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Food and nutrition security discursive frames in the context of the Spanish economic crisis

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Food and nutrition security discursive frames in the context of the Spanish economic crisis

The 2007-08 world food crisis reawakened concerns about food security in the global agenda with a renewed geopolitical status (Maye and Kirwan 2013). The short term shocks derived from the price peak intertwined with long run food pressures and intensified the awareness about the limits of the planet to sustainably feed a growing population (Hertel 2015). At the same time, food security challenges have also been brought into focus at the national level in many countries.

Food security related threats are also present in the case of Spain. For instance, from the production point of view, the long-term sustainability of Spanish agricultural systems has been put into question. FAO (2014) alerts to the existence of three main risks associated with such systems, namely water scarcity, pollution and loss of biodiversity. Spain is hence particularly vulnerable to the consequences of climate change, considering the massive effects of water shortage, extreme climate events and pest and disease dissemination on farming systems (OECC-UCLM 2005[1]). Studies also alert to the exposure, higher in Spain than in most European countries, to the decline of pollination services (mainly due to the loss of bees) in certain crops and regions of the country (Greenpeace 2014). The magnitude of the adaptation needs to climate change in Spain, in terms of changes in resource management for a more efficient use, was highlighted by OECC (2006).

In spite of these environmental menaces, the principal agricultural production systems in Spain continue moving forward on a path of specialisation, intensification and concentration of production units (Moreno 2013). Taken as a whole (agricultural inputs, agricultural production, processing, distribution and associated services included), agri-food industry is the second largest economic sector in the country after tourism. In addition, it shows a clear export-oriented profile. Agri-food foreign trade registered a 126% of coverage rate in 2013 (MAGRAMA, 2014), particularly due to exports of fruits and vegetables, as well as meat (Spain is the fourth largest producer of pork), wine and olive oil. Nevertheless, this figure hides import dependency of grain and oil seeds, massively imported for animal feeding, as well as of sugar, milk and dairy products[2]. These trends are uncritically accepted by Spain's authorities and major stakeholders as a part of an unavoidable (and even desirable) process of agri-food modernisation and competitiveness. In fact, the overall features of the Spanish food system outlined here are hardly pieced together and put up for discussion. Paradoxically however, this questioning of the whole picture has been formulated out of the country on some occasions:

> "*Spain and Portugal stand out as very rare examples of rich nations with a medium risk of food security problems. […] while water problems are an issue there, the major*

[1] This assessment of the impact of climate change in Spain devotes a chapter to agriculture. However, there is no reference in this report to the potential impact on food security.

[2] In rough terms, one third of the milk and half the cheese consumed in Spain are imported (Sineiro 2012); the import of grain supplies one third of the consumption.

reason is heavy reliance on grain imports. Spain buys in 11bn kilograms of grain more than it exports every year at a cost of $2.6bn. […] Spain and Portugal have made the decision that olive oil and wine exports are more profitable than grain,' […] *along with salad crops. So they sell lettuce and Rioja and buy wheat and corn with the profits.*"
The Guardian (August 31st 2011)

Alongside the long-term trends of Spanish food system, a central issue that is recently affecting the Food and Nutrition Security[3] of the country is the economic and social crisis triggered in 2007. Figures[4] clearly show the magnitude of the shock and the velocity of its outcomes. Unemployment rate climbed from 8.3% to 26.0% between 2007 and 2013; in the same period the AROPE[5] rate grew from 23.3% to 27.3%, the Gini Index from 30.6 to 35.5, and the poverty rate from 19.7 to 20.4 (with new 642,000 poor). More than 1.2 million jobs disappeared in only six months (over the fourth quarter of 2008 and the first of 2009). This progression shot up the need for food assistance. According to their own estimations, the Spanish Federation of Food Banks (FESBAL) and the Spanish Red Cross distributed food to 2 million people in 2013. Spanish Caritas provided food assistance to 350,000 people in 2007; in 2013 they were 1.3 millions. Meanwhile, children malnutrition became a prominent concern in the media, which fuelled an intense debate about the real magnitude of the problem, the lack of official data, and the role to be played by the State by means of the school meals.

The issues addressed above – i.e. the far-reaching food challenges derived from the environmental problems and the impact of the economic crisis, have brought to the light a number of social and public food-related debates in Spain over the last years. Such debates have mainly revolved around, first, the performance and trends of the Spanish food system, and second, food access and affordability by vulnerable social groups. However, these discussions did not converge in a comprehensive, all-embracing and policy-led debate on 'national food security', in contrast to what was happening in other countries (e.g. in the UK, DEFRA 2008).

Rather, what we have witnessed is a fragmented landscape of food-related debates in the media, focused on partial and isolated aspects of Spanish FNS. In fact, although the Spanish term *seguridad alimentaria* is used to refer food safety or food security (with the meaning that is internationally accepted), it is significant it does not appear in *any* of the documents analysed in this study with the second sense. When referring to Spain, it is used exclusively as a synonymous of 'food safety'.

In fact, the public food concerns in this country were focused on safety and health issues by the beginning of 21th century. This may be an expression of the welfare reached by a country that self-considers developed. Although the memories of hardship and hunger[6] were still present in Spain until the 1960s and 70s, they were displaced by early 1980s by the first food

[3] There is an ongoing debate about the use of the term 'food security' (CFS 2012). In this paper, we adopt the term FNS as it considers not only the concept of food security as internationally accepted (FAO 1996), but also nutritional aspects, which include health services, healthy environment and caring practices (Pangaribowo et al. 2013), which fall within the scope of our analysis.
[4] Obtained from Eurostat and the National Statistical Institute.
[5] Abbreviation of 'At Risk of Poverty or Social Exclusion', which refers to the percentage of people either at risk of poverty, or severely materially deprived or living in a household with a very low work intensity. It is the main indicator utilised to monitor the EU 2020 Strategy poverty target.
[6] During the Civil War (1936-1939) and the long post-war period, Spain suffered a serious deterioration of the food situation (see Cussó and Garrabou 2009).

safety scandals that took place in the country[7], followed by other troubles stemming from EU countries in the 1990s (BSE, dioxins in chicken meat). It is not until recent times - when the current economic crisis triggered a deterioration of the purchasing capacity of the population, that the concerns about food affordability remerged in Spain, coalescing with the pre-existing food debates.

In this manifold context, a detailed analysis allows distilling the stakeholders' views and discourses on FNS in Spain. A number of studies have adopted a 'frame' approach to analyse how the 'food security' adopts multiple meanings when used by different agents. More specifically, the aims of this paper are: (1) to disentangle and unfold the different discourse frames on FNS in Spain, (2) to understand the role played by the economic crisis in the shaping and underpinning of such frames, and (3) to discuss the frames obtained in this analysis in comparison with those emerged in studies performed in the global or other national contexts.

In short, this article tackles an empirical analysis at a national level, in a context where food security has not been explicitly addressed in the national political agenda, but rather shapes a fragmented landscape of food-related debates. In addition, this research puts FNS frames into the context of the economic crisis, thus showing how frames have addressed crisis-specific issues. This represents a value added of this article with respect to most of the analyses on food debates made to date, as they have not put much attention to the crisis in spite of its implications on FNS. Finally, special attention is paid to governance-related issues, somehow veiled by the lack of an institutionalised FNS debate. Indeed, our analysis identifies, within each frame, what are the legal and policy claims made by stakeholders and to what levels of political decision these claims are addressed.

The remainder of the paper is structured as follows. The next section reviews the conceptual framework based on the frame analysis literature. Later, Section 3 presents the methodological framework and the sources that have been used to collect the texts from which frames are analysed. The subsequent section describes the identified frames and displays the frame matrix that results from the analysis. In Section 5 a discussion of the frames in the light of the existing literature on the matter is provided. Finally, some concluding remarks are exposed.

Framing food security: a review

As explained above, the food prices peak in 2007-08 gave a renewed momentum for food security at both global and national scales, giving rise to several analyses about 'food security' alternatives discourses. A stream of research has been based on the analysis of 'frames'. Initially originated in the realm of social psychology, the concept of framing is currently used in several disciplines. In the field of communication science it is referred as the way the media and the public represent a particular topic (Van Gorp and van der Goot 2012).

Studies applying this approach have considered food security as a 'consensus frame' - that is, as a concept "*that finds broad resonance and consent, but which is used to make diverging, and sometimes conflicting claims*" (Candel et al. 2014: 47-48). Indeed, Mooney and Hunt (2009) argued that the apparent consensus on food security veils several and competing narratives developed by a constellation of stakeholders. Similarly, Maye and Kirwan (2013: 2) stated that "*while there is a broad consensus that food security is a vital future challenge*"

[7] A massive poisoning by consumption of adulterated rapeseed oil took place in Spain the spring of 1981.

there are significant debates about how to respond to it. These authors introduced the concept of 'fractured consensus' to refer to the manifold views in this regard.

From this analytical framework, scholars have identified different 'sets' of food security frames. In their research, Lang and Heasman (2004) suggested a conceptual model of competing frameworks or paradigms for food. Later, Mooney and Hunt (2009) argue that there are at least three collective action framings behind the apparent consensus on food security; also Van Gorp and van der Goot (2012) propose a methodological approach that is later used to identify six interpretative frames on sustainable food and agriculture. More recently, the monograph coordinated by Maye and Kirwan (2013) contains several analyses that illustrate the fractured consensus on food security in a number of countries. On their side, Candel et al. (2014) utilized the frame approach to identify seven frames on food security emerging from the latter process of EU Common Agricultural Policy reform. Finally, in the context of the research project TRANSMANGO, Grando and Colombo (2015) carry out a similar media analysis to find nine frames FNS in Italy.

The above-cited works are, in some cases, object-specific – i.e. referred to particular countries or topics, and they do not always use a common nomenclature to name the discursive frames they identify. Notwithstanding this, we can envisage four 'clusters' of frames on FNS from them. These clusters are presented separately below, although there are connections, partial overlapping and mutual influences among them.

- First, some of these works identify frames that fit into the Productionist paradigm –that has historically pervaded the discourses on food security after World War II- and its renewed version, what Lang and Heasman (2004) refer to as the Life Sciences Integrated paradigm. Some authors use the same term 'productionist' to refer to a revisited frame that incorporates newer concepts such as 'sustainable intensification' (Candel et al., 2014; McKeon 2015). The relevance these frames give to science and new technological developments to overcome food system constraints and vulnerabilities leads Van Gorp and van der Goot (2012) to speak about a 'progress frame'.
- An alternative and critical discourse is that of the Ecologically Integrated paradigm (Lang and Heasman 2004), which connects to agroecological production methods and the food sovereignty discourse (Lawrence and McMichael 2012). Food sovereignty frames (Candel et al. 2014; Grando and Colombo 2015) connect to this second paradigm, which together with the former one, shape the dominant dialectical narratives on FNS.
- Although connected in some ways with the former, other frames specifically focus on the conditions of food access. As Shepher (2012: 206) claims, food security can (and should) be framed in terms of "*securing vulnerable populations from the structural violence of hunger*" and poverty. The 'sharp key' of the hunger frame discussed by Mooney and Hunt (2009) also refer to the need to transform the social structure of the access to food. In some developed countries, these food poverty frames have burst in the context of recent economic crises (Grando and Colombo 2015).
- Finally, commentators have found a number of frames that put the emphasis on the performance of international food trade. Trade –and particularly free trade (Mooney and Hunt 2009)- is a crucial component of mainstream visions on FNS solutions. Besides a free trade frame, Candel et al. (2014) found a development frame alerting to the impacts of the CAP over developing countries through its effects on international food markets.

In short, frame analysis literature has become a fertile approach to unfold and understand the several ways of thinking about one of the major challenges of humanity. FNS debates are battle fields where stakeholders' visions and interests are confronted, converge and evolve. Indeed, Candel et al. (2014: 48) argue that framing activities are linked to the strategic behaviour of actors. The final target of framing activities is gaining influence in the governance arena, as the set of institutional arrangements where the source of hunger lies (Shepherd 2012).

Methodology

Our research approach draws upon Van Gorp and van der Goot (2012), who aimed to carry out frame building by means of an inductive analysis. We also have taken into consideration the frames identified in previous analyses focused on different case studies, as shown in the former section. Even if such results are not directly transferrable to our study, we have used, when possible, the same terms to name some frames in order to facilitate international comparisons.

This analysis is carried out by disentangling 'frame packages', defined by Van Gorp (2007: 64) as a "*cluster of logical organised devices that function as an identity kit for a frame*". Van Gorp and van der Goot (2012) identify three components of a frame package: (i) core frame, as the cultural phenomenon that defines the frame, (ii) framing devices, as the manifest and visible elements of the frame and (iii) reasoning devices, which constitute the causal relationship. As Candel et al. (2014) explain, while framing devices are directly visible in the texts, reasoning devices "*lie hidden behind the formal wording and must, therefore, be distilled*" (p. 49). We highlight two types of frames devices: key concepts (words used repeatedly) and verbal devices (combinations of words or catchphrases). Also following Candel et al. (2014), reasoning devices have been broken down into moral bases, problem definition and proposed solutions. Moreover, regarding proposed solutions, we have presented each frame's governance claims separately, as well as the relevant policy-making level. As Van Gorp (2007) argues, one of the frame analysis conclusions is the identification of who is responsible for the perceived problem. This is why we focus on who is pointed out within each frame as the responsible for creating an enabling governance environment to confront the identified problem.

The analysis is based, first, on a collection of texts from media sources such as news agencies and the most important national/regional newspapers[8], as well as blogs hosted in these media. Second, blogs linked to stakeholders, namely food and agriculture-related organisations, and independent blogs (those of specialised journalists) also provided numerous texts of great interest for this investigation. In this vein, Van Gorp (2007) differentiates between framing *by* the media –where journalists' frames largely mediate the representation of events, and framing *through* the media –where frames are "*processed in communication utterances by frame sponsors and other actors*" (p. 68-69). We take the second approach, since most of the texts (even newspaper articles) tend to pick up stakeholders' views.

Sources and texts where selected by combining a driven search (i.e. going directly to some media sources and official websites where food-related texts are usual) and an open search (by means of internet search engines). The latter was made utilising keywords in Spanish related to: access to food, nutritional status and deficiencies, implications of the economic crisis over vulnerable groups, dynamics of agri-food production and its policy framework, and

[8] Two news from British newspapers were also taken into consideration.

performance of the food system. After the elimination of duplicates (e.g. news from press agencies published by several media), the final selection includes 143 texts from media and 42 from blogs. The frame analysis is based on this selection. However, in order to gain in-depth understanding of some discourses, these texts were complemented with stakeholders' position papers (20) and policy documents from administrations and public agencies (7). The study period is 2008 – 2014. There is a certain time bias as a greater number of texts dated in the last three years. However, we consider that this does not significantly distort the analysis.

Once selected, the texts have been analysed using qualitative data analysis software in order to code (following Van Gorp and van der Goot 2012) exact quotes as framing devices and arguments as reasoning devices. All these elements became hierarchic nodes of a cross-textual analysis that allowed finding repetitions, similarities and differences among the texts. Frames were inductively extracted from this scrutiny, although the process was also informed by the literature review to allow for comparative analysis.

For sake of clarity, we use some quotes for the description of the frames where we cite the stakeholder authoring the assertions. Other exact quotes (key concepts and verbal devices) are included in the frame matrix.

FNS discursive frames in Spain

The media analysis has allowed the identification of eight discursive frames on FNS in Spain during the period of economic crisis. They are not crisis-specific frames, but all of them address to some extent crisis-related connections, either regarding the aggravation of food security expressions or the partial solutions proposed to food problems. The links between these frames and the aforementioned clusters are discussed in the next section.

Ecological

The core idea of this frame is that the best way to guarantee long-term food security is to preserve natural resources, and these resources are threatened by the development of intensive industrial agriculture. This development has had concrete effects in Spain (water pollution, groundwater overexploitation, loss of soil fertility and biodiversity), and has contributed to global climate change[9].

This frame focuses on agricultural production (food availability) as the key of FNS challenges, and puts in contrast two modes of production: industrial agriculture, which threatens the natural resource base for future food production, *vs*. environmentally friendly farming –mostly associated with organic agriculture, which would preserve the productive capacity of natural resources. This stance is thus aligned with a 'land sharing' approach.

Supporters of this frame (i.e., environmentalist NGOs) claim for policy changes. Particular attention is paid to the Common Agricultural Policy, as it "*determines the management of 80% of European territory*"[10]. It is argued that intensive and polluting agriculture receives more support than extensive and environmentally friendly production, as shown by the distribution of CAP payments. These organisations call for more demanding environmental conditions for CAP support, and advocate the need to really put into action the polluter-pays principle (SEO). Actually, Spain could take advantage of the reinforcement of environmental conditions and a

[9] Joint position of a number of Spanish-based environmentalist NGOs (SEO/Birdlife, WWF, Greenpeace and Friends of the Earth) about the CAP reform.
[10] Joint position of SEO/Birdlife and WWF.

better remuneration of ecosystem services: "*Spain should take advantage of its leadership with the largest area of organic production and farming systems in Natura 2000 and High Nature Value areas in Europe*" (SEO).

The Spanish 'Ecological' frame clearly emphasises the importance of EU governance level, because these organisations find that the most relevant decisions derive from common policies and they also perceive the EU institutions to be more sensitive and permeable to environmental concerns.

Export-oriented

The growing export orientation of the Spanish agri-food system[11] relies on a supporting frame that we could refer to as 'export-oriented'. Although one could think that the export-oriented discourse is not a frame on FNS, we cannot forget that it assumes a certain relationship between food system activities and FNS outcomes. The underlying assumption is that these two spheres are relatively disconnected, i.e. that a food sector oriented to foreign markets does not lessen FNS in the country. Furthermore, it assumes that the best way to contribute to the citizens' wellbeing is to provide employments and incomes. In addition, an export-oriented industry would be more innovative and capable of offering a wider variety of products to national food consumers. This statement of the President of the Federation of Food and Drink Industry (FIAB) illustrates the perception of the sector.

"*Spanish food and drink industry has survived to this long and deep crisis and […] has a huge growth potential than can –and must* […] *become one of the fundamental models for our economy, as well as for Spanish society*".

Export orientation would be a factor of resilience for the agri-food sector[12], even if this means exposure to non-controllable external shocks. In these cases, claims are made to public authorities to support trade relationships or the opening of new alternative markets. Moreover, diagnoses about how to reinforce export orientation very often point out at the necessity to concentrate the industry, since the small average size of Spanish agri-food enterprises would be preventing the full development of their export potential.

Exports are based on competitiveness. In this sense, although the image of Spanish food and gastronomy is acknowledged as an asset, stakeholders emphasise price competitiveness as the most relevant variable. Actually, regarding the image of Spanish food abroad, stakeholders are more concerned about avoiding foreign negative environmental and social[13] perceptions than on constructing a 'Made in Spain' label.

(Food) poverty

The years of financial and economic crisis have brought to light the magnitude and several faces of the growing poverty rate. In this frame, the problems of FNS largely rely upon poverty. In other words, this is not a frame exclusively on FNS, rather it is a frame on general poverty, of

[11] Spain is the eighth largest exporter of food in the world. In 2014 agri-food exports reached a record value of 40.8 billion €, 17% of the national total exports.

[12] In fact, food and beverage industry in Spain has shown better performance in terms of employment than the economy in all during the crisis: job losses between 2007 and 2013 reached 9.8%, well below the economy average (17.7 %) (Muñoz and Sosvilla 2014).

[13] A recent report broadcasted in the British Channel 4 News about the hard working and living conditions of migrants in El Ejido (an zone of intensive greenhouse agriculture) provoked a rapid and massive response by Spanish farmers' unions and related associations questioning the veracity of the information.

which food poverty is one of its more shocking expressions (though other terms have also been coined, e.g. energy poverty).

People in poverty cannot afford enough food and acquire unhealthy food habits. Most of the reports and media articles clearly associate obesity with low income and low educated classes. Therefore, FNS problems do not derive exclusively from affordability constraints, but also from educational profiles.

Food poverty is the manifestation of unemployment, social inequalities and unfair employment conditions. In this regard, governance claims are addressed mainly to national authorities in charge of the tax and wealth redistribution policy, and also (particularly) to those responsible for labour market regulation (salaries, working times, labour contract modalities) and unemployment benefits. This quote summarises this:

"*Food insecurity and other food problems cannot be solved if measures targeting the food system are not accompanied with policies in the domain of employment and housing, expanding rights and not cutting public budgets. Guaranteeing the right to healthy food requires reinforcing wellbeing regimes*. [..] *Charities cannot substitute Administrations' responsibilities, and their palliative activity cannot solve structural problems*" (Antentas and Vivas 2014, in ATTAC website).

Mediterranean diet

The Mediterranean Diet label strongly emerged in the 1990s as the paradigm of a healthy and diverse diet, supported by Spanish health authorities and international coalitions –for instance the International Conference on the Diets of the Mediterranean held in 1993. The call focused on the recovery of some of the traditional food habits, that in light of the recommendations, appeared to have been lost by that period: ''*In recent decades Spanish food habits have undergone great changes that have begun to distance it from the Mediterranean diet, that researchers today consider as the most rational and the one that best fulfils the principles of natural feeding*" (Ministry of Health and Consumption, 1991)" (quoted in Díaz-Méndez and Gómez-Benito 2010: 443).

This frame is thus founded on two main pillars. First, the nutritional quality of the diet, a discourse strongly advocated by nutritionists and the medical community. Second, the sustainable dimension has been underlined on the basis of the lower ecological footprint of the products that make up this diet. Remarkably, this emphasis is not made precisely by environmentalist NGOs, but mainly by the medical community (Sáez-Almendros et al. 2013; Vidal et al. 2015). These two pillars are shown in the following quote:

"Mediterranean diet has been considered a healthy food model, associated with longer life expectancy and lower cardiovascular mortality […]. Yet [… it] is much more: it represents a lifestyle, a way to understand human relationships, social priorities, the role of the family […] and a way to interact with the environment." (Alimentum Foundation)

The main public policy demands are related to the need to improve food education (in charge of both national and regional authorities) and public health campaigns.

Farmer-centred productionist

This is the frame shared by farmers' unions and related organisations (such as agricultural cooperatives), and it can be easily found in public media (to which these entities have frequent access) and massively in specialised digital media. Furthermore, most of the information for

this frame has been extracted from the process of CAP reform (2010-2013) and the debate around it[14]. The CAP is considered in this frame as the most relevant and pertinent governance framework.

Although some distinctive nuances exist, the three main farmers' unions in Spain (ASAJA, COAG and UPA)[15] attribute a central role to production, as they consider the increase of agricultural output to be the key to confront food security challenges. Indeed, agricultural production should allow to face global food needs (ASAJA), guarantee secure and stable food provisioning for European consumers (UPA), or "*maintain food sovereignty in Europe*" (COAG).

Behind this focus on agricultural production, there are two key arguments. On the one hand, these stakeholders associate European consumers' access with affordable food to the maintenance of farmers' livelihoods and farms' survival, which should be, therefore, guaranteed by agricultural policies. Moreover, other functions of agriculture should be subordinated to food production, as "*the multifunctional role of agriculture shall not obscure that the main reason d'être* [of farmers] *is to provide healthy and quality food, and in a sufficient amount, to society*" (UPA). Actually, agricultural production is even explicitly considered in this frame as a public good (UPA, ASAJA). The decrease of European production –here farmers' unions adopt an European level discourse- would increase import dependency and its associated risks, since "*the control on how imports are produced will be impossible to assure by our public authorities, therefore public health will be much more difficult to assure*" (CCAE, Spanish Confederation of Agricultural Cooperatives). These arguments lead organisations to claim very strict conditions in EU trade agreements with third countries, what implicitly introduces a certain 'protectionist' aspiration.

On the other hand, besides the exposure to foreign competition (fuelled by new trade agreements), farmers' contribution to food security is threatened by the unfair bargaining conditions in comparison to other actors of the food chain (dealers, processors, retailers). This threatens the economic feasibility of farms and, therefore, that of the domestic agricultural production. National competition authorities are claimed to forbid and prosecute these unfair marketing practices.

Solidarity

As the food poverty frame does, the solidarity frame centres on access and utilisation dimensions of food security. However, this one does not address the underlying causes of food and nutrition insecurity; rather this frame focuses on how to confront the needs stemming from social marginalisation and poverty.

This frame has been identifiable in two matters over the last years. On the one hand, the importance of school meals in alleviating children malnutrition has fuelled a debate about which should be the role of public authorities in guaranteeing the access of children to adequate food. Teachers have been crucial in raising this question, often visualising in the

[14] The debate has been a magnificent arena to observe the diverse positions about the CAP and its relationships with food security (Candel et al. 2014).

[15] ASAJA is a more agribusiness-focused organisation. COAG and UPA are more rural and small and medium-sized holdings focused.

media concrete experiences and cases of children malnutrition (like that of the 'magical sandwich'[16]).

On the other hand, the crisis has brought to light the role played by food banks and other charities (Caritas, Red Cross) and their growing problems to confront the rising demand for food assistance. This question has been also linked to food waste, as the figures of food waste in Spain have been put in contrast to the growing population suffering from food insecurity[17].

"There are two main objectives. The first one is to assist people in need, to achieve they could get, at least, a daily meal. The second challenge is to fight against food waste, which is enormous" (representative of the Spanish Food Banks Federation).

It is remarkable that the first topic (school meals) has been mainly a public policy issue, as it has become a confrontation arena among politicians. Meanwhile the second one (food assistance) has been more associated with the private sector[18], both regarding the mobilisation of citizens to donate food through several campaigns of collection ("*a call for permanent Spaniards' solidarity*" according to a representative of the Food Banks Federation) and the contributions made by retailers and processors. In this sense, these food chain actors have been able to adapt (as part of their corporate responsibility actions) and find a comfortable role in this frame.

In both cases (schools and food aid), the frame calls for more public expenditure and social service assistance to reinforce the role played by these institutions.

Although it is not a central aspect of this frame, it is noteworthy that under this solidarity-based approach extreme-right xenophobe organisations have carried out food assistance activities only for Spaniards, rejecting migrants.

Sovereignty

The Spanish food sovereignty frame 'imports' the international one with certain national-specific adaptations. Indeed, besides the traditional topics addressed within the standard sovereignty discourse –denounces about Spanish banks' financial speculation in food markets or the advantages of a re-localisation of food supply, the frame has developed lines of thinking that are particularly focused on the Spanish case.

One of these specificities deals with the alleged role of agricultural activity as a refugee or an alternative to unemployment in times of crisis, sometimes linked to a lifestyle change including a move to (mostly) depopulated rural areas. The sovereignty frame declares that "*these people who go back to the countryside believe in small and sustainable farms, based on organic crops, and do not want neither European subsidies nor to depend on large retailers to sell their products, since they look for direct contact and Internet retailing*" (ATTAC[19]). Territorially, this process would have taken place in two scenarios. First, in remote rural areas, where these

[16] In this piece of news, a teacher told how a child said that his mother gave him a 'magical sandwich', bread with bread without anything else (the family could not afford the stuffing), so that he could imagine what was in between.

[17] A survey performed in 2012 revealed that Spanish households throw out 1.5 million tm of food (1.3 kg/week/household) that is valid for consumption (Hispacoop 2012).

[18] Although these organisations also receive support from the European Agricultural Guarantee Fund.

[19] The Spanish branch of the ATTAC organisation founded in 1998 in France.

newcomers (also looking for a new lifestyle) would be mitigating depopulation. Second, in the context of urban and peri-urban initiatives.

This frame contrasts this process with the problem of farm abandonment, which is associated with the expansion of industrial agriculture. Actually, the frame interpret the historical process of classical structural adjustment in agriculture (fewer and larger farms) as an example of 'land grabbing', and the outsourcing of farm operations *"as an manifestation of an agri-food model that has tried to dispense with the farmer, leaving the primary sector in the hands of agri-business corporations*" (Blog Soberanía Alimentaria, Biodiversidad y Culturas).

This frame's model of agricultural production is that of an agro-ecologic and re-localised food production. Its supporters refer to organic farming as a reference, although they claim this should not be treated simply as a certification; rather, it should be accompanied with new forms of social and economic integration with buyers and consumers.

The frame's advocates have also entered into the debate on food public procurement and particularly that of school meals. They claim for more locally produced organic food procurement, provided by small local firms instead of large catering companies.

Technological

This frame relies on technology and scientific progress to overcome current and future FNS challenges. The biotech companies which champion this frame look for (and find) the support of the independent scientific community (e.g. university scientists). One of the foundations of the technology frame is the argument that technology is inherent to the very meaning of food production. Actually, this argument is often used as a 'defensive' device against criticisms from ecological or sovereignty frame supporters. The belligerence is evident:

"*Organic farming is a mini-agriculture for capricious rich people. It is about a low-yield production* […] *for very expensive shops and restaurants. Moreover,* [it] *means problems for human health and the environment*" (Interview to a biotech scientist in the ANTAMA website[20])

Three main challenges-solutions are suggested here, all of them related to the dimension of (sustainable) availability. First, particular mention is made to the role of technical progress to increase, by means of productive intensification, food production to face the so-called food challenge. Furthermore, when this challenge is addressed, supporters rapidly put forward additional ecological arguments, particularly related to the need not to increase the amount of necessary land for food production (a land-spare argument).

They thus hold that to turn the back to technology is the worst option for the environment: "*transgenic maize is more ecological than conventional one*" (Former Spanish Minister of Agriculture).

Second, technology would be the only way to overcome current and future production stresses. The case of water scarcity –well known in Spain, is often utilised in this regard. It is argued that modern irrigation technologies (more efficient and precise) and crop varieties better adapted to water stress could solve water shortage in an agriculture that has increasingly become irrigation-dependent.

[20] ANTAMA is a foundation aimed to promote biotech developments in agriculture.

458 Third, technology is the solution for safety risk management as well. Indeed, risk can be
459 reduced by means of modern and scientific-based technical procedures and analyses. This
460 connects with the 'risk treadmill' suggested by Mooney and Hunt (2009).

461 This frame alerts about EU and national/regional legal barriers that would be preventing the
462 adoption of technical innovations (and consequently companies' R&D investments),
463 particularly at production level. The case of GMO regulations and bans is insistently referred as
464 an example of this.

465 Table 1 shows the frame matrix. As explained in the methodological section, the matrix shows
466 the identified framing and reasoning devices. Regarding the latter, besides moral bases and
467 problem definition, proposed solutions have been split to highlight governance issues.

Frames (and key stakeholders)	Framing devices		Reasoning devices				
	Key concepts	Verbal devices	Moral bases	Key threats considered / problems definition	Suggested solutions		
					Solutions	Governance changes needed	Key policy-makers
Ecological (conservationist NGOs)	Biodiversity / Organic / Degradation / Greening / Conditionality	Environmentally friendly / Reinforcing CAP Pillar II / Protection of internal production / High Nature Value farmland / Climate change	Long term FNS depends on natural resource conservation and sustainable management of agro-ecosystems / Inter-generational sustainability	Development of industrial agriculture / Lack of public control or guidelines over environmental threats (water overexploitation, pollution)	Food production must respect ecological and environmental constraints and contribute to produce environmental services (land sharing approach)	Demanding, enforced and monitored environmental standards (for both products and management) Policies remunerating environmentally friendly agriculture	EU authorities
Export-oriented (food industry, agri-food authorities)	Exports / Competition / Internationalisation / Innovation	Spain is one of the largest food exporters / Ride out the crisis / Emergent markets	It contributes to wellbeing by providing employments and incomes / Export orientation as a factor of (firms') resilience / The agri-food industry as a mainstay of Spanish economy / Fair foreign trade competition	Third countries' trade barriers / Food scandals affecting confidence about Spanish food / Other countries' competition	Cost control and price competitiveness / Market and product innovation / Concentration of the industry / Diversification of destination countries/ Harmonisation of competitive conditions	Less restrictive control of concentration of the industry by competition authorities Policy support to promote exports	National Competition Commission / Ministry of Agriculture
(Food) poverty (social movements, left political parties)	Poverty / Exclusion / Vulnerability / Rights / Families	Child malnutrition / Food purchase habits / Food consumption	Social justice / Citizens' rights / Employment opportunities	Food poverty as an expression of poverty, inequality and social marginalisation / Lack of fair employment opportunities / Wealth concentration	Equity, wealth redistribution, redistributive policies, fair labour conditions	Redistributive policies Labour market regulation	National government (labour and tax authorities)
Mediterranean diet (health authorities and professionals (doctors, nutritionists))	Health / Vegetables / Legumes / Consumers	Recovery of Mediterranean diet/ Ecological impact / Immaterial Cultural Heritage	Nutritional quality of diet composition / Lower ecological footprint of production	Obesity and other food health related problems / Education and income constraints / Lifestyles	Recovering of traditional Mediterranean products and recipes / Healthy lifestyles	Educational and promotional policy	National and regional education and health authorities EU authorities
Farmer-centred productionist (farmers Unions, agricultural cooperatives)	Production / Income / Competitiveness / Chain/ Dependency	Securing food provisioning for European consumers / Farm survival / Farmers' position in the food chain / Remuneration for environmental services	Farmers are the real food producers / Food production as a 'public good'/Fair foreign trade competition	Decreasing farmers' incomes / Unbalanced relationship with large retailers and processors / Foreign unfair competition	Agricultural incomes should fairly remunerate farmers' productive role and real production costs	Public financial support to 'real' farmers Policies for setting-up of young farmers Regulation of the food chain to avoid unbalance power and unfair marketing practices Trade policy (similar requirements for imports)	EU authorities (agriculture and trade) National authorities regulating the food chain

Solidarity (food banks and charities)	Volunteers / Donations/ Million people / Kilograms	People in need / Food banks / Food collection campaigns	Food assistance is a concrete answer for deprived persons / Human solidarity / Compassion / Religious beliefs	Social marginalisation / Public support reduction / Food waste	Solidarity and involvement of citizens and companies / Voluntarism / Avoid food waste	More public budget and strengthening of public social assistance	National, regional and local social service authorities
Sovereignty (food sovereignty organisations)	Gardens / Organic / Land / Refugee	Urban agriculture / Return to the countryside / Access to land / Rural depopulation / Local markets	People and communities must have control over their food systems / Alternative lifestyles	Food market concentration and power imbalances / Disconnection between production and consumption	New frameworks of relationships between producers and consumers / Re-localisation of food / Return to agriculture	Public procurement policies Removal of legal barriers for small-scale food business Local policies to facilitate access to agricultural land	Regional and local authorities
Technological (biotech industry, biotech public researchers)	Transgenic / Crops / Resistance / Environment / Maize / Bans	Avoiding environmental damage / Stress resistance /	Technology is inherent to food production / Technology development is the key to improve FNS without damaging the environment (land sparing approach) / Science is a driver of progress / Efficiency	Vulnerability of food production / Natural resource constraints (water and land availability, low yields) / Uniformed consumers	Research and development investments / Adoption of innovations	Strong R&D policies Removal of legal barriers constraining the adoption of new technologies	EU and national authorities

Discussion

National food security frames can hardly be separated from the international debates and discourses. Actually, it can be argued that the Spanish frames derived from our analysis show linkages with to the frame clusters outlined in the theoretical section above. However, they show some Spain-specific features that deserve to be discussed.

The Productionist/Life Sciences Integrated paradigms are evident in Spain. On the one hand, the technological frame echoes the arguments made by GM supporters, championed by major biotech companies. Interestingly, unlike the GM debate held in other developed countries (e.g. UK and Australia, Dibden et al. 2013), where GM supporters have appealed to the moral duty of fighting against hunger in the developing world to defend the GM expansion, in Spain the arguments are mostly referred to the production and adaptation capacity of GM crops *in the country*. Particularly, the biotech community alerts to the vulnerability of the country to future water shortages and on the necessity to expand water stress-resistant varieties.

On the other hand, another productionist frame has arisen from the farming community, that considers food production as a public good - as Candel et al. (2013) find. However, the dominant production-focused discourse in Spain is not just about availability. In our case, this is a farmer-centred frame, i.e. the focus is not put on the need to increase food production, but on the need to preserve *producers* – if we create appropriate conditions to keep producers, production will come. This protection should primarily address the price-cost squeeze by means of the modification of the bargaining conditions between 'real' food producers (farmers) and retailers. Similar arguments are utilised by the farming community in other contexts when discussing about national food security –see Fish et al. (2013) for UK. Paradoxically, this frame alerts against one of the main effects of productivism, i.e. the disappearance of a large number of farms unable to respond to the squeeze.

Elements from the second major paradigm of FNS (Ecologically Integrated) can be also found in our results. Indeed, ecological and sovereignty frames share an agroecological perspective of food production. Moreover, it can be said that the Mediterranean diet frame connects with this paradigm, because it emphasises both the relevance of the low ecological footprint of these nutritional patterns and the need to recover traditional healthy cooking. To some extent, the latter point relates to some uses of the Good Mother frame identified by Van Gorp and van der Goot (2012).

On the contrary, the Mediterranean diet frame differs from the sovereignty frame regarding the relevance of the territorialisation of food. This contrast is evident when compared with the consensus around the 'Made in Italy' discourse, analysed by Brunori et al. (2013), which incorporates elements from the food sovereignty frame, in particular those related to a re-localisation of food. The point is that in Spain, when it comes to Mediterranean diet, the accent is not put on the geographical origin of products, but on what the products are and how they combine to shape up this healthy diet. Therefore, it is not exactly a frame on 'Made in Spain' and, especially, it is not a frame on the territorialisation of food (i.e. the linkage of food with specific Spanish territories). Nevertheless, agricultural authorities and agri-food organisations have used the 'Mediterranean diet' message to promote domestic consumption (e.g. fruits and vegetables), particularly to replace foreign demand during external market crises (the most recent example, to respond to the Russian veto). Interestingly, the Export-oriented frame puts more emphasis on price competitiveness than on the construction of a

distinctive and internationally identifiable 'Made in Spain' label as the main competitive advantage.

Regarding the third frame cluster, food poverty approaches have strongly emerged in the recent period of crisis. The '(food) poverty' and the 'solidarity' frames pay attention to the impact of low incomes and unemployment on the lack of access and inadequate utilisation of food, though they differ in the approach they use. As Grando and Colombo (2015) argue in a similar analysis in Italy, while the '(food) poverty' frame –which they refer to as 'social'- emphasises how social and economic conditions should change to enable people to access food, the Solidarity frame focuses more on the *needs* than on the *causes* of deprivation. From the perspective of the solidarity frame, FNS would require a network of organisations and arrangements capable to confront food emergencies like those stemming from the economic crisis. From the viewpoint of the (food) poverty frame, a more radical change of the institutions regulating wealth and employment distribution is the only way to avoid situations of food and nutrition insecurity

Fourthly, international food trade aspects –relevant in other FNS debates, have been also present in Spain. The main Spanish frame in this regard is the Export-oriented one. However, this frame differs from the free trade frame laid out by other works, e.g. Candel et al. (2014) on the CAP reform or Fish et al. (2013) on UK. Indeed, the Export-oriented frame is not founded on classical free trade arguments (i.e. comparative advantage) to guarantee food security. Moreover, this frame does not appeal to the moral duty of responding to global food security needs, an argument that is mentioned for instance in the UK official agenda (DEFRA 2008). Besides, little attention is paid to food imports, and it is focused exclusively on the risk of unsecure imports from third countries - what has a certain protectionist tone. Only when it comes to imports of raw material (e.g. grain for livestock) the argument of reducing production costs is put forward to defend the elimination of import barriers.

Interestingly, protectionist claims have been also found in other (clearly distant) frames. A supporting organisation of the Sovereignty frame stated that "*agriculture, livestock, fisheries and forestry have been declining sectors for decades, overwhelmed by the unfair competition that the global economy imposes,* […] *it would be necessary that EU implements protectionist measures in the form of aids to avoid the delocalisation of firms*" (ATTAC1). Protectionist arguments are also identifiable into the Ecological frame. Ecologistas en Acción clearly backs the protection of the internal production, with import controls and even "*tariffs to avoid low cost imports*", declaring that "*the priority of the EU should be self-sufficiency*". Other organisations (SEO/Birdlife) share the concerns about import dependency of certain raw materials for intensive livestock, particularly regarding transgenic soya owing to its environmental and social impacts in developing countries. This reasoning is connected with the implicit rejection of the contribution of European agricultural production to global food security, as they refuse a "*CAP based on global competitiveness*". As an alternative, these organisations propose that European agriculture should be "*an example of sustainable, environmentally friendly and healthy production*".

Conclusions

The crisis and its food system-related consequences have fuelled a fragmented landscape of partial (and sometimes disconnected) debates in Spain. Two main reasons explain this. On the one hand, the crisis has brought to the light a number of vulnerabilities of the food system. Some examples are the food affordability problems and the deterioration of the nutritional

status of a growing segment of population, as well as the implications public budget cuts. On the other hand, some elements of the crisis have been used to underpin or reinterpret the core arguments of certain discourses. For example, some stakeholders have resorted to 'the crisis' to justify market strategies, insist on the social relevance of their activities or try to demonstrate the failure of the whole Spanish food system. The particular attention we pay on how the economic crisis has been related to the way frames are constructed and supported constitutes a novelty in the existing literature.

Our analysis of these debates has allowed the identification of a set of FNS frames. The discussion has also shown how these frames connect with existing frame and discursive analyses in the literature. Nevertheless, it is noteworthy that they adopt country-specific traits reflecting Spain's social and economic distinctiveness, so they are expected to evolve as the national situation will change. However, this does not mean that frames will gradually recover their pre-crisis format, since this period has left a deep social footprint that will keep conditioning food debates.

The frame matrix showed the main frames' claims regarding the public governance of food system activities. Food production claims are particularly related to how governance incentives should prioritise certain types of producers or certain modes of production. Demands on food consumption issues point at educational policies, public procurement and policies to avoid affordability constraints. However, it is on food distribution and retailing –which includes trade regulation and how markets are organised (Ericksen 2008), where more governance claims concentrate. From several stakeholders' viewpoint, the malfunctioning of the food chain – mostly due to unequal bargaining power, would be putting at risk crucial components of the food system and, therefore, future food security.

Nevertheless, these claims are made as mere sectoral, localised or mostly temporary issues. Actually, most of the stakeholders tend to link the apparent food insecurity expressions with the crisis and its effects, and assume that the economic recovery will solve 'automatically' these food problems.

The new global food scenario together with the triggering of the financial, economic and social crisis in Spain and the particular weaknesses of the national food system, seemed to be an appropriate breeding ground for the development of a coherent, integrated and State-led debate on food and nutrition security in the country. However, this never happened and the frames identified in this paper have not been confronted in a national debate on food system governance.

The Spanish governments have not seemed prone to initiate such national public debate. Actually, taking a close look at the governments' discourses during the crisis, one finds an uncritical support to food industry arguments: the export vocation of the Spanish food system, and the reliance on technological developments to reinforce food system performance.

As De Schutter (2014) claims, lock-ins preventing a real reconsideration of the food system performance and its FNS implications are political in nature, i.e. they derive from the veto capacity of powerful stakeholders. In Spain this is a half of the story. The other half must be looked for in the short-termism of most stakeholders' approaches, that obscures the long run threats (e.g. continuous specialisation of agriculture toward export productions, climate change, food access inequalities) that make more and more vulnerable our food system.

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