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**DELIBERATIVE PARTICIPATION IN RISK
MANAGEMENT: MAPPING THE CONTROVERSY
OF REFUGE PORTS IN SPAIN”**

Elvira Santiago Gómez

Instituto de Políticas y Bienes Públicos
Consejo Superior de Investigaciones Científicas
elvira.santiago@cchs.csic.es

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Dra. Elvira Santiago Gómez
Instituto de Políticas Y Bienes Públicos
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elvira.santiago@cchs.csic.es

Abstract

On the 25th of April 2007 the European Parliament agreed the modification of the directive 2002/59/EC, which establish –among other things- that Member States should draw up measures to give refuge to ships in distress in their ports or in any other sheltered areas in order to limit the consequences of accidents at sea. As far as places of refuge is concerned the modification of the directive indicates that Member States should compile previous information about possible sheltered areas on the coast so that in case of accidents or incidents at sea, the proper authorities can point out the most appropriate areas to shelter the ships in distress as quickly as possibly. The previous information should include a description of the physical, environmental and social characteristics of the places and the means and facilities available to assist the ships that had an accident or those which are fighting against the consequences of a polluting spillage.

So, the importance of social aspects when it comes to determine the shelter areas or ports of refuge in Spain is nowadays one of the biggest problems to apply this Community Directive independently of the political tendencies of the national, regional or local government. In fact the cases of the vessels “Prestige” In November 2002, and “Ostedijk” in February 2007 are two examples of the difficulty to implement the Directive in our country. So, due to the social alarm and the reluctance shown by people from coastal areas to shelter both vessels, it is decided to move these ships in distress further away.

We understand that the Directive of the European Union about Refuge Ports opens a new controversy in the context of maritime security, the importance of social aspects when it comes to determine the shelter areas or ports of refuge in Spain is nowadays one of the biggest problems to apply this Community Directive, The solution of the problem, the informatics’ program PRISMA announced by the Ministry of Public Works in Spain in February 2011, will be well received by the population as representing a protocol in emergency situations. But this program does not take into account the specific regional demands.

The main purpose of this paper is the study of maritime risk management and the deliberative process in the controversy of refuge ports in Spain. Using the analytical tool ANT we will try to map the controversy on the establishment of refuge areas for ships in distress in Spain, we analyze the differences of the risk perception between the population of the Atlantic and the Mediterranean areas and the solutions proposed by the stakeholders involved in the decision process. Detailed study of the controversy over the designation of refuge ports, observe how the discourse of the Spanish population is structured in two frameworks, a “Natural Framework” understanding that nature can not be dominated by humans and therefore the absolute security is unattainable, and the “Control Framework” that relies on the capacity of science and technology in combating the adverse conditions and the ability to achieve zero risk.

INTRODUCTION

The serious social, economic and environmental consequences of Erika and Prestige disasters completely nullified the feasibility of the plans of intervention and management of maritime safety in Europe. Despite their strong social relevance, the Maritime Security controversy has been the subject of research and debate in very specific disciplines away from the study of social reality itself. So the "legal experts" approach this new challenge that must assume Security after Erika and Prestige from the law discipline by drafting treaties and regulating the transport of dangerous cargoes. The most controversial aspect in this challenger is referred to the location of refuge ports or refuge areas as outlined in the directive 2002/59/EC of the European Commission and in IMO Resolution A.949 (23) that ask member states to develop plans to accommodate ships in distress in their ports or other protected place in the best possible conditions. States must collect information in advance of the physical, environmental and social about possible places of refuge.

Thus, since the field of the enginery, the "technical experts" approach the controversy by developing a new tool in Spain PRISMA, there is a technical solution that works as a viewfinder mapping and contains a database of relevant information of over 1100 places and ports of that could be used as a refuge in specific or emergence conditions. This program housed in the Ministry of Development is adapted to national and international standards and is supposed to be run as a decision tool in maritime emergencies.

This collaboration in the field of Maritime Security between the legal and technical experts, has been very successful in many aspects, such as in the operation of the CEDRE in France, in the work of the European Maritime Safety Agency, or in developing of monitoring programs as SafeSeaNet, CleanSeaNet. However, in the case of the controversy of places and ports of refuge, there remains a large "gray area" (Carolan, 2006), an uncertainty area, which is not repaired either from the law or from the engineering, that consists of those social aspects surrounding the dispute and must be studied from a renewed sociological perspective.

The central thesis of this research argues that it is possible to overcome the limitations of nature-society dichotomy between technology and legislation covering both poles in the same plane: the exhaustive and rigorous sociological research, in order to implement participatory and democratic practices that overcoming the confrontation between stakeholders and advancing in the search of a collaborative model in making risky decisions. We need to open the "*black box*" (Woolgar, 1988; Winner, 1993) in which the legal and technical experts have hidden the natural and social issues when they have designed their regulation and technological solution.

TEORETICAL BACKGROUND

We can approach the need of design refuge ports as a way to limit the unintended consequences of modernity life, refuge ports could be understood as a solution to limit and manage new risk and side effects in a risk society context (Beck, 1992/1999; Giddens 1999) maritime activity and ships that transport dangerous goods could produce serious environmental damage as pollution and oil spills that crosses social and national boundaries (Lau, 1991; Jasanoff, 2003).

Second, the need to design refuge ports open a new socio-technical controversy, citizenships are not kindly to approve a refuge port in their cities, the absence of a clear definition of what should be understood as shelter area increase this social rejection, there is not an official agreement of what a refuge port would be, one the one hand it would be a specific zone with natural geographic facilities for refuge ships in distress, "nature refuge areas"; in the other hand a refuge port would be a large port infrastructure designed for this purpose, "a technical refuge area". In this context the informatics' tool PRISMA designed in Spain to help in the final decision have not had the social support needed to run in a satisfactory way. The lack of trust in the capacity of technology and scientific experts resolving problems and the lack of transparency in political decisions is a strong challenge in the XXI century (Le Dars, 2004) we need to work in a new relation model between experts-politicians and citizenships to best resolve controversies and to find collaborative solutions for the "grey areas".

In this context the STS tradition that studies the relations between science, technology and society throughout the twentieth century, in that "new risks" gradually grow to become in a central issue, annulling the capability of the technocratic model to explain the scientific activity and technological development (Mitcam, 1994, 2005; Fuller, 1992, 2007) and highlight the importance of a new social contract for science, technology and society in the light of the central position of risk that require a greater level of public participation as propose in the new theoretical approach as the Co-production, or the Mode 2 (Jasanoff, 2004; Gibbons et al, 1994; Nowotny et al, 2001; Etzkowit and Leydesdorf, 2000).

Finally, the need to identify refuge areas in managing maritime security in the S. XXI becomes in a new challenge for risk governance. The third pillar is devoted to theoretical deliberative governance in making risk decision and the importance of public participation in order to progress from the adversarial model to a collaborative model and seek consensus, if it is possible that will restore trust between actors (Fishkin, 1991; Fiorino, 1990; Carolan, 2006; De Marchi et al, 2004; Goven, 2006; Delli Caprini et al 2004).

METHODOLOGICAL DESIGN

The research questions that guide this investigation are grouped into three categories. First, there are those questions related to the definition of the contextual situation and the nature of the conflict that the ports of refuge are proposed as a possible solution. Thus our the first hypothesis supports that:

"Ports and refuge areas represent a pathway proposed solution in terms problematic under the traditional problem-solution, to combat pollution from large accidents dangerous goods tankers, this fight being just one of the dimensions that up controversy Maritime Security".

In the second set of questions we ask how refuge ports are perceived by society. There is not a clear definition of what a refuge port could be. In the case of complex technical infrastructures, refuge ports are the result of artificial human intervention on the environment, in the other side, there are natural refuge areas, natural coves or estuaries that their geographical constraints facilities the use as a refuge for ships in need of assistance.

and the hypothesis that:

"The refuge areas are risk objects, a hybrid between nature and society."

So, thirdly we have the questions about the role that society takes in the governance process of refuge ports decision and our hypothesis said:

"The decision makers take on the designation of places of refuge or ports must accommodate public considerations if it is to be a solid solution and supported by social trust".

Turning again to the general aim of this paper, to analyze the controversy of maritime safety in the decision about the location of refuge ports or refuge areas in Spain for ships in distress. We select an appropriate methodology for the study of controversies, using the ANT tool we can map the controversy (Callon, 1981; Callon and Latour 1981; Callon and Law, 1986; Latour 1999, 2005; Law, 1999) and with the frame analysis of the eleven focus groups conducted in the investigation we can understand the social discourse of different stakeholders about the controversy and the different risk characterizations that each actor included in the mapping have done (Callon and Barthe, 2004; Beck and Kroup, 2011; Venturini 2010).

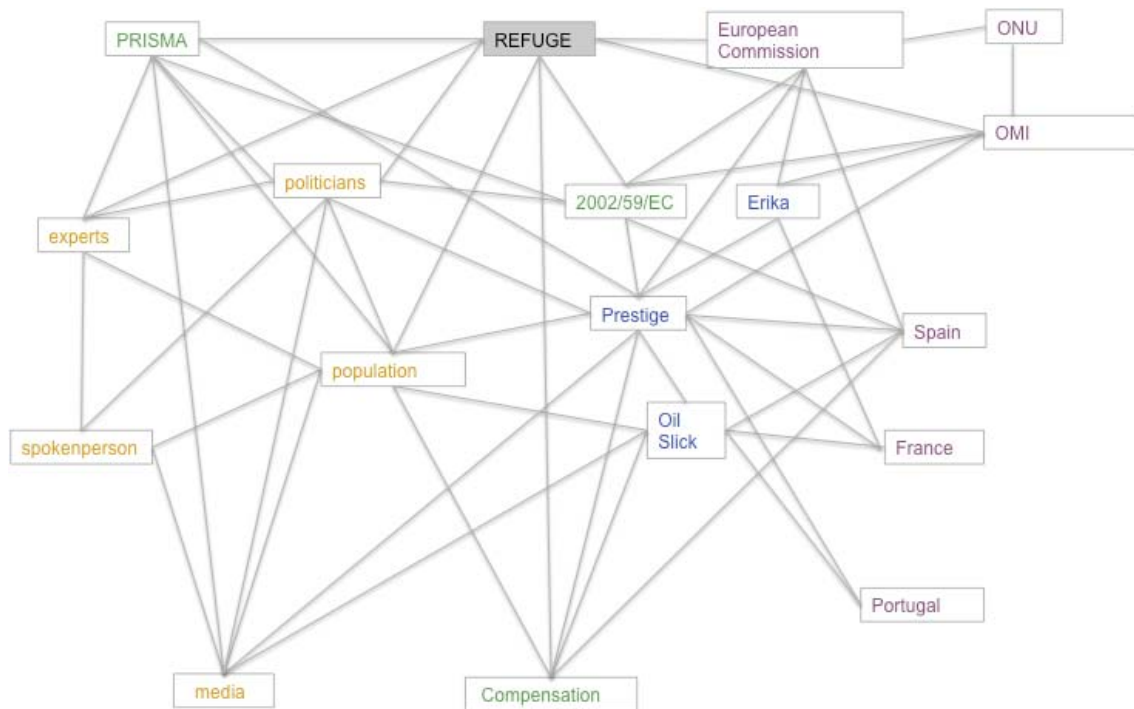
Using this methodology, first we must understand the context and the complexity of the controversy (Latour, 2010; Venturini 2010). This will be a socio-historical review of the international context of development of maritime safety and the emergence of the various, regional, national and international institutions. Looking for the micro level in the mapping analysis, related to the public participation in the maritime security controversy we use the focus group tool to generate a dialogue with Spanish stakeholders (Goffman, 1974; Viñes 2009) that helps to clarify the social diagnosis of the research controversy.

The mapping tool, is useful in the study of controversies, it provides a mechanism to connect the micro and the macro level in the research controversy. We can connect the local space, the micro level, where society could participate in the decision process, through their participation in the focus groups, and the top space or the macro level, in which the decisions will be finally made. Mapping the controversy also facilitates the translation of actors relations, through the mapping citizens and different stakeholders can explore the controversy from their perspective without having to follow predefined guidelines. The mapping also works as a mechanism for an informed social participation in decision-making process. For politicians and traditional decision-makers, the mapping is useful to identify conflicts between different interests, or cultural allow identification of discourse coalitions and partnerships between basic social beliefs and interests, cultural perspectives and material products (products (Renn 2008; Beck and Kroup, 2011)).

The working plan followed in this research is divided into three steps, the first covering the first half of 2009 in which exploratory focus groups are conducted in Corcubi3n, Finisterre and Viveiro, in Galicia. A second step in research activity is composed by the four focus groups conducted in Barcelona, Tarragona and Algeciras, the analysis this seven focus groups reveals serious differences in the Mediterranean and Atlantic social discourse about maritime safety and the specific problem of refuge ports design. Finally, after the announcement in Spain on February 7, 2011, of PRISMA solution, the last four focus group were made in La Coruna, Vigo, Gijon and Cartagena.

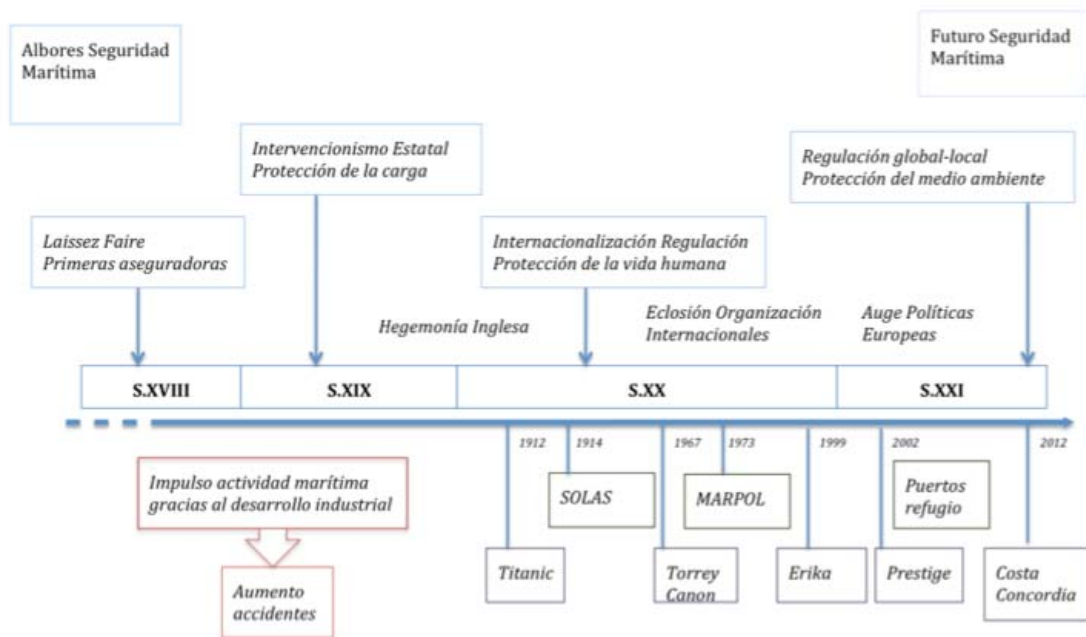
DISCUSSION

The map in the Figure 1 represents the final image of the controversy of refuge ports decision in Spain in the figure presented in cartography and their cosmologies, black colour lines represent the relations established between the human and non-human actors. The font colour used to name the actors can help to recognize their category, in purple there are institutional actors, in mustard, there are human actors, actors in blue there are the initiating controversy actors and, in green, there are the solution actors).



Some considerations to take into account are that actors who have been left out of this mapping, could come back along the future evolution of the conflict. At the same time, actors evolved in the present representation could spontaneously change their relations with the other actors as a result of a significant event. Similarly, actors who are now in the figure will be left out in the future. The map showed before, is a photogram, and static image from a dynamic process, so actors' relations should continue to be studied in the future for a better understanding of the controversy.

Looking one more time at the Figure 1, on the right side we can observe the institutional conflict between institutional and on the left side include the human actors relations. Following the recommendations given by Latour and Venturini, we are going to "bring the things back" (Latour, 2005) and we will try to understand the socio-historical context in which the controversy arises. So, in the Figure 2 we summarize the analysis of scientists and official documents consulted about the historical development in the field of Maritime Security in Europe, from its beginnings to the present, watching the various social, political and economic claims that culminate in the present in the necessity and the obligation of European Member States to design refuge areas or refuge ports (Santiago Gómez, 2011). The figure below helps us to understand the right side of the cartography dedicated to the conflict disputed between the institutional actors in the controversy



A first period, in standardization and regulation of maritime activity, in the s.XIX is characterized by industrial revolution and the introduction of the vapour machine, is time of the first insurer companies that need to protect companies of the risks that suppose the maritime adventure. In this context after the Titanic sinking the society demands urgently measures to protect people lives and it is the starting point in the evolution of maritime safety that becomes in an international subject after IWW (Bull, 1966; Boisson, 1999; Andre y Basez, 1993; Li 2001; Srivasta, 1989).

Finally, in the last years of the twentieth century, the emergence of new green social movements shift one more time the principal objective of maritime safety efforts that turn from protect peoples live, that are now well guaranteed, to protect the general environmental in marine activity. Maritime safety is now an international issue that concerns all states, in this case especially European member states, and a global question that includes the protection of people lives, the environment and the transported cargo (Zamora 2009; Juste 2006; Höfer, 2003).

In the task of identifying the social problematizations and dissents among actors in the controversy over maritime security our efforts have focused on the research and identified the discursive repertoires, the frames which the public evaluate the controversy.

Since the “control frame” some citizens’ support the idea that the main important causes of accidents in the marine environment can be attributed either to human or technical errors in cases such as the Prestige. At the first, the technical and human risks could be managed by improving preventing protocols and applying the precautionary principle, a more strict regulation is needed and several sanctions could prevent the dangerous practices. Working in this way we could be

a high level of security, an absolute security or zero risk. In contrast, the accidents caused by "Mother Nature" would be impossible to prevent, despite which, preventive measures along with the effort to improve response plans and a good strategy for disaster management could limit the consequences of such accidents to minimize their consequences.

The social trust into the ability of those responsible for the management of maritime safety, depend on the effort that they have demonstrated in achieving preventive measures up to the demands and plans of actuation capable of managing risk eventualities. This frame has a finalistic dimension determined by the effectiveness of the final measures taken. Thus, by supporting the possibility of a absolute security or zero risk scenario the refuge ports are only a provisional necessity. Despite this assessment, contrary to the implementations of refuge ports, it is recognized that they may be useful in a small number (six or eight ports of refuge in Spain) distributed in places with a special transit of dangerous goods and therefore places most likely to happen in an accident nearby. These refuge ports are defined as a large ports, as important infrastructures commensurate with the magnitude of accidents that could have to manage, its solution is future oriented it would be implemented by the construction of new ports that satisfy the new necessities or by remodelling existing infrastructure.

From "natural frame" the social discourse have not establish a distinction between human, technological or natural causes, accidents are understood as inevitable catastrophes. As a result of this assessment, it is considered that zero risk is unattainable and the efforts of those responsible for maritime safety management should focus on improving the fast reaction capacities. The principal question here is not the final resolution of the event, the efforts will be concentrated in the good practices in the management process, transparency and a communication between institutions, authorities and citizenships are fundamental issues because social trust depends of the process more than the final results. For the "natural frame" there are a real need of refuge areas, refuge ports and refuge areas could help in maritime security managing. From the premise that accidents are inevitable and in a context of absence of absolute security, the more resources are available to deal with eventualities, the lower the consequences thereof. This frame focuses on the natural and geographical characteristics allow areas or places that traditionally were being used as a refuge merchant ships throughout the history. It is, therefore, a decision that must look back and recover from the past the popular knowledge.

There is a third frame, "hybrid frame" in which the social discourse adopts a half position. Looking to improve social acceptability of refuge ports or refuge areas there are a set of conditions that should be take into account in the design process and final decision. There includes the need to provide financial facilities to compensate people to be affected in a maritime accident or if maritime activity will be disrupted. It must be ensured that it will be possible to creating jobs related to port activity, finally the investment in infrastructure dedicated to leisure activities and culture are also a positive point. The selection of places must be made taking into account the geographic and strategic areas that should be selected for their specific conditions and provide shelter features, cost-saving will be remarkable, it means that is better remodel an existing port than construct a new one. Looking

for the better location, those with low population could reduce the volume of victims in case an accident and could facilitate an evacuation if necessary.

Finally, from the “distrust Frame” social discourse emphasizes that neither the process nor the information contained by the PRISMA tool, the final Spanish decision, have been transparent. The big number of sites selected by PRISMA, indicate that any place can be taken as a refuge, furthermore, in the final decision is in the hands of a politician who will use a tool, awakens the suspicion and mistrust of the population.

CONCLUSIONS

The practical applicability of this research consists in the opportunity to improve a new model in design public policies and in the field of risk management based in a deliberative risk governance, allowing social, political and scientific actors that could work together in the identification of problems and progress in the search for better solutions. In the past, the maritime safety controversy was limited to legislators and engineers, this research contributes to shift to a comprehensive and participative risk management model that renew social trust in institutions and advance in a dialogical and participatory democracy.

In the specific area of maritime safety, the mapping of the controversy over the designation of refuge areas provides a simplified picture of a complex conflict that is practical to society, politicians, scientists and the media communication because it provides society with reliable knowledge for their informed participation and the consistent discussions. This opens an important sociological fieldwork aimed at finding those channels and mechanisms to facilitate the equal participation of all stakeholders so as to restore the dialogue between society, politicians and experts and thus allow overcoming adversarial model in making risky decisions, allowing the explanation of those issues where there are no absolutes and reaching agreements in a collaborative model in making controversial decisions.

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