

Territorial Information System in Andalusia. A tool for the analysis of Tourism.

Experience / application paper

Tourism in Andalusia is a key sector of the region's economy, not just in terms of its size but also because it constitutes a heterogeneous activity that draws upon a wide range of productive branches and territories in order to satisfy tourist demand. This diversity and broad productive relationship mean that tourism is among those activities with the greatest capacity for generating income and employment.

Since 1995, SAETA (short for Andalusian Tourism Statistics and Analysis System) has been working on the implementation of a tourist statistical information system for Andalusia. SAETA is a service provided by the Andalusian Regional Government's Sport and Tourism Board. SAETA's generic aim is to become a tool via which the Autonomous Region can obtain a better understanding of what tourism is, how tourist activity works in Andalusia and the influence it brings to bear on the region.

Public and private sector demand every day a more detailed information ranging from total figures for the whole region of Andalusia to specific information about the different municipalities. Andalusia covers 17.3% of Spanish territory, 87,268 km² in total, making it the largest single region, with an area greater than countries such as Belgium, Holland, Denmark, Austria and Switzerland with a number of municipalities close to 800. SAETA has created a new project in the sake of providing this service based on a database including homogeneous statistical information for the municipalities as well as Tourism Impact Indicators in order to create a Tourism Indicator System for the municipalities. Therefore the aim of this paper is to present the System for Territorial Information of Andalusia including indicators for the municipalities in the Autonomous Region of Andalusia.

Methodology

The software used for the elaboration of the maps has been ArcView 3.2.

Bibliography

Encuesta de Ocupación Hotelera. Instituto Nacional de Estadística.

Registro de Turismo de Andalucía. Consejería de Turismo y Deporte. Junta de Andalucía.

Sistema de Información Municipal de Andalucía. Instituto de Estadística de Andalucía.

Bienes Inmuebles de Interés Cultural. Patrimonio Histórico Español.

Sistema de Información Medioambiental de Andalucía. SinambA. Consejería de Medioambiente.
Junta de Andalucía.

Application Context / User Value

This system of information is especially useful for the regional Government, specifically for tourism planning. It is also of interest for the private sector in order to identify those potential development areas.

The System of Territorial Information on Tourism in Andalusia
A tool to analyse Tourism.

Introduction

Any tourism policy should be structured on deep knowledge of the current reality, for this reason the System of Analysis and Statistics on Tourism in Andalusia (SAETA) has been providing and generating statistical and documentary data.

SAETA began by collecting, classifying and handling data referring to the sector as well as creating and maintaining several statistical and administrative databases related directly or indirectly to tourism in Andalusia. Making all this data available to both public and private agents, to facilitate planning and promotion of this strategic sector for the economic development of the Autonomous Region of Andalusia.

SAETA goes even further in the analysis of this sector by creating a System of Indicators, an Economic analysis Model and a Model for Forecasting and Predictive Analysis aiming to obtain the maximum benefits from each and every one of the sources of statistical information. SAETA has continued progressing and adapting to the tourist industry's need for information. The general evolution of the main tourist variables for the whole of the Autonomous Community of Andalusia is currently available, this type of analysis can even be done for all the Andalusian provinces, but it is also necessary to have this information focused on smaller territories.

Due to the large number of requests for information from the private sector dealt with by SAETA, it has been possible to discover the shortfalls in this type of data, needed by the tourist business in order to adapt to the changing market conditions and to make decisions on commercialisation (localisation, market research, marketing plans, etc.).

Public Administration also has deficiencies with reference to statistics in sub-provincial areas. For promotion, it is highly useful to have more detailed knowledge about the different products and complementary supply in the different Andalusian tourist areas. Decisions on commercialisation of tourism in Andalusia as a whole, should adapt to reality, focusing on diversification of supply.

The aim should be strength its capacity of attraction and avoiding the labelling of Andalusia as a destiny for budget package holidays, with mass tourism, and promoting Andalusia for its beauty, culture and the existence of high quality natural environments.

With reference to planning, either at the Regional Administration level or at the provincial, supra-municipal or municipal level, the usefulness of this data is evident, as planned tourist activities generate a reduction of the negative externalities of any economic activity while promoting the positive effects.

The process of collecting and processing all the data necessary for carrying out an analysis of the different Andalusian areas, towns and villages from the tourist point of view in a homogeneous and methodologically correct way, is not an easy task. Each Administration will supply the data from their area of responsibility, but if we just collect this data, we will not be able to compare different magnitudes. Because of this, it would seem evident that the Andalusian Administration needs to satisfy this demand by supplying the sector with a collection of official statistics that really meet the needs of public and private agents.

Territorial Distribution of the Tourist supply in Andalusia.

The supply of registered tourist accommodation in Andalusia, i.e. without taking account rented apartments and bungalows commercialised on the real estate market, is 340.7 thousand hotel beds, distributed in 1,150 hotels (162 thousand beds), 452 tourist apartment complexes, 177 campsites and 1,414 guest houses. In 2001, 20.7 million people were accommodated, of which 9.5 million were foreigners and the rest Spanish. Of the foreign tourists, more than half were British and German, while of the 11.2 million Spanish tourists, 3.8 million were Andalusian (internal tourism) and the other 7.4 million came from other regions of Spain.

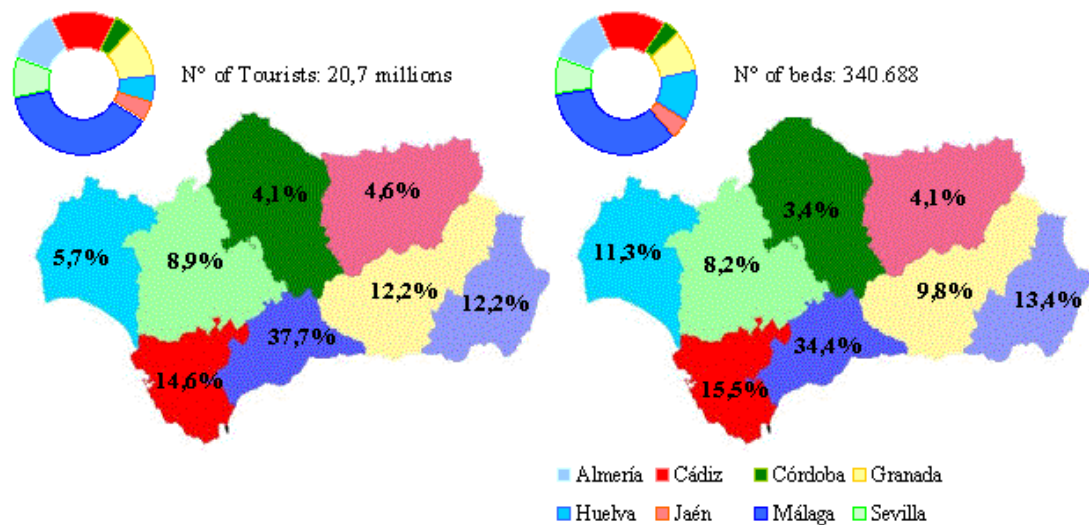
This volume of activity generates a tourist production (value of goods and services produced by the Andalusian economy to attend to tourist demands) that amounted to 11,419 million Euros in 2000, employing around 193,333 people. Tourism is not only the most important industry in Andalusian economy (contributing approximately 15% of the gross domestic product) but also the most dynamic since 1994. With a 2-point annual average growth in the decade of the 90s,

tourism is responsible for 21.4 percent of the total growth of Andalusian economy from 1990 to 1999.

Andalusia is an important international tourist destination. In terms of reception of foreign tourists, Andalusia is equivalent to countries such as Thailand or the whole of Oceania, more than doubling other top destinations such as Cuba, the Dominican Republic or Argentina. It is also a region that has strengthened its condition as a tourist economy especially after the difficult first half of the last decade, growing more than 5 percent in real terms from 1994 to 1999.

With reference to provincial distribution, number one is Málaga both in terms of supply and demand, receiving 37.7% of all the tourists that visited Andalusia in 2001 and offering 34.4% of all the hotel beds. Cádiz, Almería and Granada, as can be seen in the figure, follow Málaga at a great distance.

Figure 1. Distribution of tourists and beds in Andalusia by provinces. Year 2001.



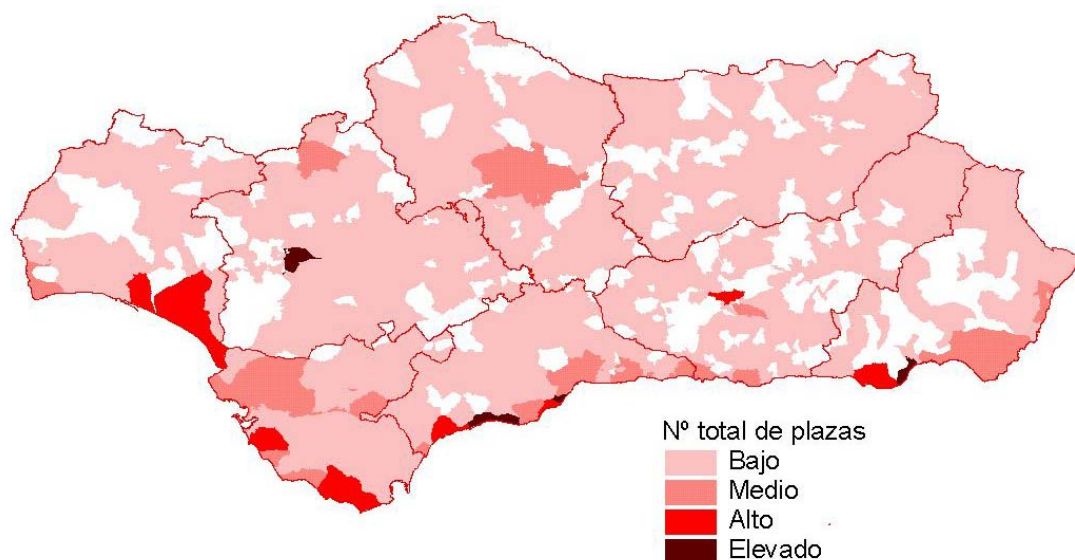
Source: ECTA, IEA. RAT, Consejería de Turismo y Deporte.

The study of the relationship between tourism and territory is especially interesting in an Autonomous Region, which presents (as can be seen in figure no. 1) a high concentration, in supply and demand, especially in the province of Málaga.

Nevertheless, to appreciate the relationship between tourism and territory in greater detail, it is necessary to focus on smaller territorial divisions. If we observe the number of beds per town, the

supremacy of Málaga is not so evident (map no. 1). Even though a high concentration can be seen, as the four towns with the greatest number of beds make up 25% of the total number of beds available in Andalusia¹ and of these four towns, two of them are in the province of Málaga.

Map nº 1. Distribution of beds by municipalities. Year 2001.



Source: SAETA from RAT. Consejería de Turismo y Deporte.

Andalusian towns with the greatest number of beds.

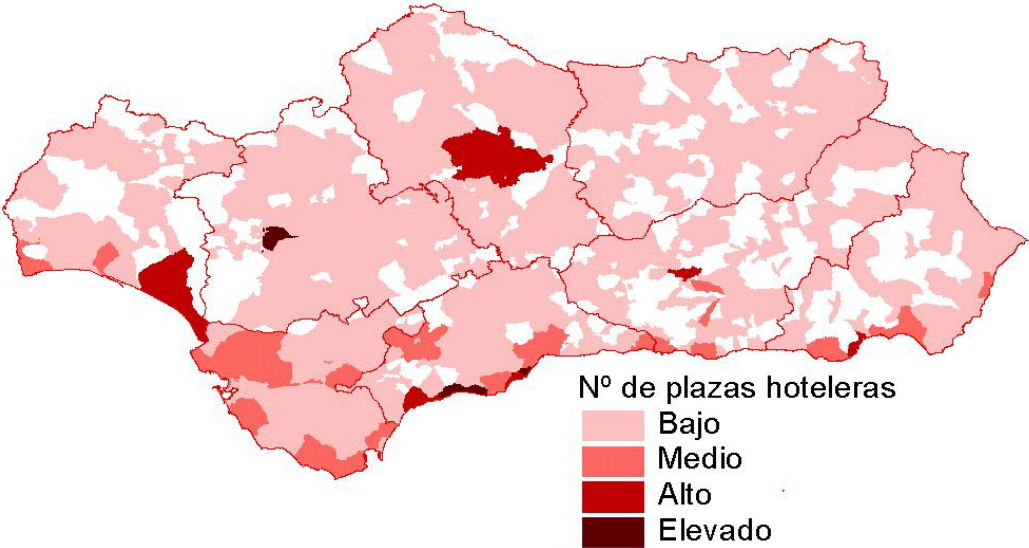
Province	Town	% of the total in Andalusia
Málaga	TORREMOLINOS	7.7%
Málaga	MARBELLA	7.0%
Sevilla	SEVILLA	5.0%
Almería	ROQUETAS DE MAR	4.5%
Málaga	FUENGIROLA	3,8%
Málaga	BENALMADENA	3,5%
Granada	GRANADA	3.5%
Huelva	MOGUER	3.0%
Almería	EL EJIDO	2.9%
Huelva	ALMONTE	2.8%
Cádiz	TARIFA	2.2%
Málaga	ESTEPONA	1.9%
Cádiz	CHICLANA DE LA FRONTERA	1.9%
Total		49.7%

This distribution varies if we analyse the supply taking into account the different types of accommodation, there is even a significant variation in the distribution of hotel beds, despite the fact that these comprise 48% of the total number of beds (map no. 2). With reference to hotel

¹ In maps 1, 2, 3, 4, 5 and 6 each category contains 25% of the total number of beds.

supply, 25.6% of the beds are concentrated in three towns, two in the province of Málaga and the 10 towns with the greatest number of beds make up 52.4% of the total number of hotel beds available.

Map nº 2. Distribution of hotel beds by municipalities. Year 2001.



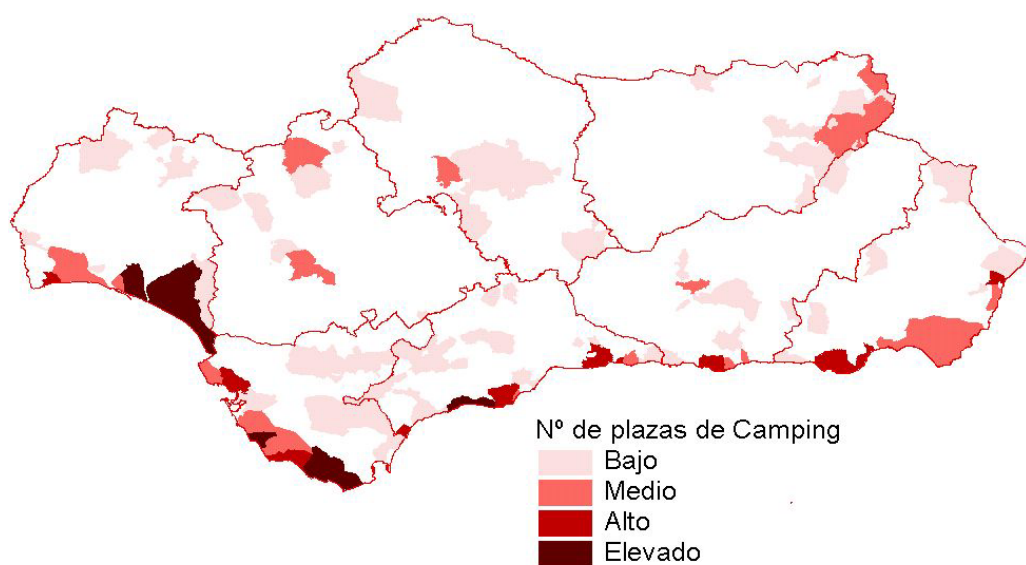
Source: SAETA from RAT. Consejería de Turismo y Deporte.

Andalusian towns with the greatest number of hotel beds.

<i>Province</i>	<i>Town</i>	<i>% of the total in Andalusia</i>
Málaga	TORREMOLINOS	10.3%
Sevilla	SEVILLA	8.0%
Málaga	MARBELLA	7.3%
Granada	GRANADA	5.3%
Málaga	BENALMADENA	4.9%
Almería	ROQUETAS DE MAR	4.9%
Málaga	FUENGIROLA	4.2%
Córdoba	CORDOBA	2.6%
Málaga	ESTEPONA	2.4%
Huelva	ALMONTE	2.4%
Total		52.4%

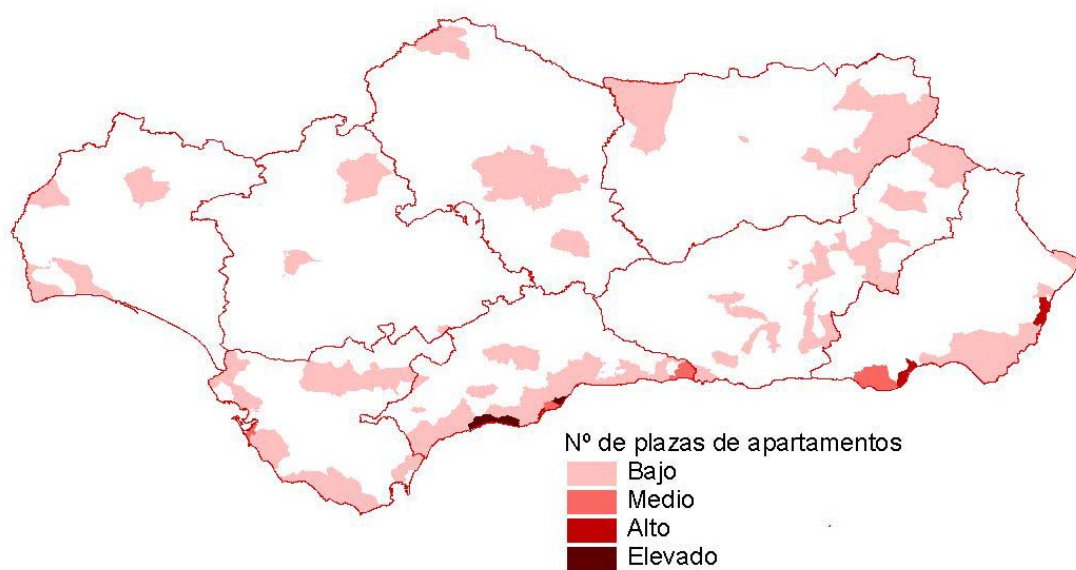
Even more concentration can be seen in other types of accommodation, concretely in campsites, where there is a specialisation in coastal towns (map no. 3), while for apartments (map no. 4) 75% of the beds are concentrated in nine towns, all located on the coast. With reference to rural accommodation, this type displays the least concentration, specialised in inland rural areas (map no. 5).

Map nº 3. Distribution of campsites beds by municipalities. Year 2001.



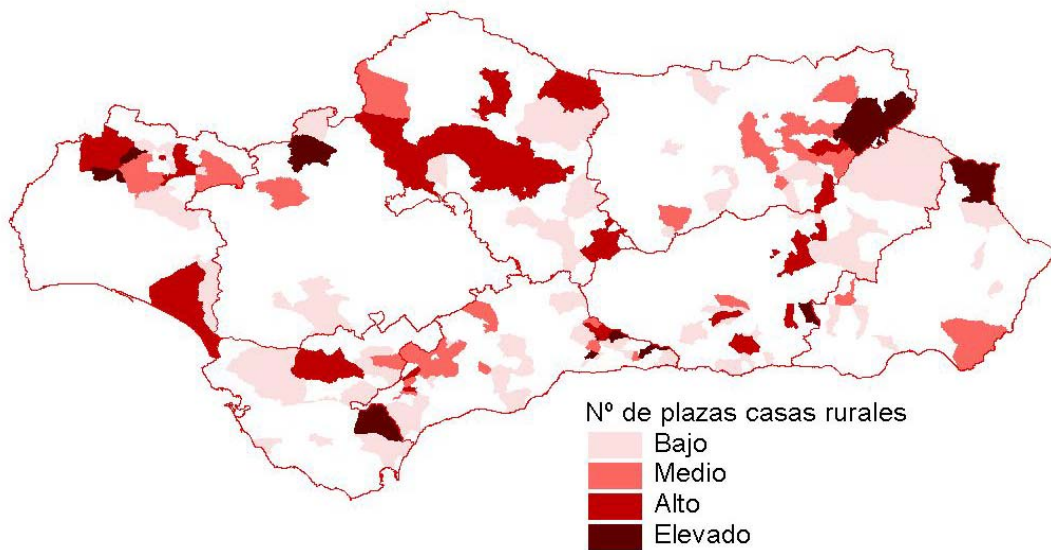
Source: SAETA from RAT. Consejería de Turismo y Deporte.

Map nº 4. Distribution of apartment beds by municipalities. Year 2001.



Source: SAETA from RAT. Consejería de Turismo y Deporte.

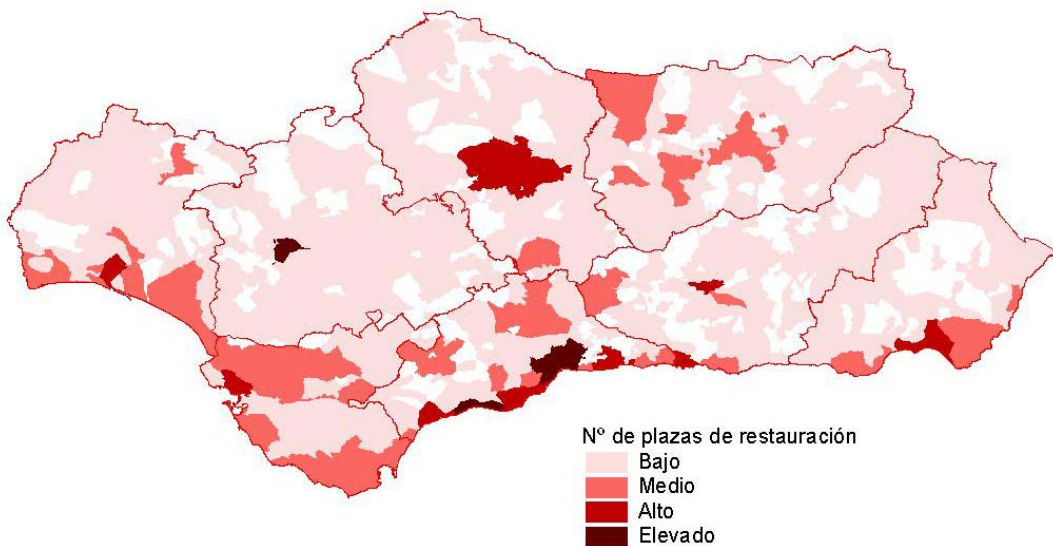
Map nº 5. Distribution of rural house beds by municipalities. Year 2001.



Source: SAETA from RAT. Consejería de Turismo y Deporte.

The restaurant industry supply measured in terms of number of seats in restaurants and cafés has a similar distribution to accommodation. There is a greater presence on the coast and in the provincial capitals, despite the fact that the inland towns it is more important than in the case of the supply of accommodation (map no. 6).

Map nº 6. Distribution of restaurant and cafés seats by municipalities. Year 2001.



Source: SAETA from RAT. Consejería de Turismo y Deporte.

Indicators of Intensity

It is evident that the size of a town, measured either by area occupied or by inhabitants, has an influence on the tourist supply and demand. Thus, together with the total number of beds, it will be necessary to use certain *tourist intensity indicators*², referring either to the population or to the territory.

The present paper uses the following:

Indicators of tourist intensity with relation to population:

▮ *Indicators of supply,*

$$(\text{Number of beds} / \text{stable population}) \times 100$$

Indicators of tourist intensity with relation to the territory:

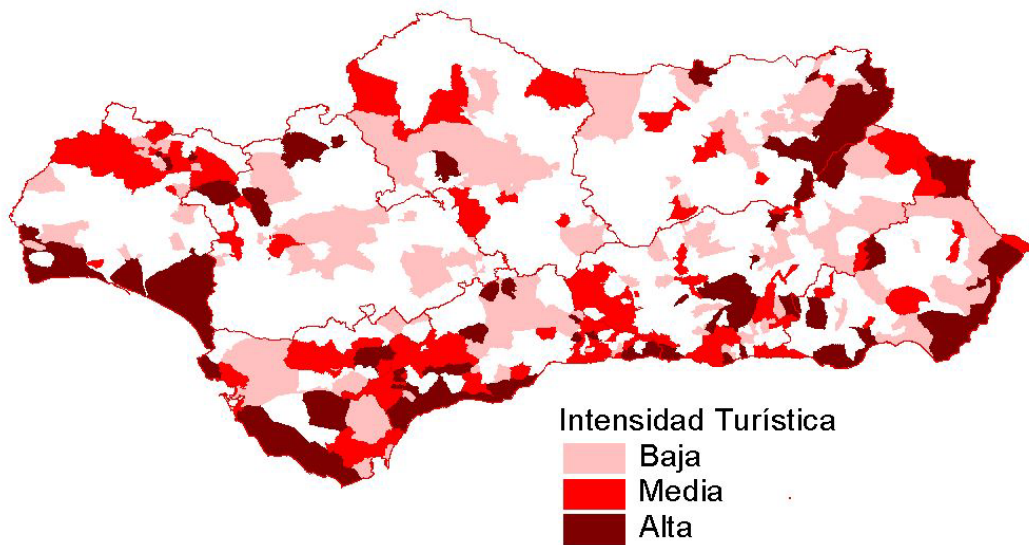
▮ *Density of accommodation,*

$$(\text{Number of beds} / \text{number of km}^2) \times 100$$

Analysing the results of the first indicator, it can be stated that Andalusia is an eminently tourist region, as in 286 of the 781 Andalusian towns this indicator is greater than 1. This indicator provides an approximation to the functional specialisation of the town in tourism, displaying a significantly different distribution from the mere representation of number of beds (map no. 7).

² Document A/6/15/C.1 on the “Elaboración de un Sistema de Indicadores Estadísticos sobre Viajes y Turismo” (Creating a Sytem of Statistical Indicators on Travelling and Tourism), by the WTO.

Map nº 7. Indicator of tourist intensity with relation to population. Year 2001.

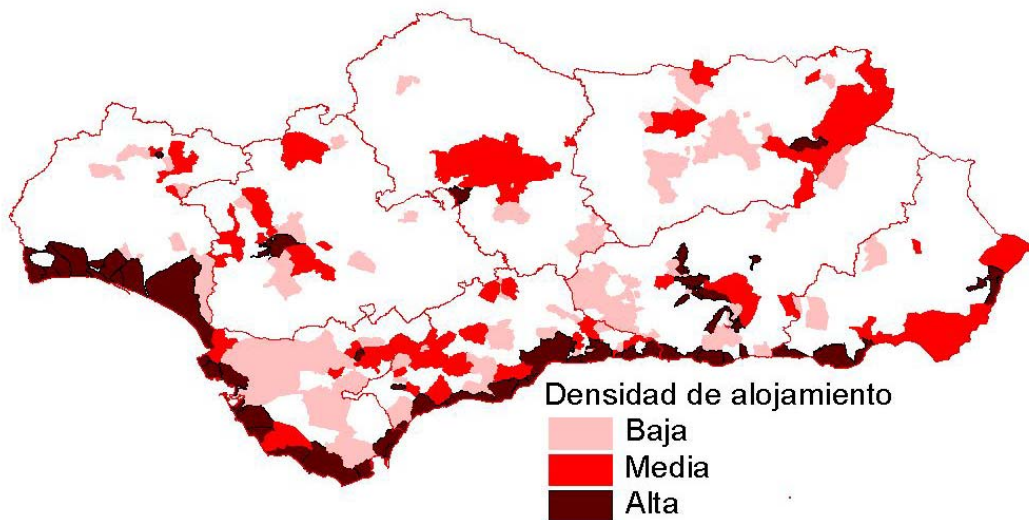


Source: SAETA from RAT. Consejería de Turismo y Deporte.

Functional specialisation is high in most of the coastal towns, but it is also high in other inland towns specialised in rural and natural tourism.

With reference to the indicator of tourist intensity with relation to territory (map no. 8), the representation on the map varies significantly from the population one, the Andalusian coastal towns being clearly highlighted together with other inland areas and the cities of Seville and Granada, eminently tourist cities. Thus, the greatest tourist occupation is seen on the Andalusian coast, being the coastal towns those that create the greatest pressure on the territory, a vitally important parameter if one intends to preserve environmental quality.

Map nº 8. Indicator of tourist intensity with relation to territory. Year 2001.

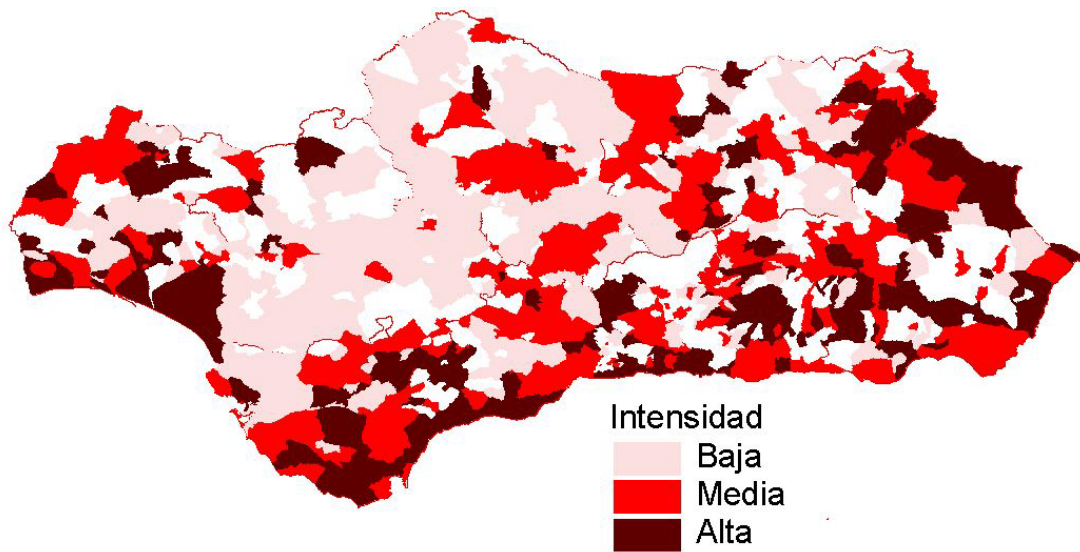


Source: SAETA from RAT. Consejería de Turismo y Deporte.

Thus, it can be concluded that tourist activities have a great impact on the Andalusian coastline territory while in protected natural areas there is not such a high pressure on the territory. Nevertheless, when considering the indicator of tourist intensity with relation to the population, it can be said that in some rural villages with protected natural areas, the impact of the tourist industry is high.

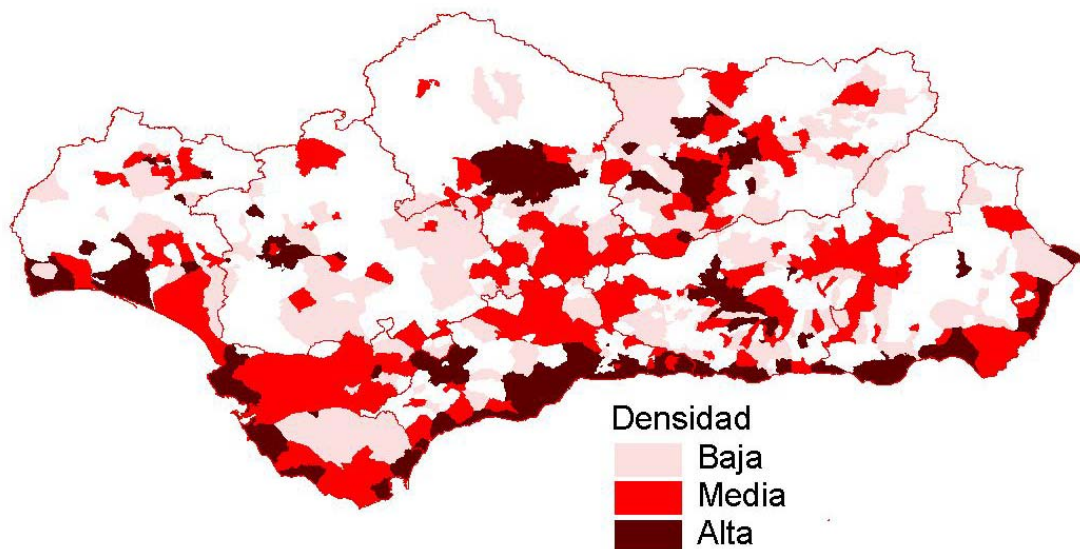
These indicators have also been created for the restaurant industry supply (maps nº 9 and 10), where there appear other important areas with a high density outside the coastal line, especially in the indicators corresponding to tourist intensity with relation to the population. This indicator provides complementary data as it enables the identification of the towns that, because of their abundant supply in the restaurant sector in comparison to accommodation, can be seen as focal points for excursions or for non-regulated accommodation (e.g. second residences).

Map nº 9. Indicator of restaurant industry intensity with relation to population. Year 2001.



Source: SAETA from RAT. Consejería de Turismo y Deporte.

Map nº 10. Indicator of restaurant industry intensity with relation to territory. Year 2001.



Source: SAETA from RAT. Consejería de Turismo y Deporte.

Zoning according to territorial characteristics

Once the tourist supply of Andalusia has been analysed by types and intensity, one can affirm that it is a destiny specialised in sun and beach tourism. The coastal areas of Andalusia receive

the greatest pressure, although not only by tourism. The coastal towns of Andalusia occupy 7,942 km², which is 9% of the total Andalusia, holding 34% of the Andalusian population in 2000. This proportion shows the greater density of population that exists in coastal towns, but the tourist sector increases this pressure even more, shown by the fact that 75% of all the hotel overnight stays in Andalusia in the year 2000 took place in the 9% of the territory occupied by the coastal towns.

Logically, the supply of accommodation is also concentrated on the coast, highlighting the case of tourist apartments, concentrating 97% of the supply, followed by campsites with 80% and hotels with 65% of the beds. Concretely, 72% of the total amount of the supply of controlled accommodation in Andalusia is on the coast. With reference to the restaurant industry (cafeterias and restaurants), coastal areas do not have such a high concentration, with 55.5% of the total in Andalusia. The concentration of cafeterias is greater than that of restaurants.

This concentration of supply and demand is not so strong in those towns that offer other tourist attractions. To define the towns that offer the greatest number of monuments, those that offer more than 10 Sites of Cultural Interest registered by the Ministry of Culture have been selected.

These towns comprise 15% of the total area of the Andalusian Autonomous Community, holding 47% of the population, so one can see that these towns also have a high density of population. Nevertheless, with reference to overnight stays in hotels, the concentration in towns of monumental interest (39.5%) is way below that of coastal towns (75%). With reference to supply, these towns have 31% of the total number of beds available in Andalusia, hotels being the most abundant (38%). One can highlight the greater supply of restaurant services in these monumental towns, having 44% of the total seats in restaurants and cafeterias existing in Andalusia, rising to 56% if we just consider the cafeterias.

The natural environment supply is the most widely spread in the 781 Andalusian towns, as 337 of them have some sort of protected natural areas. These towns hold 70% of the population of Andalusia, although with reference to overnight stays in hotels, they receive 52% of the total number of overnight stays in Andalusia. With reference to number of beds, these towns supply 57%, logically highlighting the concentration of rural houses, supplying 77% of total number of

beds available in Andalusia. The participation of these towns and villages in the supply of cafés and restaurants is on a similar level to that of accommodation.

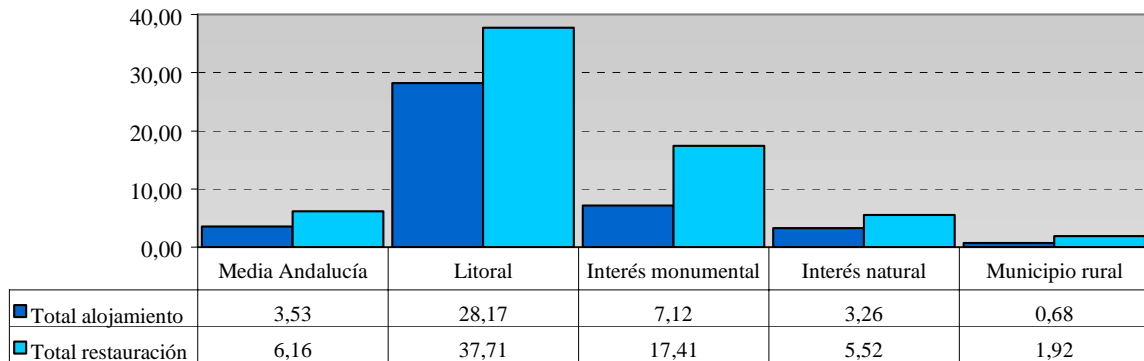
From the definition of rural environment given in Decree 20/2002, of January 29, on rural tourism and active tourism³, the towns selected comply with two conditions: 1. The total number of inhabitants according to an updated census is no greater than 20.000. The towns and villages are not on the Andalusian coast. In this way, rural towns and villages are defined that cover 76% of the surface area of Andalusia, although in population, they only amount to 33% of the total. This lower density of population is also reflected in a low number of overnight hotel stays and a smaller number of beds on supply. Nevertheless, they are specialised in rural accommodation, with 86% of the total number of beds supplied in Andalusia. These towns and villages are also more specialised in the cafés and restaurant sector, especially in the restaurant one, where they supply 25.4% of the total number of seats in comparison to 14.7% of the total number of beds in the region.

Bringing together all the indicators used in this division by areas (graph 2), it can be seen that both for accommodation and catering, the coastal area has a much higher density than the other area, while the rural towns and villages have a lower density. It can be highlighted that the difference between the values presented by the coastal towns is much greater in the tourist indicator referring to territory than that referring to population, the contrary to what can be seen in the rural and natural towns and villages.

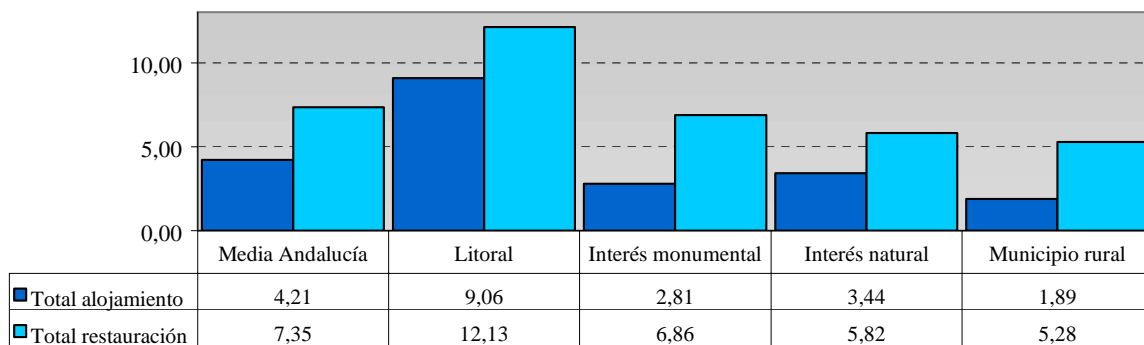
³ Decreto 20/2002, de 29 de enero, de turismo en el medio rural y turismo activo: (BOJA nº 14, de 2 de febrero) / Consejería de Turismo y Deporte.- Sevilla: Consejería de Turismo y Deporte, 2002.

Figure 2. Indicator of tourist intensity with relation to territory and population. Year 2001.

Nº de plazas por 100 km2



Nº de plazas por 100 habitantes



Source: SAETA from RAT. Consejería de Turismo y Deporte.