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COMPLUTENSE

Epistemological bases of the environment and risks in the field of tourist activities: words, terms and concepts

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Abstract. Scientific knowledge, environmental knowledge, risk knowledge, etc., based not on the intrinsic rationality of the fundamental assumptions of unprovable science, but simply on a convention, is making its way today (as Professor Calsamiglia has shown in his work). Convention that changes over time, precisely for that reason it can progress. If we are able to overcome rigid methodological monism and stop considering unworthy of attention everything that does not agree with the established convention, then, and only then, we will be able to truly relativize our knowledge, which is the product of conventions and developments of these conventions, and we will not be able to claim that our knowledge is the truth, and that our convention is the true one, the one that corresponds to human reason, but we will simply maintain that it is a way of interpreting reality, a scheme of interpretation of the reality that we claim to know. I underline a scheme of interpretation, neither the only possible one nor the ultimately true one. Perhaps the closest or most true at a given time, but one that is destined to be surpassed. This is an idea that is attempted to be developed here.

Keywords: Environment; tourism; risks; territory; scientific knowledge; technicality.

[es] Bases epistemológicas del Medio Ambiente y de los Riesgos, en el ámbito de las Actividades Turísticas: palabras, términos y conceptos

Resumen. El saber científico, el del medio ambiente, el de los riesgos, ..., basado no en la racionalidad intrínseca de los supuestos fundamentales de la Ciencia indemostrables, sino simplemente en una convención, se abre camino en la actualidad (tal y como ha puesto de manifiesto en su obra el profesor Calsamiglia). Convención que cambia con el tiempo, precisamente por eso puede progresar. Si somos capaces de superar el rígido monismo metodológico y deja de considerarse indigno de atención todo aquello que no concuerde con la convención establecida, entonces, y sólo entonces, podremos realmente relativizar nuestros saberes, que son productos de convenciones y desarrollos de estas convenciones, y no

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podremos afirmar que nuestro conocimiento es la verdad, y que nuestra convención es la verdadera, la que corresponde a la razón humana, sino que simplemente mantendremos que es una forma de interpretar la realidad, un esquema de interpretación de la realidad que pretendemos conocer. Subrayo un esquema de interpretación, ni el único posible ni el verdadero en última instancia. Quizá el más aproximado o más verdadero en un momento determinado, pero que esta destinada a superarse. Es una idea que aquí se intenta desarrollar.

Palabras clave: Medio Ambiente; Turismo; riesgos; territorio; saber científico; tecnicismo.

[fr] Bases épistémologiques de l'Environnement et des Risques, dans le domaine des Activités Touristiques: mots, termes et concepts

Résumé. La connaissance scientifique, celle de l'environnement, celle des risques,..., fondée non sur la rationalité intrinsèque des hypothèses fondamentales indémonstrables de la Science, mais simplement sur une convention, fait aujourd'hui son chemin (comme cela a été souligné dans son travaux du professeur Calsamiglia). Une convention qui évolue avec le temps, c'est précisément pourquoi elle peut progresser. Si nous parvenons à dépasser le monisme méthodologique rigide et si tout ce qui n'est pas conforme aux conventions établies n'est plus considéré comme indigne d'attention, alors, et alors seulement, nous pourrons véritablement relativiser nos connaissances, qui sont le produit de conventions et de développements de ces dernières. conventions, et nous ne pourrons pas affirmer que notre connaissance est la vérité, et que notre convention est la vraie, celle qui correspond à la raison humaine, mais nous soutiendrons simplement que c'est une manière d'interpréter la réalité, un schéma d'interprétation de la réalité que nous entendons connaître. J'insiste sur un schéma d'interprétation qui n'est ni le seul possible, ni le véritable en fin de compte. Peut-être le plus approximatif ou le plus vrai à un moment donné, mais qui est voué à être dépassé. C'est une idée que nous essayons de développer ici.

Mots-clés: Environnement; Tourisme; risques; territoire; connaissances scientifiques; technicité.

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Sumario. 1. Introduction; 2. Starting point: the words; 3. Period and followed: the terms; 4. Through the slippery territories of concepts; 5. By way of open conclusions. 6. Bibliography.

1. Introduction

Dealing with the “risk society” today requires attention to studies carried out by various experts, like Manuel Castells, who, based on exhaustive knowledge in various scientific subjects in general, and in Geography and Economics in particular, helps us to approach generic notions that are often abstract of what this term means. In the case of this author, he has not limited himself to carrying out a simple study on the characteristics of the dominant socioeconomic and territorial logic, but rather proposes other interpretations of a more generic nature. The author starts from the premise that we are witnessing a process of profound transformation of the economy, society and territory, associated with information technologies (which he considers responsible for the forms of accumulation in this new phase of capitalism), u uses a new conceptual category: informational society, to refer to the socio-spatial model

that is now emerging. According to Castells, the progressive domination of the space of flows over that of places “is a way of circumventing the historically established mechanisms of social, economic and political control by the organizations holding power” as most of these control mechanisms depend on social institutions with a territorial base, Escaping the social logic inherent in any particular place becomes the means of achieving freedom in a space of flows connected only to other power holders who share the institutionalized social logic, values and operating criteria; phenomena that, at the same time, provide us with the necessary data so that other scholars and researchers can approach, through analysis, a complex reality, not without difficulties and in which it is essential to find answers to all those problems that social activities are raising. And when we deal with “risks” in the field of the Environment, some of these hypothetical experts to whom we refer show us various fundamental needs and aspirations that the citizens who make up the *corpus* (human body) of the same, (need) to be able to reach a level of material development that is minimally acceptable. This claim is translated into a series of parameters, mainly of an economic nature (which is the object of analysis here, on which we are going to focus, leaving aside other particularities of areas related to morality, spirituality or philosophy), such as obtaining positive indices in terms of aspects that cover the different “per-capita” incomes of citizens or the economic growth of the politically organized territories they occupy, or simply, having the appropriate technology that makes it possible to obtain competitive industrial production, would lead us to distinguish between what would comprise economic development on the one hand (enabling an economic improvement of the whole society together with an increase in investment that would lead to the increase of infrastructures of both an agricultural and industrial nature), Economic growth, on the other hand, (understood as social, national, in short, economic) analyzed from the study of macroeconomic elements (such as the presence of greater or lesser employment within the whole of the citizenry, the presence or absence of economic crises of any kind, etc.)(Sotelo Navalpotro, J.A., 2007).

From this conception it is not unreasonable to affirm that the aforementioned economic development would be a consequence of, and a faithful reflection of, economic growth, which leads us to analyze the different risks, or rather, the different impacts resulting from the increase in infrastructure and industrial production, which lead to the achievement of one of the main goals of today's society, politically organized, established in a territory and in a specific space (regarding some issues related to globalization, it is worth highlighting the opinion of Professor Sara González, according to whom the phenomenon of the internationalization of capital profoundly transforms the way in which we conceive space). This statement adds to the trend of current social organizational systems, which is to try to conserve the spaces they occupy, an intention that, due to the lack of alternatives, has not yet been put into practice, that is to say, it gives rise to the appearance of a series of circumstances, which entail a series of repercussions on what in social consciousness, we have come to call under the theoretical model; natural subjective heritage environment. The growth and development of a society is clearly reflected in the

territory in which it carries out its economic activity (this is a question of considerable interest when dealing with the space in which “risks” are expressed). Activity that is based on a series of principles such as progress or modernity, and whose primary objectives are supported on the basis of being able to cover the material needs that citizens demand, and put into practice through consumption. Therefore, it is more than essential and necessary for a society that is trying to develop to be able to count on an economic system in which the highest priority (apart from other issues that can be analyzed) is to achieve sufficient material production to be able to cover the needs that contemporary societies demand. In short, currently a developed society, from the point of view of “risks”, in the contexts of capitalism, in which the material production available is covered and obtained through (technologically) advanced productive structures, subsequently directed towards consumption (which was explicitly referred to in the previous lines), as one of the basic or primary demands of citizens, playing a very important and influential role in all areas of economically developed society; consumption which translates into the search for and obtaining by the latter (and by which society as a whole is nourished and composed) of “high” or elevated levels of what is commonly called quality of life.

2. Starting point: the words

Currently, it is determined that a territory is considered economically developed when the involvement of its inhabitants leads to the appearance of a series of characteristics that can be clearly summarized in the following list; it is understood that the living conditions of citizens are not limited in one way or another, that it has, as previously mentioned, an advanced productive structure, that within the territory there are no situations of economic inequality, or that in the territory in question, there are sufficient capital goods to be able to carry out adequate investments, capable of demonstrating the principle of prevention, with respect to the aforementioned “risks”. In short, a certain territory is considered to have reached development when the characteristics listed are present within its borders, and when said territory adheres to the capitalist system in a phase that we could describe as “mature”. Something truly new has been added at present, and that is that the territory and development have to be considered from an environmental and, at the same time, sustainable perspective. Development is capitalist, it is human, it is sustainable, and if these assumptions are met, the territory is considered (in comparative terms with other spaces) as developed; and this meaning entails a series of additional responsibilities. On the one hand, with civil society (manifested in that this development is palpable in the citizenry as a whole, without inequalities of any kind), on the other, with the legal system (since the legal system of each State must be able to recognize the rights of individuals, as well as demand the obligations that correspond to each stratum of society, and fulfill the mission of effectively regulating those behaviors, whether public or private, that are likely to cause damage, dangers in short, that pose a risk to citizens or the environment that surrounds them), and, also, we cannot forget the complex

environmental reality, because at the present time, we can affirm that we find ourselves in a true situation of “legal-environmental risk”, and the feeling of the average citizen is that everything that has to do with industrial, productive infrastructures,...., ut is perfectly regulated within large legal systems and legal bodies, perfectly drafted and exquisitely executed by complex and competent courts; however, they are not at all concerned about whether rights are fulfilled, on some occasions, or about the well-being and health of citizens on others, although they are included in the various codes of law; it seems that they are not fulfilling their functions, or that perhaps -and only perhaps- their functions are subject to the dictates of certain policies and specific economic model (despite all the regulations and sorrows, the environment and the surroundings that surround us are contaminated, damaged, in progressive danger, in short, at risk).

Indeed, the development that a society tries to achieve should be compatible with respect, care and preservation of the social whole of which it is made up, as well as the environment and the medium on which it is based. However, at the present time, the coordination between these supposed ideals is threatened by all those risks that “economic or other” but ultimately human activity generates on the environment it affects, impacting in turn on organized society. The free development of an advanced and modern society that not only has the right to enjoy an adequate environment is endangered, of a clean, healthy and sustainable environment, although on many occasions citizens are not given the opportunity - as fundamental parts of the social entity that they are -to comply with a series of obligations that may allow them to preserve the environment that rightfully belongs to them. Usually on a large scale, and despite being subject to a democratic system, it does not depend on the average citizen, or on his or her decisions, to be able to adopt a series of actions, which, whether through the implementation of rights recognized as subjective, or through the fulfillment of a series of obligations also legally defined, can guarantee the conservation and preservation of the natural environment that surrounds them and that belongs to them patrimonially speaking, as an essential part of their personal, social and free development. It seems that when we refer to the “risks” and their repercussions on the environment, we have nothing to say or do about it, nothing matters, because there is little we can do, it does not depend on the citizens, but we are predisposed by the implementation of the so-called “economic model”, political situation or the “legal system”, depending on how you look at it, and according to which and despite the constitution and establishment of institutions and political regimes of a democratic nature within their founding principles, it is of little or no use to us, we are not asked whether we want certain infrastructures or not, they are simply made, and when they are already made we do not have the opportunity to know the good and solidarity that certain citizens do and endure (with the reality that some specific societies may bear the risks, dangers and damages that certain industrial complexes entail, for the benefit of others who, thanks to this effort, benefit from the solidarity of certain citizens who live in certain urban complexes), of other citizens who do not have to be subject to the risks posed by certain manufacturing units, economic structures, etc. The environment that surrounds us, fragile and often

deteriorated, must be cared for, through effective conservation measures, integrating it into the economic development model. In the case of Spain, this is determined by the search for growth, often revealing some of its shortcomings when it comes to combining this search for economic growth with an equitable and equal distribution of wealth and per capita income of its inhabitants, which undoubtedly allows for the development and achievement of a more friendly or, if you prefer, healthier ecological environment for all citizens, protecting them from the various “risks, dangers, impacts and disasters”.

3. Period and followed: the terms

In the conviction of understanding that the knowledge and interpretation that can be made about the reality that surrounds us cannot be based on statements or absolute truths, and in the enthusiasm of being able to question the existing interpretations and conventions, it is appropriate here, in the research that sees the light in these lines, to provide new forms, creating new schemes of interpretation of reality, the environment, our closest médium. Neither the most true, nor of course the only possible one, simply the one we believe to be the most valid and acceptable in order to overcome the interpretations, regulations and uses already established in our society; in short, destined to be studied, investigated and to serve the contributions presented here.

Along with natural risks, per se, human activity as such, isolated from macroeconomic decisions, is not what produces the risks, since economic activity is the main cause of natural impact, in accordance with the growth and consumption needs of those who occupy and exploit the environment. They are the impacts generated by economic policies, due to the potential for harm generated by decisions and their implementation, the primary source of situations that produce damage. Policies that directly cause the generation of what we call risks; that is, human activity is not the main generator of impacts, dangers or risks, understood as the daily practice that any developed society carries out inside and outside urban or rural settlements, but we find that they are those economic activities, predetermined by the economic model, and supported by legal regulations dictated by certain economic policies as well, those that contribute to the establishment of infrastructures and actions that become a direct source of undetermined damage and danger (on many occasions), on the territory in which they are installed. Infrastructures, activities and facilities that may be harmful to the flora, fauna and living beings of the regions on which they affect, and that normally do not leave public opinion indifferent, mainly because they rarely convince people that they obey the general interest, or that they entail a greater degree of protection of the environment, or that they solve the daily problems of citizens as a whole, but rather seem to address needs of a social nature (consumption, well-being, materialism, jobs), that is, subject to the interests of a particular economic model, which serves as a guide to the actions of economic action policies, and which call into question the regulations and interpretations provided by law.

We must not forget that the economic model that puts the interests of capital, consumption or materialism before the "subjective" rights recognized to citizens, such as being able to live in an environment suitable for personal development, free of risks, ecological damage, dangers and which have a significant impact on the lives and well-being, both physical and mental, of citizens, as well as of future generations, can be described as pernicious (a model, in short, in which economic principles prevail over social environmental values). It is not difficult to think that policies and the economic model have managed to put rights recognized as fundamental, achieved over the centuries, at their service, at the service of progress, of modernity, of development, of well-being, and not the other way around, achieving that our cities, towns, and natural areas are shaped according to the physiognomies, aesthetics and uses that best suit their purposes, that is, growth. And it is that more than ever we have the need (having achieved certain levels, more than acceptable and necessary, of social, economic, technological and industrial development and ultimately, economic growth) to guarantee in the normative texts, in an effective and real way, the recognition of the protection of non-individualizable, common, and collective goods, but as has been demonstrated after the construction, location of facilities and implementation of projects and infrastructures, so necessary for modern and developed societies (of course highly competitive), have had a significant impact on the lives of citizens and, specifically, on their individual quality of life. In short, recognizing the conservation of goods that belong to everyone, and that even when their exploitation and use affect the whole of society, their modification, transformation or change directly impacts the quality of life of the individual as a particular and autonomous entity. An individual whose social coexistence and personal development in relation to his or her environment is closely dependent on his or her fundamental rights, which in turn must be capable of inspiring the legal system, guaranteeing a democratic system (in its objective dimension), but which acquire their fullest meaning (in its subjective dimension) by protecting and guaranteeing the recognition of the most personal and individual needs and decisions of citizens.

Protection and guarantee -we can point out at this point- are the two words that have to be reflected in the positive wording of our rules, and not only reflected in our codes, but also in jurisprudence, as well as in the sentences of our courts; and, more importantly, materialized in a real and effective way in our environment, an environment in which the citizen is able to glimpse a reality (not contaminated, legally regulated), in which the presence of social and human activities are in harmony with the environment (clean air, absence of contaminants in marine or terrestrial waters, enjoyment of clean and healthy drinking water, food free of any type of harmful contamination, discharges from any industrial plant, in short, natural circumstances conducive to the vital environment of people), and legally protected as a set of rights recognized to citizens, and guaranteed through a series of legal instruments that make them effective, real.

Thus, we can affirm that the environment considered as such would not have more or less importance than what certain social groups want to attribute to it or not (with respect to anthropogenic and technological risks), considering whether it should be

protected or not; From this perspective, those citizen behaviors that in one way or another harm will be classified as facts worthy of attention, and produce risks about the environment and the surroundings. But the reality is not so simple, it is much more complex, since we are not dealing, in this sense, with human behaviors that can be assessed as producing risks y damage to inanimate property, which of course is available to the social group, and can be used without further ado, but when dealing with the risk generated by the economic activities of populations (developed or not) that need to develop through the use and exploitation of the environment at their disposal, we face a greater challenge, which is to know how to rationally put into practice an economic system or model generated by human beings, in which natural resources are essential to achieve an essential goal, that of economic growth, with quality of life, autonomy and self-determination of citizens, that is, with freedom.

According to the above, anthropogenic and technological risks, in short, the dangers caused by human activities on nature affect society as a whole in its dual dimensions, individual and collective. In the first - its individual dimension - they affect actions in which the individual cannot freely enjoy and use the environment in which he develops, without the intervention of any other private subject, company or public body of any kind, finding himself subject in his decisions, regarding the use of his environment, to something more than his own decision-making power of self-determination. Power that can be exercised thanks to a legislative order that protects and safeguards it against interference outside its particular being and that is exercised with respect and care over natural resources (product of the supportive education that state institutions guarantee and demand from every citizen). As for the second -its collective dimensión- in the sense of not being able to participate in the decisions that are important within their social community, in those decisions that have a direct and indirect impact on the environment and in which, in one way or another, each citizen feels that they are a real participant in the formation of the public will, causing the inhabitants of the different territories to feel, in a real or fictitious way, displaced in the decision-making that influences their physical and natural environment. In short, with the participation of citizens (Law 27/2006). In public decision-making, such as those that affect the environment and therefore their rights, and the free enjoyment of the environment and development of their personality, citizens are able to fulfil themselves as individuals, without responding to the interests of corporations and private companies, whose only aim is to convince people that they are taking citizens into account in order to achieve development that directly benefits them, and not the other way around. And to consider that a society is democratic is equivalent to affirming that we are dealing with a citizenry that has granted itself a system whose government is considered fair, guaranteeing constitutional rights as important as individual freedom or legal security, and that is capable of consolidating a political system, legitimate and of law, directed towards the recognition of the individual and his "subjective" rights, which together with the protection of the individual person, his civil rights, and, through a series of norms, written laws, which form part of the legal *corpus* that make up a true and complex legal system, independent of and independent from the rest of the constituted powers (capable, in short, of developing its existence

and coexistence within the framework of a globalized international reality). This is the context in which environmental policy to be implemented against natural, anthropogenic and technological risks must be assessed.

Hence the importance of having the power to have an economy and a right, as far as the Environment is concerned, its primary mission is to be able to regulate effectively and successfully the concretion of dangers, prevention, repair and risk assessment, creating a social and environmental order in which it is possible to find solutions to risks with precision and clarity that either nature or human action causes on the territory and the environment. Naturally, the regulations must ensure that the solutions prescribed, given the probability of causing damage to the territory, are fair solutions, not solutions adapted to certain economic assumptions, supported by artificial regulations that respond to the predominant model of production, distribution, consumption (although this model has allowed for human development and quality of life indices that are quite acceptable in most European countries), which are usually accompanied by highly damaging consequences for the environment. Damages that are normally caused by the invasion of certain industrial facilities in regional territories, located indistinctly and normally by political decisions (decisions almost always in the service of the economic model), in a given region and whose effects are reflected in unacceptable social suffering for a citizenry that aspires to have acceptable levels of well-being and quality of life. In short, it is more necessary than ever to have a law that is capable of rationalizing the private and personal interests of specific sectors of society that are concerned with economic growth and development, progress and modernity, material production and consumption, that is, capitalist societies. We need a law that has the appropriate classifications, included in normative texts, where the excesses of the current development model are foreseen and prevented, a law in which the search for concepts such as “quality of life” is translated into a discovery from which the answers to the problems that arise from the possibility of being able to make compatible other concepts such as social well-being, economic progress, economic and human development, with those that would include rational exploitation, care and protection of the environment.

All this without forgetting that the determination of dangers and the evaluation of risks, as well as prevention or remediation, make up a very important part of the “environmental mission” that is proper to economics and environmental law; this affirmation supposes accepting the real and complex existence of a system and development model in which human action and intervention, in continuous and evident interaction with the environment, brings about consequences, generates environmental impacts on the environment,... It is therefore possible to distinguish degrees of probability that human actions may cause damage (certain in some cases, not in others, but which usually bring consequences) that translate into what socially, politically and normatively speaking have come to be called anthropogenic and technological “risks”. Risks that come from the implementation of the political model, the development model, the technological model, even from the legal system itself (incapable, in many cases, of demanding, managing, and allocating those responsible for environmental damage, originating from collective (not individual, action).

When the social entity carries out the activities of modern citizenship, it becomes the primary focus and direct cause of the production of risks, which not only are they not willing to assume, but they demand that other bodies (such as the State, or the different public powers) take them. Therefore, if technology is considered a conclusive element, precise as regards what environmental alteration, change or modification is concerned, as a result of human action on the environment, it is no less true that our current law, when dealing with the environmental branch, refers to and positions itself in favour of actions where the assessment and evaluation of risks are essential. To do so, it is necessary to be able to count on those advances in which both science and technology, over the course of the years and the development of scientific knowledge, are contributing to society as a whole. Hence the importance of the assessment and evaluation that precedes any action and activity likely to cause impacts on the environment. It is necessary to differentiate a series of conceptual characteristics that, based on the initial classification carried out in environmental impact assessments, distinguishing between what is considered to be dangers on the one hand, and what are the risks themselves, on the other, can provide a global vision of what any human action on the territory and the natural environment truly means.

If through determining, estimating and evaluating the dangers, risks and also the damages, the basis on which all planning and regulation is based in legislative texts is configured, of those activities that may generate environmental impacts, the precision of the same, systematically guides, not only the current regulations, but also the environmental policies. This is why it is essential to focus on generic issues of a conceptual nature. Apart from the opinion defended by Professor Andrés Betancor Rodríguez, in which regulation must be directed to the answer to the questions generated when it comes to knowing the actions or activities of human beings, which cause environmental impacts of relevant magnitude, the type and class of impacts generated by specific human activity, and the real probabilities that these impacts generated by human action can come to fruition. That is, a regulation that is dedicated to specifying, determining the dangers, estimating them and evaluating the dangers and risks.

4. Through the slippery territories of concepts

From this perspective, Environmental Law, Environmental Economics and Environmental Geography are responsible for regulating, analyzing and studying them, inspired of course by a series of principles such as those that correspond to the aim of avoiding significant environmental impacts and those that are aimed at repairing the damaged environment or surroundings when the impacts have occurred. Let us therefore dwell on the concrete treatment of the various conceptual definitions, namely:

Risks: We understand “risks” as the combination of the probability or frequency of occurrence of a given hazard with the magnitude of the consequences of such occurrence. Risks are about the probability that dangers will lead to the generation of

damage, depending on the circumstances. This means that we understand that the damage in risk is seen as probable, while the damage in danger is simply hypothetical. If we stop to analyze the risk-centered approach, we will discover that it is concerned with addressing those dangers that, with a high probability, can cause damage. In fact, this approach, which is exclusively focused on risk, has the peculiarity of being interested in the real capacity of an object, or even a human activity, to cause damage, focusing almost exclusively on this real capacity, excluding from its focus those dangers which, although they may cause damage, do not have a high probability of causing it; moreover, according to this approach (which can be used in the resolution of those problems that arise in the management of environmental impacts), focused on risk, it admits the presence of dangers that it understands as admissible or tolerable; The answer to the dangers that we can tolerate and accept, normally, is found in the resolution of the probabilities that a danger can become harm, and in turn of how that risk materializes and the assessment of whether the danger can be translated into harm. It is no less true that knowing the level and degree of probability that harm is generated, or knowing the level of concretion of the risk with precision, deserves the analysis of another concept, that of prevention, and the approach to prevention.

La palabra riesgo, no se agota en una sola definición o acepción concreta, sino que posee varios significados diferentes. It is also understood as the forecast of loss that may be suffered in the future, although the meaning that interests us most is that which refers to the contingency or probability of damage occurring (this probability becomes relevant when social aspects such as need, progress or education interfere in the territory). When social entities come to the conclusion of giving priority to needs and growth, in accordance of course with the different economic and political situations in which they find themselves at a given time, to the detriment of education, the situation arises where the loss of culture, in this case both economic and environmental, and the absence of knowledge, cause society as a whole to lose capacities that would enable them to realise the degree, level and accuracy of all those probabilities to which they are exposed of being able to suffer significant damage, in their environment or natural surroundings. Damage, of course, has a direct impact on the well-being, loss of rights and quality of life of the entire society, and, as is more commonly known, as far as risks are concerned, we can estimate, with more or less certainty, the probability of damages with specific characteristics occurring, making it possible only to be able to evaluate some of their future consequences and results.

⚠Dangers: Considering what can be understood as danger, we have to be aware that, as with the term risk, we can find more than one meaning that defines this term. Thus, when dealing with what danger is, we understand that we are referring to the properties of an object that make it capable of causing harm to something or someone, that is, we understand it as the potential to cause harm; a property or situation that, depending on certain circumstances, can cause harm. More simply, danger would be everything (with all its properties, as we mentioned before) that is shown to be capable of causing damage, which brings us closer to another concept, that of vulnerability. By this we understand the individual, concrete and intrinsic characteristics that we can find in an object, individual, system, model, citizen and

also in a society, which enable and allow them to resist (better in some cases, worse in others) a series of hypothetical events of any kind. That is to say, there is a relationship that shows us the way to understand what vulnerability would be, and this relationship would include, on the one hand, the event (happening or impact), and on the other, the damage that the object, society or individual could suffer. One of the forms that what has been described as vulnerability can take would be what in a society can be understood as resilience. Resilience -a permanent and continuous appearance in a progressive manner, in the social entity- would be understood as that set of qualities inherent to the human being that, in the face of adversity, recover, in a relatively short period of time, from the adversities generated by a disaster, regardless of the degree or amount of damage that the entity has suffered, whether as a social group, or as individual citizens, autonomous as such.

Therefore, here we approach a series of concepts that, when we deal with the issue of risk, in its overall dimension, we realize that it is not an isolated and independent term, but rather it introduces us fully to the knowledge of other concepts with their own meanings that, in turn, complement it. Thus, we come to the conclusion that in order to have a broad vision of risks, we have to be able to find out, through comparative analysis, the definitions of other terms that introduce us and help us understand the broad meaning of the term risk. In this study, after approaching the above concepts, we can get the impression that the subject of risks refers to a subject whose classification is conspicuous by its absence, and that risks can be considered in isolation from the source that originates them, and we cannot forget that when we refer to risks we refer to a subject marked by "speculation". After this statement, we can give way to thinking that risks are a series of phenomena, calculated through a series of mathematical formulas that would use the knowledge and studies of the branch of knowledge that probability provides us, and this is not entirely true. When talking about risks, we must distinguish, on the one hand, those that would be the direct or indirect cause of man's action on the environment in which he lives (that is, anthropogenic risks), from those risks that are the product of natural phenomena (phenomena that would be the cause of a series of dangers, whose probability of being actualized in the generation of a series of damages, would give rise to what we have defined as risks, properly speaking). These, among others, are meteorological or climatic, biological, cosmic or planetary, geological and hydrological hazard. Natural phenomena bring with them a new meaning, disasters, whose comparison with what are the risks highlights the existence of differences and also some similarities between them. While disasters refer to any certain fact of a loss -which a priori can be taken for granted, totally certain, located in time and space, and whose analysis is carried out in the present time with value also in the present, at the moment in which the disaster occurs; risks, however, deal with the probability or frequency of occurrence of a loss; that is, the prediction of the loss (a loss that is undoubtedly an uncertain loss, it has not happened at the time when the events are being assessed and, in addition, the appropriate means can be applied on the ground to avoid it). Unlike disasters, risks are not located in space or time, since the risk has not yet happened, it has not occurred, starting from the analysis of the present day towards the future day, only

with present value, but never as occurs with disasters with the value at the time in which the latter occur. Leaving aside the differences, these two concepts that are being compared have certain similarities between them, such as that both incorporate within their meaning the presence of a circumstance, event, transformation, occurrence or happening, to which the production of damage can be attributed. Damage understood as that cause-effect link, capable of generating harm, misfortune and evil, applied in this case to something or someone, an important factor here being able to calculate the true value of that someone or that something, since these two subjects form the object on which the loss or damage occurs (when the cause and the effect, mentioned in the previous lines, are united in time and space, it would give rise to what would be direct damage; while indirect damage is that which follows an event). The different probabilities of damage occurring can even be classified into different strata or degrees of probability, which would range from the differentiation of a maximum degree (the appearance of damage is taken for granted), a probable degree (there is a risk, that is, the probability, that the danger becomes a risk), and another degree that is considered null or minimum (when there is no danger), which can facilitate, for example, the task of quantifying or estimating risks (such as that carried out through risk assessment).

The above brings us closer to another series of concepts that are directly related, in close interrelation with the territorial and spatial reality introduced by Geography. The first of these is the Environment (Sotelo Navalpotro, J.A., 2015). At present, the emergence of studies related to the environment is part of a general framework of concern in the sciences about the consequences of environmental degradation processes and the waste of natural resources and reserves produced by technological advances and the economic development of a rapidly growing population that seriously compromise the future of humanity (Barceló i Pons, 1984). The environment as a science does not have, at the moment, a well-ordered and mature doctrinal body that, in a coherent way, structures the different implications of the knowledge that it comprises. All this without forgetting that science at a specific time responds to impulses of the existence of problems that are considered important and that today they try to solve, as is happening with the deterioration of the environment. The different definitions that are given try to respond to the idea according to which the environment has reached the scope of the human species, and depending on the social, economic, psychological reality, etc., valued on different scales, make it perceived as broader, or on the contrary, it becomes more specific until it can be treated in almost individual realities and problems. The word environment is relatively new, complex and highly subjective, which is why it presents difficulties in its definition and subsequent use. The tradition generated from biology shows many ambiguities and confusions, starting with a mechanistic conception in which the environment is that in which every body is submerged, until reaching the idea of the circumstances that influence organisms or modify them. However, “the word environment would serve to describe society as a whole: institutions, culture, nature, cities, habitat, economy, technology,..., in a word, everything that is the creation of man, everything that surrounds him, everything that he remembers, everything that is imposed on him and,

also, everything that he expects” (Carrizosa, 1981). For its part, CITMA's National Environmental Education Strategy summarizes the term as: “A complex and dynamic system of ecological, socioeconomic and cultural interrelations, which evolves through the historical process of society”.

Another biological definition tells us that “we understand the environment as the set of all the external forces or conditions that act on an organism, a population or a community. Classically, we can distinguish within the environment elements of a climatic nature (temperature, humidity, solar radiation), elements of a chemical nature, such as the characteristics of the soil substrate, or the water, where the organisms naturally occur (mineral nutrient content, pH of the solution, concentration of O₂ and CO₂ gases, etc.). But we must also differentiate elements of a biological nature, since the presence of living beings also means the modification of environmental characteristics for a given organism. Typical biotic interactions correspond to the phenomena of competition, priority, parasitism and mutualism. The physical-chemical elements (climate and substrate) constitute the primary determinants for the behavior and performance of living beings in natural conditions” (Carrizosa, 1981).

The diversity of definitions shows the variety of different concerns that different groups have regarding the environment. From this perspective, the source of the discussion is the subjectivity of the concept, a condition that varies according to the age, social condition and cultural tradition of the people who use it. In short, when dealing with the environment we find ourselves with a scientific fragmentation resulting from the various sectoral and causal approaches to the environmental reality itself. Related to this is the Environmental Component. The Royal Spanish Academy defines “component” as that “which composes or enters into the composition of a whole”. In this way, in a “Complex and dynamic system of ecological, socioeconomic and cultural interrelations, which evolves through the historical process of society” (ENEA), such as the Environment, we can define environmental components as the physical-natural, socioeconomic and cultural elements that comprise it.

More specifically, in the physical-natural environment we can distinguish between abiotic factors (within which we find the environmental components air, water, soil and rock), biotic factors (in which the environmental components flora, fauna and ecosystems stand out), and, finally, “perceptual” factors, among which the “landscape” component is included. In the socioeconomic and cultural environment, the population -social component-, the economy and culture stand out. Apart from what has been pointed out, we still have to deal with the concept of Ecodevelopment. According to professors Camacho and Ariosa (2000), this is understood as “Development, at a regional or local level, in which attention is paid to the rational use of resources, technological modalities and social structures”. If we look for a more concrete approach, we find that of Professor Luis Jiménez Herrero (1992), for whom “the complex conceptual and pragmatic integration is a synthesis between development and environment, in which an environmentally healthy, economically viable and socially fair development stands out”.

The concept of eco-development was proposed by M. Strong, Executive Director of the United Nations Environment Programme (UNEP), in June 1973. However, this

term was coined by I. Sachs, who is also responsible for its international dissemination. In general terms, eco-development is embodied in the idea that this is the result of the action of legitimate progress without aggression, taking into account the needs of each territory (we are faced with an alternative to purely economic and material development); “eco-development, originally defined as a guideline for regional development strategies, especially accepted in rural tropical areas, is rapidly becoming more widespread in order to define ecologically rational integral development projects. The concept is expanding to synthesize a more egalitarian and less dependent style of development that emphasizes greater socio-environmental rationality for the management of resources and space, using ecologically viable designs in the planning of economic development, with the application of environmentally appropriate technologies and also seeking greater democratic control and popular participation in decisions about the physical and social environment of those most directly affected” (Jiménez Herrero, L., 1992).

At this point we can approach the concepts dealt with from the legal field. Environmental Law presents us with a changing natural context whose constituent elements do not remain unchanged for long periods of time, forming fragile ecosystems, in many cases sensitive to human actions on them; actions that deteriorate them despite the fact that the environment is configured as a fundamental piece, external to the citizen, which envelops him, surrounds him, and in which he is able to develop his daily vital existence. Law is currently facing a widespread social concern for everything related to the environment, and citizens demand the implementation of solutions to environmental problems, which make it necessary for legal, political or administrative bodies to intervene, above needs and uncertainties of any other economic, business and private nature. In the case of environmental law, understood as defined by Professor Betancor, that is, as that set of legal norms that integrate a system or subsystem of the legal system and regulate human activities to protect the environment or nature, In addition, in relation to the topic that interests us here, there is the imperative need to be able to confront those circumstances that give rise to the different activities that generate dangers. Activities in which the intervention of law, its mission, translates into being able to reach the determination of the same, so that later reliable estimates of the dangers can be obtained (understood, as we saw previously, as the capacity to cause damage), that these activities can cause, and the need to evaluate (reference is made to the evaluation of Environmental Risks, as that technical procedure that is used to be able to reach the specification of dangers and the evaluation of risks). It is the procedure by which the risks presented by the dangers inherent to certain processes or situations are calculated, quantitatively or qualitatively. The different probabilities that these activities and the different dangers that they generate, come to produce a series of damages (risks). Activities, which are nothing other than a significant source and producers of environmental impacts, according to which, the law plays the primary role of making available to citizens, an effective, current and real regulation, in accordance with the circumstances and times, which promotes, guarantees and ensures the relationship -paraphrasing Ost- of nature with society as a whole, of access, use and exploitation of the same, but from a conception

aimed at its protection, or in any case, when the situation arises, at its repair, when nature and its resources have been damaged. A right that is always preferable to be directed towards the prevention of damage, and that reparation is contemplated only in those circumstances, according to which the damage has already materialized. A right, in which the capacity of control and response, towards the natural environment, is totally limited, as demonstrated, for example, in those cases where the economic activities of modern societies have given rise to real environmental catastrophes, and needless to say in cases where the effects of nature have fully impacted the environment and its surroundings, giving rise to disasters caused by totally unstoppable natural phenomena.

In either case, it goes without saying that the role that law should play in the development of society, of people, of citizens, and in general of the ecosystems that surround them, is to be able to regulate and order all human activities with some incidence and impact (of whatever type) on the environment, based on principles that allow us to achieve the achievement of having a protected nature, such as those that refer to prevention (preventing any action that is the cause of the generation of damage, or the use of any object or means considered dangerous with the capacity to produce any damage to something or even to someone) and in the extreme case that the damage has been produced, or rather that the danger translates into damage (the risk is transformed into effective damage, when the activity or the object with the capacity to produce damage -danger- is actualized in effective damage) and the principle of reparation, all of this preceded by the determination of the activities that generate significant environmental impacts, after determining and specifying the dangers, and the corresponding risk assessment, would give rise to the possibility that the right can pass to its real regulation. This, although real, applied, with competent administrations, even with exceptional laws and ultimately complied with, can introduce the visual sensation to the citizen that he is facing and accepting with resignation, before a reality, an environment, a natural environment, not only transformed, exploited and modified, but also catastrophically altered, that is, contaminated and destroyed, he is facing, in short, a legal-environmental risk. All this with changes in science and technology in the current century, which, logically, will bring new “risks”, with profound social changes. Klaus Schwab has coined the term “Fourth Industrial Revolution” for the process that began at the beginning of the 21st century and is based on the possibilities of the digital world. He said: “It is characterized by a more ubiquitous and mobile Internet, by smaller and more powerful sensors that are increasingly cheaper, and by artificial intelligence and machine learning”.

5. By way of open conclusions

At this point, from the starting idea that approaching the complex reality of the Environment, and the “risks” linked to the processes of “development, in the context of tourism activities” means assessing the new ecological paradigms that help to

understand the complex evolution of the Social and Legal Sciences, in general, and of Geography, Economics and Law, in particular. For economists such as Galbraith or Sen, it is necessary to redirect the economic discipline to the function that saw it born, that is, to try to guarantee future well-being based on the rationality of current policies and behavior. In this sense, economics is one of the fields in which the recipes and proposals for solutions have multiplied the most, offering novel paradigms that are still partial and sometimes unconnected to each other, which try to redraw a new perspective, a new paradigm, as Kuhn would describe it, from which to expand the concept of economy.

A concept limited by its origin to which we must refer in order to understand how we are still halfway to this new paradigm and where we can begin to glimpse what remains to be done. A path in which the link between the so-called “development models” -beyond economic growth itself- and the set of “territorial models” takes on considerable importance, based on the idea that, despite the fact that the concept of local development is relatively recent, it has been present since ancient times in the structuring of society, giving rise to continuous discussions in various facets. In this context, at the end of the 19th century and the beginning of the 20th century, an important debate took place, provoked by the construction of modern society and the confrontation between a conception that gives priority to national institutions and another that defends community-based structures and values: the opposition between Tönnies’ *Gesellschaft* and *Gemeinschaft* in Germany, and between Durkheimian globalist sociology and Vidalian localist geography in France. Vidal de la Blache responds to Durkheimian criticism: “Geography is the science of places (*science des lieux*) and not of men”. By place, Vidal understands a region defined as a territorial unit whose physical and human components are specific and distinctive, interrelated through what he designates as “kinds of life”. Howard proposes the planning of small cities called Garden Cities, as a response to the destructive action of industrialization and its corresponding urbanization. Garden Cities were to combine the advantages of both the city and the countryside, to be located on the outskirts of large cities and to allow the community to work and live within the same territorial framework, adapting human beings to the environment and, in turn, allowing human beings to transform and modify the environment, with the aim of building territorial units on a human scale that avoid the dangers and threats of a hostile environment that generates “risks” and damage to the natural environment and the population -natural risks; and, in turn, proceed to adapt the environment to human activities, avoiding the generation of new risks- anthropogenic and technological risks.

New concepts, terms and words are therefore needed which, when placed in the context of tourism activities, can assist in the analysis and interpretation of the different types of “risks”, namely: Natural (those which have their origin in natural phenomena, and the accidents they cause are multiple and varied; due to their origin, the presence of this type of risk is quantitatively conditioned by the geographical and particular characteristics of a region); Anthropic (those which derive from human activities that have been developed over time, relating to human activity and behaviour), and Technological (those caused by the application and/or use of

technologies developed by humans). Aspects that in its praxis must always take into account that tourism as an economic activity has been in its beginnings, closely related to the historical vicissitudes, diachrony in which the words, terms and concepts above have appeared, all this without forgetting that over the last decades there has been a substantial increase in vulnerability and exposure to risks, dangers, catastrophes and natural impacts (we cannot and should not forget the DANA - mesoscale convective system- that has affected the Community of Valencia, at the end of October, and beginning of November, 2024), as well as anthropic and technological ones, whose impact on tourism is especially important. Let us therefore remain with the reflection of W. L. Bragg for whom “what is important in science, in our case in the plural, is not so much to obtain new data, but to discover new ways of thinking about them”.

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