

ing some 5050 protected spaces for Europe, only 3384 of which have, however, geographical co-ordinates.

3.2.5 Cultural assets

Progress and heritage use, on the one hand, and heritage conservation on the other, are often regarded as incompatible. After European Heritage Year in 1975 called attention to the situation, a new vision regarding heritage conservation has emerged: the European heritage itself became a major impulse for social and economic progress. Several new international conventions regarding heritage call for the promotion of “wise use” of heritage, i.e. utilisation of the many opportunities cultural heritage offers, while respecting its ethical aspects.

In the ESDP, cultural heritage is dealt with in its two fundamental dimensions: cultural landscapes and heritage cities, cultural sites and monuments. The value of the heritage is the subject of current discussion: in the case of cultural landscapes there are doubts as to whether not only outstanding but also ordinary landscapes deserve to be taken care of. As far as cultural heritage is concerned, a traditional notion of cultural assets has been adopted, largely identifying cultural heritage with “built” heritage, i.e. heritage cities, cultural sites and monuments. These assets, in fact, are those with the deepest territorial roots. They are neither “footloose” (like symphony orchestras or exhibitions) nor reproducible. In consequence, they are particularly fragile and highly sensitive to utilisation.

As an increasingly important spatial planning concern, cultural landscapes and heritage cities, cultural sites and monuments are strongly dependent on the quality of their description. Therefore, the aim of this study is to identify a few synthetic measures that give an indication of the values of cultural heritage; to bring to the attention of the policy makers main areas of stress created by the presence of concentrations of cultural heritage and by insufficient management of tourist flows; and to indicate a general methodology for data collection and analysis.

Cultural landscape indicators

Only scarce statistical material is available on cultural landscapes and most of it can be found only at local or regional levels. Some relevant

figures do exist at national level but no European-wide data are available. Because of the different methods of collection and compilation of data, a comparison is virtually impossible. Any generalisations made to create the indicators necessary for the purposes of spatial planning could lead to a decisive loss of information with respect to the high diversity of cultural landscapes.

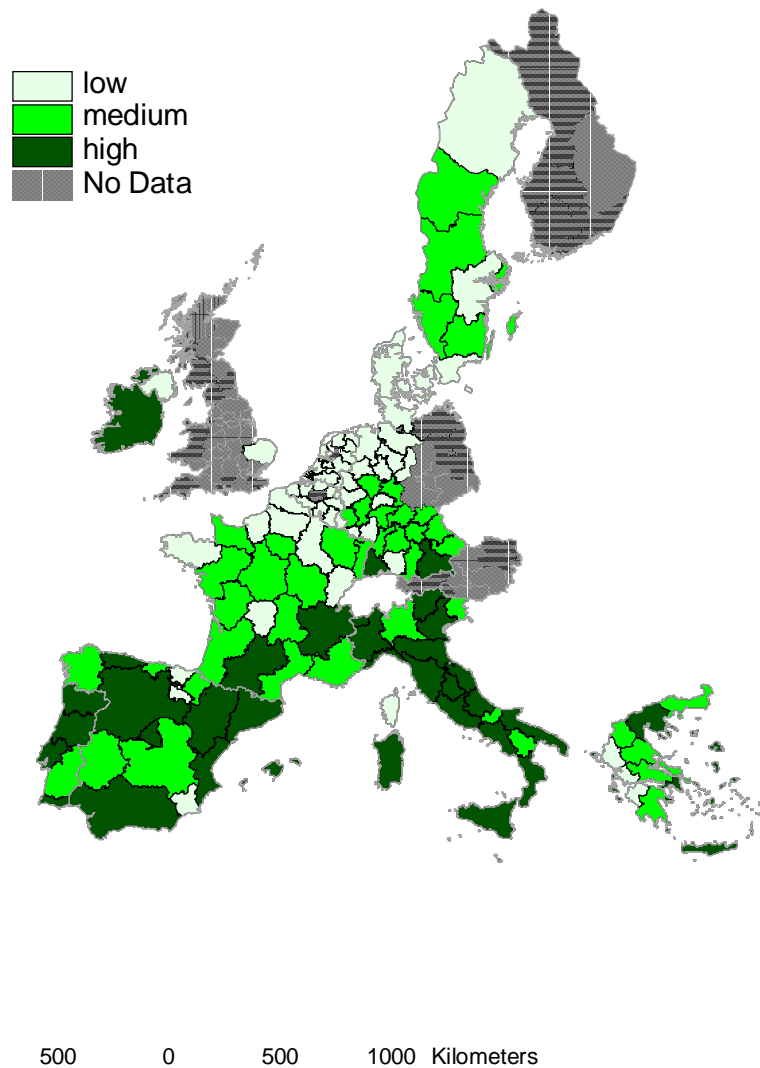
Two types of indicators are distinguished in the present study. *Significance indicators* represent all the intrinsic properties of single cultural elements and of their context, as well as objects, activities and facilities that make them culturally significant. This type of indicator represents the historical and actual state of the cultural landscape. *Degree of threat* indicators represent all those conditions and activities, as well as objects and facilities, whose existence, absence or inadequacy causes a condition of imbalance likely to lead to degradation.

The search for relevant and suitable indicators on cultural landscapes for spatial planning purposes is guided by two requirements: availability at a European level and representative quality. In describing cultural landscapes, two principal approaches are possible. The first is a direct assessment, made by interpreting remote sensing data on the physiognomic appearance of the cultural landscape. The other possibility is more indirect, using statistical data usually collected within administrative borders. Two data sources were used: the Regio Database of EUROSTAT and the CORINE Landcover Database.

The significance degree was reached by combining three indicators. Agricultural production by UAA (Utilised Agricultural Area) and Share of farms with a UAA less than 20 hectares by total units, give an overview of intensification trends and of the concentration of small-scale agriculture, correlating with non-industrialised ways of production. A third indicator, Yearly tourist stays (day-tourism not included), represents the attractiveness of a rural or urban landscape. The synthetic picture (Figure 27) shows the combination of the three unweighted indicators.

Figure 27. Significance of cultural landscape

Figure 27. Significance of cultural landscape



Explanatory Note:

The map displays a combination of three indicators, which are summed up without weighting. The first two indicators, “Agricultural Production by UAA” and “Share of farms with a UAA less than 20 ha by total units”, represent important agrarian landscapes in Europe. The third indicator, “Yearly Tourist Stays”, represents the attractiveness of a certain area. The combination results in high values in Italy, and Ireland, as well as in the northern part of Portugal, large areas of Spain as well as the southern parts of Germany and France.

For measurement of the threat to cultural landscapes, a variety of factors had to be taken into account. One indicator comprising many threatening impacts on landscape is population growth, which measures both land-use pressure (population increase) and abandonment (population decrease). The term “dissection” (length of transportation network by total area) was chosen to represent a number of fragmenting factors. Use of energy and lubricants by UAA gives an idea of the intensity of agricultural production. The Standard gross margin is used to measure sustainability of use, with low values leading to abandonment and high values to overuse of the cultural landscape.

These various indicators of threat were combined to produce the synthetic illustration (Figure 28) indicating the degree of threat.

Figure 28. Degree of threat to cultural landscape

The maps can give only a very rough idea of the spatial distribution of significant cultural landscapes in Europe and the degree to which they are under threat, showing the limitations of the Eurostat database in this context, as the database allows only for interregional comparability within one country.

Taking the actual state as a starting point, the indication of future development of cultural landscapes – taking into consideration anthropogenic land-use pressures requiring more (or less) space and more (or less) intensive use of space – is a task for the future. The dynamics of landscape development can be observed by setting up a monitoring system. The most reliable data source in this context would be remote sensing data. The CORINE land-cover database provides comparable data and ensures an objective interpretation for the whole EU territory. Although the data are about ten years old and have a comparably low resolution, they give a rough idea of land cover. The advantage of using remote sensing techniques is that data collection does not have to follow administrative boundaries, which limit the extent and diversity of the cultural landscape being evaluated.

For measurement of diversity, the major land cover types of the European Environmental Agency were used to create a diversity value. The value is computed by counting the number

of pixels which have a different land-cover within a diameter of 2000 metres. The map produced (Figure 29) has only limited validity, as the resolution of the image used is relatively low and the spectrum of land-cover types is only roughly represented by the seven classes. Nonetheless, the spatial distribution of diverse or uniform areas is clearly recognisable.

Figure 29. Diversity index of cultural landscape

Built heritage indicators

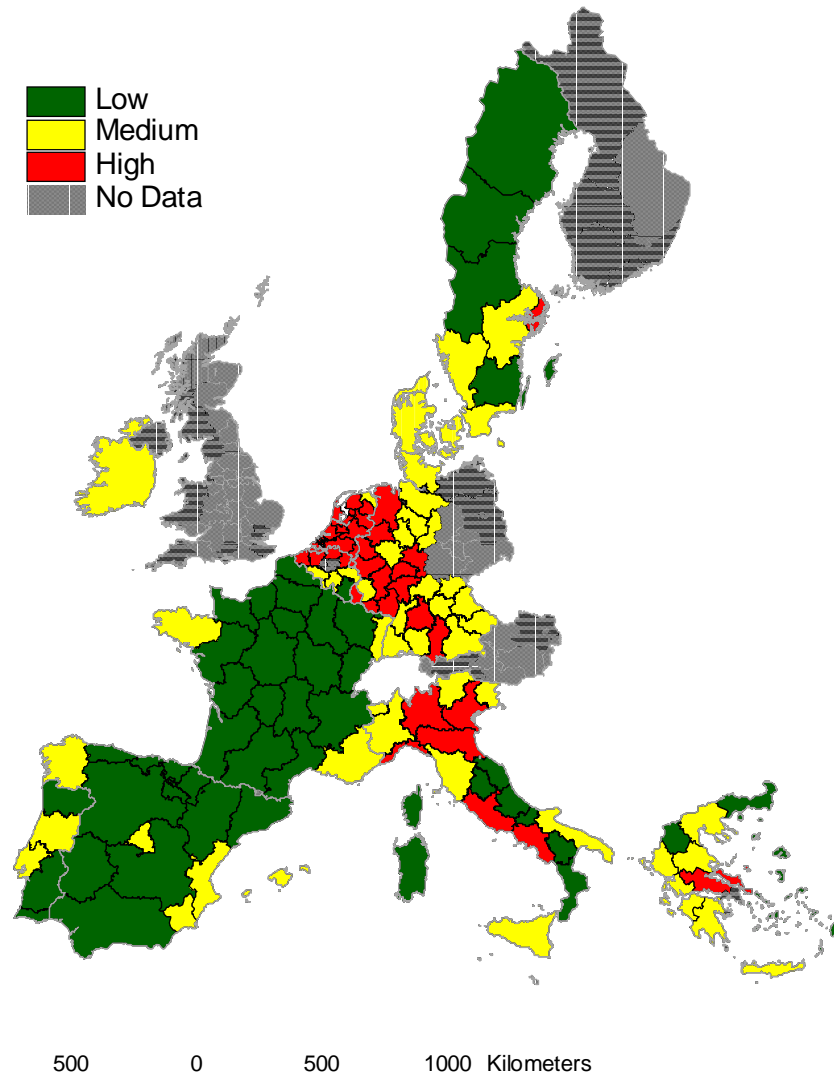
Measuring the significance of and degree of threat to the built cultural heritage also presents a number of particular problems. No clear-cut, universal definition of heritage is available, nor is there European-wide recognition of what cultural assets actually are. Consequently, data is not available: incomplete listings of sites and cultural assets and lack of homogeneity in the listing techniques and scope between countries are the rule. The standard of heritage description is low and data on tourism activity are underdeveloped.

Cultural assets differ widely in scale. A single remain or site cannot be compared significantly with an entire historic city, for example, for planning purposes. To measure the spatial effects of the presence of the heritage on the territory, case studies must be used to provide a more complete analysis. A set of measures with sufficient descriptive power to represent the problem of sustainable use of the heritage is proposed, as well as a methodology for the collection of interesting information and data that are not generally taken into account.

The mode and quality of the use of the heritage are crucial for its conservation in the long term. Since tourism is its main source of use, the significance of the cultural heritage for tourism and the degree of threat posed by the latter must be assessed. This study centres on the power of attraction for, as well as on pressure derived from, tourist activities. The assumption is that achieving a harmonious relationship between the heritage and its consumption (e.g. through tourism) will lead to sustainable utilisation of the cultural assets.

To benchmark the tourist potential, assessment of the concentration of cultural assets in an area is required. Firstly, an area with a high number of assets is per se an attractive area

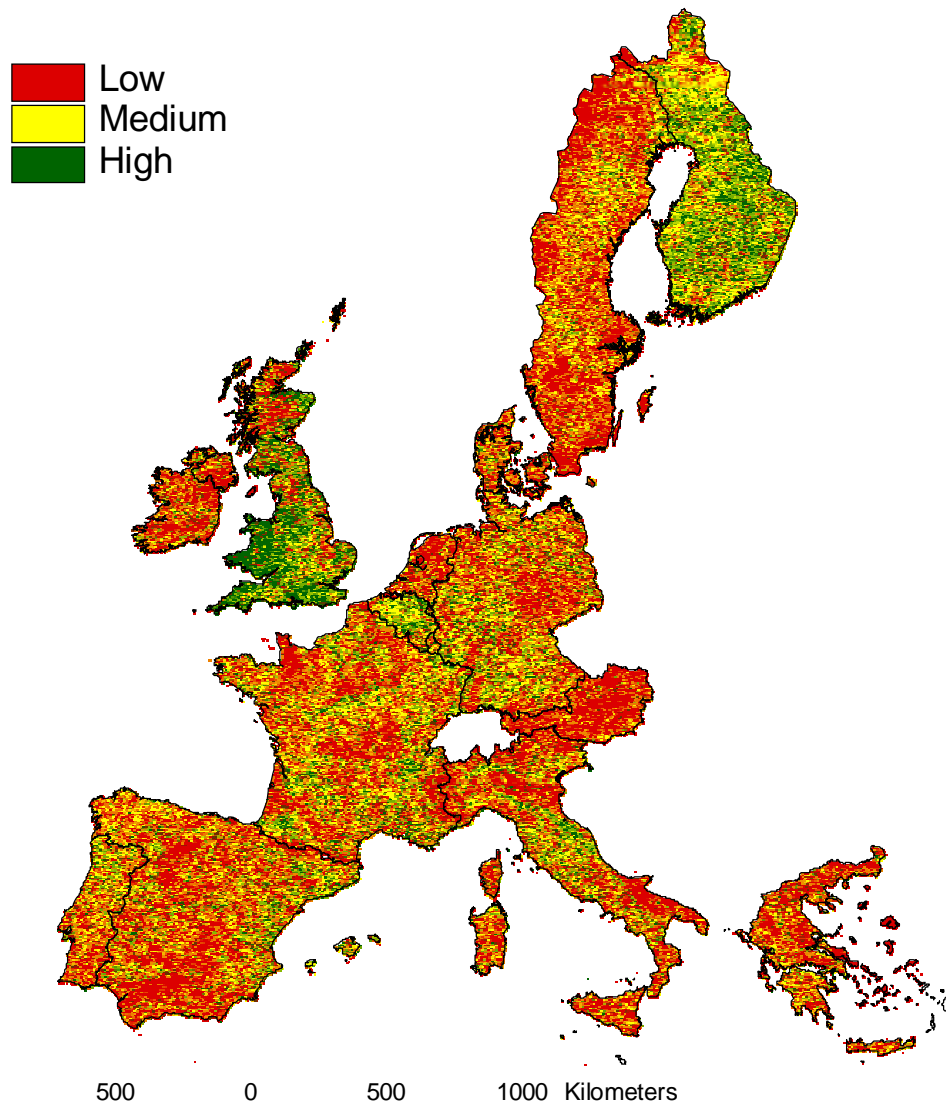
Figure 28. Degree of threat to cultural landscape



Explanatory Note:

This map shows the threat to cultural landscape calculated on the basis of four indicators: Population change (increase or decrease), Dissection (length of transportation network by total area), Use of energy and lubricants in agriculture by UAA (Utilised Agricultural Area), and Standard Gross Margin by UAA. Since at least the data of the Dissection indicator is not reliable for comparison of countries (enabling only national comparison), the picture presented by this map is questionable. While almost the entire territory of Spain and France seem practically unthreatened, Italy shows the complete range, in Germany medium and highly threatened classes predominate, and the Netherlands, Belgium and Luxembourg are highly endangered.

Figure 29. Diversity index of cultural landscape



Explanatory Note:

By using CORINE data the diversity of the cultural landscape can be evaluated. In this map the diversity value is computed by counting pixels which have a different landcover within a circle with a diameter of 2000 m. This algorithm is used for every pixel in the satellite-derived image. Areas of intensive agrarian use, such as the Netherlands or the *Bördelandschaft* in Germany and the valley of the Po in Italy, appear in the low diversity classes, while Finland, for example, appears in the higher classes due to its landscape variety, forests interlaced with lakes.