

WILDFIRE CRISIS IN GALICIA IN 2006: CHANGE IN THIS SPATIAL DISTRIBUTION MODEL

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The Galician forest sector is an important productive sector that presents several conjuncture and structural problems, e.g., property, professionalization absence, short-term exploitation criteria, lack of adequate polices. This produces a deficient management model which entails a uncontrolled sprawl of the forest. Wildfires in Galicia are a clear symptom of this inefficient management model, which is aggravated due to the cyclic wildfire crisis. These crisis are frequently perceived by the society as isolated catastrophic episodes, but they hide a problem produced by a continued inappropriate management during the second part of the last century.

A set of geographical factors importantly incide on the forest management model, e.g. socio-demographic desestructuration, or absence of a balanced territorial management plan. Due to these factors, a debate about the forest management model for Galicia has been produced during the last years, analysing the influence of the model on the origin, propagation and final consequences of the wildfires.

The wildfire crisis of summer of 2006 was the most important in Galicia in the last years, with disastrous human and economical consequences: four person died and the estimated economical cost ranged between 248 and 336 million of Euros (0.62-0.84% GDP of Galicia). In addition to its magnitude, the exceptional characteristic of this crisis was the emergence of a new wildfire typology, concentrated around peri-urban areas close to the major economical and demographical area of Galicia. Traditionally wildfires were located in small rural towns in the south of Galicia.

Objective and methodology

The aim of this paper is to analyse the wildfire crisis occurred in Galicia in summer 2006. The wildfire dynamics and its spatial distribution is analyzed and compared with the traditional model. Thus, a set of variables are assessed and compared with the previous years, in order to determine the actual magnitude of this crisis and the reasons that constituted an exceptional character.

First, the wildfire activity in Galicia is contextualized from the last third part of the XX century to 2006. Then the cyclical behaviour of the wildfire crisis is analysed. Afterwards the magnitude of the crisis of 2006 is studied by means of a set of variables and statistical parameters related to the number of wildfires and the burned forest surface. This is done considering a long temporal series (2001-2005) that enables to define a set of descriptive average parameters representing an *average* year which is compared with the wildfires occurred in 2006.

TRADITIONAL WILDFIRE DYNAMICS IN GALICIA

Between the years 2001 and 2005 the 8% of the forest area of Galicia was burned. This average data presented high variability among the provinces. Lugo had 3.5% of its forest burned, whereas Ourense reached the 14%. Besides, in the two northern provinces the percentage was lower than 6%, in the two southern provinces, the average percentage was higher than 10.5%.

The standard wildfire dynamics in Galicia shows that most affected municipalities are located in the southern part. These municipalities have low population density and regressive demographical dynamics, due to the aging of its population combined with very low birth rates. Besides, these areas have low immigration rate, and suffered a strong rural exodus during the last century. Consequently, the economical structures are weak and based on the primary sector, making these municipalities socio-economically unsuccessful.

Regressive demographic trends entail an abandonment of the agricultural lands by the owners and the mountain neighbourhood communities, which are more unstructured in the areas where wildfires are more significant: Valdeorras-Trives and Verín-Viana (Ourense), and Condado-Paradanta (Ourense and Pontevedra). Due to these circumstances, most of the agricultural lands of these municipalities became *mountain*. This concept is used to refer the uncultivated lands.

According to F. Molinero et al, the most probable hypothesis of the wildfire origins in Castilla-León is caused by the conflict between Public Administrations and *rural society*. Here a collision between the productivism and post-materialism of the mountain areas is produced, presenting these areas a rural livelihood or as a complement for the urban society, with rules that have to be accomplished.

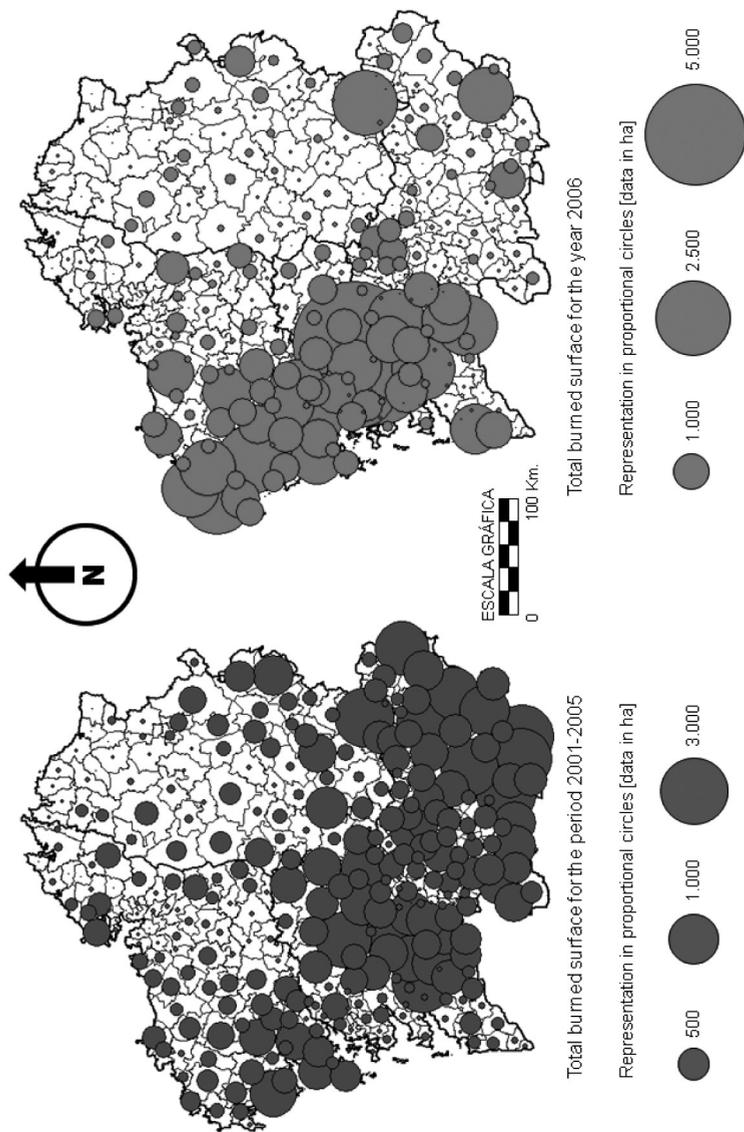
WILDFIRE CRISIS OF 2006

In 2006 the wildfires were located in the municipalities closest to the Atlantic coast. Most of these wildfires affected to towns located in between A Coruña and Vigo, denoted as Eje

Atlántico, which is the most dynamical area in Galicia. Besides, some other municipalities located in Costa da Morte were affected. The main area located in the Eje Atlántico was the central and southern, between Santiago de Compostela and Vigo. Most of the affected municipalities have medium or high population densities, with stable or positive demographic dynamics, boosted by their close position to the main cities and by a suitable road and train network. Most of these municipalities belong to peri-urban environments, and the recent immigration trends compensated the negative vegetative growth. The economy is based on the tertiary sector, which entails a high pressure on forest areas. These areas are location for industrial or residential activities. The reason for the concentration of the wildfires in 2006 was probably due to the subsidies given to the forest and the lack of professionalism of the owners, who initially invest on these areas, but afterwards forget its maintenance.

The change in the spatial pattern helps to explain the catastrophic consequences of the wildfire crisis of 2006. This new spatial pattern was unexpected by the fire-fighters and the Administration, failing to provide a suitable response. This was produced by a set of factors such as important spatial-temporal concentration of wildfires or proximity to urban and touristic areas. These factors may affect to the failure of the extinction systems. Thus, a fire feedback phenomena was produced, producing large economical loses and displacing population. This projected an image of chaos and unorganized political performance.

Figure
COMPARATION BETWEEN THE FOREST SURFACE BURNED IN GALICIA FOR THE PERIOD 2001-2005 (LEFT IMAGE) AND FOR YEAR 2006 (RIGHT IMAGE)



Source: Consellería de Medio Rural, 2007.