$\textbf{Cuadernos de Turismo}, n^o~51, (2023); pp.~457-459$

eISSN: 1989-4635

EXTENDED ABSTRACT

REGIONAL GEOGRAPHICAL ANALYSIS OF THE SPANISH "WATER FOOTPRINT": BASES FOR TOURISM PLANNING

Ignacio Sotelo Pérez

Instituto Universitario de Ciencias Ambientales. Universidad Complutense de Madrid ignaciosoteloperez@ucm.es http://orcid.org/0000-0003-0619-7732

María Sotelo Pérez.

Universidad Rey Juan Carlos. Madrid maria.sotelo.perez@urjc.es https://orcid.org/0000-0002-5541-7941

José Antonio Sotelo Navalpotro

Instituto Universitario de Ciencias Ambientales. Universidad Complutense de Madrid jasotelo@ucm.es
https://orcid.org/0000-0003-2800-6677

The management and planning of tourist resources must be based on the idea that the territorial concentration of capital is one of the clearest consequences of the new economic dynamics. From this perspective, the processes of concentration and selective location, linked to tourist activities, could be explained as a consequence of the different levels of productivity of the different territories; showing that those who concentrate the highest levels of circulating capital (both economic, natural, human, technological, etc.) will be considered the most productive. Likewise, among the set of factors, together with the economic ones -in which the access and variety of inputs, human capital, technology, information, services stand out...-, it is worth noting economic, political and security stability, among others, as well as having physical infrastructures (in terms of public services, such as water supply, transport and communications system, public electricity system,...), as well as infrastructures of a social nature (judicial system, education, social security, public security and defense, among others). With all this, the location of the set of the aforementioned factors mark the economic processes of production, as well as distribution and consumption, determining, at the different scalar levels, the markets that define and guide the movements of the population (all of them are of notable interest when dealing with the indicators that we must assess with respect to tourist resources, in their management and planning); with which, through these territorial planning processes, a correct organization of the factors that mark and define the geographical spaces is defined and determined.

In this way, throughout the present investigation we approach, from the perspective of tourist resources, indicators such as the "Water Footprint" whose territorial and regional

projection facilitate the analysis and interpretation of inter- and intra-regional realities, whose valuation favors the study and interpretation of the existing differences, in the different spatial scales, approaching what the concept of sustainability entails, contributing to the subsequent decision-making, the basis for the valuation and use of tourist resources (in this way, its incorporation into the general theory of economic development is facilitated based on the verification of the centrality that these issues have acquired in the current approaches to territorial and regional development).

In order to know the problems related to the "Water Footprint" indicator of Spain, and its implications in the field of tourist activities, we must start from the idea according to which the predominant hydrological reality is the so-called "Mediterranean", characterized by a low volume of annual rainfall, defined by a season that can be classified as "dry", with a notable impact on the water reserves in the subsoil or on the river flow itself (bearing in mind, however, the territorial diversity of Spain, among which stand out its climatic peculiarities that define an unequal distribution of rainfall).

In the same way, highlight the incidence of atmospheric evapotranspiration as well as the uneven temporal distribution of rains -which cause there to be years with a rainfall deficit as opposed to others with more rainfall intensity-, in addition to the possibility of carrying out hydraulic works -reservoirs, transfers, etc.,-, that solve the vicissitudes of the physical environment; and it is that, the diversity of forms of adaptation of the human being to the different climatic episodes has affected the very organization of the Spanish territory since Roman times, becoming more visible from the second half of the 20th century, where the urbanization processes, industrialization, the expansion of irrigation and the development of tourist activities, among others, have marked the hydraulic policies of our country. It should be noted that this whole process defined by a new regulatory base -both legal and economic, linked to the management of water resources-, has not allowed, to date, to deal with the set of elements and factors (aridity, drought, levels of precipitation, temperature, urbanism, hydraulic works, etc.), that affect and have repercussions on the achievement of territorial imbalances in water matters (which not only affect direct water consumption, urban consumption, agricultural or industrial activities), rather, they have direct and indirect repercussions on the demand for the different types of tourism, marking the dynamics of the tourism markets in a country of contrasts, such as Spain.

At the same time, throughout our work it becomes clear that we must be aware that the analysis by Autonomous Communities masks issues related to a reality, at least a complex one. This is why it seems necessary to descend in the scalar analysis. In fact, if we go down to the provincial scale, we can observe how Madrid and Barcelona are the provinces that present the greatest demands for "Water Footprint", provinces in which tourism occupies a preponderant place. And it is that we must not forget that water problems constitute a complex polyhedral reality in which scales and situations, interests and values, rights and desires intermingle (in fact, any attempt at a solution must start from an objective, holistic and weighted analysis of the elements that make up this reality; the municipalities that present higher levels of "Water Footprint" are those that correspond to urban centers, as a direct consequence of the location of water consumptive functions in them). After our previous exposition, it becomes clear that the assessment of the "Water Footprint" of the Spanish regions can help us to interrelate the natural and technical environment of our country, taking into account that techniques and work are combined with the resources that we offers nature, in which water is of great importance (we must not forget that in relation to space, the material component is increasingly integrated by the "natural" and the "artificial", a fundamental issue if we want to implement fully sustainable tourism).

The analysis and interpretation of sustainability indicators, such as the "Water Footprint", allows us to know the degree of perception, at different scales, of the variations in the supply of water resources, as essential elements for satisfying the needs of water demand, direct and indirect, in the tourism sector (available in the territorial tourist resources, as well as in the set of infrastructures, services, etc., used in the development of tourist activities); in addition to the responses to the offers and demands of water, in the different territories, in a country of contrasts and imbalances, such as Spain. In this way, after the regional analysis of the reality of the demand for water resources in Spain, the study of the "Water Footprint" of each Autonomous Community is addressed in detail, in order to assess the causes and effects that define Territorial imbalances, which affect -directly and indirectly- mark and define territorial tourism development in our country.

From the aforementioned analysis by Autonomous Communities, it is highlighted that the use of sustainability indicators, such as the "Water Footprint", are essential to know the reality of the water resources used in territorial tourism development, since it not only specifies the direct use or consumption of water, but also shows the levels of water demanded -directly and indirectly-, which are available in the set of resources valued and activities carried out in tourism development.

In this way, the calculation of the "Water Footprint" allows us to approach the reality of water, in our case in Spain, an essential issue when addressing the impact, risk, damage, or simply the need for an essential resource. for the development of any activity, in general, and tourism, in particular, thus defining itself as a fundamental instrument in the field of environmental protection of the territory, economic growth and social projection (support of territorial development); all of this, not so much in a corrective way, as a preventive one, which in the case of tourism management and planning is of great importance, showing that tourism as an economic activity must value indicators such as the "Water Footprint".