this section.
The **temporal extent** is defined through the starting and ending date of data validation (Fig. 5).

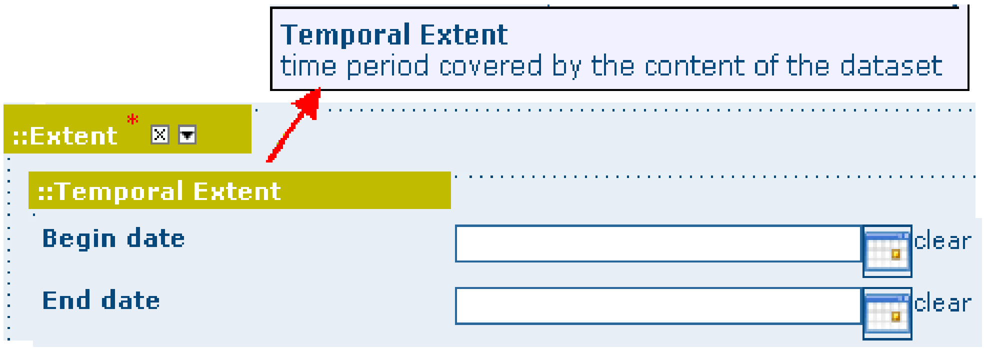

Figure 5

The **spatial extent** should be expressed in terms of geographic coordinates of the interested area or through the selection of a country or region from a predefined list (Fig. 6). Free text with **supplemental information** can be added as last element to complete the data Identification section.

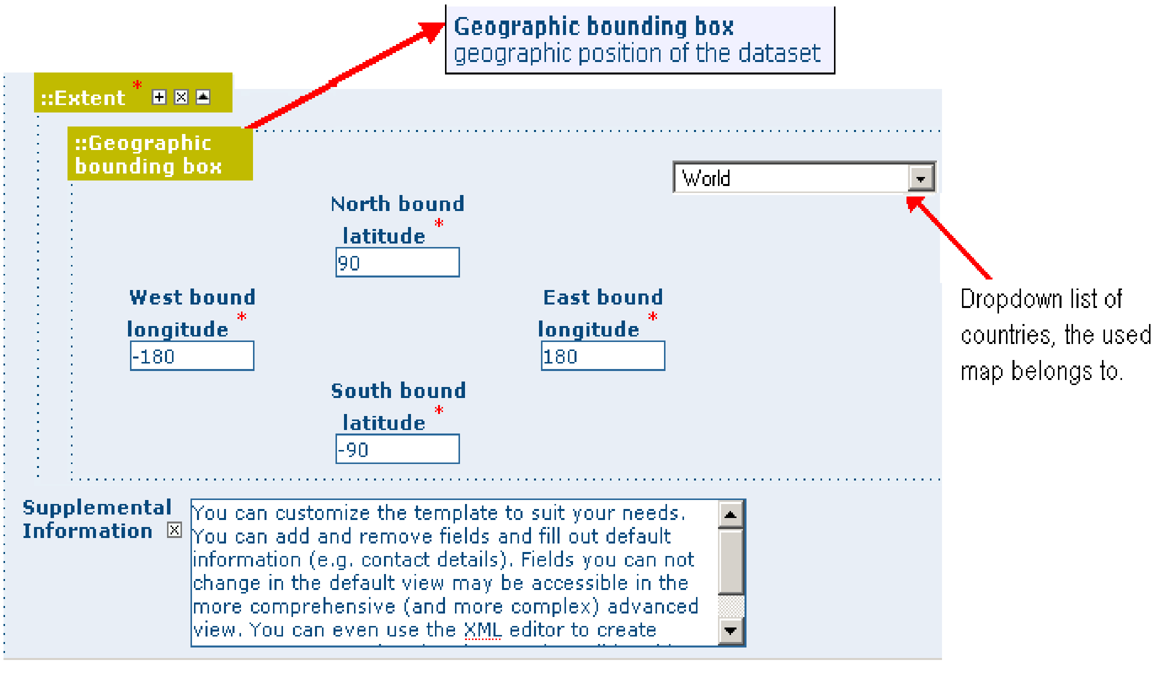

Figure 6

Distribution Section

The *Distribution info* section provides metadata **elements for accessing other useful on-line resources** available through the web, such as the geographic data or any other types of digital documents using the download function (Fig.7). The **On Line resource** metadata elements allow the location for on-line access using an URL address or similar addressing scheme and provide the protocol for the proper connection for accessing data.

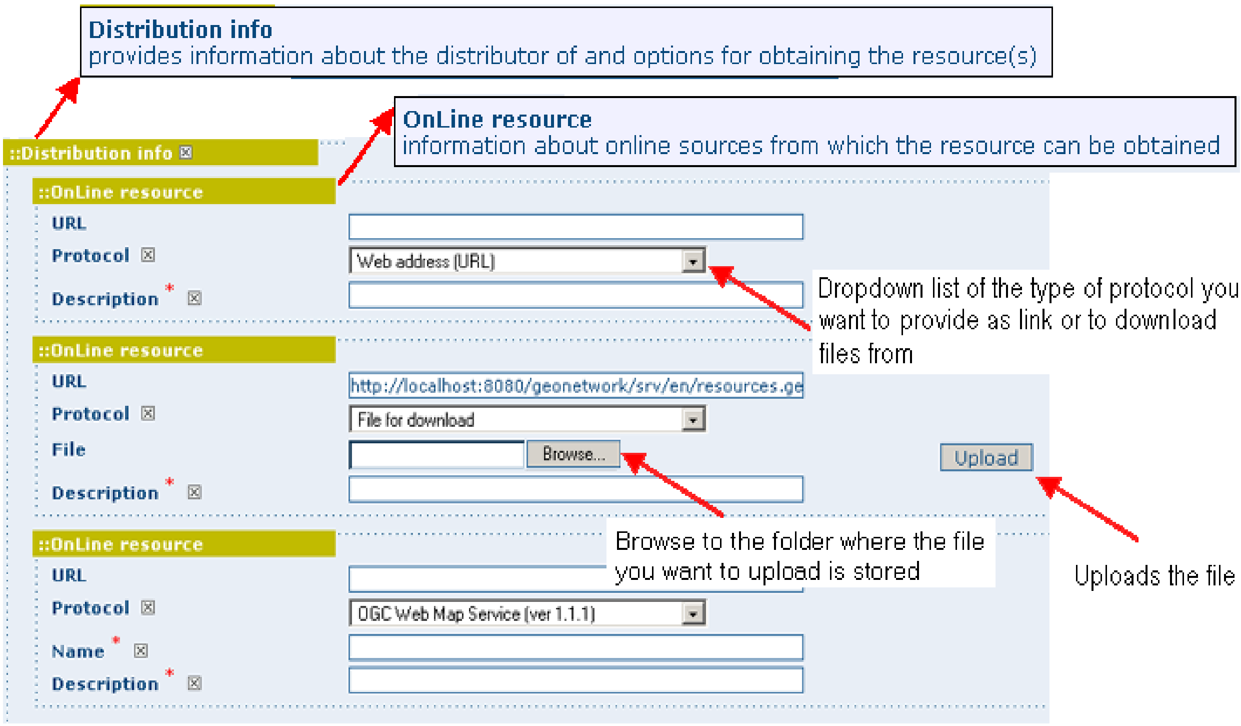

Figure 7

In order to use such functionalities you perform a simple procedure using the **On Line resource**, which requires information on the following elements: **linkage**, **protocol**, **description**, **name** and **file** to upload.

Linking web address

1. Type the location for on-line access, in the **linkage** space, using a Uniform Resource Locator (URL) **address** example: *http://www.fao.org/geonetwork*
2. Indicate, through a dropdown list, the connection **protocol** to be used;
3. Provide a detailed **description** of the on-line resource, including role(s) and functionalities;
4. Supply the name of the on-line resource;
5. Save the section.

Through the session D of this exercise, you will learn how to link datasets to metadata records.

Reference System Section

This section defines metadata required to describe the spatial reference system of a dataset. It contains one element to identify the **name** of the **reference system** used (Fig.8).

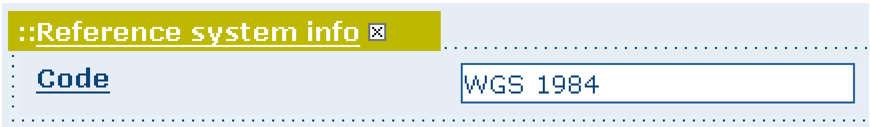

Figure 8

Data Quality Section

This section is optional and provides a **general assessment of the quality of the dat**a (Fig. 9). It can describe quality at **different hierarchical levels:** series, dataset, features, attributes, etc. This section also contains information about the **sources** and the **statement**, which provides a general explanation on the production processes (lineage) used for creating the data. The **statement** element is **mandatory** if the hierarchical level element is equal to **dataset** or **series**. Detailed information on completeness, logical consistency, positional accuracy, thematic accuracy and temporal accuracy may be directly added from the advanced form.

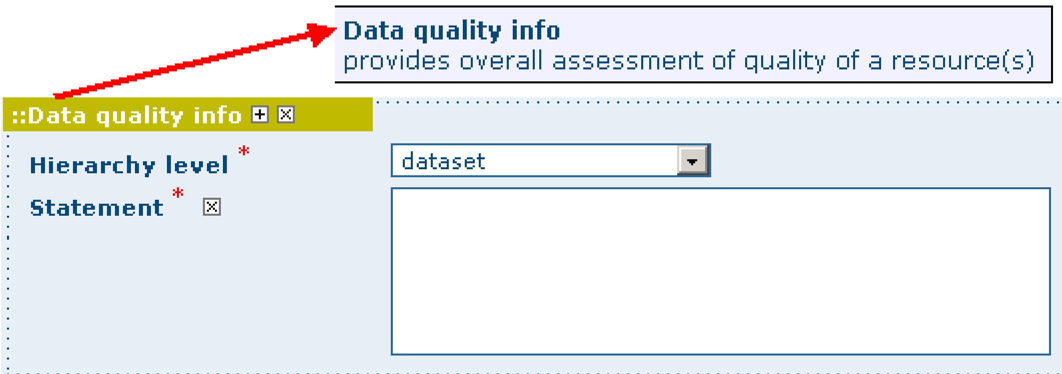

Figure 9

1. Click the dropdown arrows next to the **hierarchy level** element to select the correct one;
2. Provide a general explanation of the data producer's knowledge about the **events used in constructing the dataset**;
3. **Save** the metadata form.

Metadata Section

This last section of the metadata editing contains a set of elements that describe **general information of the metadata** (Fig. 10). It provides the **unique identifier** for the created metadata file, the **language** and the **character set** used for the description, the **date** when the metadata record was created, and the **name and version of the standard** used to describe the data. All these elements are filled in automatically by the system at the time the user saves the metadata form for the first time.

In this section are also included details of the **metadata author**, who is the person responsible for the metadata information and who may be also the point of contact for data information.

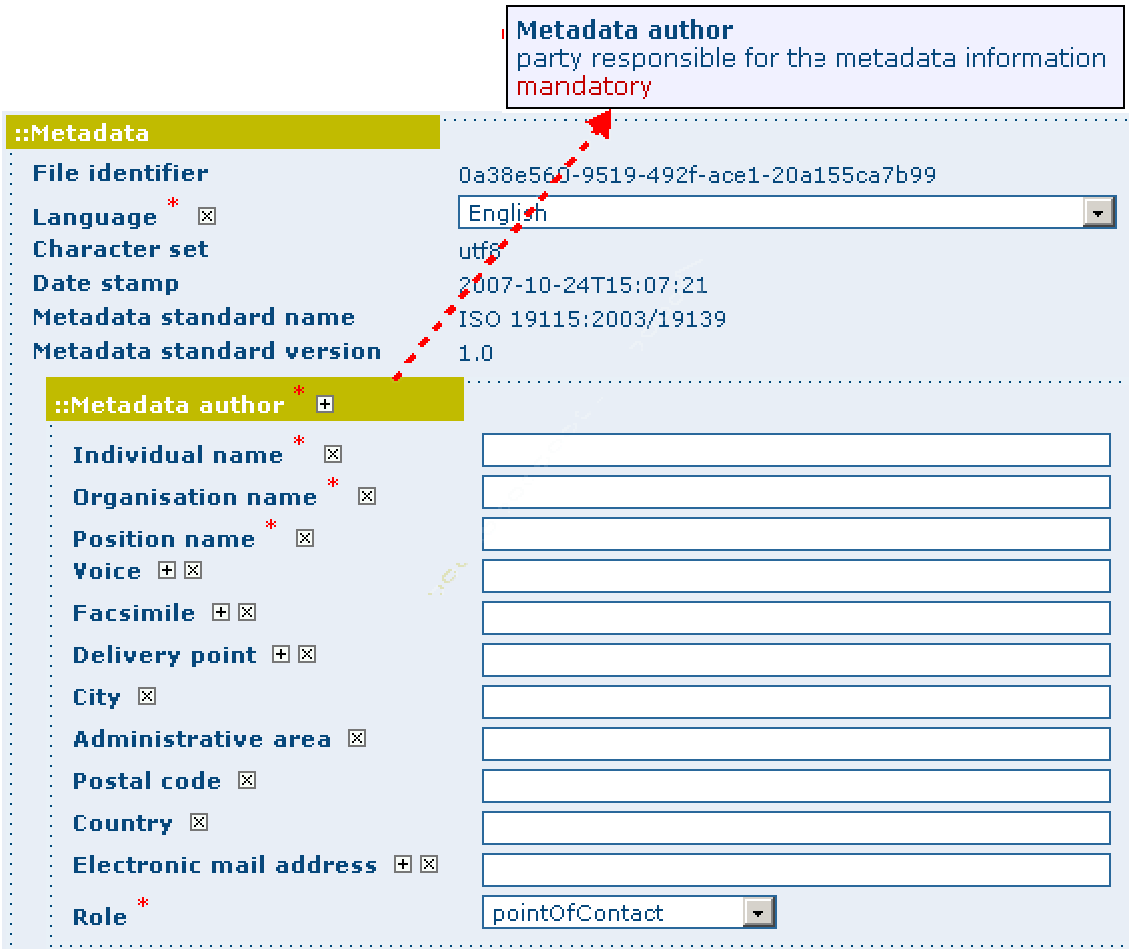

Figure 10

1. Provide information for at least one of the first two elements: **Individual name**, **Organization name**;
2. Provide all available **contact details** of the responsible party;
3. Click the dropdown arrow to select the role of the **metadata author**;
4. **Save** and **close** the metadata form;

Thumbnails Management Section

The thumbnail, or **graphic overview**, provides a general illustration of the resource and can be attached to the metadata to preview the data content. When a search is performed on GeoNetwork, the results are displayed as summary of metadata and a small thumbnail (Fig. 11).

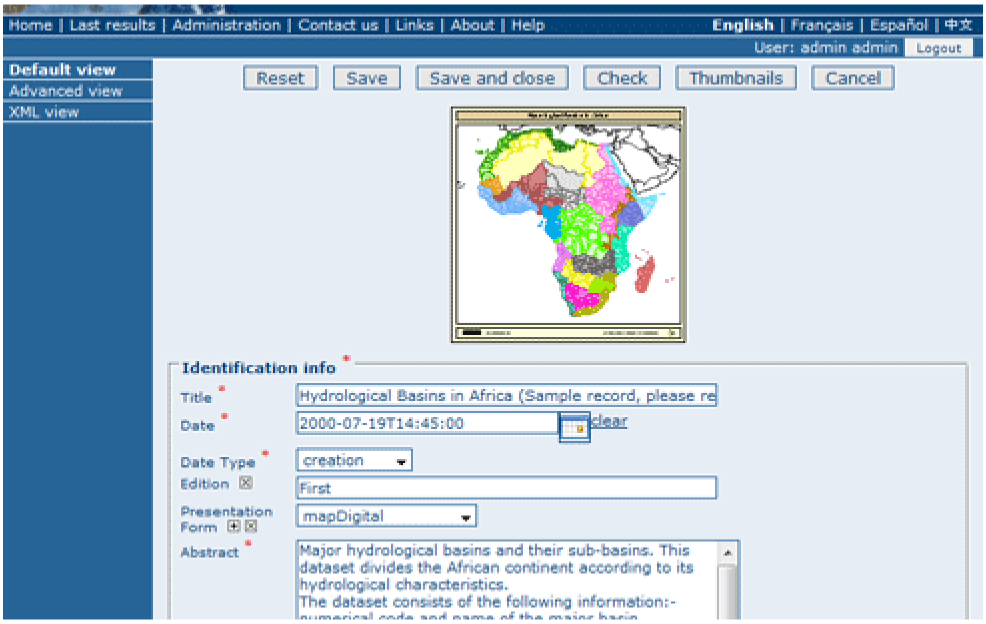

Figure 11

By clicking on the small image, a larger thumbnail will be displayed (Fig. 12). It is suggested to include within the graphic layout a clear legend when possible.

Figure 12

The following session of this exercise (session C) will show you how to associate thumbnails to metadata records in the appropriate section.